1	STATE OF MISSOURI
2	PUBLIC SERVICE COMMISSION
3	
4	TRANSCRIPT OF PROCEEDINGS
5	Evidentiary Hearing
6	
7	January 12, 2017
8	Jefferson City, Missouri Volume II
9	
10	In the Matter of the Application of)
11	Union Electric Company d/b/a Ameren) Missouri for Approval of a Tariff)Case No. ET-2016-0246
12	Setting a Rate for Electric Vehicle) Charging Stations.)
13	
14	MICHAEL BUSHMANN, Presiding
15	SENIOR REGULATORY JUDGE
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EVIDENTIARY HEARING - Vol. II 1/12/2017

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1	PROCEEDINGS
2	JUDGE BUSHMANN: All right. Let's go on
3	the record. Today is January, 2017. The
4	Commission has set this time for an evidentiary
5	hearing In the Matter of the Application of Union
6	Electric Company d/b/a Ameren Missouri for Approval
7	of a Tariff Setting a Rate for Electric Vehicle
8	Charging Stations, File No. ET-2016-0246.
9	My name is Michael Bushmann. I'm the
10	Regulatory Law Judge assigned to this matter.
11	Let's have the Counsel for parties make their
12	entries of appearance. For Ameren Missouri?
13	MS. JOHNSON: Paula Johnson, Senior
14	Corporate Counsel.
15	MR. MITTEN: Russ Mitten, Brydon,
16	Swearengen & England, 312 East Capitol Avenue,
17	Jefferson City, Missouri, for Ameren Missouri.
18	JUDGE BUSHMANN: Commission Staff?
19	MS. PAYNE: Whitney Payne and Kevin
20	Thompson for Commission Staff. And we have
21	previously provided our information to the court
22	reporter.
23	JUDGE BUSHMANN: Public Counsel? Public
24	Counsel is not here. The Division of Energy?
25	MR. ANTAL: Good morning. Alex Antal with

1	the Missouri Division of Energy, 301 West High
2	Street, Jefferson City, Missouri, 65102.
3	JUDGE BUSHMANN: Sierra Club?
4	MR. ROBERTSON: For Sierra Club and, also,
5	Natural Resources Defense Counsel, Henry Robertson,
б	Great Rivers Environmental Law Center, 319 North
7	Fourth Street, Suite 800, St. Louis Missouri,
8	63102.
9	MR. HALSO: For Sierra Club 3
10	JUDGE BUSHMANN: Go ahead.
11	MR. HALSO: Joe Halso, 1536 Wynkoup
12	Street, Suite 312, Denver, Colorado, 80206.
13	JUDGE BUSHMANN: Consumers Council of
14	Missouri?
15	MR. COFFMAN: Appearing on behalf of the
16	Consumers Council of Missouri, John B. Coffman, 871
17	Tuxedo Boulevard, St. Louis, Missouri, 63119.
18	JUDGE BUSHMANN: For Charge Point,
19	Incorporated?
20	MR. COMLEY: Good morning, Judge Bushmann.
21	For Charge Point, Inc., let the record reflect the
22	entry of Mark W. Comley, Newman, Comley & Ruth.
23	Our business address is 601 Monroe Street, Suite
24	Suite 301, Jefferson City, Missouri.
25	JUDGE BUSHMANN: And Kansas City Power &

1	Light Company?
2	MR. FISCHER: Thank you, Judge. On behalf
3	of Kansas City Power & Light Company and KCP&L
4	Greater Missouri Operations Company, let the record
5	reflect the appearance of James M. Fischer, Fischer
6	& Dority, PC. Our address is 101 Madison, Suite
7	400, Jefferson City, Missouri, 65101.
8	JUDGE BUSHMANN: Anybody I've missed? All
9	right. I'd like to remind people in the audience
10	at this time to please silence any cell phones or
11	mobile devices so that there's no interruptions
12	during the hearing.
13	There are no preliminary motions that I'm
14	aware of. Do any of the parties have any
15	preliminary matters that they need to discuss? I
16	don't hear any.
17	As far as the order of witnesses, we'll
18	follow the Order filed by the parties in their
19	Joint List of Witnesses. I believe all the
20	exhibits should be premarked at this point. Is
21	there anybody that needs to come forward and mark
22	any exhibits before we get started? Also don't see
23	any.
24	At this time, let's go ahead and begin
25	with opening statements. And the first up opening

1	statement would be by Ameren Missouri.
2	OPENING STATEMENT
3	BY MS. JOHNSON:
4	MS. JOHNSON: Your Honor, Commissioners,
5	good morning and thank you. I I assume the
6	microphone is on and I'm good to go?
7	COMMISSIONER STOLL: Yeah.
8	MS. JOHNSON: Great. Hopefully, this will
9	be the longest opening statement you hear this
10	morning, but we do have the we are the ones
11	bringing this application forward, so I want to
12	make sure that we give you all the information that
13	you need that's relevant to help you make a
14	decision.
15	And kind of leading into that, if opening
16	statements have a theme, my theme today is going to
17	be ignore the noise. Sometimes when you're at a
18	concert and the crowd is around you, you can't hear
19	the music unless you're able to tune out all the
20	people around you.
21	And that's essentially what is happening
22	in this case. You've all been inundated with so
23	many facts and so many potential issues regarding
24	Ameren Missouri's pilot proposed in this case that
25	I wanted to tell you quickly what we're not

1 requesting before we get into what we are 2 requesting just so we can hopefully help eliminate some of that noise. 3 4 We're not asking for any state-wide policy 5 directives. We're not asking for any decision on jurisdiction or lack of jurisdiction over third 6 7 parties entering into electric vehicle charging 8 market. 9 We're not trying to choke off competition, and we are not proposing a burden on some customers 10 in order to unfairly benefit another group. 11 12 All these things that have come up with 13 regard to our proposal are irrelevant. As I said, 14 they're just noise, and we shouldn't allow those 15 things to over complicate this case. 16 So let's talk a little bit about what 17 really matters. What we're requesting is a very simple and small scale pilot project. We just want 18 19 approval of a tariff that will let us implement 20 this project that, despite its small size and small 21 investment, has a lot of potential for benefit. 2.2 So what is our project? We're planning to 23 install only six electric vehicle charging islands 24 for an anticipated cost of less than \$600,000 25 positioned at certain points along a well-traveled

Page	26
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1	part of the Interstate running through the center
2	of Missouri within our service territory that
3	currently does not have a kind of DCFC fast
4	charging for long distance vehicle owners who need
5	and want that capability. And that's it.
6	Why do we want to do this? We have two
7	primary reasons in mind for why. One, we want to
8	encourage electric vehicle adoption within our
9	service territory. And, two, we want to gather
10	data, not just for our company, but for the
11	Commission, for the interest of stakeholders so
12	that we can use that data to help determine whether
13	projects such as this should be expanded. And if
14	so, what is the most beneficial and high impact way
15	you can do so.
16	It will at least give us a little more
17	guidance than we currently have to figure out a
18	little bit more going forward. So we get this done
19	if we can get your approval.
20	Now, if you, the Commissioners, see the
21	benefits that we are seeing, and several other
22	parties of this case also see, then you only need
23	to answer yes to three very simple questions. And
24	I laid these questions out.

25 First, does the Commission have

Page	27
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1	jurisdiction? Second, is the pilot project good
2	public policy? And third, have we proposed a
3	reasonable tariff to enact this? And that's it.
4	If you answer yes to these three questions, then
5	you should approve this project.
6	So let's start with jurisdiction because I
7	know that has been a hot topic for a lot of people
8	in this case. And I'm going to bring up another
9	visual, but we'll be coming back to this one
10	several times just because this is of such
11	importance.
12	Coincidentally enough, there are also
13	three primary hurdles to get through to determine
14	whether or not there's jurisdiction. First, Is
15	Ameren Missouri an electric corporation? Second,
16	Is Ameren Missouri using electric plant to provide
17	the service? And third, Is Ameren Missouri
18	offering this service to the public for
19	compensation?
20	If you meet those three hurdles, then you
21	can have a positive jurisdiction decision over this
22	project.
23	Now, we provided all the citations and
24	legal principles behind these in several pleadings
25	and in the testimony of Mr. Byrne that he'll be on

1 the stand later today. So I'm not going to drag you through a lot of that if I don't have to. 2 T'm 3 going to try to keep this clean for you. So let's 4 just jump in. 5 And the first one, I think no party in 6 this case has disputed that Ameren Missouri is an 7 electrical corporation. So that one, honestly, is a pretty easy question. 8 9 CHAIRMAN HALL: Let me stop you there, 10 Ms. Mitten (sic). What statute are you looking at that indicates that the first factor is whether or 11 12 not Ameren is an electric corporation? Are you 13 looking at 386.250? 14 MS. JOHNSON: Let me have a quick look. Ι 15 believe -- I don't always have the most immediate 16 recall. I believe I was going to the Definitions section, first of all, because a public utility --17 the definition of public utility references 18 electrical corporations. So I think that was where 19 20 we were pulling that into. And I think that's 386.020. 21 2.2 CHAIRMAN HALL: I mean, can't we --23 doesn't this really come down specifically to whether or not the Commission believes that the 2.4 25 sale of this electricity at these charging

1	stations, whether that is for light, heat and
2	power? I mean, doesn't that isn't that the
3	crux? Because that goes to both electric plant and
4	and to the 386.250 (1).
5	MS. JOHNSON: That is a big part of it.
6	But there is light, heat and power that goes to the
7	electrical plant definition. And there is there
8	are some nuances there because of the Danciger and
9	the Hurricane Deck cases that talk about that
10	electric plant providing the light, heat and power
11	has a little more public interest and a little more
12	of a global look of several factors leading into.
13	So that's that pulls into that a little bit,
14	too.
15	CHAIRMAN HALL: Okay.
16	MS. JOHNSON: So but it does ultimately
17	I mean, electric corporation would be the one
18	utilizing that in order to do that. So there are
19	kind of several factors that pull into that.
20	Now, I want to say, obviously, we're going
21	to be using let's just go ahead and move on to
22	electric plant a little bit more.
23	We're obviously going to be using
24	generation transmission and distribution systems in
25	order to transmit the electricity that we're

1	selling through these charging islands, rough the
2	charging islands to recharge the vehicles. And,
3	again, that as you noted, that power will be
4	used for, heat or power within the vehicle itself.
5	Mr. Byrne and Ms. Deitrich both address this in
6	their testimonies.
7	So, actually, you just helped me answer
8	the second question. Would these charging stations
9	be electric plant? And the answer the answer
10	ultimately is yes.
11	Now, I do want to point out that the OPC
12	and Charge Point have both talked about at this
13	they have disputed the classification of these
14	charging stations as electric plant.
15	But the problem with their argument, kind
16	of as we were discussing earlier, is that they are
17	looking at their interpretation is looking at it
18	too much in isolation.
19	To reject you are looking at all of the
20	pieces feeding together in order to get there. And
21	if you rejected this as a portion of our electric
22	plant, you could technically do the same thing for
23	a generator.
24	If we have a generator but that generator
25	itself is not distributing the power, that

1	generator itself is not transmitting the power,
2	it's just doing the generation, but you don't do
3	that. You don't look at one piece of the equipment
4	in isolation. You look at how all the equipment
5	works together in order to serve the public
6	interest.
7	So the electric charging stations and the
8	island may be at the end of the line, but they're
9	part of a contiguous way in order to provide that
10	service at the end. Excuse me. So I hope that
11	helps a little bit, too.
12	And that kind of feeds into our third
13	question with regard to offered to the public for
14	compensation. Again, I've referenced the Danciger
15	case earlier, and it specifically found that the
16	electric plant must, in short, be devoted to a
17	public use before it's subject to public
18	regulation.
19	So what is devoted to public use?
20	Ultimately, it's when you offer the service
21	indiscriminately and reasonably available to the
22	general public. And that comes from, more
23	recently, the Hurricane Deck holding case.
24	In that case, there was a developer that
25	had worked on a development and had an agreement

1 with the water and sewer company to go ahead and operate and maintain the water system and provide 2 the service for a certain subdivision. 3 4 Now, because they were offering -- because they were owning -- or excuse me. Because they 5 6 were operating and maintaining the systems 7 necessary to provide the service in that 8 development, and the case does say systems, 9 implying that there were several factors involved -- several pieces of equipment involved in getting 10 11 that service provided, and because the company also held themselves out as available to everyone in 12 13 that subdivision who is able to take service and 14 qualify for it, and because they rendered bills for 15 it, even if no one paid a bill, Hurricane Deck was considered a public utility. 16 17 So if they can qualify as a public utility providing that service, surely Ameren Missouri can 18 19 also qualify as a public utility providing that service. 20 21 Now, there was a little bit of noise 2.2 around this issue. Does it matter that only 23 electric vehicles can use these charging islands? And I'm telling you the answer is no. 24 25 And the reason is, it's a tariff service.

1	The inherent nature of tariffs are if you qualify
2	for the service provided for by that tariff, then
3	we are we have to offer that to you
4	indiscriminately.
5	And that's exactly what we're doing.
б	Anyone who qualifies to use the electric vehicle
7	tariff may use that tariff and take service under
8	that rate.
9	So after getting when you exclude the
10	noise, when you exclude the fact that only vehicle
11	owners can use it, you know, you can make the same
12	argument only certain customers can use, for
13	example, interruptible service. Only certain
14	customers can use lighting service.
15	That isn't what matters. What matters is
16	are we offering it to everyone who qualifies for
17	that service under the tariff? And, again, the
18	answer is yes.
19	And when you get yes to all these of these
20	answers, then we're an electric public utility
21	operating within the Commission's jurisdiction.
22	So let's move back to the other when we
23	look at this, do we have jurisdiction? Again,
24	we've met the three criteria for jurisdiction, so
25	that answer is yes.

So let's go ahead and move on to the
 second question now. Is Ameren Missouri's pilot
 project good public policy? And, obviously, we
 think it is.
 And we are removing a known barrier right

6 now to electric vehicle adoption. We are on the 7 cusp of new vehicles coming out with longer ranges, 8 but we have with our service territory an 9 approximate hundred mile stretch of interstate 10 between Wentzville and Boone that currently does 11 not have any non-proprietary high fast chargers so 12 that these people can do the travel they want.

Now, I do want to clarify non-proprietary means, basically, in this case, non-Tesla. Tesla does have charging stations. Only Tesla vehicles can use them.

17 So if you are buying the new Chevy Bolt 18 that is coming out that Mr. Nealon referenced in 19 his testimony, you can't use that charger station. 20 You have to use a standard charging station, which 21 takes a long time to get through.

Now, we are creating -- by filling this gap and hopefully promoting electric vehicle adoption, we're creating an opportunity for a lot of significant benefits, and we are doing it all

1 for negligible cost. 2 Now, I do want to point out as far as 3 filling the gap, this removing the barrier, there 4 are two witnesses who have alleged that there are plenty of charging stations. But I want to look a 5 little bit closer at that. 6 7 First, we have maps that were provided in testimony. And one map was the one provided by 8 9 Dr. Marke in his testimony. This comes from 10 plugshare.com. 11 What I want to point about this map is there are a few issues. You see here on the key, 12 13 if it's blue, it's a residential charger. If it's 14 green, it's a public station. If it's orange, it's 15 high power. All of these are included there. So if you take the blues out, and there 16 17 are a lot of blues along this line, you're 18 automatically losing some of the 68 chargers that 19 he says are on this route. 20 If you take out public stations that 21 aren't designated as high power, then you're losing 2.2 more in the middle. 23 And the high power, we have no indication of whether or not these are -- from this map, we 24 25 can't tell whether these are Tesla only stations.

So you have to dig a little deep -- a little bit
 deeper.

3 The next map was the one presented by 4 Ms. Smart for Charge Point, and this comes from the 5 Charge Point site. And, again, I want to point 6 out, this one, we don't have any real level of 7 granularity to determine do any of these stations 8 have fast charging capabilities? We don't know how 9 late they're open. We don't know if these stations might be associated with, say, a hotel that only 10 11 allows this service to its guests. So we don't 12 know if these are truly available stations.

13 What we do finally have, however, is the 14 map provided by our witness, Mr. Mark Nealon. He 15 used Plugshare like Dr. Marke did, and he went back 16 and he removed everything that was residential. He 17 removed all of the standard charging capability. And he removed all the Tesla or proprietary --18 19 proprietary charging stations.

And this is what we're left with is an obvious gap. We do have a need that needs to be served, and we are just proposing to fill this gap and try to increase adoption of electric vehicles. Now, there are obvious benefits to this, and we -- there are some witnesses that you'll see

1	today that will talk about a lot of the
2	environmental benefits.
3	Another benefit is that this is being
4	proposed at a very low cost. At the end of the
5	day, even assuming that we did begin charging
6	customers, that we put this in our rate a base and
7	everything from Day 1 which we are not doing.
8	We're waiting until the rate case after the rate
9	case currently pending.
10	But even assuming we put all of these
11	costs in from Day 1, it would be less an average
12	of less than one cent per customer per month to
13	fund this project.
14	That is simply not a burden. If you had a
15	\$29.99 electric bill, having to pay 30 is not going
16	to make a significant difference. So that is one
17	more thing that we truly don't need to worry about.
18	COMMISSIONER KENNEY: Excuse me. I have a
18 19	
	COMMISSIONER KENNEY: Excuse me. I have a
19	COMMISSIONER KENNEY: Excuse me. I have a question for you. I don't know if my mic's working
19 20	COMMISSIONER KENNEY: Excuse me. I have a question for you. I don't know if my mic's working or not. Can everybody hear me? Hear me now? Hear
19 20 21	COMMISSIONER KENNEY: Excuse me. I have a question for you. I don't know if my mic's working or not. Can everybody hear me? Hear me now? Hear me now?
19 20 21 22	COMMISSIONER KENNEY: Excuse me. I have a question for you. I don't know if my mic's working or not. Can everybody hear me? Hear me now? Hear me now? MS. JOHNSON: Are you advertising for
19 20 21 22 23	COMMISSIONER KENNEY: Excuse me. I have a question for you. I don't know if my mic's working or not. Can everybody hear me? Hear me now? Hear me now? MS. JOHNSON: Are you advertising for Sprint all of a sudden, Commissioner Kenney?

many of those DC charging stations are in Ameren's 1 -- Ameren's service territory? 2 3 MS. JOHNSON: This map, we would be 4 looking about here to here. 5 COMMISSIONER KENNEY: Do you know how many 6 -- I saw one note there were eight -- eight DC 7 charging stations in Ameren territory, but I'm not 8 sure. Do you know how many there are? 9 MS. JOHNSON: I'm not entirely sure, but I do know they're all in -- the ones in our territory 10 11 would all be within the City of St. Louis itself 12 and not along the corridor. 13 COMMISSIONER KENNEY: I have -- I have a 14 question regarding that. What's Ameren's position 15 -- other than a tariff situation where you have a 16 wholesale purchaser, what's Ameren's situation with 17 about one of their customers being able to lawfully resell electricity? 18 MS. JOHNSON: Well, we don't currently 19 20 have a tariff that prohibits sale for resale. 21 COMMISSIONER KENNEY: So Ameren's position 22 is that anybody can purchase or resell electricity? 23 MS. JOHNSON: I think that's the position 24 we're in inherently because of our tariff 25 situation.

1	COMMISSIONER KENNEY: All right. Thank
2	you.
3	MS. JOHNSON: No problem. Now, I also
4	want to note that there were some concerns brought
5	up with regard to potential competition that,
6	because we're a utility, we're going to have
7	advantages that other if some of these sale for
8	resale situations arose in our territory, which,
9	ultimately, we actually want to encourage because
10	we want more EV charging stations and we want to be
11	able to facilitate people being able to cross the
12	State and use these vehicles for more purposes than
13	just driving around town.
14	CHAIRMAN HALL: Excuse me. Let me follow
15	up on that line of questioning. So it's it's
16	the company's position that there is nothing in
17	statute that would prohibit sale for resale; is
18	that correct?
19	MS. JOHNSON: That's correct.
20	CHAIRMAN HALL: Okay. Well, I've got what
21	appears to me to be a tariff signed or dated
22	June 2013, which may not be the operative tariff in
23	place, which would prohibit the sale for resale.
24	So maybe one of your witnesses could explain
25	whether whether what I'm looking at is accurate

1 or not. 2 MS. JOHNSON: Yeah. May I ask what the 3 tariff is specifically so we can make sure we 4 address that? 5 CHAIRMAN HALL: Sheet No. 137, May 31st, 2013. I'd be more than willing to -- Warren L. 6 7 Baxter, President and CEO. I don't know if --8 MS. JOHNSON: Okay. We will look that up 9 and have a look. Without looking at it and having time to go over it, I don't know if it's limited to 10 11 a certain situation. 12 I -- there might be a tariff that in a 13 specific circumstance that was not allowed. But to 14 my knowledge, there's not an overall prohibition. 15 But we'll have a look at that and make sure we can 16 address that. 17 CHAIRMAN HALL: It says, Applying to the Missouri service area. So I -- I --18 19 MS. JOHNSON: Okay. Thank you. We'll 20 have a look and follow up on that for you. 21 COMMISSIONER KENNEY: I have one more 2.2 follow up since we're talking about tariffs. Why 23 is Ameren seeking a tariff for this? Why don't you just put up -- put up six stations and come to us 24 in a rate case? 25

1	MS. JOHNSON: We're putting up tariffs
2	partially because we want to make sure that we are
3	charging kind of getting some buy-off from not
4	just the Commission but a lot of stakeholders on
5	the front end. That's one of the reason.
6	COMMISSIONER KENNEY: Does Ameren believe
7	they need a tariff for this?
8	MS. JOHNSON: We believe we do.
9	COMMISSIONER KENNEY: You don't believe
10	you can just go up and put up six charging
11	stations?
12	MS. JOHNSON: Not if we want to charge a
13	rate for it because we do see it as a regulated
14	service. We believe it falls under our
15	jurisdiction. And if we're going to charge a rate
16	for it, we have to
17	COMMISSIONER KENNEY: If you did like
18	KCP&L and provide the service free or had one of
19	their host providers provide it, then you wouldn't
20	you could do it without a tariff.
21	MS. JOHNSON: Honestly, that's not a
22	situation we considered ourselves, so we haven't
23	done enough analysis to tell you if if that that
24	is a position we would also take.
25	COMMISSIONER KENNEY: Thank you.

1 MS. JOHNSON: Okay. Let's see. Let me I'm just going to go ahead and -- another 2 see. 3 benefit I want to note that from this program, 4 again, is we want to gather data. 5 We want to figure out what would be the 6 best way to deploy a lot of these situations going 7 forward just to encourage even more adoption and to 8 encourage more growth of -- we actually want some 9 competition along this line just so people are more able to adopt electric vehicles because that -- if 10 11 there is significant growth, if there is enough 12 growth, that will give us more reason and more 13 ability to begin looking into some of the other 14 items that have come up that, frankly, aren't ripe 15 yet for trying to make some of these 16 determinations. 17 So public policy, we're filling infrastructure gap. We're going to gather good, 18 19 long-term information so we can figure out how to 20 continue to deploy it. We want a little bit more 21 information before we build it and hope they come. 2.2 And we're doing it at a cost that is 23 minimal. We don't reach this kind of situation 24 very often, and we'd hate to let this one slip 25 through our fingers.

1 So as far as we can see on Question 2, Is this project good public policy? Yes. We strongly 2 believe it is. 3 4 Now, is our proposed tariff reasonable? 5 There hasn't been as much discussion about the 6 tariff. I'm not going to bore you with all the 7 details of it. But we worked with NRDC and Sierra 8 Club, and we believe we've struck an appropriate 9 balance between making sure the fast chargers have an incentive to -- people using the fast chargers 10 11 have an incentive to finish up and move on as 12 quickly as possible by doing a time based rate. 13 And we feel like we have done a good job 14 setting a tariff that will have the standard 15 charging vehicles which can take -- you know, 16 different makes and models will take various 17 amounts of time to charge. We think we have done a good job making 18 19 sure that by paying for the energy unit that they are going to get the appropriate service they need 20 21 without -- without any kind of undue penalty for 22 sitting there. 23 So I'll move on from the rate fairly quickly. But at the end of the day, Is it an 24 25 appropriate rate? Yes, we believe it is because,

1 even from our projections, even noting that we have 2 struck that balance and even noting that from the 3 projections there will be that minor subsidy, it is 4 so minor. 5 It is one -- like I said, less than --6 essentially less than one penny per customer per 7 month. So is the rate reasonable? Yes. We

8 believe it is.

9 So I'm going to go ahead and begin 10 wrapping up just to pull this back around full 11 circle. It's very important to remember to ignore 12 the noise in this case.

13 This -- these three questions are really 14 the only things you need to focus on. Over the 15 course of the proceeding, we have laid out 16 significant legal argument and evidentiary facts to 17 show that the answers to all three of these 18 questions are yes.

You have jurisdiction over this pilot
project because Ameren is going to use its
generation, its transmission and its distribution
systems to transmit this electricity that it's
proposing to sell through to the charging islands
and then providing an electric charging service to
anyone who qualifies under that tariff to use that

1 service.

2	The answer to Question 2, it's good public
3	policy because it's designed to promote electric
4	vehicle adoption with obvious environmental
5	benefits for everyone by providing services that
6	are currently unavailable on a 100 mile stretch of
7	Interstate from Boonville to Wentzville in a
8	limited manner intended to gather information that
9	we can extrapolate for a wider purpose.
10	And if successful, we'll have a better
11	idea of how this particular service can be
12	appropriately expanded. And if unsuccessful, we
13	can walk away with minimal financial impact.
14	And, finally, we see that the proposed
15	tariff, which is supported by NRDC and Sierra Club,
16	is reasonable because it strikes an appropriate
17	balance between all the appropriate interests.
18	And, again, I just want to get into,
19	ironically enough, what we don't need to get into.
20	We don't need to make a determination today
21	regarding if or how this decision might impact
22	third party stations.
23	Like I said, we are anticipating that that
24	will build up. But right now, we are ultimately
25	looking at no more whether than no more than are

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1	we, Ameren Missouri, allowed do this project.
2	And we don't need to decide how
3	infrastructure can be appropriately deployed
4	because, ultimately, hopefully, the information
5	we're going to gather is going to give us some
6	insight to at least a portion of this question.
7	And we don't even need to really decide
8	whether these pilot projects present any
9	competitive concerns because, No. 1, this is
10	limited in scope. We are talking about six
11	charging islands total, and that's it.
12	Even if it weren't so limited, we are
13	looking at this currently in an area where there
14	are no non-Tesla fast charging stations available.
15	You can't compete with something that doesn't yet
16	exist.
17	If we determine that charging
18	infrastructure needs to be expanded state-wide,
19	we're going to have more opportunities and RFPs for
20	other vendors to enter the market for that purpose.
21	And kind of like I alluded to on the great
22	quote from Field of Dreams earlier, If you build
23	it, they will come. That's our hope. That is our
24	belief.
25	And if we build it, if we get more EV

chargers -- or EV drivers, there's just going to be 1 more demand for more electric vehicle charging 2 3 stations. 4 So at the end of the day. When we're 5 looking at drivers for long hauls, the demand for 6 charging is actually going to grow. 7 So just remember this. Truly, this is all 8 we need. This is all we need to look at. This is 9 all we need to determine in this proceeding. We have gone over this extensively in our 10 11 testimonies and in our pleadings. And we've 12 answered all these three questions yes already. 13 I'd just ask you to keep these three 14 questions at the top of your mind. And I'm 15 confident you'll reach the conclusion that we have 16 and approve the tariff so we can get this pilot 17 qoinq. I thank you for time and attention, and 18 19 I'm happy to take any other questions you might 20 have. 21 CHAIRMAN HALL: Okay. I -- I do have a 2.2 couple. I want to make sure I understand one 23 thing. It's my sense that Issue 1 is solely a 24 legal question, and it's essentially a statutory 25 interpretation question.

1	And Issues 2 and 3 are what we have are
2	what we have factual evidence presented and what
3	we're going hear today. Would you agree with that?
4	MS. JOHNSON: I think that is overall a
5	good assessment.
б	CHAIRMAN HALL: Do you believe that the
7	first that there's any discretion implicit in
8	the in our jurisdiction statute, or do you
9	believe we either have it or we don't?
10	MS. JOHNSON: I believe as far as the
11	public utilities themselves are concerned, you
12	clearly have the jurisdiction.
13	CHAIRMAN HALL: Yeah. That wasn't my
14	question.
15	MS. JOHNSON: Okay.
16	CHAIRMAN HALL: My my question is, do
17	you believe that when we interpret the statute that
18	we have some some discretion to determine
19	whether or not we want to exercise jurisdiction, or
20	do you believe that the statute when it when it
21	says or the 386.250 where it says, The
22	jurisdiction, supervision powers and duties of the
23	Public Service Commission herein created and
24	established shall extend upon under this Chapter
25	2, X, Y and Z, when it where it says duties,

1	does that eliminate discretion and and thereby
2	if we determine that that this service falls
3	between those enumerated sections, then we have to
4	exercise jurisdiction?
5	MS. JOHNSON: I think when the service
6	provided by a public utility falls within those,
7	then, yes, you have to exercise jurisdiction over
8	us doing that.
9	CHAIRMAN HALL: Okay.
10	MS. JOHNSON: I do believe that, as far as
11	third parties, whether they would qualify as
12	electric plant or electric corporations in the
13	first place is still an issue.
14	CHAIRMAN HALL: Okay. Well, that actually
15	goes right into my second second question. I
16	don't see I mean, when I look at 386.250, I I
17	see a statute that says that our jurisdiction goes
18	to seven different sections.
19	And the first of which is is at issue
20	here to the sale of electricity for light, heat and
21	power. And if we determine that the service that
22	you are providing or that you want to provide at
23	these charging stations is electricity for light,
24	heat and power, then we have jurisdiction over you.
25	But I don't understand how with that

1	interpretation we could not determine that we also
2	have jurisdiction over Charge Point when it when
3	it wants to offer the same service.
4	And I understand that you don't want us to
5	think about that, but I don't see how we don't
6	because I don't see a logical distinction between
7	Ameren providing that service and Charge Point
8	providing that service.
9	MS. JOHNSON: Okay. I understand that.
10	And it is a very nuanced position. I would suggest
11	and, again, this isn't isn't something that
12	we had anticipated meeting head on.
13	But I would suggest that if you look at
14	the Hurricane Deck case that that might provide
15	some guidance because it does specifically talk
16	about that was a non-standard it was a
17	developer. He had nothing to do with public
18	utility business.
19	And in that case, they were operating out
20	of systems, and I emphasize it was systems,
21	multiple pieces of that plant were working together
22	to do the distribution.
23	I don't know and I don't know exactly how
24	the operations work, but I don't know that someone
25	who had a single unit whose only intent was to

1	munide a changing compiles and using acting use a
1	provide a charging service and were going use a
2	sale for resale opportunity from a utility, I don't
3	know that they would have sufficient systems or
4	plant vested with the public interest to be able to
5	do that.
6	They also wouldn't necessarily have
7	non-discriminatory. Like I said, things exist now,
8	but some of them they're available to hotel
9	guests only.
10	So I think you would because of a lack
11	of public availability, I would think you would
12	have a real struggle trying to argue that that was
13	providing a public utility service.
14	If we're also looking at we don't
15	know that they would keep these charging stations
16	open 24 hours or that they would install something
17	that everyone could use as opposed to a Tesla only
18	station.
19	So I think there are other nuances like
20	that that have to be looked at when you are looking
21	at the third party. I mean, for us, it's clear.
22	When we're transmitting that electricity, and it's
23	ultimately used for light, heat and power, we're
24	jurisdictional. It's another extension of our
25	service.

1	But and kind of playing off a little
2	bit of the example that has been used in some of
3	the OPC's statements, they argue that bottled water
4	isn't necessarily regulated. Well, water service
5	is regulated.
6	Now, if the water condition were the
7	water company is providing water. And,
8	essentially, that's what we're doing, too. We are
9	providing electricity.
10	Whereas the Culligan man is providing a
11	bottled water. He's doing one off. He does not
12	have an entire bank of facilities ready to run
13	through the tap.
14	And that is why we would be regulated.
15	This is a part of our system. When we hook it in
16	for the transmission of electricity, because that
17	provides a very specific type of infrastructure,
18	it's like the end use shifts almost like at that
19	point of interconnection.
20	We're feeding it straight into the car.
21	That's the point of interconnection whereas, the
22	charging station, we're only feeding it to that
23	station. That's where our involvement stops.
24	A charging station, is that going to
25	qualify as an electric plant if it's standalone for

1	a single purpose and they don't have to offer it to
2	the public indiscriminately? And I think that's
3	why they have problems meeting that burden for Part
4	3 and being considered a regulated service.
5	And, again, this is something I could
6	state far more articulately in a brief. And it's
7	something that we hadn't anticipated going into in
8	too much detail at this point because, ultimately,
9	we don't feel it involves our pilot project.
10	And I'm not necessarily stating I am
11	not stating that that's the position of the
12	utility. I'm just saying there are some nuances
13	you may want to look at when you're trying to make
14	that determination.
15	CHAIRMAN HALL: Okay. Thank you.
16	MS. JOHNSON: No problem. I hope I didn't
17	ramble too much on that one.
18	COMMISSIONER STOLL: No questions. Thank
19	you.
20	COMMISSIONER RUPP: Good morning. I have
21	a couple of questions.
22	MS. JOHNSON: Certainly.
23	COMMISSIONER RUPP: So just walk me
24	through this process. So let's say I buy an
25	electric vehicle, the one that GM makes. There's a

1 GM plant in Wentzville, and I support local -local town heroes. And, you know, and I'm driving 2 3 and I stop off at Boonville and I want to charge my 4 car. So, obviously, it's going take a little 5 bit of time. So I walk downtown and meet an old 6 7 time doctor, you know, Archie Graham, and, you know, and we talk about his wife Alecia and he's 8 9 out buying her blue hats, you know. 10 And then I sit down at a park bench, and I 11 read a book by Terrence Mann. And then I head back 12 over to my -- to my car. What happens then? How do I pay? 13 14 MS. JOHNSON: Honestly, Mark Nealon could 15 address that better. I believe -- and I want to be 16 subject to him correcting me when he's on the 17 stand. I believe we're doing like a credit card 18 swipe for that. 19 COMMISSIONER RUPP: Does it make any 20 difference if I'm an Ameren customer or if I'm not 21 an Ameren customer? 2.2 MS. JOHNSON: It does not. No. 23 COMMISSIONER RUPP: Okay. And then you made a comment, something about -- back when you 24 25 were talking about how this process was offered to

1	everybody.
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2	So this tariff, that if I were to have an
3	electric vehicle in my home, do I pay the same rate
4	as if I were to charge it up at this charging
5	station that I do in my home? Or would I pay, you
6	know, the basic rate that I have in my home?
7	MS. JOHNSON: The rate on the home, that's
8	coming back to a different type of tariff for
9	residential use. That is something that we
10	actually hope this pilot will also shed some more
11	light on depending on adoption, what other
12	possibilities there might be for other things such
13	as time of time of use tariffs.
14	Right now, we don't have enough
15	information to determine how that might be
16	impacted. But the rate you pay at your home will
17	be separate from the rate you pay on the road.
18	But, you know, if you're on I-70 and
19	you're late for work, you're going to appreciate
20	that fast charging station being available for you.
21	COMMISSIONER RUPP: Yeah. I'd hate to be
22	late to a hearing.
23	MS. JOHNSON: I know. You're missing all
24	the fun if you do that.
25	COMMISSIONER RUPP: A couple people

1	laughed out there. I'm going to write down those
2	names.
3	MS. SHEMWELL: I'm laughing at myself.
4	COMMISSIONER RUPP: So you said that this
5	issue would not preclude any third party in the
6	future. You're not making any, you know,
7	statements about anything in the future.
8	So is it your position that if that if
9	we do have a case in the future where we have a
10	third party that wants to come in and provide this,
11	will Ameren are you saying you will not take the
12	position that no third party should enter in
13	because this is a regulated process, it's in your
14	service terri service territory, and, therefore,
15	they should not be be allowed to offer that
16	service?
17	MS. JOHNSON: Right. At this point, we
18	don't think there is any statutory prohibition
19	against that service or any tariff, although,
20	again, subject to looking into it, Chairman Hall
21	brought it up, we don't believe that would be
22	prohibited.
23	And, ultimately, we hope to promote
24	additional charging station availability in there.
25	We just we just want to prime the pump. So

1	but I don't think there is, at this time, any
2	prohibition. If for some reason that's not clear,
3	you know, there might be ways to to fix that.
4	COMMISSIONER RUPP: So I will not read in
5	a brief or an argument in a future case arguing
6	against a third party coming in for electrical
7	vehicle charging stations that it should not be
8	allowed because it's a regulated process and it's
9	in your service territory?
10	I I understand you're not saying that
11	now. But I don't want to say, Hey, well, give me
12	this. We got it. And then we use this to argue
13	against somebody else in the future. So is that
14	what you're saying, I will not see that in a future
15	argument or brief?
16	MS. JOHNSON: I want to be very honest.
17	We have looked at some of the nuances of both the
18	statutes and the case law to see if we could
19	readily come to a decision.
20	At this point, we haven't found an
21	expressed prohibition. There are some nuances of
22	the electric plant definition in particular in
23	light of the Hurricane case that need to be worked
24	through. So I want to be clear on that.
25	Right now, we don't necessarily see a

1	prohibition. I can't guarantee stuff in the
2	future. But we like one of our stated positions
3	is we want to grow it.
4	The only reason I'm equivocating at all in
5	giving an answer is just because we haven't
6	finished that entire analysis ourselves. So we've
7	been focusing on this rather than that.
8	Do we anticipate something? No. Do they
9	hope to encourage that kind of competition? Yes.
10	Can we state unequivocally at this point right now
11	that there's not a problem? We just don't have
12	such information right now.
13	COMMISSIONER RUPP: I appreciate you going
14	the distance.
15	MS. JOHNSON: Thank you.
16	JUDGE BUSHMANN: Any other questions?
17	Thank you.
18	MS. JOHNSON: All right. Thank you very
19	much.
20	JUDGE BUSHMANN: Next opening would be by
21	Commission staff.
22	OPENING STATEMENT
23	BY MR. THOMPSON:
24	MR. THOMPSON: May it please the
25	Commission. With respect to Issue 1, the Staff

1	agrees whole-heartedly with what the Chairman
2	observed earlier. This is a legal question. It's
3	a legal issue. It's not a matter for opinion by
4	experts from different professions. It's a matter
5	of statutory interpretation.
б	What administrative tribunals do is they
7	take existing law and they apply it to the facts to
8	determine an answer. Under existing law, the
9	activity of selling electricity to the general
10	public for light, heat and power is the activity of
11	being an electrical corporation and public utility.
12	It's Staff's opinion that this is
13	certainly a regulated service, whoever is providing
14	it, whether it is Ameren Missouri providing it
15	using electricity that it has generated and then
16	transmitted and then distributed to that charging
17	point or whether it is a third party who is
18	reselling electricity that they're buying from
19	Ameren Missouri or someone else.
20	The Courts of Missouri have said whether
21	someone is engaged in public utility business
22	depends on what they actually do. In other words,
23	you'd have to parse the facts and determine, Are
24	they selling a utility service such as electricity
25	to the general public for light, heat and power?

1 In this case, that is certainly what these charging 2 stations do. 3 And Staff views charging stations as being 4 simply one more variety of electric plant as 5 defined in 386.020. And, therefore, persons 6 operating it for the purpose of selling it to the 7 general public are engaged in utility business. 8 So you can only do that in Missouri, 9 lawfully, if you have a certificate from this Commission allowing you to do that. 10 11 Ameren has several certificates, each of which defines an area within which Ameren can 12 13 engage in this business. Whether or not that area 14 is exclusive depends on whether or not this 15 Commission grants other certificates to other 16 entities to engage that business in some part of 17 that territory. Traditionally, Ameren's service territory 18 19 has been a monopoly service territory. The 20 Commission has not granted any certificates to 21 other entities to sell power within that area. 2.2 So what about these third party sellers 23 like Charge Point? In staff's opinion, they are engaged in utility business. They do need a 24 certificate in order for that activity to be 25

1 lawful.

2	Commission has discretion over the
3	question of monopoly. You do have discretion to
4	grant a certificate to a third thirdparty to sell
5	power within Ameren's service territory.
6	You do not have discretion over the
7	question of jurisdiction itself. You're stuck with
8	what the law does. The law, as it exists, as
9	applied to these facts, clearly brings that
10	activity within your jurisdiction. You have no
11	discretion but to regulate it.
12	However, you do have discretion to allow
13	competition, if you choose. As to those providers
14	that are already selling power to people at
15	charging stations in Ameren's territory who are not
16	Ameren, they're breaking the law. They need
17	certificates.
18	This situation existed in the past.
19	Remember pay telephones? I know you can't find one
20	today, but they used to be common. You may not
21	know that in the old days when we had pay
22	telephones, every third party pay telephone
23	provider had a certificate from this Commission.
24	There were many, many hundreds of active
25	pay telephone certificates at any give time. If I

Page 62

1	ran a Quick Stop, and I wanted a pay telephone and
2	I was going to own that phone, wasn't going to
3	belong to Ma Bell, I had to get a certificate from
4	this Commission allowing me to operate that pay
5	telephone.
6	I suggest to you that the pay telephone
7	model is perhaps the best way for this Commission
8	to understand electric vehicle charging stations
9	unless the Legislature changes the law in some way.
10	But if they do not, then you're stuck with
11	regulating this activity because it falls within
12	the statute. So that's staff's view of Issue
13	No. 1.
14	Issue No. 2, public policy, Staff has no
15	position on that. Issue No. 3, it's a little bit
16	confusing because there's two different issue lists
17	flying around here.
18	But Issue No. 3 on the issues list that
19	Staff has subscribed to has to do with rates.
20	And the question is, Does Ameren Missouri's
21	proposed tariff represent the proper rate design?
22	And Staff says, actually, both Level 2 and
23	Level 3 charging stations should charge the same
24	way. Whether it's permitted or per kilowatt hour,
25	we don't have a preference, but it should be the

1	same standard for each of those rather than one
2	standard for one and one standard for the other.
3	With respect to the extra issues on that
4	renegade issues list, Issue 2-A has to do with
5	whether or not Ameren is acting as a regulated
6	utility in offering this service?
7	Staff emphatically answers yes. It's a
8	regulated service. It's the sale of electricity to
9	the general public for light, heat and power.
10	There's no question.
11	2-C, Does the pilot design proposed by
12	Ameren impact competition with third parties for
13	charging station sites in its service territory?
14	That question has it backwards. As I
15	pointed out earlier, those third parties are
16	already in violation of Missouri law. They are
17	breaking the law. They do not have certificates
18	from this Commission authorizing them to engage in
19	that business inside Ameren's service territory, or
20	outside it, for that matter.
21	You cannot just go set up a charging
22	station, put the open for business sign on it and
23	start selling power to whoever happens to come by
24	that wants to buy it without first getting the
25	authorization from this Commission. That's the

1 law.

Issue 3-A, How should the cost be booked?
Staff has evolved its position on this question.
Originally, Staff was saying below the line. What
below the line means is treat it outside of the
rate structure. Treat it as an unregulated
activity.

8 The reason for this was not because Staff 9 thought it was unregulated but because Staff didn't 10 want the ratepayers to have to subsidize what is, 11 after all, Ameren's rolling out of a new service in 12 an effort to develop a new market.

13 So our thought has evolved. We want to 14 put it above the line. We want to book it as a 15 regulated service. But to the extent that revenues 16 do not cover the costs, we believe the Commission 17 should impute revenue to Ameren.

18 The effect of that will be to protect the 19 ratepayers from underwriting this speculative 20 venture in rolling out a new market, and it will 21 throw those costs to the shareholders.

And it is, after all, the investors in a business who should underwrite efforts to expand that business into a new market.

25 CHAIRMAN HALL: Mr. Thompson?

1 MR. THOMPSON: Sir. CHAIRMAN HALL: This -- this evolution of 2 the Staff's -- on Staff's position on this confuses 3 4 me a little bit. I don't understand the 5 distinction between the two because the effect is 6 the same as the two positions whether looking at 7 below the line or looking at above the line. 8 But imputing the difference between cost 9 and revenues would result in shareholders covering the difference in both cases. 10 11 MR. THOMPSON: The effect is the same in 12 terms of who pays to the extent there are costs 13 that are not offset by earnings. 14 The difference is that one treats it as a 15 regulated service and acknowledges that fact. And the other treats it as an unregulated service. 16 17 CHAIRMAN HALL: I thought that Staff's 18 prior position was treat it -- treat it as a 19 regulated service but book all revenues and expenses below the line. I mean, if we're going to 20 tariff it, it's a regulated service. 21 2.2 MR. THOMPSON: Right. 23 CHAIRMAN HALL: Staff's position was we 24 should tariff it, but take all revenues and 25 expenses and book them below the line. I don't see

1 how there's any difference between that and Staff's evolved position. 2 MR. THOMPSON: Well, I believe there is a 3 4 difference, the difference being that, eventually, 5 they're going to make money on this service. 6 There's not always going to be a shortfall of 7 earnings versus cost. 8 CHAIRMAN HALL: I understand that 9 distinction. MR. THOMPSON: And in that case, it's 10 11 going to be just like the regulated service Ameren 12 already provides. If you start it off below the 13 line, then I think it might be trouble getting it 14 above the line later when it's big and it's 15 self-sustaining and profitable. 16 CHAIRMAN HALL: So you indicated that you 17 believe that Charge Point and other charging station owners are violating Missouri law by -- by 18 19 not -- by operating without a -- a -- a CCN. 20 MR. THOMPSON: Yes, sir. 21 CHAIRMAN HALL: Would you -- do you 2.2 believe that KCP&L is violating Missouri law as 23 well? 24 MR. THOMPSON: I don't know what the facts 25 are exactly on KCP&L.

1 CHAIRMAN HALL: How about Laclede? MR. THOMPSON: My understanding is they're 2 3 not selling the electricity. 4 CHAIRMAN HALL: How about Laclede? 5 MR. THOMPSON: Laclede is selling 6 electricity? 7 CHAIRMAN HALL: They're selling liquefied natural gas. 8 9 MR. THOMPSON: I think that is a regulated 10 service. 11 CHAIRMAN HALL: And they don't -- and it's untariffed. So if -- if we're to be consistent, 12 13 they're violating the law, and I would -- and I 14 would -- well, okay. Is that correct? 15 MR. THOMPSON: I believe that to be true. 16 Now, I don't have the gas statute in front of me. 17 You understand each of these statutes is somewhat 18 different. 19 But to the extent the statute is similar 20 to the electric statute, then, yes, I believe 21 they're engaged in the utility business and it 22 should be tariffed, and it should be regulated. 23 CHAIRMAN HALL: Is it -- is it possible to -- to tariff the service without mandating a price? 24 25 MR. THOMPSON: That's an interesting

question. And, in fact, I've been -- I've been 1 turning that over in my mind for -- for a couple 2 3 days. 4 Your job is to ensure that the price is 5 just and reasonable. So what that typically means is that the price covers the cost so that it's not 6 7 being subsidized by somebody else. 8 So I think, at a minimum, you would have 9 to ensure that the -- that the price does that, that it covers the cost, however that's measured. 10 11 CHAIRMAN HALL: Couldn't we assure the 12 lack of a subsidy in a late case as opposed to --13 MR. THOMPSON: You could. 14 CHAIRMAN HALL: -- in this case setting 15 the tariff? MR. THOMPSON: If you -- if you 16 17 essentially tracked or gathered or deferred the cost to the revenues to a rate case and viewed them 18 19 all in a cumulative fashion, I think you could. 20 Do you -- do you agree CHAIRMAN HALL: 21 with Counsel for Ameren that there is nothing in 2.2 statute that prohibits sale for resale, and the 23 only issue are the actual tariffs that may or may 24 not prohibit that activity? 25 MR. THOMPSON: I disagree, to this extent.

1	No. 1, because that activity has to be authorized
2	by the Commission by obtaining a certificate. So,
3	yes, the statutes prohibit it, except to entities
4	that hold a certificate, No. 1.
5	No. 2, typically, the utility tariffs
6	forbid sale for resale. Now, I'm not going to
7	argue with Ameren's attorney about what their own
8	tariff says. But as I said, typically, they have a
9	prohibition against sale for resale.
10	CHAIRMAN HALL: Well, I actually may want
11	you to argue with Ameren's Counsel about that. I
12	mean, I'd like you to look at I'd like you or
13	your witnesses to look at that tariff and tell me
14	if I'm reading it correctly.
15	MR. THOMPSON: We will do that.
16	CHAIRMAN HALL: Because and the same
17	would apply to other parties as well.
18	MR. THOMPSON: Yes, sir.
19	CHAIRMAN HALL: Thank you.
20	MR. THOMPSON: Thank you. Any other
21	questions?
22	COMMISSIONER STOLL: I have no questions.
23	COMMISSIONER RUPP: I have questions.
24	COMMISSIONER KENNEY: I do, too.
25	MR. THOMPSON: Yes, sir.

1 COMMISSIONER KENNEY: Thank you. Now, you noticed, I'm sure, in the testimony that there's a 2 3 lot of other groups here who have a differing 4 opinion about the resale of electricity, correct? 5 MR. THOMPSON: I'm aware of that. COMMISSIONER KENNEY: And all these --6 7 these charging stations that -- that, in your mind, they are illegally selling electricity at this 8 9 point? 10 MR. THOMPSON: Yes, sir. 11 COMMISSIONER KENNEY: Or we're assuming. 12 Should we expect a slew of complaints to come 13 before us from Staff? 14 MR. THOMPSON: Well, you know, I'm just 15 the mouthpiece for Staff. Somebody else is the 16 Director of Staff. So I would think -- the 17 position that Staff will take, I can't tell you because I don't make that decision. But I will 18 19 tell you this. If it were up to me, yes, that's 20 what you would see. 21 COMMISSIONER KENNEY: So if we had a 2.2 complaint, perhaps we could finally settle this. 23 Because I've been -- this has been a question of mine for quite some time whether or not -- and it's 24 25 yet to be answered because I hear what you say, and

EVIDENTIARY HEARING - Vol. II 1/12/2017

Page 71

1 I hear what others say. And --2 MR. THOMPSON: Some of what those others 3 are saying are based on public policy 4 considerations. It's like an Economist looking at, a policy analyst looking at it. And those are 5 6 important and valid ways to look at this. I agree. 7 But as a lawyer, I have to look at 8 existing law and apply that to the facts. I don't 9 get the luxury of saying, What should the law be? What could be the law be? What would be the best 10 11 law? That's not --12 COMMISSIONER KENNEY: That's for them over 13 there to decide. 14 MR. THOMSON: That's for them. Exactly. 15 And -- and right now, the policy that they have 16 made makes this a regulated utility. 17 COMMISSIONER KENNEY: That's what you have interpreted it to say? 18 19 MR. THOMPSON: Yes, sir. 20 COMMISSIONER KENNEY: Okay. Now, the 21 other thing I wanted -- you're wanting to -- I'm 2.2 trying to understand this right. You want Ameren 23 to assume a hundred percent of the risk of this new 24 endeavor? 25 MR. THOMPSON: Right.

1	COMMISSIONER KENNEY: But not reap reap
2	a hundred percent of the rewards in the future? It
3	seems to me that you want them to assume all the
4	risk, but you don't want them to benefit from that
5	in the future if it's successful.
6	MR. THOMPSON: No. I do. Once it's
7	self-sustaining, then I think they get to keep
8	whatever they earn.
9	The question is what about now when it's
10	just starting and the costs are expected to be more
11	than the earnings are going to be? Who pays for
12	the shortfall?
13	Staff is concerned that the traditional
14	ratepayers who live in houses and own stores and
15	factories not subsidize this rolling out and
16	development of a new market.
17	Who should subsidize that? We think it
18	should be the investors. In the same way that if
19	I'm Target and I want to open a bunch of stores in
20	Canada, well, I'm going to shell out my money to do
21	that, right?
22	And if it fails, I'm the one stuck with
23	the loss as, in fact, we've seen happen to Target
24	for exactly that activity.
25	So, here, Ameren is seeking to develop a

1	new market for what is, after all, its traditional
2	product, electricity. Here's a new way to sell
3	electricity, right? What a great idea.
4	Okay. I agree it's a great idea. But who
5	should bear the risk of developing that market? I
б	think it's the investors. Equally, who should reap
7	the reward that comes? It should be the investors.
8	COMMISSIONER KENNEY: And and Staff's
9	position is they do need a tariff if they want to
10	sell the electricity?
11	MR. THOMPSON: Yes, sir.
12	COMMISSIONER KENNEY: Unlike KCP&L who had
13	their providers pay for it?
14	MR. THOMPSON: Yeah. The peculiarity of
15	the electric statute is if you give electricity
16	away, that's an unregulated activity.
17	COMMISSIONER KENNEY: Okay. Thank you.
18	COMMISSIONER RUPP: So to follow up on
19	Commissioner Kenney's comments, so there's a
20	pending rate case before us with the company. And
21	part of the reason they're asking for an increase
22	is because of the the demand has gone down.
23	MR. THOMPSON: Right.
24	COMMISSIONER RUPP: And so would not an
25	electrical vehicle new market provide revenues and

fill the -- the demand gap potentially to where all 1 ratepayers would benefit? 2 3 MR. THOMPSON: Yes, sir. 4 COMMISSIONER RUPP: So why wouldn't we 5 just treat it all from the beginning rather than 6 separate it out the way that you're -- the way that 7 you're looking to book it? 8 MR. THOMPSON: Well, the ratepayers are 9 already being asked to cover the shortfall caused by reduced demand. 10 11 So now they're going to cover the short fall in the roll-out of this new market. That's 12 13 asking the ratepayers to pay for a lot. Why can't 14 the investors pay for it? 15 Staff's view is simply that it seems most 16 sensible to make the investors bear the risk and the cost of developing this new market. But you're 17 certainly right. It will benefit the ratepayers 18 19 once it starts making money. COMMISSIONER RUPP: I'll save the rest for 20 21 -- for witnesses. Thank you. 2.2 Thank you. JUDGE BUSHMANN: 23 MR. THOMPSON: Thank you. 24 JUDGE BUSHMANN: Natural Resources Defense 25 Counsel?

1	OPENING STATEMENT
2	BY MR. ROBERTSON:
3	MR. ROBERTSON: May it please the
4	Commission. We are, for a change, aligned with
5	Ameren in this case. This case demonstrates the
6	chicken and egg problem with the electric vehicles.
7	No private third party will come in and
8	provide this service in a competitive market while
9	there are so few EVs on the road. So there is room
10	for a utility to build that market even if their
11	role in doing that should turn out to be only
12	temporary.
13	We think this service is squarely within
14	the Commission's jurisdiction as a provision of
15	electrical service to the public by an electrical
16	corporation.
17	Now, this whole third party issue is not
18	necessarily presented in this case, but I can tell
19	we're going to have to brief it. I'm not prepared
20	yet to deliver an oral brief here, but it seems to
21	me to be an extreme interpretation of the statute,
22	however broad they may be, to say that whoever has
23	essentially an electrical trick outlet and charges
24	for charging, whether it be a car or a cell phone,
25	is automatically transformed into a public utility.

1 As with many end uses of electricity, not all customers will use this service, but there are 2 benefits for all customers. 3 4 Following up on Commissioner Rupp. The 5 increased load can be absorbed by the existing 6 grid, and that puts downward pressure on rates by 7 allowing fixed costs to be spread over a larger 8 number of kilowatt hours. 9 The price of EVs is falling, and it's cheaper to recharge with electricity than to fill 10 11 with gas. In fact, that's the primary driver of sales for the EVs. 12 13 EVs completely eliminate the tailpipe 14 pollution that plaques our cities. They reduce 15 greenhouse gas pollution, and they reduce our 16 reliance on oil with its volatility of price and 17 supply. And, finally, we support the rate design. 18 19 We think it is more equitable to charge a much 20 slower AC charging on a per kilowatt per hour basis than the DC charging on the per minute basis. 21 And 2.2 that's all I have if there are no questions. 23 COMMISSIONER KENNEY: I have one question. 24 Regarding -- regarding the -- the DC fast chargers, do -- are there vehicles that cannot handle that 25

1 fast charger right now? Do you know? 2 MR. ROBERTSON: I do not know for sure. 3 COMMISSIONER KENNEY: I'm sure -- I mean, 4 otherwise, I imagine we'd have all DC because it 5 would be so much faster, five times faster? MR. ROBERTSON: Yes. And I -- I can't see 6 7 the AC chargers on the highway have much use except for local customers, but --8 9 COMMISSIONER KENNEY: Well, they take 15 minutes to get 15 miles. And that doesn't seem --10 11 MR. ROBERTSON: Yeah. 12 COMMISSIONER KENNEY: Okay. Thank you. 13 COMMISSIONER RUPP: I have a question for 14 you, sir. 15 MR. ROBERTSON: Okay. 16 COMMISSIONER RUPP: Did I hear you 17 correctly that you said that you believe that the role of the company is to provide -- to temporarily 18 19 build out the system to then create a competitive 20 market? Is that what you said? 21 MR. ROBERTSON: I'm not saying it's 22 necessarily temporary. This being a pilot, it will 23 be a learning experience for everybody. Until I heard Mr. Thompson, I didn't think anybody was 24 25 arguing that this could not become a competitive

1	market. That's for the market itself to determine.
2	COMMISSIONER RUPP: So do you do you
3	think it is it is our position that we should
4	decide whether this should be a competitive market
5	or not or we should allow the company to build it
б	out and then decide if it should be a competitive
7	market?
8	MR. ROBERTSON: You should let the company
9	build out this very modest project and see what
10	what they report to you, the data that they gave
11	you and see if that tells you whether we're ready
12	for a competitive market or whether this is a
13	proper utility offering.
14	COMMISSIONER RUPP: Thank you.
15	COMMISSIONER STOLL: I have a question,
16	too. To follow up on one other thing you said, you
17	as far as booking the the expense above or
18	below the line, you feel that even in a pilot
19	project, those folks who don't use electric
20	vehicles should should be paying to for that
21	service?
22	MR. ROBERTSON: Yeah. We think the
23	benefits to all customers are such that it does
24	justify that. And, of course, this pilot is an
25	extremely small subsidy by any principle. Yes,

there are benefits. 1 COMMISSIONER STOLL: Is there a certain 2 3 amount of time that -- during which they should 4 receive this benefit? I mean, are you saying that 5 right now they would receive that benefit? Is that what you said? 6 7 MR. ROBERTSON: Yes. The downward 8 pressure on rates. It will be -- of course, 9 anything will be -- from this pilot project will be extremely modest. But, conceivably, this will 10 11 drive some people to buy EVs expanding that market 12 and increasing the downward pressure on rates and, 13 also, the environmental benefits, which, of course, 14 are very important to us. 15 COMMISSIONER STOLL: Right now? 16 MR. ROBERTSON: Yes. 17 COMMISSIONER STOLL: How would -- how is the electricity produced for the electric vehicles? 18 19 MR. ROBERTSON: It comes off Ameren's It's primarily coal, nuclear. 20 arid. COMMISSIONER STOLL: Okay. So explain to 21 2.2 me how that -- how that helps. 23 MR. ROBERTSON: Well, its --24 COMMISSIONER STOLL: -- the environment. 25 MR. ROBERTSON: Ideally, we look forward

1 to the expansion of renewables where the pollution from the coal plants is -- is reduced. 2 But even now, the evidence shows it is 3 4 less polluting to charge with electricity than to 5 fill with gasoline. 6 COMMISSIONER STOLL: How many electric 7 vehicles are there in the state? Or in Ameren's 8 service territory. Do you know? 9 MR. ROBERTSON: Maybe a few thousand state-wide. I don't remember offhand. 10 11 COMMISSIONER STOLL: State-wide. How 12 about in Ameren's service territory? 13 MR. ROBERTSON: I think it's over a 14 thousand anyway. But I could be wrong. The 15 testimony will show it. 16 COMMISSIONER STOLL: Okay. I'll wait for that testimony. Okay. Thank you. 17 18 MR. ROBERTSON: Okay. 19 JUDGE BUSHMANN: Thank you. Sierra Club? 20 OPENING STATEMENT 21 BY MR. HALSO: 2.2 MR. HALSO: Thank you, Judge. Good 23 morning. May it please the Commission. I'll be 24 brief. 25 Sierra Club strongly supports Commission

Page	81
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1	approval of Ameren's proposed pilot program.
2	This program is reasonable in scope and design,
3	attracts best practices for installing public
4	charging infrastructure and we needed fast charging
5	for an important travel corridor in Missouri.
6	Access to DC fast charging is critically
7	important for EV drivers. The National Academy of
8	Sciences tell us it enables distance travel,
9	increases driver confidence, expands the EV market.
10	Moreover, there are numerous societal and
11	ratepayer benefits that can flow from vehicle
12	electrification, reducing oil dependence, providing
13	regional economic benefits, mitigating emissions
14	from vehicles, improving public health.
15	But most importantly for this Commission,
16	electric vehicles have been proven and have proven
17	capacity as a grid resource. Their widespread
18	adoption can result in benefits to all electricity
19	customers regardless whatever kind of car they
20	drive.
21	I'd ask you I'd encourage you to ask
22	our witness, Douglas Jester, who has 20 years of
23	experience in utility regulation more about these
24	benefits.
25	Some have questioned the environmental

1	benefit of EVs in light of Ameren's generation
2	profile. I'd like to say first driving an EV
3	today, in Ameren's territory today, has market
4	benefits over a conventional vehicle.
5	And, second, it would be a great thing to
6	decarbonize the electric sector on Day 1 and
7	electrify vehicles on Day 2. But we have to be
8	able to walk and chew gum at the same time.
9	Although this is a modest pilot program,
10	it will help put us on the right path to the
11	benefits I've described. But our immediate
12	benefits are serving drivers and they influence the
13	market and learning by doing.
14	Ameren appears to be dedicated to this
15	goal. Earlier in this case, in the design of the
16	tariff for the DC charging stations, they were
17	receptive to feedback provided by Sierra Club and
18	NRDC. As a result, we have a reasonable, strong
19	rate design.
20	And then, lastly, and I think I've already
21	given this away, but Sierra Club is of the view
22	that Commission has jurisdiction to regulate
23	utility owned and operated stations publicly
24	available within its service territory.
25	We believe this to be true even if EV

1 charging stations are found not to generally constitute electric plant. This is because Ameren 2 would provide the charging services as an otherwise 3 4 regulated public utility. 5 The Commission's jurisdiction extends 6 broadly to entities engaged in manufacture, sale or 7 distribution of electricity. That's Section 8 386.250. And to those entities with direct control 9 over any electric plant. That's Section 386.020. 10 And so that charging stations are not 11 plant, but where utility owned and operated 12 stations are nonetheless subject to Commission 13 jurisdiction is the conclusion reached by 14 regulators in evaluating similar laws in other 15 states. And by similar, I mean laws that turn on 16 light, heat or power for the definition of a 17 electric plant. 18 With that, thank you. I'd be happy to 19 answer any questions. 20 CHAIRMAN HALL: Are you -- are you 21 familiar with how New York has answered this 2.2 question? 23 MR. HALSO: I am. 24 CHAIRMAN HALL: And my understanding is 25 that the New York statutory scheme is fairly

1	similar to ours here?
2	MR. HALSO: That's correct.
3	CHAIRMAN HALL: Explain to me what New
4	York did.
5	MR. HALSO: Yeah. So earlier, Chairman
6	Hall, you you stated you thought the crux was
7	whether light, heat or powered was being provided
8	here.
9	And so the question is, is a charging
10	station alone electric plant. Sierra Club has
11	offered in past proceedings in here that it is not.
12	The way the New York Public Service
13	Commission answered the question is that while a
14	customer using electricity and charging an electric
15	vehicle that that is incidental to the transaction
16	and that, in fact, the primary purpose of charging
17	the car and the primary transaction between the
18	provider services and the driver is the provision
19	of charging services is the terminology that the
20	Commission used.
21	CHAIRMAN HALL: So is it tariffed in New
22	York?
23	MR. HALSO: So in New York State, pilot
24	programs by utilities are still in the early stages
25	of being formulated. And so I'm not aware of

1	utility installation or proposals where they have
2	yet sought a tariff. But I have to make that
3	statement subject to a check.
4	CHAIRMAN HALL: Okay. So I'm I'm still
5	confused as to how how I thought that New
6	York made the determination that actually
7	well, I'll be interested in in what the lawyers
8	say as to what New York did. And and maybe
9	that's something for the briefs.
10	MR. HALSO: Okay.
11	COMMISSIONER STOLL: I have no questions.
12	JUDGE BUSHMANN: I have one follow-up
13	question to that. You indicated that if the
14	charging station was not electric plant, but if a
15	utility is engaging in that service that that
16	should be regulated.
17	Can you tell me of any other situations
18	where the company is engaging in something that's
19	dealing with non-electric plant, but it's still
20	regulated by the Commission?
21	MR. HALSO: And you're talking within
22	Missouri?
23	JUDGE BUSHMANN: If you know something
24	within Missouri.
25	MR. HALSO: Sure. So the way I sort of

1	we formulated this in our jurisdictional briefing
2	in this case is that once you answer the question
3	of whether the service being provided is public
4	facing, which is what Ameren proposes to do and
5	would certainly serve the public, then the question
6	is, is the entity providing that service otherwise
7	regulated by the Commission?
8	The way that 386.250 is framed, it would
9	provide jurisdiction to to this Commission the
10	way I read it, plainly, even in absence of a
11	definition of charging stations and electric plant.
12	One example is in Ameren's service
13	territory where you have a service provided as a
14	regulated service by Ameren, but there's also the
15	potential for a provision by an unregulated entity
16	is public lighting.
17	Ameren has a tariff whereby they can
18	provide public lights public lighting equipment
19	as a regulated service to a customer, the
20	municipality. Or that customer can provide public
21	lighting facilities on on their own, but still
22	but still receive a paper power under the tariff.
23	And so that provides a potential model for
24	for an arrangement in Missouri where you have
25	third party providers of electric vehicle providing

1 stations able to provide those and -- and sell those electricity absent the Commission's 2 3 jurisdiction. 4 And yet where you have a utility engaging 5 in this activity, the Commission would have 6 jurisdiction over that activity. 7 JUDGE BUSHMANN: Okay. Thank you. MR. HALSO: Thank you. 8 9 JUDGE BUSHMANN: Charge Point? 10 OPENING STATEMENT 11 BY MR. COMLEY: 12 MR. COMLEY: May it please the Commission. 13 I'm going to start out first with a little 14 description of Charge Point, I think, to clarify a 15 few points that have been raises in the questions 16 from the Commissioners. 17 Charge Point is engaged in the business of engineering, manufacturing and selling the 18 19 equipment and network services necessary for 20 electric vehicle charging station owners to provide 21 charging services to drivers who visit their 22 properties. 23 In all cases, Charge Point does not own the charging station or any related equipment. 24 The 25 site host, as the owner and operator of the

1	abarging station is from to get the price to
	charging station, is free to set the price to
2	electronic excuse me electric vehicle drivers
3	who use the charging station, or they may offer
4	that service for free.
5	Charge Point does not set the pricing for
б	any drivers at any station. Charge Point sells
7	Level 2 and DC fast charging products and services.
8	For station owners, Charge Point provides
9	subscriptions to a crowd-based platform, which
10	allows the owner to manage electric vehicle
11	charging operations, including online tools for
12	data analysis, payment processing, load management
13	and access control.
14	Stations are connected to the Charge Point
15	network over a secure cellular data network,
16	allowing stations owners to manage all their
17	charging operations from a single dashboard.
18	Charge Point also offers a comprehensive
19	set of support services for both electric vehicle
20	drivers and station hosts. These include a hotline
21	for drivers, operation on a 24-hour day, 7 days a
22	day, 365 days a year basis. The industry's first
23	parts and on-site labor warranty, site
24	qualification, installation and validation
25	services.

1 For drivers, Charge Point provides a single mobile and web application for all aspects 2 3 of their public work place and electrical vehicle 4 charging. 5 Charge point drivers have access to real-time information and payment and support 6 7 services through the information available on the screen of the charging station in their mobile 8 9 application, via e-mail and text notifications are on the Charge Point web site. 10 11 Charge Point's customers include public utilities, including KCP&L and Ameren. It includes 12 13 Governments, hotels, colleges and Universities, 14 hospitals, parking garages, airports, multi-family 15 housing, automobile dealerships and other 16 businesses. 17 Charge Point serves a nation-wide market. In addition to the public utilities I just 18 19 mentioned, examples of customers in Missouri 20 include Washington University in St. Louis, the 21 Missouri Botanical Garden, Anheuser Busch Employees 2.2 Credit Union, Busch Stadium, the Missouri National 23 Guard at its Algoa facility, as I understand, Mastercard, Nissan dealerships in the state and BMW 24 25 dealerships, among others.

1 Clearly, a growing number of non-public utilities own charging stations and are controlling 2 the prices they charge electric vehicle owners or 3 4 operators for charging services. 5 And based upon what Mr. Thompson said, I think it would be a surprise that the Missouri 6 7 Botanical Garden would be expected to come in and 8 seek a certificate from this Commission. 9 Ms. Anne Smart, who has served as Director of Government Relations and Regulatory Affairs for 10 11 Charge Point and now, after her promotion, serves as Vice President of Public Policy will be 12 13 testifying today about the scope of the competitive 14 market for electric vehicle charging services in Missouri and elsewhere. 15 16 She supplies details of the number of 17 charging ports already providing service in the large population centers in the state and along the 18 19 I-70 corridor. 20 Also, you will note from her testimony 21 that Charge point, in general, agrees with the 22 intent of Ameren's pilot, which is to encourage 23 electric vehicle adoption by supporting the 24 installation of electronic vehicle charging stations. 25

1	Charge Point agrees that there are
2	societal benefits and grid benefits associated with
3	electronic vehicle adoption and the associated
4	which is associated with the utility role in
5	supporting electric vehicle as mentioned in
6	Ameren's testimony and in the testimony sponsored
7	by Sierra Club and the Natural Resource Defense
8	Counsel whose attorney just just gave their
9	remarks.
10	However, Ms. Smart delivers a very serious
11	warning. She is warning that the design of
12	Ameren's pilot, including the blocking of customer
13	choice by selecting a single vendor for the
14	charging stations and seeking to regulate pricing
15	to drivers will adversely affect the competitive
16	electric vehicle charging market in Ameren's
17	service territory.
18	To avoid what is expected to be a negative
19	impact on the competition that is already
20	insistently urgent, Ms. Smart recommends that the
21	Ameren pilot be altered so that it will, one,
22	qualify multiple respondents respondents to its
23	request for proposal, to provide charging station
24	equipment and network services.
25	Two, allow the customer, the site host,

rather than Ameren to choose from the qualified RFP
 respondents, choose the equipment and services that
 will be used on customers' property from those
 qualified respondents.

5 Three, require that site hosts have some 6 investment, some skin in the game as she mentioned 7 in her testimony. And four, give the site host 8 control over pricing to drivers.

9 She also suggests that there are alternate 10 means of accomplishing the intention of the pilot 11 in ways that are not anti-competitive. And those 12 are explained more in detail in her testimony.

13 Staff announced today that it takes the 14 position that electronic -- excuse me -- electric 15 vehicle charging station constitutes statutory 16 electric plant, which by virtue of the Public 17 Service Commission law if used to distribute 18 electricity subjects the owner to regulation.

19 This raises a significant question about 20 the legal authority of a non-utility charging 21 station operator to operate that charging station 22 for public use.

It also raises a secondary policy question about the legal authority of a non-utility charging station order to charge per kilowatt hour for a

1 charging station -- or a charging station. 2 Whether intended or not, this case has 3 become the setting in which these important 4 questions should be clarified. 5 What the evidence in this matter will 6 establish is that this is not a monopoly service. 7 Public charging stations have been adequately and reliably provided by unregulated entities and at 8 9 prices the users have agreed to pay and are glad to 10 pay, if not provided for free. 11 Work places, Universities, apartment 12 buildings, hotels and tourist attractions have 13 purchased charging stations from the competitive 14 market and chosen to own and operate those stations 15 themselves in order to receive a direct or indirect 16 benefit from attracting electric vehicle drivers to their property. 17 18 This public offering is no different than 19 those same site hosts offering outlets for cell 20 phone chargers or offering wi-fi access to visitors. 21 2.2 In all cases, the site host is the 23 customer of record with this utility and pays the full cost of the electricity being consumed 24 25 on-site.

1	Charging batteries for devices that
2	require stored power is not a historical monopoly
3	service, nor is it typical of an energy company's
4	service offerings.
5	This Commission, as far as I know, has
6	never been asked to regulate a battery charger.
7	And, truly, I think that's what's involved is
8	what is involved here.
9	Even though it may be an elaborate piece
10	of equipment connected to software, and with
11	software and connected to a network, a charging
12	station is nothing more than a battery charger.
13	In this respect, it functions very much
14	like a common extension cord. And I don't think
15	extension cords are electric plant.
16	There is every reason in this case for the
17	Commission to conclude that non-utility companies
18	may own and operate electric vehicle charging
19	stations and charge a fee.
20	The evidence will also support a
21	conclusion that public utilities may, one, own and
22	operate electric vehicle charging stations as well,
23	but through a program designed that supports
24	customer choice and enables competition. And, two,
25	utilities may charge a fee in competition with all

1	others doing the same.
2	Short of these conclusions, Ameren's
3	proposed pilot should not be approved by this
4	Commission without the safeguards to competition
5	that Ms. Smart has endorsed in her testimony.
6	Thank you.
7	COMMISSIONER RUPP: No questions. Thank
8	you.
9	COMMISSIONER STOLL: Thank you for your
10	testimony.
11	JUDGE BUSHMANN: Thank you. Consumers
12	Council?
13	OPENING STATEMENT
14	BY MR. COFFMAN:
15	MR. COFFMAN: Good morning. May it please
16	the Commission. I am John Coffman representing the
17	Consumers Council of Missouri. And our primary
18	interest in this, as in most Public Service
19	Commission matters, is the residential captive
20	consumer.
21	And this jurisdictional question, I think,
22	is very interesting, you know, from a from the
23	perspective of a lawyer and statutory
24	interpretation.
25	And we don't see that the Commission has

1	jurisdiction over this, and our opinion on that is
2	is based on our understanding that the the
3	core important function of the Public Service
4	Commission is to protect those customers who are at
5	the mercy of a monopoly system and that the heat,
6	light and power that was intended when the statutes
7	were written are the folks who need electricity to
8	live or to be part of our modern society.
9	But I'm not going to dwell on the
10	jurisdictional question. We can brief that. And
11	our most our priorities in this case really
12	don't hinge on whether or not you find jurisdiction
13	or not.
14	Our main concern is that there not be
15	cross-subsidization between those folks who are
16	able to buy an electric car and benefit from a
17	charging station and those customers who have no
18	other choice but to have Ameren Missouri be their
19	electric provider.
20	And we see these services, really, should
21	be segregated in the accounting that the Commission
22	does and in the regulation that it has.
23	One service is essential. One is not. One is
24	subject to competitors, and one is not. One is
25	captive customers. So we you know, we we

1	hear Ameren Missouri say, Well, it may only be a
2	penny right now.
3	But this is still a very important issue
4	that that we avoid subsidization of basic
5	ordinary folks that that sometimes, you know,
6	have a hard time paying their monthly bills and
7	make sure they aren't subsidizing those folks that
8	have the means and ability to afford a fancy
9	electric car.
10	I think that the, you know you know,
11	whether or you know, if you find jurisdiction as
12	the Staff is urging to you do, we certainly support
13	the Staff's idea that you ensure that the costs and
14	the revenues related to this service are treated
15	and segregated from the cost of the basic captive
16	service territory basic electric service.
17	But we also feel like the Commission
18	should pay attention to what Charge Point says and
19	other competitors. We don't think this service,
20	particularly if it's subsidized, could have an
21	impact on the competitive market.
22	We don't think the Government should get
23	involved in a way that props up one provider at the
24	expense of others and may actually inhibit the
25	pre-barriers for other enterers in the market.

1	So from a consumer perspective as far as
2	an electric vehicle driver, we want to make sure
3	that it's a fair market place and that we are
4	encouraging competitive business that that would
5	have an effect on price down the road.
6	The other issue that I'm surprised has not
7	been discussed more amongst all the other issues,
8	and that is, When are you encouraging this use to
9	take place?
10	If you are looking at a tariff that would
11	be for a homeowner to charge their electric vehicle
12	at night, that seems like a very beneficial thing
13	for the entire system.
14	And I know State Utility Commissions have
15	done that, encourage a very attractive rate to
16	charge your electric vehicle in your garage at home
17	when the rate for per power to time of use rate
18	would be very very low.
19	When you're looking at charging stations
20	that are in shopping areas and in are going to
21	be used during the peak times, I mean, that can
22	actually create more cost on the system. And from
23	an environmental perspective and load management
24	perspective, we do have a concern about that.
25	So I think that the Commission, if you are

going to get into this area regulate electric 1 charging rates, you should look at where it fits 2 3 within the utility's load management because it can 4 have a big -- big effect down the road. 5 The primary concern that we would -- we 6 have in this case and we hope at the end of the day 7 whether you find jurisdiction or not is that you not leave the door open to have residential 8 9 electric customers subsidizing this activity. We -- I mean, we're fine with Ameren 10 11 Missouri getting into unregulated businesses or 12 into this -- this business and -- but we don't want 13 to create the precedent where electric captive 14 customers are used as a source of funding for 15 ventures that are not related to the core emission 16 of central utility service. That's all I have. 17 Any questions? 18 COMMISSIONER KENNEY: Unless we have time 19 of use rates, can you see how -- I mean, how we, as 20 a Commission, take care of your concerns about when 21 -- you know, if it's during the day, a heavier 22 load, just like, you know, charging stations for 23 homes, I understand. But unless we have time of 24 use rates, how can we do that? 25 MR. COFFMAN: You can assume if it is

1	charging at home that it would be primarily at
2	night. You can approve at time of use rate.
3	COMMISSIONER KENNEY: Yeah. That's what
4	we'd have to do, right?
5	MR. COFFMAN: Yes.
6	COMMISSIONER KENNEY: I mean, I can't
7	think of any other way to do it unless you just
8	we change the system and we and several people
9	may like that. I've heard that brought up several
10	time. That's the only way I think you can do a
11	home charging station anyway.
12	You've got a meter. Unless that meter is
13	regulated by time of use, it's not going to matter.
14	MR. COFFMAN: The State of California and
15	I think some other states do have that type of rate
16	where you are it's almost free if you charge
17	after midnight.
18	COMMISSIONER KENNEY: That makes sense.
19	All right. Thank you.
20	COMMISSIONER STOLL: No questions.
21	JUDGE BUSHMANN: Thank you.
22	COMMISSIONER STOLL: Thank you.
23	JUDGE BUSHMANN: Kansas City Power &
24	Light?
25	OPENING STATEMENT

1	BY MR. FISCHER:
2	MR. FISCHER: Good morning. My name is
3	Jim Fischer, and I'm representing Kansas City Power
4	& Light and KCP&L Greater Missouri Operations
5	Company in the proceeding today. I appreciate your
6	time in listening to this important issue.
7	We we will be sponsoring the testimony
8	of Tim Rush in this case. He's the Director of
9	Regulatory Affairs for to Kansas City Power &
10	Light.
11	And he can discuss with you KCP&L's
12	experience with EV charging and where we're at in
13	the process.
14	KCP&L and GMO believe it's appropriate for
15	electric public utilities in Missouri to be
16	expanding the infrastructure to include electric
17	vehicle charging stations.
18	In fact, we believe that Missouri electric
19	utilities have an obligation to serve the public in
20	their certificated area in accordance with the
21	Commission's approved tariffs, terms and
22	conditions, and that would include the provisions
23	of EV charging stations.
24	Like Ameren and the Staff and other
25	Interveners in the case, KCP&L and GMO believe the

EVIDENTIARY HEARING - Vol. II 1/12/2017

1	Commission does have jurisdiction over electric
2	vehicle charging stations provided by Missouri
3	electric utilities within their certificated area.
4	We addressed at some length that
5	jurisdictional question in our comments in the
6	workshop case, Case No. EW-2016-0123.
7	On the second issue listed on the list off
8	issues, public policy, we believe that all Missouri
9	electric utility customers, both EV users and
10	non-EV users alike will benefit from the
11	installation of EV charging stations.
12	Benefits include environmental benefits
13	from reduced CO-2 emissions and lower ozone
14	producing pollutants. Economic impacts resulting
15	in job creation and lower costs and greater
16	efficiency by having the utility install, own and
17	operate EV charging stations.
18	The increase in home based usage to charge
19	EVs will also provide a broader base to spread the
20	system cost. In other words, you're doing it off
21	peak. We're filling in the in the valley with
22	the additional load, and that's going to help
23	everybody by making a more efficient system.
24	As the Commission is aware, KCP&L and GMO
25	are the sponsors of the Clean Charge Network, which

1 is an initiative to install and operate more than 1,000 EV charging stations throughout the greater 2 3 Kansas City region. 4 KCP&L also has an EV tariff pending in our 5 current rate case, Case No. ER-2016-0285. Our 6 proposed tariff is slightly different than the one 7 that Ameren has on the table in this case. As a result, we're not taking a position 8 9 on the proposed rates and tariff that Ameren is 10 proposing. 11 I would suggest, though, that we believe 12 that it is a regulated service. And as a regulated 13 service, it should be provided above the line. 14 That includes both the costs and the revenues. 15 And while we appreciate Staff's change of 16 position to take it above the line, we are 17 concerned that, going to Commissioner Kenney's question, if we're going to have it above the line, 18 19 it's a prudent investment, if it's a prudent thing 20 to do, we should get the benefit of putting it above the line and, also, the revenues as well. 21 2.2 We believe the State of Missouri should 23 move forward with implementing EV charging station initiatives, including the one sponsored by Ameren 24 25 in this case. I appreciate your attention today,

1 and I'd be happy to answer any questions you might 2 have. 3 COMMISSIONER KENNEY: I just have one 4 question, and it's just more curiosity. I don't 5 want to get in any depth because I know you do have 6 a pending -- one pending before us. On your -- how many of -- and I'm very 7 8 familiar with your many of your locations. You 9 contract with Hyvee and shopping centers and parking garages. I've seen several in the area. 10 11 How many of your ports are fast chargers? Do you 12 know? The DC fast chargers? 13 MR. FISCHER: I think that would be a 14 better question for Tim Rush, who is going to be 15 closer to the facts on that. I think --16 COMMISSIONER KINNEY: I'm just curious. Ι 17 know you have one in St. Joe, and I've heard that 18 there's --19 MR. FISCHER: Yeah. I think it's -- I 20 think it's in the neighborhood of 20 percent or so. But I think we better have Tim Rush --21 2.2 COMMISSIONER KENNEY: All right. I'll 23 wait. Thank you. 24 COMMISSIONER STOLL: No questions. Thank 25 you.

1 JUDGE BUSHMANN: Thank you. 2 MR. FISCHER: Thank you. JUDGE BUSHMANN: Missouri Division of 3 4 Energy? 5 MR. ANTAL: If I counted right, I think we'll be okay. One, two, three -- five, six copies 6 7 for the Bench. OPENING STATEMENT 8 9 BY MR. ANTAL: MR. ANTAL: Well, good morning. May it 10 11 please the Commission. My name is Alex Antal, and 12 I'm representing the Missouri Division of Energy. 13 The -- I guess the drawback of batting 14 ninth -- or eighth, rather, this morning is, 15 inevitably, other attorneys will cover aspects that 16 you prepared to discuss. So I will try to move 17 expeditiously through my opening and not belabor points that have already been covered. 18 19 However, I do think it is important for the Commission to observe Missouri case law on the 20 21 matters that have been brought to its attention in 2.2 this case. 23 I say this because the Commission has an obligation to support its decisions based on 24 current case law while it has discretion in 25

1 determining issues such as -- and has a role in developing what is the public interest and what is 2 3 public policy in relation to public utilities in 4 this state. 5 These decisions have to be in conformity with current case law and the statutes of the 6 7 state. I mention this, also, because in my review of the various pleadings and testimonies of the 8 9 opponents of this pilot program, I have found very 10 little, if any, support for their novel 11 interpretations of Missouri statutes supported in Missouri case law. 12 13 So as others have mentioned, the leading 14 case on how the -- the Commission should determine 15 -- or the Courts -- and the Courts should determine 16 when an entity or person is acting as a public 17 utility, there are two primary considerations. 18 Is that person or entity operating 19 electric plant, and are they devoting that electric 20 plant to a public use? Without meeting those two 21 requirements, the Commission does haven't 22 jurisdiction over that person or entity. 23 Again, in the Danciger case, the Supreme 24 Court relied on the following definition or test, 25 rather, for determining when a person or entity

1 operating electric plants is devoting that plant to a public use. 2 And that is that the fundamental 3 4 characteristic of a public calling is 5 indiscriminate dealing with the general public. 6 As I also said, the other aspect of 7 determining when a person or entity is operating as a public utility in the state of Missouri is 8 9 whether or not they're operating electric plants. The definition of electric plants, amongst 10 11 other things, includes fixtures and personal 12 property owned to facilitate the distribution, sale 13 and furnishing of electricity for light, heat and 14 power, a matter that has been discussed guite a bit 15 this morning. 16 So I also wanted to highlight a couple 17 relatively recent cases that the Commission has determined relating to the issue of electric plant. 18 19 In a very recent case, EC-2015-0309, that's the All Connect case, the Commission stated 20 21 in relevance and in relation to electric plants 2.2 that it includes tangible items of property used to 23 provide electric service. 24 Now, I think any layman can determine that 25 these charging stations are tangible property and

1 that they are used to provide electric service. There should be no dispute over that point. 2 3 Additionally, in a -- a -- a little bit 4 later case, EO-2011-0090, the Commission actually 5 previously exercised its jurisdiction over electric 6 vehicle charging stations in approving an 7 encumbrance of charging stations that Kansas City Power & Light wanted to purchase. 8 9 To give you a little bit more color on 10 that case, Kansas City Power & Light had a -- it 11 was a subgrantee under a U.S. Department of Energy 12 grant that provided them funds to purchase electric vehicle charging stations as part of DOE's Clean 13 14 Cities Initiative. 15 Kansas City Power & Light asked for a waiver of Commission statute, which prohibits you 16 17 -- the utilities from encumbering parts of their electric works. 18 19 The Commission, with the recommendation of 20 their Staff, granted this waiver of its rules and 21 regulations, essentially allowing -- because they 2.2 were -- DOE had certain pre-conditions on the use 23 and future sale of these facilities, that they had to come in and get this, you know, waiver of the 24 25 encumbrance rule. So the Commission has already

1	exercised its jurisdiction over these types of
2	facilities as it relates to electric plants.
3	The Commission didn't say, Oh, no this
4	isn't an electric plant. You don't need our, you
5	know, permission or electric authority to buy these
6	facilities. They said, No, yeah, you guys are good
7	good to go. The requirement is waived.
8	So turning now to the specific statements
9	made in Ameren's application in the current case,
10	Ameren has stated that the charging island which
11	will traverse I-70 and Highway 54 corridors will be
12	will serve the general public.
13	This is an affirmative representation that
14	they don't that they intend to deal with the
15	public indiscriminately and that everyone is going
16	to having charged or be charged the same
17	Commission-approved rates.
18	Going back to the Danciger, you know,
19	test, this fulfills that, indiscriminate dealing
20	with the public. And as we already discussed,
21	these facilities are electric plants under, you
22	know, Missouri case law as, you know, past you
23	know, recent Commission decisions.
24	I also wanted to highlight some other
25	court Missouri court cases relating to the

1	Commission's jurisdiction. In the Laundry case
2	many of you may be familiar with the Laundry case.
3	It's an often cited case by by attorneys before
4	the Commission.
5	The Supreme Court of the state said that
б	the Public Service Commission laws are a remedial
7	statute and are akin to the police power of the
8	state and that, therefore, they should be liberally
9	construed with a view of the public welfare.
10	That is to say that they shouldn't be
11	narrowly construed, that that, Oh, these aren't
12	historically considered electric plant and,
13	therefore, they fall outside the bounds.
14	To that point, I wanted to highlight
15	another Commission case. This one's a little bit
16	older, 1977. The Commission, who had previously
17	regulated one-way and two-way radio paging
18	services, we're talking about relatively outdated
19	technologies.
20	I think everyone can most everyone in
21	the room can remember pagers. I remember my
22	parents, you know, had them for work. They they
23	just gave me a calling card to use at the high
24	school pay phone back before, you know, I was
25	allowed to have a cell phone.

1	In the matter of or matter of nature of
2	paging, the Commission, as I said, who had already
3	been in the practice of regulating paging services,
4	for whatever reason, wanted to readdress the issue
5	and see if whether or not there was there was
б	still a need and a legal basis for them to regulate
7	this service.
8	And as some as, you know, Mr. Thompson
9	pointed out earlier, this was an area where the
10	Commission had allowed regulated competition, that
11	there that is, there were entities providing
12	paging services in the same geographical areas in
13	the state.
14	The Commission in this case in their in
15	their report and order, similar to the Supreme
16	Court case that I just mentioned, discussed the
17	extent of their jurisdiction stating the Commission
18	should not apply a rigid historical construction to
19	its jurisdictional terms.
20	Rather, the Commission should read these
21	terms to include those technological advances which
22	have occurred since the enactment of the Public
23	Service Commission law in 1913.
24	Additionally, they went on to say the
25	Commission does not have an unfettered discretion

1	to exercise or not exercise its jurisdiction over a
2	particular service when the Generally Assembly has
3	directed the Commission to exercise its regulatory
4	control over the service; that is, electric service
5	in this case.
6	They further went on to say, This is true,
7	even though some factors may be present which
8	undercut a pure natural monopoly justification for
9	regulation.
10	The Commission observed in that case that
11	in outside of the major Metropolitan areas of
12	the state that there were insufficient providers of
13	paging services to effectively regulate regulate
14	the price in a competitive market.
15	That is, if you were outside of St. Louis
16	or Kansas City Metro, you may have you may only
17	one provider of paging services or possibly two,
18	and that that wasn't a sufficient number of
19	providers over the entirety of the state to justify
20	not regulating the service anymore.
21	Very similar to the facts in this case,
22	we're talking about an area of the state that is
23	outside of a major Metropolitan area.
24	Turning now to the issue of public policy.
25	Missouri courts have stated that it's the very

1	highest evidence of the public policy of any state
2	is found in its statutory law, that if there is
3	Legislation on a subject, the public policy of the
4	state should be derived from Legislation.
5	The Commission recently observed that
6	public policy must be found in a Constitutional
7	provision, a statute regulation promulgated
8	pursuant to statute or a rule created by a
9	Government body.
10	The public they also observed the
11	public interest is a matter of policy to be
12	determined by the Commission.
13	Turning now to some of the stated public
14	benefits in the Division of Energy's testimony,
15	I'll briefly highlight these. One of the
16	Commissioners asked earlier whether or not if they
17	charged at one of these proposed charging stations,
18	would they be paying the same rates as if they were
19	charging at home.
20	The answer is at least in terms of Level 2
21	AC, no, that the tariff rate for Level 2 AC
22	charging is actually higher than Ameren's current
23	summer energy charge for general residential
24	customers.
25	We think that this is this is

reasonable given some of the uncertainty of, you
 know, how many revenues are going to come in for
 this and, you know, the projected cost of the pilot
 program.

5 Additionally, Division of Energy has testified that based off of the calculations done 6 7 by Ameren Missouri that electric vehicle charging 8 station customers would make a net contribution to 9 fixed plant investment beginning in Year 5 of -- of operating, and, also, that over a 15-year time 10 11 horizon that there would be a cumulative 12 contribution of roughly \$1.9 million resulting in 13 lower rates for all residential customers in Ameren Missouri's service territory. 14

15 So, yeah, there's maybe a little -- maybe 16 residential customers have to pick up a little bit 17 of the upfront costs. But there's benefit on the 18 back end.

We believe these to be reasonable
assumptions based off of our review of third party
studies that show that EV revenues are more than
marginal cost in numerous, you know, future
scenarios.

I just realized that this is an older version of my Powerpoint presentation up here.

1 It's loaded up on the screen. So I'm going to -thankfully, I brought extra copies, so I'm going to 2 3 refer now to the hard copy version. Never fails. 4 All right. I'm going to pick up on page 6 5 if you're following along. Second slide. Some of the other evidence that Division of Energy has 6 7 provided in its testimony. 8 This is one issue that I don't think any 9 other party has touched upon yet this morning. So we're talking about public policy and finding 10 public policy in -- in statutes and rules and 11 12 regulations. 13 In 2015, the U.S. Congress passed a 14 bipartisan Bill called Fixing America's Surface 15 Transportation Act. Or FAST. Under this law, the 16 Federal Highway Administration has adopted this 17 alternative fuel corridors designation of which 18 Missouri is one of those designees. 19 Now, under the alternative fuel corridor 20 designation, there are two subdesignations. There 21 are -- there is signage ready, and there is signage 22 pending. 23 Now, what's the difference? Signage ready 24 designation is conferred when there are charging stations within 50 miles of one another on a 25

1 Interstate highway and within -- those charging stations are within 5 miles of that Interstate 2 3 states. 4 So you only have -- you would only have to 5 go 5 miles off the Interstate to get to a charging station. And along that Interstate, there are at 6 least 50 miles apart. 7 8 Signage ready -- or signage pending, that 9 isn't the case. Now, as Division of Energy has testified in this case, along the I-70 corridor in 10 11 the state, signage ready destination has been given to the area between St. Louis and Wentzville and 12 13 between Kansas City and Oak Grove. 14 The area of I-70 between Oak Grove and 15 Wentzville is signage pending. And Missouri's 16 pilot program would move that section of -- between 17 Wentzville and Boonville to a signage ready designation. 18 19 It's very important that -- and shows that 20 based off the Federal Highway Administration 21 designations that there isn't sufficient charging 2.2 infrastructure along this stretch of highway in the 23 state of Missouri. 24 Secondly, I'd like to point the Commission's attention to Missouri's alternative 25

1	fuel investment tax credit. It's a tax credit that
2	the Division of Energy administers.
3	Under the tax credits, it gives tax
4	credits for various alternative fuel
5	infrastructure, including electric charging
б	stations.
7	The particular benefit is a it gives
8	the recipients the lesser of \$20,000 or 20 percent
9	of costs of installation of those facilities. And
10	the Missouri General Assembly has appropriated
11	funds for this tax credit for the last two tax
12	last two fiscal years, rather.
13	Finally, in the area of looking for public
14	policy and regulation and rules, I would point you
15	the Commission to Missouri's comprehensive State
16	Energy Plan.
17	Among the recommendations in that plan a
18	diversity and security of supply recommendation,
19	that diversifying the State's energy supply,
20	including transportation energy that will lead to
21	economic development growth, will provide a hedge
22	against future price instability, will provide
23	additional security to the state and less reliance
24	on out-of-state petroleum products.
25	I would note Division of Energy has

1	testified that looking at a 14-year compound annual
2	growth rate, the gas compound growth rate over the
3	last 14 years is 7.5 percent while electricity is
4	only 2.5 percent. That's a 5 percent difference.
5	I know it can be misleading you know,
6	it can be slightly misleading based you know,
7	we've enjoyed relatively low gas prices over, you
8	know, the last couple years. But gas is volatile.
9	You know, I remember, you know, it
10	costing, you know, me twice as much to fill up my
11	car not too long ago when I was in college. And I
12	was in less debt at the time, too.
13	So it is a matter of security and benefit
14	to the people in the State of Missouri to have to
15	have less volatility in the prices they're paying
16	for and I I I caution to say it, an
17	essential part of their life.
18	Very few of us have the opportunity to get
19	around and do our our daily business getting to
20	and from work and chores without purchasing some
21	sort of fuel for our vehicles, where that be
22	petroleum or electricity.
23	Turning to the rates, I would offer to you
24	that Missouri case law states that the test for
25	determining propriety of a rate design is whether

the rates are just, reasonable and in the public
 interest.
 To the issue of just and reasonable, the
 Courts have also said that it's the result reached,

5 not the method employed, which is controlling. It 6 is not theory, but the impact of the rate order 7 which counts.

8 Now, the opponents of this pilot program 9 haven't really addressed the issue of the just and 10 reasonableness of this rate. Based off my review 11 of their position statements that they're just 12 restating their jurisdictional arguments and their 13 public policy concerns.

14 The only party that has come close to 15 challenging the just and reasonableness of this 16 rate is Staff. And my understanding of their 17 position on this issue is that both AC -- Level 2 18 AC charging and Level 3 DC charging should be in 19 the same unit.

As has been explained earlier, AC charging is based upon a per kilowatt unit, and DC fast charging is based on a unit of time.

Now, as I said, it's not the method is that is controlling. It's the results. I have seen no analysis in the testimony provided by

1	customers that the rates that Ameren and the other
2	parties have endorsed in this case would lead to an
3	unreasonable or unjust result.
4	However, Ameren Missouri has provided
5	rationale for the decision to go with the
6	recommendation of other parties to base AC Level 2
7	charging on a KW basis rather than providing both
8	on a time basis.
9	And as as was stated earlier, that is
10	because not all AC equipped electric vehicles
11	charge at the same rates. So charging on a per
12	time basis would or, rather, yes, a per time
13	basis would potentially be discriminatory to EV
14	drivers who have slow charging cars.
15	But there was still a reasonable rationale
16	for charging a time based rates for DC fast
17	charging because, A, they charge at the same rate.
18	And, two, that there was a and incentive for DC
19	drivers to move their cars after their car was done
20	charging so that someone else could utilize that
21	station. Reasonable basis for that distinction.
22	In closing, I want to mention one other
23	court case that I think really sums up the decision
24	or the the matter that the Commission has before
25	it in this case.

1	That would be the U.S. Supreme Court case
2	New State Ice Company versus Leadman. It's an old
3	case, 1936 if I'm correct. And what's interesting
4	about that case, it dealt with a Oklahoma statute
5	requiring providers of ice to get a Certificate of
6	Convenience & Necessity from the Oklahoma PUC.
7	It's not the decision so much as it is the
8	dissent. My my favorite Supreme Court Justice,
9	Lewis Brandice, wrote an often cited in that case
10	where he described the issue or concept of
11	laboratories of Democracy.
12	He stated, and I paraphrase, that it is
13	one of the benefits of our Federal system that
14	individual states can experiment with economic and
15	social policy to address the issues that they find
16	happening in their state, and that the Supreme
17	Court, while it may have the ability to strike down
18	such laws, should be careful to do so because
19	they're not on the ground.
20	They're not you know, it's the
21	Legislators, the General Assemblies the states who
22	have to address the issues of their constituents
23	and try to find novel ways to address those issues.
24	And I think that's what the Commission has
25	before it today. You know, there's no national

EVIDENTIARY HEARING - Vol. II 1/12/2017

1	consensus on this issue. There are you know,
2	there are states who have said utilities shouldn't
3	be they shouldn't be a regulated service.
4	There are other states who have said, you
5	know, this is a regulated service. You know, but
6	there's no natural consensus.
7	Missouri has an opportunity to to be a
8	laboratory of Democracy in this particular
9	instance. So I I'll leave it my prepared
10	remarks with that with that note. And I'll
11	entertain any questions from you.
12	CHAIRMAN HALL: I have no questions.
13	Thank you.
14	COMMISSIONER KENNEY: Me either.
15	COMMISSIONER STOLL: No questions. Thank
16	you.
17	JUDGE BUSHMANN: Final opening would be
18	from Office of Public Counsel?
19	MS. SHEMWELL: Good morning.
20	COMMISSIONER COLEMAN: Good morning.
21	OPENING STATEMENT
22	BY MS. SHEMWELL:
23	MS. SHEMWELL: May it please the
24	Commission. I'm Lera Shemwell. I represent the
25	Office of the Public Counsel.

1	Public Counsel supports Ameren and the
2	Commission's desire to promote EV adoption. Public
3	Counsel's position is that this Commission needs to
4	focus on what is the most effective way to actually
5	promote EV adoption and move forward with effective
6	EV promotion problems that does not include remote
7	EV charging stations along I-70, which the company
8	itself admits may be used one or two times per day.
9	Public Counsel says suggests that the
10	Commission interpret its statutes that these
11	charging stations do not provide service for light,
12	heat or power or the idea that the vehicle is a
13	mobile premises or a possibly home in which
14	customers eat, sleep, work and play.
15	I don't know about you, but I rarely
16	sleep, work or play while I'm driving down I-70. I
17	may eat occasionally.
18	The Commission has direction from the New
19	York Commission as to whether or not let me say
20	the Commission's statute is identical to the New
21	York Commission. This Commission adopted the New
22	York statute in 1913, virtually the whole clause of
23	that statute.
24	And the New York Commission could provide
25	guidance to the Commission as to whether or not it

1	should take jurisdiction. Here, there is no
2	natural monopoly, and there is no lack of a
3	competitive market.
4	Public Counsel recommends that the
5	Commission approach promotion of EV adoption in a
6	way that benefits shareholders, all ratepayers and
7	all EV owners. That is through a time of use rate.
8	There is no question the utility is the
9	only entity in a position to take this approach.
10	And time of use rates would be much more effective
11	in sending price signals to customers and reducing
12	demand during peak hours.
13	Time of use rates are not temporary, and
14	this approach has many other benefits. And let me
15	say a time of use rate is an issue in Ameren's
16	current rate case.
17	A time of use rate allows Ameren to manage
18	the electric vehicle charging to ensure that
19	environmental benefits are actually realized and
20	can only suggest that environmental benefits might
21	be realized from these EV charging stations.
22	This encourages EV owners to avoid adding
23	to peak demand by charging during off peak hours.
24	And charging during peak times can harm all
25	customers by driving electric rates higher.

1	Virtually all EV charging today occurs at
2	home. 99.96 of Ameren's customers do not own
3	electric vehicles. But 80 percent of that small
4	number, they charge at home.
5	Why? It's safe and it's convenient. Pull
б	the car in the garage and plug it in. You don't
7	have to dwell someplace. You don't have to look
8	for something to do. You don't have to look for a
9	rest room, any of those kinds of things when you
10	you just go in and charge it.
11	If the customer charges at night as
12	opposed to when they get home at 5 or 6 p.m., then
13	that reduces peak flow. This all EV owners,
14	regardless of whether or not they drive I-70 can
15	participate in a time of use.
16	This also represents an opportunity for
17	Ameren to partner with EV dealer to educate
18	customers who are there to buy an electric vehicle
19	as to how they can control their fuel costs.
20	What's going to appeal to an EV owner?
21	Fuel cost, the cost of operating the vehicle. This
22	is a more immediate incentive to a potential EV
23	buyer in that they might, on a rare occasion, need
24	to charge a vehicle while driving down I-70.
25	Reducing the electric bill is a far more

1	effective incentive than five remote charging
2	stations. Most EV customers will never use these
3	charging stations.
4	Also, there's no risk to shareholders with
5	they approach. Shareholders would benefit as well.
6	Public Counsel recommends a Government
7	intervention in a competitive aspect of EV charging
8	stations is not necessary.
9	Ameren has thousands of EV charging
10	stations exactly where they are used. Every home
11	that has an electrical outlet is potentially an EV
12	charging station.
13	Ameren receives 100 percent of the
14	revenues from EV home charging, work place charging
15	and competitor charging.
16	This is transportation fuel. The
17	electricity provided is for transportation. Ameren
18	asserts that the real breakthrough for EV adoption
19	will be the 300-mile battery average.
20	And, in fact, the new Chevy Bolt is out.
21	I understand one has been spotted in Jefferson
22	City. That has a 200-plus mile battery change. So
23	the customer leaves home. They can go 200 miles
24	without worrying about recharging. There are EV
25	charging stations available within 200 miles in any

1	
1	direction.
2	There are only about 530,000 electric
3	vehicles being operated in the entire United States
4	today. In contrast, last year, customers purchased
5	17 million new vehicles. So the EV penetration at
6	this point is very low.
7	The Commission should look at the best and
8	most effective way to encourage additional adoption
9	of a variety of alternative fuel vehicles.
10	It's not the lack of charging
11	infrastructure that's preventing EV adoption. It's
12	the battery charging range. It's the cost of
13	electric vehicles. It's the fact that customers do
14	not buy new cars. It's the fact that gasoline
15	prices are low.
16	Customers are happy with their current
17	experience. Mileage is increasing for vehicles,
18	and they're happy with the vast array of gas
19	stations where they can fill.
20	They're also more comfortable with hybrids
21	than they are with pure electric vehicles. And,
22	again, one thing that can shift customers to buy
23	EVs is cost savings.
24	Time of use rates also allows Ameren the
25	opportunity to reach out and talk with customers

about using other of their electric uses, like 1 drying and off peak times. 2 3 There's a lot of uncertainty around these 4 charging stations. Ameren hasn't told us where 5 they will be. We know that there will be no 6 attendant to assist the charging process to ensure 7 the customer follows safety instructions, to provide assistance with payment or ensure payment 8 9 is in a safe or good condition. 10 Commissioner Rupp, in response to your 11 question, you were assuming that you could leave 12 your vehicle charging and walk to meet a friend or 13 read a book or so on. 14 We don't know that that will be available. 15 The EV charging station may leave the driver 16 sitting right there alone, potentially at night 17 with no attendant to help them monitor. We don't know what emergency services will 18 19 be available or if there will be any surveillance. 20 That's the reason that most charging stations are 21 located in heavily traveled areas with nearby 2.2 amenities and not out in the remote or rural areas. 23 Public Counsel suggests that these are battery chargers, much as the New York Commission 24 25 determined. They're not readily available to the

1 vast majority of Ameren's EV owners. Just those few that drive on I-70. 2 The Commission does need to decide if this 3 4 small project is, in fact, the most effective way 5 for the Commission and Ameren to promote the 6 purchase of EVs specifically, especially 7 recognizing that Ameren is a carbon intensive 8 generating company, which would reduce the 9 potential for environmental impacts. That's all I 10 have. 11 CHAIRMAN HALL: I have no questions. 12 COMMISSIONER KENNEY: I just have one. 13 Except for the process of a tariff dealing with the 14 wholesale power, does it -- doe OPC believe it's 15 illegal for a third party to resell electricity 16 that they purchase from Ameren? 17 MS. SHEMWELL: We do not. 18 COMMISSIONER KENNEY: You do not. Thank 19 you. 20 JUDGE BUSHMANN: Thank you. 21 MS. SHEMWELL: Thank you. 2.2 JUDGE BUSHMANN: Why don't we take a --23 Yes. 24 COMMISSIONER KENNEY: Judge, I just wanted 25 -- Staff has got a copy of the tariff that the

Chairman reference earlier and has examined it. 1 And it's clear that the tariff prohibits reselling 2 of electricity. 3 4 CHAIRMAN HALL: Thank you JUDGE BUSHMANN: Why don't we take a short 5 break and recess for about ten minutes? 6 7 (Break in proceedings.) 8 JUDGE BUSHMANN: Let's go back on the 9 record. We're ready for Ameren Missouri's first witness. 10 11 MS. JOHNSON: Thank you, your Honor. We call Mark Nealon. 12 13 JUDGE BUSHMANN: Would you raise your 14 right hand, please? MARK NEALON, 15 being first duly sworn to testify the truth, the whole 16 truth, and nothing but the truth, testified as follows: 17 DIRECT EXAMINATION 18 19 BY MS. JOHNSON: 20 JUDGE BUSHMANN: State your name. 21 A My name is Mark Nealon. 2.2 JUDGE BUSHMANN: You may proceed. 23 MS. JOHNSON: Thank you. 2.4 (By Ms. Johnson) Are you the same Mark J. Q 25 Nealon who pre-filed direct and surrebuttal

Page 131

1 testimony in this case? 2 Α Yes. 3 0 And do you have any corrections or 4 additions to make to your testimony today? 5 А Yes, I do. 6 Thank you. If could you start with the 0 7 corrections in your direct, please. First off, on Page 5, in the footnote, the 8 А 9 definition of participating customer needs to have the -- the word "not" removed from the last line. 10 11 So the last phrase should read, who is also an EV 12 customer. 13 0 All right. And the next one? 14 Page 8. There is a typo there. On Line А 15 18, there is no hyphen between the words "interest" 16 and "specific." 17 Continue. 0 On page 11, line 18, the last two words 18 Α 19 should not be "learning the." The last two words 20 should be the learnings, plural. 21 0 And the next revision? Page 18, Line No. 8, the first four words 2.2 А 23 after the second item as they're printed now say, 24 They are already accustomed. It should read 25 instead, Their, possessive, their already being

1 accustomed. 2 0 And the next correction? 3 А Page 34. Page 34 in the footnote, Nancy Ryan's name is in the middle line of that footnote. 4 5 Her name, Nancy E. Ryan, is actually the first words in what should be Footnote No. 5. 6 7 Footnote No. 5 itself should be on Page 35, Line 3 after the very first word, 8 9 vehicles. 10 0 And do you have any -- oh, I'm sorry. 11 А One -- one more in direct. Page 37, line 12 16, the word "participant" should be the word 13 "participating." 14 And that concludes your corrections to 0 15 direct testimony? 16 А Yes. 17 And you also have corrections to your 0 18 surrebuttal testimony; is that correct? 19 А Yes. There are two. 20 0 Okay. 21 Α First, on page 9, line No. 18, those last 2.2 three words and the first word of Page 19, "for the 23 sake of, " should be replaced with the single word 24 to, t-o. 25 Q And --

1 Α And the change is on Page 13. In the question on line 14, the last four words, Does is 2 make more -- the word is should be it, and that's 3 4 it. 5 0 Okay. Thank you. Okay. Now, if I were 6 to ask you the same questions in your written 7 testimony today as corrected, would your answers be 8 substantially the same? 9 Yes. А 10 0 Okay. All right. Thank you. 11 MS. JOHNSON: Your Honor, Commissioners, I 12 move that Mr. Nealon's direct testimony be labeled 13 as Exhibit 001 and 002 and be entered into the 14 record. 15 JUDGE BUSHMANN: Any objections to their 16 receipt? Hearing none, they're received into the 17 record. 18 MS. JOHNSON: I will now tender the 19 witness for cross-examination. 20 JUDGE BUSHMANN: First cross would be by Staff. 21 2.2 MS. PAYNE: Thank you, Judge. 23 CROSS-EXAMINATION 24 BY MS. PAYNE: 25 Q Mr. Nealon, do you have your direct

1	testimony in front of you, I assume?
2	A Yes, ma'am.
3	Q On Page 3, in talking about your work for
4	Ameren Missouri, you mentioned that, beginning in
5	2009, your work included building on Ameren
6	Missouri's previous work in the electric vehicle
7	space. Can you please clarify what previous work
8	you're referencing?
9	A Can you cite the line number? I'm sorry.
10	Q Absolutely. It is Page 3
11	MR. THOMPSON: 15.
12	Q (By Ms. Payne) Yes, on Line 15.
13	A Oh, very good. Yes. In in 2009 when
14	when the electric vehicle revival began again
15	from its former popularity in the 1990s, my
16	position at Ameren Missouri was Director of Smart
17	Grid, Strategy and Implementation.
18	Q Okay.
19	A We investigated a number of new types of
20	technologies that potentially represented new
21	services for customers. And among them was the
22	a very new technology in terms of electric vehicles
23	and electric vehicle charging.
24	Because this was very new to us, we
25	actually I did some some work investigating

1	the nature of electric transportation, the the
2	various EV models that were being offered for the
3	first time, I I believe starting in 2010.
4	We studied the various charging means that
5	were commercially available and actually installed
6	some of those charging means and actually purchased
7	a couple of electric vehicles for our
8	self-education, should I say, so that when
9	customers would call inquiring after what electric
10	transportation was about that we could speak
11	intelligently and with a degree of experience.
12	Q Thank you. Can you tell me, has Ameren
13	sought rate-making treatment for any of these
14	previous activities that you've worked on?
15	A Yes.
16	Q And can you clarify what?
17	A The the charging stations that that
18	we purchased with which to charge our fleet
19	vehicles
20	Q Okay.
21	A that we that we purchased were
22	were included in the rate base in a in a
23	previous case, full rate case.
24	Q Okay. So the Commission did order to
25	include those in rate base?

1 Α To my knowledge, yes. 2 0 Okay. Thank you. All right. Let's go 3 ahead and move on to page 16 of your direct. And 4 this is on page 13 -- or line 13, I'm sorry, of 5 that page. 6 You reference the net revenues from 7 corridor charging over the 15-year operating life of the charging equipment. And is this Ameren's 8 9 projection of the duration of these charging 10 stations? 11 Α Yes. Yes. Yeah. That's a fair 12 statement. 13 0 So you expect the equipment to be in use 14 for 15 years? 15 Absolutely. Yes. А 16 0 Okay. All right. And moving on to page 17 19. Okay. And this is looking at lines 12 and 13. 18 You reference that electric utilities are in a 19 unique situation due to the revenues generated from both the corridor, projected corridor, and 20 21 residential charging activities. 2.2 Can you tell me, has Ameren included 23 revenue generated from at-home charging in any of 24 the projections that they have provided before this 25 Commission in this case?

Page 137

I couldn't find -- I couldn't find the 1 А 2 quote that you were citing. 3 I'm sorry? 0 4 Yeah. T'm --А 5 It's starting on line 12. It's 0 6 immediately after the colon. 7 Oh, okay. Very good. I was looking above Α 8 that, not below. Okay. Restate, please. 9 Has -- has Ameren included at-home 0 10 charging revenues in any of the projections that it 11 has presented in this case before the Commission? 12 Α Yes. 13 0 Okay. Can you clarify where those --14 those revenues have been included? 15 What we included -- the home charging А 16 revenues that we included in our projections in the 17 UCC -- the UCT or RIM test were those represented 25 percent of what we consider the accelerated EV 18 19 adoption model that we believe -- long and short, 20 the 25 percent of -- of that accelerated adoption, 21 we believe, will be brought about solely because 2.2 customers who are thinking about buying electric 23 vehicles, you know, will be confident that they will be able to charge on long distance corridors. 24 25 Q Okay.

1	A So the 25 percent basically is what Ameren
2	Missouri lays claim to being directly responsible
3	for as a result of long distance charging stations
4	along the I-70 corridor.
5	Q Okay. And are you expecting that 25
6	percent to offset the cost of these of the
7	the stations to be installed or have you have
8	you included any of the revenues that you project
9	to come from at-home charging to offset the cost of
10	this corridor proposition?
11	A Yes.
12	Q Okay. Thank you.
13	A The 25 percent, by the way, is roughly
14	accounts for what we project would be roughly 7,000
15	electric vehicles by 2030.
16	Q Okay. Thank you. And moving on to your
17	surrebuttal, on page 2 and we are looking at
18	lines 11 through 15, you you reference that
19	Mr. Murray misstated some things.
20	But you state that time-based rates would
21	solve the problems of a customer leaving their
22	vehicle plugged in long after its been charging.
23	Has Ameren made some kind of allowance for
24	customers that are using the vehicles that are
25	measured by the kilowatt hour to be left plugged

1 in? Can you restate the question? I'm not 2 А 3 sure I understand that. 4 Let me -- yeah. Let me step back for a 0 5 minutes. Okay. So right now, Ameren is proposing 6 that Level 2 charging stations would be measured on 7 a per minute basis for charging the rate; is that 8 correct? 9 That is correct. А 10 And a Level 3 charging station would be 0 11 measured by the kilowatt hour for that? The Level 2 AC would be -- would be 12 Α 13 leveled by the --14 Oh, Level 2 AC. 0 15 The Level 2 AC charger, the slower А 16 charger, we have proposed to charge on a kilowatt 17 hour basis, not a time basis. 18 0 Okay. So it's the DC fast charge that you 19 are -- what's commonly known as the DC fast charge that would be by a per minute basis? 20 On a time basis, on a per minute basis, 21 А 22 yes, that is correct. 23 0 Correct. For the purpose of charging 24 rates to the customers using these? 25 A Yes.

Page 139

1	O So what Tim agking is is in your
	Q So what I'm asking is, is in your
2	testimony you state that a per minutes rate would
3	fix the problem of a customer who charges their
4	vehicle and then leaves it similar to what Mr. Rupp
5	was discussing earlier. Has Ameren made some
6	allowance for the rates to be charged on a per
7	kilowatt hour basis to encourage customers to not
8	leave their vehicle plugged in for an extended
9	period of time?
10	A No. We found that the encouragement will
11	will come from the fact that if charging has
12	stopped, they remain plugged in and continue to be
13	charged 17 cents a minute that that would provide
14	more than an incentive to come back to the car and
15	unplug it for the sake of whoever else is due there
16	next.
17	Q So what you're saying is that if a per
18	kilowatt hour rate if a person using that
19	charger were to leave their vehicle plugged in,
20	they would still continue to be charged even when
21	once their vehicle is fully charged?
22	A That's correct. There's an opportunity
23	cost associated with a car occupying a plug that is
24	not charging when
25	Q Thank you. You've answered my question.

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Page 141
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1 I appreciate it. MS. PAYNE: That's all the questions I 2 3 have. 4 А Okay. 5 JUDGE BUSHMANN: Cross by Charge Point? 6 CROSS-EXAMINATION 7 BY MR. COMLEY: Mr. Nealon, we had a moment to meet each 8 0 9 other, but for the record, my name is Mark Comley, 10 and I represent Charge Point. 11 And I'm going to risk a few direct 12 examination questions for you. And I know there's 13 a tendency for witnesses to sometimes expand upon 14 their direct testimony. I'm hoping that your 15 answers might be succinct, although I understand 16 you may have the urge to talk a little more. 17 To the extent we can and with the time 18 restraints we're trying to impose in this hearing, 19 I'm going to try to make my questions so that 20 they're not going to be complicated. 21 First question, did Ameren consider using 2.2 an alternative charging station ownership model for 23 this pilot? 24 Α No. Did you ever consider a model which the 25 Q

1 site host would own the facility? 2 Α No. 3 0 Or even own it partially? 4 А No. 5 Or did you consider one involving a 0 6 rebate? 7 Α No. Are you familiar with the model that is 8 0 called the Make Ready model for electric vehicle 9 10 charging? 11 А Yes. 12 Can you describe that briefly for the 0 13 Commission? 14 А I believe the -- the Make Ready model 15 involves a utility basically providing a line 16 extension of their own grid to the very site where charging stations would -- would exist, bring the 17 extension -- or a service, so to speak, electric 18 19 service out of a transformer, and, I believe, up to 20 and including a distribution panel from that point. All that would be left for whoever the 21 2.2 owner of that station would be -- would be to tap 23 into that panel, just go a few feet with additional 24 electrical conductors to the actual charging 25 station equipment itself.

1 0 And under that model, the owner of the 2 charging station is the site host. Would that be a 3 fair statement? It's not the utility? 4 А Correct. 5 And I'm gathering that Ameren did not 0 consider making use of the Make Ready model for 6 7 purposes of the pilot? We did consider that, and, in fact, Charge 8 А Point was -- was the entity that introduced that 9 10 possibility to us. But in the end, we decided 11 against it. 12 0 Has Ameren had any previous experience 13 with ownership and installation of fast charging 14 stations? 15 Α No. Can you name on the electric vehicle 16 0 17 models that can use the fast chargers you have 18 selected for your pilot? 19 Most battery electric vehicles, including Α 20 the Nissan Leaf, including my Nissan Leaf, can make 21 use of DC fast chargers, yes. 2.2 Can a plug in hybrid like the Chevy Volt 0 23 use that fast charger? 24 It cannot. А 25 Do you know what network the fast charging 0

1 stations for your pilot will be on? Are you talking -- or are you referring to 2 Α 3 the managing network? 4 Managing network. 0 5 А Yes. 6 What -- what network will you be on? 0 7 А It is BTC Powers managing network. How many fast charging stations do you 8 0 9 anticipate installing for this pilot? 10 А Twelve. 11 Q Have you selected the site hosts for the 12 pilot, for these charging stations? 13 No. We're still in discussions with them. Α 14 Have you explored how they're going to be 0 15 owned or used by Ameren, whether by real estate 16 ownership or easement? 17 А Easement. 18 0 So you will not own any of the property on 19 which the stations are located? 20 А No. 21 Do you know offhand what the power 0 22 requirements are for installing the fast charging 23 stations? 24 Α Yes. 25 Q What are they, please?

1 А A 50 kilowatt service equivalent between the conductors going to it and the transformer 2 3 involved. 4 0 What size transformer would you be using? 5 We will have two transformers side by side А 6 and a dual port Level 2 AC charger next to those. 7 And so they -- the demand equivalent would have to be on the order of around 150 KV to speak in 8 9 standard transformer sizes. 10 Do you have locations along the I-70 0 11 corridor where those power levels and equipment are 12 installed? 13 А Yes. 14 Let me ask you this. And I'm kind of 0 15 following up on what was stated by Ms. Johnson 16 during the opening remarks. 17 For this pilot, you're involved in some 18 data gathering for all stakeholders. Would that be 19 fair to say? 20 А Yes. 21 Say, for instance, a third party would 0 2.2 want to be interested in a location where Ameren 23 has facilities that would handle a fast charging 24 station. Would Ameren willingly give that to a 25 third party?

1 MS. JOHNSON: I object because it calls for speculation, and it's outside the scope of what 2 3 we've been discussing. 4 JUDGE BUSHMANN: Response, Mr. Comley? 5 MR. COMLEY: Your Honor, I think that this 6 goes to the heart of competition in this field. If 7 they're not willing to give up some data that 8 they're accumulating, then I think the pilot has 9 some serious issues. 10 JUDGE BUSHMANN: Overrule the objection. 11 You may answer the question, sir. 12 And the question is? А 13 0 (By Mr. Comley) If a third party were to 14 come to Ameren and ask for information about what 15 facilities are in place on the I-70 corridor that 16 would allow the installation of a fast charging 17 station, would Ameren willingly give that information? 18 19 Α Information like what is installed there, 20 what -- what we have placed there? 21 Is there equipment that would be available 0 2.2 to install a fast charging station at this 23 location? 24 I am sorry. I'm afraid I still don't Α 25 understand the question.

1	Q Let's let's say that you have a site in
2	Sedalia, and I know it may be outside your well,
3	St. Peters. And you have all the equipment that
4	you've just described for the installation of a
5	fast charging station.
6	A third party is interested in installing
7	a fast charging station in St. Peters, would you
8	give them the location where that equipment and
9	power is located?
10	A Oh, certainly.
11	Q Then the next question would be this. Now
12	that you know that a third party is interested in
13	using that location, would you use that as an
14	opportunity to install one there yourself?
15	A I have I have no idea. I mean, we
16	we would make independent decisions as to where we
17	thought our charging islands would be best located.
18	Q Would you agree that there are fast
19	charging stations already providing service in
20	Missouri?
21	A Yes.
22	Q In Ameren's service excuse me. In
23	Ameren's service territory, are there fast charging
24	service stations?
25	A Yes.

1 And can you tell the Commission where 0 2 they're located? 3 А There are -- are we -- are we talking 4 about all fast chargers? 5 0 Yes. 6 Α Okay. In the City of Columbia, there are 7 a bank of Tesla super chargers. And --8 Let me redirect the question. Public. 0 9 We'll just say public, not proprietary. Oh, okay. I believe that in -- in 10 Α 11 testimony, I -- I indicated having found about 37 12 or --13 0 And these would be public charging 14 stations all together, I think. 15 Oh. А 16 0 I'm thinking fast charging stations alone. 17 Fast charging stations. There are a А number of fast charging stations in the St. Louis 18 19 Metropolitan area and as far west as Wentzville, 20 though there are only eight that I found amongst 21 whatever that -- that total number is that exists 2.2 within five miles of I-70, our intended corridor. 23 You indicated, I think, during examination 0 24 that -- from Ms. Payne that the stations you expect 25 to have a 15-year useful life. Is that a correct

1 reflection of your statement -- or testimony? 2 Α Yes. 3 0 Based upon your experience in this market, are you aware of any changes to station technology 4 5 that would be expected in the next 15 years? 6 А Yes. 7 And because of changes in technology, will 0 you be replacing the older and outdated charging 8 9 stations as this technology takes place? No. Perhaps adding to it, but not 10 Α 11 replacing. 12 So the charging stations you're talking 0 13 about are things that you could reconfigure or to 14 re-fit? 15 I don't -- there wouldn't be any Α 16 reconfiguring or refitting. They would continue to exist in their current -- in their current state. 17 18 0 Ameren sent out a request for proposal to 19 charging station vendors in connection with this 20 pilot. Am I correct? 21 А Yes. 2.2 Now, to the extent you can, and I know you Q 23 may not be able to do it without some 24 confidentiality concerns, and if that's the case 25 we'll not deal with this question, but can you tell

the Commission the qualifications that were set out 1 in that RFP for the vendors? 2 3 А Qualifications for -- for what? 4 How you were going to select the RFP 0 5 respondent. How were you going to select the 6 vendor? 7 Α Okay. What qualifications did the vendor have to 8 0 9 have to be selected? 10 Α There were -- there were requirements 11 categorically in the way of -- of safety, price, 12 project management, the managing network and the 13 quality of the data that it -- that it provides. Ι 14 would call those the -- the major -- major 15 categories. 16 Can you tell the Commission how many 0 17 vendors responded to the RFP? 18 Five. А 19 And which vendor was selected? Q 20 BTC Power out of Santa Anna, California. А 21 And it has its own network; is that 0 2.2 correct? 23 Α Correct. 24 0 Do you know whether this vendor can supply 25 fast charging stations?

1 А Yes, they can. 2 0 Do you know how the drivers through the 3 BTC Power network will find the stations that 4 you're going to install? 5 А Yes. The -- yes. How is that going to happen? 6 0 7 The way virtually all EV drivers find Α charging stations, through cell phone apps of EV 8 9 web site registers. 10 Well, do you know how many stations 0 11 nationally that BTC Powers has on its network? 12 It's in the thousands. But I -- I --- I Α 13 can't recall the number -- the specific number. 14 MR. COMLEY: That's all I have. Thank 15 you. 16 JUDGE BUSHMANN: Consumers Council? 17 Mr. Coffman? Kansas City Power & Light? 18 CROSS-EXAMINATION 19 BY MR. FISCHER: 20 0 Mr. Nealon, over here in the back here. 21 А Oh, sorry. 2.2 Did I understand the answer to one of the Q 23 questions from Counsel that -- that you are 24 personally an owner of a Leaf? 25 A Yes.

Page 152

1	Q So you have personal experience with
2	driving an electric vehicle?
3	A Yes. Yeah.
4	Q Did you drive your Leaf here to the
5	hearing today?
6	A No.
7	Q Why not?
8	A I can't make it here.
9	Q Okay. If if the Ameren proposal is
10	adopted by the Commission, would the next hearing
11	or down the road, would you able to drive your Leaf
12	to Jefferson City?
13	A Yes, I would.
14	Q Okay. Just to give the Commissioners kind
15	of a practical idea of what it is like to be a Leaf
16	owner or an electric vehicle owner, can you
17	describe what you would do if you were leaving,
18	say, St. Louis to come to Jefferson City on a trip
19	in your Leaf?
20	A Well, first off, I would not because of
21	the incredible inconvenience that I would
22	experience as a means of getting to this Point B
23	from from my Point A.
24	There are charging stations at various
25	locations in route to Jefferson City from St.

1	Louis. But none of them none of them, save for
2	the westernmost charger in Wentzville, which is at
3	a bank branch, a Commerce Bank branch, would be
4	able to refuel my vehicle in a timely fashion.
5	And when I say a timely fashion, these DC
6	fast chargers will recover about 75 miles of range
7	in about 30 minutes. So I still wouldn't make it
8	here with with the range of of my Leaf.
9	And so I would be forced, then, to
10	consider fueling with a Level 2 AC charger which
11	charges electric vehicles, predominantly hybrids,
12	but they can charge my Leaf, at a speed that's
13	about ten times slower than what a DC fast charger
14	offers. And so as a means of being able
15	to get here, I would have to literally plan hours
16	in advance to get here and actually spend as much
17	time refueling along the way as I would driving to
18	get here, and, in fact, more. Or suffer the
19	inconvenience of having to be towed the rest of the
20	way to this location.
21	Our pilot our pilot is specifically
22	tailored to the long distance driver as a means of
23	enabling the electric ranges of vehicles like my
24	Leaf so that drivers on those traveled corridors,
25	can get in, pay a reasonable non-volatile price for

1 that fuel and get back on the road as guickly as possible. 2 3 0 Let's assume just for purposes of a 4 hypothetical here that there was a fast charger at, 5 say, Kingdom City, that exit there. If -- if you 6 pulled in there with your Leaf and used one of the 7 fast chargers, how much time would you spend 8 getting that re -- regenerated or battery filled or 9 whatever you want to call it or --10 Α I need to make sure I can -- I can get there first. 11 12 0 Okay. 13 I'm just doing some math in my head. I --Α 14 I believe I would be able to get to Kingdom City 15 with my -- with my Leaf. I would look -- what --16 all I would have to travel from Kingdom City to get 17 here is another 25 or 30 miles. 18 If I chose just to restore that much range 19 in my Leaf, I would be sitting at DC fast charger 20 in Kingdom City for about 10 to 15 minutes. If I 21 chose to fill my tank, which would be virtually 2.2 depleted by the time I got to Kingdom City, the 23 fast charger would take about 30 to 35 minutes to 24 -- to refuel. 25 So even with we -- even with fast

1	charging, I would have to plan for up to a
2	half-hour, perhaps a little more, as I determine
3	when to leave to get here in a timely fashion. But
4	it is a far cry better than if I had to rely on the
5	slower Level 2 AC charger.
6	And, again, the our service territory,
7	the westernmost location of any DC fast charger
8	that I would have at my disposal is Wentzville.
9	The next fast charger along I-70 to the west that I
10	would be able to use on I-70 is 190 miles away.
11	Q And if I understand your testimony in your
12	surrebuttal in page 2 at line 12, Ameren's
13	proposing to charge 17 cents per minute for plug in
14	time for direct current fast charging; is that
15	right?
16	A Correct.
17	Q So if it takes 30 minutes for you to use
18	that, that total cost is around \$5; is that right?
19	A Yes.
20	Q Okay.
21	MR. FISCHER: That's all I have. Thank
22	you.
23	JUDGE BUSHMANN: Division of Energy?
24	CROSS-EXAMINATION
25	BY MR. ANTAL.

1 Q Hello, Mr. Nealon. 2 А Hi. 3 0 I've got a few questions for you. The 4 opponents of this pilot program have raised an 5 issue about the lack of a time of use proposal; is 6 that correct? 7 Α Yes. And you -- you had reason to address that 8 0 9 -- those concerns in your testimony? 10 Α Yeah. I addressed the issue in testimony. 11 Yes. 12 Okay. Along those lines, is it your 0 13 testimony that, even with this pilot program, that 14 the vast majority of charging will still occur at 15 home? Yes. The -- no degree of home charging 16 Α 17 will be affected by the fact that an electric vehicle can now, in addition to driving 18 19 parochially, travel long distance. 20 Okay. And are you generally familiar with 0 21 Ameren's residential tariffs? 2.2 Generally. А 23 All right. Is it your understanding that 0 24 Ameren Missouri currently has a time of use 25 residential rate?

1	A It is true. But it's a summer only rate,
2	to my understanding.
3	Q Okay. But even with this existing minor
4	time to you know, limited time of use rate,
5	residential customers, at least during the summer,
6	could take advantage of at home charging on a time
7	of use basis?
8	A Yes, they could.
9	MR. ANTAL: Okay. Thank you very much.
10	JUDGE BUSHMANN: NRDC?
11	MR. ROBERTSON: No questions.
12	JUDGE BUSHMANN: Sierra Club?
13	MR. HALSO: No questions, your Honor.
14	JUDGE BUSHMANN: Public Counsel?
15	MS. SHEMWELL: Thank you.
16	CROSS-EXAMINATION
17	BY MS. SHEMWELL:
18	Q Good morning, Mr. Nealon. I'm Lera
19	Shemwell.
20	A Good morning.
21	Q Mr. Nealon, I was of the impression Ameren
22	was proposing six charging stations, and here you
23	testified 12.
24	A I was asked how many DC fast chargers
25	would be installed. And, indeed, the number is 12.

1	What we're installing six of or what we're
2	referring to as charging islands, each island
3	includes two DC fast chargers and a single Level 2
4	AC chargers that has two plugs that's allowing
5	Q Thank you?
6	A allowing two hybrid cars.
7	Q Thank you. Your testimony on page 6, you
8	indicate, Worry-free long distance driving will
9	only occur with batteries of
10	A Is it direct?
11	Q Page 6 of direct.
12	A Okay.
13	Q I think you're probably oh, worry-free
14	long distance driving will occur with 200 and 300
15	mile battery ranges. And you consider that a
16	breakthrough; is that correct?
17	A Yes.
18	Q And it's happened recently with the Chevy
19	Bolt? That's B-o-l-t.
20	A B-o-l-t. Correct. But the Bolt does not
21	qualify for this breakthrough. Its range is only
22	just above 200 miles.
23	Q About 238, correct?
24	A Yeah.
25	Q And but it is falling within the price

1 vehicle range that you had mentioned somewhere in the \$30,000 range with incentives? 2 3 Α It is. And you could, in fact, in a Chevy Bolt 4 0 5 drive to Jeff City easily with that range? А 6 Yes. 7 From -- from St. Louis. I'm sorry. 0 From St. Louis. I was referring to you in your Leaf. 8 9 From St. Louis to Jeff City? А 10 Yes. 0 11 Α Yes. That's correct. It could get there. 12 It just couldn't get back. 13 0 But it could get back with a single charge 14 opposed to multiple charges? 15 Yes. А 16 0 A single? 17 А Yes. 18 0 You -- you stated the time to charge on 19 the AC, I believe, as three hours in your 20 testimony. I don't remember the exacts -- yes. 21 Page 18, Level 2 AC? 2.2 Yeah. Yeah. That was based on having to Α 23 recover roughly 40 miles of electric range. 24 0 And that's roughly the electric range that 25 most current Ameren EV owners have, the cars

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1 home? That they -- yeah. The vast majority. 2 Α 3 Yes. 4 0 And they're both safe and convenient to 5 charge at home? It is. 6 А 7 You, I think, have described adequately 0 that it really is not reasonable for an EV owner 8 9 with a 40-mile battery range to plan to drive to 10 Jeff City and charge with a Level 1 charger. It 11 would add six hours, essentially, to their trip? 12 They could just as easily continue under Α gasoline power to get the rest of the way to 13 14 Jefferson City. 15 You discussed about mimicking a liquid 0 16 charging experience, that that was a goal. 17 А Yes. To the effect that the magnetic card swipe, which we're all familiar with, will be a 18 19 feature on our stations. Was that only a reference to mimicking the 20 0 21 gas station experience is only with the charging? 2.2 Primarily. It's certainly not as fast as Α 23 liquid fueling is. 24 0 And these are unattended locations, right? 25 The locations you choose will not have an

1	attendant?
2	A Not a fueling attendant, no.
3	Q Will they have a surveillance camera?
4	A No.
5	Q Have you you haven't you mentioned
6	that you haven't chosen the location. I think
7	Boonville has been chosen; is that right?
8	A We've chosen the communities. And we're
9	in discussions with a number property owners now.
10	But I have no firm agreements yet with any of those
11	sites.
12	Q Your actual charging location, you will
13	not have an attendant there to assure safe use of
14	the fueling equipment?
15	A There will be no attendant.
16	Q Or to ensure compliance with safety rules,
17	no smoking, turn off vehicle?
18	A There will be no attendant there to do any
19	of those things.
20	Q Or to buy a fire extinguisher or anything
21	else?
22	A No.
23	Q There's also not access to food and
24	healthy snacks, other beverages, doughnut, coffee
25	or anything like that?

1 MS. JOHNSON: I have to object with regard to relevance on that. It's a charging station and 2 3 not a vending machine. 4 JUDGE BUSHMANN: Overruled. You may 5 answer the question, sir. 6 Α We've deliberately chosen the particular 7 potential sites that we have on the base of there 8 being a number of amenities and conveniences in the 9 immediate area that the drivers and their occupants 10 could occupy their time with. 11 Q (By Ms. Shemwell) And how close are those 12 to I-70? 13 Ranging anywhere from a quarter of a mile Α 14 to three miles away. 15 The areas you've chosen, do you know how 0 16 many EV owners are there located within the 17 communities that you've chosen? We haven't 18 mentioned them specifically, so I can't refer to 19 them specifically. 20 Would you -- would you like to know? Α Ι 21 mean --2.2 Absolutely. Q 23 Yeah. We're planning one in St. Louis Α City, one in St. Charles, one in Warrenton. 24 25 Q As you go through those, can you tell me

1	how many EV owners are in each area?
2	A I can't.
3	Q And another issue, particularly for me,
4	these will not offer rest rooms, the the
5	locations?
6	A The the site host the site host
7	whose property these sit on will have rest rooms.
8	Q And will they be 24-hour operations?
9	A We are deliberately talking to site hosts
10	who offer 24/7 amenities.
11	Q So this has not actually been firmed up
12	today?
13	A No. We have no single agreement with the
14	site host yet.
15	Q I would like to address your monitoring of
16	the safety of the equipment. How would Ameren
17	decide if the equipment had been vandalized? How
18	would you know that the equipment had been
19	vandalized?
20	A The network manager whose services we're
21	purchasing, you know, for for monitoring the
22	health of these of these stations would be
23	would receive a signal to the effect that a
24	charging station has been out of service.
25	They would proceed to go through a a

1	number of investigations remotely to see if
2	something non-physical was the problem. If they
3	could not determine remotely that there's a problem
4	with a vehicle, then we would approach our
5	maintenance partner to go investigate the site
6	physically.
7	Q And how would you notify customers who
8	might be looking forward to charging at that
9	location that it was not operational?
10	A The cell phone applications that I talked
11	about that all EV owners use in to order to also
12	provide information as to whether that charging
13	site is in service or even occupied by another
14	driver.
15	Q So you could immediately notify other
16	drivers of a problem with the charging station
17	through apps if they're using their apps?
18	A We would not be providing that
19	information. The web site app would be would be
20	providing that information to an EV driver who
21	brought the site up.
22	Q What are the other locations? You
23	mentioned three.
24	A West of Warrenton, we have Kingdom City
25	and then Boonville, and then we've also chosen

1	Jefferson City.
2	Q You didn't mention Columbia; is that
3	correct?
4	A That's correct. We don't have service
5	territory in Columbia.
б	Q Oh. What are you expecting the useful
7	life to be of these chargers, charging stations?
8	A We expect them to go 15 years, if not
9	more.
10	Q Is that based on your projection of
11	technology improvements in batteries?
12	A I don't understand the question.
13	Q Might improvements in battery range render
14	these stations obsolete?
15	A No. Not in a long distance setting. No.
16	Q You think these never mind. On page
17	23, how did you arrive at the conclusion that
18	Ameren's stations alone would induce 7,000
19	additional EV purchasers by 2031?
20	A First, we felt that if we built a long
21	distance corridor and truly enabled the electric
22	range that's inherent in electric vehicles today
23	and those in the future that will offer 200 miles
24	or more, we felt as though with that enablement,
25	that we would see EV adoption in the same snubs as

1	Missouri consumers showed us they adopted hybrid
2	electric vehicles when they first appeared on the
3	scene in the year 2000.
4	Q So let me say that comparing hybrid to
5	electric vehicles is not apples to apples. Hybrids
6	can charge and do charge at gasoline stations.
7	A The similarity is that we have in the
8	adoption of hybrid electric vehicles real consumer
9	data from real consumers regarding a new vehicle
10	technology that is about the most realistic
11	Missouri adoption of rates that we could fashion
12	and be confident that we were close to.
13	Q How have you communicated the availability
14	of these vehicles to EV dealerships?
15	A Communicated what to dealerships?
16	Q Well, if you're going to promote EV
17	adoption, that means purchase of EVs, correct?
18	A Uh-huh. Yes.
19	Q So to promote EV adoption, the dealer has
20	to tell the consumer something that interests them
21	in buying an EV, right?
22	A Yes.
23	Q And would you agree with me that the cost
24	of fuel might be an important issue?
25	A Absolutely.

1	Q You discussed time of use rates. If a
2	customer understood that they could save on their
3	electric bill substantially by charging at night,
4	do you think that would be important to their
5	decision to buy an electric vehicle?
6	A No.
7	Q Reducing their electric rate would not be
8	important to their decision to purchase?
9	A Not relative to the savings that would
10	certainly incent them when it comes to comparing
11	the cost of fueling with gasoline and making that
12	change to fueling with electricity, to say nothing
13	of the annual maintenance savings associated with
14	the vehicle, too.
15	Those levels of savings make what could be
16	saved by adopting a time of use rate, which is a
17	home charging consideration, not a long distance
18	charging consideration. The savings going from
19	gasoline to electricity and in annual maintenance,
20	those savings pale to in comparison to what an EV
21	owner could save by getting onto a time of use
22	rate.
23	And time of use rates incent those who
24	already own an electric vehicle to change their
25	charging behaviors at home.

1

0

Page 169 Changing charging behaviors at home, however, has benefits to the grid or off peak

2 3 charging? 4 Α Yes. 5 Benefit to all other customers for off 0 6 peak charging. Just a load building activity. 7 Increases electric use in the home. And you can increase that use during non-peak times, which 8 9 benefits shareholders? 10 А (Witness nods.) 11 Q You need to answer verbally, please, sir. 12 Yes. That is true. All of that is true. А 13 0 And it could impact environmental concerns 14 by charging during off peak times? 15 I'm not -- I'm not sure how that would Α 16 come about. But --17 Well, if the grid could employ less carbon 0 18 intensive generation facilities during off peak 19 times, that could reduce carbon emissions? 20 А Okay. 21 Is that a yes? Q 2.2 Yes. А 23 Has Ameren discussed with EV car 0 24 dealerships how they would promote EV purchase? 25 А No.

1	Q So you don't know if the difference in
2	fuel cost is one of the considerations that they
3	discuss with customers?
4	A I only know from the experience of
5	employees and Ameren Missouri customers who have
6	told me.
7	Q How many Ameren employees own EVs?
8	A It's over 30 now.
9	Q And those employees charge, typically, at
10	home or at Ameren's parking lot?
11	A Yes.
12	Q Do you think most people understand the
13	components of their Ameren electric bill?
14	A No.
15	Q Do you think implementation of this
16	program will stabilize Ameren's rates?
17	A I don't understand the question.
18	Q Will Ameren's rates stabilize as a result
19	of customers charging at these EV stations?
20	MS. JOHNSON: I would have to object that
21	this goes beyond the scope of his testimony. He's
22	talked about the impact the investment would have
23	on rates. But we're getting a little far afield on
24	how it affects the rates in total.
25	JUDGE BUSHMANN: He can answer if he

1 knows. I'm -- I'm still not comfortable with my 2 Α 3 lack of understanding of the question. 4 (By Ms. Shemwell) We agree that this is a 0 5 load building activity, correct? Yes. Yes. 6 А 7 All EV charging is? 0 A Yes. 8 9 Home, business, wherever? Ameren 0 10 receives --11 А Corridor. 12 0 Thank you. Ameren receives 100 percent of 13 the revenues from that charging activity? 14 А Yes. 15 Either at home or away from home? 0 16 А Yes. 17 Will installation of these stations help 0 stabilize Ameren's rates? 18 19 А Installation of these stations will help 20 apply downward pressure of rates for all utility 21 customers. 2.2 Can you estimate that downward pressure? Q 23 Yes. We -- in fact, we did. А 24 Okay. Thank you. You estimated two uses Q 25 per day per charging station, right?

1 А In the first year. 2 0 Okay. And talking about learning 3 opportunities to Ameren, you were not suggesting 4 that Ameren lacks expertise on getting easements or 5 rights-of-way? А 6 No. 7 In a couple of places, you -- you used the 0 term -- like at the bottom of page 3, This is a 8 9 pilot program for fueling electric vehicles, 10 correct? 11 А Yes. 12 And you talked about electric fueling 0 13 charges, page 5? 14 A What line? 15 0 17. 16 А Yes. 17 You agree with me that Ameren's generation 0 18 portfolio is about 95 percent fossil fuel based? 19 Α I know it's a majority. I don't know what 20 the percentage is. 21 Has Ameren specified the data it intends 0 2.2 to collect from anything it might learn from these 23 charging stations? 24 We wrote data specifications into the RFP А 25 that we wrote. And those were satisfied.

1 0 You're saying the RFP requires your 2 provider to give you certain data? 3 Α Yes. We -- we indicated in the RFP that 4 we wanted particular data that would provide us 5 insight on the traffic on the plugs and -- and --6 and other things. 7 Thank you. You anticipate that 0 installation of these charging stations would 8 permit Ameren to retire the fossil fuel plants 9 10 during the next ten years? 11 Α No. 12 0 If you are successful in reaching the 13 \$7,000 EV adoption -- I believe it was ten years; 14 is that right? Ten years? 15 7,000 cars. Α 16 7,000 cars within the ten years? 0 17 15. 15 years. А 18 0 What would be the effects on reduction of 19 carbon emissions in Ameren's territory? 20 There would be a net decrease in -- in --Α 21 the region's carbon footprints. No reduction in 2.2 our emissions. 23 0 And we agree that EVs themselves do not 24 emit any carbon? 25 А Battery electric vehicles do not.

```
Battery electric vehicles. What did I
1
         0
 2
     say? Electric vehicles?
 3
             Plug in hybrid electric vehicles emit
         Α
 4
     carbon.
 5
         0
            Okay. I was --
6
         А
             Battery electric vehicles do not.
7
             Okay. I misspoke. Thank you. Do you
         0
     agree with the figure that there are only about
8
9
     half a million electric vehicles in the United
10
     States today?
11
         А
             It's over 550,000. But yes, that's close.
12
             I have the figure 530,000 in the entire
         0
13
     United States today?
14
         А
             That's very close.
15
             I think it was Noah Garcia that indicated
         0
16
     in his testimony that customers purchased
17
     17 million new vehicles last year. That may have
18
     been 2015. Do you agree with that?
19
             I -- I don't know what the number is.
         А
20
             Okay. Do you question that that might be
         0
21
     the number?
2.2
         А
             No.
23
         0
             I need just a moment, please. If I might
24
     just look through my notes for just a second,
25
     please. Mr. Nealon, are you considering buying a
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1
     Bolt just to --
             I was until I bought a Leaf.
 2
         Α
 3
             How long a life, useful life, does the
         0
 4
     Leaf have? How long will the battery last is my
 5
     question.
 6
         А
           It's warrantied for eight years and
 7
     100,000 miles. At least that long.
             And if you're driving anywhere besides the
 8
         0
 9
     I-70 corridor, will you be able to find DC fast
10
     charging along any of the other corridors that lead
11
     out of St. Louis?
12
         А
             No.
13
         0
             Are you able today to know the charging
14
     habits of your current EV customers, what time of
15
     day they charge, how long?
16
         А
             No.
17
             MS. SHEMWELL: I think that's all I have.
18
     Thank you.
19
             JUDGE BUSHMANN: Questions by
     Commissioners?
20
             CHAIRMAN HALL: A few.
21
2.2
                      CROSS-EXAMINATION
23
     BY CHAIRMAN HALL:
24
         Q Good afternoon.
25
         A Good afternoon.
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1	Q You you indicated in your responses to
2	some questions from Counsel for Charge Point that
3	Ameren did consider the Make Ready system, but
4	chose not to employ that system; is that correct?
5	A Yes.
6	Q Why is that?
7	A Given that we were we are so close
8	well, now we're in 2017. But at the time we made
9	the decision, we knew that we were going to see for
10	the first time battery electric vehicles in the
11	\$30,000 range that offered electric driving ranges
12	of 200 miles or more for th first time ever.
13	What we realized, and the reason this is
14	an urgent matter for us, this is because we think
15	that this is the start, not the end, but the start
16	of a real breakthrough in electric vehicles to the
17	effect that Missouri consumers are going to be
18	thinking about owning an electric vehicle and
19	driving long distance in the same mental sentence
20	for the first time.
21	What a lot of these new owners, these Bolt
22	owners, are going to expect is that that distance
23	is going to be enabled by charging means regardless
24	of whether where they drive, and they're going to
25	be mistaken.

1	There is a severe lack of charging station
2	connectivity and DC fast charging means along
3	Interstate corridors that is that represents a
4	distinct infrastructure gap whether the vehicle
5	barriers to consumer adoption are are going
6	away.
7	And so and so as a result, we didn't
8	want to take the time to find customers along I-70
9	who were willing to spend up to \$100,000 to own
10	charging stations on on their properties.
11	That's why we figured it would be far
12	faster and this infrastructure gap would be closed,
13	at least on I-70, far quicker if we assumed the
14	ownership operation and maintenance responsibility
15	of those items ourselves.
16	Q But isn't that the future? I mean, isn't
17	the future 30 years from now, isn't the future
18	that we're going to see charging stations at gas
19	stations all along I-70? Isn't that what most
20	educated folks believe?
21	A Absolutely, Chairman. Yes.
22	Q Okay. Well, if that is the future, should
23	we not have a strike that. Okay. Tell me if
24	this type of system would work. And I believe it's
25	similar to a Make Ready system, but it's different

1 in certain ways.

2	If we were to eliminate the tariff that
3	prevents sale for resale, then we were to institute
4	a tariff for charging stations that was significant
5	either at cost or even below cost and call it a
6	pilot and then set up a tariff that had some kind
7	of at cost or reduced cost for for connection,
8	and then open it up to the market and say, I'll
9	come, I'll offer, I'll come play, What why would
10	that why would that not work? I guess your
11	answer is that it's a short-term versus long-term
12	issue.
13	A Yes. The future that you speak of
14	actually is beginning right now. And there has
15	been no private sector involvement that has
16	expressed any interest to Ameren about installing a
17	long distance travel corridor charging network in
18	the least.
19	Q But isn't it possible that the private
20	sector might be aware of the same trends that you
21	are and they might realize that there is a niche
22	market and that by offering charging services at
23	your at at a gas station, for example, or a
24	McDonald's along I-70 that that would attract
25	customers and that would solve the infrastructure

1 gap that you've identified in your testimony? That would. I just wonder where those 2 Α 3 players are. 4 Well, hopefully, they're listening. You 0 indicated a number of benefits to -- to ratepayers 5 6 from the -- from the charging systems. And most of 7 them, I believe, are difficult to quantify. 8 But -- but the one that I think can be 9 quantified and -- and you indicated in 10 cross-examination that you have quantified it, and 11 that is the -- the -- the benefit to the grid. Is 12 that -- is that correct? Or did I misunderstand 13 your testimony? 14 А I did. Yes. There are -- there are grid benefits. 15 16 0 And those can be quantified? 17 In -- in terms of -- it would be А difficult, I think? 18 19 Well, are the grid benefits that you're А referring to the benefits associated with -- with 20 21 reliability or smoothing of -- of demand at 2.2 different times or as it gets to the --23 0 Yes. 24 А Yeah. I would say that would be very 25 difficult to -- to quantify. Though we would --

1	I will say in thinking about it some more that we
2	would get an idea of of what the energies and
3	the demands were, you know, based on the traffic
4	that we see at all of those islands as a means of,
5	you know, determining whether or not the degrees to
6	which peaks increase or valleys are are evened
7	out and things of that nature.
8	Q But could you determine a benefit to
9	ratepayers in terms of reduced rate by by
10	increased load?
11	A Yes. We did calculate that.
12	Q Where did you calculate that?
13	A It's in my direct. I'm sorry. I didn't
14	know I was so wordy. Page 26. The 15-year net
15	present value of downward pressure upon rates as a
16	result of pre-conserved adoption increases that we
17	would see by enabling the long distance
18	capabilities in EVs is \$3.63. Line 9, per
19	residential utility customer.
20	The cost of that to utility customers in
21	the first four years is less than a penny per
22	month, per year for the first four years.
23	So a total cost of under 45 cents total
24	per customer in order to garner in that present
25	value 15 year, that value, that's downward

1 pressure of \$3.63. 2 0 Over a -- over a 15-year time period? 3 Yeah. That's a 15-year net present value. А 4 And that's assuming that the six islands 0 5 are -- are constructed and functioning for the --6 for the 15-year time period and no other charging 7 stations are -- are put in place by Ameren? Correct. Yes. 8 Α 9 Do you know, did any other witness for 0 10 another party contest that calculation? 11 А I believe that in OPC's rebuttal 12 testimony, I believe that it was alleged that it 13 would be very difficult to speculate on the 14 increased adoption that would result from our 15 building this long distance corridor. 16 0 Do you -- do you believe that the -- the price that -- that's contained in the -- in the 17 18 tariff that's at issue here is below cost or above 19 cost? It is above cost. Let me -- sorry to 20 А 21 speak so soon. Are you -- are you talking about is 2.2 that rate similar to -- how does it compare to an 23 existing residential rate per kilowatt hour? Is that what you're asking? 24 25 0 No. And it's my fault. That was a poorly

1	worded question. In terms of the cost to to
2	produce an offer that that service, how does the
3	price that you would receive from the customer
4	compare? Are you losing money on the on the
5	transaction? Or are you making money on the
6	transaction?
7	A Well, because adoption will continue to
8	increase over the years, in the in the first,
9	again, in the first four years, the the the
10	charge that the fee that the driver will pay
11	results in an under-earning situation. In Year 5,
12	that begins correcting itself. The see-saw goes
13	the other way. And free and clear downward
14	pressure begins then in Year 7.
15	Q How does if if a third party wanted
16	to offerthis service and it would be a competitor
17	of yours, of of Ameren, and are you aware of
18	what its what its cost structure would be
19	generally and whether or not it could offer a price
20	identical to yours and still make money?
21	A We are skeptical that today any private
22	sector player could come in and install these
23	charging stations and expect a quick payback at
24	all.
25	Q I understand that. But I'm speaking

1	specifically about a quick payback at the price
2	that you are seeking. Could they were there
3	is there an economic inventive for any other
4	competitor to come in and seek the same price or
5	offer the service for the same price that you are
6	asking us to to allow?
7	A They would likely not be making money at
8	that price.
9	Q So wouldn't if we approached the tariff
10	that's at issue here, would we not be would that
11	not be an anti-competitive move?
12	A It would not. And and the reason is
13	the thing that will make a private sector's
14	business case in a long distance EV charging
15	service viable is larger volume of electric
16	vehicles relative to what we see today.
17	I think as a result of our building this
18	corridor and hoping to spur that adoption that we
19	are actually advancing the point at which it
20	becomes viable for a private entity to come and do
21	the same thing.
22	Q Well, but I I understand why that is a
23	necessary component of an active, free, competitive
24	environment. I understand why that that demand
25	is a is a necessary component. But isn't

1 isn't there also a necessary component that the 2 price be competitively set? 3 So if a third party was interested and 4 offering this service, but they could not make a 5 profit and be at a competitive with your price, why 6 would they enter the market? 7 They likely wouldn't enter the market at Α the same time that we did. 8 9 Well, and that's why it occurs to me that 0 10 -- that approving the tariff with this price would 11 be anti-competitive. 12 Again, there has -- there has been no --Α 13 there's been no private sector player who has even 14 intimated of an interest in -- in -- in doing this. 15 We submit there is no competition out 16 there. There is no one interested in deploying a 17 long distance charging network. Now, we feel as though on the basis of our 18 19 doing so and -- and having a discernible and 20 positive effect on EV adoption that we can 21 actually, again, advance the date when another 22 private sector, you know, could make this work. The -- the useful life of this equipment 23 0 24 is 15 years, is that correct, the -- the charging 25 station equipment?

1	A Yes.
2	Q Yet what you're proposing here is a
3	three-year pilot program; is that correct?
4	A A three-year study period.
5	Q What happens in Year 4 to to the
б	equipment?
7	A We will just continue to operate it.
8	Q Without a tariff?
9	A I'm not I I don't feel qualified to
10	answer what would be necessary to continue in Year
11	4 with offering the same service.
12	Q I feel compelled just to just to make a
13	a comment which is not really a question. And
14	it's not really even appropriate, but I'm going to
15	do it anyway.
16	And that is, I mean, I am I am somewhat
17	skeptical of how this tariff might fit into a
18	competitive environment for charging stations.
19	Having said that, I very much appreciate
20	Ameren's interest in in in looking at the
21	issue and being interested in it. I think it's
22	forward-looking. I don't know where I'm going to
23	come down on on the appropriateness of of a
24	tariff in this environment.
25	But I just I am I've asked a lot of

1 pointed questions, and I -- I just -- I think it's 2 important to note that I -- I very much appreciate 3 Ameren's interest in looking at this -- this 4 particular type of project. I have no further 5 questions. 6 COMMISSIONER STOLL: No questions. Thank 7 you. 8 CROSS-EXAMINATION 9 BY COMMISSIONER KENNEY: 10 Hello. Q 11 А Нi. 12 Q Who makes a Leaf? 13 Nissan. А 14 Nissan. Nissan Leaf. Well, for full 0 15 disclosure, I have a gas guzzling four-door pickup. 16 But my wife has a 4C Max Hybrid. 17 А Excellent. 18 0 So she balances my carbon footprint. And 19 my daughter ordered a Tesla. I think it gets 20 delivered in 2018. 21 A Very good. What is a plug in hybrid? I've never 2.2 Q 23 heard of a plug in hybrid. 24 A plug in hybrid electric vehicle is a --А 25 is a vehicle that takes both electricity and

1	gasoline as fuel.
2	Ameren has has owned a Chevy Volt for
3	many years since 2010. And the way it operates is
4	that it has a I believe a 16 kilowatt hour
5	battery that allows for a 35 to 40 mile electric
6	range after being fueled electrically.
7	The driver will operate 100 percent of the
8	time under electric propulsion running on electric
9	fuel until the battery is depleted after which the
10	the vehicle throws over automatically to
11	combustion engine gasoline propulsion power, which
12	provides another 300 plus miles of range.
13	It has sold so well because it allows the
14	consumer public to take what I'll call baby steps
15	in in adopting electric transportation
16	technology with the comfort of knowing that it can
17	still travel 400 miles plus with both fuels.
18	Q For my wife's, it's a combination that
19	works in conjunction with one another. And the bat
20	the engine recharges the batteries as she moves.
21	A Yes. Yeah.
22	Q And then it runs?
23	A That is standard on on all plug in
24	hybrids that are battery electric.
25	Q You said standard in all plug in. I

1	thought you just said plug in electric hybrids run
2	all electrical and then they switch over to gas?
3	A Then they switch over to gas, yes.
4	Q Where my wife's does not do that. It goes
5	back and forth. And you can see on the transfer
6	case electric or gas. And you don't plug it in.
7	It just charges recharges the battery system.
8	A So a not a a hybrid electric
9	vehicle.
10	Q It's just a hybrid.
11	A Got it.
12	Q So that's the difference, right?
13	A Yes.
14	Q Okay. In your testimony, I've been trying
15	to the number of vehicles, I believe on page 11
16	of your direct, you mentioned that just the number
17	of electric vehicles in our state from 2011, the
18	percentage of registered vehicles in the state of
19	Missouri that were EV are .18 of 1 percent.
20	So in perspective, that is less than one
21	out of every 500 vehicles that's registered in our
22	state are EV?
23	A Correct.
24	Q And Ameren believes that by 20 what
25	year it's going what's that increase going to

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Page 189
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1 take off? What's Ameren's belief? What time 2 frame? 3 А 37,000 vehicles --4 0 What --5 А -- by 2030. 6 I just -- one out of 500. Less than one 0 7 out of 500 right now. Are we talking five of 500? 8 Ten out of 500? Do you have a percentage? 9 Of -- of what 37,000 is? А 10 Well, what -- what number in -- that .18 0 11 of 1 percent since 2011, how many vehicles is that? 12 Α In Missouri, there are just over 3,000 13 electric vehicles registered in the state of 14 Missouri. 15 So since 2011, registered vehicles, it's a 0 16 little over 3,000? 17 Yes. In Missouri. Just over 2,000 in our А 18 service territory. 19 Since 2011, is that the percentage of Q 20 registered vehicles in the state? 21 .18 percent of new vehicle registration. Α 2.2 so -- so purchases s since 2011. 23 Q Okay. 24 Purchases. А 25 Q And that -- and that number is expected to

1	go from 2000 under 3,000 to what number?
2	A Again, three thousand registered in the
3	state now. We believe by enabling the the
4	electric range capability in these vehicles to be
5	driven long distance indiscriminately that adoption
6	will get as high at 37,000 vehicles compared
7	compared to 3,000 today.
8	Q And what date?
9	A 2030.
10	Q Okay.
11	A Fifteen years.
	-
12	Q So it will be ten fold in 15 years?
13	A Yes.
14	Q Okay. So it will go to still be less
15	than 10 percent of the vehicles on the road?
16	A Oh, yeah. Yes.
17	Q Okay. How many miles your Counsel for
18	KCP&L brought up how many miles does a Leaf get?
19	Like my my range is 450 miles on my truck.
20	What's your range?
21	A The EPA electric range of my 2017 Nissan
22	Leaf is 107 miles.
23	Q Did you why did you buy that vehicle?
24	A Because of the incentives and because my
25	wife had totaled our van our only other vehicle.

1 The truth comes out. 0 Yeah. A couple of weeks before. 2 Α Yeah. 3 So we were in a position where we needed a new 4 vehicle. I was -- I was set on, frankly, looking 5 at the 2017 Chevy Bolt for its 230 or 40 mile 6 range, but, indeed, the Nissan Leaf was what we 7 ended up choosing more out of necessity than -than anything else. But I'm very happy with the 8 9 purchase. 10 0 Did you buy that with the expectation of 11 driving to Jefferson City quite often? 12 Provide we get approval to build charging Α stations along I-70, yes. 13 14 Oh, so this is self-serving. You're in 0 15 charge of this project. 16 Α In part. In part, yes, it is. 17 I mean, but if I had a -- a -- an electric 0 18 EV, I wouldn't be planning on making trips further 19 -- I mean, because I -- I mean, you've got to stop 20 and -- it's just a hassle to stop and charge that 21 long anyway. 2.2 But you did say something, so -- that 23 brought interest to me. When someone plugs into 24 your station, whether they're there for 30 minutes 25 or -- 30 minutes or longer, they're paying by the

1 minute. Once that thing shuts off at 30 minutes or 2 whatever, they're still paying regardless by being 3 plugged in? 4 At the DC fast chargers, yes. А 5 At the DC fast chargers. So they're 0 6 paying for the plug in, not necessarily the 7 electricity? Α Yeah. They're paying for -- for plug in 8 9 time. 10 Just plug in time? Q 11 А Yes. 12 So if they're on that thing for three 0 13 hours, they're paying for three hours of plug in 14 time? 15 That, they are. And we're confident that Α 16 virtually no one will. We're incenting velocity, 17 you know. As soon as a vehicle is done charging at 18 these DC fast chargers, we -- they will, after they 19 swipe their magnetic card, have the option of 20 entering in a cell phone number that will receive a text message when the vehicle has finished charging 21 22 letting them know precisely when charging is done. 23 Now, is that -- is that -- so is there a 0 24 -- is there a maximum amount of time you can charge 25 your vehicle? Like a DC fast charger, you charge

1 it for -- like on your vehicle -- like a Chevy 2 Volt, if they're empty, they could be on there for an hour and a half and get their 230 miles back up, 3 4 right? 5 А Yes. 6 Could they do -- can they do that if they 0 7 wanted to do that, stop at a restaurant, go have lunch and keep it charging for an hour and pick up 8 9 another hour and a half -- or 130 miles worth or 10 140 miles worth? 11 А Yes. That's the idea. Precisely the 12 idea. 13 Q Okay. 14 COMMISSIONER KENNEY: All right. Thank 15 you. 16 CROSS-EXAMINATION 17 BY COMMISSIONER RUPP: 18 0 I just wanted to remind you that you are 19 under oath. So if your wife reads this testimony, 20 will she agree with everything that you said? 21 I just hope she's not watching it on the А 2.2 -- on the Internet. 23 I'm sure -- I'm sure she is. But it's 0 24 like, you know, probably the kids are home from school and they're all huddled around the computer 25

1	monitor. I know that's where mine are.
2	So in the opening statement, the attorney
3	for Staff stated that they believe that like your
4	- Tesla fast charging stations right now are
5	operating illegally in the state. Do you or your
6	company share that opinion?
7	A I am not qualified to say. I don't feel
8	qualified to say being an engineer and not knowing
9	anything about regulatory statutes or legal
10	questions.
11	Q After you're free of your pilot program
12	and you continue to you wish to continue to use
13	this and if you didn't have a tariff under the
14	current frame work of Missouri regulations, would
15	you be operating illegally in the state if you were
16	to continue past those three years without a
17	tariff?
18	A I have no idea. That would be a question
19	for Tom Byrne, who is coming up later.
20	COMMISSIONER RUPP: All right. Yeah.
21	That was all I had.
22	JUDGE BUSHMANN: Commissioner Coleman, do
23	you have any questions?
24	COMMISSIONER COLEMAN: Yes. Thank you.
25	CROSS-EXAMINATION

1	BY MS. COLEMAN:
2	Q Mr. Nealon, you were answering a question
3	earlier about where the six charging stations were.
4	I think that what I heard you mention, six. But I
5	only remember St. Charles, Warrenton and St.
6	Charles. Where what were the other ones?
7	A Heading from east to west, St. Louis City,
8	St. Charles, Warrenton, Kingdom City, Boonville,
9	Q Boonville?
10	A And then one here at Jefferson City.
11	Q Okay. So Commissioner Kenney touched upon
12	some of the questions that I had because you had
13	noted that you were a Leaf owner that was looking
14	at buying a Bolt, but now, of course, had changed
15	your mind because you're okay with what's going on
16	with your Leaf.
17	And my question was going to be that,
18	evidently, when you first bought this Leaf, your
19	intent was strictly to travel around the St. Louis
20	area? Is that appropriate correct?
21	A Yes. It with 107 miles of range, the
22	Nissan Leaf in the absence of any travel cording
23	or travel corridor charging means, that is, indeed,
24	a commuter vehicle.
25	At home, though with it's it's my

1 wife, and we do have a second car. And I was at the Boonville hearing just a couple of days ago, 2 and I had to ask my wife to -- for permission to 3 4 drive her gasoline car there. 5 COMMISSIONER COLEMAN: All right. Thank you. That's all. 6 7 CROSS-EXAMINATION 8 BY COMMISSIONER KENNEY: 9 I do want to follow up -- excuse me, 0 10 Judge. Thank you. I did want to follow up. I did 11 have one follow-up. Have you -- since going to 12 Boonville, halfway to Kansas City, have you 13 discussed anything with any other utilities about 14 continuing this -- this charging network? 15 Yes. Yes, indeed. There are about 90 Α 16 miles of I-70 west of Blackwater that are not in our service territory, so we have been in the 17 18 discussions with K C P&L about the prospect of 19 finish -- finishing what we're trying to start. 20 0 Because I think they go as far as -- right 21 now as far as Blue Springs with a fast charger --2.2 Yes. А 23 0 -- if I recall right? Yes. In the -- in the western part of the 24 А 25 state, the easternmost fast charger is in Blue

1 Springs. And in our service territory in the eastern part, the furthest west is Wentzville. 2 3 And I'm glad you were at that hearing in 0 4 Boonville because that Commissioner that was there, 5 one of the things he mentioned at that local public 6 hearing that he was looking forward to that 7 electrical transport station. Yes. Yes. That was exactly what he was 8 А 9 referring to. 10 Q A transport station. 11 А Dr. Dan. Yeah. 12 I didn't know if we were talking Back to 0 13 the Future or what. 14 He was referring to the charging island Α that we're -- that we would like to -- to install 15 16 in the City of Boonville. 17 JUDGE BUSHMANN: Okay. 18 COMMISSIONER KENNEY: Thank you, Judge. 19 JUDGE BUSHMANN: Recross based on Bench 20 questions? Commission Staff? 21 MS. PAYNE: No questions, your Honor. 2.2 JUDGE BUSHMANN: Charge Point. 23 RECROSS EXAMINATION 24 BY MR. COMLEY: 25 Q You have a Leaf Nissan; is that correct?

1	A Yes.
2	Q Would you have privileges at Nissan
3	dealerships in St. Louis to go and have fast charge
4	services at those Nissan dealerships because you
5	own a Nissan?
6	A Yes. In fact, I've done so already.
7	Q How many Nissan dealership are within, I'd
8	say, a 50 mile range of of St. Louis Center? Do
9	you know?
10	A I don't.
11	Q Do you know Bommarito Nissan?
12	A Bommarito Nissan West County is my dealer.
13	Q And and you can go there and get fast
14	charging; is that correct?
15	A Yes. And I have already.
16	Q And that's located in Ballwin; is that
17	correct?
18	A Yes.
19	Q Have you ever been to St. Charles Nissan
20	in St. Peters?
21	A No.
22	Q But do you have privileges at a Nissan
23	dealership if it was in St. Charles?
24	A I don't know.
25	MR. COMLEY: That's all.

1 JUDGE BUSHMANN: Consumers Council? Kansas City Power & Light? 2 3 MR. FISCHER: Just briefly. 4 RECROSS EXAMINATION 5 BY MR. FISCHER: 6 0 In answer to Commissioner Kenney's 7 question, you mentioned that there were incentives related to the Leaf. Are you familiar with the 8 9 substantial incentives related to the Leaf from the 10 manufacturer and, also, Federal tax credits? 11 А Yes. 12 Would you explain to the Commissioner what 0 13 those incentives are like, relatively speaking? 14 А The -- the federal tax? 15 And, also, the rebates that you might 0 16 receive from the manufacturer on a Leaf. 17 Okay. Well, there are no rebates that I Α 18 took advantage of with regard to the Leaf from --19 from Nissan. However, Nissan, through March 31st 20 of this year, is offering \$10,000 off of the MSRP 21 for its 2017 model to all Ameren Missouri employees 2.2 and customers. 23 As fate would have it, I -- I heard about this \$10,000 on the day that my wife had her 24 25 accident and -- and we totaled our van. So for me,

EVIDENTIARY HEARING - Vol. II 1/12/2017

1	it was an extremely timely thing.
2	So \$10,000 off MSRP for any Ameren
3	customer. The Federal Government offers a \$7,500
4	Federal tax credit based on the size of the
5	propulsion battery of both plug in hybrid electric
6	vehicles and and battery electric vehicles.
7	So that alone was represented about a
8	\$17,500 incentive between those between those
9	two things.
10	And and, again, all Ameren customers
11	are can take advantage of that for the 2017
12	Nissan Leaf through March 31st.
13	Q So after those incentives and tax rebates,
14	what would typically be the cost of a Leaf today?
15	A With 17,500 taken off?
16	Q Yes.
17	A About \$17,000.
18	MR. FISCHER: Thank you.
19	JUDGE BUSHMANN: Division of Energy.
20	MR. ANTAL: No questions. Thank you.
21	JUDGE BUSHMANN: NRDC?
22	MR. ROBERTSON: No questions.
23	JUDGE BUSHMANN: Sierra Club?
24	MR. HALSO: No questions.
25	JUDGE BUSHMANN: Public Counsel?

EVIDENTIARY HEARING - Vol. II 1/12/2017

1	MS. SHEMWELL: Thank you.
2	RECROSS EXAMINATION
3	BY MS. SHEMWELL:
4	Q Do you know how many people have taken
5	advantage and purchased a new Leaf as a result of
6	the incentives?
7	A No.
8	Q We've agreed that most customers charge at
9	home?
10	A Yes.
11	Q The Chairman was asking you about the
12	benefits to the grid that might result from the
13	installation of these charging stations. Would you
14	also agree that time of use rates provide benefits
15	to the grid?
16	Let me let me rephrase. Effective time
17	of use rates that encourage off peak charging
18	provide benefits for the grid?
19	A Yes, they do.
20	Q Time of use rates that encourage off peak
21	charging of, let's say, not only EVs, but electric
22	use in general would be considered forward looking?
23	A Yes.
24	Q Increased load during off peak hours is
25	one of those grid benefits?

1	A Yes.
2	Q Reduction in peak pricing would be a grid
3	benefit? Peak usage would be a grid benefit?
4	A A time of use rate would likely decrease
5	peak usage.
б	Q Thank you. And that would decrease the
7	possibility of price hikes during peak times?
8	A Well, we don't change our price during
9	during high peak times.
10	Q Does that increase the grid?
11	A I don't know.
12	Q The benefit of it to increase load is
13	almost entirely dependent on home charging?
14	A Say it again. I'm sorry.
15	Q The benefit of increased load is almost
16	entirely dependent on home charging?
17	A Yes.
18	Q We're making an assumption here I think
19	this is in response to one of Commissioner Hall's
20	questions that EV adoption will occur; is that
21	right?
22	A It will occur by itself with an added
23	component if we build our charging corridors as
24	well, yes.
25	Q And the added component could also be a

1	very attractive time of use rate?
2	A I don't understand the question.
3	Q Adoption will increase, we're assuming,
4	with your charging station. We could also assume
5	that it would increase if customers could lower
6	their electric bills by charging during off peak
7	times?
8	A Yes.
9	Q In other words, a fuel cost decrease is
10	what I'm trying to get at. That's okay. I'll
11	strike that.
12	So Commissioner Kenney mentioned his
13	daughter, I believe, has bought a new Tesla. Do
14	you know the average or the battery life of the
15	new Teslas?
16	A No.
17	Q He mentioned that his wife drives a
18	vehicle that never needs a charging station. Do
19	you remember that comment and discussion?
20	A Oh, because she has a hybrid electric
21	vehicle as opposed to a plug in?
22	Q Right.
23	A Yes. Okay. Yes.
24	Q We can't sit here and predict whether or
25	not that will be the choice of the future as

1 opposed to a plug in electric. We can't know? 2 The question --Α 3 I'm saying we can't know. We can't really 0 speculate that EV battery charging -- charged 4 5 vehicles might be more attractive to customers than one that doesn't require a plug in? 6 7 It -- it would be difficult to tell. Α Your 107 mile Leaf battery is not typical 8 0 9 of the EVs that Ameren customers currently drive, 10 the battery life in those vehicles, right? 11 Α It is typical for any Leaf owner. 12 0 But other EV owners probably have a 40-mile battery life? 13 14 Plug in hybrid electric vehicle owners А 15 have closer to a 40 -- 40 mile or -- or even less 16 driving range. 17 0 And just a quick point I would like to 18 distinguish between the Chevy Volt, which has about 19 a 40-mile range and the new Bolt, which has just 20 come out this year, right? 21 Α Yes. 2.2 That has an estimated 230 mile battery Q 23 life range? 24 Α Yes. 25 MS. SHEMWELL: That's all I have. Thank

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Page 205
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1 you. 2 JUDGE BUSHMANN: Redirect by Ameren 3 Missouri? 4 MS. JOHNSON: Thank you. 5 REDIRECT EXAMINATION BY MS. JOHNSON: 6 7 I just want to -- I have a few questions. 0 8 One thing I wanted to follow up on was the 9 difference between the Volt and the Bolt. Just so 10 we're absolutely clear, which one starts with a V 11 and which one starts with a B? Like V as in Victor 12 and B as in Bob. Can you describe them and what 13 the equivalent mileage is for those? 14 The Chevy Volt, which was introduced to А 15 the market in -- in 2010 is considered a plug in 16 hybrid electric vehicle. It fuels with electricity 17 and gas. There's an initial electric range of roughly 35 miles, after which there is a gasoline 18 19 powered range of 350 miles or so thereafter. Ιt 20 requires fueling with both gasoline and 21 electricity. 2.2 The Chevy Bolt is Chevrolet's first mass 23 market battery electric vehicle which fuels only with electricity and, remarkably, is -- is offering 24 for the -- for the first time a 230 to 240 mile 25

1	range at a cost point in the mid 30,000s.
2	Q Okay. Thank you. I just wanted to make
3	sure that that was clarified for the record. I
4	want to ask why there was some discussion regarding
5	the potential need to replace the stations as new
б	technologies have developed. Do you really
7	consider this a concern?
8	A Not at all. The reason I don't is is a
9	couple of reasons. You know, these charging
10	stations are are relatively simple devices that
11	we've had them installed at at our at various
12	work locations since 2011 and have never had
13	problems to speak of.
14	In fact, they're Charge Point units, and
15	they're outstanding. They're outstanding pieces
16	of hardware.
17	The other the other reason that I don't
18	think there's really a concern is because the plugs
19	that we're offering between the DC fast chargers
20	and these much slower Level 2 AC chargers are
21	are industry standard plugs.
22	What the vehicle industry did right before
23	electric vehicles came out is they standardized on
24	on a discreet number of plugs that would remain
25	in existence for years and years and years. We are

-	
1	offering every possible plug associated with every
2	commercially available vehicle in the United States
3	with each one of these charging islands in the
4	interest of offering a truly public service in a
5	long distance setting.
6	We expect that we know that all
7	vehicles up until now and the electric vehicles
8	that are produced years from now will all be able
9	to use these charging islands lands for for at
10	least 15 years. We're very, very confident in
11	that.
12	Q Thank you. Kind of going, also, to the
13	questioning regarding time of use rates, why do you
14	feel that that is not really relevant to Ameren
15	Ni
	Missouri's proposal?
16	A The idea in the application of time of use
16	A The idea in the application of time of use
16 17	A The idea in the application of time of use rates is a responsible thing to do. But it is a
16 17 18	A The idea in the application of time of use rates is a responsible thing to do. But it is a home charging concern. Totally out of scope with
16 17 18 19	A The idea in the application of time of use rates is a responsible thing to do. But it is a home charging concern. Totally out of scope with what we're proposing in the long distance corridor
16 17 18 19 20	A The idea in the application of time of use rates is a responsible thing to do. But it is a home charging concern. Totally out of scope with what we're proposing in the long distance corridor setting.
16 17 18 19 20 21	A The idea in the application of time of use rates is a responsible thing to do. But it is a home charging concern. Totally out of scope with what we're proposing in the long distance corridor setting. Long distance drivers traveling on the
16 17 18 19 20 21 22	A The idea in the application of time of use rates is a responsible thing to do. But it is a home charging concern. Totally out of scope with what we're proposing in the long distance corridor setting. Long distance drivers traveling on the Interstate are not going to concern themselves with
16 17 18 19 20 21 22 23	A The idea in the application of time of use rates is a responsible thing to do. But it is a home charging concern. Totally out of scope with what we're proposing in the long distance corridor setting. Long distance drivers traveling on the Interstate are not going to concern themselves with what time they show up at a at any fueling
16 17 18 19 20 21 22 23 24	A The idea in the application of time of use rates is a responsible thing to do. But it is a home charging concern. Totally out of scope with what we're proposing in the long distance corridor setting. Long distance drivers traveling on the Interstate are not going to concern themselves with what time they show up at a at any fueling station to fuel.

1	with what time they're going to arrive at their
2	destination, wherever it is that they're going.
3	And so it really doesn't make a lot of
4	sense to incorporate in case this is what the
5	design was to incorporate time of use rates in
6	in a long distance corridor charging setting.
7	It just doesn't make a lot of sense. It
8	does make a lot of sense, though, in a home
9	charging setting which really has nothing to do
10	with with this pilot project at all.
11	Q So by that logic, do you think that this
12	pilot would prohibit any examination of use of
13	time of use rates in a different proceeding?
14	A In in no way. No.
15	Q Okay. I also wanted to clarify, earlier,
16	you kind of generally described the characteristics
17	of different locations you were looking at.
18	I would just like to ask you to I'm not
19	sure we got the entire description out. I just
20	wondered if you could describe generally what
21	characteristics we're looking at for these
22	locations?
23	A Yes. Very early on, we got advice,
24	actually, from from Charge Point and a number of
25	of other charging station vendors and the U.S.

Department of Energy that -- to consider locating
 charging facilities the likes of which we're
 proposing.

4 If we're going to stick to travel 5 corridors, like we're insisting, that -- that we situation those in communities. And the reason to 6 7 do so is to provide for a number of amenities with 8 which the driver and their occupants -- and their 9 occupants can -- can occupy themselves with during the period of time that it takes to charge their 10 11 vehicle.

We were -- it was suggested to us to -and so what we considered were parking lots of -of various property owners in this communities that are central to a whole host of -- of shopping and dining and, in some cases, casino amenities.

17 It was suggested that for the sake of 18 public safety that we situate these things in what 19 are already established parking spaces that are 20 well-lit and pedestrian friendly as -- considering 21 the fact that none of these islands would be manned 22 with any type of attendant.

23 Charge Point had recommended to us that we 24 at least engage a number of employees or -- or --25 or workers in the -- in the surrounding amenity

1	locations just to give them the ability to help an
2	EV driver who might have questions on how the
3	charging station operates if they couldn't figure
4	that out from the very driver friendly screen that
5	is instructing them on the face of the charging
6	station equipment.
7	So so situated in communities on in
8	in parking lots that are well-lit and offer a
9	number of possible amenities for the dwell times
10	involved and pedestrian friendly were all were
11	all themes associated with this. And we've taken
12	that advice.
13	Q Thank you. And I I believe I have just
14	one more question because I'm hearing stomachs
15	rumbling. So unless someone corrects me, we should
16	be able to finish up shortly.
17	I just want to make sure the record is
18	perfectly clear on one more point. You had
19	discussed some savings that the owners of electric
20	vehicles might realize, some related to time of use
21	rates, others related to gasoline versus electric
22	cost, lower maintenance cost, et cetera. Do you
23	recall that?
24	A Yes.
25	Q And you said that one category of savings

1 would dwarf the other. Which category of savings 2 dwarves the other just so that we're absolutely 3 clear? 4 А The annual maintenance cost and the cost 5 associated with fueling with electricity, which are 6 roughly half the cost of fueling with gasoline at 7 \$2 a gallon will dwarf the savings associated with any EV owner who goes onto a time of use rate and 8 9 changes his or her charging behavior at home. MS. JOHNSON: I have nothing further. 10 11 Thank you. 12 JUDGE BUSHMANN: Thank you, Mr. Nealon. You may step down now. Your testimony is 13 completed. Why don't we take a break for lunch? 14 15 In the interest of trying to speed this hearing 16 along, why don't we take a slightly shortened break 17 for 45 minutes, and we'll be in recess until 1:45. 18 (Break in proceedings.) 19 JUDGE BUSHMANN: All right. Let's go back 20 on the record. And we're ready for the next Ameren 21 Missouri witness. 22 MR. MITTEN: Ameren Missouri calls Thomas 23 M. Byrne to the stand, please. 24 THOMAS BYRNE, 25 being first duly sworn to testify the truth, the whole

truth, and nothing but the truth, testified as follows: 1 2 DIRECT EXAMINATION BY MR. MITTEN: 3 4 JUDGE BUSHMANN: Please be seated. MR. MITTEN: Your Honor, I have no 5 6 objection to Mr. Byrne's testimony going in under the strength of his affidavit. 7 8 JUDGE BUSHMANN: Okay. 9 MR. MITTEN: Should I qualify the witness first? 10 JUDGE BUSHMANN: Why don't you go ahead 11 and do that. 12 (By Mr. Mitten) Could you please state 13 Q 14 your name and business address for the record? Sure. Thomas M. Byrne, 1901 Chouteau 15 Α Avenue, St. Louis, Missouri, 63103. 16 17 Mr. Byrne, do you have before you 0 18 pre-filed surrebuttal testimony, which has been 19 marked as Exhibit 3? A Yes, I do. 20 21 Did you prepare that testimony? Q 22 A Yes. 23 Q Are there any changes or corrections you 2.4 need to make at this time? 25 А No.

1 0 If I asked you the questions contained in 2 Exhibit 3, would your answers be the same as appear 3 there? 4 A Yes. 5 Q And are those answers true and correct to 6 the best of your knowledge and belief? 7 Yes. А MR. MITTEN: I have no further questions 8 9 for Mr. Byrne. He's available for cross-examination. And I would ask for the 10 admission into evidence of Exhibit 3. 11 12 JUDGE BUSHMANN: Mr. Comley has no 13 objection. 14 MR. COMLEY: Certainly. You could have 15 done that without doing all that, Russ. 16 JUDGE BUSHMANN: Any objections? Hearing 17 none, Exhibit 3 is received into the record. 18 (Exhibit 3 was offered and admitted into 19 evidence.) JUDGE BUSHMANN: And the first cross would 20 be by Staff. 21 2.2 CROSS-EXAMINATION 23 BY MS. PAYNE: 24 Q Good afternoon, Mr. Byrne. A Good afternoon. 25

1 In your surrebuttal testimony, bottom of 0 2 page 6 and top of page 7 --3 Α Yes. 4 -- there, you state your opposition to 0 5 Staff's position to records things below the line. 6 I wanted to ask you, have you had an opportunity to 7 read Staff's position statement filed in this case? Α 8 Yes. 9 And would you change your response to that 0 10 question based on the evolution of Staff's 11 position? 12 Well, I think we're still opposed to Α 13 Staff's position. I think it's better that the --14 that the costs are above the line. 15 But as I understand the Staff's position, 16 they -- they are -- their position is that revenues 17 should be imputed equal to the cost. And so, 18 effectively, what would happen is the shareholders 19 of Ameren Missouri would pay for the cost of the project when it -- when it was not -- when the 20 revenues weren't sufficient to pay the costs. 21 2.2 But then later, if the revenues became 23 high enough that they were more than the cost, the -- the customers would get the benefit of that --24 25 of that extra money.

1	And so I guess we're opposed to that. We
2	believe that it should be above the line, and we
3	believe that the costs should be included in our
4	revenue requirement immediately.
5	Q So to clarify, you believe that the
6	ratepayers should bear the risk of this beyond the
7	revenues that are recovered from the charging
8	stations?
9	A Yes. We we believe the in the early
10	years when a subsidy is needed, the customers
11	should provide that subsidy, small that it is.
12	And then later on when when the it
13	turns around, they should reap the benefits of the
14	higher revenues.
15	MS. PAYNE: I have no further questions.
16	JUDGE BUSHMANN: Cross by Charge Point?
17	CROSS-EXAMINATION
18	BY MR. COMLEY:
19	Q Mr. Byrne, let me ask you, is it Ameren's
20	position that a car dealership like Bommarito
21	Nissan that owns and operates a fast charging
22	station where, in fact, Mark Nealon has his Nissan
23	Leaf recharged, constitutes an electrical
24	corporation that is subject to the jurisdiction of
25	the Public Service Commission?

1	A No. That's not our position. I
2	understand there's there's some question about
3	how the statutes apply. Different parties have
4	different positions.
5	But Ameren Missouri's position is not now
6	and is not going to be in the future that that
7	that those providers should be regulated.
8	MR. COMLEY: Thank you. That's all my
9	questions.
10	JUDGE BUSHMANN: Consumers Council?
11	KCP&L?
12	MR. FISCHER: No questions.
13	JUDGE BUSHMANN: Division of Energy?
14	MR. ANTAL: No questions.
15	JUDGE BUSHMANN: NRDC?
16	MR. ROBERTSON: No questions.
17	JUDGE BUSHMANN: Sierra Club?
18	MR. HALSO: No questions.
19	JUDGE BUSHMANN: Public Counsel?
20	MS. SHEMWELL: Questions. Thank you.
21	Just an aside, might we get this down, the screen?
22	JUDGE BUSHMANN: I don't have control if
23	that. Mr. Antal, do you have the remote for the
24	screen? Thank you, sir.
25	CROSS-EXAMINATION

1 BY MS. SHEMWELL: 2 0 Mr. Byrne, good afternoon. 3 А Good afternoon. 4 On page 3, you say, The expectation --Q 5 I'm sorry. What page are you on? А 6 Page 3. 0 7 Okay. Α Line 6, The expectation is that once this 8 Q 9 barrier -- with this barrier, you're referring to 10 infrastructure for long distance driving? 11 А Yes. The lack of charging stations for 12 long distance driving. 13 0 Thank you. The adoption rate for EVs, 14 electric vehicles in Ameren Missouri's service 15 territory will increase to the ultimate benefit of 16 all Ameren Missouri's customers, correct? 17 А Yes. 18 0 How many total EVs are there in Missouri 19 today? As I understand it from Mr. Nealon's 20 А 21 testimony, it -- there are 3,000 EVs in Missouri 2.2 today. 23 0 Okay. In Ameren's territory? 24 I believe Mr. Nealon testified there are А 25 2,000 within Ameren's -- Ameren Missouri's service

1	territory.
2	Q When you say that the adoption will
3	increase, by what percentage in 2018?
4	A I don't know off the top of my head.
5	Mr. Nealon provided that information in his
6	testimony. He he provided a curve of that
7	showed year by year what our expectations were.
8	And I believe he was attributing 25
9	percent of the growth to the installation of long
10	distance vehicle charging stations.
11	Q You made a very positive statement here
12	that the adoption will increase. So what hard
13	numbers do you have to show that it will increase
14	in 2018?
15	A Well, by hard numbers, we have we have
16	estimates that are in the record. It's just that
17	I'm not the witness sponsoring those estimates.
18	It's Mr. Nealon.
19	Q And he's using hybrid vehicles as a
20	comparison; is that correct?
21	A Yes. He's his
22	Q That's fine.
23	A Yes.
24	Q Thank you.
25	A Yes, he is.

1	Q When does the ultimate benefit occur?
2	What year will the ultimate benefit occur?
3	A I believe Mr. Nealon's testimony was in
4	Year 5. The first four years, the it would
5	require a subsidy.
6	And then in Year 5, it would turn around
7	and begin to be positive based on his estimates of
8	the adoption rate. And then I think in Year 7, it
9	would become a net positive. And then in of
10	course, by Year 15, it's a pretty significant net
11	positive.
12	Q I have to assume that you're still
13	operating these past your three-year pilot program?
14	A Yes.
15	Q Do you drive an EV?
16	A I do not.
17	Q Did Ameren offer an incentive to employees
18	I don't think I'm going say the dollar amount
19	and I think it's still in existence to purchase an
20	EV?
21	A Yes.
22	Q In fact, 99.96 of Ameren's customers do
23	not currently own EVs?
24	A That's the figure you quoted. And I have
25	no reason to disbelieve it.

1 I got it from Staff, I think. Of the .04 0 2 percent of EV owners, the vast majority charge at 3 home? 4 I -- I quess the only thing I might А disagree is I might think 100 percent of them 5 6 charge at home. But surely, yes, at least the vast 7 majority charge at home. 8 0 Well, do you know that some Ameren EV 9 owners have the opportunity at least to charge at 10 Ameren's, I guess, headquarters? 11 Α Sure. They probably charge at home, too, 12 though, you know. 13 0 Does the adoption rate that you propose on 14 Page 3, does -- is that based upon -- or does that 15 include the fact that these EVs are essentially 16 located in rural locations? 17 I -- I don't know if I'd describe them as А 18 rural locations. We -- we picked communities along 19 I-70, so -- so I don't know that I would describe 20 Boonville as a rural location, you know. 21 Compared to St. Louis, it is at least a --Q 2.2 А Sure. 23 -- much smaller population? Q 24 Sure. That's fair. А 25 Do you agree that the Missouri Public 0

1	Service Commission law is virtually identical to
2	the New York Public Service Commission law, the
3	State of New York's Public Service Commission law
4	in terms of its definitions?
5	A Yeah. I I believe you you correctly
6	stated that back in 1913 when Missouri adopted its
7	Public Service Commission law, it was it was
8	based on the New York law.
9	And they were at the time in 1913, they
10	were virtually identical. I believe that's true.
11	And a lot of other states adopted that same law.
12	Q Thank you.
13	A But but it may have in some ways, it
14	may have changed since then.
15	Q You don't assert that Ameren employees
16	lack expertise in getting easements or
17	rights-of-way?
18	A No, I do not.
19	Q Is it your opinion that infrastructure or
20	lack of infrastructure is a more significant
21	barrier for adoption than the cost of electric
22	vehicles?
23	A Yes. I don't believe the cost of electric
24	vehicles is a barrier at all. I think I think
25	it's a it's a positive. It's a reason people do

adopt electric vehicles is cost of the -- of the 1 fuel. But I think the lack of long distance 2 3 chargers is a -- is a barrier. 4 Well, do you agree with me that the cost 0 5 of Tesla vehicles runs in the \$70,000 plus range? 6 А Yes. 7 Do you think -- what about limited battery 0 8 range? Do you think that's a significant barrier 9 to EV adoption? 10 Α Well, I think it's the other side of the 11 coin of not having long distance charging. So, 12 yes, that's -- it's sort of another way of 13 stating --14 Do you think it's --0 15 -- stating the same problem. А 16 Do you think it's a significant barrier to 0 17 EV adoption? 18 Α Yes. 19 What about low gasoline prices? Is that a 0 20 barrier to EV adoption? 21 А I think it has an impact. Yes. 2.2 Customers, when they pull in to fill up, Q 23 can see the price right there on the sign or on the 24 pump, correct? 25 А Correct. For -- for gasoline you're

1	talking about?
2	Q Gasoline. Yes. Looking at their bill,
3	their Ameren electric bill, customers would have no
4	way of knowing what portion of that bill was for EV
5	charging; is that right?
6	A You mean charging at home, I guess you're
7	talking about?
8	Q Home charging. Yes.
9	A That's correct.
10	Q You testify on page 5, excuse me, about
11	the small investment and the small price.
12	A Yes. Yes, I did.
13	Q Would you agree with me that developing a
14	time of use rate would be or setting rates
15	let me start with setting rates in general is
16	something that is a very common and typical
17	activity for Ameren?
18	A Yes.
19	Q When I'm referring to Ameren, I'm
20	referring to Ameren Missouri.
21	A Yeah. That's how I took it.
22	Q Time of use rates are an issue in your
23	current rate case?
24	A Yes.
25	Q Do you know if there are examples out

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1
     there of other states that have developed time of
 2
     use rates?
 3
         Α
             Yes. I do know that there are.
 4
             On page 7, 12 through 17, you talk about
         0
 5
     Ameren not being a charity.
             Well, actually, I talk about that we
 6
         Α
 7
     contribute to a lot of charities, and those
     charitable contributions are below the line.
 8
 9
             Okay. But you're not willing to sponsor
         0
10
     development of this as a charitable endeavor?
11
         А
             Correct.
12
             So ratepayers will be essentially paying
         0
13
     this charity?
14
         А
             I -- we -- we are -- in the -- in the
15
     early years when -- when the costs exceed the
16
     revenues, we are asking for a subsidy from -- from
17
     the ratepayers.
18
             And we believe it will turn around, as
     Mr. Nealon has testified. But you're correct.
19
                                                      In
20
     the -- in the early years, we're not -- we're not
21
     willing to have our shareholders sponsor the
2.2
     shortfall.
23
         0
             What would the cost be to shareholders per
24
     share?
25
         A I don't know.
```

1	Q Might it be in the one to two cent range?
2	A I don't know. It it might be. I
3	guess and I let me correct an answer. I said
4	we're not willing to have our shareholders sponsor
5	or it.
6	We are willing to have our shareholders
7	sponsor it to the extent there's a delay getting it
8	into rates. So in between the time when we put
9	in between the time when we put the chargers in
10	service and when they eventually are put into rate
11	base, there's a lag. And and the shareholders
12	have to pay that, and we are willing to pay that
13	portion of the project.
14	Q By what date do you expect all chargers to
15	be in place?
16	A I think if we got approval in the next
17	month or two, we could probably get them all in in
18	2017.
19	Q You hedged your answer. You're not
20	certain?
21	A I'm you can't ever be certain, 100
22	percent certain about any construction project.
23	But and I think it's kind of close based on my
24	discussion with Mr. Nealon. But I think we expect
25	we could get them in by the end of 2017.

1	Q It's been established here that there are
2	other providers of charging stations throughout the
3	State. Or in Ameren's territory, let's say. There
4	are other providers?
5	A In some locations in Ameren's service
6	territory, there are. But I guess the reason
7	Q Thank you. Thank you?
8	A Okay.
9	Q Well, and Ameren, in fact, has thousands
10	and thousands of charging stations in people's
11	homes. People plug into an electric outlet to
12	charge in their homes?
13	A Yeah. If if you're defining an
14	electric charging station as an outlet, we've got
15	millions of them, I guess.
16	Q Well, other people may provide charging
17	stations. Only ameren could adopt a time of use
18	rate?
19	A Ameren and other electric utilities.
20	Yeah.
21	Q In your territory, only Ameren can, as an
22	electric company, set a time of use rate?
23	A Yes.
24	Q Would a time of use rate provide an
25	opportunity for Ameren to educate customers about

1	the benefits of off peak charging?
2	A Sure. I guess it would. We we already
3	do have one time of use rate. As Mr. Nealon
4	testified, it's a summer only rate. But but we
5	do we do have an existing time of use rate.
6	Q I'm a long-time Ameren customer. I was
7	completely unaware of that. Now, that may be on
8	me. But or it is on me. But if I don't know
9	about it, I'm going to think others don't know
10	about it. Has Ameren included a bill insert or
11	done any marketing to customers?
12	A We we have communicated it. But but
13	I think probably could communicate it more than we
14	do.
15	Q You agree with me that Ameren is a carbon
16	intensive generation company?
17	A Compared to what? I mean, we do we do
18	there is carbon in our generation, but it's
19	relative, I think.
20	Q They're a fossil fuel intensive generating
21	company?
22	A Yes.
23	Q You have portrayed this in your testimony
24	as a three-year pilot program?
25	A Yes.

1	Q Has Ameren made public comments regarding
2	the future of or its intent regarding the future
3	of EV charging investment beyond this pilot
4	program?
5	A I think I think the point of the pilot
6	is to try to learn some things
7	Q No. Please answer respond to my
8	question. Has Ameren made any public comments
9	regarding its intentions for the future regarding
10	EV charging investment beyond this pilot?
11	A No. Those would depend on what we learn
12	in the pilot.
13	Q Are you are you aware of Ameren
14	Missouri's building a smarter energy grid for the
15	future document?
16	A I I've read a lot of documents. If you
17	have one you'd like me to look at, I'll be glad to
18	look at it.
19	Q It's in EW-2016-0313.
20	A Oh.
21	Q Which was the investigatory docket, I
22	guess, or the working docket?
23	A That was comments on September 23rd from
24	that docket? Is that what you've got?
25	Q I think that's right.

EVIDENTIARY HEARING - Vol. II 1/12/2017

1	A Okay. Yes. I'm aware of those.
2	MS. SHEMWELL: If I may approach?
3	JUDGE BUSHMANN: You don't need to ask me.
4	Q (By Ms. Shemwell) Mr. Byrne, this is from
5	Dr. Marke's testimony. Do you know if that's what
6	Ameren filed in that case?
7	A Yes. I think that's the has an
8	included an excerpt from Ameren Missouri's filing
9	on page 11, lines 17 to 18.
10	Q Do you need to keep that?
11	A No.
12	Q In there, Ameren suggests at least
13	43 million allocated for additional infrastructure
14	investment between 2018 and 2022, correct?
15	A I you took it back. If that's what it
16	says, that's what it says.
17	Q I
18	A Yes. That's correct.
19	Q Thank you. If Ameren makes that
20	investment, do you think it would discourage other
21	competitors from entering the market?
22	A I'm not sure. Mr. Nealon said earlier
23	that that us building charging stations actually
24	might encourage competition. So I I'm not I
25	don't know what effect that would have on

1 competition. 2 Mr. Nealon is not an Economist, is he? 0 А 3 I think he's an engineer. I don't know if 4 he has an Economics degree or not. 5 MS. SHEMWELL: That's all I have. Thank 6 you, Mr. Byrne. 7 JUDGE BUSHMANN: Questions from the Bench? 8 CROSS-EXAMINATION 9 BY CHAIRMAN HALL: 10 Good afternoon. Q 11 A Good afternoon, Mr. Chairman. 12 It's -- it's Ameren's position that it 0 needs a tariff in order to offer this charging 13 14 station service; is that correct? 15 Yes. And -- but part of that is because Α 16 we're proposing a -- a specific rate that has to be 17 tariffed. So -- but --18 0 Well, that actually relates to my 19 follow-up question, which is what would Ameren's 20 position be if -- if the Commission were to 21 determine that a tariff is appropriate but a price 2.2 is not? 23 So -- so under your example, what -- what Α 24 price would we use then? Just what --Q Whatever the free market dictated. 25

1	A I I think the Commission would probably
2	have the power to do that. And and so we would
3	we would live with that if that's what the
4	Commission decided.
5	Q Could could Ameren make that work as a
6	business as part of a business model? I would
7	assume you don't I mean, that would be the best
8	of both worlds. I mean, you would you would be
9	a regulated entity providing regulated service, but
10	you could set the price?
11	A At whatever the market would bear?
12	Q Yeah.
13	A I sitting here off the top of my head,
14	I I don't see any why that would be
15	objectionable necessarily.
16	You know, we can that would include the
17	option, I guess, charging the prices that we have
18	in the tariff. It's only
19	Q Absolutely.
20	A It's only broader than what we've
21	proposed. So thinking about it for ten seconds, it
22	seems it seems like maybe it would work.
23	Q What could Ameren strike that. If
24	if we were to approve the tariff authorizing the
25	company to to offer this service, what could

1 Ameren do going forward that would increase the 2 competition in this area? 3 А Well, I think just -- just offering the long distance charging, as Mr. Nealon said, would 4 5 have the effect of -- of more people buying electric vehicles. 6 7 And I think that's the -- that's the big thing that's holding back private industry from 8 9 building these is not enough electric vehicles out 10 there. So I think that helps competition. 11 Q How about directly with the third party 12 that might -- might offer that competition? If 13 there were companies out there, individual property 14 owners out there that wanted to offer this service 15 and they contacted Ameren and say -- and said, We'd 16 like to offer this service, what could Ameren do to 17 facilitate that? Well, I think we could build facilities up 18 Α 19 to their property that would allow them to -- to provide that service. So that's one thing we could 20 21 do. 2.2 And do you see any reason why Ameren might Q 23 or might not participate in those efforts? 24 Α I think we would participate in those efforts. 25

1	Q Because, I mean, there are there are
2	some some who might say that what Ameren wants
3	is a monopoly on this service. And I'm not sure if
4	I believe that. But what what can you say to
5	disabuse those individuals of those notions?
6	A I mean, we really don't want a monopoly on
7	this. We're not we're not we're certainly
8	not challenging anybody who has any other kind of a
9	charging facility in our service territory saying
10	they need to be regulated or saying they are doing
11	anything illegal.
12	Mr. Nealon said if anybody along I-70
13	asked us to show them where we have the capability
14	of of providing service that would allow them to
15	put in their own charging system, we would we
16	would tell them about that. We really have no
17	desire to to have a monopoly service here.
18	And and I also the other thing is
19	this is a three-year pilot. I think some of those
20	questions we'll learn more about as the pilot goes
21	along and and we can decide what to do after the
22	three years based on based on what we learn.
23	Q Would you would you consider supporting
24	the elimination of the tariff prohibiting sale for
25	resale?

1 А Yes. I'm glad you asked about that. And, you know, I think -- I think you make a good point 2 3 about the sale for resale tariff. 4 We -- when we first put it in -- put it in 5 place, we were thinking it was to prevent people 6 from -- like a subdivision developer from being the 7 -- you know, reselling the power to the houses in the subdivision or an apartment owner reselling and 8 9 metering service to apartments in this complex. We weren't really thinking about -- we 10 11 weren't really thinking about charging stations. Ι 12 don't -- I don't know if it exactly fits under 13 here. 14 Over lunch, we were talking about it. Ιt 15 is resale of service, and, you know, the -- the --16 particularly if you're doing a DC fast charging station, the charge, it gets transformed into a DC 17 18 by the operator. 19 So I don't know. They're not really 20 reselling the same product that we're selling them. 21 But -- but, arguably, this could -- this could 22 apply. And so we would -- so I guess what I would 23 suggest is we would be willing to have a specific exclusion for charging stations so that -- in that 24 tariff. 25

1	Q Would you do you believe that it would
2	be appropriate to establish a specific rate for
3	those that wanted to offer charging station
4	services using electricity supplied by Ameren?
5	A Yes. You certainly could.
6	Q And if that price was set in such a way
7	that that could further invite more competition?
8	A Yes.
9	CHAIRMAN HALL: Okay. I have no further
10	questions. Thank you.
11	COMMISSIONER STOLL: I have no questions,
12	but I appreciate your testimony.
13	MR. BYRNE: Thank you, Commissioner.
14	COMMISSIONER KENNEY: I have a question or
15	two.
16	CROSS-EXAMINATION
17	BY COMMISSIONER KENNEY:
18	Q I know originally when you wanted to
19	pursue this project, it was dealt with some
20	Federal tax credits that expired December 1st, I
21	believe, of 2016?
22	A Yeah. It was the end of the year, 2016.
23	Q Do we have any and that was a 30
24	percent Federal tax credit, correct?
25	A I think it was \$30,000 per location.

EVIDENTIARY HEARING - Vol. II 1/12/2017

1	Q Okay. So that's actually more?
2	A Yeah. It was more.
3	Q So when you put up a location, that's
4	going to have four service ports, correct, two of
5	the fast chargers at 50 watts kilowatts, and two
6	at one and three or six or whatever?
7	A I think it I think at this
8	physically, I think it has three service ports.
9	Q One line has two ports off it?
10	A Yes.
11	Q Three of the six?
12	A Yes.
13	Q So you could have three vehicles at one
14	time?
15	A I think it could have four vehicles at one
16	time because one of the charging stations could
17	have two vehicles plugged into it. That's
18	Q Okay. I understand. Now, so the Feds are
19	offering 30,000. Do you know where we are on that?
20	Have they reenacted that legislation?
21	A It's gone. That's expired.
22	Q It's gone. So that's expired, and you
23	don't expect it to come back?
24	A Correct.
25	Q And the State offers a 20 percent?

1 А Yeah. The State -- and the State amount, it's subject to being funded, you know. So it's 2 3 not --4 Q Was it for the last budget? 5 Yes, it was. But I think there's concern A 6 that -- that there will be a problem in the future. 7 But it still exists. The State budget, they need money lots of 8 0 9 places. 10 А That's right. 11 Q And electric vehicles are probably not 12 high on the list? 13 Α Right. Right. 14 COMMISSIONER KENNEY: Okay. So I think 15 that -- that's all I have. Thank you. 16 A Sure. 17 CROSS-EXAMINATION 18 BY JUDGE BUSHMANN: 19 Mr. Byrne, I have a question from 0 Commissioner Rupp who has asked know ask you on his 20 21 behalf whether you agree with the Staff position 22 that those charging -- third party charging 23 stations such as Tesla that currently exist are in 24 violation of law, and if so, how do you get to that 25 answer?

1 А Well, let me say this. The -- the law is not -- there aren't any court cases on that right 2 now in Missouri, so I don't think the law is 3 4 settled. 5 But I -- I don't believe -- I don't 6 believe they're in violation of the law. I -- a 7 lot of -- a lot of other states -- and, of course -- you know, a lot of states -- the jurisdiction of 8 9 the Commission, a lot of states base their laws on 10 New York. 11 And there are -- there are vehicle 12 charging stations in a lot of other states, and I 13 don't really know of any of them that have 14 certificates if they're not -- you know, other than 15 utilities providing the service, I don't know that 16 any other -- you know, like Charge Point is getting certificates in other states. 17 And so I think for whatever reason -- and 18 19 -- and, you know, the -- the fact that they -- that 20 a non-utility owns the facility has made a difference in the way other states have looked at 21 2.2 this. And I think it can make a difference in the 23 way Missouri looks at this, too. 24 We -- we talk about electric plant, you 25 know, the definition of electric plant. But we

1 have electric plant that if the utility owns it -so, for example, you'd have -- a good example is a 2 3 transformer. 4 So the transformer near the end where we 5 interconnect to the customer. The utility owns it. 6 It's electric plant. It's in our rate base. It's -- it's part of our -- part of our utility 7 business. But if the customer owns it, it's not, 8 9 you know. 10 And same with public lighting. If the 11 electric company owns it, it could be part of the 12 rate base, part of the electric plant. But if a 13 non-utility owns it, it's not. 14 So I think that might be applicable here. 15 I mean the law is not settled. I'll be the first 16 to admit. 17 But -- but in a lot of other states, you find utilities -- when a utility provides a 18 19 service, it's a utility service. It's like 20 electric plant. But when a non-utility provides it, it's not. And I think that probably the best 21 22 way of looking -- interpreting the statutes here. 23 Thank you. On that same point -- and 0 Commissioner -- Chairman Hall mentioned the same 24 25 thing.

1 Now, we're talking about your tariff, and 2 you could ask for a waiver of your tariff. But 3 that only affects you. It doesn't affect any third 4 party? 5 А That's correct. Yeah. 6 So do you know of anything, any statue or 0 7 anywhere that says a third party cannot put up a charging station and sell that -- sell that 8 9 service? 10 Α No. I mean, it -- what -- what the Staff 11 is arguing and maybe --12 I know what Staff's arguing. But I'm just 0 13 asking you. Do you know of any statute or anything 14 that says that a third party can't offer a service 15 and that service includes hooking up to a deal for 16 five bucks and use that cord? 17 No. No. I don't know anything that А 18 prevents that. 19 COMMISSIONER KENNEY: Thank you. 20 JUDGE BUSHMANN: Recross based on Bench 21 questions? Staff? 2.2 MS. PAYNE: Yes. Just a few. 23 RECROSS EXAMINATION 24 BY MS. PAYNE: 25 Q Chairman Hall was asking you about third

1	party competition. Now, currently, electric
2	vehicle ownerships, in this case, I think Nissan is
3	the only one, do offer charge stations for their
4	customers, correct?
5	A Yeah. Nissan does.
6	Q But they don't charge their customers,
7	correct?
8	A I think you go buy a Nissan and you get
9	like a year or two of free charging. And after
10	that, I think they have the right to charge you.
11	But I don't know if they're I think right now
12	they're only just providing free since
13	Q Okay. But they do pay you for the
14	electricity that's used at that charging station,
14 15	electricity that's used at that charging station, correct?
15	correct?
15 16	correct? A Yes, they do.
15 16 17	<pre>correct? A Yes, they do. Q How would Ameren feel if these third party</pre>
15 16 17 18	<pre>correct? A Yes, they do. Q How would Ameren feel if these third party potential stations that we're discussing were to</pre>
15 16 17 18 19	<pre>correct? A Yes, they do. Q How would Ameren feel if these third party potential stations that we're discussing were to supply them with electricity from a source other</pre>
15 16 17 18 19 20	<pre>correct? A Yes, they do. Q How would Ameren feel if these third party potential stations that we're discussing were to supply them with electricity from a source other than Ameren?</pre>
15 16 17 18 19 20 21	<pre>correct? A Yes, they do. Q How would Ameren feel if these third party potential stations that we're discussing were to supply them with electricity from a source other than Ameren? A We probably wouldn't feel very good about</pre>
15 16 17 18 19 20 21 22 23	<pre>correct? A Yes, they do. Q How would Ameren feel if these third party potential stations that we're discussing were to supply them with electricity from a source other than Ameren? A We probably wouldn't feel very good about that.</pre>
15 16 17 18 19 20 21 22 23	<pre>correct? A Yes, they do. Q How would Ameren feel if these third party potential stations that we're discussing were to supply them with electricity from a source other than Ameren? A We probably wouldn't feel very good about that. MS. PAYNE: No further questions. Thank</pre>

EVIDENTIARY HEARING - Vol. II 1/12/2017

1	MR. COMLEY: No questions.
2	JUDGE BUSHMANN: Consumers Council?
3	Kansas City Power & Light?
4	MR. COMLEY: No questions.
5	JUDGE BUSHMANN: Division of Energy?
6	MR. ANTAL: No questions.
7	JUDGE BUSHMAN: NRDC?
8	MR. ROBERTSON: No questions.
9	JUDGE BUSHMANN: Sierra Club?
10	MR. HALSO: No questions.
11	JUDGE BUSHMANN: Public Counsel?
12	MS. SHEMWELL: Thank you.
13	RECROSS EXAMINATION
14	BY MS. SHEMWELL:
15	Q I'm going to do what I encouraged you to
16	do and speak into the microphone, Mr. Byrne. Tesla
17	also offers charging to its customers, correct?
18	A Yes.
19	Q Do you agree with me that Ameren is a
20	monopoly?
21	A Yes.
22	Q You were arguing there is no
23	A Ameren Ameren Missouri is a monopoly.
24	Q Thank you. I'll correct that. I'm
25	speaking about Ameren Missouri here. That's who

1 you're speaking about as well, right? 2 Α Yes. 3 0 And you're arguing that there is no 4 natural monopoly here for charging stations? 5 Α Yes. I'm -- that's true. 6 Would you -- in that line, would you 0 7 consider that there is destructive competition? Α I don't -- I don't think there's 8 9 destructive competition. I'm not even sure I know 10 what destructive competition means. I don't -- I 11 don't know of any. 12 0 Do you know whether Legislatures in other 13 states have written statutes that exclude EV 14 chargers from being electric plant? 15 I think a few other states have, yes. Α 16 0 So it's been the Legislature that's acted, 17 I guess is my question in some states? 18 Α In a few cases, yeah. 19 Can you assure us that there will be no 0 20 cost subsidization from Ameren's operations to this 21 in terms of employees, payroll or which is all --2.2 let's see. Yeah. I'll just stop there. No. I -- you know, I suspect our 23 Α employees are going to work on this. So no. 24 25 MS. SHEMWELL: That's all. Thank you,

1 Mr. Byrne. 2 JUDGE BUSHMANN: Redirect? 3 MR. MITTEN: Thank you, your Honor. REDIRECT EXAMINATION 4 5 BY MR. MITTEN: 6 Mr. Byrne, Chairman Hall asked you some 0 7 questions about the possibility of the Commission approving the pilot project tariff that they've 8 9 filed, but without specifying a rate and, instead, 10 allowing the rate to be set by the marketplace. Do 11 you recall those questions? 12 А Yes. 13 0 Are you aware of any service offered by 14 any electric utility in Missouri that doesn't 15 specify a rate but, instead, allows the charges by 16 the electric utility to be set by the marketplace? 17 Not -- not for electric utilities. А 18 0 You also got some questions, I believe, 19 from Ms. Shemwell about the fact that what Ameren 20 is proposing in this case is a three-year pilot 21 project? 2.2 Yes. Α 23 0 As the company nears the end of that pilot 24 project, what options do you believe the company 25 has at that point?

1	A I think there's a lot of options. I mean,
2	you know, at the end of the pilot program, we would
3	obviously need to come back to the Commission and
4	decide what to do in the future based on what we
5	had learned in the pilot.
6	There's a lot of options. We could
7	continue providing the service at the at the
8	tariffed rates or some other rate.
9	We could we could discontinue the
10	service or we could sell the we could sell the
11	we could sell the charging equipment to an
12	unregulated provider of charging service if that
13	market developed.
14	Really, the the options are pretty
15	limitless. At the end of the at the end of the
16	pilot, we could we could decide to do whatever
17	is dictated by what we've learned during the pilot.
18	Q And if the company decided it wanted to
19	continue the program, would it have to come to the
20	Commission for authority to do that?
21	A Yes.
22	Q Ms. Shemwell also asked you some questions
23	about the number of charging stations available in
24	Ameren Missouri's territory. And she defined
25	charging station for purpose of that question as an

1 electrical outlet. Do you recall those questions? 2 Α Yes. 3 And I think you indicated that there may 0 be millions of those charging stations as Ms. 4 5 Shemwell defined them? 6 А Yes. 7 Are electrical outlets a viable 0 alternative to the charging stations that Ameren 8 9 Missouri is proposing for its pilot project? My limited knowledge of electric --10 Α No. 11 of how charging works, you can charge electric 12 vehicles from a plug, but it just takes a really, 13 really, really, really long time. And, you know, 14 this is -- this long distance charging cord we're 15 talking about is -- has fast charging -- well, the 16 -- you know, fast charging DC chargers, which are 17 extremely fast. And even the Level 2 chargers are a lot faster than an outlet. 18 19 And as a driver is traveling from, say, 0 20 St. Louis to Jefferson City, what outlets would 21 that driver have available to recharge his vehicle? 2.2 I don't know. Maybe there's some outlets. Α 23 You'd probably have to park your car there for a long, long time to get it recharged, though. 24 25 Q Ms. Shemwell also asked you some questions

1	about time of use rates. And, again, assuming a
2	driver wants to make a trip from St. Louis to
3	Jefferson City and wants to get there as quickly as
4	possible, how important do you think it would be to
5	that driver whether or not he was he or she was
6	charging at peak or an off peak time?
7	A I don't think it matters to the driver.
8	
	Q And why is that?
9	A Well, because they're concerned about
10	getting to where they're going to, not getting the
11	very least electric rate. I do think I do think
12	time of use rates are relevant to home charging,
13	you know.
14	Q You also responded to some questions from
15	Staff's Counsel regarding the change in Staff's
16	position from booking the cost of the pilot project
17	below the line as opposed to booking it above the
18	line. Do you recall that?
19	A Yes.
20	Q Are you familiar with the standard for
21	recovering costs in investment for services offered
22	by public utilities?
23	A Yes, I am. And I I do think, you know,
24	in a lot of cases when there are a lot of
25	instances where there are subsidies when a when

1	a utility provides facilities to serve customers.
2	For example, if you build a substation for
3	you know, if there's expansion in west St. Louis
4	County and you build a substation, maybe on the
5	first day that substation goes into service or the
6	first year, you're not recovering the cost of that
7	substation from the people who are served by that
8	substation.
9	But that's that's normal. That's a
10	that's a normal thing that happens in the course of
11	utility regulation. There's all kinds of
12	subsidies, temporary and permanent. A person who
13	lives closest to the generating plant is
14	subsidizing the person that lives further away from
15	the generating plant.
16	So the mere fact that there's a small
17	subsidy here doesn't strike me as anything unusual
18	or anything that's really very different than
19	and a lot of other circumstances in the public
20	utilities provide service to them.
21	Q Using the substation example you just
22	mentioned, assuming in the first few years that the
23	company's costs are much greater than revenues it
24	derives from the customers who were served by that
25	substation, would it be appropriate for the

1 Commission to impute additional revenues so that 2 that loss is eliminated? Not eliminated. Born by the shareholders. 3 Α 4 No. That would not be appropriate. MR. MITTEN: Okay. I don't have any 5 6 further questions. Thank you. 7 JUDGE BUSHMANN: Thank you, Mr. Byrne. 8 You may step down. Ready for the next Ameren 9 Missouri witness. MS. JOHNSON: Thank you. We call for 10 11 Phillip Sheehy. JUDGE BUSHMANN: Please raise your right 12 hand. 13 14 PHILLIP SHEEHY, being first duly sworn to testify the truth, the whole 15 truth, and nothing but the truth, testified as follows: 16 17 DIRECT EXAMINATION BY MS. JOHNSON: 18 19 JUDGE BUSHMANN: Please be seated. 20 MR. SHEEHY: All right. 21 JUDGE BUSHMANN: You may proceed. 22 (By Ms. Johnson) Could you please state Q 23 your full name and business address for the record? 24 My name is Phillip Sheehy. I work at -- I Α just moved. 525 B Street on the 17th floor in San 25

1 Diego, California. 2 0 And on whose behalf are you testifying 3 today? 4 А Ameren Missouri. 5 And are you the same Phillip Sheehy who 0 6 profiled surrebuttal testimony in this case? 7 А I am. Yes. Do you have any corrections or additions 8 0 9 to make to your testimony today? 10 Α No. 11 Q If I were to ask you the same questions 12 that are in your written testimony, would your answers be substantially the same? 13 14 A Yes, they would. 15 Q Thank you. 16 MS. JOHNSON: I would like to move that 17 Mr. Sheehy's surrebuttal testimony labeled as 18 Exhibit 004 be entered into the record. 19 JUDGE BUSHMANN: Any objections to that 20 receipt? Hearing none that, exhibit is received 21 into the record. 2.2 (Exhibit 004 was offered and admitted into 23 evidence.) 24 MS. JOHNSON: Thank you. And I now tender 25 this witness for cross examination.

1 JUDGE BUSHMANN: First cross is by Staff. MS. PAYNE: No questions. 2 3 JUDGE BUSHMANN: Charge Point? CROSS-EXAMINATION 4 5 BY MR. COMLEY: 6 Mr. Sheehy, my name is Mark Comley, and I 0 7 represent Charge Point. I haven't had a change to 8 meet you yet. 9 А Nice to meet you. 10 Or introduce myself. Would you turn to 0 11 page 6 of your surrebuttal, please? On page 6, you 12 talk about multiple jurisdictions across the 13 country struggling with the finer points of 14 promoting EV adoption, correct? 15 I see that. Yes. Α 16 0 You also talk about decision-making in 17 California? 18 Α Yes, I do. 19 Now, I'm gathering you're fairly familiar 0 20 with the proposals that were made in that case? 21 Α I am, yes. 2.2 Let me ask you this question, then. Q Are 23 -- am I right that Ameren's pilot proposal in this 24 case was based in substantial part on the proposal 25 first made by PG&E and Southern California Edison

EVIDENTIARY HEARING - Vol. II 1/12/2017

Page 252

1 in the decision you've referred to in your 2 testimony? 3 Α I -- I don't think so, no. 4 0 You don't know. Is it true that the 5 proposal PG&E made in that was not approved? 6 Α The original proposal? 7 Yes. 0 It was not approved. 8 А No. 9 And if I were to mention the word Make 0 10 Ready to you, would that be a term familiar to you? 11 А It is, yes. 12 Am I correct that the PG&E proposal --0 13 excuse me -- the PG&E proposal that was approved 14 was a Make Ready proposal? 15 It's a -- no. А 16 0 How would you describe it? 17 I would say it's a hybrid approach. А Ιt does have a Make Ready element, but there is a 18 19 component of the decision that allows them to own 20 and operate the equipment. There is portion --21 there is a share. 2.2 How much percentage? Q 23 It's 35 percent. А 24 0 And the remainder is owned by? 25 A It's -- it's open. It's --

EVIDENTIARY HEARING - Vol. II 1/12/2017

Page 253

1 Q So it would be non-utilities? 2 А I -- yes. 3 MR. COMLEY: That's all. Thank you. 4 JUDGE BUSHMANN: Consumers Council? 5 Kansas City Power & Light? б MR. FISCHER: No questions. 7 JUDGE BUSHMANN: Division of Energy? 8 MR. ANTAL: No questions. 9 JUDGE BUSHMANN: NRDC? 10 MR. ROBERTSON: No questions. 11 JUDGE BUSHMANN: Sierra Club? 12 MR. HALSO: Just one, your Honor. 13 CROSS-EXAMINATION BY MR. HALSO: 14 15 Mr. Sheehy, I'm Joe Halso on behalf of the 0 16 Sierra Club. 17 А Nice to meet you. 18 0 On page 6, in addition to mentioning 19 specific gas and electric companies' application 20 decision in California and Southern California 21 Edison. 2.2 A Yes. 23 And you refer to San Diego Gas Electric's 0 24 vehicle integration program; is that right? 25 A Yes.

1 And that program was approved by the 0 Commission? 2 3 А It was. Yes. 4 And the utility San Diego Gas & Electric, 0 5 would they have end-to-end ownership of all the 6 stations to be deployed under that program? 7 They will, yes. Α MR. HALSO: All right. Thank you, 8 9 Mr. Sheehy. 10 JUDGE BUSHMANN: Cross by Public Counsel? 11 CROSS-EXAMINATION BY MS. SHEMWELL: 12 13 0 Dr. Sheehy, I'm Lera Shemwell. Ι 14 represent the Office of the Public Counsel. The 15 San Diego program you were just discussing, that 16 was the result of an Executive Order by Governor 17 Brown? 18 Α No. 19 Governor Brown issued an Executive Order 0 20 that utilities should adopt programs -- specific 21 programs to promote alternative fuel usage? 2.2 I believe that utilities were identified Α 23 as one of the stakeholders that -- to enable -it's called the Zero Mission Vehicle Action Plan. 2.4 25 But it didn't direct them to -- that -- that they

1	must do something. It was seeking their support.
2	Q And, in fact, the California Public
3	Utility Commission's each the three involved
4	each adopted a different plan?
5	A Say that one more time, please.
6	Q Each of the utilities involved recently
7	adopted a different plan?
8	A They proposed a
9	Q Proposed?
10	A They proposed different plans. That's
11	right.
12	Q Thank you. And those plans include
13	alternate fuels other than electric charging, for
14	example, hydrogen?
15	A No, they don't.
16	Q None of the plans included hydrogen?
17	A None of the CPUC-approved investor-owned
18	utility pilot projects include hydrogen.
19	Q Is the State of California pursuing
20	hydrogen as an alternate fuel?
21	A Yes.
22	Q Are you aware of other alternate fuels
23	that they that the State of California that
24	the Government is supporting?
25	A Iam, yes.

```
1
         0
             And would you state what those are,
 2
     please?
 3
         Α
             The State of California has a regulation
 4
     called the Low Carbon Fuel Standard, which -- so
 5
     that -- that promotes fuels that have a carbon
 6
     intensity lower than gasoline or diesel.
 7
             And so that includes alternative fuels
     such as electricity, hydrogen, natural gas from
 8
 9
     various sources, electricity, of course, and bio
     fuels, liquid -- liquid bio fuels.
10
11
         Q
           Such as ethanol? Would that be an
12
     example?
            Ethanol is an example of a low carbon bio
13
         А
14
     fuel. That's right.
15
             Do you agree with the number that they're
         0
16
     about 54 -- let's see -- 54,000 -- 54,000?
17
         А
            It's --
18
         0
             540,000, sorry, EVs in the United States
19
     currently?
20
         А
             That -- yes.
21
             The number of manufacturers of EVs has
         0
2.2
     increased in the last ten years?
23
             Yes.
         А
24
         Q
             EV sales, however, have held steady?
25
            Can you give me a timeline over -- in what
         А
```

1 sense? Have they stayed --2 0 Let's say within the last seven years. 3 Α Oh, they've increased over the last seven 4 years. 5 At what percentage? 0 6 Α It depends on year to year. But, I mean, 7 it went from very small sales in 2010. So that -so very small to significant today. But it's 8 9 around 1 percent of the market today nationally. 10 EVs nationally are about 1 percent? Q 11 А Of new sales. 12 0 Of new sales. Do you agree that most 13 customers don't buy new vehicles? 14 When you -- can you identify customers Α 15 or --16 Potential buyers. Q 17 Just individuals? А 18 Q Uh-huh. 19 Most -- well, there's 300 million people А 20 and only 17 million cars bought per year. So no, 21 most people don't buy new vehicles. 2.2 Do you personally know where along I-70 0 23 Ameren proposes to place these stations? 24 I know the cities and community names. Α 25 But if you grilled me on them, no, I -- I'd

1	probably fail.
2	Q Do you have an opinion as to whether a
3	rural location is locations more rural than St.
4	Louis are designed to maximize utilization?
5	A Did you ask me do I have an opinion?
6	Q Yes.
7	A Yes, I do.
8	Q And what is that?
9	A I would argue that a dedicated corridor
10	approach is warranted to support the adoption of
11	electric vehicles and that the location of those DC
12	fast chargers or of those of that
13	infrastructure would likely include rural
14	locations.
15	Q Does that lead that leads to the
16	conclusion, then, that people in these rural
17	locations are going to purchase electric vehicles?
18	A That's not what my conclusion is based on.
19	No. I I am I'm saying that in inter-regional
20	a corridor approach to supporting adoption of
21	electric vehicles is warranted.
22	And in order to enable travel along that
23	corridor, you would inevitably have infrastructure
24	that is deployed in a community that may be
25	described as rural.

1	But it wouldn't necessarily be used by the
2	community by someone in that community. It
3	could be pass-through travel, I guess.
4	Q Okay. Thank you. After consulting in
5	this case, have you advised Ameren on its potential
6	rule on supporting EV adoption beyond these
7	charging stations?
8	A No.
9	Q Would you be able to do that?
10	A If they asked me, yes.
11	Q You have discussed time of use rates in
12	your testimony?
13	A Can you point me to where, please, just so
14	that I have the right context?
15	Q Yes.
16	A I don't actually know.
17	Q I'm sorry. I didn't make the notation
18	either.
19	A Just a quick scan, I don't think I
20	actually did mention anything about time of use.
21	Just based on my quick review while I was sitting
22	here, no.
23	Q It's your opinion that time of use rates
24	could have positive impacts to the grid?
25	A Yes.

1 0 And those could include things like peak 2 shaving? 3 А One of them, yes. 4 And the time of use would apply primarily 0 5 or exclusively -- primarily to the home charging situation? 6 7 Primarily, yes. Α If you would look at page 7, you noted the 8 0 9 Bill or Legislature passed that the utility should 10 direct electric companies to file applications for 11 programs to excel and provide transportation 12 electrification. 13 And the next sentence says, A program 14 proposed by an electric company may include prudent 15 investments in or customer rebates for electric 16 vehicle charging and related infrastructure. 17 А I see that. Yes. 18 0 How do you define a prudent investment? 19 I don't think that that's my -- I'm not А 20 going to interpret what they mean. Or I'd rather 21 not interpret what they mean by prudent investment. 22 I could give you my opinion. 23 I was asking for your opinion. 0 Yeah. So my opinion, I -- in the case of 24 Α 25 EV charging, I think it's a combination of making

1	investment that benefit ratepayers, that informs a
2	near term, a longer term strategy, and then
3	maximize maximizes impact for the utility.
4	So, I mean, there's a variety of factors
5	within each one of those. That's pretty generic, I
6	know.
7	Q Do you agree it would be important for
8	potential EV owners to be able to tell from their
9	Ameren bill how much they were being charged for
10	charging their vehicle?
11	MS. JOHNSON: I've got a question. I have
12	to object. I think this is outside of the scope of
13	the witness' testimony and would call for
14	speculation on his part.
15	JUDGE BUSHMANN: Response?
16	MS. SHEMWELL: The Administrative
17	Procedures Act allows you to question expert
18	witnesses on a wide variety of topics.
19	JUDGE BUSHMANN: That is true. What about
20	speculation?
21	MS. SHEMWELL: I think he can answer if he
22	knows the answer.
23	JUDGE BUSHMAN: Overrule the objection.
24	A So can you state the question again,
25	please?

1	Q (By Ms. Shemwell) Do you think it's
2	important for Ameren customers or it would be
3	important for an Ameren customer to know how much
4	they were paying to charge their electric vehicle?
5	A Yes.
6	Q Thank you. I'm going to hand you a copy
7	of an Ameren bill.
8	JUDGE BUSHMANN: Do you intend to mark
9	this?
10	MS. SHEMWELL: I'd like to mark it. And I
11	believe it's going to be 3.
12	MS. JOHNSON: I would like to object to
13	the this bill. No charge that we're proposing
14	in the context of this particular case with
15	regarding to regard to the corridor charges
16	would show up on one of these bills anyway, so it's
17	irrelevant to this proceeding.
18	JUDGE BUSHMANN: Your response?
19	MS. SHEMWELL: I did we know that? Has
20	that been provided in testimony that that will be
21	the case?
22	MS. JOHNSON: It has been provided in
23	testimony that they will be paying at the charging
24	islands, yes.
25	JUDGE BUSHMANN: I think that's right.

1 So --2 MS. SHEMWELL: Okay. 3 JUDGE BUSHMANN: So I'm going to sustain 4 the objection on relevancy, unless you can tie it 5 to some other question at issue. MS. SHEMWELL: Well, I was going to ask 6 7 about bill transparency in general, but --8 JUDGE BUSHMANN: I don't think that would 9 be relevant. 10 MS. SHEMWELL: Okay. Thank you. 11 (By Ms. Shemwell) Dr. Sheehy, Ameren has Q 12 indicated that this will be a learning opportunity 13 for them. Will you be evaluating the observations 14 and results of what they learn from this? 15 I have not been asked to do that, so I А 16 can't say for sure. 17 Do you have an estimate of the level of 0 18 carbon emissions that would -- that are reduced by 19 current EV use in the St. Louis area? 20 A I do not. 21 Could you make that calculation? Q 2.2 Absolutely. А MS. SHEMWELL: That's all I have. 23 Thank 24 you. 25 JUDGE BUSHMANN: Questions by

1 Commissioners? CHAIRMAN HALL: Yeah. I have a few. 2 3 CROSS-EXAMINATION 4 BY CHAIRMAN HALL: 5 Good afternoon. Do you believe that the 0 6 Make Ready program is a program that would be 7 reasonably employed here in Missouri? I -- I don't have any reason to believe 8 А why it wouldn't be reasonably employed here, no. 9 10 Did you evaluate that program for -- for 0 11 use here? 12 No, I did not. Just to be -- if you don't Α 13 mind, I was not part of -- just my -- this might 14 help answer some of your follow-up questions. Or potentially interrupt. 15 But I wasn't part of -- I wasn't asked by 16 Ameren to review the -- the case beforehand. 17 I 18 wasn't under contract to help them develop that, 19 the -- the proposed project, the pilot project. But you are very familiar with the Make 20 0 21 Ready program? 2.2 Oh, yes. Yes. Absolutely. Yeah. I just Α 23 wanted to -- yeah. 24 0 And you are familiar enough with the 25 environment in Missouri to -- to offer your expert

1 testimony that -- that the Make Ready program would -- would function well here? 2 3 А Yes. That's fair. Yes. 4 0 Why is that? 5 Well, one aspect of the Make Ready program Α 6 is it does -- it -- it lays -- you can make an 7 investment upfront and put the infrastructure in place without necessarily making the -- the last 8 9 mile or that -- that last 10 percent investment, 10 whatever the portion is, so you can -- you 11 basically have the infrastructure in place so that 12 as adoption increases -- you know, so the -- you 13 don't have to do everything at once via Make Ready, 14 I quess, is the -- so if you have a region with 15 modest adoption, you know, which I would 16 characterize Missouri as a mod -- a state with modest adoption of EVs, the infrastructure is -- a 17 18 significant investment is made upfront. 19 And then as the March account expands, 20 you've already -- you can start to kind of add on 21 that last piece, like you're kind of ready for --2.2 for expansion. So you can kind of stay ahead of 23 the market in some extent in that -- in that way. 24 0 If you -- if you know, in -- in states 25 that have employed that approach, do -- do the

1	utilities get that in investment in the
2	infrastructure in rate base immediately, or do they
3	have to wait until there's actually a third party
4	that is in place offering the service?
5	A In the case so the most the best
6	or one of the few examples of the Make Ready
7	actually in place is a non-utility engagement.
8	It's through the EV goal.
9	So but SCE, Southern California
10	Edison's approach is a Make Ready type approach.
11	And they can rate base right away. So they can
12	that is their pilot project, which is which
13	is started effectively, they can as soon as that
14	investment is made, it's absorbed into their
15	operations.
16	Q And you're not a lawyer, so you may not be
17	able to answer this question. But you may. Does
18	is there an anti-quip State statute in place in
19	that state that would that would actually,
20	strike that.
21	A Okay.
22	Q Second second line of questioning.
23	It's my understanding that that EV battery
24	technology is is is evolving consistently and
25	and significantly. And the the the range

1 of -- of electric vehicles between charges 2 continues to -- continues to grow; is that correct? 3 А That -- that's fair. Yes. And -- and is -- is that a basis for --4 0 5 for Ameren's decision to -- to seek a tariff for 6 charging stations along the Interstate as opposed 7 to seeking a tariff -- for charging stations clustered in a -- in a -- in a particular 8 9 metropolitan area? 10 Α So just to restate it just to make sure I 11 understand --12 Restate it in a way that makes sense? 0 13 Yeah. Is the -- is it -- is Ameren's Α 14 investment consistent, you know, to some extent 15 with the market moving forward, like is it going to 16 continue to serve the needs of EV drivers? Or is 17 that -- is that what --18 0 Well, I guess -- I guess my question is 19 that there are -- there are -- there are some 20 approaches -- and I guess California is one, and 21 there are others where there's a significant number 22 of -- of charging stations popping up everywhere. 23 And I guess it's my sense that in light of 24 battery technology, that could result in a lot of 25 stranded assets whereas the approach that Ameren's

1	taking is less likely to result in in that.
2	Would you agree with that?
3	A Yes. I absolutely agree with that. If
4	it's okay, but a multi-pronged approach, whether it
5	be the Level 2 or the DC fast charging is warranted
6	in part because, you know, referencing Mark
7	Nealon's testimony earlier, you know, that the
8	market isn't necessarily set on one vehicle
9	technology or another.
10	There's the plug in hybrid, which and
11	then the full battery electric vehicle. And those
12	have different charging infrastructure needs. So
13	you're so both the utility and other service
14	providers and other market players are trying to
15	build, to some extent, parallel systems.
16	Even though we talk about them in this one
17	bucket of electric vehicles, the charging needs of
18	these two vehicles, even though they're both
19	electric vehicles, are quite different.
20	And so Ameren is is is supporting
21	or their pilot project is looking at the needs of
22	electric vehicle drivers and focusing on that side
23	of the market, in part, because they don't
24	currently have that support.
25	Q Okay.

1 CHAIRMAN HALL: No further questions. 2 Thank you. 3 COMMISSIONER STOLL: No questions. 4 COMMISSIONER KENNEY: Thank you. 5 CROSS-EXAMINATION BY COMMISSIONER KENNEY: 6 7 Thank you, Dr. Sheehy, welcome to 0 8 Missouri. 9 Thank you. А 10 Not an easy place to get to, huh? Q 11 А No. It was actually -- I was coming from the East Coast this time. 12 13 0 Well, I know you're a Michigan guy, so 14 you're going to get ready -- I hope you get out of 15 here before the ice storm hits. 16 А Yeah. Thanks. 17 This is a little different project, 570,000 0 18 versus like California, San Diego Gas & electric's 19 Charge Ready and the vehicle grid integration went for like 67 million? 20 21 А Right. 2.2 JUDGE BUSHMANN: Do you want to turn your 23 phone on? 24 COMMISSIONER KENNEY: It's off? It's not 25 working? I thought it was working, but it's not

1 working anymore. All right. I'll talk in this 2 one. 3 0 (By Commissioner Kenney) Anyway, just --4 I had a question for you. I was interested in --5 on page 8 of your -- you don't have to look at it. 6 On page 8 of your testimony, you were 7 talking about this pilot program and how -- you 8 know, how it can benefit Ameren moving forward. 9 Then you said, Further, the focus of the DC fast 10 chargers infrastructure is particularly novel 11 amongst utility programs. What do you mean by 12 that? So, you know, there was a question about 13 Α 14 the California programs and so -- you know, the California programs are pretty focused on Level 2 15 16 charging, which their focus -- again, just, you 17 know, where -- where charging happens and how it 18 happens is really the things that are important. 19 But you try to capture some work place charging or 20 multi-family. 21 So their -- their charging is more the car 0 22 is going to sit there all day at work? 23 Correct. Correct. With some modest DC Α charging investments. But in some cases not. So 24 25 it depends pilot project. But it's almost -- more

1 of that money than not is dedicated to Level 2 2 charging. 3 And then there are DC fast charging 4 investments in California, but not by the 5 utilities. So that's kind of -- that's one of the 6 things about this -- the Ameren case, at least just 7 from a -- just from research perspective that is --8 that is novel and interesting is there the utility 9 engagement in the DC fast charging and trying to, 10 you know, get their feet wet in that place in the 11 market. 12 So that's the novelty -- the novelty is 0 13 that a utility is doing the charging, the DC fast 14 charging? 15 The fast charging. Right. Right. Α That's 16 right. They've been engaged in that, but not to 17 the -- not in the same level that Ameren is 18 proposing where they're doing the site host 19 evaluation. They're doing the coordination on the 20 ground. They're trying to learn more about the --21 the installation, utilization, all those things. 2.2 What are your thoughts on that? Q 23 From a research perspective, I think it's Α very interesting. That's why I used the term novel 24 25 is I think that, again, my perspective is -- is

1 that the EV charge market and the EV market is at a stage where the market is trying to figure these 2 3 things out. 4 There's different charging needs that 5 they're trying to satisfy. And the more -- you 6 know, the better job we do of evaluating out there, 7 the better recommendations and, you know, 8 basically, when we figure out things that will 9 work, you know, other jurisdictions can just copy 10 and paste that. 11 That's the idea. Unfortunately, we don't 12 really -- we're not at a stage where there's a good 13 copy and paste models or multiple copy and paste 14 models. Hopefully, we get multiple ones. And so 15 this is a new one to add to the mix of things to 16 look at. 17 0 California freeway system, anybody doing 18 anything like this out there at all, the systems --19 I mean, the fast chargers on the highway --20 А They are, yes. 21 -- toll roads and --Q 2.2 There are. And that is -- that's a Α Yes. 23 parallel effort by the Energy Commission. So the 24 Energy Commission -- our State Energy Office is 25 funding DC fast charging through -- they -- they

EVIDENTIARY HEARING - Vol. II 1/12/2017

Page 273

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1
    have a grant solicitation.
 2
            And they then -- they identify -- they
 3
     tend to identify a corridor.
 4
         Q But they're funding the majority of the
 5
    project?
            They are funding it, yeah, with some
 6
         А
 7
    match.
 8
            COMMISSIONER KENNEY: Okay. Thank you.
 9
            JUDGE BUSHMANN: Recross based on Bench
10
    questions?
11
             CHAIRMAN HALL: Judge, I'm sorry. One
12
    more question. I apologize.
            JUDGE BUSHMANN: Go ahead.
13
14
                      CROSS-EXAMINATION
15
    BY CHAIRMAN HALL:
16
            Are you -- are you familiar with the --
         0
17
    with the -- with the actual equipment involved in a
18
     charging station?
19
         A Yes, I am.
20
             So the testimony here is that each of
         0
21
     these charging stations is -- is approximately
22
     $95,000 -- or each of the charging islands.
23
         A Yeah.
24
         0
            How much of that is -- how much of that
    cost is related to connecting the charging islands
25
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1 to the grid as opposed to actual equipment that's on-site if -- if that distinction makes sense to 2 3 you? 4 I think I understand. So, I mean, Α Yeah. the hardware itself, just the -- the steel 5 6 involved, the pedestal, if you will, that's 7 usually, you know, between 30 and \$50,000 for that 8 piece of equipment. 9 So the rest is construction and interconnect, things like that. And the 10 11 interconnect, I'm not expert enough in utility 12 operations to know how much it costs to run the 13 line and do that stuff. 14 So -- but, basically, you know, you can 15 take about half of it for the physical equipment, 16 and then the balance is -- a significant portion of 17 that balance is utility expenditures. 18 0 And so the actual equipment, the charging 19 station itself, is that price going down over time, or is that staying relatively stable? 20 21 А Based on my understanding, it's going 2.2 I don't know how quickly. But based on what down. 23 we were seeing with -- you know, we started doing some work in this phase in 2010 and 2011, and the 24 25 numbers are lower now than they were 2010.

1	So yes. I don't know the percent drop off
2	the top of my head. But there have been there
3	have been there is more manufacturers in that
4	state. Maybe Charge Point might be able to answer
5	how many. But the there's more manufacturers in
6	the DC fast charging space than there than there
7	were and prices have certainly come down.
8	CHAIRMAN HILL: Thank you.
9	A Yeah.
10	JUDGE BUSHMANN: Recross by Staff?
11	MS. PAYNE: No questions. Thank you.
12	JUDGE BUSHMANN: Charge Point?
13	MR. COMLEY: No questions.
14	JUDGE BUSHMANN: Consumers Council?
15	KCP&L?
16	MR. FISCHER: No questions.
17	JUDGE BUSHMANN: Division of Energy?
18	MR. ANTAL: No questions.
19	JUDGE BUSHMANN: NRDC?
20	MR. ROBERTSON: No questions.
21	JUDGE BUSHMANN: Sierra Club?
22	MR. HALSO: No questions.
23	JUDGE BUSHMANN: Public Counsel?
24	MS. SHEMWELL: Thank you.
25	RECROSS EXAMINATION

1	BY MS. SHEMWELL:
2	Q I'd just like to confirm a response to a
3	question by the Chairman. Is it taxpayers that are
4	funding these DC fast charging stations?
5	A That's a a somewhat complicated
6	question. But the Energy Commission is funded
7	the the the pot of money from which the DC
8	fast charging grant opportunities are coming from
9	is funded by a surcharge on vehicle registrations.
10	So when you get your bill from the DMV
11	so it's not all taxpayers. It's vehicle owners.
12	So when I get my bill from the DMV, it has it
13	there's an add-on. It went up I think it's two
14	bucks, two bucks a year or \$4 a year.
15	So that was passed by Legislature. And
16	then that fee is earmarked, and then it goes and
17	then it goes to different entities. And one of
18	those entities is the Energy Commission.
19	And then they determine through an
20	investment plan how to spend that money. So it
21	doesn't they don't say, We're going to charge
22	this fee for DC fast charging, just to be clear.
23	They say, We're going to charge this fee
24	for this alternative fuel fund. And the Energy
25	Commission comes up with an investment plan, and

1 then they -- and then the expenditure. And then it's spent that way. 2 3 So this is a cost more fuel sources than 0 4 just electric? 5 Α The grant funding opportunities are. Yeah. So the DMV -- the fees are assessed to 6 7 vehicles. The orig -- origination of the fee is 8 assessed to vehicles. 9 But then the eligible fuels from this -or the eligible projects from this fund, it's a --10 it's a fund that includes alternative and renewable 11 12 vehicle technologies. But it's a mouthful. Yeah. 13 MS. SHEMWELL: Thank you. 14 А Yeah. 15 JUDGE BUSHMANN: Redirect? 16 MS. JOHNSON: Thank you. 17 REDIRECT EXAMINATION BY MS. JOHNSON: 18 19 Just a few questions initially for Q 20 clarification purposes. As the power levels 21 associated with the charging equipment goes up, 2.2 what is likely to happen to the cost of that 23 equipment? 24 А It should go up. 25 0 Okay. Okay. Also, I just want to

1	clarify. Do you think that corridor charging and
2	the examination on time of use rates are mutually
3	exclusive? You only can do one or the other? Or
4	do you believe you can work on both?
5	A You can you can do both at the same
6	time.
7	Q Okay. Are you aware of anything in Ameren
8	Missouri's limited pilot program that would
9	prohibit another party from coming in and looking
10	at Make Ready projects?
11	A No, I am not.
12	Q Finally, I want to talk a little bit about
13	some of your testimony regarding what's been done
14	in California.
15	A Uh-huh.
16	Q How do the current plans in California
17	compare size-wise to what we're proposing here in
18	Missouri?
19	A The only thing that's similar is the time
20	frame. They're usually about three years. They've
21	they've each proposed a three-year time frame.
22	Apart from that, there isn't much
23	similarity. But, yeah, I'd have to refer to my
24	testimony real quick if you don't mind.
25	But the yeah. So SDE is 22 monthly.

The SDE came in at 45 million. And then PG&E would 1 -- just came off the docket and went in at 2 3 33 million. And they're the largest of the three, so 4 5 that makes sense. The project is the largest, so 6 it also has the most ratepayers. So it's pretty 7 proportional. So -- they're quite large. Now, there was some discussion earlier 8 0 9 originally that the California Commission was not 10 going to go this route. Can you explain why that 11 ultimately changed and --12 I mean, it's definitely an Α Yeah. 13 interesting parallel with where California was was 14 at the emergence of -- of the vehicle market. Ι 15 mean, in 2010, around 2010 when that 20,000 --16 2009, I think, was when the ruling initiated related to utility engagement in electric vehicles. 17 18 And, I mean, to some extent, CPC basically 19 wall off utilities from ownership. And so they --20 the market evolved. And then it was, you know, 21 three or four years before they made any change. 2.2 Meanwhile, from a policy perspective, you 23 know, the state is pushing forward on a variety of carbon constraints in the market, zero emission 24 25 vehicle programs, all of these policy engagements.

1	And, you know, meanwhile, the utility is
2	an important stakeholder. We're kind of we're
3	on the side lines to some extent.
4	So just from a a policy discussion, the
5	arguments that that we're having or the
6	discussion here today, the questions here today are
7	extremely similar to those that were happening in
8	2010 in California that basically walled off
9	utilities that were revisited three or four years
10	later that led to the to this you know, if
11	you add them up, it's almost it's \$200 million.
12	So and that they revisited that
13	decision in part because that there was a belief
14	that there was pent up demand that and in part
15	because there wasn't sufficient infrastructure, you
16	know, despite investments from from electric
17	vehicle service providers.
18	So just trying to find a way to catalyze
19	the market. Despite decent sales, you know, I mean
20	just as a note, electric vehicle sales are
21	out-pacing hybrid sales in their adoption. That's
22	an important thing.
23	But so even though it is small, they're
24	ahead of where hybrids were when they came out in
25	2003. That is small. I recognize that. But they

1 are ahead of that. So -- but anyhow, all that to say there 2 3 was -- there is -- I would argue that there is -that there are a lot of parallels. And I -- there 4 5 was a three to four-year period in which the 6 utilities weren't engaged, and I think the market 7 suffered as a result of that. I don't know to what extent. But at the 8 9 same time, I do think that the absence of that engagement -- and I don't know exactly what the 10 11 shape of that engagement should be. 12 But the fact is that a major -- a major 13 actor was kind of left on the sidelines, and that 14 probably deterred deployment. 15 MS. JOHNSON: Okay. No further questions. 16 Thank you. 17 JUDGE BUSHMANN: Thank you, Mr. Sheehy. 18 You may step down now, sir. 19 MR. SHEEHY: Thank you. 20 JUDGE BUSHMANN: Let try and take one more 21 witness before we stop. We are going to skip over 2.2 the two Staff witnesses for now and go with the 23 Sierra Club witness. 24 MR. HALSO: Thank you, Judge. Sierra Club 25 calls Douglas Jester to the stand.

1 DOUGLAS JESTER, being first duly sworn to testify the truth, the whole 2 truth, and nothing but the truth, testified as follows: 3 4 DIRECT EXAMINATION BY MR. HALSO: 5 6 JUDGE BUSHMANN: Please be seated. You 7 may proceed. 8 (By Mr. Halso) Please state your name and 0 9 business address for the record. I'm Douglas B. Jester, 115 West Allegan 10 Α Street, A-l-l-e-g-a-n, Lancing, Michigan, 48903. 11 12 For whom are you appearing in this case? Q Sierra Club. 13 А 14 Are you the same Douglas Jester who caused Q 15 to be prepared a document entitled Rebuttal 16 testimony of Douglas Jester on behalf of the Sierra 17 Club consisting of 32 pages of questions and answers and two attached schedules? 18 19 А Yes. 20 And are you the same Douglas Jester that Q 21 caused to be prepared a document entitled 22 Surrebuttal Testimony of Douglas Jester on behalf 23 of the Sierra Club consisting of eight pages of 24 questions and answer? 25 A Yes.

1 0 Mr. Jester, we previously marked your rebuttal as Exhibit 500 and your surrebuttal as 2 3 501; is that right? 4 А Yes. 5 Do you have any corrections to make or 0 6 changes to either of those documents? 7 No, I do not. Α If I were to ask you the same questions 8 0 9 again as posed in your rebuttal and surrebuttal 10 pre-filed testimony, would your answers remain the 11 same? 12 А Yes. 13 MR. HALSO: Your Honor, at this time, I'd 14 like to move for to the admission of Exhibit 500 15 and 501. 16 JUDGE BUSHMANN: Any objections to those exhibits? Hearing none, they're received into the 17 18 record. 19 (Exhibits 500 and 501 were offered and admitted into evidence.) 20 21 MR. HALSO: And I tender the witness for cross-examination at this time. 2.2 23 JUDGE BUSHMANN: Okay. First cross would 24 be by Ameren Missouri? 25 MS. JOHNSON: At this point, we don't have

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1
     any cross-examination, but we reserve the right to
    possible recross based on Commissioner questions.
 2
 3
             JUDGE BUSHMANN: Very good. Cross by
 4
     Staff?
 5
             MS. PAYNE: No questions at this time.
 6
             JUDGE BUSHMANN: Charge Point?
 7
             MR. COMLEY: No questions.
             JUDGE BUSHMANN: Consumers Council?
 8
 9
    KCP&L?
10
             MR. FISCHER: No, thank you.
             JUDGE BUSHMANN: Missouri Division of
11
12
     Energy?
13
             MR. ANTAL: No questions.
14
             JUDGE BUSHMANN: NRDC?
15
            MR. ROBERTSON: No questions.
            JUDGE BUSHMANN: Public Counsel?
16
17
                      CROSS-EXAMINATION
    BY MS. SHEMWELL:
18
19
            Good afternoon, Mr. Jester.
         Q
20
            Good afternoon.
         А
21
            I'm Lera Shemwell.
                                 I represent the Public
         0
2.2
    Counsel. Do I read your testimony correctly that
23
    you expect EV adoption to be a slow process over
24
    the next 20 years?
             Yes. I think it will accelerate over
25
         А
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1 time. But --Thank you. 2 0 3 -- that process is necessarily slow. А 4 Will adoption of other fuels besides 0 5 gasoline also increase over time? It's possible. My forecast would be that 6 А the market will ultimately be dominated by electric 7 8 vehicles. 9 0 And plug in electric vehicles 10 specifically? 11 А Yes, specifically. 12 You refer to complete reduction of 0 13 greenhouse gas emissions. Do you have a prediction 14 of when that might occur? 15 No, I do not. I'm certain that it will be А 16 slower than I think that it should happen. 17 And you made a statement about emissions 0 18 lower from electric vehicles produce about a third 19 less carbon emissions. Actually, electric vehicles 20 don't produce carbon emissions. So you're talking about a reduction in carbon emissions; is that 21 2.2 correct? 23 I'm not sure whether I was clear in that А statement. My intent was on a -- sometimes called 24 a wheel to wells basis. So it's emissions over the 25

1 full life cycle of the fuels and the vehicle. 2 So it's true that electric vehicle while 3 in operation does not produce emissions. But the 4 power that supplies it and the production of the 5 vehicle, at present, produce emissions. So that was the context of that number. 6 7 Thank you. Do you agree that Ameren 0 Missouri's current generation portfolio is 8 9 predominately fossil fuel based? T do. 10 Α 11 Q Does that figure into your calculation of 12 fewer emissions? 13 It does. I don't know what the future of Α 14 Ameren Missouri's generation portfolio will be. 15 But it will evolve over time, and that, of course, 16 would change those numbers. 17 You don't know the time in which it would 0 18 evolve, though? 19 I don't know the company's plans. А 20 0 I take it from your testimony you believe 21 that third party providers should be encouraged? 2.2 Α Yes. 23 Does utility involvement in placement of 0 charging stations reduce the likelihood that third 24 25 parties will be involved in introducing charging

1	stations?
2	A That's very much dependent on the specific
3	terms under which that might happen.
4	Q For example, the action that the
5	Legislature might take?
6	A No. I utility ownership and operation
7	of charging stations has multiple effects, some of
8	which will be advantageous for other suppliers and
9	some of which could be disadvantageous so that the
10	terms under which utility provides charging will
11	affect the the net effect on other potential
12	providers.
13	Q Where would you find those terms? In the
14	
11	utility tariff?
15	A Yes. For most part.
15	A Yes. For most part.
15 16	A Yes. For most part. Q Thank you.
15 16 17	 A Yes. For most part. Q Thank you. MS. SHEMWELL: Mr. Jester, thank you.
15 16 17 18	A Yes. For most part. Q Thank you. MS. SHEMWELL: Mr. Jester, thank you. That's all I have.
15 16 17 18 19	A Yes. For most part. Q Thank you. MS. SHEMWELL: Mr. Jester, thank you. That's all I have. A Okay. Thank you.
15 16 17 18 19 20	<pre>A Yes. For most part. Q Thank you. MS. SHEMWELL: Mr. Jester, thank you. That's all I have. A Okay. Thank you. JUDGE BUSHMANN: Questions by</pre>
15 16 17 18 19 20 21	A Yes. For most part. Q Thank you. MS. SHEMWELL: Mr. Jester, thank you. That's all I have. A Okay. Thank you. JUDGE BUSHMANN: Questions by Commissioners?
15 16 17 18 19 20 21 22	A Yes. For most part. Q Thank you. MS. SHEMWELL: Mr. Jester, thank you. That's all I have. A Okay. Thank you. JUDGE BUSHMANN: Questions by Commissioners? CHAIRMAN HALL: I have no questions.
15 16 17 18 19 20 21 22 23	A Yes. For most part. Q Thank you. MS. SHEMWELL: Mr. Jester, thank you. That's all I have. A Okay. Thank you. JUDGE BUSHMANN: Questions by Commissioners? CHAIRMAN HALL: I have no questions. Thank you.

1 COMMISSIONER KENNEY: No questions. Thank you, sir. 2 3 JUDGE BUSHMANN: No need for recross. 4 Redirect? Sierra Club? 5 REDIRECT EXAMINATION BY MR. HALSO: 6 7 Mr. Jester, Ms. Shemwell asked you some 0 8 questions about -- generally about potential 9 competitive or even anti-competitiveness of the 10 utility in charging stations. She asked you about 11 those. In a broad sense, do you have concerns 12 about Ameren's proposal here? 13 No, I don't. As a small pilot project А 14 that fills a hole in the market, I anticipate that 15 this will encourage electric vehicle sales and have that gain for competing providers. So I think with 16 17 -- for this proposal, it's not a matter that I'm concerned about. 18 19 0 And you yourself have some experience with 20 start-ups and investment in -- in the market; is 21 that right? 2.2 Yes, I do. Α 23 0 And what lessons from that experience 24 might be relevant to the issue of competitive or 25 potentially anti-competitive facts, in this case

1 with utility investment in electric vehicle 2 charging? 3 Α First of all, I spent a period of time as 4 an executive at what was initially NCI that was 5 acquired by World Com. And we had, in fact, 6 existing products that we were selling and 7 supporting. But, also, would start new products. 8 Those, inevitably, had to be subsidized 9 for a period of time, both to be developed and then for sales to grow up to the fixed costs, recovery 10 11 of fixed costs of those products. That's just an 12 inevitable part of the development of new products 13 and bringing them to market. 14 I've also done that in the context of 15 start-up and so-called mezzanine company and 16 currently an angel investor in a couple of 17 companies that are trying to get over that divide. And it's -- financing that process is 18 19 difficult because you don't know how long it will 20 take to get to market and get market growth that 21 will then make your company profitable.

22 So the key uncertainty that I've always 23 seen is really that process of the uptake and 24 acceleration of sales once you bring the product to 25 market.

1	Q So Ameren's analysis in this case and
2	Mr. Nealon's direct testimony, that for the first
3	four years recovery from electricity sales related
4	to the installation of these stations won't
5	necessarily cover costs, but later, post four
б	years, they likely will or will exceed them, that's
7	not at all surprising to you?
8	A That's completely normal for a new product
9	or a new line of business.
10	MR. HALSO: Thank you, your Honor. No
11	further questions.
12	JUDGE BUSHMANN: Thank you, Mr. Jester.
13	You may step down now, sir.
14	MR. JESTER: Thank you.
15	JUDGE BUSHMANN: We've been going for a
16	while. Why don't we take a short break? We'll
17	being in recess for about 15 minutes.
18	(Break in proceedings.)
19	JUDGE BUSHMANN: Let's go back on the
20	record. And we're ready for NRDC's witness.
21	MR. ROBERTSON: I call to the stand Noah
22	Garcia.
23	JUDGE BUSHMANN: You might want to turn
24	your microphone on.
25	MR. ROBERTSON: I thought it was on.

Okay. And thank you, Judge, for accommodating our 1 2 witness. 3 JUDGE BUSHMANN: Raise your right hand, 4 please. 5 NOAH GARCIA, being first duly sworn to testify the truth, the whole 6 truth, and nothing but the truth, testified as follows: 7 8 DIRECT EXAMINATION BY MR. ROBERTSON: 9 10 JUDGE BUSHMANN: Please be seated. 11 Q (By Mr. Robertson) State your name for 12 the record. 13 А My name is Noah Garcia. 14 And do you have before you a copy of your Q surrebuttal testimony in this case, which has been 15 16 marked Exhibit 550? 17 A Yes, I do. 18 Q Unfortunately, we have to make a couple of 19 corrections to your testimony. 20 Yes. That's correct. А 21 Page 4, line 6. Question reads, What is Q 22 the purpose of your direct testimony in this 23 proceeding? Is the word direct correct? 2.4 Α No, it is not. It should read surrebuttal testimony. 25

1	Q Okay. So we should strike the word direct
2	and substitute the word surrebuttal?
3	MS. SHEMWELL: What line is that, please?
4	MR. ROBERTSON: That's line 6 on page 4.
5	MS. SHEMWELL: Thank you.
6	Q (By Mr. Robertson) And on Page 5 Line 19,
7	there is the phrase in bold, Error, reference
8	source not found. Is that supposed to be there?
9	A No, it is not.
10	Q Okay.
11	A That should read Figure 1.
12	Q So we strike the phrase in bold and
13	substitute Figure 1, correct?
14	A Yes. That's correct.
15	Q And does that refer to the figure in the
16	top of page 6?
17	A Yes, it does.
18	Q And is there supposed to be a footnote to
19	that reference?
20	A No. There should not be.
21	Q Okay. Other than that, are there any
22	changes or corrections you would make to your
23	testimony at this time?
24	A No, there are not.
25	Q And if I were to ask you the same

1 questions, would your answers be substantially the 2 same? 3 Α Yes. 4 MR. ROBERTSON: Your Honor, I move into 5 evidence Exhibit 550, surrebuttal testimony of Noah Garcia. 6 7 JUDGE BUSHMANN: Anything objections to 8 that exhibit? Hearing none, it's received into the 9 record. (Exhibit 550 was offered and admitted into 10 11 evidence.) MR. ROBERTSON: And I tender the witness 12 13 for cross. 14 JUDGE BUSHMANN: First cross would be by Ameren Missouri? 15 16 MS. JOHNSON: We have no cross. But we 17 may have recross based on Commissioner questions as we did -- as we indicated for Mr. Jester. 18 19 JUDGE BUSHMANN: Cross by Staff? 20 MS. PAYNE: No questions. 21 JUDGE BUSHMANN: Charge Point? 2.2 MR. COMLEY: No questions. 23 JUDGE BUSHMANN: Consumers Council? 24 KCP&L? 25 MR. FISCHER: No questions.

1 JUDGE BUSHMANN: Division of Energy? MR. ANTAL: No questions. 2 3 JUDGE BUSHMANN: Sierra Club? MR. HALSO: No questions. 4 5 JUDGE BUSHMANN: Public Counsel? 6 MS. SHEMWELL: No questions. Thank you. 7 JUDGE BUSHMANN: Questions from 8 Commissioners? 9 COMMISSIONER STOLL: I have no questions. 10 Thank you for your testimony. 11 MR. GARCIA: You're welcome. 12 JUDGE BUSHMANN: No questions from 13 Commissioners. No need for recross. And there was 14 no cross, so there's no need for redirect. Thank 15 you, sir. Your testimony is complete. You may 16 step down now. 17 Thank you very much. MR. GARCIA: JUDGE BUSHMANN: The next witness would be 18 19 from Charge Point? 20 Thank you, Judge. Charge MR. COMLEY: 21 Point calls Anne Smart. 22 JUDGE BUSHMANN: Please raise your right 23 hand. 24 ANNE SMART, 25 being first duly sworn to testify the truth, the whole

1	truth, and nothing but the truth, testified as follows:
2	DIRECT EXAMINATION
3	BY MR. COMLEY:
4	JUDGE BUSHMANN: You may proceed.
5	Q (By Mr. Comley) Ms. Smart, would you
6	state your full name for the record, please?
7	A My name is Anne Smart.
8	Q And by whom are you employed?
9	A Charge Point.
10	Q And what is the what is the official
11	title of your position?
12	A Vice President of Public Policy.
13	Q And, Ms. Smart, were you the same
14	Ms. Smart who caused to be prepared for this docket
15	two sets of testimony, two sets of written
16	testimony, one set being rebuttal and one set being
17	surrebuttal, which has been pre-marked for purposes
18	of identification as Exhibit 300 and 301 for this
19	case?
20	A Yes.
21	Q Are there any additions or correction to
22	your testimony?
23	A Yes.
24	Q Let me direct you to your rebuttal
25	testimony on page 1. The nature of your employment

1 on page 1 in line 9, is there a change that needs 2 to be made there? 3 А Yes. I have changed titles, and we need 4 to change line 9 to Vice President of Public 5 Policy. 6 0 Let me direct you to page 10, line 9. Do 7 you have a correction to make on that line, please? That's the one that -- yes. We need to 8 А 9 change the spelling of, per say to per se with an 10 s-e instead of an s-a-y. 11 Q Are there any other revisions or 12 corrections to your rebuttal or surrebuttal 13 testimony? 14 А No. 15 Ms. Smart, if I were to ask you the same 0 16 questions that are propounded in your rebuttal and 17 surrebuttal testimonies today, would your answers be the same? 18 19 А Yes. MR. COMLEY: Your Honor, I move for the 20 21 admission of Exhibits 300 and 301 and tender 2.2 Ms. Smart for cross-examination. 23 JUDGE BUSHMANN: Any objections to those 24 exhibits? Hearing none, they are received into the 25 record.

1	(Exhibits 300 and 301 were offered and
2	admitted into evidence.)
3	JUDGE BUSHMANN: And the first cross would
4	be by Ameren Missouri.
5	MS. JOHNSON: Thank you, your Honor. I am
б	able to greatly limit the amount of cross-exam
7	the amount of cross-examination I will have, but,
8	unfortunately, the very few questions I do have
9	regard confidential documents, so I will need to do
10	that in-camera with your indulgence.
11	JUDGE BUSHMANN: Certainly.
12	REPORTER'S NOTE: At this point, an in-camera session was
13	held, which is contained in Vol. 3, pages 298 through 309.
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1	JUDGE BUSHMANN: Okay. We're now back in
2	public session. And the next cross would be by
3	Staff.
4	MR. THOMPSON: Thank you, Judge.
5	CROSS-EXAMINATION
6	BY MR. THOMPSON:
7	Q Does Charge Point maintain an ongoing
8	relationship with the proprietors of its charging
9	equipment?
10	A Yes.
11	Q So do you know if Charge Point has
12	customers within Ameren Missouri's service
13	territory?
14	A Yes.
15	Q And would you have any problem with
16	providing through Counsel a list of the names and
17	addresses of those proprietors to Staff?
18	A No. However, I can only provide the
19	the organization and address names for the public
20	charging stations. I can't disclose the private
21	privately accessible stations.
22	Q When you say privately accessible
23	stations, are those stations where charging is not
24	sold to the general public?
25	A Correct.

1 Okay. With that limitation in mind, so 0 2 you will provide that information through Counsel 3 to Staff? 4 Α Yes. 5 MR. THOMPSON: Thank you very much. No 6 further questions. 7 JUDGE BUSHMANN: Kansas City Power & 8 Light? 9 MR. FISCHER: No questions. 10 JUDGE BUSHMANN: Division of Energy? 11 MR. ANTAL: Just a few questions. 12 CROSS-EXAMINATION 13 BY MR. ANTAL: 14 0 Hello, Ms. Smart. 15 А Hi. 16 Is it safe to say that Charge Point 0 17 participated in Ameren's RFP process in this pilot 18 program that's the subject of this hearing? 19 The reseller participated in the RFP. А 20 Okay. And that reseller wasn't selected? 0 21 Α Correct. 2.2 Okay. It's one of your recommendations Q 23 that Ameren should consider qualifying at multiple 24 RFP respondents to provide charging station 25 equipment?

1	A Correct.
2	Q Okay. And it's also your recommendation
3	that Ameren Missouri should allow site hosts in the
4	pilot to choose from that list of qualified
5	vendors?
6	A Correct.
7	Q Okay. And if the Commission were to
8	impose these conditions on this pilot program,
9	would that allow Charge Point or Charge or one
10	of Charge Point's vendors the ability to market
11	Charge Point charging stations to potentially host
12	sites for these pilot pilot locations?
13	A Not necessarily. I can't make the
14	conclusion on how Ameren would qualify or whether
15	or not we would qualify for the RFP.
16	Q Okay. Are you familiar with Kansas City
17	Power & Light's Clean Charge Network?
18	A Yes.
19	Q Okay. Is it true that Charge Point is the
20	currently the sole provider of charging stations
21	for the Clean Charge Network?
22	A We are the sole network provider.
23	Correct.
24	Q Okay. Thank you.
25	A There are multiple hardware providers.

1 0 And at any point prior to Charge Point 2 being selected, is the sole -- what is it that you 3 defined it as, the --4 А Network provider. 5 -- network provider? Did it suggest that 0 6 multiple RFP respondents be -- be chosen? 7 KCP&L purchased the stations directly from Α There -- to my knowledge, there was not an 8 us. 9 RFP. And we have stated publicly on the record that we would like to see customer choice in future 10 11 and current KCP&L programs. 12 MR. ANTAL: Okay. Thank you. 13 JUDGE BUSHMANN: Cross by NRDC? 14 MR. ROBERTSON: No questions, your Honor. 15 JUDGE BUSHMANN: Sierra Club? 16 MR. HALSO: Just a few, your Honor. 17 CROSS-EXAMINATION BY MR. HALSO: 18 19 Good afternoon, Ms. Smart. Q 20 Α Hey. 21 Good to see you. Q 2.2 Uh-huh. А 23 0 Just to follow up on Mr. Antal's 24 questions, for the Kansas City Power & Light Clean 25 Charge Network, is it -- am I correct in saying

1	that no other providers have been qualified for
2	that equipment or network services for that program
3	aside from Charge Point?
4	A The hardware has been provided by multiple
5	hardware providers. The Charge Point network is
6	all used on all stations, to my knowledge, in the
7	Clean Charge Network. And the Level 2 stations are
8	Charge Point manufactured stations.
9	Q And what is the size of that plan
10	deployment?
11	A I believe it was they purchased 1,000
12	stations split across Missouri and Kansas.
13	Q Okay. On pages 7 and 8 of your
14	surrebuttal testimony, you describe different
15	business models that, in your opinion, could lead
16	to a better design proposal for Ameren or that
17	would better support competition; is that right?
18	A Correct.
19	Q And and one of those options is to
20	limit the utility role to providing, quote, Make
21	Ready the provision of Make Ready; is that
22	right?
23	A Yes.
24	Q And Make Ready, that refers to
25	infrastructure and cost associated with the

1 installation of it up to, but not including, a 2 charging station? 3 А Correct. 4 And that might include distribution, 0 5 equipment, transformers, metering --6 А Trenching. 7 -- and trenching; is that correct? Q That's correct. 8 А 9 And then your formulation of Make Ready, 0 10 utility ownership of infrastructure would also be 11 limited to -- to that Make Ready equipment which 12 they deploy? 13 Right. The utility could own the Make Α 14 Ready on the customer premises, on the customer 15 side of the --16 0 But the utility would not own the changing 17 station itself? 18 А In the term Make Ready mold, no. 19 And -- and for purposes of the next few 0 20 questions, can we agree to refer to a model where 21 the utility would own all the way up through 2.2 charging station as end-to-end ownership? Is that 23 okay with you? 24 Α Yes. 25 Q And then further on page 8, another

1	business model you described was providing rebates
2	to a site host so that site host owns and operates
3	equipment rather than the utility; is that a fair
4	characterization?
5	A Yes.
6	Q Okay.
7	A Or a third party could own the equipment.
8	To be clear.
9	Q Okay. And then again, back on page 7, you
10	state that, By qualifying multiple vendors rather
11	than creating a winner takes all RFP, as Ameren has
12	done, the utility could support competition by
13	having multiple vendors compete to win site host to
14	replicate the normal market for selling charging
15	stations; is that right?
16	A Yes.
17	Q And just one more time for the record,
18	that is not the case for Kansas City Power &
19	Light's clean charge network?
20	A Currently, correct.
21	Q And then on page 7, Ms smart, you refer to
22	three programs approved by the California Public
23	Utility Commission; is that right?
24	A Yes.
25	Q One by specific Gas & Electric, one by San

1 Diego Gas & Electric and one by Southern California 2 Edison? 3 Α Uh-huh. Yes. 4 And you know state further that most are 0 5 limited to Make Ready investment; is that right? 6 А I may have said that. 7 Q Page 7, line 22. 8 А Yes. 9 Okay. Is San Diego Gas Electric's program 0 10 limited to Make Ready, or is that end-to-end 11 ownership model? 12 А That is end-to-end ownership model. 13 And PG&E's program, is that solely limited 0 14 to Make Ready, or is that end-to-end ownership? 15 There is only end-to-end ownership in Α 16 disadvantaged communities as defined by the 17 E-Calendar Screen. 18 Q Right. 19 At the choice of the customer. А 20 MR. HALSO: No further questions. Thank 21 you. 2.2 JUDGE BUSHMANN: Cross by OPC? 23 MS. SHEMWELL: Thank you. 24 CROSS-EXAMINATION 25 BY MS. SHEMWELL:

1 I only have one question. There were some 0 2 customers that you couldn't identify? 3 А Yes. 4 Can you tell me the -- the type of 0 5 business or entity that that would be? 6 А Sure. We have several work place 7 customers who -- who have purchased our charging stations for employee charging. 8 9 And because their parking lot's maybe restricted to employees only and they want to 10 11 provide that only, those would not show up on our 12 public map and are not made publicly accessible. 13 MS. SHEMWELL: Thank you. 14 JUDGE BUSHMANN: Any questions by the 15 Commissioners? 16 CHAIRMAN HALL: Yeah. 17 CROSS-EXAMINATION 18 BY CHAIRMAN HALL: 19 Good afternoon. Looking at page 7 of your 0 20 rebuttal testimony, on lines 15 through 18, you 21 indicate that there are 75 DC fast chargers in 22 Missouri, and Charge Point has customers that own 23 and operate fast chargers in St. Charles -- well, 24 at those three establishments at -- at St. Charles 25 Nissan, Bommarito Nissan and Lou Futz Motor

1	Company; is that correct?
2	A That's correct.
3	Q You don't currently have have customers
4	in any of the other locations, where where
5	Ameren is proposing to to set up charging
6	stations along I-70?
7	A We do not currently have any other fast
8	charger customers. We may have Level 2 charging
9	stations provided in that area.
10	Q You may, or you do?
11	A As we said earlier, we put into the record
12	the 37 ports that we have estimated in Ameren's
13	territory. Some are Level 2, but we only have the
14	three fast chargers.
15	Q Okay. Do you believe that if that if
16	the Commission were to approve Ameren's tariff
17	allowing them to set up these six charging stations
18	that it would be more difficult for Charge Point to
19	find other customers along I-70 that would be
20	interested in your services?
21	A Yes, I do.
22	Q Why is that?
23	A It would be very difficult for us to sell
24	a fast charger to a site if they believed that they
25	could receive a fast charger installed on that

1	property free of charge from Ameren. If you owned
2	a parking lot along I-70 and you wanted to put in a
3	fast charger to be a site for fueling along that
4	corridor, and we tried to sell you a charging
5	station outside of Ameren's program at full cost,
6	and then Ameren came over and said, We'd love for
7	you to be in our program and you won't have to pay
8	anything, you would be much more likely to go with
9	Ameren, in which case we'd be locked out of that
10	corridor.
11	Q But if they go with Ameren, they're not
12	going to derive profits from the charging station.
13	If they go with you, they could they could
14	possibly get profits from the charging station; is
15	that not correct?
16	A The profits generated from a charging
17	station tend to be related to directing drivers to
18	that site. So there maybe indirect profits from
19	have being someone park their car and buy food at
20	the convenience store similar to the profits that a
21	gas station might make, make the profits off of,
22	you know, gum and cigarettes, not necessarily from
23	gas.
24	Q Okay.
25	A So they could potentially receive similar

1	benefits.
2	Q So the the price that that Ameren
3	wishes to charge that that are set forth in the
4	tariff are really not the anti-competitive factor
5	that you're concerned about. It's it's
б	providing the the charging station free of
7	charge that you believe is anti-competitive?
8	A That's correct.
9	Q So it and taking that one step further,
10	well, let me ask it this way. So if we were to
11	tariff if we were to approve a tariff without a
12	price, you would still have the same
13	anti-competitive concerns?
14	A Correct.
15	Q Do you believe that 5, 10, 15 to 20 years
16	from now, price will be more of a factor in in
17	in competition between charging stations?
18	A Do you mean price for the charging station
19	or price for drivers for the charging service?
20	Q The latter.
21	A Not necessarily. Again, the benefits of a
22	charging site tend to be related to what other
23	indirect benefit you receive from that site.
24	So we continue to expect work places to
25	provide employees with free charging or convenience

1 stores to want people to come to use a fast charger 2 there. 3 Hotels want you to spend the night because they have a fast charger located in their parking 4 5 lot. Target or Wal-Mart to have you get two hours 6 of free charging so you definitely shop for two 7 hours and fully charge your vehicle before you 8 We expect that. leave. 9 So you don't -- you don't foresee a 0 10 situation at some point in time where -- where I'm 11 driving down I-70 in my electric vehicle, and I 12 need to -- to charge my battery. 13 I pull up my -- pull up my cell phone, 14 find out where there are charging stations close by 15 and do a price comparison and go to the one with 16 the cheapest price? 17 Α Yes. But -- that -- that may occur. I --I do think that this is the reason that we want to 18 19 seek clarification on the ability of non-utilities 20 to charge a fee for that charging session. There 21 is some anti-competitive element there if only 22 Ameren is able to -- to do so. 23 0 Well, I guess my -- my -- you seem to be 24 saying that price is -- is not a factor driving, no 25 pun intended, to consumers to one charging station

1	versus another; is that correct?
2	A Is that correct.
3	Q And and so my question is, looking into
4	the future, do you do you foresee that changing,
5	or is that going to be a constant?
6	A I believe that that depends on the number
7	of charging stations available. If there is a
8	scenario where you pull up an app and there's four
9	fast chargers near each other and all of them have
10	variable pricing, then, yes, you may likely make a
11	decision based on that price if the fast charger is
12	the only one there then.
13	Q Right. So in the scenario where there are
14	four and I, as a consumer, am going to go to the
15	one that's cheapest
16	A Yeah.
17	Q in that scenario, then the price that
18	we set in the tariff that may be below cost could
19	be anti-competitive. But until we reach that kind
20	of saturation, in your view, it is not necessarily
21	anti-competitive?
22	A So long as non-utilities kind of also set
23	a price for the charging session.
24	CHAIRMAN HALL: Okay. Thank you.
25	COMMISSIONER STOLL: No questions. Thank

EVIDENTIARY HEARING - Vol. II 1/12/2017

1	you for your testimony.
2	CROSS-EXAMINATION
3	BY COMMISSIONER KENNEY:
4	Q Good afternoon, Ms. Smart. Two things.
5	First, you mentioned in your rebuttal, I think you
6	last page, that the Commission should open up a
7	separate proceeding to discuss a state-wide policy.
8	How do you see that as different from the working
9	document that we have where we invited all the
10	stakeholders to come in and give us their ideas?
11	A I thought that was a great start, the
12	working group and the workshop that we had there.
13	I just believe that we need to conclude with an
14	actual rule-making clarification in the law.
15	Q So you think that we need to have a
16	clarification in our law?
17	A Absolutely. I think that that is a good
18	conclusion of today, that there's still some lack
19	of clarity on whether non-utilities
20	Q What's Charge Point's position does
21	Charge Point believe a third party vendor can
22	resell electricity in the State of Missouri for
23	these charging ports?
24	A We do not believe currently that that
25	the that a customer of Charge Point can sell per

1	kilowatt hour. We do believe that a Charge Point
2	customer can own a charging station.
3	However, we've advised all of our Missouri
4	customers to only offer free charging services or
5	charge per hour, not per kilowatt hour.
б	Q So your 37 vendors that Charge Point has
7	in the Ameren territory, they either give the
8	energy free or they charge on a per hour basis for
9	hook-up to the unit?
10	A Yes. That's correct.
11	Q All right. And you're overall complaint
12	when you were talking to the Chairman is that it's
13	just the capital structure. The personal vendor
14	has to put out the money for the infrastructure and
15	use that as far as making money off of that whereas
16	the utility gets to stick it in rate base?
17	A Correct. We think that and to be
18	clear, Charge Point is supportive of the ability of
19	a utility to own charging stations or to rate base
20	charge stations.
21	We're concerned with the the model that
22	they have proposed and the fact that this
23	particular highway corridor connects many states
24	across a national network of charging stations that
25	we're trying to create.

1 While it may appear to fill a hole, it also creates a hole because we can't compete with 2 3 it. 4 0 What do you think about the -- setting the 5 tariff for -- setting the amount that can be 6 charged for -- on a -- on a -- through the utility 7 whether it's a per hour basis or -- or a per 8 kilowatt basis that the utilities could? 9 We're -- we're concerned with the -- with Α regulating rates to drivers. I think there has 10 11 been some discussion today from the Chairman about 12 whether or not to regulate or provide a tariff to 13 all non-utilities to charge drivers at that rate. 14 We do want to make sure there is 15 flexibility built into the pricing models that a charging station owner can set for the drivers 16 17 unique to that property. 18 So in the same way right now that a 19 Wal-Mart may want to provide two hours of free 20 charging and then charge an hourly fee afterwards because they know you're not shopping in their 21 2.2 store after two hours. 23 We need that flexibility built into it so 24 that the indirect benefits of actually hosting a 25 charging station are realized.

```
1
         0
             How many vendors does Charge Point have in
 2
     the -- private vendors does Charge Point have in
 3
    KCP&L's service territory or GMO's service
 4
     territory?
 5
             How many customers do we have that
         Α
     aren't --
 6
 7
             That -- yeah. Who have their on Charge
         0
     Point charging stations.
 8
 9
             That are not KCP&L? I do not have that
         А
10
    number off the top of my head.
             Do you have a random -- more than 20? Do
11
         Q
12
    you know?
13
         Α
             Yes. I think we provided that into the
14
     docket.
15
             I think I saw that somewhere. I just
         0
16
     don't have it on hand.
17
            Yeah. I think it was near 30.
         А
18
         0
            A little less than Ameren's territory?
19
            Yes.
         А
20
             Okay. Let me ask you a question, then.
         0
21
     So do you give them the same recommendation that
2.2
     they charge by the -- by the time of use rather
23
     than the kilowatt hour?
24
             Correct. Yes. State-wide, we -- we would
         Α
25
    be advising all customers to provide free charging
```

1	or to charge per hour.
2	Q Well, how does Charge Point deal with that
3	since they provide KCP&L all their charging ports
4	and have a contract with KCP&L and KCP&L gives away
5	all their whoever hooks up there, they get it
6	all for free from their site host. How do you
7	balance that as a competitor scenario?
8	A How do we compete with our stations.
9	Q How how does that get competition?
10	You're worried about competition on Ameren's side ,
11	and I understand that.
12	But if I'm a vendor and I buy the station
13	from you and I'm going to sell it by the kilowatt
14	hour as I'm recommended, and then here is KCP&L
15	putting them up all over the whole city and that
16	electricity is free, that charge is free, that
17	seems like that would be a competition problem for
18	you.
19	A Right. So within KCP&L's program where
20	they are offering Level 2 charging stations, we
21	have sold stations within that program so found
22	site hosts that want to receive that station from
23	KCP&L and have KCP&L control the pricing or require
24	that the stations be free.
25	We have also sold stations where the owner

1	of that station may want to set the pricing
2	themselves and then want to own and operate their
3	own station. I think that most of that occurred
4	prior to KCP&L's program. We have
5	Q That doesn't occur anymore, does it? Does
6	that happen anymore? I understand picking a site
7	and they want KCP&L. I know they've got a contract
8	with all the Hyvees because they're at every Hyvee
9	that I've seen.
10	But the other areas, do you are you
11	selling to many charging points for vendors outside
12	of KCP&L?
13	A Not within KCP&L's territory. And we
14	have
15	Q Because it's not it's not very
16	competitive, is it?
17	A It is it is
18	Q Not right now?
19	A a different program from Ameren's in
20	that it's Level 2, which means that you can put a
21	charging station literally anywhere in any parking
22	space.
23	Q Do they have do they have do they
24	have any they have a couple fast chargers,
25	right? One in St. Joe, one in Blue Springs and

1 maybe a couple more? 2 They installed some fast chargers with Α 3 Nissan. 4 0 And that's just -- that's separate from --5 А They may be on the Charge Point network, but they were not our equipment. 6 7 But not -- but not your equipment? 0 8 To my knowledge. А 9 COMMISSIONER KENNEY: Okay. All right. 10 Thank you very much. 11 JUDGE BUSHMANN: Recross by Ameren 12 Missouri? 13 MS. JOHNSON: Thank you. I do have a few 14 follow-up questions. 15 RECROSS EXAMINATION BY MS. JOHNSON: 16 17 Kind of following up a little bit on some 0 18 of your discussions with Chairman Hall, you 19 referenced three fast charging stations within 20 Ameren Missouri's service territory. Do you recall 21 that? 2.2 A Yes. 23 St. Charles Nissan, Bommarito Nissan and 0 24 Lou Futz Motor Company; is that correct? 25 A Yes.

1	Q Now, none off those those are all in
2	the St. Louis Metropolitan area, essentially? None
3	are further west than Wentzville?
4	A Correct.
5	Q Thank you. And to follow up on a couple
6	of questions from both Chairman Hall and
7	Commissioner Kenny, I wanted to ask you is Charge
8	Point willing to invest capital to install fast
9	charging infrastructure along the I-70 corridor
10	that where Ameren has proposed to install this?
11	A Yes.
12	Q So Charge Point itself will invest its own
13	money to get out into that corridor?
14	A Either we've investment strategies in
15	place to create a national network of charging
16	stations and have partnerships that may include
17	third parties that finance stations.
18	Q So why haven't you done that yet?
19	A We are working on it.
20	Q Okay.
21	A The availability of of vehicles in the
22	area is growing, and we do believe that that
23	it's a key corridor to support.
24	And the reason that I'm here today is
25	because we think it's a key corridor, and we do not

want to be locked out of this area for the next 1 2 three years. 3 0 Okay. So we can expect to see that 4 infrastructure developed, also, then? 5 Not if this is approved. А 6 But you had concrete plans before this 0 7 plan was -- outside of our own RFP process to 8 support this? 9 А We have concrete plans to create a 10 national network of fast chargers along the fast 11 act designated corridors, including the one listed 12 here, yes. 13 0 Okay. Could -- would you be able to 14 produce a copy of the documents that show the 15 details regarding that particular plan? 16 А No. That is confidential business 17 information. 18 0 Would you be able to give us any details 19 regarding timelines? 20 No, I cannot. А 21 How much money were you going to invest in Q 2.2 that? 23 We cannot disclose private business Α 24 information. Q What -- if we went in in-camera, would you 25

1	be able to describe that, all that information?
2	A No, I cannot.
3	Q No, you cannot. Would you be able to
4	so you can't give us a timeline. You can't give us
5	a budget. Can you give us an example of the
6	business model you would have been proposing for
7	that corridor or a variety of business models since
8	you have recommended a variety of business models
9	for Ameren Missouri?
10	A Sure. Let me describe how our we put
11	in fast charger corridors. We have a plan for a
12	year by year growth of fast charger corridors.
13	In 2016, we focused on the East and West
14	Coast of the United States in partnership with BMW
15	and Volkswagon where the automakers put in some
16	funding. There was private capital
17	Q If I could reign you in to the Missouri
18	specific what you would propose as a business model
19	for this specific location since you indicated that
20	all have and you thought about that?
21	A Again, we would be expanding on the
22	relationships and partnerships like we have done in
23	2016. Yes.
24	Q Okay. Have you been working on those
25	relationships in Missouri and developing those in

1 Missouri in the last few years? They are national relationships that we 2 Α 3 have been developing over the past few years. 4 0 And have you talked to them specifically 5 about this Missouri corridor? 6 А Yes. 7 Have you made any detailed actual plans 0 about that, or has it been just speculation at this 8 9 point? 10 Α We have plans as to expand along the fast 11 act designated corridors, including the I-70 corridor. Yes. 12 13 0 All right. Plans that you can't explain 14 or divulge any information about? 15 MR. COMLEY: It's been asked and answered. 16 MS. JOHNSON: Fair enough. Withdrawn. 17 JUDGE BUSHMANN: Sustained. 18 MS. JOHNSON: I have no further questions. 19 JUDGE BUSHMANN: Recross by Staff. 20 CROSS-EXAMINATION BY MR. THOMPSON: 21 2.2 In response to some questions by Counsel Q 23 for Ameren, you indicated that your company didn't want to be locked out of that corridor for three 24 25 years.

1	What if the Commission approved Ameren's
2	pilot program but allowed pricing to be competitive
3	or set by the market? Would your company still
4	feel itself locked out of that corridor?
5	A Yes. As indicated to the Commissioners on
6	the Bench, the concern is not with pricing to the
7	drivers. It's the availability of the charging
8	station.
9	So our ability to sell at full cost a
10	charging station to a site host or to develop a
11	site if they are to receive something free of
12	charge from Ameren where Ameren has used the rate
13	base in order to pay for the cost.
14	MR. THOMPSON: Thank you. No further
15	questions.
16	JUDGE BUSHMANN: Kansas City Power &
17	Light?
18	MR. FISCHER: No questions, your Honor.
19	JUDGE BUSHMANN: Division of Energy?
20	MR. ANTAL: No questions. Thank you.
21	JUDGE BUSHMANN: NRDC?
22	MR. ROBERTSON: No questions.
23	JUDGE BUSHMANN: Sierra Club?
24	MR. HALSO: Just a few, your Honor.
25	RECROSS EXAMINATION

1	BY MR. HALSO:
2	Q Ms. Smart, let's assume that the
3	Commission were to approve Ameren's program as
4	proposed and further state that no further
5	investment by the utility would be permitted in the
6	I-70 corridor or, say, a period of three years or
7	five years during which they'd evaluate use of the
8	stations and other data and lessons learned.
9	Once the sixth station host site hosts
10	were selected, at that point, would Charge Point's
11	competitive concerns for the corridor be resolved
12	for at least for the period during which Ameren was
13	prohibited from further investment?
14	A It would depend upon how the time frame
15	for when the stations themselves were deployed.
16	But once those stations have been installed and
17	Ameren has conclude its pilot, yes, we would hope,
18	at some point, to refocus our investment. However,
19	at that time, we may have moved on to other areas.
20	Q And rather than a the request for
21	proposal used here, you prefer a model where site
22	hosts, say, a gas station where a fast charger
23	might be located along I-70 would choose from a
24	list of qualified vendors, correct?
25	A Yes.

1	Q And let's assume Ameren had molded their
2	program as such and that Charge Point was one of
3	the qualified vendors. Would it be your preference
4	that Charge Point could go out and recruit
5	potential site hosts, look for hosts along I-70?
б	A Yes.
7	Q And then refer those site hosts to Ameren,
8	suggest they join the program and, also, request to
9	use Charge Point's equipment?
10	A Yes.
11	Q And would you agree that the success of
12	any given EV service provider qualified under that
13	program would depend, in part, on the size of their
14	sales course?
15	A That may be a factor in addition to the
16	features and services and quality of the product
17	offered.
18	Q But the the size and ability of their
19	sales force would be relevant to their success of
20	the program. Would you agree?
21	A Not necessarily, no. I
22	Q In in a program where EV service
23	providers may refer site hosts through a utility
24	through which they'd obtain equipment, the quality,
25	the effectiveness of these sales providers, sales

1	force would not be relevant to the success. Is
2	that your testimony?
3	A The number of no. My testimony would
4	be that if there was the ability to have multiple
5	vendors in the program, then presumably each of the
б	vendors qualified would have a sales person in the
7	area selling a charging station. I don't think
8	that the size of the sales force is relevant to
9	that point.
10	Q Based on your experience as Charge Point's
11	sales person, larger EV service providers in the
12	United States?
13	A Nationally, yes.
14	Q By what order of magnitude?
15	A I don't know.
16	Q And taking the hypothetical, would Charge
17	Point be supportive if such a qualified vendor
18	approached, even if Ameren were ultimately the
19	owner all the way up through the charging station
20	itself?
21	A Yes.
22	MR. HALSO: Thank you, your Honor. No
23	further questions.
24	JUDGE BUSHMANN: Public Counsel?
25	MS. SHEMWELL: No questions. Thank you.

1	JUDGE BUSHMANN: Redirect by Charge Point?
2	REDIRECT EXAMINATION
3	BY MR. COMLEY:
4	Q Ms. Smart excuse me. Ms. Smart, during
5	the course of Staff's examination, Mr. Thompson
б	referred to the 37 customers that Charge Point has
7	public charging stations for in the Ameren service
8	territory.
9	I'm going to show you an exhibit. I've
10	handed Ms. Smart a what I've marked as Exhibit
11	302. Ms. Smart, are you capable of identifying that
12	for the Commission and the parties, please?
13	A Yes. This is the list of station owners
14	that we have in the what we believe to be the
15	Ameren service territory totaling 37 no. This
16	one's totaling 50 ports.
17	Q It shows 50 ports, 37 separate customers
18	that would that be a fair statement?
19	A I believe it's 19 customers.
20	Q Okay. All right. Thank you very much.
21	This was can you explain this was an
22	attachment to a Data Request response?
23	A We received a Data Request. The Data
24	Request was on the area between, I believe,St.
25	Louis and Columbia. Therefore, these may or may

EVIDENTIARY HEARING - Vol. II 1/12/2017

Page 340

1 not be specifically in Ameren's service territory. They are stations located between the two, which is 2 why there's 50 of them. 3 4 Would they be the 37 -- the customers 0 5 we've been talking about that Staff is wanting to 6 see? 7 А Yes. Yes. I have one copy of that exhibit. 8 Q 9 MR. COMLEY: Would you like to see it? MR. THOMPSON: I'd love to see it. 10 11 MR. COMLEY: Based upon this information, 12 I move the admission of Exhibit 302, so it's -- I 13 mean, 302 for the benefit of the parties and the 14 Commission. 15 JUDGE BUSHMANN: The other parties are going to need an opportunity to review it. 16 17 MR. COMLEY: This is also on the back of the Data Request given to the Division of Energy 18 19 and also to Union Electric. 20 MS. SHEMWELL: How are we identifying it? 21 How are we describing it? 2.2 Charge Point customers -- I should figure Α 23 out what the exact area was. Charge Point's customers in the Ameren service territory area. 24 25 MR. THOMPSON: That's not all of them,

1	right?
2	Q (By Mr. Comley) That's not all of them?
3	A Public. Charge Point customers.
4	MR. COMLEY: These are the public.
5	MR. THOMPSON: Can I voir dire?
6	MR. COMLEY: Sure.
7	VOIR DIRE EXAMINATION
8	BY MR. THOMPSON:
9	Q Is that all the public ones?
10	A This is all the public charging in that
11	are, correct. On the Charge Point network.
12	MR. COMLEY: On the Charge Point network.
13	Q (By Mr. Thompson) By Ameren area, do you
14	mean Ameren service area, or do you mean the
15	stretch between Columbia and Wentzville?
16	A It is the stretch between I just want
17	to make sure I get the correct it is a list of
18	Charge Point charging stations along the I-70
19	corridor between St. Louis and Boonville and along
20	the Interstate 54 corridor between Kingdom City and
21	Jefferson City.
22	Q To your knowledge, are there other Charge
23	Point customers within Ameren's service territory
24	that are not on that list?
25	A Yes.

1	MR. COMLEY: There are?
2	A That are we have Charge Point customers
3	who had restricted access to employees, including
4	Ameren.
5	Q (By Mr. Thompson) I mean other public
6	ones.
7	A Not to my knowledge. That would be Charge
8	Point customers.
9	MR. THOMPSON: Thank you very much.
10	That's it for me.
11	MR. COMLEY: Well, for some clarity, these
12	are all public charging stations?
13	A Yeah. Those are all public charging
14	stations. Correct.
15	MR. COMLEY: Who else would like to see
16	this exhibit?
17	JUDGE BUSHMANN: Any other party want to
18	review that before you make any objection?
19	MR. COMLEY: I can have copies of these
20	made immediately and have that ready for you
21	tomorrow. I would move the admission of Exhibit
22	302.
23	JUDGE BUSHMANN: Any party have an
24	objection to the receipt of that exhibit? Hearing
25	none, it's received into the record, and you can

```
1
     leave that with the court reporter.
             (Exhibit 302 was offered and admitted into
 2
 3
     evidence.)
 4
             JUDGE BUSHMANN: Redirect, Mr. Comley?
 5
             MR. COMLEY: Yes, your Honor.
                 FURTHER REDIRECT EXAMINATION
 6
 7
     BY MR. COMLEY:
             Ms. Smart, there were questions to you
 8
         0
 9
     about the Kansas City Power & Light Clean Charge
10
     Network and Charge Point's participation in that.
11
     Is there a difference between the KCP&L pilot and
12
     Ameren pilot?
13
         Α
            Yes.
14
             And can you explain those to the
         0
15
     Commission for us?
16
         Α
             Yes. KCP&L purchased those stations
17
     directly from us. They were Level 2 stations.
                                                      We
18
     support KCP&L in that program in that KCP&L found
19
     an opportunity to support EV adoption through Level
     2 charging stations, which can be located, as we've
20
21
     indicated earlier, anywhere.
2.2
             The Level 2 stations themselves, as has
23
     been discussed today, can support any electric
     vehicle at all -- including plug in hybrids.
24
25
             And KCP&L, in making that investment in
```

Level 2 stations, invested in networked stations, 1 which means that those stations can be found on a 2 3 national network through our app, through a web 4 site. 5 To our knowledge, Ameren stations are not 6 networked, meaning that the network communication 7 can't occur directly to the driver. 8 So let's say someone's plugged into a 9 charging station and the utility decides that there 10 needs to be a change in pricing or a demand 11 response event in the future. 12 What KCP&L did was future-proof its 13 investments to make sure that those grid benefits 14 could be realized by supporting communication 15 between the network and the driver. 16 0 There was reference to the multiple RFP 17 argument you've made in your position statements 18 here. Is there a difference between how the Clean 19 Charge Network KCP&L handled multiple RFPs? And 20 how does that reconcile with your position with 21 Union Electric? 2.2 KCP&L purchased stations directly from us. Α To my knowledge, there was not an RFP process at 23 24 the time. 25 We have participated in the Kansas

1	corporation Commission review of KCP&L's program
2	and advocated for customer choice and future growth
3	of that their investment, including any fast
4	charger corridors that they might seek to install.
5	We've also been supportive of KCP&L
6	installing or allowing for site host choice in
7	pricing to the driver, which they're currently
8	implementing in Kansas.
9	Q Has Change Point ever taken a position
10	elsewhere in any other jurisdiction other than what
11	you've done today?
12	A Yes.
13	Q And what positions have you taken
14	differently?
15	A Charge Point has taken the same position
16	across all states that customer choice is required
17	in any program that is reviewed by a Commission for
18	ratepayer support.
19	We believe that it's important that in
20	order to support a competitive market if there will
21	be cost recovery of that program at any point in
22	time that there needs to be ability of the site
23	host to choose the equipment located on their own
24	property.
25	Q You mentioned that you are the sole

network provider for the Clean Charge Network.
 Please explain what that means.

3 Α The charging station itself includes 4 several parts. There is the hardware, so the 5 physical box that you see with the plugs, software 6 within that station and a network which might 7 communicate via wi-fi or a cellular network to a 8 cloud that allows for monitoring of that station, 9 control that station and locating that station and 10 seeing remotely whether or not someone's plugged 11 in.

12 So the charge -- the charge -- the Clean 13 Charge Network stations are all part of Charge 14 Point's network. However, there is -- there is 15 multiple hardware providers across the DC fast 16 chargers and Level 2 investments in their program.

Q During cross-examination from the Sierra
Club, there was mention of the San Diego Gas &
Electric pilot in California. Can you explain the
differences between that pilot and the Union
Electric pilot?

A Sure. In SDG&E's case, SDG&E is providing charting stations for the -- Level 2 charging stations for work place and multi-family housing. SDG&E does own the charging stations.

1	However, the site host has choice. The site host
2	can choose equipment from a list of qualified
3	vendors provided by SDG&E, which means that Charge
4	Point and our competitors work with the utility to
5	find site hosts in the same model that we've
б	composed here, and the SDG&E owns those stations.
7	Q Did Charge Point participate in the
8	decision that was referred to by Mr. Sheehy in his
9	testimony?
10	A Yes. We participated in all three
11	California investor-owned utility proposals
12	referenced in Mr. Sheehy's testimony.
13	Q There was a question about recruitment of
14	site hosts. And I'm the question comes to mind,
15	is it typical for a third party vendor like Charge
16	Point to assist a utility like Ameren in collecting
17	site hosts for charging stations?
18	A Yes.
19	Q And why is that?
20	A Charge Point has been in business for
21	eight years, and we have experience in knowing what
22	types of sites should be perfect for a charging
23	station.
24	As Mr. Nealon mentioned, we did approach
25	Ameren with ideas as to what types of sites would

be best and what we needed at those sites. And we 1 do believe our expertise, including that of our 2 competitors, including us as well, is important to 3 4 these programs. 5 MR. COMLEY: I have no other questions. 6 JUDGE BUSHMANN: That completes your 7 testimony, Ms. Smart. You may step down. Thank 8 you. Why don't we take our final witness for the 9 day for Kansas City Power & Light? MR. FISHER: KCP&L calls Tim Rush. 10 11 TIM RUSH, being first duly sworn to testify the truth, the whole 12 13 truth, and nothing but the truth, testified as follows: 14 DIRECT EXAMINATION BY MR. FISCHER: 15 JUDGE BUSHMANN: Please be seated. 16 17 (By Mr. Fischer) Please state your name 0 and address for the record? 18 19 Α Tim Rush, 1200 Main Street, Kansas City, Missouri with Kansas City Power & Light Company. 20 21 Are you the same Tim rush that caused to 0 22 be prepared in this proceeding rebuttal testimony, 23 which has been marked as Exhibit 650, and 24 surrebuttal testimony, which has been marked as 25 651?

1 А T am. 2 0 Do you have any changes or corrections 3 that need to be made to those pieces of testimony? 4 I do not. А 5 If I were to ask you the questions that 0 6 are contained in those written documents, would 7 your answers be the same today? They would. 8 Α 9 0 And are they true and accurate to the best 10 of your knowledge and belief? 11 А Yes. 12 MR. FISCHER: Your Honor, I'd move for the 13 admission of Exhibits 650 and 651 and tender the 14 witness for cross. 15 JUDGE BUSHMANN: Any objections? Hearing 16 none, those exhibits are received into the record. 17 (Exhibits 650 and 651 were offered and admitted into evidence.) 18 19 JUDGE BUSHMANN: First cross would be 20 Ameren Missouri. 21 MR. MITTEN: Ameren Missouri has no 2.2 questions of Mr. Rush at this time. 23 JUDGE BUSHMANN: Commission Staff? 24 MS. PAYNE: No questions, your Honor. 25 JUDGE BUSHMANN: Charge Point?

1 CROSS-EXAMINATION BY MR. COMLEY: 2 3 0 Mr. Rush, I thought I'd try to clarify 4 KCP&L's position a little bit. Is it your position 5 that -- is it the company's position that 6 non-utilities cannot lawfully own electric vehicle 7 charging stations? No. Our position is they cannot resell 8 Α 9 electricity. 10 So there is -- they could not control the 0 11 price? 12 А That is correct. 13 0 Would you object to them -- would you 14 object to a non-utility which owns a charging station charging nothing for the service? 15 We have no problem there. 16 Α 17 Or the per hour rate? 0 18 I'm unclear on that one. But --А 19 Q We're getting close, then? 20 Right. We -- we have a prohibition А against the resale of electricity in our tariffs is 21 2.2 why I say that. And to me, it typically resides on 23 a per kilowatt hour basis. 24 That's all. Thank you. MR. COMLEY: 25 JUDGE BUSHMANN: Division of Energy?

EVIDENTIARY HEARING - Vol. II 1/12/2017

Page 351

1 MR. ANTAL: A few questions. 2 MR. RUSH: Yes. 3 CROSS-EXAMINATION 4 BY MR. ANTAL: 5 Q Hello, Mr. Rush. Hello. 6 А 7 Were you in the room during my opening 0 8 presentation? 9 I was. А 10 Do you recall me referencing a Commission 0 11 case with File No. EO-2011-0090? 12 A I do. 13 0 Okay. 14 MR. ANTAL: Your Honor, I'd like to mark 15 Division of Energy -- Division of Energy exhibit. 16 I believe this will be 250 --17 JUDGE BUSHMANN: 254. 18 MR. ANTAL: 254. There are at least six. 19 (By Mr. Antal) Mr. Rush, do you see the Q 20 style of the case at this top of that document? 21 Α I do. 2.2 Can you read the style of the case into Q 23 the record? 24 In the Matter of the Application of Kansas А 25 City Power & Light Company for Authority to

1	Encumber Certain Clean Cities Equipment.
2	Q Okay. And can you read the title of the
3	document?
4	A Order granting application and request for
5	waiver.
б	Q Okay. And are you familiar with the
7	subject matter of this proceeding?
8	A I am somewhat familiar
9	Q Okay.
10	A with this.
11	Q Could you read into the record starting
12	with the second paragraph to the end of the page?
13	A I can. KCP&L is asking for permission to
14	encumber equipment to be acquired with funding from
15	the U.S. Department of Energy (DOE).
16	The equipment consists of charging
17	stations for electric vehicles. The total
18	equipment to be purchased and subject to
19	encumbrance would be approximately 40,000 to
20	\$90,000.
21	Per Federal regulation, title of the
22	equipment purchased with DOE funds is subject to
23	conditions that limit the buyer's ability to use
24	the equipment and its ability to dispose of the
25	equipment.

EVIDENTIARY HEARING - Vol. II 1/12/2017

1 0 Based off your knowledge, did the 2 Commission grant this waiver? 3 Yes, they did. А 4 Okay. And did KCP&L purchase the subject 0 5 electric vehicle charging stations? We did. Yes. 6 А 7 And is it -- if you know, are these 0 charging stations in KCP&L's rate base? 8 9 Well, the remainder of any amounts beyond Α 10 the funding and the purchase price to install that 11 is in rate base, yes. 12 0 Okay. Thank you. 13 MR. ANTAL: Judge, I'd move to have 14 Exhibit 254 entered into the record. 15 JUDGE BUSHMANN: Any objections? 16 MR. COMLEY: I think you can take official 17 notice of the decisions of the Commission, Judge. I'm not sure why it has to be an exhibit. 18 19 JUDGE BUSHMANN: I'm going to go ahead and 20 leave it as an exhibit, although I think you're 21 probably correct. So I'll admit Exhibit 254 into 2.2 the record. (Exhibit 254 was offered and admitted into 23 24 evidence.) 25 MR. ANTAL: No further questions. Thank

```
1
    you very much.
 2
             MR. RUSH: Thank you.
 3
             JUDGE BUSHMANN: NRDC.
             MR. ROBERTSON: No questions.
 4
             JUDGE BUSHMANN: Sierra Club?
5
             MR. HALSO: No questions, your Honor.
6
7
             JUDGE BUSHMANN: Public Counsel?
             MS. SHEMWELL: No questions.
 8
9
             JUDGE BUSHMANN: Commissioner questions?
10
                      CROSS-EXAMINATION
11
    BY CHAIRMAN HALL:
12
         Q Good afternoon.
13
            Good afternoon.
         Α
14
             Turning to page 4 of your surrebuttal
         0
15
     testimony, lines 5 and 6 -- and I think I
16
     understand what you're saying, but I just -- I want
17
     to be completely sure I understand.
18
             You say that public utilities are the only
19
    utilities currently authorized to offer public
20
     charging stations such as those proposed in this
21
     docket.
2.2
             That -- you -- you -- you base that
23
    understanding on KCP&L tariffs and KCP&L GMO
24
    tariffs; is that correct?
25
        A I do. Yes.
```

1	Q So if if those tariffs were modified or
2	eliminated, then other entities would be able to
3	would would be able to to offer public
4	charging stations?
5	A I I am not certain of that. And the
б	reason I say that is because a utility, in my
7	understanding, is offered a franchise to be the
8	sole provider of electric service.
9	And so there may be a Legislative I
10	don't know that condition. I know that our tariff
11	says that. I know our tariff requires that. So I
12	think
13	Q And the tariff that you're referring to,
14	and I think it's the same language that's an issue
15	that the issue that Ameren has, and it's the
16	prohibition of of sale for resale
17	A That's correct.
18	Q correct? Is okay. Do you know why
19	why that tariff exists?
20	A I do.
21	Q What's the purpose of that tariff?
22	A The purpose of that tariff is so that an
23	entity cannot develop and sell electricity within
24	the certified area or the certificated area of the
25	utility.

1	And the examples would be where a
2	subdivision decides to establish a subdivision, set
3	a meter point to receive electricity and then put
4	all of the housing around is and sell it at their
5	own price. That that that is what has always
6	been the process for a commercial development.
7	Q So it's not it was not designed to
8	prohibit sale for resale for charging stations?
9	A No, it was not.
10	Q And do you do you have a position on
11	on whether or not in subsequent rate cases it would
12	be appropriate to modify that provision to make
13	that clearer?
14	A The company is it wants to encourage
15	the development of charging stations outside the
16	utility. And we have gone on record in saying that
17	we would like to see that, whether that's a
18	Legislative piece or a change in the tariff.
19	So we would be willing to modify the
20	tariff to be able to address that if that were the
21	only restriction that was required.
22	And and, again, I'm not an attorney, so
23	I don't know the particulars of it. But I
24	understand it's been our position that we can
25	you know, a customer or an entity cannot come in

-	
1	and resell electricity in our service territory.
2	I'm aware of, for example, in a rate case
3	not too long ago in which a developer wanted to
4	meter a condominium area, and they had installed
5	their own metering.
6	And we went to the Commission because this
7	was the issue. And they literally, if I'm not
8	mistaken, created that entity as a utility in the
9	State of Missouri regulated by this Commission.
10	And so that was kind of one of those
11	things that said the Commission was citing saying
12	you could not do that without becoming a utility.
13	Q So going forward for KCP&L and KCP&L GMO,
14	it was determined that it was appropriate to modify
15	this particular tariff to make it clear that sale
16	for resale for charging stations is allowed, would
17	it be appropriate, in your view, to to set an
18	express rate for charging stations?
19	A Well, for the charging stations that we
20	have in our service area, which we have in a rate
21	case right now, we do want a price to be able to
22	charge for those services. Now, whether an
23	entity
24	Q A specific rate just for charging
25	stations?

We have filed a specific -- we have filed 1 Α a specific rate. And we are asking for approval of 2 that tariff. 3 4 0 Okay. 5 Α You've asked a number of times today about 6 having kind of a blank or an open price. I'm 7 really not certain at that stage, except that our company is of the position that we need a tariff 8 9 and we want to start recovering the investment that sits out there with the charging stations that we 10 11 have. 12 CHAIRMAN HALL: Okay. Thank you. 13 А Okay. 14 COMMISSIONER STOLL: No questions. Thank 15 you for your testimony. 16 COMMISSIONER KENNEY: No questions. Thank 17 you. 18 JUDGE BUSHMANN: Recross, Ameren Missouri? 19 MR. MITTEN: No questions, your Honor. 20 JUDGE BUSHMANN: Staff? 21 MS. PAYNE: No questions. 2.2 JUDGE BUSHMANN: Charge Point? 23 MR. COMLEY: No questions. 24 JUDGE BUSHMANN: Division of Energy? 25 MR. ANTAL: No questions.

1	JUDGE BUSHMANN: NRDC?
2	MR. ROBERTSON: No questions.
3	JUDGE BUSHMANN: Sierra Club?
4	MR. HALSO: No questions.
5	JUDGE BUSHMANN: Public Counsel?
6	MS. SHEMWELL: No questions. Thank you.
7	JUDGE BUSHMANN: Redirect by Kansas City
8	Power & Light?
9	REDIRECT EXAMINATION
10	BY MR. FISCHER:
11	Q Mr. Rush, in answer to Chairman Hall's
12	questions, you made reference to a condominium
13	where the Commission treated it as a utility
14	whenever they wanted to effectively sell to the
15	condominium owners
16	A That's right.
17	Q electricity?
18	A That's correct.
19	Q Do you recall can you be a little more
20	specific about what case we were talking about
21	there?
22	A I can tell you the entity. I don't
23	remember a case number. I mean, it it was Wall
24	Street Towers.
25	Q That's in Kansas City? That's a luxury
L	

1	condominium in downtown Kansas City?
2	A Downtown Kansas City. There was a
3	restriction that they could not charge more than
4	the price that was charged from the utility. And
5	they tried to control the notifications and
6	disconnections and the Commission has required to
7	do that, et cetera. So they put a number of
8	restrictions on it to make it a public utility.
9	Q And was that consistent with the Staff's
10	position on that case which how it should be
11	done? Do you recall?
12	A Initially not. It was the Staff's
13	position and the company's position it was a
14	violation for them do that.
15	Q Okay. Do you recall any other more recent
16	examples of similar situation where
17	A I do.
18	Q a large utility would you explain
19	that situation?
20	A I believe it dealt with an entity that was
21	known as Western Electric. And Western Electric
22	was a very, very large manufacturer in Kansas
23	City's service territory that ceased to operate.
24	They became a they were sold and then
25	separated themselves into a number of businesses,

very large business, large employments, et cetera. 1 They decided to start metering their sites 2 3 within that entity. And we went to the Commission 4 and said, They cannot -- you know, this is a 5 violation. 6 Basically, we worked with the Staff and 7 came up with a method of talking about things that were dated at a certain stage previously owned as 8 9 one entity and a meter and worked out a method to 10 address that. It did not become a public utility. 11 But it was controlled by a tariff process. 12 Okay. Are you also aware of possible 0 13 analogous situations in the telephone industry? I 14 think Mr. Thompson may have referred to private pay 15 telephones earlier. 16 Α And I think that would be an example of 17 where there was issues associated with, you know, 18 what is probably analogous to what we're talking 19 about here. 20 0 Do you know if the statutes were 21 eventually changed to address the certification 22 process for private pay telephones? I do believe the statutes were changed for 23 А that. Yes. 24 25 Q Are you aware of a situation similar to

1	the Wall Street Towers in the telephone area of
2	what they called shared services?
3	A You know, I'm not as familiar, but I am
4	aware I've heard about it. And that's where a
5	tenant would or a landlord would own and would
6	be able to provide services to each of the tenants.
7	And I'm not sure exactly how that was handled
8	ultimately, but it's a similar issue.
9	Q Okay. I would suggest we have a statute
10	on on file that addresses that today. And,
11	also, is is it your understanding that there's a
12	requirement that you obtain a certificate as
13	Mr. Thompson mentioned in his opening statement if
14	you're if you want to construct electric plant
15	in the state?
16	A I mean, if we want to construct a power
17	plant, we have to go get a certificated a
18	certificate. Yes. That's correct.
19	MR. FISCHER: That's all the questions I
20	have, your Honor. Thank you.
21	JUDGE BUSHMANN: Thank you, Mr. Rush. You
22	may step down. As we discussed earlier, I think
23	that's all we're going to do today.
24	MS. PAYNE: Judge, Staff does have one
25	issue before we we finish. We would like the

Commission to take notice of Tariff Sheet 137 that 1 Chairman Hall referenced earlier. It's MO PSC 2 3 Schedule No. 6. It's the original, and it's Sheet 4 No. 137. 5 JUDGE BUSHMANN: Do you have a copy of that that I could have? 6 7 MS. PAYNE: Absolutely. 8 JUDGE BUSHMANN: Does any party have 9 objection of taking official notice of that tariff? MR. MITTEN: Is that the Ameren resale 10 tariff? 11 12 MS. PAYNE: It is. 13 MR. MITTEN: Not a problem. 14 JUDGE BUSHMANN: Hearing no objection, the Commission will take official administrative notice 15 16 of Missouri PSC Schedule No. 6, Original Sheet No. 137. Do you Mind if I keep that? 17 18 MS. PAYNE: No. That's fine. 19 JUDGE BUSHMANN: That's all we're going to 20 do today. We are not going to be in session 21 tomorrow because of the weather. 2.2 What we'll do is I'll, next week, issue an 23 amended procedural schedule. We'll try and find a 24 day for the last five remaining local witnesses. 25 And we'll try and then set new briefing dates and

1	spread that out.
2	Things will just kind of get kicked down
3	the road a little bit so that we can finish up the
4	hearing at an appropriate time.
5	Any parties have anything else they want
6	to address where we go off the record? Hearing
7	none, we're off the record. And we're in recess.
8	(The proceedings were concluded at 4:50
9	p.m.)
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12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

1	INDEX	
2		PAGE
3	Opening Statement of Ms. Johnson	24
4	Opening Statement of Mr. Thompson	75
5	Opening Statement of Mr. Robertson	75
6	Opening Statement of Mr. Halso	80
7	Opening Statement of Mr. Comley	87
8	Opening Statement of Mr. Coffman	95
9	Opening Statement of Mr. Fischer	101
10	Opening Statement of Mr. Antal	105
11	Opening Statement of Ms. Shemwell	122
12		
13	WITNESS: MARK NEALON	PAGE
14	Direct Examination by Ms. Johnson	130
15	Cross-Examination by Ms. Payne	133
16	Cross-Examination by Mr. Comley	141
17	Cross-Examination by Mr. Fischer	151
18	Cross-Examination by Mr. Antal	156
19	Cross-Examination by Ms. Shemwell	157
20	Cross-Examination by Chairman Hall	175
21	Cross-Examination by Commissioner Kenney	y 186
22	Cross-Examination by Commissioner Rupp	193
23	Cross-Examination by Commissioner Colema	an 195
24	Cross-Examination by Commissioner Kenney	y 196
25		

1	I N D E X (CONTINUED)	
2	INDEX (CONTINUED)	
3	WITNESS: MARK NEALON (CONTINUED)	PAGE
	Recross Examination by Mr. Comley	197
4	Recross Examination by Mr. Fischer	199
5	Recross Examination by Ms. Shemwell	201
6	Redirect Examination by Ms. Johnson	205
7		
8 9	WITNESS: THOMAS BYRNEPAGE	
10	Direct Examination by Mr. Mitten	212
11	Cross-Examination by Ms. Payne	214
12	Cross-Examination by Mr. Comley	215
13	Cross-Examination by Ms. Shemwell	217
14	Cross-Examination by Chairman Hall	230
15	Cross-Examination by Commissioner Kenney	235
16	Cross-Examination by Judge Bushmann	237
17	Recross Examination by Ms. Payne	241
18	Recross Examination by Ms. Shemwell	242
19	Redirect Examination by Mr. Mitten	244
20		
21		
22		
23		
24		
25		

1	I N D E X (CONTINUED)	
2	WITNESS: PHILLIP SHEEHY	PAGE
3 4	Direct Examination by Ms. Johnson	249
5	Cross-Examination by Mr. Comley	251
6	Cross-Examination by Mr. Halso	253
7	Cross-Examination by Ms. Shemwell	254
8	Cross-Examination by Chairman Hall	264
9	Cross-Examination by Commissioner Kenney	269
10	Cross-Examination by Chairman Hall	273
11	Recross Examination by Ms. Shemwell	276
12	Redirect Examination by Ms. Johnson	277
13		
14	WITNESS: DOUGLAS JESTER	PAGE
15	Direct Examination by Mr. Halso	282
16	Cross-Examination by Ms. Shemwell	284
17	Redirect Examination by Mr. Halso	288
18		
19		
20		
21	WITNESS: NOAH GARCIA	PAGE
	Direct Examination by Mr. Robertson	291
22		
23		
24		
25		

1	I N D E X (CONTINUED)	
2	(
3	WITNESS: ANNE SMART	PAGE
4	Direct Examination by Mr. Comley	295
5	Cross-Examination by Ms. Johnson (In Camera) Vol. 3, pg	.301
6 7	Redirect Examination by Mr. Comley (In Camera) Vol. 3, pg	.308
8	Cross-Examination by Mr. Thompson	310
9	Cross-Examination by Mr. Antal	311
10	Cross-Examination by Mr. Halso	313
11	Cross-Examination by Ms. Shemwell	317
12	Cross-Examination by Chairman Hall	318
13	Cross-Examination by Commissioner Kenney	324
14	Recross Examination by Ms. Johnson	330
15	Recross Examination by Mr. Thompson	334
16	Recross Examination by Mr. Halso	335
17	Redirect Examination by Mr. Comley	339
18	Voir Dire Examination by Mr. Thompson	341
19	Further Redirect by Mr. Comley	343
20	WITNESS: TIM RUSH	PAGE
21 22	Direct Examination by Mr. Fischer	348
	Cross-Examination by Mr. Comley	349
23	Cross-Examination by Mr. Antal	351
24	Cross-Examination by Chairman Hall	354
25		

1		INDEX (COM	NTINUED)	
2	WITNESS: 7	FIM RUSH (CONTINUEI)	PAGE
3				
4	Redirect Ez	kamination by Mr. I	Fisher	359
5				
6				
7	Court Repoi	cter's Certificate		372
8		EXHIBI	ITS	
9	UEC			
10	EXHIBIT	DESCRIPTION	OFFERED	ADMITTED
11	Exhibit 1	Rebuttal Testimo of Mark Nealon	ony 133	133
12			100	100
13	Exhibit 2	Surrebuttal Testimony of Mar Nealon	133 <	133
14	- 1 - 1		010	
15	Exhibit 3	Surrebuttal Testimony of Thomas Byrne	213	213
16	Exhibit 4	Surrebuttal	250	250
17		Testimony of Phillip Sheehy	200	230
18	Exhibit 5	Letter from Vol	3	
19		Lilypad Pg.	. 3	307
20				
21				
22	DOE EXHIBIT	DESCRIPTION	OFFERED	ADMITTED
23	254	Order Granting	353	353
0.4		Application and		
24		Request for Waive	er	

1		EXHIBITS (C	CONTINUED)
2	CHARGE POINT			
3	EXHIBIT	DESCRIPTION	OFFERED	ADMITTED
4	Exhibit 300	Rebuttal Testimor of Anne Smart	ny 296	296
5	Fyhihit 201	Surrebuttal	296	296
6		Testimony of Anne Smart	290	250
7	Evhihit 200	List of Charge	343	343
8	EXILIDIC 502	Point's Public Customers in the	545	545
9		Ameren Service Territory		
10		-		
11	SIERRA CLUB EXHIBIT		OFFERED	ADMITTED
12		Rebuttal Testimor of Douglas Jester	-	283
13			000	000
14	Exhibit 501	Surrebuttal Testimony of Douglas Jester	283	283
15		OI DOUGIAS DESCEI		
16	NRDC			
L7	EXHIBIT	DESCRIPTION	OFFERED	ADMITTED
18	Exhibit 550	Surrebuttal Testimony of Noah Garcia	293	293
L9				
20	KCP&L EXHIBIT	DESCRIPTION	OFFERED	ADMITTED
21	650	Rebuttal Testimony	z 239	239
22 23	651	of Tim Rush Surrebuttal	349	349
24	0.01	Testimony of Tim Rush	549	545
25	(Errhihita a	etained by counsel)		

1	REPORTER'S CERTIFICATE
2	
3	STATE OF MISSOURI)
4)ss. County of osage)
5	
6	I, Monnie S. Mealy, Certified Shorthand Reporter,
7	Certified Court Reporter #0538, and Registered Professional
8	Reporter, within and for the State of Missouri, do hereby
9	certify that I was personally present at the proceedings as
10	set forth in the caption sheet hereof; that I then and there
11	took down in stenotype the proceedings had at said time and
12	was thereafter transcribed by me, and is fully and accurately
13	set forth in the preceding pages.
14	
15	
16	
17	
18	Monnie S. Mealy
19	U
20	Monnie S. Mealy, CSR, CCR #0538
21	Registered Professional Reporter
22	
23	
24	
25	

	_			
A	206:20	136:21	addresses	184:20 190:5
A-l-l-e-g-a-n	Academy 81:7	activity 59:9,10	310:17 362:10	202:20 203:3
282:11	accelerate	60:25 61:10	adequately 93:7	217:13 218:2
ability 42:13	284:25	62:11 64:7	161:7	218:12 219:8
97:8 121:17	accelerated	68:24 69:1	administers	220:13 221:21
210:1 312:10	137:18,20	72:24 73:16	117:2	222:9,17,20
322:19 325:18	acceleration	87:5,6 99:9	Administration	251:14 258:10
335:9 337:18	289:24	169:6 171:5,13	115:16 116:20	258:20 259:6
338:4 345:22	access 81:6	223:17	administrative	265:12,15,17
352:23,24	88:13 89:5	actor 281:13	59:6 261:16	280:21 284:23
able 24:19 32:13	93:20 162:23	actual 68:23	363:15	285:4 343:19
38:17 39:11,11	342:3	142:24 162:12	admission	advance 153:16
42:10 51:4	accessible	273:17 274:1	213:11 283:14	184:21
42:10 31:4 82:8 87:1	310:21,22	274:18 324:14	296:21 340:12	advances 111:21
96:16 137:24	318:12	334:7	342:21 349:13	advancing
149:23 152:11	accident 199:25	add 161:11	admit 239:16	183:19
153:4,14	accommodating	265:20 272:15	353:21	advantage 157:6
154:14 155:10	291:1	280:11	admits 123:8	199:18 200:11
	accomplishing	add-on 276:13	admitted 213:18	201:5
175:9,13 207:8	92:10	added 202:22,25	250:22 283:20	advantageous
210:16 259:9	account 265:19	adding 124:22	293:10 297:2	287:8
261:8 266:17	accounting	149:10	343:2 349:18	advantages 39:7
275:4 297:6	96:21	addition 89:18	353:23 369:10	adversely 91:15
322:22 332:13	accounts 138:14	156:18 253:18	369:22 370:3	advertising
332:18 333:1,3	accumulating	337:15	370:11,16,20	37:22
355:2,3 356:20	146:8	additional 56:24	adopt 42:10	advice 208:23
357:21 362:6	accurate 39:25	102:22 117:23	222:1 226:17	210:12
absence 86:10	349:9	127:8 142:23	254:20	advised 259:5
195:22 281:9	accurately	166:19 229:13	adopted 115:16	325:3
absent 87:2	371:12	249:1	123:21 152:10	advising 327:25
absolutely	accustomed	Additionally	167:1 221:6,11	advocated 345:2
134:10 136:15	131:24 132:1	108:3 111:24	255:4,7	Affairs 90:10
163:22 167:25	acknowledges	114:5	adopting 168:16	101:9
177:21 205:10	65:15	additions 131:4	187:15	affect 91:15
211:2 231:19	acquired 289:5	250:8 295:21	adoption 26:8	240:3 287:11
263:22 264:22	352:14	address 22:23	34:6,24 36:23	affidavit 212:7
268:3 324:17	act 115:15	23:6 30:5 40:4	42:7 45:4	affirmative
363:7	261:17 332:11	40:16 54:15	55:11 81:18	109:13
absorbed 76:5	334:11	121:15,22,23	90:23 91:3	afford 97:8
266:14	acted 243:16	156:8 164:15	123:2,5 124:5	afield 170:23
AC 76:20 77:7	acting 63:5	212:14 249:23	126:18 127:8	afraid 146:24
113:21,21	106:16	282:9 310:19	120.13 127.8	afternoon
119:17,18,20	action 254:24	348:18 356:20	137:20 166:25	175:24,25
120:6,10	287:4	361:10,21	167:8,11,17,19	213:24,25
139:12,14,15	active 61:24	364:6	173:13 177:5	217:2,3 230:10
145:6 153:10	183:23	addressed 102:4	180:16 181:14	230:11 264:5
155:5 158:4	activities 135:14	119:9 156:10	180.10 181.14	284:19,20
159:19,21		117.7 130.10	102.7 103.10	207.17,20
157.17,41	l	l	l	, ,

313:19 318:19	allow 25:14	44:20 46:1	223:17,19,20	80:7,12 81:1
324:4 354:12	61:12 78:5	50:7 54:20,21	224:5 226:9,17	82:1,3 86:12
354:13	91:25 146:16	56:11 59:14,19	226:19,21,25	90:22 91:6,12
ago 118:11	183:6 232:19	60:11,12 61:16	227:6,10,15	91:16 95:2
196:2 357:3	233:14 312:3,9	62:20 63:5,12	228:1,8,13	109:9 113:22
agree 48:3 68:20	allowance	64:17 66:11	229:6,8,12,19	124:15 125:2
71:6 73:4	138:23 140:6	68:21 71:22	231:5,23 232:1	129:1 136:8
147:18 160:15	allowed 40:13	72:25 75:5	232:15,16,22	147:22,23
160:17 167:23	46:1 56:15	82:14 83:2	233:2 235:4	155:12 156:21
171:4 172:17	57:8 110:25	86:4,14,17	241:17,20	160:5 166:18
173:23 174:8	111:10 335:2	89:12 91:21	242:19,23,23	170:10,16,18
174:18 193:20	357:16	92:1 96:18	242:25 244:19	171:18 172:17
201:14 220:25	allowing 60:10	97:1 99:10	245:24 246:8	173:19 185:20
222:4 223:13	62:4 76:7	101:24 103:7,9	249:8 250:4	186:3 189:1
227:15 237:21	88:16 108:21	101:24 103:7,9	257:23 259:5	215:19 217:23
242:19 256:15	158:4,6 244:10	114:7,13 120:1	261:9 262:2,3	217:25 219:22
257:12 261:7	319:17 345:6	120:4 123:1	262:7 263:11	220:10 226:3,5
268:2,3 286:7	allows 36:11	124:17 125:17	264:17 268:20	230:12,19
315:20 337:11	88:10 124:17	126:9,13,17	270:8 271:6,17	243:20 251:23
337:20	127:24 187:5	127:24 128:4	278:7 283:24	267:5,13,25
agreed 93:9	187:13 244:15	129:5,7,16	286:7,14	288:12 290:1
201:8	252:19 261:17	130:9 134:4,5	293:15 297:4	311:17 319:12
agreement	346:8	134:16 135:12	310:12 311:23	319:16 320:5
31:25 164:13	alluded 46:21	136:22 137:9	312:3,14	327:18 328:10
agreements	altered 91:21	138:1,23 139:5	314:16 316:11	329:19 335:1
162:10	alternate 92:9	140:5 141:21	319:5 320:1,6	336:3 340:1
agrees 59:1	255:13,20,22	143:5,12	320:9,11 321:2	341:23
90:21 91:1	alternative	144:15 145:22	322:22 325:7	America's
ahead 22:10	115:17,19	145:24 146:14	330:11,20	115:14
23:24 29:21	116:25 117:4	146:17 149:18	331:10 333:9	amount 79:3
32:1 34:1 42:2	127:9 141:22	152:9 156:24	334:23 335:12	192:24 219:18
44:9 136:3	246:8 254:21	157:21 159:25	335:12 336:12	237:1 297:6,7
212:11 265:22	256:7 276:24	164:16 169:23	336:17 337:1,7	326:5
273:13 280:24	277:11	170:5,7,13	338:18 339:7	amounts 43:17
281:1 353:19	amended 363:23	171:9,12 172:3	339:15 340:24	353:9
airports 89:14	amenities	172:4,21 173:9	341:13,14	analogous
akin 110:7	128:22 160:18	176:3 178:16	342:4 343:12	361:13,18
Alecia 54:8	163:8 164:10	181:7 182:17	344:5 347:16	analysis 41:23
Alex 20:4 21:25	209:7,16 210:9	187:2 188:24	347:25 349:20	58:6 88:12
105:11	amenity 209:25	199:21 200:2	349:21 355:15	119:25 290:1
Algoa 89:23	ameren 18:10	200:10 204:9	358:18 363:10	analyst 71:5
aligned 75:4	19:13 21:6,12	205:2 207:14	370:9	angel 289:16
alike 102:10	21:17 24:1,24	211:20,22	Ameren's 38:1,2	Anheuser 89:21
Allegan 282:10	27:15,16,17	214:19 216:5	38:14,16,21	Anna 150:20
alleged 35:4	28:6,12 32:18	217:14,16,25	60:18 61:5,15	Anne 90:9
181:12	34:2 38:7	219:17 220:8	63:19 64:11	294:21,24
allocated 229:13	40:23 41:6	221:15 223:3	69:7,11 79:19	295:7 368:3
			,	

370:4,6	365:10,18	appearing 22:15	364:4	areas 98:20
announced	368:9,23	282:12	appropriated	111:12 112:11
92:13	Antal's 313:23	appears 39:21	117:10	128:21,22
annual 118:1	anti-competiti	82:14	appropriately	163:15 329:10
168:13,19	92:11 183:11	apples 167:5,5	45:12 46:3	336:19
211:4	184:11 288:25	applicable	appropriateness	arguably 234:21
answer 26:23	321:4,7,13	239:14	185:23	argue 51:12
27:4 30:7,9,9	322:21 323:19	application	approval 18:11	52:3 57:12
32:24 33:18,25	323:21	18:10 21:5	21:6 25:19	69:7,11 258:9
45:2 58:5 59:8	anti-competiti	24:11 89:2,9	26:19 81:1	281:3
83:19 86:2	288:9	109:9 207:16	191:12 225:16	arguing 57:5
104:1 113:20	anti-quip	253:19 351:24	358:2	77:25 240:11
146:11 151:22	266:18	352:4 369:23	approve 27:5	240:12 242:22
160:21 163:5	anticipate 58:8	applications	47:16 100:2	243:3
169:11 170:25	144:9 173:7	165:10 260:10	231:24 319:16	argument 30:15
178:11 185:10	288:14	applied 61:9	321:11 336:3	33:12 44:16
199:6 225:3,19	anticipated	apply 59:7 69:17	approved 95:3	57:5,15 344:17
228:7 237:25	25:24 50:12	71:8 111:18	101:21 252:5,8	arguments
261:21,22	53:7	171:20 216:3	252:13 254:1	119:12 280:5
264:14 266:17	anticipating	234:22 260:4	316:22 332:5	arose 39:8
275:4 282:24	45:23	Applying 40:17	335:1	arrangement
359:11	anybody 23:8,21	appreciate	approving 108:6	86:24
answered 47:12	38:22 77:24	55:19 58:13	184:10 244:8	array 127:18
70:25 83:21	233:8,12	101:5 103:15	approximate	arrive 166:17
84:13 140:25	272:17	103:25 141:1	34:9	208:1
334:15	anymore 112:20	185:19 186:2	approximately	articulately 53:0
answering 195:2	270:1 329:5,6	235:12	273:21 352:19	aside 216:21
answers 33:20	anyway 80:14	approach 124:5	apps 151:8	314:3
44:17 63:7	100:11 185:15	124:9,14 126:5	165:17,17	asked 74:9 94:6
133:7 141:15	191:21 262:16	165:4 229:2	Archie 54:7	108:15 113:16
213:2,5 250:13	270:3	252:17 258:10	area 40:18 46:13	157:24 185:25
282:18 283:10	apart 116:7	258:20 265:25	60:12,13,21	213:1 233:13
293:1 296:17	278:22	266:10,10	99:1 101:20	234:1 237:20
349:7	apartment	267:25 268:4	102:3 104:10	244:6 245:22
Antal 20:4 21:25	93:11 234:8	347:24	111:9 112:22	246:25 259:10
21:25 105:5,9	apartments	approached	112:23 116:12	263:15 264:16
105:10,11	234:9	183:9 338:18	112:23 110:12	288:7,10
155:25 157:9	apologize	approaches	148:19 163:9	334:15 358:5
	273:12	267:20	164:1 195:20	asking 25:4,5
200.20 216.14	273.12		232:2 263:19	73:21 74:13
200:20 216:14	ann 165.10		252.2 205.19	/3.21 /4.13
216:23 242:6	app 165:19	appropriate	267.0 210.0	
216:23 242:6 253:8 275:18	323:8 344:3	43:8,20,25	267:9 319:9	140:1 181:24
216:23 242:6 253:8 275:18 284:13 294:2	323:8 344:3 appeal 125:20	43:8,20,25 45:16,17	331:2,22 332:1	140:1 181:24 183:6 201:11
216:23 242:6 253:8 275:18 284:13 294:2 311:11,13	323:8 344:3 appeal 125:20 appear 213:2	43:8,20,25 45:16,17 101:14 185:14	331:2,22 332:1 338:7 339:24	140:1 181:24 183:6 201:11 224:16 240:13
216:23 242:6 253:8 275:18 284:13 294:2 311:11,13 313:12 335:20	323:8 344:3 appeal 125:20 appear 213:2 326:1	43:8,20,25 45:16,17 101:14 185:14 195:20 230:21	331:2,22 332:1 338:7 339:24 340:23,24	140:1 181:24 183:6 201:11 224:16 240:13 240:25 260:23
216:23 242:6 253:8 275:18 284:13 294:2 311:11,13 313:12 335:20 351:1,4,14,18	323:8 344:3 appeal 125:20 appear 213:2 326:1 appearance	43:8,20,25 45:16,17 101:14 185:14 195:20 230:21 235:2 248:25	331:2,22 332:1 338:7 339:24 340:23,24 341:13,14	140:1 181:24 183:6 201:11 224:16 240:13 240:25 260:23 352:13 358:2
216:23 242:6 253:8 275:18 284:13 294:2 311:11,13 313:12 335:20	323:8 344:3 appeal 125:20 appear 213:2 326:1	43:8,20,25 45:16,17 101:14 185:14 195:20 230:21	331:2,22 332:1 338:7 339:24 340:23,24	140:1 181:24 183:6 201:11 224:16 240:13 240:25 260:23

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aspects 89:2	162:13,15,18	135:5 146:21	44:2 45:17	274:14 279:18
105:15	209:22	207:2 213:9	274:16,17	280:8 361:6
Assemblies	attention 47:18	245:23 246:21	328:7	basis 76:20,21
121:21	97:18 103:25	323:7	balances 186:18	88:22 111:6
Assembly 112:2	105:21 116:25	Avenue 19:15	Ballwin 198:16	120:7,8,12,13
117:10	attorney 19:18	19:19 21:16	bank 52:12	120:21 139:7
assert 221:15	20:13,23 69:7	212:16	148:7 153:3,3	139:17,17,20
asserts 126:18	91:8 194:2	average 37:11	barrier 34:5	139:21,21
assessed 277:6,8	356:22	126:19 203:14	35:3 217:9,9	140:7 157:7
assessment 48:5	attorneys	avoid 91:18 97:4	221:21,24	184:18 267:4
assets 267:25	105:15 110:3	124:22	222:3,8,16,20	285:25 325:8
assigned 21:10	attract 178:24	aware 23:14	barriers 177:5	326:7,8 350:23
assist 128:6	attracting 93:16	70:5 84:25	base 37:6 102:19	bat 187:19
347:16	attractions	102:24 149:4	120:6 135:22	batteries 94:1
assistance 128:8	93:12	178:20 182:17	135:25 163:7	158:9 166:11
associated 36:10	attractive 98:15	228:13 229:1	225:11 238:9	187:20
91:2,3,4	203:1 204:5	244:13 255:22	239:6,12 266:2	battery 94:6,12
140:23 168:13	attracts 81:3	278:7 357:2	266:11 325:16	126:19,22
179:20 207:1	attributing	361:12,25	325:19 335:13	127:12 128:24
210:11 211:5,7	218:8	362:4	353:8,11	143:19 154:8
277:21 314:25	audience 23:9		354:22	158:15 161:9
361:17	authority 92:20	B	based 43:12	166:13 173:25
assume 24:5	92:24 109:5	B 22:16 152:22	71:3 90:5 96:2	174:1,6 175:4
71:23 72:3	245:20 351:25	205:11,12	102:18 105:24	176:10 187:5,9
99:25 134:1	authorization	249:25 282:10	114:6,20	187:24 188:7
154:3 203:4	63:25	369:8 370:1	116:20 118:6	200:5,6 203:14
219:12 231:7	authorized 69:1	B-o-l-t 158:19	119:10,21,22	204:4,8,10,13
336:2 337:1	354:19	158:20	120:16 149:3	204:22 205:23
assumed 177:13	authorizing	baby 187:14	159:22 166:10	222:7 266:23
assuming 37:5	63:18 231:24	back 27:9 33:22	172:18 180:3	267:24 268:11
37:10 70:11	automakers	36:15 44:10	197:19 200:4	322:12
128:11 160:2	333:15	54:11,24 55:8	214:10 219:7	batting 105:13
181:4 203:3	automatically	109:18 110:24	220:14 221:8	Baxter 40:7
247:1 248:22	35:18 75:25	114:18 130:8	225:23 233:22	bear 73:5 74:16
assumption	187:10	139:4 140:14	233:22 240:20	215:6 231:11
202:18	automobile	151:20 154:1	245:4 251:24	becoming
assumptions	89:15	159:12,13	258:18 259:21	357:12
114:20	availability	188:5 193:3	273:9 274:21	began 134:14
assure 68:11	51:11 56:24	197:12 211:19	274:22 284:2	beginning 74:5
162:13 243:19	167:13 331:21	221:6 229:15	286:9 293:17	114:9 134:4
at-home 136:23	335:7	232:8 236:23	323:11 338:10	178:14
137:9 138:9	available 31:21	245:3 290:19	340:11 353:1	begins 182:12
attached 282:18	32:12 36:12	310:1 316:9	basic 55:6 97:4	182:14
attachment	46:14 51:8	340:17	97:15,16	behalf 22:15
339:22	55:20 82:24	backwards	basically 34:14	23:2 237:21
attendant 128:6	89:7 126:25 128:14,19,25	63:14 balance 43:9	138:1 142:15 265:11 272:8	250:2 253:15
128:17 162:1,2				282:16,22

behavior 211:9	361:23	213:6 231:7	333:14	break 130:6,7
behaviors	believe,St	239:21 266:5	Bob 205:12	211:14,16,18
168:25 169:1	339:24	348:1 349:9	body 113:9	290:16,18
belabor 105:17	believed 319:24	better 45:10	bold 292:7,12	breaking 61:16
belief 46:24	believes 28:24	54:15 104:14	Bolt 34:17	63:17
189:1 213:6	188:24	104:21 155:4	126:20 158:19	breakthrough
280:13 349:10	Bell 62:3	214:13 272:6,7	158:20 159:4	126:18 158:16
believe 23:19	belong 62:3	314:16,17	175:1 176:21	158:21 176:16
28:15,16 41:6	bench 54:10	beverages	191:5 195:14	brief 53:6 57:5
41:8,9,14 43:3	105:7 197:19	162:24	204:19 205:9	57:15 75:19,20
43:8,25 44:8	230:7 240:20	beyond 170:21	205:22	80:24 96:10
48:6,9,10,17	273:9 335:6	215:6 228:3,10	Bommarito	briefing 86:1
48:20 49:10	beneficial 26:14	259:6 353:9	198:11,12	363:25
54:15,17 56:21	98:12	big 29:5 66:14	215:20 318:25	briefly 113:15
64:16 66:3,17	benefit 25:11,21	99:4,4 232:7	330:23	142:12 199:3
66:22 67:15,20	37:3 42:3 72:4	bill 32:15 37:15	book 54:11	briefs 85:9
77:17 82:25	74:2,18 79:4,5	115:14 125:25	64:14 65:19,25	bring 27:8
101:14,18,25	82:1 93:16	168:3 170:13	74:7 128:13	142:17 289:24
102:8 103:11	96:16 102:10	223:2,3,4	booked 64:2	bringing 24:11
103:22 114:19	103:20 114:17	227:10 260:9	booking 78:17	289:13
129:14 135:3	117:7 118:13	261:9 262:7,13	247:16,17	brings 61:9
137:19,21	126:5 169:5	263:7 276:10	Boone 34:10	broad 75:22
142:14,19	179:11 180:8	276:12	Boonville 45:7	288:11
148:10 154:14	202:3,3,12,15	bills 32:14 97:6	54:3 116:17	broader 102:19
159:19 173:13	214:24 217:15	203:6 262:16	162:7 165:25	231:20
177:20,24	219:1,2 261:1	bio 256:9,10,13	195:8,9 196:2	broadly 83:6
179:7 181:11	270:8 321:23	bipartisan	196:12 197:4	brought 39:4
181:12,16	340:13	115:14	197:16 220:20	56:21 100:9
187:4 188:15	benefits 26:21	bit 25:16 26:18	341:19	105:21 115:2
190:3 194:3	34:25 36:24	29:13,22 31:11	bore 43:6	137:21 165:21
203:13 210:13	37:2 45:5 76:3	32:21 35:6	Born 249:3	190:18 191:23
215:2,3,5,9	78:23 79:1,13	36:1 42:20	Botanical 89:21	Brown 254:17
217:24 218:8	81:11,13,18,24	52:2 54:6	90:7	254:19
219:3 221:5,10	82:4,11,12	62:15 65:4	bottled 52:3,11	Brydon 19:15
221:23 224:18	91:2,2 102:12	107:14 108:3,9	bottom 172:8	21:15
233:4 235:1,21	102:12 113:14	110:15 114:16	214:1	BTC 144:7
238:5,6 244:18	121:13 124:6	278:12 330:17	bought 175:2	150:20 151:3
244:24 254:22	124:14,19,20	350:4 364:3	195:18 203:13	151:11
262:11 264:5,8	169:2,9 179:5	Blackwater	257:20	bucket 268:17
278:4 286:20	179:15,19,20	196:16	Boulevard	bucks 240:16
314:11 319:15	201:12,14,18	blank 358:6	18:21 20:23	276:14,14
321:7,15 323:6	201:25 215:13	blocking 91:12	22:17	budget 237:4,8
324:13,21,24	201.23 213.13	blue 35:13 54:9	bounds 110:13	333:5
325:1 331:22	326:24 344:13	196:21,25	box 19:6,11,16	build 42:21
323.1 331.22		,	20:5 346:5	
	host 1/2.6 6/2.7			
339:14,19	best 42:6 62:7	329:25		
	best 42:6 62:7 71:10 81:3 127:7 147:17	329:25 blues 35:16,17 BMW 89:24	branch 153:3,3 Brandice 121:9	45:24 46:22,25 75:10 77:19 78:5,9 191:12

202.22.222.19	227.18 240.20	262.14.10	240.7.260.15	100.10
202:23 232:18	237:18 240:20	363:14,19	249:7 369:15	180:18
248:2,4 268:15	241:25 242:2,5	366:16	Byrne's 212:6	capability 26:5
building 20:5	242:9,11 244:2	business 22:23	BYRNEPAGE	36:17 190:4
134:5 169:6	249:7,12,19,21	50:18 59:21	366:9	233:13
171:5 181:15	250:19 251:1,3	60:7,13,16,24	<u> </u>	capable 339:11
183:17 228:14	253:4,7,9,11	63:19,22 64:23		capacity 81:17
229:23 232:9	254:10 261:15	64:24 67:21	C 19:1 20:1 21:1	capital 325:13
buildings 93:12	261:19 262:8	87:17 98:4	196:18	331:8 333:16
built 166:20	262:18,25	99:12 118:19	calculate 180:11	Capitol 19:15
326:15,23	263:3,8,25	171:9 183:14	180:12	21:16
bunch 72:19	269:22 273:9	212:14 231:6,6	calculation	caption 371:10
burden 25:10	273:13 275:10	239:8 249:23	181:10 263:21	captive 95:19
37:14 53:3	275:12,14,17	282:9 290:9	286:11	96:25 97:15
Busch 89:21,22	275:19,21,23	314:15 316:1	calculations	99:13
BUSHMAN	277:15 281:17	318:5 332:16	114:6	capture 270:19
242:7 261:23	281:20 282:6	332:23 333:6,7	California	car 52:20 54:4
Bushmann	283:16,23	333:8,18	100:14 150:20	54:12 75:24
18:14 21:2,9	284:3,6,8,11	347:20 361:1	250:1 251:17	81:19 84:17
21:18,23 22:3	284:14,16	businesses 89:16	251:25 253:20	96:16 97:9
22:10,13,18,20	287:20 288:3	99:11 360:25	253:20 255:2	118:11 120:19
22:25 23:8	290:12,15,19	buy 53:24 63:24	255:19,23	125:6 140:14
58:16,20 74:22	290:23 291:3	79:11 96:16	256:3 266:9	140:23 169:23
74:24 80:19	291:10 293:7	109:5 125:18	267:20 269:18	196:1,4 215:20
85:12,23 87:7	293:14,19,21	127:14,22	270:14,15	246:23 270:21
87:9 95:11	293:23 294:1,3	162:20 168:5	271:4 272:17	320:19
100:21,23	294:5,7,12,18	190:23 191:10	278:14,16	carbon 129:7
105:1,3 122:17	294:22 295:4	241:8 257:13	279:9,13 280:8	169:17,19
129:20,22	296:23 297:3	257:21 320:19	316:22 317:1	173:19,21,24
130:5,8,13,20	297:11 310:1	328:12	346:19 347:11	174:4 186:18
130:22 133:15	311:7,10	buy-off 41:3	call 130:12	227:15,18
133:20 141:5	313:13,15	buyer 125:23	135:9 150:14	256:4,5,13
146:4,10	317:22 318:14	buyer's 352:23	154:9 178:5	263:18 279:24
151:16 155:23	330:11 334:17	buyers 257:16	187:14 249:10	285:19,20,21
157:10,12,14	334:19 335:16	buying 34:17	261:13 290:21	card 54:17
163:4 170:25	335:19,21,23	54:9 59:18	called 115:14	110:23 161:17
175:19 194:22	338:24 339:1	137:22 167:21	142:9 254:24	192:19
197:17,19,22	340:15 342:17	174:25 195:14	256:4 285:24	care 99:20
199:1 200:19	342:23 343:4	232:5	362:2	careful 121:18
200:21,23,25	348:6,16	Byrne 27:25	calling 107:4	cars 120:14,19
205:2 211:12	349:15,19,23	30:5 194:19	110:23	127:14 158:6
211:19 212:4,8	349:25 350:25	211:23,24	calls 146:1	159:25 173:15
212:11 213:12	351:17 353:15	212:15,17	211:22 281:25	173:16 257:20
213:16,20	353:19 354:3,5	213:9,24	294:21 348:10	case 18:11 24:22
215:16 216:10	354:7,9 358:18	215:19 217:2	camera 162:3	24:24 25:15
216:13,15,17	358:20,22,24	229:4 230:6	368:5,7	26:22 27:8
216:19,22	359:1,3,5,7	235:13 237:19	Canada 72:20	28:6 31:15,23
229:3 230:7	362:21 363:5,8	242:16 244:1,6	capabilities 36:8	31:24 32:8
		I	I	l

MIDWEST LITIGATION SERVICES om Phone: 1.800.280.3376

Г

34:14 37:8,9	87:23 93:22	certainly 53:22	230:11 235:9	36:4,5 41:12
40:25 44:12	107:17 109:25	59:13 60:1	239:24 240:25	41:15 43:17
50:14,19 56:9	209:16 238:2	74:18 86:5	244:6 264:2,4	50:2,7 54:3
57:5,18,23	243:18 247:24	97:12 147:10	269:1 273:11	55:4 60:23
60:1 66:10	270:24 356:11	161:22 168:10	273:15 275:8	62:23 66:17
68:12,14,18	casino 209:16	213:14 233:7	276:3 287:22	76:19 80:4
73:20 75:5,5	catalyze 280:18	235:5 275:7	318:16,18	87:9,14,17,23
75:18 82:15	categorically	297:11	323:24 325:12	88:5,6,8,14,18
86:2 93:2	150:11	certificate 60:9	326:11 330:18	89:1,5,10,11
94:16 96:11	categories	60:25 61:4,23	331:6 354:11	89:17 90:3,11
99:6 101:8,25	150:15	62:3 69:2,4	358:12 359:11	90:21 91:1
102:6,6 103:5	category 210:25	90:8 121:5	363:2 365:20	92:25 94:19,25
103:5,7,25	211:1	362:12,18	366:14 367:7,9	97:18 98:11,16
105:20,22,25	caused 74:9	369:7 371:1	368:12,24	100:16 102:18
106:6,12,14,23	282:14,21	certificated	challenging	102:25 113:23
107:19,20	295:14 348:21	101:20 102:3	119:15 233:8	120:11,17
108:4,10 109:9	caution 118:16	355:24 362:17	change 75:4	125:4,10,24
109:22 110:1,2	CCN 66:19	certificates	100:8 103:15	135:18 137:24
110:3,15	CCR 18:20	60:11,15,20	126:22 133:1	139:16,18,19
111:14,16	371:20	61:17,25 63:17	168:12,24	141:5,10 143:8
112:5,10,21	ceased 360:23	238:14,17	202:8 214:9	153:12 155:13
116:9,10	cell 23:10 75:24	certification	247:15 251:7	159:13,18
118:24 120:2	93:19 110:25	361:21	279:21 286:16	160:25 161:5
120:23,25	151:8 165:10	certified 355:24	296:1,4,9	161:10 167:6,6
121:1,3,4,9	192:20 322:13	371:6,7	344:10 345:9	170:9 175:15
124:16 131:1	cellular 88:15	certify 371:9	356:18	176:2 182:10
135:23,23	346:7	cetera 210:22	changed 195:14	191:15,20
136:25 137:11	cent 37:12 225:1	360:7 361:1	221:14 279:11	192:24,25
149:24 183:14	center 20:10	Chairman 28:9	296:3 361:21	197:22 198:3
188:6 208:4	22:6 26:1	28:22 29:15	361:23	201:8 206:14
214:7 223:23	198:8	39:14,20 40:5	changes 62:9	208:24 209:10
229:6 241:2	centers 90:18	40:17 47:21	149:4,7 211:9	209:23 215:16
244:20 250:6	104:9	48:6,13,16	212:23 283:6	220:2,6,7,9,11
251:20,24	central 99:16	49:9,14 53:15	292:22 349:2	226:12 234:17
259:5 260:24	209:15	56:20 59:1	changing 169:1	238:16 241:3,6
262:14,21	cents 140:13	64:25 65:2,17	315:16 323:4	241:10,25
264:17 266:5	155:13 180:23	65:23 66:8,16	Chapter 48:24	246:11 251:3,7
271:6 282:12	CEO 40:7	66:21 67:1,4,7	characteristic	262:4,13
288:25 290:1	certain 25:25	67:11,23 68:11	107:4	269:19 272:1
291:15 295:19	32:3 33:12,13	68:14,20 69:10	characteristics	275:4,12
316:18 320:9	40:11 79:2	69:16,19 83:20	208:16,21	276:21,23
346:22 351:11	108:22 173:2	83:24 84:3,5	characterizati	284:6 293:21
351:20,22	178:1 225:20	84:21 85:4	316:4	294:19,20
357:2,21	225:21,22	122:12 129:11	characterize	295:9 310:7,11
359:20,23	285:15 352:1	130:1,4 175:21	265:16	311:16 312:9,9
360:10	355:5 358:7	175:23 177:21	charge 19:21	312:10,11,17
cases 29:9 65:10	361:8	201:11 230:9	22:18,21 30:12	312:19,21
			Í Í	,

	1			
313:1,25 314:3	345:4	81:4,6 82:16	146:22 147:5,7	231:17 232:4
314:5,7,8	chargers 34:11	83:1,3,10 84:9	147:17,19,23	233:9,15
316:19 318:22	35:18 43:9,10	84:14,16,19	148:13,16,17	234:11,16,24
319:18 320:1	47:1 76:24	85:14 86:11	148:18 149:8	235:3 236:16
321:3,7 322:7	77:7 93:20	87:20,21,24	149:12,19	237:22,22
322:12,20	104:11,12	88:1,3,7,11,17	150:25 151:8	238:12 240:8
324:20,21,25	128:24 143:17	89:4,8 90:2,4	152:24 155:1	241:9,14
325:1,5,6,8,18	143:21 148:4,7	90:14,17,24	155:14 156:14	242:17 243:4
325:20 326:13	153:6 154:7	91:14,16,23	156:16 157:6	245:11,12,23
326:20 327:1,2	157:24 158:3,4	92:15,20,21,24	157:22 158:2	245:25 246:4,8
327:7,22 328:1	166:7 192:4,5	93:1,1,7,13	161:16,21	246:11,14,15
328:2,16 330:5	192:18 206:19	94:1,11,18,22	162:12 163:2	246:16 247:6
331:7,12	206:20 222:3	96:17 98:19	164:24 165:8	247:12 255:13
335:12 336:10	225:9,14 236:5	99:2,22 100:1	165:12,16	259:7 260:5,16
337:2,4,9	243:14 246:16	100:11 101:12	166:7 168:3,17	260:25 261:10
338:10,16	246:17 258:12	101:17,23	168:18,25	262:23 267:6,7
339:1,6 340:22	270:10 272:19	102:2,11,17	169:1,3,6,14	267:22 268:5
340:23 341:3	318:21,23	103:2,23	170:19 171:7	268:12,17
341:11,12,18	319:14 323:9	107:25 108:6,7	171:13,25	270:16,17,19
341:22 342:2,7	329:24 330:2	108:13 109:10	172:23 173:8	270:21,24
343:9,10	332:10 346:16	113:17,19,22	175:10,13	271:2,3,9,13
344:19 345:15	charges 75:23	114:7 115:24	176:23 177:1,2	271:14,15
346:1,12,12,13	125:11 140:3	116:1,5,21	177:10,18	272:4,25
346:13 347:3,7	153:11 159:14	117:5 119:18	178:4,17,22	273:18,21,22
347:15,20	172:13 188:7	119:18,20,22	179:6 181:6	273:25 274:18
349:25 357:22	244:15 262:15	120:7,11,14,16	182:23 183:14	275:6 276:4,8
358:22 360:3	267:1	120:17,20	184:17,24	276:22 277:21
370:2,7	charging 18:12	123:7,11	185:18 191:12	278:1 286:24
charged 109:16	21:8 25:7,23	124:18,21,23	192:17,21,22	286:25 287:7
109:16 113:17	26:4 28:25	124:24 125:1	193:8 194:4	287:10 288:10
140:6,13,20,21	30:1,2,8,14	126:1,3,7,9,12	195:3,23	289:2 310:8,20
204:4 261:9	31:7 32:23	126:14,14,15	196:14 197:14	310:23 311:24
326:6 360:4	34:15,20 35:5	126:25 127:10	198:14 201:13	312:11,20
charger 34:19	36:8,17,19	127:12 128:4,6	201:17,21	315:2,22
35:13 77:1	37:5 38:1,7	128:12,15,20	202:13,16,23	316:14 318:7,8
94:6,12 139:15	39:10 41:3,10	134:23 135:4,6	203:4,6,18	319:5,8,17
139:16 140:19	43:15 44:23,24	135:17 136:7,8	204:4 206:9	320:4,12,14,16
143:23 145:6	46:11,14,17	136:9,21,23	207:3,9,18	321:6,17,18,19
153:2,10,13	47:2,6 49:23	137:10,15	208:6,9,25	321:22,25
154:4,19,23	51:1,15 52:22	138:3,9,22	209:2 210:3,5	322:6,14,20,25
155:5,7,9	52:24 55:4,20	139:6,7,10,23	211:9 215:7,21	323:7,23
161:10 192:25	56:24 57:7	140:11,24	217:11 218:10	324:23 325:2,4
196:21,25	59:16 60:1,3	141:22 142:10	222:11 223:5,6	325:19,24
319:8,24,25	61:15 62:8,23	142:17,24	223:8 226:2,10	326:16,20,25
320:3 322:1,4	63:13,21 66:17	143:2,13,25	226:14,16	327:8,25 328:3
323:11 333:11	70:7 75:24	144:8,12,22	227:1 228:3,10	328:20 329:11
333:12 336:22	76:20,21 81:4	145:23 146:16	229:23 230:13	329:21 330:19
	1	l l	l	

221 0 15 225 7	245 02 247 0	246 20 247 2	222 14 250 10	
331:9,15 335:7	345:23 347:2	246:20 247:3	322:14 350:19	Columbia 148:6
335:10 338:7	choosing 191:7	253:5 311:7	closed 177:12	166:2,5 339:25
338:19 339:7	chores 118:20	312:16 313:24	closer 35:6	341:15
341:10,18	chose 154:18,21	316:18 328:15	104:15 204:15	Com 289:5
342:12,13	176:4	335:16 341:20	closest 248:13	combination
343:20 344:9	chosen 93:14	341:21 343:9	closing 120:22	187:18 260:25
346:3,23,25	162:6,7,8	348:9,19,20	cloud 346:8	combustion
347:17,22	163:6,15,17	351:25 359:7	Club 20:8 22:3,4	187:11
350:7,14,15	165:25 313:6	359:25 360:1,2	22:9 43:8	come 23:21
352:16 353:5,8	Chouteau 19:19	City's 360:23	45:15 80:19,25	25:12 28:23
354:20 355:4	212:15	claim 138:2	82:17,21 84:10	40:24 42:14,21
356:8,15	cigarettes	clarification	91:7 157:12	46:23 56:10
357:16,18,19	320:22	277:20 322:19	200:23 216:17	57:19 63:23
357:24 358:10	circle 44:11	324:14,16	242:9 253:11	70:12 75:7
charitable 224:8	circumstance	clarified 93:4	253:16 275:21	90:7 108:24
224:10	40:13	206:3	281:23,24	114:2 119:14
charities 224:7	circumstances	clarify 34:13	282:13,17,23	138:9 140:11
charity 224:5,13	248:19	87:14 134:7	288:4 294:3	140:14 146:14
Charles 163:24	citations 27:23	135:16 137:13	313:15 335:23	152:18 169:16
195:5,6,8	cite 134:9	208:15 215:5	346:18 354:5	178:9,9 182:22
198:19,23	cited 110:3	278:1 350:3	359:3 370:10	183:4,20
318:23,24	121:9	clarity 324:19	clustered 267:8	185:23 204:20
330:23	cities 76:14	342:11	CO-2 102:13	236:23 245:3
charting 346:23	108:14 257:24	classification	coal 79:20 80:2	245:19 275:7
cheaper 76:10	352:1	30:13	Coast 269:12	322:1 324:10
cheapest 322:16	citing 137:2	clause 123:22	333:14	356:25
323:15	357:11	clean 28:3	coffee 162:24	comes 31:22
check 85:3	city 18:7,21 19:6	102:25 108:13	Coffman 20:22	35:9 36:4 73:7
Chevrolet's	19:11,16,24	312:17,21	22:15,16 95:14	79:19 168:10
205:22	20:6,16,19	313:24 314:7	95:15,16 99:25	191:1 276:25
Chevy 34:17	21:17 22:2,24	316:19 343:9	100:5,14	347:14
126:20 143:22	22:25 23:3,7	344:18 346:1	151:17 365:8	comfort 187:16
158:18 159:4	38:11 100:23	346:12 352:1	coin 222:11	comfortable
187:2 191:5	101:3,9 103:3	clear 51:21 57:2	Coincidentally	127:20 171:2
193:1 204:18	108:7,10,15	57:24 130:2	27:12	coming 27:9
205:14,22	112:16 116:13	182:13 205:10	Coleman 122:20	34:7,18 55:8
chew 82:8	126:22 148:6	210:18 211:3	194:22,24	57:6 194:19
chicken 75:6	151:17 152:12	276:22 285:23	195:1 196:5	269:11 276:8
choice 91:13	152:18,25	316:8 325:18	365:23	278:9
94:24 96:18	154:5,14,16,20	357:15	collect 172:22	Comley 19:22
203:25 313:10	154:22 159:5,9	clearer 356:13	collecting	19:23 22:20,22
317:19 345:2,6	161:10,14	clearly 48:12	347:16	22:22 87:11,12
345:16 347:1	163:24 165:24	61:9 90:1	college 118:11	141:7,9 146:4
choke 25:9	166:1 191:11	close 119:14	colleges 89:13	146:5,13
choose 61:13	195:7,8,10	163:11 167:12	colon 137:6	151:14 197:24
92:1,2 161:25	195:7,8,10	174:11,14	color 108:9	197:24
312:4 336:23	190:12 197:10	174:11,14	Colorado 22:12	213:14 215:18
512.4 550.25	177.2 242.3	170.7 223.23	Color aug 22.12	213.14 213.10
		•	•	

Г

[
216:8 242:1,4	105:11,20,23	Commissioner	365:21,22,23	226:22 227:16
251:5,6 253:3	106:14,21	24:7 37:18,23	365:24 366:15	227:21 231:25
275:13 284:7	107:17.20	37:24 38:5,13	367:8 368:13	239:11 244:23
293:22 294:20	108:4,16,19,25	38:21 39:1	Commissioners	244:24 245:18
295:3,5 296:20	109:3,23 110:4	40:21 41:6,9	24:4 26:20	260:14 289:15
334:15 339:3	110:6,15,16	41:17,25 53:18	87:16 113:16	289:21 319:1
340:9,11,17	111:2,10,14,17	53:20,23 54:19	133:11 152:14	330:24 334:23
341:2,4,6,12	111:20,23,25	54:23 55:21,25	175:20 264:1	335:3 348:20
342:1,11,15,19	112:3,10 113:5	56:4 57:4	287:21 294:8	351:25 356:14
343:4,5,7	113:12 117:15	58:13 69:22,23	294:13 318:15	358:8
348:5 350:2,24	120:24 121:24	69:24 70:1,6	335:5	company's
353:16 358:23	122:24 123:3	70:11,21 71:12	Commissions	39:16 94:3
365:7,16 366:3	123:10,18,19	71:17,20 72:1	98:14	248:23 286:19
366:12 367:4	123:21,21,24	73:8,12,17,18	common 61:20	350:5 360:13
368:4,6,17,19	123:25 124:5	73:19,24 74:4	94:14 223:16	compare 181:22
368:22	127:7 128:24	74:20 76:4,23	commonly	182:4 278:17
comment 54:24	129:3,5 135:24	77:3,9,12,13	139:19	compared 190:6
185:13 203:19	136:25 137:11	77:16 78:2,14	communicate	190:7 220:21
comments 73:19	142:13 148:1	78:15 79:2,15	227:13 346:7	227:17
102:5 228:1,8	150:1,16	79:17,21,24	communicated	comparing
228:23	152:10 197:20	80:6,11,16	167:13,15	167:4 168:10
Commerce	215:25 221:1,2	85:11 95:7,9	227:12	comparison
153:3	221:3,7 230:20	99:18 100:3,6	communication	168:20 218:20
commercial	231:1,4 238:9	100:18,20,22	344:6,14	322:15
356:6	244:7 245:3,20	103:17 104:3	communities	compelled
commercially	249:1 254:2	104:16,22,24	162:8 163:17	185:12
135:5 207:2	272:23,24	122:14,15,20	209:6,14 210:7	compensation
Commission	276:6,18,25	128:10 129:12	220:18 317:16	27:19 31:14
18:1 19:3,5	279:9 312:7	129:18,24	community	compete 46:15
21:4,18,20	316:23 319:16	186:6,9 193:14	257:24 258:24	316:13 326:2
26:11,25 28:24	324:6 335:1	193:17 194:20	259:2,2	328:8
41:4 48:23	336:3 339:12	194:22,24	commuter	competing
58:21,25 60:10	340:14 343:15	195:11 196:5,8	195:24	288:16
60:15,20 61:2	345:1,17	197:4,18 199:6	companies	competition
61:23 62:4,7	349:23 351:10	199:12 202:19	94:17 232:13	25:9 39:5 42:9
63:18,25 64:16	353:2,17 357:6	203:12 235:11	260:10 289:17	58:9 61:13
69:2 75:4	357:9,11	235:13,14,17	companies'	63:12 91:19
80:23,25 81:15	359:13 360:6	237:14,20	253:19	94:24,25 95:4
82:22 83:12	361:3 363:1,15	239:24 240:19	company 18:10	111:10 146:6
84:13,20 85:20	Commission's	269:3,4,6,24	19:13 20:16,17	184:15 229:24
86:7,9 87:5,12	33:21 75:14	270:3 273:8	21:6 23:1,3,4	230:1 232:2,10
90:8 92:17	83:5 87:2	284:2 287:24	26:10 32:1,11	232:12 235:7
94:5,17 95:4	101:21 110:1	288:1 293:17	52:7 73:20	241:1 243:7,9
95:16,19,25	116:25 123:2	294:9 323:25	77:18 78:5,8	243:10 314:17
96:4,21 97:17	123:20 255:3	324:3 330:9	85:18 101:5	316:12 321:17
98:25 99:20	Commission-a	331:7 354:9	121:2 123:7	328:9,10,17
102:1,24	109:17	358:14,16	129:8 194:6	competitive
	1	l	I	I

46:9 75:8	118:1,2	conferred	201:22 205:15	contained
77:19,25 78:4	comprehensive	115:24	209:13	181:17 213:1
78:6,12 90:13	88:18 117:15	confidence 81:9	considering	297:13 349:6
91:15 93:13	computer	confident 47:15	174:25 209:20	contest 181:10
97:21 98:4	193:25	137:23 167:12	consistent 67:12	context 259:14
112:14 124:3	conceivably	192:15 207:10	267:14 360:9	262:14 286:6
126:7 183:23	79:10	confidential	consistently	289:14
184:5 185:18	concept 121:10	297:9 332:16	266:24	contiguous 31:9
288:9,24	concern 96:14	confidentiality	consisting	continue 42:20
329:16 335:2	98:24 99:5	149:24	282:17,23	131:17 140:12
336:11 345:20	206:7,18	confirm 276:2	consists 352:16	140:20 149:16
competitively	200.7,18	conformity	constant 323:5	160:7,9 161:12
184:2	237:5 335:6	106:5	constituents	182:7 185:7,10
competitor	concerned 48:11	confused 85:5	121:22	194:12,12,16
-	72:13 103:17		constitute 83:2	
126:15 182:16		confuses 65:3		245:7,19
183:4 328:7	207:25 247:9	confusing 62:16	constitutes	267:16 321:24
competitors	288:18 321:5	Congress	92:15 215:23	CONTINUED
96:24 97:19	325:21 326:9	115:13	Constitutional	20:1 366:1,2
229:21 347:4	concerns 39:4	conjunction	113:6	367:1 368:1
348:3	46:9 99:20	187:19	constraints	369:1,2 370:1
complaint 70:22	119:13 149:24	Connect 107:20	279:24	continues 267:2
325:11	156:9 169:13	connected 88:14	construct	267:2
complaints	288:11 321:13	94:10,11	362:14,16	continuing
70:12	336:11	connecting	constructed	196:14
complete 285:12	concert 24:18	273:25	181:5	contract 104:9
294:15	conclude 94:17	connection	construction	264:18 328:4
completed	324:13 336:17	149:19 178:7	111:18 225:22	329:7
211:14	concluded 364:8	connectivity	274:9	contrast 127:4
completely	concludes	177:2	construed 110:9	contribute
76:13 227:7	132:14	connects 325:23	110:11	224:7
290:8 354:17	conclusion	consensus 122:1	consulting 259:4	contribution
completes 348:6	47:15 83:13	122:6	consumed 93:24	114:8,12
complex 234:9	94:21 166:17	consider 137:18	consumer 95:20	contributions
compliance	258:16,18	141:21,25	98:1 167:8,20	224:8
162:16	312:14 324:18	142:5 143:6,8	177:5 187:14	control 83:8
complicate	conclusions 95:2	153:10 158:15	323:14	88:13 92:8
25:15	concrete 332:6,9	176:3 206:7	consumers	112:4 125:19
complicated	condition 52:6	209:1 233:23	20:21 22:13,16	216:22 328:23
141:20 276:5	128:9 355:10	243:7 311:23	95:11,17	346:9 350:10
component	conditions	consideration	151:16 160:19	360:5
183:23,25	101:22 312:8	168:17,18	167:1,9 176:17	controlled
184:1 202:23	352:23	considerations	199:1 216:10	361:11
202:25 252:19	condominium	71:4 106:17	242:2 253:4	controlling 90:2
components	357:4 359:12	170:2	275:14 284:8	119:5,24
170:13	359:15 360:1	considered	293:23 322:25	convenience
composed 347:6	conductors	32:16 41:22	contacted	121:6 320:20
compound	142:24 145:2	53:4 110:12	232:15	321:25

		-		
163:8	222:24,25	138:4,10	222:1,4 224:23	country 251:13
convenient	223:9 224:11	145:11 146:15	243:20 247:16	counts 119:7
125:5 161:4	224:19 225:3	148:22 166:21	248:6 273:25	County 198:12
conventional	229:14,18	171:11 175:9	277:3,22	248:4 371:4
82:4	230:14 235:24	178:17 181:15	314:25 320:5	couple 47:22
coordination	236:4,24 240:5	183:18 195:23	323:18 335:9	53:21 55:25
271:19	241:4,7,15	207:19 208:6	335:13 345:21	68:2 107:16
copies 105:6	242:17,24	258:9,20,23	costing 118:10	118:8 135:7
115:2 342:19	251:14 252:12	262:15 273:3	costs 37:11	172:7 191:2
copy 115:3	267:2 270:23	278:1 320:4,10	64:16,21 65:12	196:2 206:9
129:25 262:6	270:23 285:22	325:23 331:9	72:10 76:7	289:16 291:18
272:9,13,13	291:20,23	331:13,23,25	97:13 102:15	329:24 330:1
291:14 332:14	292:13,14	333:7 334:5,12	103:14 114:17	331:5
340:8 363:5	310:25 311:21	334:24 335:4	117:9 125:19	course 44:15
cord 94:14	312:1,6,23	336:6,11	214:14,21	78:24 79:8,13
240:16 246:14	313:25 314:18	341:19,20	215:3 224:15	195:14 219:10
cording 195:22	315:3,7,8	corridors	247:21 248:23	238:7 248:10
cords 94:15	316:20 319:1,2	109:11 115:17	274:12 289:10	256:9 286:15
core 96:3 99:15	320:15 321:8	137:24 153:24	289:11 290:5	337:14 339:5
Corporate	321:14 323:1,2	175:10 177:3	Council 20:21	court 21:21
21:14	325:10,17	202:23 209:5	22:13,16 95:12	106:24 109:25
corporation	327:24 330:24	332:11 333:11	95:17 151:16	109:25 110:5
27:15 28:7,12	331:4 336:24	333:12 334:11	199:1 216:10	111:16 120:23
29:17 59:11	341:11,17	345:4	242:2 253:4	121:1,8,17
75:16 215:24	342:14 350:12	cost 25:24 35:1	275:14 284:8	238:2 343:1
345:1	353:21 354:24	37:4 42:22	293:23	369:7 371:7
corporations	355:17,18	64:2 65:8 66:7	counsel 19:8,10	courts 59:20
28:19 49:12	359:18 362:18	68:6,10,18	20:8 21:11,14	106:15,15
correct 39:18,19	corrected 133:7	74:17 93:24	21:23,24 22:5	112:25 119:4
67:14 70:4	correcting 54:16	97:15 98:22	68:21 69:11	cover 64:16 74:9
84:2 121:3	182:12	102:20 114:3	74:25 91:8	74:11 105:15
132:18 139:8,9	correction 132:2	114:22 125:21	122:18,25	290:5
139:22,23	295:21 296:7	125:21 127:12	123:1,9 124:4	covered 105:18
140:22 143:4	corrections	127:23 138:6,9	126:6 128:23	covering 65:9
148:25 149:20	131:3,7 132:14	140:23 155:18	151:23 157:14	covers 68:6,10
150:22,23	132:17 212:23	167:23 168:11	176:2 190:17	CPC 279:18
155:16 156:6	250:8 283:5	170:2 178:5,5	200:25 216:19	CPUC-appro
158:16,20,23	291:19 292:22	178:7,7 180:20	242:11 247:15	255:17
159:11 166:3,4	296:12 349:2	180:23 181:18	254:10,14	create 77:19
167:17 171:5	correctly 69:14	181:19,20	275:23 284:16	98:22 99:13
172:10 176:4	77:17 221:5	182:1,18	284:22 294:5	325:25 331:15
179:12 181:8	284:22	200:14 203:9	310:16 311:2	332:9
184:24 185:3	corrects 210:15	206:1 210:22	334:22 338:24	created 48:23
188:23 195:20	corridor 38:12	210:22 211:4,4	354:7 359:5	113:8 357:8
197:25 198:14	81:5 90:19	211:6 214:17	370:25	creates 326:2
198:17 213:5	115:19 116:10	214:19,23	Counsel's 123:3	creating 34:22
217:16 218:20	136:7,20,20	221:21,23	counted 105:5	34:24 316:11
	I	l	I	I

credit 54:17	366:14,15,16	94:24 125:11	319:19 325:4	88:21,22 196:2
89:22 117:1,1	367:4,5,6,7,8,9	126:23 128:7	327:5,25 339:6	DC 38:1,6 76:21
117:11 200:4	367:16 368:5,8	131:9,12	339:17,19	76:24 77:4
235:24	368:9,10,11,12	138:21 140:3	340:4,22,24	81:6 82:16
credits 117:3,4	368:13,22,23	168:2 180:19	341:3,23 342:2	88:7 104:12
199:10 235:20	368:24	180:24 182:3	342:8 370:8	119:18,21
criteria 33:24	cross-subsidiz	200:3 227:6	customers' 92:3	120:16,18
critically 81:6	96:15	239:5,8 260:15	cycle 286:1	139:18,19
cross 39:11	crowd 24:18	262:3 313:10		143:21 153:5
133:20 141:5	crowd-based	315:14,14	D	153:13 154:19
213:20 215:16	88:9	317:19 324:25	D 21:1 365:1	155:7 157:24
250:25 251:1	crux 29:3 84:6	325:2 345:2,16	366:1 367:1	158:3 175:9
254:10 283:23	cry 155:4	356:25	368:1 369:1	177:2 192:4,5
284:3 293:13	CSR 18:20	customers 25:10	d/b/a 18:10	192:18,25
293:14,16,19	371:20	33:12,14 37:6	19:13 21:6	206:19 234:16
294:14 297:3	Culligan 52:10	38:17 76:2,3	daily 118:19	234:17 246:16
310:2 313:13	cumulative	77:8 78:23	Dan 197:11	258:11 268:5
317:22 349:14	68:19 114:11	81:19 89:11,19	Danciger 29:8	270:9,23 271:3
349:19	curiosity 104:4	96:4,17,25	31:14 106:23	271:9,13
cross-exam	curious 104:16	99:9,14 102:9	109:18	272:25 275:6
297:6	current 103:5	113:24 114:8	dashboard	276:4,7,22
cross-examina	105:25 106:6	114:13,16	88:17	318:21 346:15
133:19,23	109:9 113:22	120:1 123:14	data 26:10,12	DCFC 26:3
141:6 151:18	124:16 127:16	124:11,25	42:4 78:10	deal 109:14
155:24 157:16	149:17,17	125:2,18 126:2	88:12,15	149:25 240:15
175:22 179:10	155:14 159:25	127:4,13,16,22	145:18 146:7	328:2
186:8 193:16	175:14 194:14	127:25 134:21	150:13 167:9	dealer 125:17
194:25 196:7	223:23 263:19	135:9 137:22	172:21,24	167:19 198:12
213:10,22	278:16 286:8	138:24 139:24	173:2,4 336:8	dealership
215:17 216:25	313:11	140:7 157:5	339:22,23,23	198:7,23
230:8 235:16	currently 26:3	165:7 169:5	340:18	215:20
237:17 251:4	26:17 34:10	170:3,5,19	date 184:21	dealerships
253:13 254:11	37:9 38:19	171:21 174:16	190:8 225:14	89:15,24,25
264:3 269:5	45:6 46:13	175:14 177:8	dated 39:21	167:14,15
273:14 283:22	156:24 204:9	178:25 180:20	361:8	169:24 198:3,4
284:1,17	219:23 237:23	199:22 200:10	dates 363:25	dealing 85:19
296:22 297:7	241:1 256:19	201:8 203:5	daughter 186:19	107:5 109:19
310:5 311:12	268:24 289:16	204:5,9 214:24	203:13	129:13
313:17 317:24	312:20 316:20	215:10 217:16	day 37:5,7,11	dealt 121:4
318:17 324:2	319:3,7 324:24	219:22 222:22	43:24 47:4	235:19 360:20
334:20 346:17	345:7 354:19	223:3 226:25	82:6,7 88:21	debt 118:12
350:1 351:3	curve 218:6	227:11 241:4,6	88:22 99:6,21	decarbonize
354:10 365:15	cusp 34:7	242:17 248:1	123:8 171:25	82:6
365:16,17,18	customer 37:12	248:24 257:13	175:15 199:24	December
365:19,20,21	44:6 54:20,21	257:14 262:2	248:5 270:22	235:20
365:22,23,24	84:14 86:19,20	310:12 318:2,7	348:9 363:24	decent 280:19
366:11,12,13	91:12,25 93:23	318:22 319:3,8	days 61:21 68:3	decide 46:2,7
	l	l	l	

71:13 78:4,6	131:9 238:25	254:6 258:24	280:16,19	32:8 72:16
129:3 164:17	definitions	336:15	destination	117:21 224:10
233:21 245:4	28:16 221:4	deploying	116:11 208:2	289:12 356:6
245:16	degree 135:11	184:16	destructive	356:15
decided 143:10	156:16 230:4	deployment	243:7,9,10	devices 23:11
231:4 245:18	degrees 180:5	281:14 314:10	detail 53:8 92:12	94:1 206:10
361:2	Deitrich 30:5	depth 104:5	detailed 334:7	devoted 31:16
decides 344:9	delay 225:7	derive 320:12	details 43:7	31:19
356:2	deliberately	derived 113:4	90:16 332:15	devoting 106:19
decision 24:14	163:6 164:9	derives 248:24	332:18	107:1
25:5 27:21	deliver 75:20	describe 142:12	determination	dictated 230:25
45:21 57:19	delivered	152:17 205:12	45:20 53:14	245:17
70:18 120:5,23	186:20	208:20 220:17	85:6	Diego 250:1
121:7 168:5,8	delivers 91:10	220:19 252:16	determinations	253:23 254:4
176:9 252:1,19	demand 47:2,5	314:14 333:1	42:16	253.25 254.4
253:20 267:5	73:22 74:1,10	333:10	determine 26:12	317:1,9 346:18
280:13 323:11	124:12,23	described 82:11	27:13 36:7	diesel 256:6
347:8	145:7 179:21	121:10 147:4	46:17 47:9	difference 37:16
decision-maki	183:24 280:14	161:7 208:16	48:18 49:2,21	54:20 65:8,10
251:16	344:10	258:25 316:1	50:1 55:15	65:14 66:1,4,4
decisions 105:24	demands 180:3	· ·	59:8,23 78:1	115:23 118:4
106:5 109:23		describing 340:21	·	
	Democracy 121:11 122:8		106:14,15	170:1 188:12
147:16 353:17		description	107:24 155:2	205:9 238:21
Deck 29:9 31:23	demonstrates	87:14 208:19	165:3 180:8	238:22 343:11
32:15 50:14	75:5 Demuer 20:14	369:10,22	230:21 276:19	344:18
decrease 173:20	Denver 20:14 22:12	370:3,11,16,20	determined	differences
202:4,6 203:9		design 62:21 63:11 76:18	107:18 113:12 128:25 357:14	346:20 different 43:16
dedicated 82:14	Department			49:18 55:8
258:9 271:1	20:4 108:11	81:2 82:15,19	determining 106:1,25 107:7	
deep 36:1	209:1 352:15	91:11 118:25	,	59:4 62:16
deeper 36:2	depend 228:11	208:5 314:16	118:25 180:5	67:18 93:18
Defense 20:8	336:14 337:13	designated	deterred 281:14	103:6 177:25
22:5 74:24	dependence	35:21 332:11	develop 64:12	179:22 208:13
91:7	81:12	334:11	72:25 264:18	208:17 216:3,4
deferred 68:17	dependent	designation	335:10 355:23	248:18 255:4,7
define 260:18	202:13,16	115:17,20,24	developed 206:6	255:10 268:12
defined 60:5	287:2	116:18	224:1 245:13	268:19 269:17
245:24 246:5	depending	designations	289:9 332:4	272:4 276:17
313:3 317:16	55:11	116:21	developer 31:24	314:14 324:8
defines 60:12	depends 59:22	designed 45:3	50:17 234:6	329:19
defining 226:13	60:14 257:6	94:23 258:4	357:3	differently
definitely	270:25 323:6	356:7	developing 73:5	345:14
279:12 322:6	depleted 154:22	designees	74:17 106:2	differing 70:3
definition 28:18	187:9	115:18	223:13 333:25	difficult 160:8
29:7 57:22	deploy 42:6,20	desire 123:2	334:3	179:7,18,25
83:16 86:11	315:12	233:17	development	181:13 204:7
106:24 107:10	deployed 46:3	despite 25:20	20:4 31:25	289:19 319:18
	I	I		I

[
319:23	332:23	166:15,21	277:6	79:7,12 171:20
dig 36:1	disclosure	168:17 176:19	docket 228:21	171:22 180:15
dining 209:16	186:15	176:22 178:17	228:22,24	180:25 182:13
dire 341:5,7	disconnections	180:17 181:15	279:2 295:14	Dr 35:9 36:15
368:18	360:6	183:14 184:17	327:14 354:21	197:11 229:5
direct 83:8	discontinue	190:5 207:5,19	doctor 54:7	254:13 263:11
93:15 130:18	245:9	207:21 208:6	document	269:7
130:25 131:7	discourage	217:10,12	228:15 282:15	drag 28:1
132:11,15	229:20	218:10 222:2	282:21 324:9	drawback
132:11,15	discreet 206:24	222:11 232:4	351:20 352:3	105:13
136:3 141:11	discretion 48:7	246:14	documents	Dreams 46:22
141:14 155:14	48:18 49:1	distinct 177:4	228:16 283:6	drive 79:11
158:10,11	61:2,3,6,11,12	distinction 50:6	297:9 332:14	81:20 125:14
180:13 188:16	105:25 111:25	65:5 66:9	349:6	129:2 152:4,11
212:2 249:17		120:21 274:2		159:5 161:9
	discriminatory		doe 108:22	
254:25 260:10	120:13	distinguish	129:14 352:15	176:24 196:4
282:4 290:2	discuss 23:15	204:18	352:22 369:21	204:9 219:15
291:8,22,23	101:11 105:16	distribute 92:17	DOE's 108:13	driven 190:5
292:1 295:2,24	170:3 324:7	distributed	doing 31:2 33:5	driver 76:11
296:6 348:14	discussed 98:7	59:16	34:25 37:7	81:9 84:18
365:14 366:10	107:14 109:20	distributing	42:22 43:12	98:2 128:15
367:3,15,21	111:16 161:15	30:25	49:8 52:8,11	153:22 165:14
368:4,21	168:1 169:23	distribution	54:17 75:11	165:20 182:10
directed 112:3	196:13 210:19	29:24 44:21	82:13 95:1	187:7 209:8
directing 320:17	259:11 343:23	50:22 83:7	102:20 154:13	210:2,4 246:19
direction 123:18	362:22	107:12 142:20	184:14,19	246:21 247:2,5
127:1	discussing 30:16	315:4	213:15 233:10	247:7 344:7,15
directives 25:5	140:5 146:3	diversifying	234:16 271:13	345:7
directly 138:2	241:18 254:15	117:19	271:18,19	drivers 47:1,5
232:11 313:7	discussion 43:5	diversity 117:18	272:17 274:23	81:7 82:12
343:17 344:7	203:19 206:4	divide 289:17	dollar 219:18	87:21 88:2,6
344:22	225:24 279:8	Division 20:3	dominated	88:20,21 89:1
Director 70:16	280:4,6 326:11	21:24 22:1	285:7	89:5 91:15
90:9 101:8	discussions	105:3,12	door 99:8	92:8 93:16
134:16	144:13 162:9	113:14 114:5	Dority 20:18	120:14,19
disabuse 233:5	196:18 330:18	115:6 116:9	23:6	151:2,7 153:24
disadvantaged	disposal 155:8	117:2,25	doughnut	163:9 165:16
317:16	dispose 352:24	155:23 200:19	162:24	207:21 267:16
disadvantageo	dispute 108:2	216:13 242:5	Douglas 81:22	268:22 320:17
287:9	disputed 28:6	253:7 275:17	281:25 282:1	321:19 326:10
disagree 68:25	30:13	284:11 294:1	282:10,14,16	326:13,16
220:5	dissent 121:8	311:10 335:19	282:20,22	335:7
disbelieve	distance 26:4	340:18 350:25	367:14 370:12	drives 203:17
219:25	58:14 81:8	351:15,15	370:14	driving 39:13
discernible	137:24 138:3	358:24	downtown 54:6	54:2 82:2
184:19	153:22 156:19	divulge 334:14	360:1,2	123:16 124:25
disclose 310:20	158:8,14	DMV 276:10,12	downward 76:6	125:24 152:2
GINCION 510.20	100.0,11	270.10,12		120.21102.2

153:17 156:18	earmarked	266:13 359:14	91:5,16 92:14	204:14 205:16
158:8,14 160:1	276:16	effectiveness	92:16 93:16	205:17,23
175:8 176:11	earn 72:8	337:25	94:15,18,22	206:23 207:7
176:19 191:11	earnings 65:13	effects 173:18	96:16,19 97:9	210:19,21
204:16 217:10	66:7 72:11	287:7	97:16 98:2,11	217:14 221:21
217:12 322:11	easement	efficiency	98:16 99:1,9	221:23 222:1
322:24	144:16,17	102:16	99:13 101:15	223:3 226:11
drop 275:1	easements 172:4	efficient 102:23	101:16,18	226:14,19,22
drying 128:2	221:16	effort 64:12	102:1,3,9	232:6,9 237:11
dual 145:6	easily 159:5	272:23	106:19,19	238:24,25
due 136:19	161:12	efforts 64:23	107:1,9,10,18	239:1,6,11,12
140:15	east 19:15 21:16	232:23,25	107:21,23	239:20 241:1
duly 130:16	195:7 269:12	egg 75:6	108:1,5,12,18	243:14 244:14
211:25 249:15	333:13	eight 38:6,6	109:2,4,5,21	244:16,17
282:2 291:6	eastern 197:2	148:20 175:6	110:12 112:4	246:10,11
294:25 348:12	easternmost	282:23 347:21	114:7 117:5	247:11 253:19
duration 136:9	196:25	eighth 105:14	120:10 124:18	254:4 255:13
duties 48:22,25	easy 28:8 269:10	either 48:9	124:25 125:3	258:11,17,21
dwarf 211:1,7	eat 123:14,17	122:14 171:15	125:18,25	260:10,14,15
dwarves 211:2	EC-2015-0309	178:5 259:18	127:2,13,21	262:4 267:1
dwell 96:9 125:7	107:19	283:6 325:7	128:1 134:6,14	268:11,17,19
210:9	economic 20:4	331:14	134:22,23	268:22 277:4
	81:13 102:14	elaborate 94:9	135:1,7,9	279:17 280:16
$\frac{\mathbf{E}}{\mathbf{E}}$	117:21 121:14	electric 18:10,11	136:18 137:22	280:20 285:7,9
E 19:1,1 20:1,1	183:3	19:13 21:6,7	138:15 142:9	285:18,19
21:1,1 132:5	Economics	25:7,23 26:8	142:18 143:16	286:2 288:15
365:1 366:1	230:4	27:15,16 28:12	143:19 152:2	289:1 316:25
367:1 368:1	Economist 71:4	29:3,10,17,22	152:16 153:11	317:1 322:11
369:1,8 370:1	230:2	30:9,14,21	153:23 156:17	340:19 343:23
E-Calendar	Edison 251:25	31:7,16 32:23	159:23,24	344:21 346:19
317:17	253:21 317:2	33:6,20 34:6	160:3,4,5,13	346:21 350:6
e-mail 89:9	Edison's 266:10	34:23 36:23	166:21,22	352:17 353:5
earlier 30:16	educate 125:17	37:15 42:10	167:2,5,8	355:8 360:21
31:15 46:22	226:25	44:24 45:3	168:3,5,7,24	360:21 362:14
59:2 63:15	educated 177:20	47:2 49:12,12	169:7 170:13	electric's 253:23
82:15 84:5	effect 64:18 65:5	52:25 53:25	172:9,12	269:18 317:9
111:9 113:16	65:11 98:5	55:3 57:22	173:25 174:1,2	electrical 28:7
119:20 120:9	99:4 161:17	60:4 62:8	174:3,6,9	28:19 29:7
130:1 140:5	164:23 176:17	67:20 73:15	176:10,11,16	57:6 59:11
195:3 208:15	184:20 229:25	75:6 78:19	176:18 183:15	73:25 75:15,15
229:22 268:7	232:5 287:11	79:18 80:6	186:24 187:5,8	75:23 89:3
279:8 319:11	effective 123:4,5	81:16 82:6	187:8,15,24	126:11 142:24
343:21 361:15	124:10 126:1	83:2,9,17	188:1,6,8,17	188:2 197:7
362:22 363:2	127:8 129:4	84:10,14 85:14	189:13 190:4	215:23 246:1,7
early 84:24	201:16	86:11,25 87:20	190:21 191:17	electrically
208:23 215:9	effectively	88:2,10,19	200:5,6 201:21	187:6
224:15,20	112:13 214:18	90:3,14,23	203:6,20 204:1	electricity 28:25
	I	l		I

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29:25 38:18,22	emissions 81:13	90:22 98:15	335:19 340:18	69:3 83:6,8
44:22 49:20,23	102:13 169:19	127:8 140:7	350:25 351:15	93:8 111:11
51:22 52:9,16	173:19,22	201:17,20	351:15 352:15	276:17,18
59:9,15,18,24	263:18 285:13	229:24 288:15	358:24	355:2
63:8 67:3,6	285:17,19,20	356:14	Energy's 113:14	entitled 282:15
70:4,8 73:2,3	285:21,25	encouraged	engage 60:13,16	282:21
73:10,15 76:1	286:3,5,12	242:15 286:21	63:18 209:24	entity 86:6,15
76:10 79:18	emit 173:24	encouragement	engaged 59:21	106:16,18,22
80:4 81:18	174:3	140:10	60:7,24 67:21	106:25 107:7
83:7 84:14	emphasize	encourages	83:6 87:17	124:9 143:9
87:2 92:18	50:20	124:22	271:16 281:6	183:20 231:9
93:24 96:7	emphatically	encouraging	engagement	318:5 355:23
107:13 118:3	63:7	98:4,8	266:7 271:9	356:25 357:8
118:22 126:17	employ 169:17	encumber 352:1	279:17 281:10	357:23 359:22
129:15 130:3	176:4	352:14	281:11	360:20 361:3,9
168:12,19	employed 119:5	encumbering	engagements	entries 21:12
186:25 192:7	264:7,9 265:25	108:17	279:25	entry 22:22
205:16,21,24	295:8	encumbrance	engaging 85:15	enumerated
211:5 235:4	employee 318:8	108:7,25	85:18 87:4	49:3
241:14,19	employees 89:21	352:19	engine 187:11	environment
256:8,9 290:3	170:5,7,9	end-to-end	187:20	79:24 183:24
324:22 328:16	199:21 209:24	254:5 315:22	engineer 194:8	185:18,24
350:9,21	219:17 221:15	317:10,12,14	230:3	264:25
355:23 356:3	243:21,24	317:15	engineering	environmental
357:1 359:17	318:10 321:25	endeavor 71:24	87:18	20:10 22:6
electrification	342:3	224:10	England 19:15	37:2 45:4
81:12 260:12	employment	ended 191:7	21:16	79:13 81:25
electrify 82:7	295:25	endorsed 95:5	enjoyed 118:7	98:23 102:12
electronic 88:2	employments	120:2	ensure 68:4,9	124:19,20
90:24 91:3	361:1	energies 180:2	97:13 124:18	129:9 169:13
92:14	empty 193:2	energy 20:3	128:6,8 162:16	EO-2011-0090
element 252:18	enable 254:23	21:24 22:1	enter 46:20	108:4 351:11
322:21	258:22	43:19 94:3	56:12 184:6,7	EPA 190:21
eligible 277:9,10	enabled 166:21	105:4,12	entered 133:13	equal 214:17
eliminate 25:2	176:23	108:11 113:23	250:18 353:14	Equally 73:6
49:1 76:13	enablement	114:5 115:6	enterers 97:25	equipment 31:3
178:2 eliminated	166:24	116:9 117:2,16	entering 25:7	31:4 32:10
	enables 81:8	117:19,20,25	192:20 229:21	86:18 87:19,24
249:2,3 355:2	94:24	155:23 200:19	entertain 122:11	91:24 92:2
elimination	enabling 153:23	209:1 216:13	entire 52:12	94:10 136:8,13
233:24	180:17 190:3	228:14 242:5	58:6 98:13	142:25 145:11
emergence	enact 27:3	253:7 272:23	127:3 174:12	146:21 147:3,8
279:14	enactment	272:24,24	208:19	162:14 164:16
emergency	111:22	275:17 276:6	entirely 38:9	164:17,18
128:18	encourage 26:8	276:18,24	202:13,16	184:23,25
emission 99:15	39:9 42:7,8	284:12 294:1	entirety 112:19	185:6 210:6
279:24	58:9 81:21	311:10 325:8	entities 60:16,21	245:11 252:20
	I	I	I	·

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Г

				
273:17 274:1,8	ET-2016-0246	336:7	exactly 33:5	excerpt 229:8
274:15,18	18:11 21:8	evaluating	50:23 66:25	exclude 33:9,10
277:21,23	ethanol 256:11	83:14 263:13	71:14 72:24	243:13
310:9 311:25	256:13	272:6	126:10 160:6	exclusion
314:2 315:5,11	EV 39:10 46:25	evaluation	197:8 234:12	234:24
316:3,7 330:6	47:1 81:7,9	271:19	281:10 362:7	exclusive 60:14
330:7 337:9,24	82:2,25 101:12	evened 180:6	exacts 159:20	278:3
345:23 347:2	101:23 102:9	event 344:11	exacts 159.20	exclusively
352:1,14,16,18	102:11,17	eventually 66:4	130:18 141:12	260:5
352:22,24,25	103:2,4,23	225:10 361:21	148:23 197:23	excuse 31:10
equipped	114:21 120:13	everybody	199:4 201:2	32:5 37:18
120:10	123:2,5,6,7	37:20 55:1	205:5 208:12	39:14 88:2
equitable 76:19	123.2,3,0,7	77:23 102:23	212:2 240:23	92:14 147:22
equivalent	125:1,13,17,20	evidence 48:2	242:13 244:4	196:9 223:10
145:1,7 205:13	125:22 126:2,7	80:3 93:5	242:13 244:4 249:17 250:25	252:13 339:4
equivocating	126:9,11,14,18	94:20 113:1	275:25 277:17	executive
58:4	126:24 127:5	115:6 213:11	278:2 282:4	254:16,19
ER-2016-0285	120:24 127:3	213:19 250:23	278:2 282:4 288:5 291:8	289:4
103:5	127.11 128.13	213.19 230.23 283:20 293:5	295:2 330:15	exercise 48:19
Error 292:7	135:2 137:18	293:11 297:2	335:25 339:2,5	49:4,7 112:1,1
	151:7,8 159:25	343:3 349:18	341:7 343:6	112:3
especially 129:6 essential 96:23	160:25 161:8	353:24	348:14 359:9	exercised 108:5
118:17				
	163:16 164:1	evidentiary 18:5 21:4 44:16	365:14 366:3,4	109:1
essentially 24:21	165:11,20		366:5,6,10,17	exhibit 133:13
44:6 47:24	166:19,25	evidently 195:18	366:18,19	212:19 213:2
52:8 68:17	167:14,16,19	evolution 65:2	367:3,10,11,15	213:11,17,18
75:23 108:21	167:21 168:20	214:10	367:17,21	250:18,20,22
161:11 220:15	169:23,24	evolve 286:15,18	368:4,6,14,15	283:2,14
224:12 331:2	170:19 171:7	evolved 64:3,13	368:16,17,18	291:16 293:5,8
establish 93:6	173:13 175:14	66:2 279:20	368:21 369:4	293:10 295:18
235:2 356:2	183:14 184:20	evolving 266:24	examined 130:1	339:9,10 340:8
established	188:19,22	EVs 75:9 76:9	example 33:13	340:12 342:16
48:24 209:19	191:18 202:20	76:12,13 79:11	52:2 86:12	342:21,24
226:1	204:4,12 210:2	82:1 102:19	178:23 230:23	343:2 348:23
establishments	211:8 219:15	127:23 129:6	239:2,2 248:2	351:15 353:14
318:24	219:20 220:2,8	167:17 170:7	248:21 255:14	353:18,20,21
estate 144:15	222:9,17,20	173:23 180:18	256:12,13	353:23 369:10
estimate 171:22	223:4 228:3,10	201:21 204:9	287:4 333:5	369:11,12,14
263:17	243:13 251:14	217:13,18,21	357:2 361:16	369:16,18,22
estimated	256:24 259:6	219:23 220:15	examples 89:19	370:3,4,5,7,11
171:24 204:22	260:25 261:8	256:18,21	223:25 266:6	370:12,13,16
319:12	263:19 266:8	257:10 265:17	356:1 360:16	370:17,20
estimates	266:23 267:16	EW-2016-0123	exceed 224:15	exhibits 23:20
218:16,17	272:1,1 284:23	102:6	290:6	23:22 283:17
219:7	337:12,22	EW-2016-0313	excel 260:11	283:19 296:21
et 210:22 360:7	338:11 343:19	228:19	Excellent	296:24 297:1
361:1	evaluate 264:10	exact 340:23	186:17	349:13,16,17
	I	I	I	I

370:25	expenditures	141:17 149:22	321:4,16	167:11
exist 46:16 51:7	274:17	225:7 265:23	322:24 337:15	fast 26:3 34:11
142:17 149:17	expense 78:17	267:14 268:15	factories 72:15	36:8 43:9,10
237:23	97:24	279:18 280:3	factors 29:12,19	46:14 55:20
existed 61:18	expenses 65:20	281:8	32:9 112:7	76:24 77:1
existence 206:25	65:25	extinguisher	261:4	81:4,6 88:7
219:19	experience	162:20	facts 24:23	104:11,12
existing 59:7,8	77:23 81:23	extra 63:3 115:2	44:16 59:7,23	115:15 119:21
71:8 76:5	101:12 127:17	214:25	61:9 66:24	120:16 139:18
157:3 181:23	135:11 143:12	extrapolate 45:9	71:8 104:15	139:19 143:13
227:5 289:6	149:3 152:1,22	extreme 75:21	112:21 288:25	143:17,21,23
exists 61:8	161:16,21	extremely 78:25	factual 48:2	143:25 144:8
148:21 237:7	170:4 288:19	79:10 200:1	fail 258:1	144:22 145:23
355:19	288:23 338:10	246:17 280:7	fails 72:22 115:3	146:16,22
exit 154:5	347:21		fair 98:3 136:11	147:5,7,18,23
expand 64:23	experiment	F	143:3 145:19	148:4,16,17,18
141:13 334:10	121:14	face 210:5	220:24 265:3	150:25 153:6
expanded 26:13	expert 261:17	facilitate 39:11	267:3 316:3	153:13 154:4,7
45:12 46:18	264:25 274:11	107:12 232:17	334:16 339:18	154:19,23,25
expanding	expertise 172:4	facilities 52:12	fairly 43:23	155:7,9,14
79:11 101:16	221:16 348:2	86:21 108:23	83:25 251:19	157:24 158:3
333:21	experts 59:4	109:2,6,21	fall 74:12 110:13	161:22 175:9
expands 81:9	expired 235:20	117:9 145:23	falling 76:9	177:2 192:4,5
265:19	236:21,22	146:15 169:18	158:25	192:18,25
expansion 80:1	explain 39:24	209:2 232:18	falls 41:14 49:2	194:4 196:21
248:3 265:22	79:21 84:3	248:1	49:6 62:11	196:25 198:3
expect 70:12	199:12 279:10	facility 89:23	familiar 83:21	198:13 206:19
136:13 148:24	334:13 339:21	142:1 233:9	104:8 110:2	215:21 234:16
166:8 176:22	343:14 346:2	238:20	142:8 156:20	236:5 246:15
182:23 207:6	346:19 360:18	facing 86:4	161:18 199:8	246:16,17
225:14,24	explained 92:12	fact 33:10 65:15	247:20 251:19	258:12 268:5
236:23 284:23	119:20	68:1 72:23	252:10 264:20	270:9 271:3,9
321:24 322:8	explored 144:14	76:11 84:16	264:24 273:16	271:13,15
332:3	express 357:18	101:18 126:20	312:16 352:6,8	272:19,25
expectation	expressed 57:21	127:13,14	362:3	275:6 276:4,8
191:10 217:4,8	178:16	129:4 140:11	fancy 97:8	276:22 318:21
expectations	extend 48:24	143:8 153:18	far 23:17 35:2	318:23 319:7
218:7	extended 140:8	156:17 159:4	43:1 48:10	319:14,24,25
expected 72:10	extends 83:5	171:23 198:6	49:10 53:6	320:3 322:1,4
90:7 91:18	extension 51:24	206:14 209:21	78:17 94:5	323:9,11
149:5 189:25	94:14,15	215:22 219:22	98:1 125:25	329:24 330:2
expecting 138:5	142:16,18	220:15 226:9	148:19 155:4	330:19 331:8
166:6	extensively	238:19 244:19	170:23 177:11	332:10,10
expeditiously	47:10	248:16 255:2	177:13 196:20	333:11,12
105:17	extent 64:15	281:12 289:5	196:21 325:15	334:10 336:22
expenditure	65:12 67:19	325:22	fashion 68:19	345:3 346:15
277:1	68:25 111:17	factor 28:11	153:4,5 155:3	faster 77:5,5
	I	l	I	ĺ

177:12 246:18	filing 229:8	48:7 49:13,19	150:18 189:7	footprints
fate 199:23	fill 36:22 74:1	63:24 82:2	240:16 336:7	173:21
fault 181:25	76:10 80:5	87:13 88:22	363:24	forbid 69:6
favorite 121:8	118:10 127:19	130:9,16 131:8	fix 57:3 140:3	force 337:19
feature 161:19	154:21 222:22	131:22 132:5,8	fixed 76:7 114:9	338:1,8
features 337:16	326:1	132:21,22	289:10,11	forced 153:9
federal 115:16	filled 154:8	133:20 135:3	Fixing 115:14	forecast 285:6
116:20 121:13	filling 34:22	141:21 152:20	fixtures 107:11	foresee 322:9
199:10,14	35:3 42:17	154:11 160:24	fleet 135:18	323:4
200:3,4 235:20	102:21 160:11	166:20 167:2	flexibility	former 134:15
235:24 352:21	fills 288:14	172:1 176:10	326:15,23	formulated
Feds 236:18	final 122:17	176:12,20	floor 249:25	84:25 86:1
fee 94:19,25	348:8	180:21,22	flow 81:11	formulation
182:10 276:16	finally 36:13	182:8,9 195:18	125:13	315:9
276:22,23	45:14 70:22	205:22,25	flying 62:17	forth 188:5
277:7 322:20	76:18 117:13	211:25 212:10	focus 44:14	321:3 371:10
326:20	278:12	213:20 219:4	123:4 270:9,16	371:13
feedback 82:17	finance 331:17	234:4 239:15	focused 270:15	forward 23:21
feeding 30:20	financial 45:13	248:5,6,22	333:13	24:11 26:18
52:20,22	financing	249:15 251:1	focusing 58:7	42:7 79:25
feeds 31:12	289:18	251:25 282:2	268:22	103:23 123:5
feel 43:13 53:9	find 61:19 96:12	283:23 289:3	fold 190:12	165:8 197:6
78:18 97:17	97:11 99:7	290:2 291:6	folks 78:19 96:7	201:22 232:1
184:18 185:9	121:15,23	293:14 294:25	96:15 97:5,7	267:15 270:8
185:12 194:7	137:1,1 151:3	297:3 324:5	177:20	279:23 357:13
207:14 241:17	151:7 175:9	348:12 349:19	follow 23:18	forward-looki
241:21 335:4	177:8 239:18	fiscal 117:12	39:14 40:20,22	185:22
fees 277:6	280:18 287:13	Fischer 20:18,18	73:18 78:16	fossil 172:18
feet 142:23	319:19 322:14	23:2,5,5 101:1	196:9,10 205:8	173:9 227:20
271:10	347:5 363:23	101:2,3 104:13	313:23 331:5	286:9
felt 166:20,24	finding 115:10	101.2,5 104.15	follow-up 85:12	found 31:15
fewer 286:12	fine 99:10	151:19 155:21	196:11 230:19	57:20 83:1
field 46:22 146:6	218:22 363:18	199:3,5 200:18	264:14 330:14	106:9 113:2,6
Fifteen 190:11	finer 251:13	216:12 253:6	following 76:4	140:10 148:11
figure 26:17	fingers 42:25	275:16 284:10	106:24 115:5	148:20 292:8
42:5,19 174:8	finish 43:11	293:25 311:9	145:15 330:17	328:21 343:18
174:12 210:3	196:19 210:16	335:18 348:15	follows 128:7	344:2
219:24 272:2,8	362:25 364:3	348:17 349:12	130:17 212:1	four 92:7 131:22
219:24 272:2,8 286:11 292:11	562:25 564:5 finished 58:6	359:10 362:19	249:16 282:3	133:2 180:21
292:13,15	192:21		249:16 282:3	180:22 180:21
340:22		365:9,17 366:4 368:21	348:13	
	finishing 196:19 fire 162:20	Fisher 348:10		219:4 236:4,15
figured 177:11			food 162:23	279:21 280:9
file 21:8 260:10	firm 162:10	369:4	320:19	290:3,5 323:8
351:11 362:10	firmed 164:11	fit 185:17	footnote 131:8	323:14
filed 23:18 214:7	first 23:25 26:25	fits 99:2 234:12	132:3,4,6,7	four-door
229:6 244:9	27:14 28:5,11	five 77:5 105:6	292:18	186:15
358:1,1	28:17 35:7	126:1 148:22	footprint 186:18	four-year 281:5
	1	I	I	1

Fourth 22:7	205:16,23	336:13 338:23	161:21 177:18	29:24 31:2
frame 189:2	255:13,22	343:6 353:25	178:23 186:15	44:21 82:1
194:14 278:20	256:5,7,10,10	368:19	188:2,3,6	169:18 172:17
278:21 336:14	277:9 285:4	furthest 197:2	205:17 253:19	227:16,18
framed 86:8	286:1	future 56:6,7,9	253:23 254:4	286:8,14
franchise 355:7	fulfills 109:19	57:5,13,14	256:8 269:18	generator 30:23
frankly 42:14	full 44:10 93:24	58:2 72:2,5	285:13 316:25	30:24,24 31:1
191:4	135:23 186:14	108:23 114:22	317:1,9 320:21	generic 261:5
free 41:18 88:1	249:23 268:11	117:22 166:23	320:23 336:22	geographical
88:4 93:10	286:1 295:6	177:16,17,17	346:18	111:12
100:16 182:13	320:5 335:9	177:22 178:13	gasoline 80:5	getting 32:10
183:23 194:11	fully 140:21	197:13 203:25	127:14 160:11	33:9 41:3
230:25 241:9	322:7 371:12	216:6 228:2,2	160:12,14	63:24 66:13
241:12 320:1	fun 55:24	228:9,15 237:6	161:13 167:6	99:11 118:19
321:6,25 322:6	function 96:3	245:4 286:13	168:11,19	152:22 154:8
325:4,8 326:19	265:2	313:10 323:4	187:1,11 196:4	168:21 170:23
327:25 328:6	functioning	344:11 345:2	205:18,20	172:4 221:16
328:16,16,24	181:5	future-proof	210:21 211:6	225:7 238:16
335:11	functions 94:13	344:12	222:19,25	247:10,10
freeway 272:17	fund 37:13	Futz 318:25	223:2 256:6	350:19
friend 128:12	276:24 277:10	330:24	285:5	give 24:12 26:16
friendly 209:20	277:11	550.24	gather 26:9 42:4	42:12 46:5
210:4,10	fundamental	G	42:18 45:8	57:11 61:25
front 41:5 67:16	107:3	G 21:1	46:5	73:15 92:7
134:1	funded 237:2	gain 288:16	gathered 68:17	108:9 145:24
fuel 115:17,19	276:6,9	gallon 211:7	gathering 143:5	146:7,17 147:8
117:1,4 118:21	funding 99:14	game 92:6	145:18 251:19	152:14 173:2
125:19,21	272:25 273:4,6	gap 34:23 35:3	general 31:22	210:1 256:25
126:16 127:9	276:4 277:5	36:21,22 42:18	59:9,25 60:7	260:22 324:10
154:1 160:14	333:16 352:14	74:1 177:4,12	63:9 90:21	325:7 327:21
167:24 170:2	353:10	179:1	107:5 109:12	332:18 333:4,4
172:18 173:9	funds 108:12	garage 98:16	113:23 117:10	333:5
187:1,9 203:9	117:11 352:22	125:6	121:21 201:22	given 82:21
207:24 222:2	furnishing	garages 89:14	223:15 263:7	114:1 116:11
227:20 254:21	107:13	104:10	310:24	176:7 337:12
255:20 256:4	further 112:6	Garcia 174:15	generally 83:1	340:18
256:14 276:24	186:4 191:18	290:22 291:5	112:2 156:20	gives 117:3,7
277:3 286:9	211:10 213:8	291:13 293:6	156:22 160:18	328:4
fueled 187:6	215:15 235:7,9	294:11,17	182:19 208:16	giving 58:5
fueling 153:10	241:23 248:14	367:20 370:18	208:20 288:8	glad 93:9 197:3
161:23 162:2	249:6 269:1	Garden 89:21	generated 59:15	228:17 234:1
162:14 168:11	270:9 281:15	90:7	136:19,23	global 29:12
168:12 172:9	290:11 311:6	garner 180:24	320:16	GM 53:25 54:1
172:12 205:20	315:25 317:4	gas 67:8,16	generating	GMO 20:17
207:23 211:5,6	317:20 321:9	76:11,15 118:2	129:8 227:20	101:14,25
320:3	331:3 334:18	118:7,8 127:18	248:13,15	102:24 354:23
fuels 187:17	335:14 336:4,4	160:11,15,19	generation	357:13
	ĺ	l	=	l

Г

GMO's 327:3	66:11 69:6	80:22 95:15	greenhouse	guzzling 186:15
go 21:2 22:10	72:11,20 74:11	101:2 105:10	76:15 285:13	
23:24 24:6	75:19 87:13	109:6,7 122:19	grid 76:6 79:20	H
29:21 32:1	96:9 98:20	122:20 128:9	81:17 91:2	H 369:8 370:1
34:1 40:10	99:1 100:13	134:13 137:7	134:17 142:16	habits 175:14
41:10 42:2	102:22 103:17	157:18,20	169:2,17	half 174:9 193:3
44:9 63:21	103:18 104:14	175:24,25	179:11,14,19	193:9 211:6
109:7 116:5	109:15,18	186:21 213:24	201:12,15,18	274:15
120:5 125:10	114:2 115:1,2	213:25 217:2,3	201:25 202:2,3	half-hour 155:2
126:23 130:8	115:4 125:20	230:10,11	202:10 228:14	halfway 196:12
136:2 142:23	141:11,19,20	234:2 239:2	259:24 269:19	Hall 28:9,22
163:25 164:25	144:14 145:2	241:21 264:5	274:1 344:13	29:15 39:14,20
165:5 166:8	150:4,5 151:4	272:12 284:3	grilled 257:25	40:5,17 47:21
190:1,14 193:7	151:6 167:16	284:19,20	ground 121:19	48:6,13,16
196:20 198:3	168:18 176:9	313:19,21	271:20	49:9,14 53:15
198:13 211:19	176:17,22,23	318:19 324:4	group 25:11	56:20 64:25
212:11 241:8	176:24 177:5	324:17 354:12	324:12	65:2,17,23
273:13 277:24	177:18 185:14	354:13	groups 70:3	66:8,16,21
279:10 281:22	185:22 188:25	Government	Grove 116:13,14	67:1,4,7,11,23
290:19 320:8	188:25 195:15	90:10 97:22	grow 47:6 58:3	68:11,14,20
320:11,13	195:17 196:11	113:9 126:6	267:2 289:10	69:10,16,19
322:15 323:14	207:12,22	200:3 255:24	growing 90:1	83:20,24 84:3
337:4 353:19	208:1,2 209:4	Governments	331:22	84:6,21 85:4
362:17 364:6	212:6 216:6	89:13	growth 42:8,11	122:12 129:11
goal 82:15	219:18 227:9	Governor	42:12 117:21	130:4 175:21
161:16 266:8	232:1 236:4	254:16,19	118:2,2 218:9	175:23 230:9
goes 29:3,6	242:15 243:24	Graham 54:7	289:20 333:12	235:9 239:24
49:15,17 146:6	247:10 258:17	grant 61:4	345:2	240:25 244:6
170:21 182:12	260:20 262:6	108:12 273:1	guarantee 58:1	264:2,4 269:1
188:4 211:8	262:11 263:3,6	276:8 277:5	Guard 89:23	273:11,15
233:20 248:5	267:15 269:14	353:2	guess 105:13	287:22 318:16
276:16,17	270:22 274:19	granted 60:20	178:10 215:1	318:18 323:24
277:21	274:21 276:21	108:20	220:4,10 223:6	330:18 331:6
going 24:16	276:23 279:10	granting 352:4	225:3 226:6,15	354:11 358:12
26:18 27:8	281:21 290:15	369:23	227:2 228:22	363:2 365:20
28:1,3,16	320:12 323:5	grants 60:15	231:17 234:22	366:14 367:7,9
29:20,23 37:15	323:14 328:13	granularity 36:7	243:17 259:3	368:12,24
39:6 41:15	332:21 339:9	great 20:10 22:6	265:14 267:18	Hall's 202:19
42:2,6,18 43:6	340:16 353:19	24:8 46:21	267:18,20,23	359:11
43:20 44:9,20	357:13 362:23	73:3,4 82:5	322:23	Halso 20:13
46:5,5,19 47:1	363:19,20	324:11	guests 36:11	22:9,11,11
47:6,17 48:3	good 21:25	greater 20:16	51:9	80:21,22 83:23
51:1 52:24	22:20 24:5,6	23:4 101:4	guidance 26:17	84:2,5,23
53:7 54:5	27:1 34:3	102:15 103:2	50:15 123:25	85:10,21,25
55:19 56:1	42:18 43:2,13	248:23	gum 82:8 320:22	87:8 157:13
58:13 62:2,2	43:18 45:2	greatly 297:6	gun 82.8 320.22 guy 269:13	200:24 216:18
,			•	242:10 253:12
65:20 66:5,6	48:5 53:20	green 35:14	guys 109:6	Z4Z:10 Z35:1Z

252.14 15	hate 42:24 55:21	hold 22.12	222.9	books 229.5
253:14,15		held 32:12	232:8 h ala 288:14	hooks 328:5
254:8 275:22	hats 54:9	256:24 297:13	hole 288:14	hope 31:10
281:24 282:5,8	hauls 47:5	Hello 156:1	326:1,2	42:21 46:23
283:13,21	he'll 27:25	186:10 311:14	home 55:3,5,6,7	53:16 55:10
288:6 290:10	head 50:12	351:5,6	55:16 98:16	56:23 58:9
294:4 313:16	54:11 154:13	help 24:13 25:2	100:1,11	99:6 193:21
313:18 317:20	160:20 218:4	26:12 82:10	102:18 113:19	269:14 336:17
335:24 336:1	231:13 275:2	102:22 128:17	123:13 125:2,4	hopefully 24:8
338:22 354:6	327:10	171:17,19	125:12 126:10	25:2 34:23
359:4 365:6	Heading 195:7	210:1 264:14	126:14,23	46:4 179:4
367:5,15,17	headquarters	264:18	137:15 156:15	272:14
368:10,16	220:10	helped 30:7	156:16 157:6	hoping 141:14
hand 130:14	health 81:14	helps 31:11	161:1,5 168:17	183:18
249:13 262:6	164:22	79:22 232:10	168:25 169:1,7	horizon 114:11
291:3 294:23	healthy 162:24	Henry 20:9 22:5	170:10 171:9	hospitals 89:14
327:16	hear 23:16 24:9	hereof 371:10	171:15,15	host 41:19 87:25
handed 339:10	24:18 37:20,20	heroes 54:2	193:24 195:25	91:25 92:7
handle 76:25	37:20 48:3	Hey 57:11	201:9 202:13	93:22 142:1
145:23	70:25 71:1	313:20	202:16 207:18	143:2 164:6,6
handled 344:19	77:16 97:1	Hi 156:2 186:11	208:8 211:9	164:14 209:15
362:7	heard 77:24	311:15	220:3,6,7,11	271:18 312:11
happen 72:23	100:9 104:17	high 20:5 22:1	223:6,8 247:12	316:2,2,13
151:6 214:18	186:23 195:4	26:14 34:11	260:5	328:6 335:10
277:22 285:16	199:23 362:4	35:15,21,23	homeowner	336:9 345:6,23
287:3 329:6	hearing 18:5	110:23 190:6	98:11	347:1,1
happened	21:5 23:12	202:9 214:23	homes 99:23	hosting 326:24
158:18	55:22 133:16	237:12	226:11,12	hosts 88:20 92:5
happening	141:18 152:5	higher 113:22	honest 57:16	93:19 144:11
24:21 121:16	152:10 196:2	124:25 215:14	honestly 28:7	164:9 312:3
280:7	197:3,6 210:14	highest 113:1	41:21 54:14	328:22 336:9
happens 54:12	211:15 213:16	highlight 107:16	Honor 24:4	336:22 337:5,5
63:23 185:5	250:20 283:17	109:24 110:14	130:11 133:11	337:7,23 347:5
248:10 270:17	293:8 296:24	113:15	146:5 157:13	347:14,17
270:18	311:18 342:24	highway 77:7	197:21 212:5	hot 27:7
happy 47:19	349:15 363:14	109:11 115:16	244:3 253:12	hotel 36:10 51:8
83:18 104:1	364:4,6	116:1,20,22	283:13 290:10	hotels 89:13
127:16,18	heart 146:6	272:19 325:23	293:4 296:20	93:12 322:3
191:8	heat 29:1,6,10	hikes 202:7	297:5 313:14	hotline 88:20
hard 97:6 115:3	30:4 49:20,24	HILL 275:8	313:16 335:18	hour 62:24
218:12,15	51:23 59:10,25	hinge 96:12	335:24 338:22	76:20 92:25
hardware	63:9 83:16	historical 94:2	343:5 349:12	138:25 139:11
206:16 274:5	84:7 96:5	111:18	349:24 351:14	139:17 140:7
312:25 314:4,5	107:13 123:12	historically	354:6 358:19	140:18 181:23
346:4,15	heavier 99:21	110:12	362:20	187:4 193:3,8
harm 124:24	heavily 128:21	hits 269:15	hook 52:15	193:9 325:1,5
Harry 20:5	hedge 117:21	hold 69:4	hook-up 325:9	325:5,8 326:7
hassle 191:20	hedged 225:19	holding 31:23	hooking 240:15	327:23 328:1
	I			l

Г

328:14 350:17	Hyvees 329:8	illogal 120.15	157:21	including 00.11
	Hyvees 529:8	illegal 129:15		including 88:11
350:23	I	233:11	improvements	89:12 91:12
hourly 326:20	I-70 55:18 90:19	illegally 70:8	166:11,13	103:24 117:5
hours 51:16	109:11 116:10	194:5,15	improving	117:20 142:20
76:8 124:12,23	116:14 123:7	imagine 77:4	81:14	143:19,20
153:15 159:19	123:16 125:14	immediate	impute 64:17	315:1 332:11
161:11 192:13	125:24 129:2	28:15 82:11	249:1	334:11 342:3
192:13 201:24	123.24 129.2	125:22 163:9	imputed 214:17	343:24 345:3
322:5,7 326:19		immediately	imputing 65:8	. 348:2,3
326:22	146:15 148:22	137:6 165:15	in-camera	inconvenience
houses 72:14	155:9,10	215:4 266:2	297:10,12	152:21 153:19
234:7	163:12 175:9	342:20	332:25	incorporate
housing 89:15	177:8,13,19	impact 26:14	incent 168:10,23	208:4,5
346:24 356:4	178:24 191:13	45:13,21 63:12	incenting	Incorporated
huddled 193:25	196:16 220:19	91:19 97:21	192:16	22:19
huh 269:10	233:12 257:22	119:6 169:13	incentive 43:10	increase 36:23
hundred 34:9	319:6,19 320:2	170:22 222:21	43:11 120:18	73:21 102:18
71:23 72:2	322:11 331:9	261:3	125:22 126:1	169:8 180:6
hundreds 61:24	334:11 336:6	impacted 55:16	140:14 200:8	182:8 188:25
hurdles 27:13	336:23 337:5	impacts 102:14	219:17	202:10,12
27:20	341:18	129:9 259:24	incentives 159:2	203:3,5 217:15
Hurricane 29:9	ice 121:2,5	implement	190:24 199:7,9	218:3,12,13
31:23 32:15	269:15	25:19	199:13 200:13	232:1 285:5
50:14 57:23	idea 45:11 73:3	implementation	201:6	increased 76:5
hybrid 143:22	73:4 97:13	134:17 170:15	incidental 84:15	180:10 181:14
158:6 160:2,3	123:12 147:15	implementing	include 88:20	201:24 202:15
160:4,10,13	152:15 180:2	103:23 345:8	89:11,20	256:22 257:3
167:1,4,8	193:11,12	implicit 48:7	101:16,22	increases 81:9
174:3 186:16	194:18 207:16	implying 32:9	102:12 111:21	169:7 180:16
186:22,23,24	272:11	importance	123:6 135:25	265:12
188:8,10 200:5	Ideally 79:25	27:11	220:15 231:16	increasing 79:12
203:20 204:14	ideas 324:10	important 44:11	255:12,18	127:17
205:16 218:19	347:25	71:6 79:14	258:13 260:1	incredible
252:17 268:10	identical 123:20	81:5,7 93:3	260:14 315:4	152:21
280:21	182:20 221:1	96:3 97:3	331:16	independent
hybrids 127:20	221:10	101:6 105:19	included 35:15	147:16
153:11 167:5	identification	116:19 167:24	134:5 135:22	indicate 158:8
187:24 188:1	295:18	168:4,8 186:2	136:22 137:9	318:21
280:24 343:24	identified 179:1	247:4 261:7	137:14,15,16	indicated 66:16
hydrogen	254:22	262:2,3 270:18	138:8 215:3	85:13 148:11
255:14,16,18	identify 257:14	280:2,22	227:10 229:8	148:23 173:3
255:20 256:8	273:2,3 318:2	345:19 348:3	255:16	174:15 176:1
	identifying	importantly	includes 89:12	179:5,9 246:3
hynhen 131+15			103:14 107:11	263:12 293:18
hyphen 131:15 hypothetical	339:11 340:20	רויוא ו		
hypothetical	339:11 340:20 ignore 24:17	81:15 impose 1/11:18		
hypothetical 154:4 338:16	ignore 24:17	impose 141:18	107:22 158:3	333:19 334:23
hypothetical				

indication 35:23	229:13 258:13	146:19 157:25	106:2 113:11	184:14
indirect 93:15	258:23 260:16	206:11 319:25	119:2 131:15	introduce
320:18 321:23		330:2 336:16		251:10
	265:7,11,17	357:4	178:16 184:14	
326:24	266:2 268:12		185:20 186:3	introduced
indiscriminate	270:10 280:15	installing 81:3	191:23 207:4	143:9 205:14
107:5 109:19	314:25 315:10	144:9,22 147:6	211:15	introducing
indiscriminat	325:14 331:9	158:1 178:16	interested 85:7	286:25
31:21 33:4	332:4	345:6	145:22 147:6	inundated 24:22
53:2 109:15	inherent 33:1	instance 122:9	147:12 184:3	inventive 183:3
190:5	166:22	145:21	184:16 185:21	invest 331:8,12
individual	inherently 38:24	instances 247:25	270:4 319:20	332:21
121:14 232:13	inhibit 97:24	institute 178:3	interesting	invested 344:1
individuals	initial 205:17	instructing	67:25 95:22	investigate
233:5 257:17	initially 277:19	210:5	121:3 271:8,24	165:5
induce 166:18	289:4 360:12	instructions	279:13	investigated
indulgence	initiated 279:16	128:7	interests 45:17	134:19
297:10	initiative 103:1	insufficient	167:20	investigating
industry 206:21	108:14	112:12	Internet 193:22	134:25
206:22 232:8	initiatives	integration	interpret 48:17	investigations
361:13	103:24	253:24 269:19	123:10 260:20	165:1
industry's 88:22	inquiring 135:9	intelligently	260:21	investigatory
inevitable	insert 227:10	135:11	interpretation	228:21
289:12	inside 63:19	intend 109:14	30:17 47:25	investment
inevitably	insight 46:6	262:8	50:1 59:5	25:21 92:6
105:15 258:23	173:5	intended 45:8	75:21 95:24	103:19 114:9
289:8	insistently 91:20	93:2 96:6	interpretations	117:1 170:22
influence 82:12	insisting 209:5	148:22 322:25	106:11	223:11 228:3
information	instability	intends 172:21	interpreted	228:10 229:14
21:21 24:12	117:22	intensity 256:6	71:18	229:20 247:21
42:19,21 45:8	install 25:23	intensive 129:7	interpreting	260:18,21
46:4 55:15	51:16 102:16	169:18 227:16	239:22	261:1 265:7,9
58:12 89:6,7	103:1 146:22	227:20	interrupt	265:18 266:1
146:14,18,19	147:14 151:4	intent 50:25	264:15	266:14 267:14
165:12,19,20	182:22 197:15	90:22 195:19	interruptible	276:20,25
218:5 311:2	331:8,10 345:4	228:2 285:24	33:13	288:20 289:1
332:17,24	353:10	intention 92:10	interruptions	317:5 331:14
333:1 334:14	installation 85:1	intentions 228:9	23:11	336:5,13,18
340:11	88:24 90:24	inter-regional	interstate 26:1	343:25 345:3
informs 261:1	102:11 117:9	258:19	34:9 45:7	358:9
infrastructure	143:13 146:16	interconnect	116:1,2,5,6	investments
42:18 46:3,18	147:4 171:17	239:5 274:10	177:3 207:22	260:15 270:24
52:17 81:4	171:19 173:8	274:11	267:6 341:20	271:4 280:16
101:16 116:22	201:13 218:9	interconnection	Interveners	344:13 346:16
117:5 127:11	271:21 290:4	52:19,21	101:25	investor 289:16
177:4,12	315:1	interest 26:11	intervention	investor-owned
177:4,12 178:25 217:10	installed 135:5	29:11 31:6	126:7	255:17 347:11
221:19,20	138:7 145:12	51:4 95:18	intimated	investors 64:22
221.19,20	130./ 143:12	J1.4 7J.10	miniateu	mvestors 04:22
	1	1	1	1

MIDWEST LITIGATION SERVICES om Phone: 1.800.280.3376

Г

	I			
72:18 73:6,7	167:24 178:12	Jim 101:3	22:20,25 23:2	284:8,11,14,16
74:14,16	181:18 183:10	job 43:13,18	23:8 58:16,20	287:20 288:3
invite 235:7	185:21 223:22	68:4 102:15	74:22,24 80:19	290:12,15,19
invited 324:9	263:5 288:24	272:6	80:22 85:12,23	290:23 291:1,3
involved 32:9,10	355:14,15	Joe 22:11	87:7,9 95:11	291:10 293:7
94:7,8 97:23	357:7 362:8,25	104:17 253:15	100:21,23	293:14,19,21
145:3,17	363:22	329:25	105:1,3 122:17	293:23 294:1,3
210:10 255:3,6	issued 254:19	John 20:22	129:20,22,24	294:5,7,12,18
273:17 274:6	issues 24:23	22:16 95:16	130:5,8,13,20	294:20,22
286:25	35:12 48:1	Johnson 19:18	130:22 133:15	295:4 296:23
involvement	62:18 63:3,4	21:13,13 24:3	133:20,22	297:3,11 310:1
52:23 178:15	98:7 102:8	24:4,8 28:14	141:5 146:4,10	310:4 311:7,10
286:23	106:1 121:15	29:5,16 37:22	151:16 155:23	313:13,15
involves 53:9	121:22,23	38:3,9,19,23	157:10,12,14	317:22 318:14
142:15	146:9 361:17	39:3,19 40:2,8	163:4 170:25	330:11 334:17
involving 142:5	item 131:23	40:19 41:1,8	175:19 194:22	334:19 335:16
ironically 45:19	items 42:14	41:12,21 42:1	196:10 197:17	335:19,21,23
irrelevant 25:13	107:22 177:15	48:4,10,15	197:18,19,22	338:24 339:1
262:17		49:5,10 50:9	199:1 200:19	340:15 342:17
island 31:8	J	53:16,22 54:14	200:21,23,25	342:23 343:4
109:10 158:2	J 20:4 130:24	54:22 55:7,23	205:2 211:12	348:6,16
197:14	James 20:18	56:17 57:16	211:19 212:4,8	349:15,19,23
islands 25:23	23:5	58:15,18	212:11 213:12	349:25 350:25
30:1,2 32:23	January 18:7	130:11,19,23	213:16,20	351:17 353:13
44:23 46:11	21:3	130:24 133:11	215:16 216:10	353:15,17,19
147:17 158:2	Jeff 159:5,9	133:18 145:15	216:13,15,17	354:3,5,7,9
180:4 181:4	161:10	146:1 163:1	216:19,22	358:18,20,22
207:3,9 209:21	Jefferson 18:7	170:20 205:4,6	229:3 230:7	358:24 359:1,3
262:24 273:22	18:21 19:6,11	211:10 249:10	237:18 240:20	359:5,7 362:21
273:25	19:16,24 20:6	249:18,22	241:25 242:2,5	362:24 363:5,8
isolation 30:18	20:19 21:17	250:16,24	242:7,9,11	363:14,19
31:4	22:2,24 23:7	261:11 262:12	244:2 249:7,12	366:16
issue 32:22	126:21 152:12	262:22 277:16	249:19,21	jump 28:4
47:23 49:13,19	152:18,25	277:18 281:15	250:19 251:1,3	June 39:22
56:5 58:25	161:14 166:1	283:25 293:16	253:4,7,9,11	jurisdiction
59:3 62:12,14	191:11 195:10	297:5 330:13	254:10 261:15	25:6,6 27:1,6
62:15,16,18	246:20 247:3	330:16 334:16	261:19,23	27:14,21 33:21
63:4 64:2	341:21	334:18 365:3	262:8,18,25	33:23,24 41:15
68:23 75:17	Jester 81:22	365:14 366:6	263:3,8,25	44:19 48:8,12
97:3 98:6	281:25 282:1	367:3,11 368:5	269:22 273:9	48:19,22 49:4
101:6 102:7	282:10,14,16	368:14	273:11,13	49:7,17,24
107:18 111:4	282:20,22	join 337:8	275:10,12,14	50:2 61:7,10
112:24 115:8	283:1 284:19	Joint 23:19	275:17,19,21	75:14 82:22
119:3,9,17	287:17 288:7	Joseph 20:13	275:23 277:15	83:5,13 86:9
121:10 122:1	290:12,14	Judge 18:15	281:17,20,24	87:3,6 96:1,12
124:15 156:5	293:18 367:14	21:2,10,18,23	282:6 283:16	97:11 99:7
156:10 164:3	370:12,14	22:3,10,13,18	283:23 284:3,6	102:1 106:22
	I	I I	l	

108:5 109:1	329:7,12	Kevin 19:4	50:24 51:3,15	234:12,15,19
110:1 111:17	343:11,16,18	21:19	54:2,7,8,9 55:6	235:18 236:19
112:1 124:1	343:18,25	key 35:12	55:18,23 56:6	237:2,20 238:8
215:24 238:8	344:12,19,22	289:22 331:23	57:3 61:19,21	238:13,14,15
345:10	345:5 348:10	331:25	66:24 70:14	238:16,19,25
jurisdictional	352:13 353:4	kicked 364:2	77:1,2 80:8	239:9 240:6,12
51:24 86:1	354:23,23	kids 193:24	85:23 94:5	240:13,17
95:21 96:10	357:13,13	kilowatt 62:24	95:22 96:25	241:11 243:9
102:5 111:19	370:20	76:8,20 92:25	97:5,10,10,11	243:11,12,23
119:12	KCP&L's	119:21 138:25	98:14 99:21,22	245:2 246:13
jurisdictions	101:11 327:3	139:11,16	104:5,12,17	246:16,22
251:12 272:9	328:19 329:4	140:7,18 145:1	108:24 109:5	247:13,23
Justice 121:8	329:13 345:1	181:23 187:4	109:18,22,22	248:3 252:4
justification	350:4 353:8	325:1,5 326:8	109:23 110:22	257:22,24
112:8	keep 28:3 47:13	327:23 328:13	110:24 111:8	259:16 261:6
justify 78:24	51:15 72:7	350:23	114:2,3,22	262:3,19
112:19	193:8 229:10	kilowatts 236:5	118:5,5,6,8,9,9	265:12,15,24
	363:17	kind 24:15 26:3	118:10 121:20	267:14 268:6,7
$\frac{\mathbf{K}}{\mathbf{W}}$	Kenney 37:18	29:19 30:15	121:25 122:1,5	269:13 270:8
K 196:18	37:23,24 38:5	31:12 41:3	122:5 123:15	270:13,14,17
Kansas 20:16	38:13,21 39:1	42:23 43:21	128:5,14,18	271:10 272:6,7
22:25 23:3	40:21 41:6,9	46:21 52:1	137:23 141:12	272:9 274:7,12
100:23 101:3,9	41:17,25 69:24	58:9 81:19	143:25 144:21	274:14,22,23
103:3 108:7,10	70:1,6,11,21	138:23 145:14	147:2,12	275:1 279:20
108:15 112:16	71:12,17,20	152:14 178:6	149:22 150:24	279:23 280:1
116:13 151:17	72:1 73:8,12	207:12 208:16	151:2,10 157:4	280:10,16,19
196:12 199:2	73:17 76:23	225:23 233:8	163:15,20	281:8,10
242:3 253:5	77:3,9,12	265:20,21,22	164:18,21	286:13,17,19
311:7 312:16	99:18 100:3,6	271:5 280:2	170:1,4 172:19	289:19 310:11
313:24 314:12	100:18 104:3	281:13 323:19	172:19 174:19	317:4 320:22
316:18 335:16	104:22 122:14	323:22 330:17	175:13 180:3,5	326:21 327:12
343:9 344:25	129:12,18,24	357:10 358:6	180:14 181:9	329:7 338:15
345:8 348:9,19	186:9 193:14	364:2	184:22 185:22	353:7 355:10
348:20 351:24	195:11 196:8	kinds 125:9	192:17,22	355:10,11,18
359:7,25 360:1	197:18 203:12	248:11	193:24 194:1	356:23,25
360:2,22 KCP&L 23:3	235:14,17	Kingdom 154:5	197:12 198:9	361:4,17,20
	237:14 240:19	154:14,16,20	198:11,24	362:3
41:18 66:22,25 73:12 89:12	269:4,6,24	154:22 165:24	201:4 202:11	knowing 187:16
	270:3 273:8	195:8 341:20	203:14 204:1,3	194:8 223:4
101:4,14,25 102:24 103:4	288:1 324:3	KINNEY	206:9 207:6	347:21
190:18 216:11	330:9 358:16	104:16	218:4 220:8,12	knowledge
275:15 284:9	365:21,24	knew 176:9	220:17,19,20	40:14 136:1
293:24 313:7	366:15 367:8	know 27:7 33:11	223:25 224:3	213:6 246:10
313:11 327:9	368:13	36:8,9,12	224:25 225:2	313:8 314:6
328:3,4,4,14	Kenney's 73:19	37:19 38:5,8	227:8,9 229:5	330:8 341:22
328:23,23	103:17 199:6	38:10 40:7,10	229:25 230:3	342:7 344:5,23
520.25,25	Kenny 331:7	43:15 50:23,23	231:16 234:2,7	349:10 353:1
	1	1	I	1

Г

known 34:5	59:7,8 61:8,8	215:23	let's 21:2,11	55:11 57:23
139:19 360:21	61:16 62:9	learn 172:22	23:24 25:16	59:10,25 63:9
knows 171:1	63:16,17 64:1	228:6,11	27:6 28:3	82:1 83:16
261:22	66:18,22 67:13	233:20,22	29:21 33:22	84:7 96:6
KV 145:8	71:8,9,10,11	263:14 271:20	34:1 42:1	100:24 101:4
KW 120:7	92:17 105:20	learned 245:5	53:24 130:8	101:10 107:13
	105:25 106:6	245:17 336:8	136:2 147:1,1	108:8,10,15
L	106:12 109:22	learning 77:23	154:3 201:21	123:11 151:17
L 19:14 40:6	111:23 113:2	82:13 131:19	211:19 226:3	199:2 242:3
labeled 133:12	115:15 118:24	172:2 263:12	243:22 256:16	253:5 267:23
250:17	221:1,2,3,7,8	learnings	257:2 290:19	311:8 313:24
labor 88:23	221:11 237:24	131:20	336:2 337:1	335:17 343:9
laboratories	238:1,3,6	leave 99:8 122:9	344:8	348:9,20
121:11	239:15 324:14	128:11,15	Letter 369:18	351:25 359:8
laboratory	324:16	140:8,19 155:3	letting 192:22	Light's 312:17
122:8	lawful 61:1	322:8 343:1	level 36:6 62:22	316:19
lack 25:6 51:10	lawfully 38:17	353:20	62:23 88:7	lighting 33:14
68:12 124:2	60:9 350:6	leaves 126:23	113:20,21	86:16,18,21
127:10 156:5	laws 83:14,15	140:4	119:17,18	239:10
171:3 177:1	110:6 121:18	leaving 138:21	120:6 139:6,10	lights 86:18
217:11 221:16	238:9	152:17	139:12,14,15	likelihood
221:20 222:2	lawyer 71:7	led 280:10	145:6 153:10	286:24
324:18	95:23 266:16	left 36:20 138:25	155:5 158:3	likes 209:2
lacks 172:4	lawyers 85:7	142:21 281:13	159:21 161:10	Lilypad 369:19
Laclede 67:1,4,5	layman 107:24	legal 27:24	206:20 246:17	limit 297:6
lag 225:11	lays 138:2 265:6	44:16 47:24	263:17 268:5	314:20 352:23
laid 26:24 44:15	lead 117:20	59:2,3 92:20	270:15 271:1	limitation 311:1
Lancing 282:11	120:2 175:10	92:24 111:6	271:17 314:7	limited 40:10
landlord 362:5	258:15 314:15	194:9	319:8,13	45:8 46:10,12
lands 207:9	leading 24:15	legislation 113:3	328:20 329:20	157:4 222:7
language 355:14	29:12 106:13	113:4 236:20	343:17,19,22	246:10 278:8
large 90:18	Leadman 121:2	Legislative	344:1 346:16	315:11 317:5
279:7 360:18	leads 258:15	355:9 356:18	346:23	317:10,13
360:22 361:1,1	Leaf 143:20,20	Legislators	leveled 139:13	limitless 245:15
larger 76:7	151:24 152:4	121:21	levels 145:11	line 31:8 35:17
183:15 338:11	152:11,15,19	Legislature 62:9	168:15 277:20	39:15 42:9
largest 279:4,5	153:8,12,24	243:16 260:9	Lewis 121:9	64:4,5,14 65:7
lastly 82:20	154:6,15,19	276:15 287:5	liberally 110:8	65:7,20,25
late 36:9 55:19	159:8 175:2,4	Legislatures	life 118:17 136:7	66:13,14 78:18
55:22 68:12	186:12,14	243:12	148:25 166:7	103:13,16,18
laughed 56:1	190:18,22	length 102:4	175:3,3 184:23	103:21 131:10
laughing 56:3	191:6 195:13	Lera 19:9	203:14 204:10	131:14,18,22
Laundry 110:1	195:16,18,22	122:24 157:18	204:13,23	132:4,8,11,21
110:2	197:25 199:8,9	254:13 284:21	286:1	133:2 134:9,12
law 19:18 20:10	199:16,18	lesser 117:8	light 20:16 23:1	136:4 137:5
20:13,23 21:10	200:12,14	lessons 288:23	23:3 29:1,6,10	142:15 155:12
22:6 57:18	201:5 204:8,11	336:8	49:20,23 51:23	172:14 180:18

0145140150		100.0.00	117 10 110 1	221 2 222 25
214:5,14 215:2	live 72:14 96:8	138:3,22	117:13 118:1	331:2 339:25
217:8 224:8	231:3	153:22 156:19	136:17 137:7	341:19
236:9 243:6	lives 248:13,14	158:8,14	138:17 165:8	love 320:6
247:17,18	load 76:5 88:12	166:15,20	185:20 186:3	340:10
266:22 274:13	98:23 99:3,22	168:17 175:3,4	191:4 195:13	low 37:4 98:18
290:9 291:21	102:22 169:6	175:7,15	197:6 201:22	118:7 127:6,15
292:3,4,6	171:5 180:10	176:19 178:17	208:17,21	222:19 256:4
296:1,4,6,7	201:24 202:12	180:17 181:15	223:2 239:22	256:13
317:7	202:15	183:14 184:17	268:21 278:9	lower 102:13,15
lines 136:17	loaded 115:1	190:5 191:21	318:19 323:3	114:13 203:5
138:18 156:12	local 54:1,2 77:8	207:5,19,21	looks 238:23	210:22 256:6
229:9 280:3	197:5 363:24	208:6 217:10	losing 35:18,21	274:25 285:18
318:20 354:15	located 128:21	217:12 218:9	182:4	lunch 193:8
liquefied 67:7	144:19 147:9	222:2,11 232:4	loss 72:23 249:2	211:14 234:14
liquid 161:15,23	147:17 148:2	246:13,14,24	lot 25:21 27:7	luxury 71:9
256:10,10	163:16 198:16	246:24 289:19	28:2 34:24	359:25
list 23:19 62:18	220:16 322:4	323:22 357:3	35:17 37:1	
63:4 102:7	336:23 340:2	long-term 42:19	41:4 42:6 70:3	<u> </u>
237:12 310:16	343:20 345:23	178:11	74:13 128:3	M 20:18 23:5
312:4 336:24	locating 209:1	long-time 227:6	170:10 176:21	211:23 212:15
339:13 341:17	346:9	longer 34:7	185:25 208:3,7	Ma 62:3
341:24 347:2	location 145:22	191:25 261:2	208:8 221:11	ma'am 134:2
370:7	146:23 147:8	longest 24:9	224:7 228:16	machine 163:3
listed 102:7	147:13 153:20	look 28:14 29:12	238:7,7,8,9,12	Madison 19:5
332:11	155:7 162:6,12	31:3,4 33:23	239:17 245:1,6	19:10 20:19
listening 101:6	165:9 220:20	35:5 40:8,9,15	246:18 247:24	23:6
179:4	235:25 236:3	40:20 47:8	247:24 248:19	magnetic 161:17
lists 62:16	258:3,11	49:16 50:13	267:24 281:4	192:19
literally 153:15	333:19	53:13 69:12,13	320:2 322:5	magnitude
329:21 357:7	locations 104:8	71:6,7 79:25	lot's 318:9	338:14
Litigation 18:20	145:10 152:25	99:2 125:7,8	lots 209:13	main 96:14
little 25:16	161:24,25	127:7 154:15	210:8 237:8	348:19
26:16,18 29:11	164:5 165:22	174:24 228:17	Lou 318:25	maintain 32:2
29:11,13,22	206:12 208:17	228:18 260:8	330:24	310:7
31:11 32:21	208:22 210:1	270:5 272:16	Louis 19:19	maintaining
35:6 36:1,1	220:16,18	337:5	20:11,24 22:7	32:6
42:20 52:1	226:5 258:3,14	looked 51:20	22:17 38:11	maintenance
54:5 62:15	258:17 312:12	57:17 238:21	89:20 112:15	165:5 168:13
65:4 87:13	319:4	looking 28:10,13	116:12 148:18	168:19 177:14
106:10 108:3,9	locked 320:9	30:17,17,19	152:18 153:1	210:22 211:4
110:15 114:15	332:1 334:24	38:4 39:25	159:7,8,9	major 112:11,23
114:16 141:16	335:4	40:9 42:13	163:23 175:11	150:14,14
155:2 170:23	logic 208:11	45:25 46:13	195:7,19 198:3	281:12,12
189:16 269:17	logical 50:6	47:5 51:14,20	198:8 212:16	majority 129:1
278:12 327:18	long 26:4 34:21	56:20 65:6,7	220:21 246:20	156:14 160:25
330:17 350:4	47:5 118:11	71:4,5 74:7	247:2 248:3	161:2 172:19
359:19 364:3	137:19,24	98:10,19	258:4 263:19	220:2,7 273:4
		1		1

Г

making 43:9,18	351:14 365:13	math 154:13	359:23 362:16	315:5 357:5
56:6 74:19	366:2 369:11	matter 18:10	meaning 344:6	361:2
102:23 143:6	369:13	21:5,10 32:22	means 34:14	method 119:5
168:11 182:5	Marke 35:9	59:3,4 63:20	64:5 68:5	119:23 361:7,9
183:7 191:18	36:15	93:5 100:13	92:10 97:8	Metro 112:16
202:18 260:25	Marke's 229:5	107:14 111:1,1	135:4,6 152:22	metropolitan
265:8 325:15	marked 212:19	113:11 118:13	153:14,22	112:11,23
343:25	283:1 291:16	120:24 176:14	167:17 176:23	148:19 267:9
man 52:10	339:10 348:23	288:17 351:24	177:2 180:4	331:2
manage 88:10	348:24	352:7	195:23 243:10	mezzanine
88:16 124:17	market 25:8	matters 23:15	329:20 344:2	289:15
management	46:20 64:12,20	25:17 33:15,15	346:2 347:3	mic's 37:19
88:12 98:23	64:24 72:16	95:19 105:21	measured 68:10	Michael 18:14
99:3 150:12	73:1,5,25	247:7	138:25 139:6	21:9
manager 164:20	74:12,17 75:8	Max 186:16	139:11	Michigan
managing 144:3	75:10 77:20	maximize 258:4	meet 27:20 54:6	269:13 282:11
144:4,7 150:12	78:1,1,4,7,12	261:3	128:12 141:8	microphone
mandating	79:11 81:9	maximizes	251:8,9 253:17	24:6 242:16
67:24	82:3,13 89:17	261:3	meeting 50:12	290:24
Mann 54:11	90:14 91:16	maximum	53:3 106:20	mid 206:1
manned 209:21	93:14 97:21,25	192:24	mental 176:19	middle 35:22
manner 45:8	98:3 112:14	McDonald's	mention 106:7	132:4
manufacture	124:3 149:3	178:24	120:22 166:2	midnight 100:17
83:6	178:8,22 184:6	Mealy 18:20	195:4 252:9	Midwest 18:20
manufactured	184:7 205:15	371:6,20	259:20 346:18	mile 34:9 45:6
314:8	205:23 229:21	mean 28:22 29:2	mentioned	126:22 158:15
manufacturer	230:25 231:11	29:17 49:16	89:19 91:5	163:13 187:5
199:10,16	245:13 257:9	51:21 65:20	92:6 106:13	191:5 198:8
360:22	265:23 267:15	69:12 77:3	111:16 134:4	204:8,15,22
manufacturers	268:8,14,23	79:4 83:15	159:1 162:5	205:25 265:9
256:21 275:3,5	271:11 272:1,1	98:21 99:10,19	163:18 165:23	mileage 127:17
manufacturing	272:2 279:14	100:6 147:15	188:16 197:5	205:13
87:18	279:20,24	163:21 177:16	199:7 203:12	miles 77:10
map 35:8,11,24	280:19 281:6	185:16 191:17	203:17 239:24	115:25 116:2,5
36:3,14 38:3	285:7 288:14	191:19,19	248:22 324:5	116:7 126:23
318:12	288:20 289:13	223:6 227:17	345:25 347:24	126:25 148:22
maps 35:7	289:20,20,25	231:7,8 233:1	362:13	153:6 154:17
March 199:19	312:10 316:14	233:6 239:15	mentioning	155:10 158:22
200:12 265:19	335:3 345:20	240:10 245:1	253:18	159:23 163:14
marginal 114:22	marketing	257:6 260:20	mercy 96:5	166:23 175:7
mark 19:22	227:11	260:21 261:4	mere 248:16	176:12 187:12
22:22 23:21	marketplace	270:11 272:19	message 192:21	187:17 190:17
36:14 54:14	244:10,16	274:4 279:12	met 33:24	190:18,19,22
130:12,15,21	mass 205:22	279:15,18	meter 100:12,12	193:3,9,10
1 4110 771 171 10	Mastercard	280:19 321:18	356:3 357:4	195:21 196:16
130:24 141:9		240 12 241 14	261.0	005 10 10
215:22 251:6 262:8,10 268:6	89:24 match 273:7	340:13 341:14 341:14 342:5	361:9 metering 234:9	205:18,19 million 114:12

			1	1
127:5 174:9,17	59:14,19,20	24:24 34:2	272:13,14	105:10,14
229:13 257:19	60:8 63:16	62:20 114:14	314:15 326:15	107:15 115:9
257:20 269:20	66:18,22 81:5	116:15,25	333:7,8	122:19,20
279:1,3 280:11	85:22,24 86:24	117:15 130:9	modern 96:8	157:18,20
millions 226:15	89:19,21,22	134:6 207:15	modest 78:9	motions 23:13
246:4	90:6,15 95:17	216:5 217:14	79:10 82:9	Motor 318:25
mimicking	96:18 97:1	217:16,25	265:15,17	330:24
161:15,20	99:11 101:4,15	228:14 229:8	270:23	mouthful
mind 26:7 47:14	101:18 102:2,8	245:24 278:8	modified 355:1	277:12
68:2 70:7	103:22 105:3	286:8,14	modify 356:12	mouthpiece
166:16 195:15	105:12,20	310:12 330:20	356:19 357:14	70:15
264:13 278:24	106:11,12	misspoke 174:7	mold 315:18	move 29:21
311:1 347:14	107:8 109:22	misstated	molded 337:1	33:22 34:1
363:17	109:25 112:25	138:19	moment 141:8	43:11,23
mine 70:24	114:7 115:18	mistaken 176:25	174:23	103:23 105:16
194:1	116:23 117:10	357:8	money 66:5	116:16 120:19
minimal 42:23	118:14,24	misunderstand	72:20 74:19	123:5 133:12
45:13	120:4 122:7	179:12	182:4,5,20	136:3 183:11
minimum 68:8	134:4,16 138:2	mitigating 81:13	183:7 214:25	250:16 283:14
minor 44:3,4	147:20 156:24	Mitten 19:14	237:8 271:1	293:4 296:20
157:3	167:1,11 170:5	21:15,15 28:10	276:7,20	340:12 342:21
minute 76:21	176:17 188:19	211:22 212:3,5	325:14,15	349:12 353:13
139:7,20,21	189:12,14,17	212:9,13 213:8	331:13 332:21	moved 249:25
140:13 155:13	194:14 199:21	244:3,5 249:5	monitor 128:17	336:19
192:1	205:3 211:21	349:21 358:19	194:1	moves 187:20
minutes 77:10	211:22 212:16	363:10,13	monitoring	moving 136:16
130:6 139:5	214:19 217:18	366:10,19	164:15,21	138:16 267:15
140:2 153:7	217:21 220:25	mix 272:15	346:8	270:8
154:20,23	221:6 223:20	MO 18:21 19:6	Monnie 18:20	MSRP 199:20
155:17 191:24	238:3,23	19:11,16,19,24	371:6,20	200:2
191:25 192:1	242:23,25	20:6,11,19,24	monopoly 60:19	multi-family
211:17 290:17	244:14 246:9	363:2	61:3 93:6 94:2	89:14 270:20
misleading	249:9 250:4	mobile 23:11	96:5 112:8	346:24
118:5,6	264:7,25	89:2,8 123:13	124:2 233:3,6	multi-pronged
missed 23:8	265:16 269:8	mod 265:16	233:17 242:20	268:4
missing 55:23	278:18 283:24	model 62:7	242:23 243:4	multiple 50:21
Mission 254:24	284:11 293:15	86:23 137:19	Monroe 19:23	91:22 159:14
Missouri 18:1,7	297:4 312:3	141:22,25	22:23	251:12 272:13
18:11 19:3,13	314:12 318:22	142:8,9,14	month 37:12	272:14 287:7
20:16,21 21:6	324:22 325:3	143:1,6 199:21	44:7 180:22	311:23 312:25
21:12,17,17	330:12 333:9	231:6 315:20	225:17	313:6 314:4
22:1,2,7,14,16	333:17,25	316:1 317:11	monthly 97:6	316:10,13
22:17,24 23:4	334:1,5 348:20	317:12 325:21	278:25	338:4 344:16
23:7 24:1 26:2	349:20,21	333:6,18	morning 21:25	344:19 346:15
27:15,16,17	357:9 358:18	336:21 347:5	22:20 24:5,10	municipality
28:6 32:18	363:16 371:3,8	models 43:16	53:20 80:23	86:20
40:18 46:1	Missouri's	135:2 143:17	95:15 101:2	Murray 138:19
	I	I	I	I

music 24:19	141:8 151:20	160:21 169:11	346:1,1,6,7,13	198:2,4,5,7,11
mutually 278:2	156:1 157:18	174:23 206:5	346:14	198:12,19,22
	157:21 174:25	212:24 229:3	networked	199:19,19
N	195:2 211:12	229:10 233:10	344:1,6	200:12 215:21
N 19:1 20:1 21:1	215:22 217:24	237:8 245:3	never 94:6 115:3	215:22 241:2,5
365:1 366:1	218:5,18	288:3 294:13	126:2 166:16	241:8 318:25
367:1 368:1	224:19 225:24	294:14 296:3,8	186:22 203:18	318:25 330:3
369:1	227:3 229:22	297:9 322:12	206:12	330:23,23
name 21:9 101:2	230:2 232:4	324:13,15	new 34:7,17	Noah 174:15
105:11 130:20	233:12 347:24	326:23 340:16	64:11,12,20,24	290:21 291:5
130:21 132:4,5	365:13 366:2	349:3 358:8	71:23 72:16	291:13 293:5
141:9 143:16	369:11,13	needed 81:4	73:1,2,25	367:20 370:18
212:14 249:23	Nealon's 133:12	191:3 215:10	74:12,17 83:21	nods 160:20
249:24 251:6	217:20 219:3	348:1	83:25 84:3,12	169:10
282:8 291:11	268:7 290:2	needs 23:21	84:21,23 85:5	noise 24:17 25:3
291:13 295:6,7	near 239:4	36:21 46:18	85:8 121:2	25:14 32:21
348:17	261:2 323:9	123:3 131:9	123:18,20,21	33:10 44:12
names 56:2	327:17	203:18 230:13	123:24 126:20	non-discrimin
257:24 310:16	nearby 128:21	267:16 268:12	127:5,14	51:7
310:19	nears 244:23	268:17,21	128:24 134:19	non-electric
Nancy 132:3,5	necessarily 51:6	272:4 296:1	134:20,22,24	85:19
narrowly	52:4 53:10	344:10 345:22	167:9 174:17	non-EV 102:10
110:11	57:25 75:18	negative 91:18	176:21 189:21	non-peak 169:8
nation-wide	77:22 192:6	negligible 35:1	191:3 201:5	non-physical
89:17	231:15 259:1	neighborhood	203:13,15	165:2
national 81:7	265:8 268:8	104:20	204:19 206:5	non-proprieta
89:22 121:25	285:3 290:5	net 114:8 136:6	221:2,3,8	34:11,13
325:24 331:15	312:13 320:22	173:20 180:14	238:10 257:11	non-public 90:1
332:10 334:2	321:21 323:20	181:3 219:9,10	257:12,13,21	non-standard
344:3	337:21	287:11	272:15 289:7	50:16
nationally	necessary 32:7	network 87:19	289:12 290:8,9	non-Tesla 34:14
151:11 257:9	87:19 126:8	88:15,15 91:24	363:25	46:14
257:10 338:13	183:23,25	94:11 102:25	Newman 19:23	non-utilities
natural 20:8	184:1 185:10	143:25 144:3,4	22:22	253:1 322:19
22:5 67:8	necessity 121:6	144:6,7 150:12	Nice 251:9	323:22 324:19
74:24 91:7	191:7	150:21 151:3	253:17	326:13 350:6
112:8 122:6	need 23:15	151:11 164:20	niche 178:21	non-utility
124:2 243:4	24:13 26:4,22	178:17 184:17	night 98:12	92:20,24 94:17
256:8	36:21 37:17	196:14 312:17	100:2 125:11	238:20 239:13
nature 33:1	41:7 43:20	312:21,22	128:16 168:3	239:20 266:7
111:1 135:1	44:14 45:19,20	313:4,5,25	322:3	350:14
180:7 295:25	46:2,7 47:8,8,9	314:2,5,7	ninth 105:14	non-volatile
NCI 289:4	57:23 60:24	316:19 325:24	Nissan 89:24	153:25
Nealon 34:18	61:16 73:9	330:5 331:15	143:20,20	normal 248:9,10
36:14 54:14	96:7 109:4	332:10 341:11	186:13,14,14	290:8 316:14
130:12,15,21	111:6 125:23	341:12 343:10	190:21 191:6	North 22:6
130:25 133:25	129:3 154:10	344:3,6,15,19	195:22 197:25	notation 259:17
	l			

note 38:6 39:4	208:24 209:7	obvious 36:21	353:23 355:7	80:16,17,18
42:3 90:20	209:24 210:9	36:24 45:4	369:10,22	85:4,10 87:7
117:25 122:10	209.24 210.9	obviously 29:20	370:3,11,16,20	105:6 132:20
186:2 280:20	256:21 267:21	29:23 34:3	offering 27:18	133:5,5,10
297:12	286:6 323:6	54:5 245:3	32:4 33:16	134:18 135:20
noted 30:3			63:6 78:13	
	327:10 338:3	occasion 125:23		135:24 136:2
195:13 260:8	358:5 359:23	occasionally	93:18,19,20	136:16,17
notes 174:24	360:7,25	123:17	178:22 184:4	137:7,8,13,25
notice 353:17	numbers 218:13	occupants 163:9	185:11 199:20	138:5,12,16
363:1,9,15	218:15 274:25	209:8,9	205:24 206:19	139:5,18 141:4
noticed 70:2	286:16	occupied 165:13	207:1,4 232:3	148:6,10 150:7
notifications	numerous 81:10	occupy 163:10	236:19 266:4	152:9,14
89:9 360:5	114:22	209:9	328:20	154:12 155:20
notify 165:7,15	0	occupying	offerings 94:4	156:12,20
noting 44:1,2		140:23	offers 88:18	157:3,9 158:12
notions 233:5	O 20:5 21:1 Oak 116:13,14	occur 156:14	153:14 200:3	169:20 171:24
novel 106:10	,	158:9,14	236:25 242:17	172:2 174:5,7
121:23 270:10	oath 193:19	202:20,22	offerthis 182:16	174:20 177:22
271:8,24	object 146:1	219:1,2 285:14	offhand 80:10	177:23 188:14
novelty 271:12	163:1 170:20	322:17 329:5	144:21	189:23 190:10
271:12	261:12 262:12	344:7	Office 19:8,10	190:14,17
NRDC 20:8 43:7	350:13,14	occurred 111:22	122:18,25	193:13 195:11
45:15 82:18	objection	329:3	254:14 272:24	195:15 197:17
157:10 200:21	146:10 212:6	occurs 125:1	official 295:10	199:17 203:10
216:15 242:7	213:13 261:23	184:9	353:16 363:9	203:23 206:2
253:9 275:19	263:4 342:18	offer 31:20 33:3	363:15	208:15 212:8
284:14 313:13	342:24 363:9	50:3 53:1	offset 65:13	217:7,23 224:9
335:21 354:3	363:14	56:15 88:3	138:6,9	226:8 229:1
359:1 370:16	objectionable	118:23 164:4	oh 109:3 110:11	235:9 236:1,18
NRDC's 290:20	231:15	164:10 166:23	132:10 134:13	237:14 241:13
nuanced 50:10	objections	178:9 182:2,19	137:7 139:14	249:5 259:4
nuances 29:8	133:15 213:16	183:5 210:8	147:10 148:10	263:2,10
51:19 53:12	250:19 283:16	219:17 230:13	148:15 151:21	266:21 268:4
57:17,21	293:7 296:23	231:25 232:12	158:13 160:22	268:25 273:8
nuclear 79:20	349:15 353:15	232:14,16	166:6 190:16	277:25,25
number 76:8	obligation	235:3 240:14	191:14 203:20	278:7 281:15
90:1,16 112:18	101:19 105:24	241:3 264:25	228:20 257:3	283:23 287:19
125:4 134:9,19	observations	325:4 354:19	264:22	291:1 292:1,10
148:18,21	263:13	355:3	oil 76:16 81:12	292:21 310:1
151:13,13	observe 105:20	offered 31:13	okay 29:15	311:1,20,22
157:25 162:9	observed 59:2	54:25 84:11	39:20 40:8,19	312:2,7,16,19
163:8 165:1	112:10 113:5	135:2 176:11	42:1 47:21	312:24 313:12
174:19,21	113:10	213:18 244:13	48:15 49:9,14	314:13 315:23
179:5 188:15	obsolete 166:14	247:21 250:22	50:9 53:15	316:6,9 317:9
188:16 189:10	obtain 337:24	283:19 293:10	54:23 67:14	319:15 320:24
189:25 190:1	362:12	297:1 337:17	71:20 73:4,17	323:24 327:20
192:20 206:24	obtaining 69:2	343:2 349:17	77:12,15 79:21	330:9 331:20
	_		,	

	_	_	_	
332:3,13	194:2 351:7	119:8 156:4	235:18 279:9	33:11 66:18
333:24 339:20	362:13 365:3,4	opportunities	origination	87:20 88:8,16
351:13 352:2,6	365:5,6,7,8,9	46:19 172:3	277:7	90:3 124:7,22
352:9 353:4,12	365:10,11	276:8 277:5	OSAGE 371:4	125:13 129:1
355:18 358:4	operate 32:2	opportunity	out-of-state	159:25 160:10
358:12,13	62:4 92:21	34:24 51:2	117:24	160:13,25
360:15 361:12	93:14 94:18,22	118:18 122:7	out-pacing	162:9 163:16
362:9	102:17 103:1	125:16 127:25	280:21	164:1 165:11
Oklahoma	185:7 187:7	140:22 147:14	outdated 110:18	176:21,22
121:4,6	252:20 318:23	214:6 220:9	149:8	204:12,14
old 54:6 61:21	329:2 360:23	226:25 263:12	outlet 75:23	209:14 210:19
121:2	operated 82:23	340:16 343:19	126:11 226:11	220:2,9 232:14
older 110:16	83:11 127:3	opposed 51:17	226:14 246:1	261:8 276:11
114:24 149:8	operates 187:3	68:12 125:12	246:18	339:13 359:15
Olive 20:10	210:3 215:21	159:14 203:21	outlets 93:19	ownership
on-site 88:23	316:2	204:1 214:12	246:7,20,22	141:22 143:13
93:25 274:2	operating 32:6	204.1 214.12 215:1 247:17	outside 63:20	144:16 177:14
once 72:6 74:19	33:21 50:19	267:6 274:1	64:5 110:13	254:5 279:19
86:2 140:21	60:6 66:19	opposition	112:11,15,23	287:6 315:10
192:1 217:8	106:18 107:1,7	214:4	146:2 147:2	315:22 317:11
265:13 289:24	107:9 114:10	option 160:10	261:12 320:5	317:12,14,15
336:9,16	125:21 136:7	192:19 231:17	329:11 332:7	ownerships
one's 110:15	123.21 130.7	options 244:24	356:15	241:2
339:16	219:13	-		owning 32:5
		245:1,6,14 314:19	outstanding 206:15,15	176:18
one-way 110:17 ones 24:10 38:10	operation 88:21 177:14 286:3	oral 75:20	overall 40:14	owns 215:21
195:6 272:14	287:6	orange 35:14	48:4 325:11	238:20 239:1,5
341:9 342:6	operational	order 23:17,18	Overrule 146:10	239:8,11,13
	165:9	,	261:23	316:2 347:6
ongoing 310:7 online 88:11		25:11 29:18,25	Overruled	
OPC 30:11	operations 20:17 23:4	30:20 31:5,9 60:25 92:25	163:4	350:14
		93:15 111:15		ozone 102:13
129:14 317:22 OPC's 52:3	50:24 88:11,17 101:4 164:8	119:6 135:24	owned 82:23 83:11 107:12	P
181:11	243:20 266:15		144:15 187:2	P 19:1,1 20:1,1
		145:8 165:11 180:24 230:13	252:24 320:1	21:1
open 36:9 51:16	274:12			P&L 196:18
63:22 72:19	operative 39:22	254:16,19	361:8	p.m 125:12
99:8 178:8	operator 87:25	258:22 335:13	owner 87:25	364:9
252:25 324:6	92:21 234:18	338:14 345:20	88:10 92:18	P.O 19:6,11,16
358:6	operators 90:4	352:4 369:23	125:20 142:22	page 115:4
opening 23:25	opinion 59:3,12	ordered 186:19	143:1 151:24	131:8,14,18,22
23:25 24:2,9	60:23 70:4	ordinary 97:5	152:16,16	131:8,14,18,22
24:15 58:20,22	96:1 194:6	organization	161:8 168:21	132:21,22
75:1 80:20	221:19 258:2,5	310:19	195:13 204:11	132:21,22
87:10 95:13	259:23 260:22	orig 277:7	211:8 234:8	136:3,4,5,16
100:25 105:8	260:23,24	original 252:6	326:16 328:25	138:17 155:12
105:17 122:17	314:15	363:3,16	338:19	158:7,11
122:21 145:16	opponents 106:9	originally 64:4	owners 26:4	130.7,11
1	I	I	I	I

159:21 166:16	parse 59:23	286:25 331:17	214:21 225:12	209:20 210:10
172:8,13	part 26:1 29:5	339:12 340:13	225:12 241:13	penalty 43:21
180:14 188:15	31:9 52:15	340:15 364:5	320:7 335:13	pending 37:9
214:2,2 217:4	53:3 60:16	partner 125:17	361:14,22	73:20 103:4
217:5,6 220:14	73:21 96:8	165:5	payback 182:23	104:6,6 115:22
223:10 224:4	108:13 118:17	partnership	183:1	116:8,15
229:9 251:11	191:16,16	333:14	paying 43:19	penetration
251:11 253:18	196:24 197:2	partnerships	78:20 97:6	127:5
260:8 270:5,6	230:15 231:6	331:16 333:22	113:18 118:15	penny 44:6 97:2
291:21 292:4,6	239:7,7,11,12	parts 88:23	191:25 192:2,6	180:21
292:16 295:25	251:24 261:14	108:17 346:4	192:8,13	pent 280:14
296:1,6 315:25	264:13,16	party 28:5 45:22	224:12 262:4	people 23:9
316:9,21 317:7	268:6,23	51:21 56:5,10	262:23	24:20 27:7
318:19 324:6	280:13,14	56:12 57:6	payment 88:12	34:12 39:11
352:12 354:14	287:15 289:12	59:17 60:22	89:6 128:8,8	42:9 43:10
365:2,13 366:2	337:13 346:13	61:22 75:7,17	Payne 19:4	55:25 61:14
367:2,14,20	partially 41:2	86:25 114:20	21:19,19	79:11 100:8
368:3,20 369:2	142:3	115:9 119:14	133:22,24	118:14 170:12
pagers 110:21	participant	129:15 145:21	134:12 141:2	201:4 221:25
pages 282:17,23	132:12	145:25 146:13	148:24 197:21	226:11,16
297:13 314:13	participate	147:6,12	213:23 215:15	232:5 234:5
371:13	125:15 232:23	181:10 182:15	240:22,24	232.3 234.3
paging 110:17	232:24 347:7	184:3 232:11	240.22,24 241:23 251:2	257:21 258:16
111:2,3,12	participated	237:22 240:4,7	275:11 284:5	322:1
112:13,17	311:17,19	240:14 241:1	293:20 349:24	people's 226:10
paid 32:15	344:25 347:10	240.14 241.1	358:21 362:24	percent 71:23
pale 168:20	participating	278:9 286:21	363:7,12,18	72:2 104:20
panel 142:20,23	131:9 132:13	316:7 324:21	365:15 366:11	117:8 118:3,4
paper 86:22	participation	342:17,23	366:17	118:4 125:3
paragraph	343:10	347:15 363:8	payroll 243:21	126:13 137:18
352:12	particular 45:11	pass-through	pays 65:12	137:20 138:1,6
parallel 268:15	57:22 112:2	259:3	72:11 93:23	138:13 171:12
272:23 279:13	117:7 122:8	passed 115:13	PC 20:18 23:6	172:18 187:7
parallels 281:4	163:6 173:4	260:9 276:15	peak 98:21	188:19 189:11
paraphrase	186:4 262:14	paste 272:10,13	102:21 124:12	189:21 190:15
121:12	267:8 325:23	272:13	102.21 124.12	218:9 220:2,5
parents 110:22	332:15 357:15		124.23,23,24	225:22 235:24
park 54:10	particularly	path 82:10 Paula 19:18	123:13 128:2	236:25 252:23
246:23 320:19	97:20 164:3	21:13	201:17,20,24	257:9,10 265:9
parking 89:14	234:16 270:10	pay 37:15 54:13	201:17,20,24 202:2,3,5,7,9	275:1
104:10 170:10	particulars	55:3,5,16,17	202:2,3,5,7,9 203:6 227:1	
209:13,19	356:23	61:19,21,22,25	203:6 227:1 247:6,6 260:1	percentage 172:20 188:18
210:8 318:9			,	
	parties 21:11	62:1,4,6 73:13	peaks 180:6	189:8,19 218:3
320:2 322:4	23:14,18 25:7	74:13,14 93:9	peculiarity	252:22 257:5
329:21	26:22 49:11	93:10 97:18	73:14	perfect 347:22
parochially	63:12,15 69:17	110:24 153:25	pedestal 274:6	perfectly 210:18
156:19	120:2,6 216:3	182:10 214:19	pedestrian	period 140:9
	1	1	1	1

101.0 (105.4	151.0 165.10	245-251617	50.21.51.4	
181:2,6 185:4	151:8 165:10	245:2,5,16,17	50:21 51:4	plenty 35:5
209:10 281:5	192:20 269:23	246:9 247:16	52:25 54:1	plug 125:6
289:3,9 336:6	322:13	251:23 255:18	57:22 60:4	140:23 143:22
336:12	phones 23:10	264:19 266:12	83:2,9,11,17	155:13 160:2
permanent	phrase 131:11	268:21 270:7	84:10 85:14,19	174:3 186:22
248:12	292:7,12	270:25 278:8	86:11 92:16	186:23,24
permission	physical 274:15	288:13 311:17	94:15 106:19	187:23,25
109:5 196:3	346:5	312:4,8,12,12	106:20 107:1	188:1,6 192:6
352:13	physically 165:6	335:2 336:17	107:18 109:4	192:8,10,13
permit 173:9	236:8	343:11,12	110:12 114:9	200:5 203:21
permitted 62:24	pick 114:16	346:19,20,21	238:24,25	204:1,6,14
336:5	115:4 193:8	place 39:23	239:1,6,12,20	205:15 207:1
person 106:16	picked 220:18	49:13 89:3	243:14 248:13	226:11 246:12
106:18,22,25	picking 329:6	98:3,9 126:14	248:15 362:14	268:10 285:9
107:7 140:18	pickup 186:15	146:15 149:9	362:17	343:24
248:12,14	piece 31:3 94:9	181:7 225:15	plants 80:2	plugged 138:22
338:6,11	265:21 274:8	234:5 257:23	107:1,9,10,21	138:25 140:8
personal 107:11	356:18	265:8,11 266:4	109:2,21 173:9	140:12,19
152:1 325:13	pieces 30:20	266:7,18	platform 88:9	192:3 236:17
personally	32:10 50:21	269:10 270:19	play 123:14,16	344:8 346:10
151:24 257:22	206:15 349:3	271:10 318:6	178:9	plugs 158:4
371:9	pilot 24:24	331:15 346:24	player 182:22	173:5 191:23
persons 60:5	25:18 27:1	placed 146:20	184:13	206:18,21,24
perspective	34:2 44:19	placement	players 179:3	346:5
95:23 98:1,23	46:8 47:16	286:23	268:14	Plugshare 36:15
98:24 188:20	53:9 55:10	places 93:11	playing 52:1	plugshare.com
271:7,23,25	63:11 77:22	172:7 237:9	pleadings 27:24	35:10
279:22	78:18,24 79:9	321:24	47:11 106:8	plural 131:20
Peters 147:3,7	81:1 82:9	plagues 76:14	please 23:10	plus 187:12,17
198:20	84:23 90:22	plainly 86:10	58:24 75:3	222:5
petroleum	91:12,21 92:10	plan 117:16,17	80:23 87:12	point 19:21
117:24 118:22	95:3 106:9	153:15 155:1	95:15 105:11	22:18,21 23:20
Pg 369:19	114:3 116:16	161:9 254:24	122:23 130:14	30:11,12 35:2
PG&E 251:25	119:8 141:23	255:4,7 276:20	131:7 134:7	35:11 36:4,5,5
252:5,12,13	143:7,18 144:1	276:25 314:9	137:8 144:25	50:2,7 52:19
279:1	144:9,12	332:7,15	169:11 174:23	52:21 53:8
PG&E's 317:13	145:17 146:8	333:11	174:25 211:23	56:17 57:20
pg.301 368:5	149:20 153:21	planning 25:22	212:4,13 228:7	58:10 59:17
pg.308 368:7	153:21 156:4	163:23 191:18	249:12,19,22	60:23 66:17
phase 274:24	156:13 172:9	plans 255:10,12	251:11 255:5	70:9 87:9,14
Phillip 249:11	178:6 185:3	255:16 278:16	256:2 259:13	87:17,23 88:5
249:14,24	194:11 208:10	286:19 332:6,9	261:25 282:6,8	88:6,8,14,18
250:5 367:2	208:12 219:13	334:7,10,13	291:4,10 292:3	89:1,5,10,17
369:17	227:24 228:3,5	plant 27:16 29:3	294:22 295:6	90:11,21 91:1
phone 62:2	228:10,12	29:7,10,22	296:7 339:12	97:18 108:2
75:24 93:20	233:19,20	30:9,14,22	346:2 348:16	110:14 116:24
110:24,25	244:8,20,23	31:16 49:12	348:17	117:14 127:6

141:5,10	87:15 105:18	62:15 64:3	86:15,23	practical 152:15
142:20 143:9	251:13 329:11	65:3,18,23	125:22 129:9	practice 111:3
152:22,23	police 110:7	66:2 70:17	163:7 206:5	practices 81:3
176:2 183:19	policy 25:4 27:2	73:9 78:3	241:18 257:16	pre-barriers
197:22 204:17	34:3 42:17	92:14 103:8,16	259:5 261:8	97:25
206:1,14	43:2 45:3	119:11,17	287:11 288:8	pre-conditions
208:24 209:23	62:14 71:3,5	123:3 124:9	337:5	108:22
210:18 215:16	71:15 90:12	134:16 191:3	potentially 74:1	pre-conserved
228:5 234:2	92:23 102:8	214:5,7,11,13	120:13 126:11	180:16
238:16 241:25	106:3 112:24	214:15,16	128:16 134:20	pre-filed 130:25
244:25 251:3,7	113:1,3,6,11	215:20 216:1,5	264:15 288:25	212:18 283:10
259:13 275:4	115:10,11	230:12,20	312:11 320:25	pre-marked
275:12 283:25	117:14 119:13	237:21 247:16	power 20:16	295:17
284:6 293:21	121:15 279:22	295:11 324:20	22:25 23:3	precedent 99:13
294:19,21	279:25 280:4	344:17,20	29:2,6,10 30:3	preceding
295:9 297:12	295:12 296:5	345:9,15 350:4	30:4,25 31:1	371:13
310:7,11	324:7	350:4,5,8	35:15,21,23	precisely 192:22
311:16 312:9	pollutants	356:10,24	49:21,24 51:23	193:11
312:11,19	102:14	358:8 360:10	59:10,25 60:21	preclude 56:5
313:1,1 314:3	polluting 80:4	360:13,13	61:5,14 63:9	predict 160:7,8
314:5,8 318:22	pollution 76:14	positioned 25:25	63:23 83:16	203:24
319:18 322:10	76:15 80:1	positions 58:2	86:22 94:2	prediction
324:21,25	poorly 181:25	65:6 216:4	96:6 98:17	285:13
325:1,6,18	popping 267:22	345:13	100:23 101:3,9	predominantly
327:1,2,8	popularity	positive 27:21	107:14 108:8	153:11
328:2 330:5	134:15	184:20 218:11	108:10,15	predominately
331:8,12 334:9	population	219:7,9,11	110:7 123:12	286:9
336:10,18	90:18 220:23	221:25 259:24	129:14 144:21	prefer 336:21
337:2,4 338:9	port 145:6	possessive	145:11 147:9	preference
338:17 339:1,6	portfolio 172:18	131:25	150:20 151:3	62:25 337:3
340:22 341:3	286:8,14	possibilities	151:17 161:13	preliminary
341:11,12,18	portion 30:21	55:12	187:11 199:2	23:13,15
341:23 342:2,8	46:6 223:4	possibility	231:2 234:7	premarked
345:9,15,21	225:13 252:20	143:10 202:7	242:3 253:5	23:20
347:4,7,16,20	265:10 274:16	244:7	277:20 286:4	premises 123:13
349:25 356:3	portrayed	possible 43:12	311:7 312:17	315:14
358:22 370:2	227:23	67:23 154:2	313:24 316:18	prepare 212:21
Point's 89:11	ports 90:17	178:19 207:1	335:16 343:9	prepared 75:19
312:10 324:20	104:11 236:4,8	210:9 247:4	348:9,20	105:16 122:9
336:10 337:9	236:9 319:12	284:2 285:6	351:25 359:8	282:15,21
338:10 340:23	324:23 328:3	361:12	362:16	295:14 348:22
343:10 346:14	339:16,17	possibly 112:17	powered 84:7	present 46:8
370:8	posed 283:9	123:13 320:14	205:19	112:7 180:15
point 239:23	position 38:14	post 290:5	Powerpoint	180:24 181:3
pointed 63:15	38:21,23 39:16	pot 276:7	114:25	286:5 371:9
111:9 186:1	41:24 50:10	potential 24:23	powers 48:22	presentation
points 25:25	53:11 56:8,12	25:21 39:5	144:7 151:11	114:25 351:8
	I	I	I	I

presented 36:3	350:11 353:10	problem 30:15	product 73:2	279:25 313:11
48:2 75:18	356:5 357:21	39:3 53:16	234:20 289:24	316:22 348:4
137:11	358:6 360:4	58:11 75:6	290:8 337:16	prohibit 39:17
President 40:7	prices 90:3 93:9	140:3 165:2,3	production	39:23 68:24
90:12 295:12	118:7,15	165:16 222:15	286:4	69:3 208:12
296:4	127:15 222:19	237:6 310:15	products 88:7	278:9 356:8
Presiding 18:14	231:17 275:7	328:17 350:16	117:24 289:6,7	prohibited
pressure 76:6	pricing 88:5	363:13	289:11,12	56:22 336:13
79:8,12 171:20	91:14 92:8	problems 53:3	Professional	prohibiting
171:22 180:15	202:2 323:10	123:6 138:21	371:7,21	233:24
181:1 182:14	326:15 328:23	206:13	professions 59:4	prohibition
presumably	329:1 335:2,6	procedural	profile 82:2	40:14 56:18
338:5	344:10 345:7	363:23	profiled 250:6	57:2,21 58:1
pretty 28:8	primarily 79:20	Procedures	profit 184:5	69:9 350:20
219:10 245:14	100:1 161:22	261:17	profitable 66:15	355:16
261:5 270:15	260:4,5,7	proceed 130:22	289:21	prohibits 38:20
279:6	primary 26:7	164:25 249:21	profits 320:12	68:22 108:16
prevent 234:5	27:13 76:11	282:7 295:4	320:14,16,18	130:2
preventing	84:16,17 95:17	proceeding	320:20,21	project 25:18,20
127:11	99:5 106:17	44:15 47:9	program 42:3	25:22 27:1,5
prevents 178:3	prime 56:25	101:5 208:13	81:1,2 82:9	27:22 34:3
240:18	principle 78:25	262:17 291:23	94:23 106:9	37:13 43:2
previous 134:6,7	principles 27:24	324:7 348:22	114:4 116:16	44:20 46:1
135:14,23	printed 131:23	352:7	119:8 156:4,13	53:9 78:9,19
143:12	prior 65:18	proceedings	170:16 172:9	79:9 129:4
previously	313:1 329:4	18:3 84:11	185:3 194:11	138:8,14
21:21 108:5	priorities 96:11	130:7 211:18	219:13 227:24	150:12 186:4
110:16 283:1	private 75:7	290:18 364:8	228:4 245:2,19	191:15 208:10
361:8	178:15,19	371:9,11	253:24 254:1,6	214:20 225:13
price 67:24 68:4	182:21 183:13	process 53:24	254:15 260:13	225:22 235:19
68:6,9 76:9,16	183:20 184:13	54:25 56:13	264:6,6,10,21	244:8,21,24
88:1 98:5	184:22 232:8	57:8 101:13	265:1,5 270:7	246:9 247:16
112:14 117:22	310:20 327:2	128:6 129:13	278:8 311:18	264:19,19
124:11 150:11	332:23 333:16	284:23 285:3	312:8 314:2	266:12 268:21
153:25 158:25	361:14,22	289:18,23	317:9,13 320:5	270:25 273:5
181:17 182:3	privately 310:21	311:17 332:7	320:7 328:19	279:5 288:13
181:17 182:3	310:22	344:23 356:6	328:21 329:4	project,570,000
182:19 183:1,4	privileges 198:2	361:11,22	329:19 335:2	269:17
184:5,10 202:7	198:22	processing	336:3 337:2,8	projected 114:3
202:8 222:23	probably 158:13	88:12	337:13,20,22	136:20
202.8 222.23	193:24 204:12	produce 182:2	338:5 343:18	projection 136:9
230:24 231:10	220:11 225:17	285:18,20	345:1,17,21	166:10
235:6 274:19	220.11 223.17 227:13 231:1	286:3,5 332:14	346:16	projections 44:1
321:2,12,16,18	237:11 239:21	produced 79:18	programs 84:24	44:3 136:24
321:19 322:15		207:8		
	241:21 246:23		254:20,21 260:11 270:11	137:10,16
322:16,24	258:1 281:14	producing		projects 26:13
323:11,17,23	353:21 361:18	102:14	270:14,15	46:8 255:18
	1	1	1	1

Г

277:10 278:10	255:10 260:14	173:4 191:12	239:18,20	89:3,11,18
promote 45:3	264:19 278:21	201:14,18	248:1 287:10	90:12 92:16,22
56:23 123:2,5	325:22 331:10	209:7 215:11	providing 29:10	93:7,18 94:21
129:5 167:16	336:4 354:20	226:16,24	32:18,19 44:24	95:18 96:3
167:19 169:24	proposes 86:4	232:20 248:20	45:5 49:22	101:15,19
254:21	257:23	260:11 310:18	50:7,8 51:13	102:8 106:2,3
promotes 256:5	proposing 25:10	311:2,24	52:7,9,10	106:3,16,20
promoting	36:22 44:23	318:11 321:25	59:13,14 81:12	107:2,4,5,8
34:23 251:14	103:10 139:5	326:12,19	86:6,25 90:17	109:12,15,20
promotion	155:13 157:22	327:25 328:3	111:11 120:7	110:6,9 111:22
90:11 123:6	185:2 207:19	362:6	142:15 147:19	112:24 113:1,3
124:5	209:3 230:16	provided 21:21	165:18,20	113:6,10,11,13
promulgated	244:20 246:9	27:23 32:11	231:9 233:14	115:10,11
113:7	262:13 271:18	33:2 35:7,8	238:15 241:12	117:13 119:1
proper 62:21	278:17 319:5	36:14 49:6	245:7 310:16	119:13 122:18
78:13	333:6	82:17 84:7	314:20 316:1	122:25 123:1,2
properties 87:22	proposition	86:3,13 93:8	321:6 346:22	123:9 124:4
177:10	138:10	93:10 102:2	provision 75:14	126:6 128:23
property 92:3	propounded	103:13 108:12	84:18 86:15	148:8,9,13
93:17 107:12	296:16	115:7 119:25	113:7 314:21	157:14 187:14
107:22,25	proprietary	120:4 126:17	356:12	197:5 200:25
144:18 162:9	36:18,19 148:9	136:24 218:5,6	provisions	207:4 209:18
164:7 209:14	proprietors	262:20,22	101:22	215:25 216:19
232:13,19	310:8,17	314:4 319:9	prudent 103:19	220:25 221:2,3
320:1 326:17	propriety	327:13 347:3	103:19 260:14	221:7 228:1,8
345:24	118:25	provider 61:23	260:18,21	239:10 242:11
proportional	props 97:23	84:18 96:19	PSC 363:2,16	247:22 248:19
279:7	propulsion	97:23 112:17	public 18:1 19:3	254:10,14
proposal 25:13	187:8,11 200:5	173:2 245:12	19:5,8,10	255:2 275:23
91:23 149:18	prospect 196:18	312:20,22	21:23,23 27:2	284:16,21
152:9 156:5	protect 64:18	313:4,5 337:12	27:18 28:17,18	294:5 295:12
207:15 251:23	96:4	346:1 355:8	29:11 31:5,13	296:4 310:2,19
251:24 252:5,6	proven 81:16,16	providers 41:19	31:17,17,19,22	310:24 316:22
252:12,13,14	provide 27:16	61:13 73:13	32:16,17,19	318:12 338:24
288:12,17	31:9 32:2,7	86:25 112:12	33:20 34:3	339:7 341:3,4
314:16 336:21	41:18,19 49:22	112:19 121:5	35:14,20 42:17	341:9,10 342:5
proposals 85:1	50:14 51:1	216:7 226:2,4	43:2 45:2	342:12,13
251:20 347:11	56:10 73:25	268:14 280:17	48:11,23 49:6	354:7,18,19
propose 220:13	75:8 77:18	286:21 287:12	50:17 51:4,11	355:3 359:5
333:18	83:3 86:9,18	288:16 312:25	51:13 53:2	360:8 361:10
proposed 24:24	86:20 87:1,20	314:1,5 337:23	59:10,11,21,25	370:8
27:2 37:4 43:4	91:23 102:19	337:25 338:11	60:7 62:14	publicly 82:23
45:14 62:21	107:23 108:1	346:15	63:9 71:3	313:9 318:12
63:11 81:1	117:21,22	provides 52:17	75:15,25 81:3	PUC 121:6
95:3 103:6,9	123:11,24	66:12 86:23	81:14 83:4	pull 29:19 44:10
113:17 139:16	128:8 140:13	88:8 89:1	84:12 86:3,5	125:5 222:22
231:21 255:8,9	160:18 165:12	150:13 187:12	86:16,18,18,20	322:13,13

		1		1
323:8	63:22 64:14	47:24,25 48:14	47:14,19 53:18	294:6,7,9,12
pulled 154:6	82:10 181:7	48:16 49:15	53:21 58:16	296:16 297:8
pulling 28:20	225:8,9,10	59:2 61:3,7	69:21,22,23	311:6,9,11
pulls 29:13	233:15 234:4,4	62:20 63:10,14	76:22 83:19	313:14,24
pump 56:25	236:3 240:7	64:3 68:1	85:11 87:15	315:20 317:20
222:24	265:7 319:11	70:23 72:9	93:4 95:7	318:14 323:25
pun 322:25	320:2 325:14	76:23 77:13	99:17 100:20	330:14 331:6
purchase 38:22	329:20 333:10	78:15 83:22	104:1,24	334:18,22
108:8,12 129:6	333:15 356:3	84:9,13 85:13	122:11,12,15	335:15,18,20
129:16 167:17	360:7	86:2,5 92:19	129:11 133:6	335:22 338:23
168:8 169:24	puts 76:6	92:23 95:21	141:2,12,19	338:25 343:8
191:9 219:19	putting 41:1	96:10 102:5	151:23 156:3	348:5 349:5,22
258:17 353:4	103:20 328:15	103:18 104:4	157:11,13	349:24 351:1
353:10		104:14 124:8	175:19 176:2	353:25 354:4,6
purchased	Q	128:11 133:2	186:1,5,6	354:8,9 358:14
93:13 127:4	qualification	139:2 140:25	194:10,23	358:16,19,21
135:6,18,21	88:24	141:21 146:11	195:12 197:20	358:23,25
174:16 201:5	qualifications	146:12,25	197:21 200:20	359:2,4,6,12
313:7 314:11	150:1,3,8	147:11 148:8	200:22,24	362:19
318:7 343:16	qualified 92:1,4	149:25 163:5	202:20 205:7	quick 28:14 62:1
344:22 352:18	185:9 194:7,8	166:12 170:17	210:2 213:1,8	182:23 183:1
352:22	312:4 314:1	171:3 174:20	215:15 216:9	204:17 259:19
purchaser 38:16	336:24 337:3	175:5 182:1	216:12,14,16	259:21 278:24
purchasers	337:12 338:6	185:13 194:18	216:18,20	quicker 177:13
166:19	338:17 347:2	195:2,17 199:7	230:7 233:20	quickly 24:25
purchases	qualifies 33:6,16	203:2 204:2	235:10,11	43:12,24 154:1
189:22,24	44:25	210:14 214:10	240:21 241:23	247:3 274:22
purchasing	qualify 32:14,17	216:2 228:8	242:1,4,6,8,10	quite 70:24
118:20 164:21	32:19 33:1	230:19 235:14	244:7,11,18	107:14 191:11
pure 112:8	49:11 52:25	237:19 243:17	245:22 246:1	268:19 279:7
127:21 160:5	91:22 158:21	245:25 251:22	246:25 247:14	quote 46:22
purpose 45:9	212:9 312:14	261:11,17,24	249:6 250:11	137:2 314:20
46:20 53:1	312:15	263:5 266:17	251:2 253:6,8	quoted 219:24
60:6 84:16	qualifying	267:18 270:4	253:10 263:25	R
139:23 245:25	311:23 316:10	270:13 273:12	264:14 269:1,3	
291:22 355:21	quality 150:13	276:3,6 291:21	273:10 275:11	R 19:1 20:1 21:1
355:22	337:16,24	318:1 323:3	275:13,16,18	radio 110:17
purposes 39:12	quantified 179:9	327:20 347:13	275:20,22	raise 130:13
143:7 154:3	179:10,16	347:14	277:19 280:6	249:12 291:3
277:20 295:17	quantify 179:7	questioned	281:15 282:17	294:22
315:19	179:25	81:25	282:24 283:8	raised 156:4 raises 87:15
pursuant 113:8	quarter 163:13	questioning	284:2,5,7,13	
pursue 235:19	question 28:8 30:8 31:13	39:15 207:13	284:15 287:20	92:19,23 ramble 53:17
pursuing 255:19		266:22	287:22,24	ran 62:1
pushing 279:23	34:2 37:19,24 38:14 43:1	questions 26:23	288:1,8 290:11	random 327:11
put 37:6,10	45:2 46:6	26:24 27:4	293:1,17,20,22	range 127:12
40:24,24 41:10	43.2 40.0	44:13,18 47:12	293:25 294:2,4	range 127.12
	I	I I	l	I

		1	1	
153:6,8 154:18	239:6,12 244:9	re-fit 149:14	realized 114:24	reasons 26:7
158:21 159:1,2	244:10,15	reach 42:23	124:19,21	206:9
159:5,23,24	245:8 247:11	47:15 127:25	176:13 326:25	rebate 142:6
161:9 166:13	266:2,11	323:19	344:14	rebates 199:15
166:22 176:11	325:16,19	reached 83:13	really 25:17	199:17 200:13
187:6,12 190:4	326:13 335:12	119:4	28:23 44:13	260:15 316:1
190:19,20,21	350:17 353:8	reaching 173:12	46:7 96:11,20	rebuttal 181:11
191:6 195:21	353:11 356:11	read 54:11 57:4	119:9 120:23	282:15 283:2,9
198:8 204:16	357:2,18,20,24	86:10 111:20	161:8 185:13	295:16,24
204:19,23	358:2	128:13 131:11	185:14 204:3	296:12,16
205:17,19	rate-making	131:24 214:7	206:6,18	318:20 324:5
206:1 222:5,8	135:13	228:16 284:22	207:14 208:3,9	348:22 369:11
225:1 266:25	ratepayer 81:11	291:24 292:11	233:6,16	370:4,12,21
ranges 34:7	345:18	351:22 352:2	234:10,11,19	recall 28:16
153:23 158:15	ratepayers	352:11	238:13 245:14	151:13 196:23
176:11	64:10,19 72:14	readdress 111:4	246:12,13,13	210:23 244:11
Ranging 163:13	74:2,8,13,18	readily 57:19	246:13 248:18	246:1 247:18
rare 125:23	124:6 179:5	128:25	270:18 272:12	330:20 351:10
rarely 123:15	180:9 215:6	reading 69:14	289:23 321:4	359:19 360:11
rate 18:11 21:7	224:12,17	reads 193:19	358:7	360:15
33:8 37:6,8,8	261:1 279:6	291:21	reap 72:1,1 73:6	receipt 133:16
40:25 41:13,15	rates 62:19 76:6	ready 52:12	215:13	250:20 342:24
43:12,23,25	79:8,12 99:2	78:11 115:21	reason 32:25	receive 79:4,5
44:7 55:3,6,7	99:19,24 103:9	115:23 116:8	41:5 42:12	86:22 93:15
55:16,17 62:21	109:17 113:18	116:11,17	57:2 58:4 64:8	164:23 182:3
64:6 68:18	114:13 118:23	130:9 142:9,14	73:21 94:16	192:20 199:16
73:20 76:18	119:1 120:1,11	143:6 176:3	111:4 128:20	319:25 320:25
82:19 98:15,17	120:16 124:10	177:25 211:20	156:8 176:13	321:23 328:22
98:17 100:2,15	124:13,25	249:8 252:10	183:12 206:8	335:11 356:3
103:5 113:21	127:24 138:20	252:14,18	206:17 209:6	received 133:16
118:2,2,25	139:24 140:6	264:6,21 265:1	219:25 221:25	213:17 250:20
119:6,10,16	167:11 168:1	265:5,13,21	226:6 232:22	283:17 293:8
120:17 124:7	168:23 170:16	266:6,10	238:18 264:8	296:24 339:23
124:15,16,17	170:18,23,24	269:14,19	322:18 331:24	342:25 349:16
135:22,23,25	171:18,20	278:10 290:20	355:6	receives 126:13
139:7 140:2,18	180:15 201:14	314:21,21,24	reasonable 27:3	171:10,12
156:25 157:1,4	201:17,20	315:9,11,14,18	43:4 44:7	receptive 82:17
168:7,16,22	207:13,17	317:5,10,14	45:16 68:5	recess 130:6
180:9 181:22	208:5,13	342:20	81:2 82:18	211:17 290:17
181:23 202:4	210:21 223:14	real 36:6 51:12	114:1,19 119:1	364:7
203:1 211:8	223:15,22	126:18 144:15	119:3 120:15	recharge 30:2
217:13 219:8	224:2 225:8	167:8,9 176:16	120:21 153:25	76:10 246:21
220:13 223:14	245:8 247:1,12	278:24	161:8	recharged
223:23 225:10	259:11,23	real-time 89:6	reasonableness	215:23 246:24
226:18,22,24	278:2 326:10	realistic 167:10	119:10,15	recharges
227:3,4,5	rationale 120:5	realize 178:21	reasonably	187:20 188:7
230:16 235:2	120:15	210:20	31:21 264:7,9	recharging
	l	I	I	I

126.24	noovering	226.20	247.15 262.15	240.11 256.2
126:24	recovering	236:20	247:15 262:15	248:11 256:3
recipients 117:8	247:21 248:6	refer 115:3	278:13 332:15	352:21
recognize	358:9	163:18 253:23	332:19	regulations
280:25	recovery 289:10	278:23 285:12	regardless 81:19	108:21 115:12
recognizing	290:3 345:21	292:15 315:20	125:14 176:23	194:14
129:7	recross 197:19	316:21 337:7	192:2	regulators 83:14
recommendat	197:23 199:4	337:23	regenerated	regulatory
108:19 117:18	201:2 240:20	reference 130:1	154:8	18:15 21:10
120:6 312:2	240:23 242:13	136:6,18	region 103:3	90:10 101:9
327:21	273:9 275:10	138:18 161:20	265:14	112:3 194:9
recommendat	275:25 284:2	292:7,19	region's 173:21	reign 333:17
117:17 272:7	288:3 293:17	344:16 359:12	regional 81:13	reject 30:19
311:22	294:13 330:11	referenced	registered	rejected 30:21
recommended	330:15 334:19	31:14 34:18	188:18,21	related 87:24
209:23 328:14	335:25 358:18	330:19 347:12	189:13,15,20	97:14 99:15
333:8	366:3,4,5,17	363:2	190:2 371:7,21	199:8,9 210:20
recommends	366:18 367:10	references 28:18	registers 151:9	210:21 260:16
91:20 124:4	368:14,15,16	referencing	registration	273:25 279:17
126:6	recruit 337:4	134:8 268:6	189:21	290:3 320:17
reconcile 344:20	recruitment	351:10	registrations	321:22
reconfigure	347:13	referred 252:1	276:9	relates 109:2
149:13	redirect 148:8	339:6 347:8	regulate 61:11	230:18
reconfiguring	205:2,5 244:2	361:14	82:22 91:14	relating 107:18
149:16	244:4 277:15	referring 144:2	94:6 99:1	109:25
record 21:3	277:17 288:4,5	158:2 159:8	111:6 112:13	relation 106:3
22:21 23:4	294:14 339:1,2	160:9 179:20	112:13 326:12	107:21
93:23 130:9	343:4,6 359:7	197:9,14 217:9	regulated 41:13	Relations 90:10
133:14,17	359:9 366:6,19	223:19,20	52:4,5,14 53:4	relationship
141:9 206:3	367:11,17	355:13	56:13 57:8	310:8
210:17 211:20	368:6,17,19	refers 314:24	59:13 63:5,8	relationships
212:14 213:17	369:4	refitting 149:16	64:15 65:15,19	333:22,25
218:16 249:23	reduce 76:14,15	reflect 22:21	65:21 66:11	334:2
250:18,21	129:8 169:19	23:5	67:9,22 71:16	relative 168:9
282:9 283:18	286:24	reflection 149:1	83:4 85:16,20	183:16 227:19
290:20 291:12	reduced 74:10	refocus 336:18	86:7,14,19	relatively
293:9 295:6	80:2 102:13	refuel 153:4	100:13 103:12	107:17 110:18
296:25 313:9	178:7 180:9	154:24	103:12 110:17	118:7 199:13
316:17 319:11	263:18	refueling 153:17	111:10 122:3,5	206:10 274:20
342:25 348:18	reduces 125:13	regard 25:13	216:7 231:9,9	relevance
349:16 351:23	reduces 125.15 reducing 81:12	31:13 39:5	233:10 357:9	107:21 163:2
352:11 353:14	124:11 125:25	163:1 199:18	regulating 62:11	relevancy 263:4
353:22 356:16	124.11 125.25	262:15 297:9	111:3 112:20	relevancy 203.4 relevant 24:13
364:6,7	reduction	regarding 24:23	326:10	207:14 247:12
records 214:5	173:18,21	38:14 45:21	regulation 31:18	263:9 288:24
	,		0	
recover 153:6	202:2 285:12	76:24,24 167:9	81:23 92:18	337:19 338:1,8
159:23	285:21	206:4 207:13	96:22 112:9	reliability
recovered 215:7	reenacted	228:1,2,9,9	113:7 117:14	179:21
	1	I	I	I

reliably 93:8	report 78:10	39:8,17,23	262:18 276:2	97:14 103:14
reliance 76:16	111:15	51:2 68:22	334:22 339:22	103:21 114:2
117:23	REPORTED	69:6,9 70:4	344:11	114:21 126:14
relied 106:24	18:20	178:3 233:25	responses 176:1	136:6,19
rely 155:4	reporter 21:22	234:3,15	responsibility	137:10,14,16
remain 140:12	343:1 371:6,7	350:21 355:16	177:14	138:8 171:13
206:24 283:10	371:8,21	356:8 357:16	responsible	214:16,21,22
remainder	Reporter's	363:10	138:2 207:17	215:7,14
252:24 353:9	297:12 369:7	research 271:7	rest 74:20 125:9	224:16 248:23
remaining	371:1	271:23	153:19 161:13	249:1
363:24	represent 62:21	resell 38:18,22	164:4,7 274:9	review 106:7
remarkably	122:24 141:10	129:15 324:22	restate 137:8	114:20 119:10
205:24	251:7 254:14	350:8 357:1	139:2 267:10	259:21 264:17
remarks 91:9	284:21	reseller 311:19	267:12	340:16 342:18
122:10 145:16	representation	311:20	restating 119:12	345:1
remedial 110:6	109:13	reselling 59:18	restaurant	reviewed 345:17
remember	represented	130:2 234:7,8	193:7	revision 131:21
44:11 47:7	134:20 137:17	234:20	restore 154:18	revisions 296:11
61:19 80:10	200:7	reserve 284:1	restraints	revisited 280:9
110:21,21	representing	residential	141:18	280:12
118:9 159:20	95:16 101:3	35:13 36:16	restricted	revival 134:14
195:5 203:19	105:12	55:9 95:19	318:10 342:3	reward 73:7
359:23	represents	99:8 113:23	restriction	rewards 72:2
remind 23:9	125:16 177:3	114:13,16	356:21 360:3	RFP 92:1 150:2
193:18	request 91:23	136:21 156:21	restrictions	150:4,17
remote 123:6	149:18 336:20	156:25 157:5	360:8	172:24 173:1,3
126:1 128:22	337:8 339:22	180:19 181:23	result 65:9	311:17,19,24
216:23	339:23,24	resides 350:22	81:18 82:18	312:15 313:6,9
remotely 165:1	340:18 352:4	resolved 336:11	103:8 119:4	316:11 332:7
165:3 346:10	369:24	resource 81:17	120:3 138:3	344:16,23
removed 36:16	requesting 25:1	91:7	170:18 177:7	RFPs 46:19
36:17,18	25:2,17	Resources 20:8	180:16 181:14	344:19
131:10	require 92:5	22:5 74:24	183:17 201:5	right 21:2 23:9
removing 34:5	94:2 204:6	respect 58:25	201:12 254:16	34:5 39:1
35:3	219:5 328:23	63:3 94:13	267:24 268:1	45:24 49:15
render 166:13	required 345:16	respond 228:7	281:7	55:14 56:17
rendered 32:14	356:21 360:6	responded	resulting 102:14	57:25 58:10,12
renegade 63:4	requirement	150:17 247:14	114:12	58:18 65:22
renewable	109:7 215:4	respondent	results 119:24	71:15,22,25
277:11	362:12	150:5	182:11 263:14	72:21 73:3,23
renewables 80:1	requirements	respondents	retained 370:25	74:18 77:1
rephrase 201:16	106:21 144:22	91:22,22 92:2	retire 173:9	79:5,15 82:10
replace 206:5	150:10	92:4 311:24	revenue 64:17	97:2 100:4,19
replaced 132:23	requires 173:1	313:6	136:23 215:4	104:22 105:5
replacing 149:8	205:20 355:11	response 128:10	revenues 64:15	115:4 128:16
149:11	requiring 121:5	146:4 202:19	65:9,19,24	130:14 131:13
replicate 316:14	resale 38:20	214:9 261:15	68:18 73:25	133:10 136:2
	I	I	I	I

126.16 120.5	22.6	ruling 270.16	s a 206·10	56.11 57.10 14
136:16 139:5 155:15,18	22:6 road 55:17 75:9	ruling 279:16	s-e 296:10 safe 125:5 128:9	56:11 57:10,14 64:4 71:3,9
156:23 161:24	98:5 99:4	rumbling 210:15	161:4 162:13	77:21 79:4
162:7 167:21	152:11 154:1	run 52:12 188:1	311:16	140:17 173:1
171:25 173:14	190:15 364:3	274:12	safeguards 95:4	204:3 233:9,10
178:14 188:12			0	· · · · ·
	roads 272:21 Robertson 20:9	running 26:1 187:8	safety 128:7 150:11 162:16	258:19 313:25 322:24 354:16
189:7 193:4,14 194:4,20 196:5		runs 187:22	164:16 209:18	356:16 357:11
194.4,20 190.3	22:4,5 75:2,3 77:2,6,11,15	222:5	sake 132:23	says 35:19 40:17
202:21 203:22	77:21 78:8,22	Rupp 53:20,23	140:15 209:17	48:21,21,25
202.21 203.22	79:7,16,19,23	54:19,23 55:21	sale 28:25 38:20	49:17 62:22
204.10,20	79:25 80:9,13	55:25 56:4	39:7,17,23	69:8 97:18
222:23 223:5	80:18 157:11	57:4 58:13	49:20 51:2	123:9 229:16
228:25 237:10	200:22 216:16	69:23 73:18,24	63:8 68:22	229:16 240:7
237:13,13	242:8 253:10	74:4,20 76:4	69:6,9 83:6	240:14 260:13
238:2 241:10	275:20 284:15	77:13,16 78:2	107:12 108:23	355:11
241:11 243:1	290:21,25	78:14 95:7	178:3 233:24	scale 25:18
249:12,20	291:9,11 292:4	128:10 140:4	234:3 355:16	scan 259:10
251:23 253:24	292:6 293:4,12	193:17 194:20	356:8 357:15	SCE 266:9
254:8 255:11	313:14 335:22	237:20 365:22	sales 76:12	scenario 323:8
256:14 259:14	354:4 359:2	rural 128:22	256:24 257:7	323:13,17
262:25 266:11	365:5 367:21	220:16,18,20	257:11,12	328:7
269:21 270:1	role 75:11 77:18	258:3,3,13,16	280:19,20,21	scenarios
271:15,15,16	91:4 106:1	258:25	288:15 289:10	114:23
283:3 284:1	314:20	rush 101:8	289:24 290:3	scene 167:3
288:21 291:3	roll-out 74:12	104:14,21	337:14,19,25	schedule 363:3
294:22 314:17	rolling 64:11,20	348:10,11,19	337:25 338:6,8	363:16,23
314:22 315:13	72:15	348:21 349:22	338:11	schedules
316:15,23	room 20:5 75:9	350:3 351:2,5	San 249:25	282:18
317:5,18	110:21 125:9	351:19 354:2	253:23 254:4	scheme 83:25
323:13 325:11	351:7	359:11 362:21	254:15 269:18	school 110:24
326:18 328:19	rooms 164:4,7	368:20 369:2	316:25 317:9	193:25
329:18,25	rough 30:1	370:22,24	346:18	Sciences 81:8
330:9 334:13	roughly 114:12	Russ 21:15	Santa 150:20	scope 46:10 81:2
339:20 341:1	138:13,14	213:15	satisfied 172:25	90:13 146:2
350:20 357:21	159:23,24	Russell 19:14	satisfy 272:5	170:21 207:18
359:16	205:18 211:6	Ruth 19:23	saturation	261:12
rights-of-way	route 35:19	22:22	323:20	screen 89:8
172:5 221:17	152:25 279:10	Ryan 132:5	save 74:20 153:1	115:1 210:4
rigid 111:18	RPR 18:20	Ryan's 132:4	168:2,21	216:21,24
RIM 137:17	rule 108:25		saved 168:16	317:17
ripe 42:14	113:8 259:6	<u>S</u>	savings 127:23	SDE 278:25
risk 71:23 72:4	rule-making	s 18:20 19:1	168:9,13,15,18	279:1
73:5 74:16	324:14	20:1,5 21:1	168:20 210:19	SDG&E 346:22
126:4 141:11	rules 108:20	189:22 369:8	210:25 211:1,7	346:25 347:3,6
215:6	115:11 117:14	370:1 371:6,20	saw 38:6 327:15	SDG&E's
Rivers 20:10	162:16	s-a-y 296:10	saying 53:12	346:22
	I	I	I	I

	2000	040 15 046 5	G • 10.15		227 12 22
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	se 296:9	342:15 346:5	Senior 18:15	64:11,15 65:15	337:12,22
$\begin{array}{c c c c c c c c c c c c c c c c c c c $					
				· ·	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		U	-	· · · ·	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	second 27:1,15	274:23 346:10	208:8 257:1	75:15 76:2	341:23 350:15
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	30:8 34:2	seek 90:8 183:4	267:12,23	78:21 80:8,12	355:8 357:1,20
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	49:15,15 82:5	267:5 322:19	274:2 279:5	82:24 84:12	360:23 370:9
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	102:7 115:5	345:4	288:11	85:15 86:3,6	services 18:20
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	131:23 174:24	seeking 40:23	sensible 74:16	86:12,13,14,19	45:5 83:3
secondary $2:23$ $267:7$ $260:13$ $93:6 94:3.4$ $88:25 89:7$ Secondly $116:24$ seen $72:23$ separate $55:17$ $95:18 96:3.23$ $90:4,14 91:24$ section $28:17$ $289:23 329:9$ $330:4 339:17$ $99:16 103:12$ $110:18 111:3$ section $89:318$ $96:21 97:15$ $360:25$ $108:11 10:6$ $112:17 128:18$ sectorsegregatedseparated $103:13 107:23$ $111:12 112:13$ sector $82:23$ $112:4,4,20$ $178:22 198:4$ $178:15,20$ select 61 43:18 $228:23$ $112:4,4,20$ $178:22 198:4$ $182:22 184:13$ $144:11 150:9$ serious 91:10 $114:14 122:35,235:4 247:21$ $184:22$ $150:19 311:20$ $146:9$ $123:11 142:18$ $314:2 319:20$ secure's 183:13 $313:2 336:10$ serve 31:5 86:5 $142:19 145:1$ $325:4 337:16$ secure's 183:13 $313:2 336:10$ serve 31:5 86:5 $142:19 145:1$ $325:4 337:16$ securig 117:18self-serving $90:9 248:7,24$ $166:4 182:2,16$ $310:2 322:20$ set 21:4 63:12self-serving $90:9 248:7,24$ $166:4 182:2,16$ $310:2 322:3 36:20$ sec 23:22 26:20 $191:14$ serves 89:17 $183:51 189:18$ set 21:4 63:21 $36:25 41:13$ $66:15 72:7$ service 18:1 $196:17 197:1$ $88:15,19$ $42:1,2 43:1$ self-serving $90:10 27:7,78:21:182:16$ $177:42:15:25$ $150:1 178:6$ $36:25 45:25$ $245:10,10,11$ $32:11,13,18,20$ $225:10 226:5$ <th< td=""><td>196:1 266:22</td><td>72:25 91:14</td><td>sent 149:18</td><td>88:4 90:17</td><td>84:18,19 87:19</td></th<>	196:1 266:22	72:25 91:14	sent 149:18	88:4 90:17	84:18,19 87:19
$\begin{array}{llllllllllllllllllllllllllllllllllll$	266:22 352:12	183:2 255:1	sentence 176:19	91:17 92:17	87:21 88:7,19
$\begin{array}{llllllllllllllllllllllllllllllllllll$	secondary 92:23	267:7	260:13	93:6 94:3,4	88:25 89:7
$\begin{array}{llllllllllllllllllllllllllllllllllll$	Secondly 116:24	seen 72:23	separate 55:17	95:18 96:3,23	90:4,14 91:24
$\begin{array}{llllllllllllllllllllllllllllllllllll$	seconds 231:21	104:10 119:25	74:6 324:7	97:14,16,16,19	92:2 96:20
$\begin{array}{llllllllllllllllllllllllllllllllllll$	section 28:17	289:23 329:9	330:4 339:17	99:16 103:12	110:18 111:3
$\begin{array}{llllllllllllllllllllllllllllllllllll$	83:7,9 116:16	segregated	separated	103:13 107:23	111:12 112:13
sector 82:6select 150:4,5September111:7,23 112:2134:21 164:20178:15,20selected 143:18228:23112:4,4,20178:22 198:4182:22 184:13144:11 150:9serious 91:10114:14 122:3,5235:4 247:21184:22150:19 311:20146:9123:11 14:218314:2 319:20sector's 183:13313:2 336:10serve 31:5 86:5142:19 145:1325:4 337:16secure 88:15selecting 91:13101:19 109:12147:19,22,23357:22 362:2,6security 117:18self-education248:1 267:16147:24 155:6serving 82:12117:23 118:13135:8serves 89:17183:5,15 184:4310:2 32:20see 23:22 26:20191:14serves 89:17183:5,15 184:4323:23 363:2026:22 35:12self-sustaining90:11185:11 189:18set 21:4 63:2136:25 41:1366:15 72:7service 18:1196:17 197:188:1,5,1942:1, 2 43:1sell 44:23 60:2119:3,5 26:2,9207:4 215:25150:1 178:645:14 49:16,1761:4 73:2,1027:17,18 31:10217:14,25184:2 191:450:5,6 57:1487:1 240:8,831:20 32:3,7221:10 22:55235:6 244:1057:18,25 65:25324:25 328:1333:13,14,17231:25 23:14295:16,1696:20 99:1935:9 355:2334:8 36:11232:16,20319:5,17 321:3111:5 165:1356:4 359:1438:2 40:18233:3,9,14,17231:8,22166:25 176:9selling 30:1 59:944:24 45:1,11236:8 238:15335:3 356:2 <td>,</td> <td>0 0</td> <td>360:25</td> <td>108:1 110:6</td> <td>112:17 128:18</td>	,	0 0	360:25	108:1 110:6	112:17 128:18
$\begin{array}{c c c c c c c c c c c c c c c c c c c $,	select 150:4,5	September		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $,	-	,	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $,		serious 91:10		
sector's 183:13313:2 336:10serve 31:5 86:5142:19 145:1325:4 337:16secure 88:15selecting 91:13101:19 109:12147:19,22,23357:22 362:2,6security 117:18135:8served 36:22147:24 155:6serving 82:12Sedalia 147:2self-serving90:9 248:7,24166:4 182:2,16310:2 322:20see 23:22 26:20191:14serves 89:17183:5,15 184:4323:23 363:20sec 23:22 26:20191:14service 18:1196:17 197:188:15,1936:25 41:1366:15 72:7service 18:1196:17 197:188:15,1942:1,2 43:1sell 44:23 60:2119:3,5 26:2,9207:4 215:25150:1 178:645:14 49:16,1761:4 73:2,1027:17,18 31:10217:14,25184:2 191:450:5,6 57:1487:1 240:8,831:20 32:3,7221:1,2,3,7226:22 231:1070:20 77:6319:23 320:432:25 33:2,7230:14 231:9244:16 268:878:9,11 95:25324:25 328:13331:13,14,17231:25 232:14295:16,1696:20 99:19335:9 355:2334:8 36:11232:3,3,9,14,17323:18,22111:5 165:1356:4 359:1438:2 40:18233:3,9,14,17323:18,22111:5 165:1356:4 359:1438:2 40:18233:3,9,14,17323:18,22166:25 176:9sellers 60:2241:14,18 43:20234:9,15 236:4326:16 329:1177:18 180:4selling 30:1 59:944:24 45:1,11236:8 238:15335:3 356:2188:5 222:2361:14 63:2349:21 50:3,7,8240:9,14,15371:10,13 </td <td></td> <td></td> <td></td> <td>,</td> <td></td>				,	
secure 88:15selecting 91:13101:19 109:12147:19,22,23357:22 362:2,6security 117:18self-education248:1 267:16147:24 155:6serving 82:12Sedalia 147:2self-serving90:9 248:7,24166:4 182:2,16310:2 322:20see 23:22 26:20191:14serves 89:17183:5,15 184:4323:23 363:2026:22 35:12self-sustaining90:11185:11 189:18set 21:4 63:2136:25 41:1366:15 72:7service 18:1196:17 197:188:1,5,1942:1,2 43:1sell 44:23 60:2119:3,5 26:2,9207:4 215:25150:1 178:645:14 49:16,1761:4 73:2,1027:17,18 31:10217:14,25184:2 191:450:5,6 57:1487:1 240:8,831:20 32:3,7221:1,2,3,7226:22 231:1070:20 77:6319:23 320:432:25 33:2,7230:14 231:9244:16 268:878:9,11 95:25324:25 328:1333:13,14,17231:25 232:14295:16,1696:20 99:19335:9 355:2334:8 36:11232:16,20319:5,17 321:3111:5 165:1356:4 359:1438:2 40:18233:3,9,14,17323:18,22166:25 176:9sellers 60:2241:14,18 43:20234:9,15 236:4326:16 329:1177:18 180:4selling 30:1 59:944:24 45:1,11236:8 238:15335:3 356:2188:5 222:2361:14 63:2349:21 50:3,7,8244:13 245:7set 295:15,15188:5 222:2361:14 63:2349:21 50:3,7,8244:13 245:7set 295:15,15188:5 222:2361:14 63:2349:21 50:3,7,8244:13 245:7 <td></td> <td></td> <td></td> <td></td> <td></td>					
security117:18self-education248:1 267:16147:24 155:6serving 82:12117:23 118:13135:8served 36:22164:24 165:13session 297:12Sedalia147:2self-serving90:9 248:7,24166:4 182:2,16310:2 322:20see 23:22 26:20191:14serves 89:17183:5,15 184:4323:23 363:2026:22 35:12self-sustaining90:11185:11 189:18set 21:4 63:2136:25 41:1366:15 72:7service 18:1196:17 197:188:1,5,1942:1,2 43:1sell 44:23 60:2119:3,5 26:2,9207:4 215:25150:1 178:645:14 49:16,1761:4 73:2,1027:17,18 31:10217:14,25184:2 191:450:5,6 57:1487:1 240:8,831:20 32:3,7221:1,2,3,7226:22 231:1057:18,25 65:25245:10,10,1132:11,13,18,20225:10 226:5235:6 244:1070:20 77:6319:23 320:432:25 33:2,7230:14 231:9244:16 268:878:9,11 95:25324:25 328:1333:13,14,17231:25 232:14295:16,1696:20 99:19335:9 355:2334:8 36:11232:3,9,14,17323:18,22117:18 180:4selling 30:1 59:944:24 45:1,11236:8 238:15335:3 356:2180:17 183:1659:24 60:648:23 49:2,5239:19,19357:17 363:25180:17 183:1659:24 60:648:23 49:2,5239:19,19357:17 363:25180:17 183:1659:24 60:648:23 49:2,5239:19,19357:17 363:25180:17 183:1659:24 60:648:23 49:2,5239:19,1935					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		0		, ,	,
Sedalia 147:2 see 23:22 26:20self-serving 191:1490:9 248:7,24 serves 89:17166:4 182:2,16 183:5,15 184:4310:2 322:20 323:23 363:2026:22 35:12 36:25 41:13self-sustaining 66:15 72:790:11185:11 189:18 set 21:4 63:21set 21:4 63:21 88:1,5,1942:1,2 43:1 42:1,2 43:1sell 44:23 60:21 61:4 73:2,1019:3,5 26:2,9 27:17,18 31:10207:4 215:25 217:17,18 31:10150:1 178:6 217:14,2545:14 49:16,17 50:5,6 57:1461:4 73:2,10 87:1 240:8,827:17,18 31:10 31:20 32:3,721:1,2,3,7 226:22 231:1057:18,25 65:25 70:26 57:14245:10,10,11 32:11,13,18,20 32:25 33:2,7225:10 226:5 235:6 244:1070:20 77:6 70:20 77:6319:23 320:4 31:23 320:432:25 33:2,7 32:25 33:2,7230:14 231:9 231:24 231:9111:5 165:1 96:20 99:19 335:9 355:2334:8 36:11 38:2 40:18 33:31,3,14,17231:25 232:14 232:16,20295:16,16 319:5,17 321:3111:5 165:1 17:18 180:4 180:4selling 30:1 59:9 sellers 60:2244:14,18 43:20 48:23 49:2,5234:9,15 236:4 234:9,15 236:4326:16 329:1 35:3 356:2180:17 183:16 231:14 232:22 180:17 183:16 231:14 232:2267:3,5,7 70:8 61:14 63:23 61:14 63:23 49:21 50:3,7,8240:9,14,15 244:13 245:7 244:13 245:7set set sep 51:5,15 set sep 51:5,15 set sep 52:15,15243:22 251:15 243:22 251:15 87:18 234:20 324:8 332:352:4 53:4 60:18,19 61:5245:10,12 310:12 321:19166:15 207:5					0
see 23:22 26:20191:14serves 89:17183:5,15 184:4323:23 363:2026:22 35:12self-sustaining90:11185:11 189:18set 21:4 63:2136:25 41:1366:15 72:7service 18:1196:17 197:188:1,5,1942:1,2 43:1sell 44:23 60:2119:3,5 26:2,9207:4 215:25150:1 178:645:14 49:16,1761:4 73:2,1027:17,18 31:10217:14,25184:2 191:450:5,6 57:1487:1 240:8,831:20 32:3,7221:1,2,3,7226:22 231:1057:18,25 65:25245:10,10,1132:11,13,18,20225:10 226:5235:6 244:1070:20 77:6319:23 320:432:25 33:2,7230:14 231:9244:16 268:878:9,11 95:25324:25 328:1333:13,14,17231:25 232:14295:16,1696:20 99:19335:9 355:2334:8 36:11232:16,20319:5,17 321:3111:5 165:1356:4 359:1438:2 40:18233:3,9,14,17323:18,22166:25 176:9sellers 60:2241:14,18 43:20234:9,15 236:4326:16 329:1177:18 180:4selling 30:1 59:944:24 45:1,11236:8 238:15335:3 356:2180:17 183:1659:24 60:648:23 49:2,5239:19,19357:17 363:25188:5 222:2361:14 63:2349:21 50:3,7,8240:9,14,15371:10,13231:14 232:2267:3,5,7 70:851:1,13,25244:13 245:7set 295:15,15243:22 251:1587:18 234:2052:4 53:4245:10,12setting 18:11256:16 260:17289:6 316:1456:14,14,16,19248:5,20 266:421:7 43:14					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		U	,	,	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$,	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		6			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					
50:5,6 57:1487:1 240:8,831:20 32:3,7221:1,2,3,7226:22 231:1057:18,25 65:25245:10,10,1132:11,13,18,20225:10 226:5235:6 244:1070:20 77:6319:23 320:432:25 33:2,7230:14 231:9244:16 268:878:9,11 95:25324:25 328:1333:13,14,17231:25 232:14295:16,1696:20 99:19335:9 355:2334:8 36:11232:16,20319:5,17 321:3111:5 165:1356:4 359:1438:2 40:18233:3,9,14,17323:18,22166:25 176:9sellers 60:2241:14,18 43:20234:9,15 236:4326:16 329:1177:18 180:4selling 30:1 59:944:24 45:1,11236:8 238:15335:3 356:2180:17 183:1659:24 60:648:23 49:2,5239:19,19357:17 363:25188:5 222:2361:14 63:2349:21 50:3,7,8240:9,14,15371:10,13231:14 232:2267:3,5,7 70:851:1,13,25244:13 245:7sets 295:15,15243:22 251:1587:18 234:2052:4 53:4245:10,12setting 18:11256:16 260:17289:6 316:1456:14,14,16,19248:5,20 266:421:7 43:14313:10,21329:11 338:757:9 59:13,24268:13 280:1768:14 93:3324:8 332:3sells 88:660:18,19 61:5310:12 321:19166:15 207:5	,				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$,	,	· ·	,	
70:20 77:6 78:9,11 95:25 96:20 99:19319:23 320:4 324:25 328:13 335:9 355:23 355:23 356:4 359:1432:25 33:2,7 33:13,14,17 323:125 232:14 231:25 232:14 232:16,20 233:3,9,14,17 233:3,9,14,17 323:18,22244:16 268:8 295:16,16 319:5,17 321:3 323:18,22111:5 165:1 166:25 176:9 177:18 180:4 188:5 222:23 180:17 183:16 188:5 222:23 231:14 232:22 231:14 232:22 231:14 232:22 231:14 232:22 61:14 63:23 61:14 63:23 61:14 63:23 61:14 63:23 61:14 63:23 61:14 63:23 51:1,13,25 52:4 53:4 52:4 53:4 52:4 53:4 244:13 245:7 244:13 245:7 245:10,12 244:13 245:7 245:10,12 244:13 245:7 245:10,12 244:13 245:7 245:10,12 244:13 245:7 245:10,12 244:13 245:7 245:10,12 244:13 245:7 243:22 251:15 371:10,13 sets 295:15,15 seting 18:11 21:7 43:14 68:14 93:3 324:8 332:3319:23 320:4 310:12 321:19324:8 32:3 60:18,19 61:5310:12 321:19244:16 268:8 295:16,16 319:5,17 321:3 320:14 231:29	,				
78:9,11 95:25324:25 328:1333:13,14,17231:25 232:14295:16,1696:20 99:19335:9 355:2334:8 36:11232:16,20319:5,17 321:3111:5 165:1356:4 359:1438:2 40:18233:3,9,14,17323:18,22166:25 176:9sellers 60:2241:14,18 43:20234:9,15 236:4326:16 329:1177:18 180:4selling 30:1 59:944:24 45:1,11236:8 238:15335:3 356:2180:17 183:1659:24 60:648:23 49:2,5239:19,19357:17 363:25188:5 222:2361:14 63:2349:21 50:3,7,8240:9,14,15371:10,13231:14 232:2267:3,5,7 70:851:1,13,25244:13 245:7sets 295:15,15243:22 251:1587:18 234:2052:4 53:4245:10,12setting 18:11256:16 260:17289:6 316:1456:14,14,16,19248:5,20 266:421:7 43:14313:10,21329:11 338:757:9 59:13,24268:13 280:1768:14 93:3324:8 332:3sells 88:660:18,19 61:5310:12 321:19166:15 207:5			, , ,		
96:20 99:19335:9 355:2334:8 36:11232:16,20319:5,17 321:3111:5 165:1356:4 359:1438:2 40:18233:3,9,14,17323:18,22166:25 176:9sellers 60:2241:14,18 43:20234:9,15 236:4326:16 329:1177:18 180:4selling 30:1 59:944:24 45:1,11236:8 238:15335:3 356:2180:17 183:1659:24 60:648:23 49:2,5239:19,19357:17 363:25188:5 222:2361:14 63:2349:21 50:3,7,8240:9,14,15371:10,13231:14 232:2267:3,5,7 70:851:1,13,25244:13 245:7sets 295:15,15243:22 251:1587:18 234:2052:4 53:4245:10,12sets 295:15,15256:16 260:17289:6 316:1456:14,14,16,19248:5,20 266:421:7 43:14313:10,21329:11 338:757:9 59:13,24268:13 280:1768:14 93:3324:8 332:3sells 88:660:18,19 61:5310:12 321:19166:15 207:5			,		
111:5 165:1356:4 359:1438:2 40:18233:3,9,14,17323:18,22166:25 176:9sellers 60:2241:14,18 43:20234:9,15 236:4326:16 329:1177:18 180:4selling 30:1 59:944:24 45:1,11236:8 238:15335:3 356:2180:17 183:1659:24 60:648:23 49:2,5239:19,19357:17 363:25188:5 222:2361:14 63:2349:21 50:3,7,8240:9,14,15371:10,13231:14 232:2267:3,5,7 70:851:1,13,25244:13 245:7sets 295:15,15243:22 251:1587:18 234:2052:4 53:4245:10,12setting 18:11256:16 260:17289:6 316:1456:14,14,16,19248:5,20 266:421:7 43:14313:10,21329:11 338:757:9 59:13,24268:13 280:1768:14 93:3324:8 332:3sells 88:660:18,19 61:5310:12 321:19166:15 207:5	,				,
166:25 176:9 177:18 180:4sellers 60:22 selling 30:1 59:941:14,18 43:20 44:24 45:1,11234:9,15 236:4 236:8 238:15326:16 329:1 335:3 356:2180:17 183:16 188:5 222:2359:24 60:6 61:14 63:2348:23 49:2,5 49:21 50:3,7,8239:19,19 240:9,14,15357:17 363:25 371:10,13231:14 232:22 243:22 251:1567:3,5,7 70:8 87:18 234:2051:1,13,25 52:4 53:4244:13 245:7 245:10,12sets 295:15,15 sets 18:11256:16 260:17 313:10,21289:6 316:14 329:11 338:756:14,14,16,19 57:9 59:13,24248:5,20 266:4 268:13 280:1721:7 43:14 68:14 93:3 10:12 321:19324:8 332:3sells 88:660:18,19 61:5310:12 321:19166:15 207:5				,	,
177:18 180:4 180:17 183:16selling 30:1 59:9 59:24 60:644:24 45:1,11 48:23 49:2,5236:8 238:15 239:19,19335:3 356:2 357:17 363:25188:5 222:23 231:14 232:2261:14 63:23 67:3,5,7 70:849:21 50:3,7,8 51:1,13,25240:9,14,15 244:13 245:7371:10,13 sets 295:15,15243:22 251:15 243:22 251:1587:18 234:20 289:6 316:1452:4 53:4 56:14,14,16,19248:5,20 266:4 248:5,20 266:421:7 43:14 68:14 93:3313:10,21 324:8 332:3329:11 338:7 sells 88:657:9 59:13,24 60:18,19 61:5268:13 280:17 310:12 321:1968:14 93:3 166:15 207:5					,
180:17 183:1659:24 60:648:23 49:2,5239:19,19357:17 363:25188:5 222:2361:14 63:2349:21 50:3,7,8240:9,14,15371:10,13231:14 232:2267:3,5,7 70:851:1,13,25244:13 245:7sets 295:15,15243:22 251:1587:18 234:2052:4 53:4245:10,12setting 18:11256:16 260:17289:6 316:1456:14,14,16,19248:5,20 266:421:7 43:14313:10,21329:11 338:757:9 59:13,24268:13 280:1768:14 93:3324:8 332:3sells 88:660:18,19 61:5310:12 321:19166:15 207:5			·	,	
188:5 222:2361:14 63:2349:21 50:3,7,8240:9,14,15371:10,13231:14 232:2267:3,5,7 70:851:1,13,25244:13 245:7sets 295:15,15243:22 251:1587:18 234:2052:4 53:4245:10,12setting 18:11256:16 260:17289:6 316:1456:14,14,16,19248:5,20 266:421:7 43:14313:10,21329:11 338:757:9 59:13,24268:13 280:1768:14 93:3324:8 332:3sells 88:660:18,19 61:5310:12 321:19166:15 207:5		0	,		
231:14 232:2267:3,5,7 70:851:1,13,25244:13 245:7sets 295:15,15243:22 251:1587:18 234:2052:4 53:4245:10,12setting 18:11256:16 260:17289:6 316:1456:14,14,16,19248:5,20 266:421:7 43:14313:10,21329:11 338:757:9 59:13,24268:13 280:1768:14 93:3324:8 332:3sells 88:660:18,19 61:5310:12 321:19166:15 207:5			,	·	
243:22 251:1587:18 234:2052:4 53:4245:10,12setting 18:11256:16 260:17289:6 316:1456:14,14,16,19248:5,20 266:421:7 43:14313:10,21329:11 338:757:9 59:13,24268:13 280:1768:14 93:3324:8 332:3sells 88:660:18,19 61:5310:12 321:19166:15 207:5					<i>,</i>
256:16 260:17289:6 316:1456:14,14,16,19248:5,20 266:421:7 43:14313:10,21329:11 338:757:9 59:13,24268:13 280:1768:14 93:3324:8 332:3sells 88:660:18,19 61:5310:12 321:19166:15 207:5			, ,		,
313:10,21 324:8 332:3329:11 338:7 sells 88:657:9 59:13,24 60:18,19 61:5268:13 280:17 310:12 321:1968:14 93:3 166:15 207:5				,	0
324:8 332:3 sells 88:6 60:18,19 61:5 310:12 321:19 166:15 207:5				,	
	,		,		
540.0,9,10 Senang 124.11 05:0,8,15,19 527:5,5 350:20 207:20 208:0,9			·		
	340.0,9,10	senuing 124:11	03.0,8,13,19	521.5,5 550:20	207.20 208:0,9

		ĺ	1	1
223:14,15	244:19 245:22	shows 80:3	181:22 278:19	sites 63:13
326:4,5	246:5,25	116:19 339:17	280:7 320:20	162:11 163:7
settle 70:22	254:12,13	shuts 192:1	320:25 360:16	312:12 347:22
settled 238:4	261:16,21	sic 28:10	361:25 362:8	347:25 348:1
239:15	262:1,10,19	side 145:5,5	similarity 167:7	361:2
seven 49:18	263:2,6,10,11	222:10 268:22	278:23	sits 358:10
257:2,3	263:23 275:24	280:3 315:15	simple 25:18	sitting 43:22
severe 177:1	276:1 277:13	328:10	26:23 206:10	128:16 154:19
sewer 32:1	284:18,21	sidelines 281:13	simply 37:14	231:13 259:21
shape 281:11	287:17 288:7	Sierra 20:8 22:3	60:4 74:15	situate 209:18
share 194:6	292:3,5 294:6	22:4,9 43:7	single 50:25	situated 210:7
224:24 252:21	317:23,25	45:15 80:19,25	53:1 88:17	situation 38:15
shared 362:2	318:13 338:25	82:17,21 84:10	89:2 91:13	38:16,25 40:11
shareholders	340:20 354:8	91:7 157:12	132:23 158:3	41:22 42:23
64:21 65:9	359:6 365:11	200:23 216:17	159:13,16	61:18 136:19
124:6 126:4,5	365:19 366:5	242:9 253:11	164:13	182:11 209:6
169:9 214:18	366:13,18	253:16 275:21	sir 65:1 66:20	260:6 322:10
224:21,23	367:6,10,16	281:23,24	69:18,25 70:10	360:16,19
225:4,6,11	368:11	282:13,16,23	71:19 73:11	361:25
249:3	shift 127:22	288:4 294:3	74:3 77:14	situations 39:8
shaving 260:2	shifts 52:18	313:15 335:23	146:11 160:21	42:6 85:17
shed 55:10	shop 322:6	346:17 354:5	163:5 169:11	361:13
Sheehy 249:11	shopping 98:20	359:3 370:10	216:24 281:18	six 25:23 40:24
249:14,20,24	104:9 209:15	sign 63:22	288:2 290:13	41:10 46:10
250:5 251:6	326:21	222:23	294:15	105:6 157:22
253:15 254:9	short 31:16	signage 115:21	sit 54:10 164:7	158:1 161:11
254:13 263:11	74:11 95:2	115:21,23	203:24 270:22	181:4 195:3,4
269:7 281:17	130:5 137:19	116:8,8,11,15	site 36:5 87:25	236:6,11
281:19 347:8	290:16	116:17	88:23 89:10	319:17 351:18
367:2 369:17	short-term	signal 164:23	91:25 92:5,7	sixth 336:9
Sheehy's 250:17	178:11	signals 124:11	93:19,22 142:1	size 25:20 145:4
347:12	shortened	signed 39:21	142:16 143:2	200:4 314:9
sheet 40:5 363:1	211:16	significant	144:11 147:1	337:13,18
363:3,16	shortfall 66:6	34:25 37:16	151:9 164:6,6	338:8
371:10	72:12 74:9	42:11 44:16	164:9,14 165:5	size-wise 278:17
shell 72:20	224:22	92:19 178:4	165:13,19,21	sizes 145:9
Shemwell 19:9	Shorthand	219:10 221:20	271:18 312:3	skeptical 182:21
56:3 122:19,22	371:6	222:8,16 257:8	316:2,2,13	185:17
122:23,24	shortly 210:16	265:18 267:21	319:24 320:3	skin 92:6
129:17,21	show 44:17	274:16	320:18 321:22	skip 281:21
157:15,17,19	80:15 114:21	significantly	321:23 328:6	sleep 123:14,16
163:11 171:4	207:23 218:13	266:25	328:22 329:6	slew 70:12
175:17 201:1,3	233:13 262:16	silence 23:10	335:10,11	slide 115:5
204:25 216:20	318:11 332:14	similar 67:19	336:9,21 337:5	slightly 103:6
217:1 229:2,4	339:9	83:14,15 84:1	337:7,23 344:4	118:6 211:16
230:5 242:12	showed 167:1	111:15 112:21	345:6,22 347:1	slip 42:24
242:14 243:25	218:7	140:4 177:25	347:1,5,14,17	slow 120:14
	l	I	l	l

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273:1	254:20 287:2	spur 183:18	65:3,3,17,23
			66:1 73:8
178:25	333:19 357:24		74:15 97:13
somebody 57:13	358:1,2 359:20	St 19:19 20:11	103:15 214:5,7
68:7 70:15	specifically	20:24 22:7,17	214:10,13,15
someone's 344:8	28:23 31:15	38:11 89:20	240:12 247:15
346:10	40:3 50:15	104:17 112:15	247:15 339:5
someplace 125:7	129:6 153:21	116:12 147:3,7	360:9,12
somewhat 67:17	163:18,19	148:18 152:18	stage 272:2,12
185:16 276:5	183:1 285:10	152:25 159:7,8	358:7 361:8
352:8	285:11 334:4	159:9 163:23	stages 84:24
soon 181:21	340:1	163:24 175:11	stakeholder
192:17 266:13	specifications	195:5,5,7,8,19	280:2
sorry 132:10	172:24	198:3,8,19,20	stakeholders
134:9 136:4	specified 172:21	198:23 212:16	26:11 41:4
137:3 146:24	specify 244:15	220:21 246:20	145:18 254:23
151:21 159:7	specifying 244:9	247:2 248:3	324:10
160:22 180:13	speculate	258:3 263:19	stand 28:1 54:17
181:20 202:14	181:13 204:4	318:23,24	211:23 281:25
217:5 256:18	speculation	329:25 330:23	290:21
259:17 273:11	146:2 261:14	331:2 341:19	standalone
sort 85:25	261:20 334:8	stabilize 170:16	52:25
118:21 222:12	speculative	170:18 171:18	standard 34:20
sought 85:2	64:19	stable 274:20	36:17 43:14
135:13	speed 153:12	Stadium 89:22	63:1,2,2 145:9
source 99:14	211:15	staff 19:3 21:18	187:23,25
241:19 292:8	spelling 296:9	21:20 58:21,25	206:21 247:20
sources 256:9	spend 153:16	60:3 62:14,19	256:4
277:3	154:7 177:9	62:22 63:7	standardized
Southern	276:20 322:3	64:3,4,8,9	206:23
251:25 253:20	spent 277:2	70:13,15,16,17	start 27:6 63:23
266:9 317:1	289:3	72:13 92:13	66:12 87:13
space 134:7	split 160:6,9	97:12 101:24	131:6 176:15
275:6 329:22	314:12	108:20 119:16	176:15 196:19
spaces 209:19	sponsor 224:9	129:25 133:21	223:15 265:20
speak 135:10	224:21 225:4,7	194:3 197:20	289:7 324:11
142:18 145:8	sponsored 91:6	213:21 220:1	358:9 361:2
178:13 181:21	103:24	237:21 240:10	start-up 289:15
206:13 242:16	sponsoring	240:21 251:1	start-ups 288:20
speaking 182:25	101:7 218:17	275:10 281:22	started 23:22
199:13 242:25	sponsors 102:25	284:4 293:19	266:13 274:23
243:1	spotted 126:21	310:3,17 311:3	starting 72:10
specific 40:13	spread 76:7	334:19 340:5	135:3 137:5
52:17 109:8	102:19 364:1	349:23 358:20	352:11
131:16 151:13	Springs 196:21	361:6 362:24	starts 74:19
230:16 234:23	197:1 329:25	staff's 59:12	205:10,11
230.10 234.23	17/11/02/120		=00.10,11
	solve 138:21 178:25 somebody 57:13 68:7 70:15 someone's 344:8 346:10 someplace 125:7 somewhat 67:17 185:16 276:5 352:8 soon 181:21 192:17 266:13 sorry 132:10 134:9 136:4 137:3 146:24 151:21 159:7 160:22 180:13 181:20 202:14 217:5 256:18 259:17 273:11 sort 85:25 118:21 222:12 sought 85:2 118:21 222:12 sought 85:2 135:13 source 99:14 241:19 292:8 sources 256:9 277:3 Southern 251:25 253:20 266:9 317:1 space 134:7 275:6 329:22 spaces 209:19 speak 135:10 142:18 145:8 178:13 181:21 206:13 242:16 speaking 182:25 199:13 242:25 243:1 specific 40:13 52:17 109:8 131:16 151:13	solve 138:21316:25 333:18178:25335:19 357:24somebody 57:13358:1,2 359:2068:7 70:15specificallysomeone's 344:828:23 31:15346:1040:3 50:15someylace 125:7129:6 153:21somewhat 67:17163:18,19185:16 276:5183:1 285:10352:8285:11 334:4soon 181:21340:1192:17 266:13specificationssorry 132:10172:24134:9 136:4specified 172:21137:3 146:24specify 244:15151:21 159:7specifying 244:9160:22 180:13speculate181:20 202:14181:13 204:4217:5 256:18speculate259:17 273:11146:2 261:14261:20 334:8speculation135:13speculationsource 99:14211:15241:19 292:8spelling 296:9sources 256:9spend 153:12277:3154:7 177:9266:9 317:1289:3space 134:7split 160:6,9275:6 329:22314:12space 134:7split 160:6,9275:6 329:22314:12space 134:7split 160:6,9275:6 329:22314:12specific 40:13103:24sponsore 224:9224:21 225:4,7199:13 242:2524:31sponsored 91:6103:24178:13 181:21103:24206:13 242:16spread 76:7199:13 242:25spread 76:7102:19 364:1102:19 364:1131:16 151:13 <td>solve 138:21316:25 333:18 333:19 357:24squarely 75:13 ss 371:3somebody 57:13358:1,2 359:20st 19:19 20:11 20:24 22:7,1768:7 70:15specifically20:24 22:7,17someone's 344:828:23 31:1538:11 89:20346:1040:3 50:15104:17 112:15someplace 125:7129:6 153:21116:12 147:3,7somewhat 67:17163:18,19148:18 152:18185:16 276:5183:1 285:10152:25 159:7,8352:8285:11 334:4159:9 163:23soon 181:21340:1163:24 175:11192:17 266:13specifications195:5,5,7,8,19sorry 132:10172:24198:3,8,19,20134:9 136:4specifiy 244:15220:21 246:20151:21 159:7specify 244:15220:21 246:20151:21 159:7specify 244:15220:21 246:20151:21 159:7speculate258:3 263:19181:20 202:14181:13 204:4318:23,24217:5 256:18speculation329:25 330:23259:17 273:11146:2 261:14331:2 341:19sourt 85:25261:20 334:8stabilize 170:16118:21 222:12speel 153:12staff 19:3 21:18source 99:14211:15staff 19:3 21:18241:19 292:8spelling 296:921:20 58:21,25source 256:9spent 153:1660:3 62:14,19277:3154:7 177:962:22 63:7Southern276:20 322:364:3,4,8,9251:25 253:20spent 277:270:13,15,16,1726:9 317:1289:372:13 9</td>	solve 138:21316:25 333:18 333:19 357:24squarely 75:13 ss 371:3somebody 57:13358:1,2 359:20st 19:19 20:11 20:24 22:7,1768:7 70:15specifically20:24 22:7,17someone's 344:828:23 31:1538:11 89:20346:1040:3 50:15104:17 112:15someplace 125:7129:6 153:21116:12 147:3,7somewhat 67:17163:18,19148:18 152:18185:16 276:5183:1 285:10152:25 159:7,8352:8285:11 334:4159:9 163:23soon 181:21340:1163:24 175:11192:17 266:13specifications195:5,5,7,8,19sorry 132:10172:24198:3,8,19,20134:9 136:4specifiy 244:15220:21 246:20151:21 159:7specify 244:15220:21 246:20151:21 159:7specify 244:15220:21 246:20151:21 159:7speculate258:3 263:19181:20 202:14181:13 204:4318:23,24217:5 256:18speculation329:25 330:23259:17 273:11146:2 261:14331:2 341:19sourt 85:25261:20 334:8stabilize 170:16118:21 222:12speel 153:12staff 19:3 21:18source 99:14211:15staff 19:3 21:18241:19 292:8spelling 296:921:20 58:21,25source 256:9spent 153:1660:3 62:14,19277:3154:7 177:962:22 63:7Southern276:20 322:364:3,4,8,9251:25 253:20spent 277:270:13,15,16,1726:9 317:1289:372:13 9

Г

	_	_	_	_
53:6 58:10	95:13 100:25	142:22,25	83:10,12 86:11	259:7 267:6,7
80:7 84:23	105:8 122:21	143:2 145:24	87:1 88:14,16	267:22 273:21
89:24 90:18	136:12 143:3	146:17,22	90:2,25 91:14	276:4 286:24
98:14 100:14	149:1 194:2	147:5,7 149:4	93:7,13,14	287:1,7 288:10
103:22 106:4,7	214:7 218:11	149:19 160:11	94:19,22 98:19	290:4 310:20
107:8 110:5,8	285:17,24	160:12 161:21	99:22 101:17	310:21,23,23
111:13 112:12	339:18 362:13	163:2 164:24	101:23 102:2	312:11,20
112:19,22	365:3,4,5,6,7,8	165:16 171:25	102:11,17	313:7 314:6,7
113:1,4 116:11	365:9,10,11	177:1 178:23	103:2 107:25	314:8,12
116:23 117:15	statements	184:25 191:24	108:6,7,13	316:15 318:8
117:23 118:14	23:25 24:16	197:7,10 203:4	113:17 115:25	319:6,9,17
121:2,16	52:3 56:7	203:18 207:24	116:2 117:6	321:17 322:14
130:20 138:20	109:8 119:11	208:25 210:3,6	123:7,11	323:7 325:19
140:2 149:17	344:17	215:22 226:14	124:21 126:2,3	325:20,24
188:17,18,22	states 83:15	230:14 234:17	126:8,10,25	327:8 328:8,20
189:13,20	100:15 116:3	235:3 240:8	127:19 128:4	328:21,24,25
190:3 194:5,15	118:24 121:14	241:14 245:25	128:20 135:17	330:19 331:16
196:25 212:13	121:21 122:2,4	273:18 274:19	136:10 138:3,7	331:17 336:8
214:4 221:3	127:3 174:10	311:24 315:2	139:6 142:17	336:15,16
226:3 236:25	174:13 207:2	315:17,22	143:14 144:1,8	339:7 340:2
237:1,1,8	221:11 224:1	320:5,12,14,17	144:12,19,23	341:18 342:12
249:22 255:19	238:7,8,9,12	320:21 321:6	147:19,24	342:14 343:16
255:23 256:1,3	238:17,21	321:18 322:25	148:14,16,17	343:17,20,22
261:24 265:16	239:17 243:13	325:2 326:16	148:18,24	344:1,1,2,5,22
266:18,19	243:15,17	326:25 328:12	149:9,12	346:13,23,24
272:24 275:4	256:18 265:24	328:22 329:1,3	150:25 151:3,8	346:25 347:6
279:23 282:8	325:23 333:14	329:21 335:8	151:10 152:24	347:17 350:7
291:11 295:6	338:12 345:16	335:10 336:9	157:22 160:15	352:17 353:5,8
316:10 317:4	stating 53:10,11	336:22 338:7	161:19 164:22	354:20 355:4
324:22 336:4	111:17 222:13	338:19 339:13	166:7,14,18	356:8,15
348:17 357:9	222:15	344:9 346:3,6	167:6 170:19	357:16,18,19
362:15 371:3,8	station 34:19,20	346:8,9,9	171:17,19	357:25 358:10
State's 117:19	35:14 51:18	347:23 350:15	172:23 173:8	statue 240:6
state-wide 25:4	52:22,23,24	stations 18:12	177:10,18,19	statute 28:10
46:18 80:10,11	55:5,20 56:24	21:8 29:1 30:8	178:4 181:7	39:17 48:8,17
324:7 327:24	63:13,22 66:18	30:14 31:7	182:23 185:18	48:20 49:17
stated 58:2 84:6	84:10 85:14	34:15 35:5,20	191:13 194:4	62:12 67:16,19
107:20 109:10	87:20,24 88:1	35:25 36:7,9	195:3 201:13	67:20 68:22
112:25 113:13	88:3,6,8,20	36:12,19 38:1	206:5,10 215:8	73:15 75:21
120:9 121:12	89:8 91:23	38:7 39:10	217:11 218:10	108:16 110:7
145:15 159:18	92:15,21,21,25	40:24 41:11	226:2,10,17	113:7,8 121:4
194:3 221:6	93:1,1 94:12	45:22 46:14	229:23 234:11	123:20,22,23
313:9	96:17 100:11	47:3 49:23	234:24 236:16	240:13 266:18
statement 24:1,2	103:23 114:8	51:15 57:7	237:23 238:12	362:9
24:9 58:22	116:6 120:21	60:2,3 61:15	241:3,18 243:4	statutes 57:18
75:1 80:20	126:12 128:15	62:8,23 70:7 82:16 23 82:1	245:23 246:4,8	67:17 69:3
85:3 87:10	139:10 141:22	82:16,23 83:1	254:6 257:23	96:6 106:6,11
	•	•	•	•

	•	•		•
115:11 123:10	322:1	subgrantee	succinct 141:15	106:11
194:9 216:3	storm 269:15	108:11	sudden 37:23	supporting
239:22 243:13	straight 52:20	subject 31:17	suffer 153:18	90:23 91:5
361:20,23	stranded 267:25	54:16 56:20	suffered 281:7	233:23 255:24
statutory 47:24	strategies	83:12 85:3	sufficient 51:3	258:20 259:6
56:18 59:5	331:14	96:24 113:3	112:18 116:21	268:20 289:7
83:25 92:15	strategy 134:17	215:24 237:2	214:21 280:15	344:14
95:23 113:2	261:2	311:18 352:7	suggest 50:10,13	supportive
stay 265:22	Street 19:5,10	352:18,22	62:6 103:11	325:18 338:17
stayed 257:1	20:5,10,14,19	353:4	124:20 234:23	345:5
staying 274:20	22:2,7,12,23	subjects 92:18	313:5 337:8	supports 80:25
steady 256:24	249:25 282:11	submit 184:15	362:9	94:23 123:1
steel 274:5	348:19 359:24	subscribed	suggested	supposed 292:8
stenotype	362:1	62:19	209:12,17	292:18
371:11	strength 212:7	subscriptions	suggesting	Supreme 106:23
step 139:4	stretch 34:9	88:9	172:3	110:5 111:15
211:13 249:8	45:6 116:22	subsequent	suggests 92:9	121:1,8,16
281:18 290:13	341:15,16	356:11	123:9 128:23	surcharge 276:9
294:16 321:9	strictly 195:19	subsidies 247:25	229:12	sure 24:12 38:8
348:7 362:22	strike 121:17	248:12	Suite 18:21	38:9 40:3,15
steps 187:14	177:23 203:11	subsidization	19:23 20:10,19	41:2 43:9,19
stick 209:4	231:23 248:17	97:4 243:20	22:7,12,23,24	47:22 70:2
325:16	266:20 292:1	subsidize 64:10	23:6	77:2,3 85:25
STOLL 24:7	292:12	72:15,17	summer 113:23	97:7 98:2
53:18 69:22	strikes 45:16	subsidized 68:7	157:1,5 227:4	139:3 154:10
78:15 79:2,15	strong 82:18	97:20 289:8	sums 120:23	169:15 193:23
79:17,21,24	strongly 43:2	subsidizing 97:7	super 148:7	193:23 206:3
80:6,11,16	80:25	99:9 248:14	supervision	208:19 210:17
85:11 95:9	struck 43:8 44:2	subsidy 44:3	48:22	212:15 220:11
100:20,22	structure 64:6	68:12 78:25	supplied 235:4	220:22,24
104:24 122:15	182:18 325:13	215:10,11	suppliers 287:8	227:2 229:22
186:6 235:11	struggle 51:12	219:5 224:16	supplies 90:16	233:3 237:16
269:3 287:24	struggling	248:17	286:4	243:9 263:16
294:9 323:25	251:13	substantial	supply 76:17	267:10 285:23
358:14	stuck 61:7 62:10	199:9 251:24	117:18,19	318:6 326:14
stomachs	72:22	substantially	150:24 241:19	333:10 341:6
210:14	studied 135:4	133:8 168:3	support 54:1	341:17 344:13
stop 28:9 54:3	studies 114:21	250:13 293:1	76:18 88:19	346:22 353:18
62:1 191:19,20	studies 11 1.21 study 185:4	substation 248:2	89:6 94:20	354:17 362:7
193:7 243:22	study 185.4 stuff 58:1	248:4,5,7,8,21	97:12 105:24	surely 32:18
281:21	274:13	248:25	106:10 255:1	220:6
stopped 140:12	style 351:20,22	substitute 292:2	258:10 268:24	Surface 115:14
stops 52:23	subdesignations	292:13	314:17 316:12	surprise 90:6
stops 32:23 store 320:20	115:20	success 337:11	331:23 332:8	surprised 98:6
326:22	subdivision 32:3	337:19 338:1	343:18,19,23	surprising 290:7
stored 94:2	32:13 234:6,8	successful 45:10	345:18,20	surrebuttal
stores 72:14,19	356:2,2	72:5 173:12	supported 45:15	130:25 132:18
50010572.11,17	550.2,2	12.0 110.12	Supported 15.15	150.25 152.10
1				

	1		1	
138:17 155:12	tailored 153:22	197:12 223:1,7	357:15 358:3,8	204:7 233:16
212:18 214:1	tailpipe 76:13	234:14 240:1	361:11 363:1,9	261:8 318:4
250:6,17	take 32:13 33:7	246:15 270:7	363:11	359:22
251:11 282:22	35:16,20 41:24	285:20 325:12	tariffed 67:22	telling 32:24
283:2,9 291:15	43:15,16 47:19	340:5 359:20	84:21 230:17	tells 78:11
291:24 292:2	54:5 56:11	361:7,18	245:8	temporarily
293:5 295:17	59:7 65:24	tangible 107:22	tariffs 33:1	77:18
296:12,17	70:17 77:9	107:25	40:22 41:1	temporary
314:14 348:24	98:9 99:20	tank 154:21	55:13 68:23	75:12 77:22
354:14 369:12	103:16 124:1,9	tap 52:13 142:22	69:5 101:21	124:13 248:12
369:14,16	129:22 130:5	Target 72:19,23	156:21 350:21	ten 130:6 153:13
370:5,13,17,23	154:23 157:6	322:5	354:23,24	173:10,13,14
surrounding	177:8 187:14	tariff 18:11 21:7	355:1	173:16 189:8
209:25	189:1 200:11	25:19 27:3	tax 117:1,1,3,3	190:12 231:21
surveillance	211:14,16	32:25 33:2,7,7	117:11,11	256:22
128:19 162:3	274:15 281:20	33:17 38:15,20	199:10,14	tenant 362:5
suspect 243:23	286:20 287:5	38:24 39:21,22	200:4,13	tenants 362:6
sustain 263:3	289:20 290:16	40:3,12,23	235:20,24	tend 273:3
Sustained	348:8 353:16	41:7,20 43:4,6	taxpayers 276:3	320:17 321:22
334:17	363:1,15	43:14 44:25	276:11	tendency 141:13
Swearengen	taken 160:11	45:15 47:16	technically	tender 133:18
19:15 21:16	200:15 201:4	55:2,8 56:19	30:22	250:24 283:21
swipe 54:18	210:11 345:9	62:21 65:21,24	technological	293:12 296:21
161:18 192:19	345:13,15	67:24 68:15	111:21	349:13
switch 188:2,3	takes 34:21	69:8,13 73:9	technologies	term 172:8
sworn 130:16	92:13 149:9	82:16 85:2	110:19 134:20	252:10 261:2,2
211:25 249:15	155:17 186:25	86:17,22 98:10	206:6 277:12	271:24 315:18
282:2 291:6	209:10 246:12	103:4,6,9	technology	terminology
294:25 348:12	316:11	113:21 129:13	134:22 149:4,7	84:19
system 32:2	talk 25:16 29:9	129:25 130:2	149:9 166:11	terms 65:12
52:15 77:19	37:1 50:15	178:2,4,6	167:10 187:16	101:21 111:19
96:5 98:13,22	54:8 127:25	181:18 183:9	266:24 267:24	111:21 113:20
100:8 102:20	141:16 224:4,6	184:10 185:8	268:9	134:22 179:17
102:23 121:13	238:24 251:12	185:17,24	telephone 61:22	180:9 182:1
176:3,4 177:24	251:16 268:16	194:13,17	61:25 62:1,5,6	221:4 243:21
177:25 188:7	270:1 278:12	230:13,21	361:13 362:1	287:3,10,13
233:15 272:17	talked 30:12	231:18,24	telephones	Terrence 54:11
systems 29:24	165:10 170:22	233:24 234:3	61:19,22	terri 56:14
32:6,8 44:22	172:12 334:4	234:25 240:1,2	361:15,22	territory 26:2,9
50:20,20 51:3	talking 40:22	244:8 267:5,7	tell 24:25 35:25	34:8 38:2,7,10
179:6 268:15	46:10 54:25	287:14 319:16	41:23 69:13	39:8 56:14
272:18	85:21 110:18	321:4,11,11	70:17,19 75:18	57:9 60:17,18
	112:22 115:10	323:18 326:5	81:8 85:17	60:19 61:5,15
T	134:3 144:2	326:12 355:10	135:12 136:22	63:13,19 80:8
T 369:8 370:1	148:3 149:12	355:11,13,19	148:1 149:25	80:12 82:3,24
t-o 132:24	164:9 172:2	355:21,22	150:16 163:25	86:13 91:17
table 103:7	181:21 189:7	356:18,20	167:20 177:23	97:16 114:14
	l			

147:23 155:6 92:7,12 95:5 37:25,25 39:1	255:12 259:4	220:4 232:8,20
160:5 166:5 95:10 101:7 40:19 41:25	262:6 263:10	233:18 239:25
173:19 189:18 113:14 115:7 47:18 53:15,18		248:10 278:19
196:17 197:1 119:25 131:1,4 58:15,17,18	269:7,9 273:8	280:22
217:15,23 132:15,18 69:19,20 70:1	275:8,11,24	things 25:12,15
218:1 226:3,6 133:7,12 134:1 73:17 74:21,22		44:14 51:7
226:21 233:9 140:2 141:14 74:23 77:12	281:16,17,19	55:12 107:11
245:24 310:13 148:11 149:1 78:14 80:17,19	<i>, ,</i>	125:9 138:19
319:13 325:7 155:11 156:9 80:22 83:18	285:2 286:7	149:13 162:19
327:3,4,18 156:10,13 87:7,8 95:6,7,9		173:6 180:7
329:13 330:20 158:7 159:20 95:11 100:19	287:23,24	197:5 200:9
329:13 330:20 138:7 139:20 93:11 100:19 339:8,15 340:1 170:21 174:16 100:21,22	287.23,24 288:1 290:10	209:18 214:5
340:24 341:23 179:1,13 104:23,24	290:12,14	209.18 214.3
, , , , ,	<i>'</i>	
357:1 360:23 181:12 188:14 105:1,2 122:13 370:9 193:19 211:13 122:15 129:18		270:18 271:6 271:21 272:3,8
	294:6,10,14,17	,
Tesla 34:14,15 212:6,18,21 129:20,21 25:25:26:18 214:1:217:21 120:4:11:22	294:20 297:5	272:15 274:10
35:25 36:18 214:1 217:21 130:4,11,23 51:17 140.7 210.6 210.2 121.6 122.5	310:4 311:5	324:4 357:11
51:17 148:7 218:6 219:3 131:6 133:5,10		361:7 364:2
186:19 194:4 227:23 229:5 133:22 135:12 202 12 225 12 225 12 <td< td=""><td>317:20,23</td><td>think 28:5,19,20</td></td<>	317:20,23	think 28:5,19,20
203:13 222:5 235:12 250:6,9 136:2 138:12 202:12 12 120:14:14:025 120:14:14:025	318:13 323:24	34:4 38:23
237:23 242:16 250:12,17 138:16 140:25	323:25 330:10	43:18 48:4
Teslas 203:15 252:2 259:12 151:14 155:21	330:13 331:5	49:5 50:5
test 106:24 261:13 262:20 157:9,15 158:5	<i>'</i>	51:10,11,19
109:19 118:24 262:23 265:1 158:7 160:23	338:22,25	53:2 56:18
137:17 268:7 270:6 171:12,24	339:20 342:9	57:1 66:13
testified 114:6 273:20 278:13 173:7 174:7	348:7 350:24	67:9 68:8,19
116:10 118:1 278:24 282:16 175:18 186:6	353:12,25	70:16 72:7,17
130:17 157:23 282:22 283:10 193:14 194:24	354:2 358:12	73:6 75:13
212:1 217:24 284:22 286:20 196:5,10	358:14,16	76:19 77:24
224:19 227:4 290:2 291:15 197:18 200:18	359:6 362:20	78:3,22 80:13
249:16 282:3 291:19,22,25 200:20 201:1	362:21	82:20 87:14
291:7 295:1 292:23 293:5 202:6 204:25	thankfully	90:6 94:7,14
348:13 294:10,15 205:4 206:2	115:2	95:21 97:10,19
testify 130:16 295:15,16,22 207:12 210:13	Thanks 269:16	97:22 98:25
211:25 223:10 295:25 296:13 211:11,12	theme 24:16,16	100:7,10,15
249:15 282:2 314:14 318:20 216:8,20,24	themes 210:11	104:13,15,19
291:6 294:25 324:1 338:2,3 217:13 218:24	theory 119:6	104:20,21
348:12 347:9,12 348:7 221:12 226:7,7	they'd 336:7	105:5,19
testifying 90:13 348:22,24 229:19 230:5	337:24	107:24 110:20
250:2 349:3 354:15 235:10,13	thing 30:22	113:25 115:8
testimonies 30:6 358:15 369:11 237:15 239:23	37:17 47:23	120:23 121:24
47:11 106:8 369:13,15,17 240:19 241:23	71:21 78:16	146:5,8 148:14
296:17 370:4,6,12,14 242:12,24	82:5 98:12	148:23 158:13
testimony 27:25 370:18,21,23 243:25 244:3	103:19 127:22	161:7 162:6
testimony 27.23 570.18,21,23 245.25 244.5	102.12.21	166:16 168:4
34:19 35:8,9 text 89:9 192:21 249:6,7,10	183:13,21	100.10 108.4
	183:13,21 192:1,12 200:1	170:12,15
34:19 35:8,9 text 89:9 192:21 249:6,7,10	<i>'</i>	

176:14 179:8	362:22	341:5,8,13	370:24	274:19 278:2,6
179:18 183:17	thinking 137:22	342:5,9 361:14	time 21:4 23:10	278:19,21
185:21 186:1	148:16 176:18	362:13 365:4	23:24 34:21	281:9 283:13
186:19 195:4	180:1 231:21	368:8,15,18	40:10 43:12,17	283:22 284:5
196:20 202:18	234:5,10,11	THOMSON	47:18 54:6,7	285:1,5 286:15
206:18 208:11	third 25:6 27:2	71:14	55:13,13 57:1	286:17 289:3,9
214:12,13	27:17 31:12	thought 64:9,13	61:25 70:24	292:23 316:17
219:8,18,19	45:22 49:11	65:17 84:6	79:3 82:8 97:6	322:10 327:22
220:1,5 221:24	51:21 56:5,10	85:5 147:17	98:17 99:18,23	336:14,19
221:24 222:2,7	56:12 57:6	188:1 269:25	100:2,10,13	344:24 345:22
222:8,10,14,16	59:17 60:22	290:25 324:11	101:6 114:10	349:22 364:4
222:21 225:16	61:4,22 63:12	333:20 350:3	118:12 119:22	371:11
225:23,24	63:15 75:7,17	thoughts 271:22	120:8,12,12,16	time-based
227:9,13,19	86:25 114:20	thousand 80:9	124:7,10,13,15	138:20
228:5,5,25	129:15 145:21	80:14 190:2	124:17 125:15	timeline 256:25
229:7,20 230:3	145:25 146:13	thousands 126:9	127:24 135:3	333:4
231:1 232:3,7	147:6,12	151:12 226:9	139:17,21	timelines 332:19
232:10,18,24	182:15 184:3	226:10	140:9 141:17	timely 153:4,5
233:19 234:2,2	232:11 237:22	three 26:23 27:4	153:17 154:7	155:3 200:1
235:25 236:7,7	240:3,7,14,25	27:13,20 33:24	154:22 155:14	times 27:10 77:5
236:8,15 237:5	241:17 266:3	44:13,17 47:12	156:5,24 157:4	98:21 123:8
237:14 238:3	285:18 286:21	47:13 92:5	157:4,6 159:18	124:24 128:2
238:18,22	286:24 316:7	105:6 132:22	160:24 163:10	153:13 169:8
239:14,21	324:21 331:17	159:19 163:14	168:1,16,21,23	169:14,19
241:2,8,10,11	347:15	165:23 190:2	175:14 176:8	179:22 202:7,9
243:8,15 245:1	thirdparty 61:4	192:12,13	176:10,12,20	203:7 210:9
246:3 247:4,7	Thomas 211:22	194:16 233:22	177:8 181:2,6	358:5
247:11,11,23	211:24 212:15	236:6,8,11,13	184:8 187:8	title 295:11
252:3 259:19	366:9 369:15	255:3 278:20	189:1 192:9,10	352:2,21
260:19,25	Thompson 19:4	279:4,21 280:9	192:14,24	titles 296:3
261:12,21	21:20 58:23,24	281:5 316:22	201:14,16,20	today 21:3 24:16
262:1,25 263:8	64:25 65:1,11	318:24 319:14	202:4 203:1	28:1 37:1
271:23,25	65:22 66:3,10	330:19 332:2	205:25 207:13	45:20 48:3
274:4 276:13	66:20,24 67:2	334:24 336:6	207:16,23	61:20 82:3,3
278:1 279:16	67:5,9,15,25	347:10	208:1,5,13	90:13 92:13
281:6,9 284:25	68:13,16,25	three-year	209:10 210:20	101:5 103:25
285:16 288:16	69:15,18,20,25	185:3,4 219:13	211:8 212:24	121:25 125:1
322:18 324:5	70:5,10,14	227:24 233:19	221:9 223:14	127:4 131:4
324:15,17	71:2,19,25	244:20 278:21	223:22 224:1	133:7 152:5
325:17 326:4	72:6 73:11,14	throw 64:21	225:8,9 226:17	164:12 166:22
326:10 327:13	73:23 74:3,8	throws 187:10	226:22,24	174:10,13
327:15,17	74:23 77:24	tie 263:4	227:3,5 236:14	175:13 182:21
329:3 331:25	90:5 111:8	Tim 101:8	236:16 246:13	183:16 190:7
338:7 353:16	134:11 310:4,6	104:14,21	246:24 247:1,6	200:14 217:19
353:20 354:15	311:5 334:21	348:10,11,19	247:12 255:5	217:22 250:3,9
355:12,14	335:14 339:5	348:21 368:20	259:11,20,23	257:8,9 280:6
361:14,16	340:10,25	369:2 370:22	260:4 269:12	280:6 296:17
	l	l	I	

	_	_	_	_
324:18 326:11	18:3	315:7	tune 24:19	200:14 350:22
331:24 343:23	transfer 188:5	trends 178:20	turn 75:11 83:15	typo 131:14
345:11 349:7	transformed	tribunals 59:6	162:17 219:6	
358:5 362:10	75:25 234:17	trick 75:23	224:18 251:10	U
362:23 363:20	transformer	tried 320:4	269:22 290:23	U.S 108:11
told 128:4 170:6	142:19 145:2,4	360:5	turning 68:2	115:13 121:1
toll 272:21	145:9 239:3,4	trip 152:18	109:8 112:24	208:25 352:15
Tom 194:19	transformers	161:11 247:2	113:13 118:23	ubiquitous
tomorrow	145:5 315:5	trips 191:18	354:14	160:16
342:21 363:21	transmission	trouble 66:13	turns 215:13	UCC 137:17
tools 88:11	29:24 44:21	truck 190:19	Tuxedo 20:23	UCT 137:17
top 47:14 214:2	52:16	true 67:15 82:25	22:17	UEC 369:9
218:4 231:13	transmit 29:25	112:6 157:1	Twelve 144:10	Uh-huh 167:18
275:2 292:16	44:22	169:12,12	twice 118:10	257:18 278:15
327:10 351:20	transmitted	213:5 221:10	two 26:6,9 35:4	313:22 317:3
topic 27:7	59:16	243:5 252:4	62:16 65:5,6	ultimate 217:15
topics 261:18	transmitting	261:19 286:2	91:25 94:24	219:1,2
total 46:11	31:1 51:22	312:19 349:9	105:6 106:17	ultimately 29:16
148:21 155:18	transparency	truly 36:12	106:20 112:17	30:10 31:20
170:24 180:23	263:7	37:17 47:7	115:20 117:11	39:9 45:24
180:23 217:18	transport 197:7	94:7 166:21	117:12 120:18	46:4 51:23
352:17	197:10	207:4	123:8 131:18	53:8 56:23
totaled 190:25	transportation	Truman 18:21	131:19 132:19	279:11 285:7
199:25	115:15 117:20	20:5	145:5 158:3,4	338:18 362:8
totaling 339:15	126:16,17	truth 130:16,17	158:6 171:24	unattended
339:16	135:1,10	130:17 191:1	200:9 225:1,17	161:24
Totally 207:18	187:15 260:11	211:25 212:1,1	235:15 236:4,5	unavailable
touched 115:9	travel 34:12	249:15,16,16	236:9,17 241:9	45:6
195:11	81:5,8 154:16	282:2,3,3	268:18 276:13	unaware 227:7
tourist 93:12	156:19 178:17	291:6,7,7	276:14 281:22	uncertainty
towed 153:19	187:17 195:19	294:25 295:1,1	282:18 295:15	114:1 128:3
Towers 359:24	195:22,23	348:12,13,13	295:15 322:5,6	289:22
362:1	209:4 258:22	try 28:3 36:23	324:4 326:19	unclear 350:18
town 39:13 54:2	259:3	105:16 121:23	326:22 340:2	under-earning
tracked 68:17	traveled 128:21	141:19 228:6	two-way 110:17	182:11
traditional	153:24	270:19 281:20	type 52:17 55:8	undercut 112:8
72:13 73:1	traveling 207:21	350:3 363:23	100:15 177:24	understand
Traditionally	246:19	363:25	186:4 209:22	47:22 49:25
60:18	traverse 109:11	trying 25:9	266:10 318:4	50:4,9 57:10
traffic 173:5	treat 64:5,6	42:15 51:12	types 109:1	62:8 65:4 66:8
180:3	65:18,18 74:5	53:13 71:22	134:19 347:22	67:17 71:22
transaction	treated 97:14	141:18 188:14	347:25	89:23 99:23
84:15,17 182:5	359:13	196:19 203:10	typical 94:3	126:21 139:3
182:6	treatment	211:15 268:14	204:8,11	141:15 146:25
transcribed	135:13	271:9,20 272:2	204.8,11 223:16 347:15	151:22 155:11
371:12	treats 65:14,16	272:5 280:18	<i>typically</i> 68:5	166:12 170:12
TRANSCRIPT	trenching 315:6	289:17 325:25	69:5,8 170:9	170:17 182:25
	a chunng 515.0	207.17 323.23	07.5,0 170.7	1,011, 102.20
1	•	•	•	•

183:22,24	unjust 120:3	169:7,8 194:12	49:6 50:18	V 205:10,11
203:2 214:15	unplug 140:15	201:14,17,20	51:2,13 53:12	valid 71:6
216:2 217:20	unreasonable	201:22 202:4	59:11,21,24	validation 88:24
236:18 267:11	120:3	203:1 207:9,13	60:7,24 63:6	valley 102:21
274:4 328:11	unregulated	207:16 208:5	67:21 69:5	valleys 180:6
329:6 354:16	64:6,9 65:16	208:12,13	71:16 75:10,25	value 180:15,25
354:17 356:24	73:16 86:15	210:20 211:8	78:13 81:23	180:25 181:3
understanding	93:8 99:11	223:14,22	82:23 83:4,11	van 190:25
67:2 83:24	245:12	224:2 226:17	85:1,15 87:4	199:25
96:2 119:16	unsuccessful	226:22,24	91:4 93:23	vandalized
156:23 157:2	45:12	227:3,5 230:24	98:14 99:16	164:17,19
171:3 266:23	untariffed 67:12	240:16 247:1	102:9,16	variable 323:10
274:21 354:23	unusual 248:17	247:12 259:11	106:17 107:8	variety 60:4
355:7 362:11	upfront 114:17	259:20,23	124:8 142:15	127:9 261:4,18
understood	265:7,18	260:4 263:19	143:3 171:20	279:23 333:7,8
168:2	uptake 289:23	264:11 278:2	180:19,20	various 43:16
underwrite	urge 141:16	322:1 325:15	239:1,5,7,18	106:8 117:4
64:23	urgent 91:20	327:22 336:7	239:19 244:14	135:2,4 152:24
underwriting	176:14	337:9 352:23	244:16 248:1	206:11 209:14
64:19	urging 97:12	useful 148:25	248:11 254:4	256:9
undue 43:21	usage 102:18	166:6 175:3	255:3,18 260:9	vast 127:18
unequivocally	202:3,5 254:21	184:23	261:3 268:13	129:1 156:14
58:10	use 26:12 31:17	users 93:9 102:9	270:11 271:8	160:25 161:2
unfairly 25:11	31:19 32:23	102:10	271:13 274:11	220:2,6
unfettered	33:6,7,11,12	uses 76:1 128:1	274:17 279:17	vehicle 18:11
111:25	33:14 34:16,19	171:24	280:1 286:23	21:7 25:7,23
unfortunately	34:20 39:12	usually 274:7	287:6,10,14	26:4,8 30:4
272:11 291:18	44:20,25 51:1	278:20	288:10 289:1	33:6,10 34:6
297:8	51:17 52:18	utilities 48:11	314:20 315:10	34:23 45:4
Union 18:10	55:9,13 57:12	84:24 89:12,18	315:13,16,21	47:2 53:25
19:13 21:5	76:2 77:7	90:2 94:21,25	316:3,12,23	55:3 57:7 62:8
89:22 340:19	78:19 88:3	101:15,19	325:16,19	73:25 81:11
344:21 346:20	92:22 98:8,17	102:3 106:3	326:6 336:5	82:4 84:15
unique 136:19	99:19,24 100:2	108:17 122:2	337:23 344:9	86:25 87:20
326:17	100:13 106:20	136:18 196:13	347:4,11,16	88:2,10,19
unit 43:19 50:25	107:2 108:22	226:19 238:15	355:6,25	89:3 90:3,14
119:19,21,22	110:23 124:7	239:18 244:17	356:16 357:8	90:23,24 91:3
325:9	124:10,13,15	247:22 248:20	357:12 359:13	91:5,16 92:15
United 127:3	124:17 125:15	254:20,22	360:4,8,18	93:16 94:18,22
174:9,13 207:2	126:2 127:24	255:6 266:1	361:10	98:2,11,16
256:18 333:14	136:13 143:6	271:5 279:19	utility's 99:3	101:17 102:2
338:12	143:17,21,23	280:9 281:6	utilization 258:4	108:6,13 114:7
units 206:14	147:13 155:10	326:8 354:18	271:21	123:12 124:18
Universities	155:17 156:5	354:19	utilize 120:20	125:18,21,24
89:13 93:11	156:24 157:4,7	utility 28:17,18	utilizing 29:18	128:12 134:6
University	162:13 165:11	32:16,17,19		134:14,23
89:20	168:1,16,21,23	33:20 39:6	V	138:22 140:4,8
	, -, ,			

140:19,21	138:24 143:19	169:11	W	329:1,2,7
142:9 143:16	153:11,23	version 114:25	W 18:21 19:22	332:1 334:24
152:2,16 153:4	160:3,4,5	115:3	20:5 22:22	341:16 342:17
156:18 159:1	166:22 167:2,5	versus 66:7	wait 80:16	354:16 357:21
160:10,13	167:8,14 172:9	121:2 178:11	104:23 266:3	358:9 362:14
162:17 165:4	173:25 174:1,2	210:21 269:18	waiting 37:8	362:16 364:5
167:9 168:5,14	174:3,6,9,17	323:1	waived 109:7	wanted 24:25
168:24 176:18	176:10,16	vested 51:4	waiver 108:16	62:1 71:21
177:4 186:24	183:16 188:15	viable 183:15,20	108:20,24	107:16 108:8
186:25 187:10	188:17,18,21	246:7	240:2 352:5	109:24 110:14
188:9 189:21	189:3,11,13,15	Vice 90:12	353:2 369:24	111:4 129:24
190:23,25	189:20 190:4,6	295:12 296:4	Wal-Mart 322:5	173:4 182:15
191:4 192:17	190:15 200:6,6	Victor 205:11	326:19	193:7,18 205:8
192:21,25	204:5,10	view 62:12	walk 45:13	206:2 208:15
193:1 195:24	206:23 207:7,7	74:15 82:21	53:23 54:6	214:6 232:14
203:18,21	210:20 217:14	110:9 323:20	82:8 128:12	235:3,18
204:14 205:16	218:19 221:22	357:17	wall 279:19	245:18 264:23
205:23 206:22	221:24 222:1,5	viewed 68:18	359:23 362:1	320:2 331:7
207:2 209:11	232:6,9 236:13	views 60:3	walled 280:8	357:3 359:14
218:10 238:11	236:15,17	violating 66:18	want 24:11	wanting 71:21
241:2 246:21	237:11 246:12	66:22 67:13	25:18 26:5,6,7	340:5
253:24 254:24	257:13,21	violation 63:16	26:9 29:20	wants 50:3
260:16 261:10	258:11,17,21	237:24 238:6	30:11 34:12,13	56:10 63:24
262:4 268:8,11	267:1 268:17	360:14 361:5	35:2,5,11 36:5	233:2 247:2,3
268:22 269:19	268:18,19	virtually 123:22	39:4,9,10,10	356:14
276:9,11	277:7,8 279:17	125:1 151:7	41:2,12 42:3,4	warning 91:11
277:12 279:14	285:8,9,18,19	154:21 192:16	42:5,8,20	91:11
279:25 280:17	331:21 352:17	221:1,10	45:18 47:22	warranted
280:20 286:1,2	velocity 192:16	virtue 92:16	48:19 49:22	258:10,21
286:5 288:15	vending 163:3	visit 87:21	50:4 53:13	268:5
289:1 322:7,11	vendor 91:13	visitors 93:21	54:3,15 56:25	warrantied
343:24 350:6	150:6,8,19,24	visual 27:9	57:11,16,24	175:6
353:5	324:21 325:13	voir 341:5,7	58:3 64:10,13	warranty 88:23
vehicles 30:2	328:12 338:17	368:18	64:14 69:10	Warren 40:6
32:23 34:7,15	347:15	Vol 297:13	71:22 72:3,4	Warrenton
36:23 39:12	vendors 46:20	368:5,7 369:18	72:19 73:9	163:24 165:24
42:10 43:15	149:19 150:2	volatile 118:8	98:2 99:12	195:5,8
75:676:25	150:17 208:25	volatility 76:16	104:5 120:22	Washington
78:20 79:18	312:5,10	118:15	145:22 154:9	89:20
80:7 81:14,16	316:10,13	Volkswagon	177:8 196:9,10	wasn't 48:13
82:7 118:21	325:6 327:1,2	333:15	205:7 206:4	62:2 112:18
120:10 125:3	329:11 336:24	Volt 143:22	210:17 233:6	264:16,16,18
127:3,5,9,13	337:3 338:5,6	187:2 193:2	269:22 277:25	280:15 311:20
127:17,21	347:3	204:18 205:9	278:12 290:23	watching 193:21
132:9 134:22	venture 64:20	205:14	318:10 322:1,3	water 32:1,2
135:7,19	ventures 99:15	volume 18:8	322:18 326:14	52:3,4,6,7,7,11
137:23 138:15	verbally 160:21	183:15	326:19 328:22	watts 236:5
1	I	I	1	1

	1		1	1
way 26:14 31:9	115:10 130:9	294:11	wife 54:8 186:16	252:9 291:23
42:6 62:7,9,24	141:18 144:13	welfare 110:9	190:25 193:19	292:1,2
72:18 73:2	158:1,1 161:18	well-lit 209:20	196:1,3 199:24	worded 182:1
74:6,6 84:12	162:8 163:23	210:8	203:17	words 59:22
85:25 86:8,10	164:20 170:23	well-traveled	wife's 187:18	102:20 131:15
97:23 100:7,10	176:8 177:18	25:25	188:4	131:18,19,22
123:4 124:6	192:15,16	wells 285:25	willing 40:6	132:6,22 133:2
127:8 129:4	196:19 197:15	went 36:15	146:7 177:9	203:9
138:13 150:11	202:18 203:3	111:24 112:6	224:9,21 225:4	wordy 180:14
151:7 153:17	205:10 206:19	257:7 269:19	225:6,12	work 50:24
153:20 161:13	207:10,19	276:13 279:2	234:23 331:8	55:19 89:3
182:13 187:3	208:21 209:2,4	332:25 357:6	356:19	93:11 110:22
208:14 222:12	209:5 211:2,20	361:3	willingly 145:24	118:20 123:14
223:4 235:6	214:12 215:1	Wentzville	146:17	123:16 126:14
238:21,23	224:20,20	34:10 45:7	win 316:13	134:3,5,6,7,25
239:22 265:23	225:4 230:16	54:1 116:12,15	winner 316:11	177:24 178:10
267:12 277:2	233:7,7,7	116:17 148:19	wish 194:12	184:22 194:14
280:18 315:21	234:20 240:1	153:2 155:8	wishes 321:3	206:12 231:5
321:10 326:18	241:18 246:14	197:2 331:3	Withdrawn	231:22 243:24
338:19	262:13 272:12	341:15	334:16	249:24 270:19
ways 57:3 71:6	276:21,23	weren't 46:12	witness 36:14	270:22 272:9
92:11 121:23	278:17 280:2,2	214:21 234:10	81:22 130:10	274:24 278:4
178:1 221:13	280:5 290:20	234:11 281:6	133:19 160:20	318:6 321:24
we'll 23:17 27:9	310:1 325:21	west 22:1 148:19	169:10 181:9	346:24 347:4
40:15,19 45:10	325:25 326:9,9	155:9 165:24	211:21 212:9	worked 31:25
105:6 148:9	350:19 361:18	195:7 196:16	218:17 249:9	43:7 57:23
149:25 211:17	362:23 363:19	197:2 198:12	250:25 281:21	135:14 361:6,9
233:20 290:16	364:7,7	248:3 282:10	281:23 283:21	workers 209:25
363:22,23,25	we've 33:24 43:8	331:3 333:13	290:20 291:2	working 37:19
we're 24:25 25:4	47:11 58:6	western 196:24	293:12 294:18	50:21 228:22
25:5,9,17,22	72:23 118:7	360:21,21	348:8 349:14	269:25,25
29:20,23,25	146:3 162:8	westernmost	365:13 366:2,9	270:1 324:8,12
33:5,20 34:24	163:6 165:25	153:2 155:7	367:2,14,20	331:19 333:24
36:20 37:8	201:8 206:11	wet 271:10	368:3,20 369:2	works 31:5
38:24 39:6,6	210:11 226:14	wheel 285:25	witness' 261:13	108:18 187:19
40:22 41:1,15	231:20 245:17	Whitney 19:4	witnesses 23:17	246:11
42:17,18,22	290:15 325:3	21:19	23:19 35:4	workshop 102:6
46:5,19 47:4	331:14 340:5	whole-heartedly	36:25 39:24	324:12
48:3 51:14,22	343:20 345:5	59:1	69:13 74:21	World 289:5
51:23 52:8,20	347:5	wholesale 38:16	141:13 261:18	worlds 231:8
52:22 54:17	weather 363:21	129:14	281:22 363:24	worried 328:10
65:20 67:12	web 89:2,10	wi-fi 93:20	wonder 179:2	worry 37:17
70:11 75:19	151:9 165:19	346:7	wondered	worry-free
78:11 99:10	344:3	wide 261:18	208:20	158:8,13
101:12 102:21	week 363:22	wider 45:9	word 131:10	worrying
103:8,18	weeks 191:2	widespread	132:8,12,12,22	126:24
110:18 112:22	welcome 269:7	81:17	132:23 133:3	worth 193:9,10
	1	l	I	I

wouldn't 41:19	260:24 264:2	York 83:21,25	107 190:22	187:4
51:6 74:4	264:22,23	84:4,12,22,23	195:21 204:8	17 127:5 140:13
149:15 153:7	267:13 269:16	85:6,8 123:19	11 131:18	155:13 172:15
183:9 184:7	273:6,23 274:4	123:21,22,24	138:18 188:15	174:17 224:4
191:18 241:21	275:9 277:6,12	128:24 221:2,8	229:9	229:9 257:20
259:1 264:9	277:14 278:23	238:10	115 282:10	17,000 200:17
wrapping 44:10	278:25 279:12	York's 221:3	115 202:10 1157 20:5	17,500 200:8,15
write 56:1	318:16 323:16	I UIK 5 221.5	113 7 20.3 12 18:7 136:17	17,300 200.8,13 175 365:20
written 96:7	327:7,17	Z	137:5 155:12	175 505:20 17th 249:25
133:6 243:13	342:13	Z 48:25	157:23,25	18 131:15,18,22
250:12 295:15	year 88:22 114:9	zero 254:24	224:4	132:21 159:21
349:6	127:4 167:3	279:24	1200 348:19	188:19 189:10
wrong 80:14	172:1 174:17		1200 348.17 122 365:11	189:21 229:9
wrote 121:9	180:22,25	0	13 133:1 136:4,4	318:20
172:24,25	180.22,25	001 133:13	136:17	186 365:21
Wynkoup 20:14	182:11,14	002 133:13	130 193:9	19 132:22
22:11	188:25 199:20	004 250:18,22	365:14	136:17 292:6
22.11	204:20 218:7,7	04 220:1	133 365:15	339:19
X	219:2,4,6,8,10	0538 371:7,20	369:11,11,12	190 155:10
X 48:25 365:1	235:22 241:9		369:12	1901 19:19
366:1 367:1	248:6 257:6,6	1	137 40:5 363:1,4	212:15
368:1 369:1,8	257:20 276:14	1 29:4 37:7,11	363:17	1913 111:23
370:1	276:14 333:12	46:9 47:23	14 118:3 133:2	123:22 221:6,9
	333:12	58:25 62:13	14 118.5 155.2 14-year 118:1	193 365:22
Y	years 81:22	69:1,4 82:6	14-year 118.1 140 193:10	193 505.22 1936 121:3
Y 48:25	117:12 118:3,8	161:10 188:19	140 195.10 141 365:16	1950 121.5 195 365:23
yeah 24:7 40:2	136:14 149:5	189:11 257:9	15 77:9,10	195 365:23 196 365:24
48:13 55:21	166:8 173:10	257:10 292:11	134:11,12	190 365:24 197 366:3
73:14 77:11	173:13,14,16	292:13 295:25	136:14 138:18	197 300.3 1977 110:16
78:22 84:5	173:17 175:6	296:1 369:11	149:5 154:20	199 366:4
100:3 104:19	177:17 180:21	1,000 103:2	166:8 173:17	1990s 134:15
109:6 114:15	180:22 182:8,9	314:11	173:17 180:25	15705 154.15 1st 235:20
136:11 137:4	184:24 187:3	1.9 114:12	184:24 190:12	180 233.20
139:4 152:3	190:11,12	1:45 211:17	207:10 219:10	2
156:10 158:24	194:16 206:25	10 154:20	290:17 318:20	2 43:1 45:2 48:1
159:22,22	206:25,25	190:15 265:9	321:15	48:25 62:14,22
161:2 163:23	200.23,25	296:6 321:15	15-year 114:10	69:5 82:7 88:7
179:24 181:3	215:10 219:4	10,000 199:20	136:7 148:25	113:20,21
187:21 190:16	224:15,20	199:24 200:2	180:14 181:2,3	119:17 120:6
191:2,2 192:8	233:22 248:22	100 45:6 126:13	180.14 181.2,5	138:17 139:6
194:20 197:11	256:22 257:2,4	171:12 187:7	150 145:8	139:12,14,15
221:5 223:21	278:20 279:21	220:5 225:21	150 145.8 151 365:17	145:6 153:10
226:13,20	280:9 284:24	100,000 175:7	151 305.17 1536 20:14	155:5,12 158:3
231:12 235:22	290:3,6 321:15	177:9	22:11	159:21 206:20
236:2 237:1	332:2 334:1,3	101 20:19 23:6	156 365:18	211:7 246:17
240:5 241:5	334:25 336:6,7	365:9	150 365:18 157 365:19	268:5 270:15
243:18,22	347:21	105 365:10	16 132:12 136:3	271:1 314:7
	347.21		10152.12150.5	_,,
	•	•	•	•

319:8,13	2018 186:20	269 367:8	187:12 257:19	354 368:24
328:20 329:20	218:3,14	273 367:9	295:18 296:21	359 369:4
343:17,20,22	229:14	276 367:10	297:1 370:4	360 19:6
344:1 346:16	2022 229:14	277 367:11	300-mile 126:19	365 88:22
346:23 369:12	2030 138:15	282 367:15	301 19:23 20:5	37 132:11
2-A 63:4	189:5 190:9	283 370:12,12	22:1,24 295:18	148:11 319:12
2- C 63:11	2031 166:19	370:13,13	296:21 297:1	325:6 339:6,15
2,000 189:17	2051 100.17 205 366:6	284 367:16	370:5	339:17 340:4
217:25	202 300.0 207 18:21	285-0579 19:20	302 339:11	37,000 189:3,9
2.5 118:4	207 10:21 212 366:10	288 367:17	340:12,13	190:6
20 81:22 104:20	212 369:14,14	29.99 37:15	342:22 343:2	372 369:7
117:8 188:24	213 365:14,14 214 366:11	291 367:21	370:7	386.020 28:21
236:25 284:24	214 300.11 215 366:12	291 307.21 293 370:17,17	307 369:19,19	60:5 83:9
321:15 327:11	213 366:12 217 366:13	295 368:4	307 309.19,19 309 297:13	386.250 28:13
20,000 117:8	21 7 300.13 22 278:25 317:7	295 308.4 296 370:4,4,5,5	310 368:8	29:4 48:21
279:15	2230 19:11	298 297:13	311 368:9	49:16 83:8
2 79:15 200 19:5,10	2230 19:11 23 166:17	270 271.13	312 19:15 21:16	49:10 85:8 86:8
126:23,25	23 100:17 230 191:5 193:3	3	22:12	00.0
158:14,22	204:22 205:25	3 48:1 53:4	313 20:15	4
158:14,22 166:23 176:12		62:15,18,23	368:10	4 185:5,11
280:11	366:14	119:18 132:8	314 19:20 20:11	276:14 291:21
	231-4181 20:11	134:3,10		292:4 354:14
200-plus 126:22	235 366:15	139:10 172:8	317 368:11	369:16
2000 167:3	237 366:16	212:19 213:2	318 368:12	4:50 364:8
190:1	238 158:23	212:19 213:2	319 22:6	40 159:23 187:5
2003 280:25	239 370:21,21	217:4,6 220:14	31st 40:5 199:19	191:5 204:15
2009 134:5,13	23rd 228:23	262:11 297:13	200:12	204:15
279:16	24 51:16 365:3	368:5,7 369:14	32 282:17	40-mile 161:9
201 366:5	24-hour 88:21	369:18	324 368:13	204:13,19
2010 135:3	164:8	3 22:9	33 279:3	40,000 352:19
187:3 205:15	24/7 164:10	3-A 64:2	330 368:14	400 20:19 23:7
257:7 274:24	240 205:25	3,000 189:12,16	334 368:15	187:17
274:25 279:15	241 366:17	190:1,7 217:21	335 368:16	424-6779 20:24
279:15 280:8	242 366:18	3.63 180:18	339 368:17	424-0779 20.24 43 229:13
2011 188:17	244 366:19	181:1	34 132:3,3	45 180:23
189:11,15,19	249 367:3	30 37:15 153:7	341 368:18	211:17 279:1
189:22 206:12	25 137:18,20		343 368:19	450 190:19
274:24	138:1,5,13	154:17,23	370:7,7	
2013 39:22 40:6	154:17 218:8	155:17 170:8	3432 18:21	456 19:16
2015 115:13	250 351:16	177:17 191:24 191:25 192:1	348 368:21	48903 282:11 4C 186:16
174:18	369:16,16		349 368:22	4C 180:10
2016 235:21,22	251 367:4	235:23 274:7	370:23,23	5
333:13,23	253 367:5	327:17	35 132:8 154:23	5 114:9 116:2,5
2017 18:7 21:3	254 351:17,18	30,000 159:2	187:5 205:18	118:4 125:12
176:8 190:21	353:14,21,23	176:11 235:25	252:23	131:8 132:6,7
191:5 199:21	367:6 369:23	236:19 30 000 206:1	350 205:19	155:18 172:13
200:11 225:18	26 180:14	30,000s 206:1	351 368:23	182:11 219:4,6
225:25	264 367:7	300 158:14	353 369:23,23	102.11 217.4,0
	I	I	l	<u> </u>

223:10 292:6	212:16	80 125:3 365:6	
321:15 354:15	63119 20:24	800 22:7	
369:18	22:17	80206 20:14	
50 115:25 116:7	634-2266 19:24	22:12	
145:1 198:8	635-7166 19:17	87 365:7	
236:5 339:16	636-6758 20:20	871 20:23 22:16	
339:17 340:3	636-7551 18:22		
50,000 274:7	650 348:23	9	
50/50 160:6	349:13,17	9 132:21 180:18	
500 188:21	370:21	296:1,4,6	
189:6,7,7,8	651 348:25	90 196:15	
283:2,14,19	349:13,17	90,000 352:20	
370:12	370:23	95 172:18 365:8	
501 283:3,15,19	65101 19:24	95,000 273:22	
370:13	20:19 23:7	99.96 125:2	
522-3304 20:6	65102 19:6,11	219:22	
525 249:25	20:6 22:2		
530,000 127:2	65102-0456		
174:12	19:16		
54 109:11	65109 18:21		
256:16 341:20	67 269:20		
54,000 256:16	68 35:18		
256:16	680 20:5		
540,000 256:18			
550 291:16	7		
293:5,10	7 88:21 182:14		
370:17	214:2 219:8		
550,000 174:11	224:4 260:8		
573 18:22 19:7	314:13 316:9		
19:12,17,24	316:21 317:7		
20:6,20,24	318:19		
590-1720 20:15	7,000 138:14		
	166:18 173:13		
6	173:15,16		
6 115:4 125:12	7,500 200:3		
158:7,11 214:2	7.5 118:3		
217:8 251:11	70,000 222:5		
251:11 253:18	705 20:10		
291:21 292:4	75 153:6 318:21		
292:16 354:15	365:4,5		
363:3,16	751-3234 19:7		
600,000 25:24	751-5324 19:12		
601 19:23 22:23			
614 20:10	8		
63101 20:11	8 131:14,22		
63102 22:8	270:5,6 314:13		
63103 19:19	315:25		