

1 BEFORE THE PUBLIC SERVICE COMMISSION 2 STATE OF MISSOURI 3 4 TRANSCRIPT OF PROCEEDINGS 5 6 Evidentiary Hearing 7 April 8, 2019 8 Jefferson City, Missouri 9 Volume 2 10 11 12 In The Matter Of The Application) File No. Of The Empire District Electric) EA-2019-0010 13 Company For A Certificate Of 14) Convenience And Necessity Related) 15 To Its Customer Savings Plan) 16 NANCY DIPPELL, Presiding SENIOR REGULATORY LAW JUDGE 17 RYAN A. SILVEY, Chairman, 18 WILLIAM P. KENNEY, DANIEL Y. HALL, 19 COMMISSIONERS 20 REPORTED BY: 21 Tracy Taylor, CCR No. 939 TIGER COURT REPORTING, LLC 22 23 24 25

EA-2019-0010 VOL. II

1 APPEARANCES 2 DEAN COOPER Brydon, Swearengen & England, PC 3 312 East Capitol Avenue Jefferson City, Missouri 65102-0456 573.635.7166 4 FOR: Empire District Electric Company 5 SARAH KNOWLTON Liberty Utilities 6 116 North Main Street 7 Concord, New Hampshire 03301 603.724.2123 8 FOR: Empire District Electric Company 9 DAVID WOODSMALL 308 E. High Street, Suite 204 Jefferson City, Missouri 65101 10 573.636.6006 11 FOR: Midwest Energy Consumers Group 12 ROCHELLE L. REEVES 301 W. High Street 13 Jefferson City, Missouri 65102-1157 573.526.2423 14 FOR: Department of Economic Development 15 TIMOTHY OPITZ 409 Vandiver Drive, Building 5, Suite 25 Columbia, Missouri 65202 16 573.825.1796 FOR: Renew Missouri 17 18 JENNIFER S. FRAZIER 2901 W. Truman Boulevard Jefferson City, Missouri 65102-0180 19 573.522.4115 20 FOR: Missouri Department of Conservation 21 STEPHANIE S. BELL Ellinger and Associates, LLC 22 308 E. High Street, Suite 300 Jefferson City, Missouri 65101 23 573.750.4100 FOR: Missouri Department of Conservation 24 25

1	NATHAN CALEB I	WILLIAMS
2	CALLED I	PO Box 2230 Jefferson City, Missouri 65102
3		573.526.1445 Office of the Public Counsel
4		
5	NICOLE CASI AS	SLIN
6		200 Madison Street, Suite 800 PO Box 360
7		Jefferson City, Missouri 65102-0360 573.526.4887
8	FOR:	Staff of the Missouri Public Service Commission
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1 (Empire Exhibits 1, 2, 3-HC, 3-P, 4-HC, 2 4-P, 5-HC, 5-P, 6-HC, 6-P, 7-HC, 7-P, 8, 9-HC, 9-C, 9-P, 10-HC, 10-C, 10-P, 11-HC, 11-P were marked for 3 identification.) 4 JUDGE DIPPELL: Okay. Let's go ahead and 5 6 go on the record. This is April 8th, 2019 and we are 7 here for a hearing in EA-2019-0010 in the matter of 8 the application of the Empire District Electric 9 Company for certificates of convenience and necessity related to wind generation facilities. This case was 10 previously consolidated for all purposes with Case 11 12 Number EA-2019-0118. 13 My name's Nancy Dippell. I'm the 14 Regulatory Law Judge assigned to preside over this 15 hearing. And we're going to begin with entries of 16 appearance; start with Empire. 17 MR. COOPER: Thank you, Your Honor. Dean 18 Cooper with the law firm of Brydon, Swearengen, 19 England, PC, as well as Sarah Knowlton of the Company 20 on behalf of the Empire District Electric Company. JUDGE DIPPELL: Renew Missouri. 21 22 MR. OPITZ: Thank you, Judge. For Renew 23 Missouri, I'm Tim Opitz. And I've provided my information to the court reporter. 24 JUDGE DIPPELL: The National Resources 25

Defense Council and Sierra Club previously asked to be 1 2 excused, and I did so. Missouri Energy Consumers 3 Group. 4 MR. WOODSMALL: Good morning, Your Honor. David Woodsmall on behalf of MECG. 5 JUDGE DIPPELL: Commission Staff? 6 7 MS. MERS: Nicole Mers and Casi Aslin on behalf of the Commission Staff. And our information 8 9 has been provided to the court reporter. JUDGE DIPPELL: Missouri Department of 10 Conservation. 11 12 MS. BELL: Stephanie Bell with Ellinger and Associates, and Jennifer Frazier on behalf of the 13 14 Missouri Department of Conservation. And the court reporter has our information. 15 JUDGE DIPPELL: And the Office of Public 16 17 Counsel. MR. WILLIAMS: Nathan Williams and Caleb 18 Hall appearing on behalf of the public and the Office 19 20 of the Public Counsel. And the court reporter has our contact information. 21 22 JUDGE DIPPELL: And has anyone arrived 23 yet for Division of Energy? Not yet. I'm expecting them to come later, but we will proceed. 24 Okay. I would ask if everybody would 25

1	please silence their cell phones or any other
2	electronic devices. And I did not order a specific
3	list of exhibit numbers so I would like to go ahead
4	and do that now and have you pre-mark your direct
5	filed exhibits.
6	Would Division of Entry or Division of
7	Energy like to make their entry of appearance?
8	MS. REEVES: Yes. I'm Rochelle Reeves.
9	And I apologize for being late. I thought we started
10	at 9:00 this morning.
11	JUDGE DIPPELL: That's quite all right.
12	Okay. I received, before the hearing, a
13	copy of an exhibit list that the Empire District
14	Electric Company put together and beginning with
15	Exhibit Number 1, which is usually the way we assign
16	these numbers. And so just for purposes of this
17	hearing, I'm going to assign Empire Exhibits Number 1
18	through 99 and Staff Numbers 100 through 199 and
19	Public Counsel numbers 200 through 299 and Renew
20	Missouri 300 to 399 and I'm hoping you guys aren't
21	planning on using all of these Division of Energy
22	will be 400 through 499, MECG will be 500 through 599,
23	Missouri Department of Conservation will be 600
24	through 699, and then should National Resources
25	Defense Council and Sierra Club decide at the last

1	minute that they need to participate, they'll be 700
2	through 799.
3	And like I say, Empire gave the court
4	reporter their a copy of their exhibits and I
5	believe she's already had an opportunity to or at
6	least their exhibit list and she's had an opportunity
7	to look at those and we'll make sure those get marked
8	as we go. I also has Staff also given the court
9	reporter copies of exhibits or
10	MS. MERS: Yes. Copies of exhibits and
11	testimony.
12	JUDGE DIPPELL: And Public Counsel?
13	MR. WILLIAMS: Provi I provided the
14	court reporter with copies of the exhibits but they're
15	not numbered.
16	JUDGE DIPPELL: Okay. And I'll just
17	remind you all if you haven't already done so, to give
18	the court reporter copies of exhibits. We will I'm
19	not going to go through and number each each
20	specific one at this time individually, but I will
21	will begin with Empire's we will mark those the way
22	that they are already set out and then when we get to
23	the other witnesses, we'll number them as they come up
24	on the witness stand.
25	I will remind you if there's exhibits

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1	that you have that aren't pre-filed, please provide me
2	with copies for myself and all five of the
3	Commissioners even if not all five of the
4	Commissioners are present at that time so that I can
5	make sure that they have a copy of it. And and
6	also be sure that you give a copy of any exhibits that
7	you have that haven't already been pre-filed to the
8	court reporter.
9	So Friday we had a couple of Stipulation
10	and Agreements filed. They were not unanimous so I'm
11	going to start with the first one that came in, which
12	was the wildlife Stipulation and Agreement. Do we
13	know at this time if there will be any objections to
14	that agreement?
15	MR. COOPER: Yes, Judge. I think we
16	footnoted in there that the parties all parties
17	that were not signatories had affirmatively stated no
18	objection and no request for a hearing on that
19	wildlife stipulation. So I think that it's in a form
20	that it can be treated as unanimous under the rule.
21	JUDGE DIPPELL: Okay. And then with
22	regard to the second Stipulation and Agreement, which
23	purported to resolve all issues, do we know at this
24	time if there will be objection?
25	MR. WILLIAMS: We do not.

1	JUDGE DIPPELL: You do not know if there
2	will be an objection?
3	MR. WILLIAMS: Correct.
4	JUDGE DIPPELL: Okay.
5	MR. WILLIAMS: We got it late Friday.
6	We're still reviewing it.
7	JUDGE DIPPELL: Okay. So then in terms
8	of proceeding, do you want to present that Stipulation
9	and Agreement in your I'm assuming that you will
10	present that as part of your opening statement?
11	MR. COOPER: The Company will, yes, Your
12	Honor. You know, at a minimum, it becomes the the
13	position of the Company so certainly we will talk
14	about it in the opening.
15	JUDGE DIPPELL: Okay. Well, I guess we
16	will proceed with the hearing as originally scheduled
17	with the addition of trying to determine the the
18	significance of the Non-Unanimous Stipulation and
19	agreement that was filed on Friday and how its terms
20	might change the positions of the parties.
21	With regard to the witness order and so
22	forth and the order of opening statements, I was going
23	to adopt the pre-filed order. Has the filing of the
24	Stipulation and Agreements changed any of the witness
25	order or the order of cross-examination that you would

follow? 1 2 MR. COOPER: I believe as to Department of Conservation witnesses, it has. 3 4 JUDGE DIPPELL: Okay. 5 MS. BELL: Yes. The Department of 6 Conservation previously requested that the parties 7 waive cross on the witnesses and all parties did. So unless the Commission has additional questions for the 8 9 witnesses, we were prepared to give an opening. Seeing as I think there's no objection to that 10 stipulation, we're still happy to do that or happy to 11 12 give that time up. 13 And we would request -- we have our exhibits to go ahead and offer of our testimony, but 14 15 then we'd go ahead and request to be excused from the 16 hearing. 17 JUDGE DIPPELL: Okay. I think I would 18 have you go ahead and give an opening just so that we can hear about that stipulation. And then if there 19 20 are any Commission questions, I will let you know. And then Renew Missouri had listed on the 21 witness list that its witness needed to testify on 22 23 Tuesday. Is that still accurate? 24 MR. OPITZ: Yes, that's still accurate, 25 Judge.

1	JUDGE DIPPELL: Okay. Okay. If you'll
2	hold bear with me just one moment. Would Public
3	Counsel like some more time to review that Stipulation
4	and Agreement before witnesses begin or are you
5	MR. WILLIAMS: Perhaps. Why don't we go
б	ahead and do the openings and then take a break and
7	let you know.
8	JUDGE DIPPELL: Okay. We'll do that.
9	We'll start with openings and then after that, we'll
10	reassess and see where we are with going forward with
11	witnesses.
12	All right then. Just want to notify
13	everybody that we're getting ready to begin. All
14	right. If nobody has anything further, we can go
15	ahead and start with opening statements. And the
16	first up is the Company.
17	MR. COOPER: Take me just a minute to get
18	set up, Judge. As I mentioned earlier, my name is
19	Dean Cooper. I'll be representing the Empire District
20	Electric Company today, along with Ms. Sarah Knowlton
21	in the hearing.
22	Before I go any further, I will say that
23	we'll have to see how this PowerPoint experience goes.
24	This is the first time I've tried to use the remote in
25	the room. Many I've seen many others do it quite

successfully, but if it goes awry, we do have copies 1 2 of the documents out there for you. JUDGE DIPPELL: And we'll see how I do. 3 I have had trouble in the past, but looks like I've 4 5 got your presentation up on the -- the video so --6 MR. COOPER: Very good. Well, we'll --7 I was thinking before I -- the last time I we'll see. 8 made up one of these for a hearing, it had the blue at 9 the top because the person that created the template for me put blue at the top. So if at some point in 10 the future I come in and I have one with green, you'll 11 12 know that my skill level has -- has moved forward. We're here today to discuss -- or to 13 consider the second step in what has been a two-step 14 15 process regarding Empire's proposal to develop 600 megawatts of wind generation in order to deliver 16 17 significant savings to its customers. Step one of this process, which was Case 18 EO-2018-0092, which is sometimes called the customer 19 20 savings plan case, in that case the Commission determined that Empire's proposed acquisition of 600 21 megawatts of additional wind generation assets is 22 clearly aligned with the public policy of the state --23 of the Commission and the state. 24 As we now move forward with step two of 25

1	the regulatory process, that is the request for
2	certificates of convenience and necessity, the three
3	wind projects comprising the 600 megawatts of
4	generation, this remains the case. Empire will
5	demonstrate through the testimony of its witnesses
б	that the acquisition of these wind projects, two of
7	which are in southwest Missouri and one of which is in
8	Kansas, are necessary or convenient for the public
9	service as contemplated by the Missouri CCN statute.
10	COMMISSIONER HALL: Mr. Cooper, let me
11	ask you a quick question.
12	MR. COOPER: Yes, Commissioner.
13	COMMISSIONER HALL: I'm sorry to
14	interrupt, but I'm wondering what what do you think
15	the legal significance was of the Commission's ruling
16	in that prior case on this issue?
17	MR. COOPER: Well, I hope that it was a
18	indication of the Commission's thoughts at that point
19	in time based upon the record that was presented to it
20	in that case. Don't believe I'd go so far as to say
21	that the Commission's prohibited from doing something
22	different, but again, I think that you'll find that
23	the evidence will be very similar in this case that
24	you'll see.
25	COMMISSIONER HALL: So there's no legal

1 significance to that ruling? I mean it's an 2 indication of that Commission's view of these issues, which is pretty telling because it's the same 3 Commission, but -- but from a legal perspective, it 4 5 doesn't have any significance? 6 MR. COOPER: We certainly to this point 7 have not argued that -- that the Commission is bound 8 by that -- that determination. 9 COMMISSIONER HALL: All right. Thank 10 you. 11 MR. COOPER: Now, you may recall from the 12 customer savings plan docket from -- from last year that we were discussing, that -- that Empire arrived 13 at this plant to acquire wind generation after 14 conducting an analysis to determine whether it could 15 deliver savings to its customers through the 16 17 acquisition of renewable resources and the retirement of a coal-fired power plant. We referred to that --18 that analysis as the generation fleet savings 19 20 analysis. It further considered whether using tax equity financing could deliver savings to -- to the 21 22 customers. 23 Empire selected wind projects on the basis of a detailed portfolio analysis using industry 24 standard modeling software and detailed and 25

wide-ranging scenarios to test risk. That analysis 1 2 included evaluating alternative portfolios across scenarios that flexed fuel and market prices, CO2 3 policy, nodal basis, load and the build-out of wind 4 in -- in SPP. 5 6 All in all, Empire ran 54 scenario 7 combinations, as well as the high wind case requested 8 by the parties. The modeling indicated that adding 9 wind generation to Empire's portfolio in or near Empire's service territory was not only possible, but 10 brought significant benefits to Empire's customers. 11 12 In relation to the status quo, the modeling showed that the added wind generation 13 14 provided less risk for customers when measured against 15 three different market price cases; a high market price case, a base market price case and a low market 16 17 price.

The purposes of the analysis was to test to see how wind resources would perform under a wide range of market scenarios. The analysis demonstrated that in all three scenarios, significant savings would be delivered to Empire's customers.

23 This makes sense because relative to 24 conventional resources, winds cost are more certain. 25 The vast majority of a wind project's cost is incurred

during construction and our reasonably foreseeable. 1 2 Wind fuel prep-- fossil fuel plants, I'm sorry, on the on the other hand, tend to have significant fuel costs 3 that are a major expense throughout the plant's life. 4 5 A key component, as we mentioned before, 6 of the savings is derived from the availability of the 7 production tax credits and tax equity financing. Tax 8 equity financing allows for quick monetization of 9 those incentives to the customer's benefit as the tax equity partner will invest for approximately half of 10 the cost of the wind projects. 11 12 Now, in Case EO-2018-0092, step one of this proposal, Empire, Staff, Midwest Energy Consumers 13 Group, Renew advocates -- Renew Missouri advocates, 14 and the Division of Energy entered into a 15 Non-Unanimous Stipulation in which Empire agreed to 16 17 reduce its proposed acquisition of wind generation 18 from the original 800 megawatts it had sought to 600 megawatts. It also agreed to delay the retirement of 19 20 Asbury, the coal-fired plant that I referred to earlier. 21 22 While the Commission did not adopt the 23 Non-Unanimous Stipulation in its Report and Order in that case, the Commission did make several statements 24

25 in regard to Empire's wind generation proposal. On

the -- on the screen and on the handout is one of 1 2 those -- those statements. And you'll see that it's a discussion of 3 4 pop-- public policy of this state to diversify energy supply. And it concludes with the statement that I 5 had quoted previously, that the 600 megawatts is 6 7 aligned with the public policy. 8 That order further provided as follows: 9 That adding wind generation to Empire's portfolio significantly reduces financial risk for Empire's 10 customers. And concludes by -- by citing Empire's 11 12 credible analysis shows that adding up to 600 megawatts of wind to its portfolio would result in 13 lower risk to that portfolio under three different 14 market scenarios relative to Empire's current resource 15 plan. We believe that to continue to be the case. 16 17 With the conclusion to step one, Empire subsequently entered into the purchase and sale 18 agreements that the Company is presenting in this case 19 20 with its request for certificates of convenience and necessity. 21 22 First, Empire has contracted to purchase 23 approximat -- well, globally Empire has contracted to purchase approximately 600 megawatts of wind 24 generation once it's been constructed and in service. 25

Two of those projects as I mentioned before are in 1 2 southwest Missouri. On October 12, 2018, Empire entered into 3 4 two purchase and sale agreements, one for each 5 project, with Tenaska Missouri Matrix Wind Holdings and Steelhead Missouri Matrix Wind Holdings. 6 Those 7 two projects again are called Kings Point and North Fork Ridge. 8 9 This is a map of Kings Point. Along with North Fork Ridge, their facilities and associated 10 11 generation tie lines are located entirely within the 12 state of Missouri, primarily centered not far from -from Joplin, Missouri. This is a map of -- of North 13 Fork as well. 14 15 The partner -- the primary partner, Tenaska, is based in Omaha, Nebraska. It is a leading 16 17 independent power producer in the United States. Ιt 18 is ranked by Forbes among the largest private US companies and has plant and office locations across 19 20 the United States and in Canada. That company has developed more than 21 10,000 megawatts of fossil fuel and renewable power 22 23 generation projects, both in the United States and internationally and has vast experience owning, 24 25 operating and managing these types of assets.

1	Currently Tenaska has approximately 686 megawatts of
2	wind projects in mid to advanced stage wind
3	development in the United States.
4	And if I failed to mention it and I
5	think it was on the first slide each of these
6	projects, Kings Point and North Fork Ridge, is
7	designed for approximately 150 megawatts.
8	The third project is a project that I
9	mentioned that's in the state of Kansas, located in
10	Neosho County, Kansas and and referred to Neosho
11	Ridge. That project is a single project of up to 301
12	megawatts, approximately 300 megawatts. Empire
13	entered into a purchase and sale agreement for this
14	project on November 16 of 2018 with a joint venture
15	between a subsidiary of Apex Clean Energy and a
16	subsidiary of Steelhead Wind.
17	I guess the unfortunately, the small
18	map on the upper left gives you a little better
19	perspective of where it is located in Kansas, but
20	its both its facility and associated generation tie
21	line will be located approximately 35 miles to the
22	west of Empire's service territory in Kansas.
23	Apex Clean Energy is a US-focused,
24	independent renewable energy company based in
25	Charlottesville, Virginia. It's the fastest growing

clean energy company in the industry with over 220 1 2 employees. Apex has completed development and construction of 12 wind and solar facilities in 3 Illinois, Texas and Oklahoma. 4 5 These projects represent a total capital 6 investment of approximately 4 billion dollars and 7 operating assets under management have grown to over 8 15-- 1,500 megawatts. Apex has signed contracts for 9 power in the sale of 16 projects, totaling nearly 3,200 megawatts of capacity with utility co-ops, 10 government and -- and corporate customers. 11 12 As I mentioned before, the tax equity financing continues to be an important aspect of the 13 14 Empire proposal, something that Empire's witness Todd 15 Mooney discussed in the last case and is prepared to do again here today. 16 17 Tax equity structure is a method of financing renewable energy projects, to include both 18 wind and solar, to optimize the value in the near term 19 of the available tax incentives. In this case, tax 20 equity financing is expected to provide approximately 21 50 percent of the capital of the projects, meaning 22 23 that the rate-base impact of the project will be approximately 50 percent of the total cost. 24 Given the time value of money, using a 25

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1	tax equity structure as compared to direct ownership
2	of the wind projects by Empire without a partner,
3	results in between four and seven dollars per megawatt
4	hour of savings for Empire customers.
5	Now, functionally to create the tax
6	equity structure, Empire and a tax equity partner will
7	own a holding company for each of the wind projects.
8	Each of which will be a subsidiary of of Empire.
9	And Empire, through the wind hold company, will
10	acquire once it's in in service, it's been
11	constructed and in service will acquire a wind project
12	company that owns a specific wind project.
13	After approximately ten years of tax
14	equity participation and Empire's joint ownership of
15	the wind project company through the wind hold
16	company, Empire will have the right to purchase the
17	tax equity partner's ownership interest in the wind
18	hold co. at which point Empire would wholly own the
19	wind com project company.
20	It is this tax equity financing that
21	provides some of the timing concerns that we have in
22	this case. Congress has legislated the phase-out of
23	PTCs over the next several years. And in order to
24	qualify for the full PTC value of the projects Empire
25	has contracted for, must be completed before the end

of 2020. 1 2 In Case ER-2018-0092 [sic], Empire's witness James McMahon estimated the customers savings 3 associated with acquiring 600 megawatts of wind 4 5 generation based upon the bids provided in response to 6 a Request for Proposals issued by -- by Empire. The 7 levelized cost of electricity or the LCOE utilized for 8 the 600 megawatt portfolio provided for the modeled 9 169 million dollars in customer savings over 20 years. While some of the costs have moved during 10 the negotiation of the three purchase sale agreements, 11 12 the overall portfolio LCOE has decreased slightly and the projects as contracted are considered -- or 13 14 consistent with the modeling performed in the customer 15 savings plan case. 16 I mentioned previously our standard, 17 Section 393.170.3, states in rel-- relevant part that 18 the Commission may grant a CCN when it determines that such construction is necessary or convenient for the 19 20 public service. When making a determination as to whether 21 a project is necessary or convenient for the public 22 23 service, the Commission has traditionally exercised its discretion by applying the five criteria on the 24 board commonly known as the Tartan factors. You know, 25

1	one is there a need for the service; two, is the
2	applicant qualified to provide it; three, is the
3	applicant does it have the financial ability to
4	provide the service; four, is the proposal
5	economically feasible; and five, is is it in the
6	public interest.
7	In reading the statements of position, it
8	would appear that the question for the Commission in
9	this case is not so much whether the requested CCNs
10	should be granted, but rather what conditions should
11	be imposed on those CCNs. However, the Commission, we
12	think, still must address the Tartan factors and
13	and we will as well.
14	The first two items well, actually I'm
15	going to skip ahead. The second and third items, is
16	the applicant qualified, does the applicant have the
17	financial ability to provide the service. We
18	certainly believe Empire is qualified to provide the
19	service. It has a vast amount of experience in
20	generation, transmission and distribution of
21	electricity. Empire owns and operates an electric
22	utility system located in contiguous parts of
23	Arkansas, Kansas, Missouri and Oklahoma, which is used
24	toe serve approximately 172,000 total electric
25	customers.

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1	Empire also has the financial ability to
2	provide the service. It has an investment grade
3	credit rating and is part of a corporate family that
4	is also investment grade and has nearly 9 billion
5	dollars in assets. I don't believe any party has
6	challenged whether Empire is qualified to provide the
7	service or whether it has the financial ability to
8	provide the service.
9	Move on to the question though of of
10	need. When determining whether the project is
11	necessary or convenient for the purpose for the public
12	service, the term "necessity" has been said to not
13	mean essential or absolutely indispensable, but that
14	an additional service would be an improvement,
15	justifying its cost.
16	The proposed wind projects will take
17	advantage of real opportunities that exist today to
18	add generation capacity to Empire's fleet at reduced
19	cost given the availability of production tax credits,
20	which, in turn, will provide low cost energy for
21	Empire's customer for years to come.
22	Adding wind to the pa to the portfolio
23	reduces risk, in addition to decreasing cost because
24	wind performs much better than the status quo under
25	most market conditions. On the other hand, the status

quo is not only more costly in the base case, it's
more costly in most of the scenarios that were
evaluated.

This is especially important for Empire 4 5 as two of its existing Purchase Power Agreements for a total of 255 megawatts will expire after the 600 6 7 megawatts of wind come online in December of 2020. There's the expiration of the Elk River Wind Farm in 8 9 2025, which is 150 megawatts; and the Meridian Way Wind Farm in 2028, which is 105 megawatts. These 10 expiring contracts represent all of Empire's current 11 12 wind capacity and more than 40 percent of -- of the new capacity. 13

We would say that there is a need for the proposed wind generation to further the -- the policy as it's been set forth by the Commission.

Through the use of a tax equity ownership structure -- well, let me back up. The next question: is it economically feasible. Through the use of tax equity ownership structure in conjunction with the approximately 600 megawatts of wind generation, Empire has a time limited opportunity to bring significant savings.

24These savings are occasioned based on25unique market conditions which allows for production

1	tax credits and the availability of financing to
2	support those tax credits.
3	As I said previously in regard to need,
4	adding wind to the portfolio reduces risk. This is a
5	graph that was utilized in the first case, step one,
б	but it's also in Mr. McMahon's testimony in this case.
7	It shows that well, let me back up.
8	It shows that the proposed projects are
9	projected to bring benefits to the customers under, as
10	I said before, the low, mid and high priced scenarios.
11	We believe that the pros proposed projects are
12	economically feasible.
13	We move onto to public interest.
14	Of on slide 12 there's a quote from the
15	Commission's recent order in the Grain Belt case. I
16	won't read it here. It's obviously available to
17	everyone. But I think this is a strong statement
18	of of the state energy policy. We think, again,
19	that the projects that are being proposed by Empire
20	are consistent with this policy.
21	In that Grain Belt case, the Commission
22	went onto say there can be no debate that our energy
23	future will require more diversity in energy
24	resources, particularly renewable resources. We are
25	witnessing a worldwide, long-term and comprehensive

movement towards renewable energy in general and wind 1 2 energy specifically. Wind energy provides great promise as a source for affordable, reliable, safe and 3 environmentally friendly energy. 4 5 Empire's wind projects will -- will meet 6 and further these policy goals that have been 7 identified by the Commission. And as said before, 8 poised to deliver savings to Empire's customers for 9 many years to come. The projects proposed by Empire will facilitate the movement to diverse energy 10 resources in Missouri and will thereby benefit 11 12 Missouri citizens and we believe our and the public 13 interest. 14 I mentioned previously conditions. The 15 stipulations that we talked about previously are essentially conditions that have been proposed by 16 various parties. That's because the statutes for the 17 Commission state that in granting a certificate of 18 convenience and necessity, the Commission may, by its 19 20 order, impose such condition or conditions as it may deem reasonable and necessary. 21 22 Again, Empire believes that the projects 23 satisfy the Tartan factors; however, having stated this, to further address the concerns that have been 24

25 raised by parties in testimony, Empire believes the

1	addition of the conditions found in the stipulations
2	filed in this case will serve additionally to mitigate
3	any negative impacts that could arise.
4	We mentioned previously two two
5	stipulations have been filed; the first one dealing
б	with wildlife concerns. It's a stipulation between
7	Empire and the Missouri Department of Conservation.
8	No other party has objected to that stipulation and,
9	in fact, has all the other parties have
10	affirmatively stated their non-objection and that they
11	do not request a hearing; therefore, by rule, it may
12	be treated as unanimous by the Commission so the
13	should the Commission choose to do so.
14	Second stipulation that's been filed is
15	signed by Empire, Missouri Energy Consumers Group, the
16	Staff of the Commission, Missouri Department of
17	Economic Development, slash, Division of Energy, and
18	Renew Missouri advocates. Missouri Department of
19	Conservation, Sierra Club and National Resources
20	Defense Council have all affirmatively stated their
21	non-objection.
22	The the Non-Unanimous Stipulation, the
23	second stipulation I will refer to, requires tax
24	equity financing within certain parameters to provide
25	benefits in order to take advantage of the PTC as

1	we've discussed. To provide additional comfort, the
2	Company has agreed to add a Market Protection
3	Provision, or MPP, which provides 52.5 million dollars
4	of protection for customers in the unlikely event that
5	the wind sh project should not generate enough
6	revenue in the early years to cover the revenue
7	requirement associated with the project.
8	The Market Protection Provision manages
9	the cost-benefit risk associated with the wind
10	projects in terms of the capital costs, operating
11	costs, SPP prices, and wind production while still
12	providing customers with all upside benefits.
13	A Market Protection Provision that
14	provides protection for customers is a unique concept
15	in Missouri in regard to a CCN case. In fact, if
16	anything similar has been used previously, I'm just
17	I am not aware of it.
18	We think that it's a a significant
19	step in that Non-Unanimous Stipulation and Agreement
20	to again, to provide mitigation for many of the
21	concerns that have been expressed and something that
22	the Commission should adopt as a part of its order in
23	this case. Empire's witness David Holmes can provide
24	greater detail about the Market Protection Provisions
25	if you have further questions.

1	Well, let me back up just a little bit
2	before I go any further with that. Let me talk about
3	the MPP just a little bit more. It probably bears
4	mentioning that it operates by assessing wind value in
5	each year, where the wind value is equal to the wind
б	revenue minus the revenue requirement, plus in later
7	years the value of the Purchase Power Agreements for
8	Elk River and Meridian Way when they go away.
9	As crafted, it will factor in actual
10	interconnection costs, tax equity cash distributions,
11	pay-go contributions, ongoing operation and
12	maintenance costs and and curtailment. And as I
13	said, if there's a harm caused, there's a sharing
14	mechanism with a jurisdictional cap of 52.5 million
15	that is Missouri jurisdictional for the Company to
16	reduce costs to customers; while if the wind projects
17	perform as projected, customers retain 100 percent of
18	the upside.
19	Other provisions in the Non-Unanimous
20	Stipulation and Agreement include in-service criteria
21	for the projects; notice to the Commission and parties
22	to this docket once tax equity term sheets have been
23	ex executed they conform to the specified parameters
24	in the in the agreement; quarterly filings
25	concerning plans and specifications permits and other

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1	matters; accounting matters should Asbury be sold or
2	retired between general rate cases; auditing of books
3	and records; and rate-basing of the wind projects on a
4	depreciation study that would be consistent with the
5	Commission's Report and Order in EO-2018-0092.
6	Now, we would like to mention a couple of
7	the arguments or proposals that have been made by
8	by the Office of the Public Counsel in this case.
9	The Office of Public Counsel's testimony asks the
10	Commission to either hold Empire's customers harmless
11	on an annual basis or impose a reduced ROE for these
12	projects in future rate cases. These proposals, we
13	believe, are both unreasonable and unnecessary.
14	Empire has a duty to its customers to
15	provide safe and reliable electric service at just and
16	reasonable rates. In doing so, Empire seeks to invest
17	in ways that will provide its customers with
18	opportunities for savings and that will reduce price
19	risks in the future. The wind projects for which
20	Empire seeks CCNs in this case fit this description.
21	More practically, we would argue that the
22	Commission cannot lawfully unilaterally impose either
23	of these conditions without a finding in particular
24	on the ROE, without a finding that that ROE is is
25	just and reasonable ultimately.

1	The Market Protection Provision, on the
2	other hand, is available to the Commission as a result
3	of Empire's participation in the Non-Unanimous
4	Stipulation and Agreement and more appropriately
5	balances the risks and rewards between customers and
6	shareholders.
7	Further, in its position statement, OPC
8	intro introduced a new alternative proposal for
9	conditions. And significant amongst those things, the
10	proposal would cause call for Empire to receive
11	neither a return on or a return of its investment in
12	a in these projects during the period the hedging
13	agreements are in effect or for approximately ten
14	years.
15	Again, like the OPC's testimony proposal,
16	we certainly would argue that the Commission cannot
17	lawfully impose a no return on/no return of situation
18	without further evidence, without something
19	something else beyond what's in this case.
20	In conclusion, the wind project at issue
21	in in what we've called step two will meet the
22	policy goals identified by the Commission and are
23	poised to deliver significant savings to Empire's
24	customers for years to come at a lower risk to energy
25	production costs. Any potential negative impacts of

the projects are mitigated by the conditions tain- contained in the Non-Unanimous Stipulation and
Agreement.

The projects for which Empire seeks certificates of convenience and necessity are in the public interest and the Commission should grant the requested certificates subject to the stipulations that have been filed in -- in this case.

9 We have -- we will present the following witnesses: Mr. Blake Mertens, Mr. Holmes, Mr. Todd 10 Mooney, Mr. James McMahon, and Mr. Tim Wilson to 11 12 discuss the subjects that are listed there next to their names, amongst any other subjects that you may 13 14 believe are in their testimony. All of these 15 witnesses testified before the Commission in step one of this process and are -- are returning today. 16 That's all I have. 17 JUDGE DIPPELL: Thank you. Commissioner 18 Hall, you had some questions? 19 20 BY COMMISSIONER HALL: Just a few. First, concerning Neosho 21 0. Ridge, which is in Kansas, what is the Company's 22 23 position as to whether a CCN is required?

A. I think standing here today, we would say it is required. Ultimately how -- I guess I'm aware

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1	of an appellate case that has challenged that. I
2	suppose depending on the outcome of that, my opinion
3	could change. But as of today, the Commission's rule
4	is the Commission's rule.
5	Q. Okay. So it's based upon the rule
б	that that that you believe that it is likely
7	that we do have jurisdiction over over Neosho Ridge
8	and in terms of how it relates to to to
9	Missouri ratepayers?
10	A. Well, that's kind of a different
11	question. Don't believe well, I think some of the
12	filings when when the rule was being considered,
13	Empire, as well as other companies, argued that the
14	Company did not have or that the Commission did not
15	have the authority to promulgate that rule as to
16	projects in other states.
17	Having said, that the rule has been
18	promulgated. It's in effect. It's not been stayed.
19	The Company, through its application in this case,
20	is is attempting to comply with the rule. So I
21	think that's probably all the farther I can go with
22	that.
23	Q. And that's fine. Second set of questions
24	has to do with the non-un non-unanimous stip as it
25	relates to Asbury.

1	A. Yes.
2	Q. So let me make sure I understand
3	what's what's in here. And and who would be
4	your your witness who could answer more detailed
5	questions on this if
6	A. It's probably going to be Mr. Mertens.
7	Q. So as I understand this this
8	provision, it only it only concerns the situation
9	where where where Asbury is is sold or
10	retired between rate cases and it only covers the
11	situation up until the next rate case?
12	A. Well, it may be further than that, but
13	certainly between now and well, let when
14	Mr. Woodsmall gives his opening, you may want to ask
15	him that question as well. What's throwing me off a
16	little bit is certainly I think it's going to apply
17	through the through the rate case that brings into
18	rates these completed projects. But it may continue
19	out through the further than that as well.
20	Q. Now, the the language of the stip is
21	that the Commission should authorize Empire to create
22	a regulatory asset, and then the next provision is
23	Empire will create a regulatory liability. Is there a
24	reason for that language being different?
25	A. I think the practical reason is, is that
1	it's a little harder for the Company, with its
----	--
2	auditors, to to record an asset than it is a
3	liability, so that's the reason for the difference.
4	We would want just a little bit more confirmation from
5	the Commission in regard to the asset.
6	Q. And I and I assume that this language,
7	the Commission should authorize a regulatory asset is
8	based upon the understanding that whatever if
9	if if the Commission if this Commission were to
10	approve this stip with this language, the Company
11	would still need to seek that that accounting
12	treatment. This this order or is it your view
13	that this order would be all that was necessary?
14	A. Yeah. We're we're hoping to get to
15	the latter situation, yes, Commissioner. The reason
16	for the should is, is that we we sometimes hesitate
17	to say the Commission shall since we can't tell the
18	Commission what to do.
19	But I think that this is certainly the
20	the should language is that that's the recommendation
21	of the certainly the signatories to that
22	stipulation and that if the Commission adopts the
23	stipulation, that it will have provided the Company
24	the authority it needs to to utilize that asset in
25	the situation set forth.

1	Q. So under the terms of of these
2	provisions and I'm looking at B and C under 17
3	what happens to the return on the investment? Is that
4	included in the in the regulatory liability?
5	A. Well, that's a good question. That
6	that probably should be asked of someone with more
7	information than me. But I mean certainly what the
8	parties were attempting to do was to kind of hit both
9	sides of that retirement situation. On one side hit a
10	liability that would capture dollars that were in
11	rates associated with that plant that at that point
12	would have been retired or or sold potentially.
13	And then on the other side to provide a
14	means for the Company to take its undepreciated
15	investment in that asset, book it as or in that
16	that plant, book it as an asset on its balance sheet
17	and then to have both those things available in the
18	next rate case for the Commission's determination.
19	Q. If the Commission were to were to
20	determine that the rest of the Non-Unanimous
21	Stipulation is is in the public interest but wanted
22	to hold on making these decisions until such time that
23	the Company wanted to close or decided to close
24	Asbury, would that be a deal breaker as far as the
25	Company is concerned?

1	A. Well, it would in that we've we've
2	signed an agreement with other parties and it's a part
3	of that agreement. So I think at least from that
4	perspective, I have to initially say it would be a
5	deal breaker. Having said that, I again, and I'm
6	sure you will ask the other parties to the stipulation
7	about their opinions.
8	Q. Who would be the appropriate witness to
9	ask questions about where these projects stand in the
10	SPP queue?
11	A. Probably going to be Mr. Mertens and/or
12	Mr. Wilson.
13	Q. That's all I have. Thank you.
14	A. Thank you.
15	JUDGE DIPPELL: Thank you. Mr. Chairman,
16	did you have any questions?
17	BY JUDGE DIPPELL:
18	Q. I just had one. Can can you explain
19	to me how this Non-Unanimous Stipulation and Agreement
20	compares with that that was filed with EO-2018-0092 or
21	how it relates to what the Commission ultimately
22	decided in that case?
23	A. Well
24	Q. Are there similarities? Are there
25	A. Yeah. There's going to be many

1	similarities. I think that most of the subjects are
2	going to be found in both of those documents that you
3	referred to. The Market Protection Provision has
4	changed somewhat. The 52.5 million dollar guarantee
5	amount in this case was essentially 35 million in
6	in the pr prior stipulation.
7	There's also there was a dead band
8	provision in that Market Protection Provision that is
9	gone, has been eliminated in this this document.
10	I'm sure there are other differences that that are
11	not coming to my mind right now in terms of those
12	details and and Mr. Holmes would be the right
13	person that that could could talk to those
14	details.
15	You heard from my opening, Asbury was
16	treated a little differently. You know, just
17	different time period, different situation that was
18	was being addressed with Asbury. These these
19	accounting provisions that we just discussed are
20	are different. I don't believe there were those
21	were were in the prior stipulation.
22	We're a little further along we're a
23	lot further along in the process in that we have
24	purchase and sale agreements now for the projects. So
25	there's there's some filing requirements that

that are necessarily different because of that --1 2 because of the point in time that we're now standing 3 here. 4 Q. Thank you. Thank you. 5 JUDGE DIPPELL: Renew Missouri. MR. OPITZ: May it please the Commission. 6 7 I'm Tim Opitz with Renew Missouri. We are a 8 non-profit that advocates for renewable energy and 9 energy efficiency policy in Missouri. In this case we filed testimony supporting the project and we've taken 10 the position opposing conditions which we believe 11 12 might be undue or unreasonable road blocks to advancing renewable energy in Missouri. 13 14 This Friday we signed onto the 15 Non-Unanimous Stipulation and Agreement and now encourage the Commission to issue a CCN with only 16 17 those conditions articulated in that agreement. It's important -- I believe it's important to point out 18 that this project is a continuation of the customer 19 20 savings plan that we heard last April and throughout the summer where Empire made -- should be commended 21 for its efforts to add renewable energy in order to 22 23 save customers money. 24 And in that project -- in that case, the project was already scaled back significantly from 800 25

1	megawatts of wind down to 600 megawatts of wind. So
2	we would oppose anything that that adds conditions
3	that further scale it back.
4	Renew Missouri urges this Commission to
5	grant these requested CCNs that will allow its
6	customers to benefit from economic renewable
7	generation for many years to come and advance
8	Missouri's policy of renewable energy. With that, I'm
9	happy to answer any questions.
10	JUDGE DIPPELL: Thank you. Are there any
11	questions from Commission?
12	COMMISSIONER HALL: No questions. Thank
13	you.
14	JUDGE DIPPELL: Thank you.
15	MR. OPITZ: Thank you.
16	JUDGE DIPPELL: Division of Energy.
17	MS. REEVES: Good morning. My name is
18	Rochelle Reeves and I'm general counsel at the
19	Department of Economic Development. I'm here today to
20	represent the Missouri Division of Energy.
21	The Division of Energy is Missouri's
22	State energy office. It provides assistance and
23	education to advance the efficient use of diverse,
24	affordable and reliable energy resources, as well as
25	to achieve greater energy security and balance a

1	healthy environment with a healthy economy for future
2	generations. Additionally, the Division supports
3	efforts to improve and modernize Missouri's
4	infrastructure, spur innovation and emerging
5	technologies and create jobs.
6	The first question before the Commission
7	today is whether to approve Empire's applications to
8	construct three proposed wind farms. Given that the
9	wind projects will create economic development
10	benefits and improve the diversity and security of
11	Missouri's energy supply, the Division supports those
12	applications.
13	These factors support Missouri's ability
14	to perform more competitively on the national economic
15	stage. The projects are also consistent with recent
16	Commission orders and meet the Commission's criteria
17	regarding need and public interest.
18	With respect to the second question
19	before the Commission, the Division has not taken a
20	position at this time on what, if any, conditions may
21	be reasonable and appropriate. Thank you.
22	JUDGE DIPPELL: Any questions
23	COMMISSIONER HALL: No questions. Thank
24	you.
25	JUDGE DIPPELL: Thank you. Missouri

1	Energy Consumers Group.
2	MR. WOODSMALL: I printed off a or I
3	prepared a PowerPoint presentation and then I forgot
4	to put it on a disc. So we're going to have to do it
5	the old way, just through paper.
б	David Woodsmall on behalf of the Midwest
7	Energy Consumers Group. I'll be probably pretty brief
8	since much of my material will reiterate what
9	Mr. Cooper said.
10	One of the what I first want to talk
11	about is the wind that will be added through this
12	stipulation. Secondly, I want to discuss in a little
13	detail about the tex tax equity financing. Third, I
14	want to talk about various stipulation provisions.
15	I talk about all these because I believe
16	that they all go to the public interest standard under
17	the Tartan criteria. I'm not going to talk about the
18	four other criteria; that is, economic feasibility,
19	whether they're qualified. I'm going to talk instead
20	just about public interest.
21	You see on slide three, as Mr. Cooper
22	mentioned, that this will add three different wind
23	farms; 150 megawatts known as the Kings Point, 150
24	megawatts known as North Fork, and 300 megawatts in
25	Kansas known as Neosho Ridge.

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1	Slee you see on slide four where Kings
2	Point is located, basically just east of Jasper. Then
3	on slide five you see North Fork and it's located just
4	west of Jasper. So that gives you some idea where
5	they are located relative to each other in Missouri.
6	And finally, on slide six where Neosho Ridge, the 300
7	megawatts in Kansas, is located. You can see it's in
8	the very far southeast corner of Kansas. And you have
9	some idea then of where it is relative to Joplin.
10	Slide seven. The the addition of this
11	wind is expressly conditioned in the stipulation on
12	the use of tax equity financing. And that's a big
13	deal to us. Tax equity financing allows this project
14	to be done at a lower cost to the ratepayers.
15	Tax equity financing works kind of like
16	this. The Federal Tax Code provides for two different
17	aspects that encourage the development of wind.
18	First, it provides for what is known as modified
19	accelerated cost recovery system. That is accelerated
20	depreciation. And that's a depreciation deduction to
21	whoever makes the development.
22	The second thing is it provides for
23	production tax credits. Different than a deduction,
24	it's a tax credit. And the production tax credits are
25	slowly going to be phased out. If you get your wind

project done by December 31st, 2020, you can maximize 1 these production tax credits at 24 dollars a megawatt 2 hour, but over time those will be phased out. 3 So there is a timeliness factor involved 4 5 here. We need to get this project done so they can 6 get developing and get the projects in by December 7 31st, 2020 to -- to maximize these production tax 8 credits. 9 Now, the way tax equity financing works, if Empire built this project entirely on their own, 10 they would get the accelerated depreciation and they 11 12 would get the production tax credits. But as Mr. Mooney will talk about later, they really don't 13 have -- because of their -- their size, their 14 financial situation, their tax needs, they really 15 don't have the appetite to use all this accelerated 16 depreciation deductions and the production tax credits 17 So what do you do with it? What they've 18 done is attach equity financing, whereby you take both 19 20 the accelerated and the production tax credits and you give those to a third party in exchange for that third 21 party making capital investment into the project. 22 The 23 tax equity structure has been used to develop over 62 gigawatts of wind and solar projects over the past 24 25 decade.

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1	On slide eight you see how the tax equity
2	financing works. You see on the left the upper
3	left, the tax equity investor. And the actual amount
4	of the capital investment by the tax equity partner I
5	have here as 60 percent, but the actual amount is a
6	highly confidential number that you'll see a range
7	that you'll see in the stipulation. So the tax equity
8	investor makes gives 60 percent of the capital
9	investment into the project partnership and Empire
10	gives the other remaining 40 percent.
11	So what do they get for that capital
12	investment? The tax equity investor gets, as I said,
13	all the production tax credits for the ten-year period
14	or until they're they're out of the project, they
15	get all the accelerated depreciation deduction and
16	they get some of the cash out of the wind project.
17	Empire gets the remainder of the cash,
18	they get all the capacity, an they get all the
19	energy and they get the renewable energy credits.
20	COMMISSIONER HALL: By "cash" do you mean
21	proceeds from the sale of of of the energy?
22	MR. WOODSMALL: I would encourage you to
23	talk to Mr. Mooney about this further because I know
24	I'm going to butcher it. There are there's cash I
25	believe related both to sale of energy into the

1	market but cash is cash no matter where it comes
2	from as well as internal hedging agreements through
3	the project. But talk to Mr. Mooney about that.
4	So that is how the tax equity financing
5	works. Basically though, we can get 1 billion
б	1.1 billion of wind investment for a much lower
7	credit. So rate-base is lower and rates are lower
8	going forward.
9	So slide nine. What does the stipulation
10	do? The most important part probably relative to the
11	statute is the stipulation, if approved, would give
12	Empire a certificate of convenience and necessity to
13	do all three wind projects; the two in Missouri and
14	the one in Kansas. But it says that the wind projects
15	must be done through a tax equity financing
16	arrangement.
17	The stipulation also provides for several
18	reporting and filing requirements. It requires
19	you're familiar with this from the Grain Belt case.
20	It requires the filing of certain permits, certain
21	documents related to when they complete the closing
22	with the tax equity partner, when they finish the
23	proposal with the entity that's going to construct it,
24	certain documents related to SPP.
25	All those are required to be filed with

1	the Commission. It also says that Empire's capital
2	investment will be built into the rates in future rate
3	cases subject to a prudency review. So that is what
4	it does relative to the statute.
5	But as Mr. Cooper said, Section 393.170
6	gives the Commission the authority to impose certain
7	conditions to make this project in the public
8	interest. And that's what we believe the other
9	conditions do. It makes it in the public interest.
10	So what are those provisions? Slide ten
11	talks about the implementation of a Market Protection
12	Plan. And what the Market Protection Plan attempts to
13	do is shield customers to some degree from a situation
14	in which forward-looking SPP revenues from selling
15	this energy into the SPP integrated marketplace are
16	less than cost. And if that happens, it creates a
17	mechanism to protect customers to some degree in that
18	situation.
19	As I mentioned, the Market Protection
20	Plan attempts to look at all of the revenues from the
21	SPP sales and compare them to all the costs. So you
22	have the capital costs, the depreciation, the O and M, $$
23	fu fuel would be elsewhere, but all those costs.
24	And it looks at it.
25	And you'll see on slide 11 what happens.

1	So the Market Protection Plan takes an annual look at
2	cost and revenues. To the extent that revenues exceed
3	costs, great. Customers have benefited, we go
4	forward. But to a situation where costs are less than
5	revenues, we'd have a situation where customers would
6	otherwise be harmed.
7	So annually you make this comparison.
8	And if costs exceed revenues, we create a regulatory
9	liability every year and it has carrying costs
10	attached to it. And that regulatory liability every
11	year is summed together to get to an ultimate
12	regulatory liability, if one exists after the ten-year
13	period.
14	COMMISSIONER HALL: So are are you
15	including the the tax credit with the SPP revenues
16	or is that separate?
17	MR. WOODSMALL: The production tax
18	credits will all be going to the tax equity partners.
19	So they will not flow through the ten-year Market
20	Protection Plan. And Mr. Holmes is kind of the
21	architect of this whole MPP so he can answer a lot of
22	questions on this.
23	But every year a regulatory liability, to
24	the extent one is needed, is created. After ten
25	years, they're summed together and if that amount is

less than 52.5 million dollars, then it is baked into 1 2 rates, amortized into rates over a certain period of time. 3 What if that regulatory liability is 4 5 greater than 52.5 million dollars? Well, the amount up to 52.5 million dollars is amortized into rates, 6 7 but any amount above that is treated by the Commission 8 at that point in time. So that's how the Market Protection Plan works. 9 Slide 12. There's a provision in there 10 regarding Asbury, as the Ch-- Commissioner noted 11 12 earlier. In my mind, the addition of 600 megawatts of wind will create a situation in which the retirement 13 of Asbury is more likely. If we weren't adding 14 capacity, it's -- they would need Asbury going 15 forward. We're adding all this capacity, albeit at 16 17 probably 15 percent of nameplate capacity, but it 18 makes the retirement of Asbury more likely. So what this provision does is says if 19 20 they retire Asbury between rate cases, we carry all cost implications of that forward to the next rate 21 case. So Empire would get a regulatory asset for all 22 23 undepreciated investment. The other costs, including as you see there, the capital costs, which is cost of 24 25 debt, return on equity as well as O and M, fuel,

1	depreciation, everything else, is booked into a
2	regulatory liability.
3	And both amounts without any
4	rate-making finding by the Commission here, both
5	amounts are simply carried forward for the Commission
б	to make a decision on the entire pie at a future point
7	in time.
8	COMMISSIONER HALL: Is there some reason
9	why you wouldn't just net those?
10	MR. WOODSMALL: They would effectively
11	net. I don't know if there's an accounting reason why
12	you create one versus the other. But effectively, the
13	Commission could net it at some point in time. I
14	guess at some point after this is done, the Commission
15	could say we'll give recovery of the regulatory asset,
16	but not the liability or vice-versa. But I think
17	effectively the Commission could net those at some
18	point in time.
19	COMMISSIONER HALL: And I believe you
20	said this and this is related to the to a
21	question I asked earlier. Where where it says
22	capital costs for the for the regulatory liability,
23	that's that is including the the return on that
24	investment?
25	MR. WOODSMALL: In my mind, it's both the

return through the invest return on equity as well as 1 2 cost of debt. All capital costs, correct. 3 COMMISSIONER HALL: Okay. Thank you. 4 MR. WOODSMALL: So that's the Asbury 5 provision. 6 Slide 13. There's a provision in here 7 regarding battery technology or other energy storage. 8 And the reason this is in here is because you've 9 probably seen in the trade rags talk about energy storage. And we believe that the addition of further 10 wind capacity makes the use of energy storage more 11 12 likely going forward. And why is that? Base load units can run 13 14 24 hours a day. You know what you're getting out of them. Wind generation is obviously dependent on wind. 15 So if wind is blowing at a different time than the 16 17 peak demand for the utility, you have a situation where it's not providing the maximum efficiency. 18 So to the extent you can implement 19 20 batteries or other energy storage to capture that energy so that you can use it to meet peak demand and 21 meet the energy needs at that point in time, it 22 23 creates a greater efficiency. 24 So recognizing that the two may naturally pair at some point in time, there's a -- a provision 25

1	that calls for Empire to make a presentation on the
2	cost if Empire decides that they're going to
3	implement energy storage, it requires them to make a
4	presentation three months prior to implementing the
5	energy storage.
6	And the presentation talks about the
7	costs and benefits of energy storage, the impact on
8	rates, the impact of the energy storage on the
9	retirement of other generation units or the delay in
10	having to build other energy generation. It talks
11	about how the energy storage is dispatched into the
12	SPP marketplace.
13	And if the energy storage is on the
14	customer's side of the meter, it talks about rate
15	design changes that are necessary to maximize the
16	value of the energy storage. So so we believe that
17	energy storage naturally pairs, to some degree, with
18	wind generation and that's why this is in here.
19	COMMISSIONER HALL: And I would
20	wholeheartedly agree with that, but I do have a
21	question. That whole provision in the stip is
22	premised on in the event that it's determined that a
23	CCN is not required. What is the argument that a CCN
24	would not be required for for for energy
25	storage?

1 MR. WOODSMALL: For why it would not be 2 required? COMMISSIONER HALL: Yeah. 3 4 MR. WOODSMALL: I can't make that 5 argument. 6 COMMISSIONER HALL: Did somebody make 7 that argument? 8 MR. WOODSMALL: No. I -- I don't 9 believe. I think the extent to which that has been discussed was that there may be issues going forward, 10 someone may make that argument. But no one has, to my 11 12 mind, made that argument yet. 13 Okay. COMMISSIONER HALL: 14 MR. WOODSMALL: But it is certainly my 15 position that energy storage like Taum Sauk, like any other generation unit, should be subject to a CCN. So 16 17 if there is a CCN that is required, we really don't need this provision because all that would be subsumed 18 in a CCN case. 19 20 COMMISSIONER HALL: Right. Okay. Thank 21 you. 22 MR. WOODSMALL: The final provision on 23 slide 14 calls for a non-residential rec program. And you may be familiar with this through previous 24 25 programs that Ameren, KCP&L and GMO have sought in

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Missouri. 1 2 What this is designed to do is meet some customer needs. You have large customers like 3 4 Wal-Mart and Facebook and Amazon and Google, General 5 Mills and Cargill that have implemented sustainability 6 programs. 7 In a monopoly environment, it's difficult 8 for these customers to meet that sustainability 9 program. They are forced to take their energy from the utility. And if the en-- if the utility decides 10 to use all coal generation, they're stuck and there's 11 12 no way for them to build their own wind to meet their sustainability program. 13 So what this does -- and what the Ameren 14 and KCP&L programs do -- is it provides a mechanism 15 16 for these large customers to access some of the pe--17 or the recs created by the wind generation. So once 18 the utility -- or once the customer gets the recs in their hand, then they can -- they're that much closer 19 20 to meeting their sustainability goals. Like I say, this has been implemented by 21 all the utilities thus far in Missouri, as well as the 22 23 utilities in Kansas. And I believe it's in the public interest because it meets a customer demand. 24 That's the extent of my presentation. 25 Τf

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1	you have any questions, I'd be happy to take them.
2	JUDGE DIPPELL: Thank you. Any
3	additional questions?
4	BY COMMISSIONER HALL:
5	Q. Just just one more. I'm going to ask
б	you a question and I'm I'm I'm going to ask
7	Public Counsel the same question when it's their turn.
8	From your perspective, is there any
9	difference any financial reason any financial
10	difference between the position of residential
11	customers and industrial or commercial customers with
12	regards to this application and this stipulation? Are
13	they pretty much all in the same boat?
14	A. I would say 99 percent customers are all
15	aligned on this. The last thing I I mentioned was
16	that there is a non-residential program created. So
17	that may give a heightened benefit to non-residential
18	customers, but just as it regards the rates coming out
19	of wind additions, I think we're all aligned.
20	Q. Okay. Thank you.
21	A. Thank you.
22	BY JUDGE DIPPELL:
23	Q. And I just have one for you. So how has
24	MECG's position changed since position statements were
25	filed with regard to the stipulation?

1 Our position statement, just as my Α. 2 opening statement did, focused entirely on the public interest and the conditions that should be attached to 3 meet that public interest. 4 MECG's position statement aligned with 5 6 Staff's at that point in time. Staff's position --7 Company's position on a Market Protection Plan at the 8 time they filed was that it should be capped at 9 25 million dollars. Staff said compare all the costs and all the revenues and it should be uncapped. 10 And so you -- those were the two ends of the spectrum. 11 12 The Market Protection Plan in the stipulation is a compromise between those two ends at 13 14 52.5 million dollars. So the change in our position is that instead of uncapping the Market Protection 15 Plan, cap it -- it's a soft cap at 52.5 million 16 17 dollars. 18 Okay. Thank you. 0. 19 Α. Thank you. 20 JUDGE DIPPELL: Commission Staff. 21 MS. MERS: Good morning, Commissioners. Good morning, Judge. May it please the Commission. 22 23 My name is Nicole Mers and I'm here on behalf of Staff. 24 And this will be a relatively short 25

opening as to what I hope is a relatively short
 hearing. The reason for the brevity is that this is
 the second time this case has been heard in front of
 the Commission.

Aside from some details and some 5 additional information and of course a different 6 7 remedy is being requested in this case, not much has 8 changed since the signatories in the EO-2018-0092 case presented to the same Commissioners presiding here 9 today a plan to bring benefits to Empire's customers 10 and provisions to mitigate customer risk in the event 11 12 that reality differs drastically from the assumptions and modeling performed in that case and in this case. 13

So there's little need to bog through the procedural history, the scope and depth of Empire's supporting analyses, the benefits of a tax equity partner, or the overall benefits of the project. This has all been well debated and established.

In fact, the very same Commission found in the 0092 case that, quote, Adding wind generation to Empire's portfolio significantly reduces financial risk for Empire's customers. Wind in the portfolio mitigates the impact that rising fuel and market prices have on Empire's retail rates. And in a -- in a rising market price environment, Empire would be

able to sell the wind output at higher prices without 1 2 incremental fuel costs. Empire's credible analysis shows that 3 adding up to 600 megawatts of wind to its portfolio 4 would result in lower risk to that portfol-- portfolio 5 under three different market scenarios relative to the 6 7 current resource plan. The Report and Order also 8 stated it is the public policy of this state to 9 diversify the energy supply through the support of renewable and alternative energy sources. 10 In past decisions the Commission has 11 12 stated its support in general for renewable energy generation which provides benefits to the public. 13 14 Empire's proposed acquisition of 600 megawatts of additional wind generation assets is clearly aligned 15 with the public policy of this Commission and the 16 17 state. And while the Commission in that case 18 determined that you couldn't make a legal decision 19 20 regarding the -- the acquisition of the wind projects at that time, it was acknowledged that the millions of 21 dollars in customer savings and the addition of the 22 23 renewable wind energy resulting from the CSP in the joint position of the parties would be a considerable 24 benefit to Empire's customers in the entire state. 25

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1 So as this, you know, Commission had made 2 this decision less than a year ago, I don't think I need to go any further repeating the findings and 3 conclusions from the Report and Order and I'm sure 4 5 you're all aware of what you said in that Report and 6 Order. 7 Just as you, Commissioners, and hopefully 8 all the parties to this case are aware of the 9 statements the Commission made a mere 18 days ago in the Grain Belt case that, quote, There can be no 10 debate that our energy future will require more 11 12 diversity in energy resources, particularly renewable resources. We are witnessing a worldwide, long-term 13 and comprehensive movement towards renewable energy in 14 general and wind energy specifically. Wind energy 15 provides great promise as a source for affordable, 16 17 reliable, safe and environmentally friendly energy. So if the benefits of Empire's projects 18 and renewables in general have been established, 19 20 what's left for me to discuss in the remainder of my opening? Well, that would be the terms of the 21 Non-Unanimous Stipulation and Agreement, which is now 22 23 the joint position of Empire, Staff, MECG, Renew and DE. 24 The remaining parties, aside from OPC, 25

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have indicated they have no objections to the 1 2 stipulation. The signatories ask you to order the terms of the Stipulation and Agreement as a just and 3 reasoned outcome to this case. 4 5 All projects come with risk. Staff's 6 rebuttal report outlined the risk and the uncertainty 7 that these projects face, but recommended that with 8 the adoption of a Market Protection Provision to share 9 risk, that the wind projects would be necessary and convenient for the public and, thus, should receive a 10 11 CCN. 12 This is in line with the years of Commission practice and court holdings that a project 13 or service need not be absolutely essential to be 14 15 considered necessary. It just simply must be an improvement that justifies the cost. 16 17 Staff believes that the potential for 169 million dollars in customer benefits over the next 18 20 years, according to the extensive modeling that 19 20 Empire performed, and the imposition of a Market Protection Provision to share in the risk in the 21 highly unlikely scenario that the projects drastically 22 underperform, makes the wind projects an improvement 23 justifying their cost. 24 The stipulation incorporates such a 25

Market Protection Provision. The stipulation is in most aspects very similar to the stipulation that was presented in the 0092 case. There are a few notable differences, all of which inure to the benefit of the customers.

6 The largest change is the change to the 7 Market Protection Provision cap. In general terms, 8 that market provision provides that if there's a 9 financial detriment that results to customers from these wind projects, that shareholders will equally 10 share in that detriment up to 52.5 million dollars. 11 12 That is a sizable increase from the 35 million dollars in the last stipulation. 13

14 The dead band was also eliminated so
15 customers no longer have to pass a certain threshold
16 of loss before the risk sharing starts.

17 Staff finds the increasing guarantee a 18 major benefit for customers. In Staff's view, this 19 amount covers the shared amount in the very worst case 20 scenario of exposure customers face. Staff came to 21 this conclusion based on the modeling performed.

I'm going to walk through some high level examples -- very high level, but if you have questions, Staff witness J Luebbert and especially Empire's witness David Holmes can walk you through

more detailed scenarios and can explain the 1 2 probabilities and assumptions made. We had this issue last time. 3 4 JUDGE DIPPELL: Yes. I always seem to have technical difficulties with the ELMO. 5 So if 6 you'll bear with me just a moment. 7 MS. MERS: It's in a smaller-to-read 8 format, and I'm not sure if every person has the 9 stipulation in front of them, but the Non-Unanimous Stipulation and Agreement does have these examples in 10 the back if we want to move along and look at it that 11 12 way. We -- we might have it in slide format as well, so we'll send my wonderful assistant. 13 14 JUDGE DIPPELL: Slides apparently I can 15 do today, but --16 MS. MERS: Okay. Well, hopefully we can 17 too. 18 JUDGE DIPPELL: -- I'm having difficulty 19 getting the ELMO. 20 MS. MERS: All right. Sorry about that. So here we have the expected case or the base case. I 21 don't know if he's in control or I'm in control. 22 23 MR. LUEBBERT: I'm trying to make it 24 larger. 25 MS. MERS: There we go. Okay. So

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1	this
2	COMMISSIONER HALL: I'm sorry. Where is
3	this? This is in the non-unanimous stip?
4	MS. MERS: Yes.
5	COMMISSIONER HALL: Okay.
6	MS. MERS: I believe it's attachment
7	is it C or D? We have we have quite a few, but
8	JUDGE DIPPELL: So the Non-Unanimous
9	Stipulation attachment?
10	MS. MERS: Yeah, it's Attachment D.
11	There are four examples. So this would be the first
12	example. And this first example is the most likely
13	scenario according to ABB's IRP analysis.
14	So in this case, the guarantee or the
15	Market Protection Provision is not needed as though
16	there's a few years where you see a little bit of a
17	downfall. By year six if you look at the column
18	year six and the accumulated annual wind value, you'll
19	see that customers have gotten nearly 6 million
20	dollars in benefits at this point. And by year ten,
21	customers have received a cumulative benefit to the
22	tune of over 145 million dollars, and that's the base
23	case.
24	Now, we ran some worst case scenarios and
25	the next example is a case it will be the low

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1	market case example. And that is a situation where
2	wind production is going as expected but market prices
3	are much lower than what has been modeled in the base
4	case. So if you look at this, it may look like oh,
5	those numbers are a little bit dismaying. But then
6	when you get to year ten, the customers have still
7	received almost 10 million dollars of benefit from the
8	wind farm.
9	So then finally, we have our worst
10	COMMISSIONER HALL: I'm sorry. Could you
11	go back to the expected case, for example? Where is
12	the price on here? I'm
13	MS. MERS: The by price do you mean
14	like the
15	COMMISSIONER HALL: The market price.
16	The SPP.
17	MS. MERS: I I believe it's tied to
18	a one of the Excel spreadsheets that that
19	Empire's witness David Holmes provided. So I don't
20	know if I if I know the numbers, but I believe that
21	if you asked him, he probably could tell you what
22	exactly the that range would be.
23	COMMISSIONER HALL: And that would be
24	but whatever that price is is is what's included in
25	the SPP market revenue?

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1	MS. MERS: Yes. And and when it comes
2	to how this is actually implemented, everything will
3	be actuals. It's, you know, what the actual market
4	prices are, what the actual wind production is, what
5	the actual cost of the wind farm is, what the revenues
6	are. So it these are examples to kind of show you,
7	you know, the the range of possibilities, but it
8	will definitely be the actual results when it comes
9	time to implement this.
10	All right. So if you turn to the very
11	last case, that's the last page, this is the that's
12	incredibly hard to read the low market case and low
13	wind example. This this is the worst case
14	scenario. This is where the wind projects are
15	drastically under-performing.
16	It's been modeled a P95. And a P95 wind
17	production value means there's a 95 percent
18	probability that the wind project will produce more
19	and only a 5 percent probability that they would
20	perform worse. Market prices have also fallen in this
21	scenario.
22	So in this case, the wind projects are a
23	net detriment of over 93 million dollars for the total
24	jurisdiction. You can see that if you you look at
25	year ten and you look at a cumulative AWV line.

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1	So this is where the guarantee springs
2	into action. The risk is shared equally between
3	shareholders and customers so the total jurisdictional
4	impact is around 46.7 million dollars for for all
5	of Empire's customers. The Missouri customers would
6	bear about 39.7 million of that amount. So Missouri
7	customers will receive their regulatory liability,
8	with carrying costs, which will be amortized beginning
9	in the first rate case after the guarantee period in
10	the amount of 39.7 million dollars plus the carrying
11	costs.
12	In other words, even in this highly
13	unlikely scenario, the detriment does not exceed the
14	guaranteed cap contained in the stipulation, the cap
15	of 52.5 million. And it is important to remember that
16	even in this scenario and in everyone modeled, that
17	the wind projects by year 20 are a net benefit to
18	customers and will continue to be for the life of the
19	project.
20	As alluded to above, another change to
21	the Market Protection Provision is simplifying the
22	process by the creation of a regulatory liability in
23	year ten, which will be amor amortized in future
24	rate cases. This change is also beneficial because it
25	provides a smoothing effect to ratepayers by

1 addressing the regulatory liability after the 2 quarantee period. That means that rates won't decrease in a case, increase in a case, decrease back 3 and forth which would create rate volatility and 4 5 uncertainty. 6 Incorporating the terms of this 7 stipulation into a Final Report and Order is the appropriate and reasonable resolution to the issues 8 9 presented in this case. There's no -- been no credible evidence presented that this outcome would 10 not be fair and just. In fact, the only other 11 12 mechanism on the table to protect ratepayers was one presented for the first time in position statements 13 14 with no testimony or evidence supporting its adoption. 15 The Commission should order the terms of the stipulation, which would allow for customers to 16

17 share up to 52.5 million dollars of risk for clean 18 generation source and yet still receive 100 percent of 19 the potential benefits.

Thank you. And I'm happy to answer any questions you may have. Staff witnesses Natelle Dietrich, J Luebbert and Mark Oligschlaeger will also be able to answer questions regarding the Stipulation and Agreement. And Staff will also have Jeffrey Smith, Cedric Cunigan, David Buttig, Shawn Lange and

Claire Eubanks appearing to answer any questions you 1 2 may have about the technical aspects or Staff's rebuttal report. 3 JUDGE DIPPELL: Are there any Commission 4 5 questions? Mr. Chairman? 6 COMMISSIONER HALL: I have no questions. 7 JUDGE DIPPELL: Commissioner Hall? 8 BY JUDGE DIPPELL: 9 I just have one for you or maybe two. Ο. I'm going to ask you the same that I asked MECG. 10 So how has Staff's position changed from filing of 11 12 position statements to -- with the filing of the Stipulation and Agreement? 13 I think Mr. Woodsmall explained it well. 14 Α. It's just that we had this -- this realm of 15 possibilities to begin with, with Empire's position on 16 17 one end and Staff's position on the other end. And 18 that, you know, through the negotiation and settlement process and -- and reviewing of modeling and -- and 19 20 seeing, you know, what is the worst case, we came to this agreement that this number would -- would work 21 for Staff, that -- that we could live with this, that 22 23 this adequately protects ratepayers from the potential risks involved in these projects. 24 25 0. And you mentioned the hopes for a short

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1	hearing. That's always the hope. And that the
2	Commission had previously found these things in other
3	cases, but the Staff is still prepared to put on
4	witnesses so that the Commission has the evidence
5	before it to find those same things
6	A. Yes, we are.
7	Q in this case?
8	A. Yes.
9	Q. Okay. Thank you.
10	A. Thank you.
11	JUDGE DIPPELL: Department of
12	Conservation?
13	MS. BELL: May it please the Commission.
14	My name is Stephanie Bell and I'm here on behalf of
15	the Missouri Department of Conservation.
16	And I know we've talked about this case
17	being similar to a previous case, but one thing that
18	is different is the participation of the Missouri
19	Department of Conservation. This is actually
20	although Missouri Department of Conservation has
21	participated in several cases here recently, this is
22	the first appearance at a PSC hearing in recent memory
23	by the Missouri Department of Conservation. So I did
24	want to just kind of back up and explain kind of why
25	Missouri Department of Conservation did decide to get

involved in the PSC process. 1 2 We have heard a lot today, both from Mr. Cooper and I think from Ms. Mers too, about the 3 public policy of the state. And -- but the energy 4 policy is not the only public policy of the state. 5 And while I understand in the Grain Belt case, as 6 7 Ms. Mers pointed out, the Commission and the state is 8 moving toward a newer diverse -- diverse energy, 9 particularly with respect to wind, as we make that movement, we are presented with new challenges. 10 Wind is new for Missouri. And one of 11 12 those new challenges is it -- is the challenge that it pre-- presents to Missouri wildlife and Missouri 13 conservation interests. 14 15 So MDC has a constitutional mandate to conserve fish, forest and wildlife. MDC was first 16 formed through a citizen initiative and then later 17 voters decided to constitutionally dedicate funding to 18 MDC and its goals. MDC's goal is to utilize these 19 20 resources -- these dedicated resources to sustain a diverse and healthy plant and animal community well 21 into the future. 22 23 And so as the Commission is considering the energy policy, it has to balance that policy with 24 25 this voter-imposed state policy to conserve fish,
1	forest and wildlife.
2	MDC has a long history of consulting with
3	private developers and regulators on development
4	projects in an attempt to reduce the impact to fish,
5	forest and wildlife. It has only been more recently,
6	with the rise of commercial wind development, that
7	regulated utilities and the Missouri Department of
8	Conservation have begun to cross paths.
9	So not only does the Missouri Department
10	of Conservation have a constitutional duty to conserve
11	and protect fish, forest and wildlife, it also has an
12	interest in preserving and protecting the significant
13	investments it has made through the conservation sales
14	tax and Missouri's wildlife resources.
15	This investment is not only in the
16	particular species and the wildlife, but also in their
17	habitats and in these and in particular, this
18	project is very two of the sites are very close to
19	conservation areas which the Department of
20	Conservation has invested significant resources in
21	maintaining. And so MDC has an interest in protecting
22	those conservation areas.
23	The Department of Conservation hopes that
24	its participation in this case can bring and in
25	other PSC cases can bring its expertise and a greater

understanding of the wildlife issues and conservation
issues that are presented as commercial wind
development continues.

So on the first issue -- so first, I think it's important to say Conservation does not take a position on the Neosho Ridge project. That's in Kansas and in the purview of the Kansas Department of Conservation.

9 But with respect to the other two projects, the first issue, you know, does the evidence 10 establish the projects are necessary and convenient? 11 12 And while the -- while MDC doesn't take a -- basically a stance on the final question, MDC's position is that 13 under the Tartan factors, the factor on public 14 interest, that conservation should be a consideration 15 under that factor. 16

And so when evaluating public interest, the Commission not only can consider conservation and wildlife issues, but it should consider those issues. And it has before. I think most recently in the Grain Belt case, in that decision we saw that the Commission addressed both environmental and agricultural concerns under the public interest.

And a few years back in the Ameren Illinois transmission case, specifically there was

1	some testimony about bats. And under the public
2	interest factor, the Commission addressed wildlife
3	issues. And so we believe in this case it would be
4	appropriate for the Commission to consider wildlife
5	issues under the public interest Tartan factor.
6	So here in this case you do have the
7	Rebuttal Testimony of Jennifer Campbell, who is MDC's
8	policy coordinator. And she is the one who is the
9	point of contact regularly with the private developers
10	on other projects. You also have the testimony of
11	Dr. Janet Has Haslerig, who is the MDC's eel expert.
12	And you also have testimony before you of Doctor
13	Dr. Kathryn Bulliner, who is the MDC bat expert in the
14	state.
15	And all of the all of the testimony
16	suggests that there are significant conservation
17	concerns, particularly to the sites of the North Fork
18	Ridge and Kings Points sites. And so this evidence
19	should be considered can and should be considered
20	when the Commission is deciding to grant the CCN.
21	As to the second question, whether
22	what conditions should be imposed, Judge, I know
23	you've talked about how positions have changed. And
24	so our original position was set forth in our
25	testimony, but since then we filed a stipulation and

joined a stipulation with the Company. That was filed
on Friday and that now represents MDC's position as
far as what conditions should be imposed. Those are
attached to the stipulation.

5 And so if the Commission does approve -ultimately approve the CCN, we would urge the 6 7 Commission to impose the conditions in that 8 stipulation. The Company and MDC have had extensive 9 discussions regarding how to balance those public policy interests; the State's interest in renewable 10 energy and the State's interest in protecting and 11 12 preserving conservation and wildlife issues. And so we feel like this stipulation has found that balance. 13

I'm not going to go through each of the 14 15 provisions of the stipulation, but just on a high level, the stipulation provides protection for known 16 17 eagle nests. It provides protection for known riparian corridors for the gray bat. The stipulation 18 provides buffers or setbacks from conservation areas. 19 20 And it also provides reporting and monitoring provisions that will help us learn more about the 21 impact of commercial wind development on Missouri's 22 23 species. So we would, again, urge the Commission to adopt the -- the provisions of that stipulation. 24 25 JUDGE DIPPELL: Are there any Commission

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1 questions?

2 BY COMMISSIONER HALL:

Q. Good morning. I was wondering how these conditions compare to conditions in place for other wind farms? Are these fairly typical or is there something unique about any of these provisions?

A. So there are other wind farms that are non-regulated utilities. And in those instances, it's just a negotiation between the non-regulated wind developer and MDC. And so they have come to I believe some agreements on certain issues. I don't have all of those memorized.

As far as other regulated utilities, 13 there's been two stipulations previously approved that 14 had conditions. And so, many of these conditions are 15 similar to what you will have seen in the previous 16 Ameren cases. I think what's -- each -- so it should 17 be said Missouri Department of Conservation is not --18 does not take the position that, you know -- is not 19 20 anti-wind in any way. The -- what they're trying to do is -- is make sure we protect wildlife. 21

22 So the ones in Ameren, I think you'll see 23 the -- the newer things is that some of these 24 implicate conservation areas. And so what MDC is 25 doing with each case is looking very particularly at

1	that site. And, you know, there may be sites in
2	Missouri that don't implicate any wildlife issues.
3	And so you're not going to see a carbon copy in each
4	case because in each case, MDC takes a look at the
5	data as far as what species are present, what areas
6	are are close by and then the stipulation should
7	meet those specific needs.
8	Q. So bottom line so bottom line, there's
9	nothing in this stipulation that anyone could view as
10	radical compared to conditions in place for other wind
11	farms?
12	A. No. We don't we see them to be very
13	reasonable. They are a compromise off of our original
14	position and we would expect similar provisions. If
15	you were to locate another wind farm in an area that
16	implicates the eagle, that implicates the gray bat and
17	implicates conservation areas, which is what we had in
18	this case, we would expect to request something very
19	similar.
20	Q. Thank you.
21	A. Uh-huh.
22	JUDGE DIPPELL: Thank you very much.
23	MS. BELL: Thank you.
24	JUDGE DIPPELL: And the Office of Public
25	Counsel.

1 MR. WILLIAMS: Thank you. I do have a 2 handout which contains some highly confidential 3 information, so what I will put on the screen will 4 not. 5 JUDGE DIPPELL: Okay. So --6 MR. WILLIAMS: There will be --7 JUDGE DIPPELL: Mr. Williams -- in case 8 that wasn't picked up -- says that he is -- has a 9 handout that contains some highly confidential information that he's using in his opening, but that 10 the one presented for public viewing will not contain 11 12 that information. And I didn't mention before we started 13 that there is a lot of confidential information in 14 15 this case. We certainly can go in-camera if we need 16 to hear any of that in the -- in the open hearing, but 17 if we can accomplish it without having to close the proceedings, that is preferable. 18 MR. WILLIAMS: May it please the 19 20 Commission. My name is Nathan Williams and I represent the Office of the Public Counsel here today. 21 The Office of the Public Counsel does not 22 23 oppose Empire building these three 1.1 billion dollar wind projects. Let me repeat that. The Office of the 24 25 Public Counsel does not oppose Empire building these

1	1.1 billion dollar wind projects. But the Office of
2	the Public Counsel does oppose how Empire plans for
3	its retail customers to play pay for them.
4	Empire is promoting these wind projects
5	only on the economic proposition that projected SPP
6	market revenues over 20 years or more will exceed the
7	cost of the projects. Requesting a certificates
8	for a project solely based on projected revenue
9	streams is novel and sounds like an investment pitch,
10	which it is.
11	If Empire carries out its plan, its
12	captive customers essentially would become investors
13	in a speculative business proposition; that these wind
14	projects will create more revenues in the SPP market
15	than they cost. However, one of the fundamental bases
16	of utility rate regulation is that retail customers
17	should only pay for what is used to provide them their
18	utility service.
19	Public Counsel has two perspectives on
20	this. The first one's a regulatory perspective. From
21	a regulatory perspective, the Office of the Public
22	Counsel opposes Empire's intention to recover its
23	investment and profit for generating plant that it
24	does not need to provide its captive customers with
25	safe and reliable electric service. Empire is long on

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capacity and has sufficient excess capacity that it 1 2 should remain long on capacity for the next decade. OP-- OPC's position is supported by the 3 regulatory concept of used and useful, which means 4 5 that for a utility recover its investment in plant, 6 the utility must be using that plant to provide 7 utility service to its customers. It is also 8 supported by Section 393.135, which was passed by 9 voter initiative. That statute is on the handout that I've given you and also appears on the screen and I 10 guess the public is seeing it. 11 12 Of particular significance -- well, I don't know if I want to just read through the whole 13 thing. But in particular, the Commission and parties 14 should note the language "and used for service." 15 Plain language reading in Missouri is that it would be 16 17 used for service to serve customers, utility service. Not to make money in the SPP market. 18 In the past, this Commission has 19 20 disallowed utility recovery of investment in excess capacity. If built now, these wind projects will be 21 not only excess capacity, they will be additional 22 23 excess capacity. OPC witnesses Dr. Geoff Marke and Lena Mantle in particular testify to this point. 24 OPC is also looking at this from an 25

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1 economic perspective. OPC opposes Empire's intention 2 to recover its investment in profit for these wind projects from a purely economic perspective as well. 3 Although Empire could build these wind 4 5 projects as an independent power producer without any 6 Commission approval, rather than doing so, Empire 7 intends to obtain its profit from its retail 8 customers, not the SPP market. This point bears 9 repeating. Empire is not opting to build these wind projects as unregulated assets where it would obtain 10 its profit from the markets. 11 12 While Empire points to its Market Protection Plan as retail customer protection, the 13 14 focus of that plan is to limit Empire's exposure to 15 downside risk in the SPP market. Rather than capping customers' exposure to that downside risk, it is 16 17 Empire's exposure that is capped at 1.25 million -apparently the new position is 52.5 million, but in 18 any event, it's Empire's exposure that is capped. 19 20 The downside risk is substantial. These wind projects will cost about 1.1 billion dollars of 21 which Empire intends to invest about 550 million. 22 23 That figure is actually unknown at this point in time, the exact investment Empire will make. An Empire 24 capital investment of 550 million would increase 25

Empire's rate-base by about 40 percent. Empire 1 intends for its 172,000 retail customers to be at the 2 mercy of the SPP market revenues to offset Empire's 3 4 increase in revenue requirement these wind projects would cost. 5 6 A prudent investor would carefully 7 analyze the prospects of profiting in the SPP market. 8 The SPP market is undergoing rapid and fundamental 9 changes. As the Commission stated in its just issued Grain Belt Report and Order on remand, you're going --10 you've heard this quote already, but I'm going to say 11 12 it again, quote, We are witnessing a worldwide, long-term and comprehensive movement towards renewable 13 14 energy in general and wind energy specifically, closed 15 quote. 16 Public Counsel agrees. That also means 17 there's going to be a lot more generation in the SPP 18 market, which should do nothing except drive prices downward. 19 20 The Commission also made an important finding in that case. Quote, The wind industry will 21 not need the federal production tax credit after 2023 22 23 because of continuing technology improvements, closed There is no reason to believe that technology 24 quote. improvements will not continue after 2023 and every 25

1	reason to believe they will. And that the cost of
2	generating electricity from wind will continue to
3	decline, putting downward pressure on SPP market
4	prices.
5	As Dr. Geoff Marke testified
6	testifies, not only is SPP abundant when generating
7	capacity now, there is an impending onslaught between
8	6.5 and 11.5 gigawatts of new wind that SPP anticipa
9	anticipates will come online by 2025. Despite this,
10	Empire only models 6.5 gigawatts of wind additions for
11	its high case.
12	This additional wind capacity can only
13	put downward pressure on SPP market prices. When the
14	wind is blowing regionally, it will put downward
15	pressure on SPP market prices at the same time when
16	Empire's wind projects would be producing energy.
17	Despite the continuing increase in
18	requests to SPP required to add wind, Empire has not
19	updated its analyses based on now two-year-old data to
20	account for that now known data.
21	From an investor's perspective, perhaps
22	most concerning are what is still unknown. As Staff
23	indicated or stated, not much has changed since
24	before. Well, the unknowns have not changed either.
25	Some of those unknowns are when will Empire when

1	Empire will have generation interconnection agreements
2	with SPP for any of the wind projects; the cost of
3	those interconnection agreements; how much Empire will
4	invest; who its tax equity partner or partners will
5	be; the actual terms and conditions of the tax equity
6	partnership; the hedge price.
7	With the settlement filed last Friday
8	afternoon, in the face of these unknowns and issues,
9	you are presented with essentially two proposals. You
10	will have the settlement proposal that shields
11	shareholders to a 50/50 sharing of downside risk up to
12	a maximum exposure of 52.5 million over the first ten
13	years of the projects lives.
14	And you have OPC's proposal that
15	accepting that the 25 million dollars Empire's
16	witnesses Blake Mertens and David Holmes testify in
17	surrebuttal is sufficient, shares downside risk 50/50
18	between customers and Empire and limits customers, not
19	Empire's exposure, to 25 million over the first ten
20	years.
21	In conclusion, OPC would like to see
22	Empire move forward with these projects, but as
23	non-regulated business venture where Empire and its
24	tax equity partner or partners bear all the risk.
25	Empire does not need these wind projects to serve its

customers' load so those customers should not be 1 2 required to pay for Empire adding generation that it does not use to serve them. 3 Empire only has about 172,000 retail 4 Not over a million like Ameren Missouri. 5 customers. If these projects fail, the impact on Empire's 6 7 customers would be substantial and every home and 8 business in Empire's territory would suffer. 9 Empi-- I want to turn to a question that Commissioner Hall said he was going to ask of Public 10 Counsel, and that was whether all customers are 11 12 similarly situated, in particular residential and commercial and industrial. 13 14 I don't believe they are. I think most residential customers' primary concern are economics, 15 but I know some of the commercial and industrial 16 17 customers have stated their support for wind. And I 18 believe that support -- certainly they have financial considerations, but they might be willing to pay more 19 20 for being in a position to say that they're being served by wind than not. 21 Public Counsel's witnesses in this case 22 23 are Dr. Geoff Marke, Ph.D., chief economist who has testified on economic and policy issues in numerous 24 cases before this Commission. In this case he is 25

1	testifying to conditions in the SPP market, the
2	levelized cost of energy, Empire's modeling
3	assumptions and economic and regulatory policy.
4	John Robinett, who is an engineering
5	specialist and who has testified before the Commission
6	both live and by affidavit in numerous cases. He is
7	testifying to the impact of these wind projects on
8	Empire's net plant in service and the increase in
9	Empire's turbine costs.
10	John S. Riley, who is a certified public
11	accountant and who has appeared and testified before
12	the Commission on accounting issues numerous times.
13	He is testifying to the increase in revenue
14	requirement that these projects will cause Empire's
15	customer customers to bear for generation that is
16	not needed.
17	And finally, Lena M. Mantle, who is a
18	professional engineer registered with the State of
19	Missouri and who was involved in the development and
20	revision of the Commission's resource planning rules
21	and has reviewed the resource planning processes of
22	Empire and the other Missouri electric utilities since
23	the early 1990's. She is testifying to the magnitude
24	of Empire's plant investment in these wind projects
25	and the riskiness of relying on Empire's economic

projections of SPP market prices. 1 2 Are there any questions? JUDGE DIPPELL: Are there any Commission 3 4 questions? Mr. Chairman. 5 CHAIRMAN SILVEY: Thank you. 6 BY CHAIRMAN SILVEY: 7 I just specifically want to Thank you. 0. 8 clarify something -- one of OPC's positions that was 9 referenced actually I think in Empire's opening. 10 If you look at the position statement in the Customer Protection Plan, Number 6, rate-basing of 11 12 wind projects says, While Empire's investment in the Kings Point, North Fork Ridge and Neosho Ridge wind 13 14 projects are included in Empire's rate case, Empire's Missouri retail customers shall pay in their rates 15 neither a return of nor a return on Empire's 16 17 investments in those projects during the hedging period of this plan nor any amount in the excess -- in 18 excess of the 25 million dollar limitation. 19 20 Does the Commission, in fact, have the legal authority to set that as a condition in this CCN 21 for treatment in a future rate case? 22 Well, first I'll explicate that what we 23 Α. were trying to do, and we may have done a bad job of 24 25 wording it, was say that essentially the projects

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1	would be treated as if they were not similar to an
2	independent power producer. So the the wording of
3	the including in rate-base may have been not
4	correct, but we were wanting to make it clear that
5	whether they would be rate-based after ten years would
6	not be an issue that we would bring up in our
7	settlement position or I mean our the position
8	we took in the case as our offer as as an approach.
9	But as to your question, basically what
10	we have now are a lot of rate-making issues that are
11	being looked at in the context of a certificate case
12	because Empire has said go forward for economic
13	reasons. I don't know if you want to focus call it
14	the Tartan factor of economic feasibility, but they're
15	saying their real pitch is build these things
16	because they're going to bring in more revenues than
17	they're going to cost in the long run.
18	That really depends on what the
19	Commission does with rates. So there have been I
20	think everybody's position in this case has addressed
21	rate-making in some fashion or another. Whether the
22	Commission can actually bind a this Commission can
23	actually a bind a future Commission to any rate-making
24	principles, I think that's questionable. Legally
25	bind.

1	Q. Questionable how?
2	A. I think that the Commission should always
3	have the freedom and does have the freedom to look at
4	all relevant factors when setting rates. I'm I'm
5	aware that the certificate statute says that the
6	Commission can impose any conditions it it
7	doesn't put a limitation on the Commission
8	expressly put a limitation on the Commission's ability
9	to set conditions, but I I don't think it's ever
10	been in front of a court, but I question whether or
11	not a Commission can do a rate-making condition in a
12	certificate that would legally bind a future
13	Commission. It certainly would be a relevant factor.
14	Q. Thank you.
15	JUDGE DIPPELL: Commissioner Hall, did
16	you have questions?
17	COMMISSIONER HALL: Yeah.
18	BY COMMISSIONER HALL:
19	Q. Can you explain to me what you are using
20	393.135 to show or to argue?
21	A. Well, it's our questionable whether or
22	not the Commission can issue a certificate in this
23	case well, let me back that up. 393.135 is talking
24	about what you can recover in rates. In order to
25	recover or

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1	Q. What you can recover in rates before
2	something is built, which is based on the cost of
3	construction in progress. So this is the anti-quip
4	statute and it concerns what you can put in rates
5	before something is built.
6	A. But it it also says that it has to be
7	used for service before you can include it in rates.
8	Q. I don't see that.
9	A. We're saying
10	Q. I mean I've always viewed and I thought
11	everybody viewed "before it is fully operational and
12	used for service" as one requirement and it's all
13	concerning the cost of construction in progress.
14	A. Well, it was done under it's voter
15	initiative that was done in response to in 1976 I
16	think to the construction of nuclear plants across the
17	country. There are similar kinds of statutes. Rather
18	than the "used for service" language there's the "used
19	and useful" language in the other states, which is
20	clearly you can't recover until it is used. I think
21	the "used for service" language is plain meaning is
22	it just means that you cannot start recovering
23	anything in rates unless the utility property is being
24	used to provide utility service to the utility
25	customers.

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1	Q. I'd like some some some case cites
2	for that assertion. I mean I think that there is some
3	case law out there that that plant has to be in
4	service for for rates to be just and reasonable,
5	but I think that's under a different statute. So I'm
6	somewhat baffled that you're taking this statute for
7	that proposition.
8	But continue with your your analysis
9	as to how this is relevant to any issue before us.
10	A. Well, I mean that's it. That if this
11	plant is until it's being used to provide utility
12	service, electricity, capacity, something to actually
13	provide service to customers aside from getting a
14	revenue stream from the SPP, because it is additional
15	excess capacity, this statute would say you cannot
16	recover in rates because it is not being used for
17	service. That's it. And if you're looking for some
18	case that's expressly says that, it's not out
19	there.
20	Q. Okay. Well, I look forward to the to
21	the briefing that you will provide on on that
22	interpretation of that statute after after this
23	hearing.
24	Let me move onto the the provision
25	on on Asbury in the

1	A. On the stip?
2	Q in in the non in the
3	non-unanimous stip. I know that that you just
4	received this on Friday. Your office is still
5	evaluating it. I'm not going to ask you to take a
6	position before you are ready to do so, but maybe you
7	are ready to do so. Do do you have a position
8	on on that provision or is that part of what you're
9	still analyzing?
10	A. Let me take a look at it. I don't know
11	that we would oppose that provision in and of itself.
12	It's may not be, if you were going to address
13	Asbury at all, how we would prefer that it be
14	addressed.
15	Q. How would you prefer it be addressed?
16	A. We'd entertain a provision where if
17	the Empire decided it wanted to sell Asbury, it
18	would come in and ask the Commission for authority
19	to I mean retire Asbury, not sell it necessarily
20	it would come in and ask the Commission for authority
21	to sell Asbury and
22	Q. Or retire?
23	A. Well, the statutes give ex explicit
24	authority to sell it.
25	Q. Correct.

1	A. But if it was contemplating retirement,
2	it would first come in and get Commission authority to
3	sell, put it on the market, see what it could get and
4	then decide whether to retire it or sell it.
5	Q. So you you Public Counsel would
6	want the Company to come in before retiring and seek
7	approval to sell it? That's all?
8	A. If Asbury were even a condition. I mean
9	we don't really view Asbury as part of this case.
10	It's a certificate case for wind projects.
11	Q. Okay. All right. And then turning to
12	the Customer Protection Plan and I think I
13	understand and I and I haven't come to an opinion
14	as to whether I agree or not, but I think I understand
15	Public Counsel's position on that to some extent.
16	Would if if that 52.5 million
17	figure was changed in a is it would it is
18	that the figure is that the problem? Or is it the
19	entire concept that is problematic to your office?
20	A. Well, at some point I guess the figure
21	gets high enough it would alleviate our concern, but I
22	don't know what that number would be.
23	Q. Okay. So it so at some point if it
24	got high enough, it would insulate customers
25	sufficiently that Public Counsel could could

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could support it? You just don't know what that 1 2 figure is? I'm not certain of that, but I think 3 Α. 4 that's probably the case. 5 Q. Okay. Thank you. 6 JUDGE DIPPELL: Mr. Chairman, did you 7 have follow-up? BY CHAIRMAN SILVEY: 8 9 Ο. Yeah. Just to -- just to follow up on the Commissioner's questions on the quip statute. 10 So your contention is that the phrase "and used for 11 12 service" stands on its own and is not tied to "fully operational"? 13 14 Α. Yes. 15 Ο. Okay. Thank you. 16 JUDGE DIPPELL: Okay. Thank you very 17 much. Okay. That concludes our openings. 18 At 19 this time I think Missouri Department of Conservation 20 wanted to go ahead and offer its exhibits for its witnesses and ask that they be excused. 21 22 MS. BELL: Yes, Your Honor. We have 23 Exhibits 600 through 606. Would you like me to identify them individually? 24 25 JUDGE DIPPELL: Yes. Go ahead.

1	MS. BELL: Okay. So 600 is the Rebuttal
2	Testimony of Jennifer Campbell, the HC version of her
3	testimony. 601 is the public version of her
4	testimony. 602 is the written Rebuttal Testimony of
5	Dr. Kathryn Bulliner, and that is the highly
6	confidential version. 603 is the public version of
7	her testimony. And 604 is the written Rebuttal
8	Testimony of Dr. Janet Haslerig, and that is the
9	highly confidential version of her testimony. 605 is
10	the confidential version of her testimony. And 606 is
11	the public version of her testimony.
12	And at this time we would offer those in
13	and well, we'll go ahead and just offer those
14	first.
15	JUDGE DIPPELL: Okay. So let me back up
16	just really quickly there. So you designated each
17	public, highly confidential or confidential with its
18	own number?
19	MS. BELL: Correct.
20	JUDGE DIPPELL: Okay. And that then
21	ended up being 600 through 606?
22	MS. BELL: Uh-huh.
23	JUDGE DIPPELL: Okay. Are there any
24	objections to Exhibits 600 through 606 coming into the
25	record?

1 Seeing none, then I will admit those 2 exhibits. (Exhibits 600 through 606 were received 3 into evidence.) 4 5 JUDGE DIPPELL: And seeing that the 6 agreement stated, but I'll just ask again. Would 7 there be any questions for those witnesses? 8 Seeing none, then cross-examination is 9 waived on those witnesses and they may be excused. 10 MS. BELL: Okay. And we would request that Department of Conservation be excused as well; 11 12 counsel. 13 JUDGE DIPPELL: And you may also be excused with my usual caveat that you accept what 14 15 whatever -- you -- you forfeit your opportunity to object to the proceedings and the testimony and 16 17 evidence as it comes in here today -- or this week. MS. BELL: Understood. Thank you, Judge. 18 19 JUDGE DIPPELL: Uh-huh. Okay. Is there 20 anything else before -- I think we'll go ahead and 21 take a short break and we'll let Public Counsel decide where it stands on the Stipulation and Agreement and 22 23 going forward with witnesses and so forth and I'll let you inform me of that when we return from a short 24 break. Let's -- let's break until five till 11:00. 25

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We can go off the record. 1 2 (A recess was taken.) (Missouri Department of Conservation 3 Exhibits 600-HC, 601-P, 602-HC, 603-P, 604-HC, 605-C 4 and 606-P were marked for identification.) 5 JUDGE DIPPELL: Okay. So we've returned 6 7 from our break and are back on the record. Before we 8 went back on the record, I was explaining to counsel 9 that before we adjourned or before we went to our break, I had intended for Public Counsel not to make a 10 decision about whether or not it objected to the 11 12 Stipulation and Agreement, but about whether it needed more time or a break in the hearing to review that. 13 And Mr. Williams tells me that it's 14 actually more helpful for them in reviewing their 15 16 position on the agreement to just go ahead and 17 continue with the witnesses, so that's what we're going to do. Did I restate that correctly, 18 Mr. Williams? 19 20 MR. WILLIAMS: Yes, you did. Thank you. JUDGE DIPPELL: 21 22 Okay. So in that case, we will just 23 proceed forward. And so this morning you said that there was no change then in witness order or order of 24 cross-examination as a result from the agreement. 25 Is

that still correct? 1 2 MR. COOPER: I believe that's still 3 correct, Your Honor. 4 JUDGE DIPPELL: Okay. All right. Then we can begin with Empire's first witness, which is 5 6 Mr. Mertens. 7 MR. COOPER: Yes. Empire would call 8 Mr. Blake Mertens. 9 (Witness sworn.) JUDGE DIPPELL: Thank you. 10 BLAKE A. MERTENS, being first duly sworn, testified as 11 12 follows: DIRECT EXAMINATION BY MR. COOPER: 13 14 Q. Please state your name. 15 Α. Blake Mertens, M-e-r-t-e-n-s. 16 Have you caused to be prepared for 0. 17 purposes of this proceeding certain Direct and 18 Surrebuttal Testimony in question and answer form? I have. 19 Α. 20 Ο. Is it your understanding that that testimony has been marked as Exhibit -- well, let me 21 back up. Direct Testimony, both in the EA-2019-0010 22 23 case and Direct Testimony in the EA-2019-0118 case? 24 That's correct. Α. Is it your understanding that the Direct 25 0.

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1	Testimony in the 0010 case has been identified as
2	Exhibit 1, that the Direct Testimony in the 0118 case
3	has been identified as Exhibit 2, that the Surrebuttal
4	Testimony in highly confidential form has been marked
5	as Exhibit 3-HC, and the Surrebuttal Testimony in
6	public form has been marked as 3-P for public?
7	A. Correct. Yes.
8	Q. By whom are were you employed and in
9	what capacity at the time you prepared the referenced
10	testimony?
11	A. I was employed by Liberty Utility Service
12	Co. as vice president of electric operations for the
13	Central Region, otherwise known as Empire District
14	Electric Company.
15	Q. Sitting here today, by whom are you
16	employed and in what capacity?
17	A. As of April 1st, I've taken a position
18	with Tetrad Corporation based out of Omaha, Nebraska
19	as executive vice president.
20	Q. Okay. How recently did that happen?
21	A. As I said, April 1st is was my first
22	day. I turned in my notice of resignation about
23	60 days ago.
24	Q. And sitting here today, are you still
25	testifying on behalf of Empire District Electric

Company and -- and authorized to testify on behalf of 1 2 the Company? Yes. That's correct. 3 Α. 4 Ο. If I were to ask you the same questions in the referenced Direct and Surrebuttal Testimony 5 6 today, would your answers be the same with the exception of the who you are currently employed by and 7 8 in what capacity? 9 Α. Yes. Are those answers true and correct to the 10 Ο. best of your information, knowledge and belief? 11 12 Α. Yes. 13 Ο. Okay. MR. COOPER: Your Honor, I would offer 14 15 Exhibits 1, 2, 3-HC and 3-P at this time. 16 JUDGE DIPPELL: Would there be any objection to Exhibits 1, 2 and 3, both public and 17 highly confidential versions, coming into the record? 18 MR. WILLIAMS: No objection. 19 20 JUDGE DIPPELL: Seeing no objection, I will admit those exhibits. 21 (Exhibits 1, 2, 3-HC and 3-P were 22 23 received into evidence.) 24 MR. COOPER: At this time we would tender Mr. Mertens for cross-examination. 25

1	JUDGE DIPPELL: Is there
2	cross-examination by Renew Missouri?
3	MR. OPITZ: No, thank you, Judge.
4	JUDGE DIPPELL: Division of Energy?
5	MS. REEVES: No, Your Honor.
6	JUDGE DIPPELL: Missouri Energy Consumers
7	Group?
8	MR. WOODSMALL: Yes, Your Honor.
9	Briefly.
10	CROSS-EXAMINATION BY MR. WOODSMALL:
11	Q. Good morning, sir.
12	A. Good morning.
13	Q. Congratulations on the new job.
14	A. We'll see. Thank you.
15	Q. I wanted to talk briefly about three of
16	the conditions contained in the Non-Unanimous
17	Stipulation. Are you familiar with the Non-Unanimous
18	Stipulation?
19	A. Yes. I believe I have a copy here as
20	well.
21	Q. Okay. Working backwards, there's a
22	provision that talks about the development of the
23	non-residential rec program. Are you familiar with
24	that?
25	A. Yes.

1	Q. And can you tell me what that does?
2	A. Well, there are many as as you
3	articulated earlier, there are many larger customers,
4	commercial customers or industrial customers, that
5	have sustainability programs that require or they
6	want to prove their greenness or their sustainability.
7	So this program will allow us to when completely
8	defined, assign or sell those recs to those those
9	commercial or industrial customers to meet their
10	sustainability goals.
11	Q. And do you believe that the offering of
12	such a program is in the public interest?
13	A. Yes.
14	Q. And why?
15	A. Well, you know, just as as it is
16	important for us as an electric utility to show our
17	customers that we are trying trying to become more
18	sustainability, these larger commercial and industrial
19	cus larger industrial and commercial customers have
20	the same type of goals. And to to prove to their
21	customers that they are becoming more sustainable,
22	that's what this program allows them to do.
23	Q. Then there is a provision for battery
24	energy storage. Are you familiar with that?
25	A. Yes.

1	Q. And can you tell me what your
2	understanding of that provision is?
3	A. Well, to the extent a certificate of
4	convenience and necessity would not be required, if we
5	would move forward with a battery storage program,
6	we we would have to basically go forward we
7	would have to basically present the same facts that we
8	would at a CCN process to prove the battery storage is
9	in the public good and a necessity for our customers.
10	Q. And do you believe that's in the public
11	interest?
12	A. Yes.
13	Q. And why?
14	A. You know, very similar. Just to prove
15	that it's the lowest cost alternative for our
16	customers and provides good service in the long run.
17	Q. And finally, there's a provision
18	regarding the creation of a regulatory asset slash
19	liability for Asbury. Are you familiar with that
20	provision?
21	A. Yes.
22	Q. And can you tell me what your
23	understanding of that provision is?
24	A. Yeah. Well, to the extent we would
25	make management would make the decision to retire

1	Asbury before our next rate case or a rate case
2	proceeding, there would obviously be costs and
3	revenues that need to be trued up in the next rate
4	case proceeding. So we've asked for permission to
5	create regulatory assets and regutory regulatory
6	liabilities to cost track those costs and liab
7	cost and revenues in those accounts.
8	Q. And do you believe that provision is in
9	the public interest?
10	A. Yes.
11	Q. And can you tell me why?
12	A. Again, just to true that up true those
13	costs up both for the shareholders and and the
14	customers, to make sure that those are appropriately
15	addressed in rates going forward.
16	Q. So it would allow for treatment of the
17	entire pie at one time, both the assets that the
18	utility may seek as well as the liabilities that the
19	customers may seek?
20	A. Exactly.
21	Q. Okay. I have no further questions.
22	Thank you, sir.
23	JUDGE DIPPELL: Is there
24	cross-examination by Staff?
25	MS. MERS: Very briefly.

1	CROSS-EXAMINATION BY MS. MERS:
2	Q. There's been some criticism of the market
3	forecast and how that's been used in your analysis in
4	this case or the analyses that have been done. Is
5	that your understanding there's
6	A. I understand there's been some criticism
7	of that, yes.
8	Q. Are there any other analyses that Empire
9	performs as part of other Commission requirements or
10	resource planning that rely on the same kind of market
11	forecast?
12	A. Integrated resource plan would be the one
13	that would come to the top of the mind, yes.
14	Q. Are there any others?
15	A. You know you know, I'm when we do
16	prudency costs on fuel and those type of things, we
17	al we always rely on fuel fuel forecasts and
18	market price forecasts, yes.
19	Q. And in any of those cases, has the issue
20	about market forecasts been raised before?
21	A. I couldn't say definitively yes or no.
22	You know, I know we've had discussions in in
23	previous cases where we talk about the validity of
24	those. And I think everyone would agree the day that
25	a forecast is put forward is the day that it's

1	incorrect. I mean it's just a matter of how how
2	ac the relativity of that in incorrectness.
3	But we know that the day we put that out,
4	you know, a year from now, market conditions are going
5	to be slightly different, yes.
б	Q. But even with all of those
7	considerations, it's something that's pretty typically
8	re relied upon by you and other utilities in doing
9	your resource planning and other process. Correct?
10	A. Yes. Absolutely. That's the reason we
11	go through those resource planning. And they
12	absolutely require us to do forecasting.
13	Q. Okay. No further questions. Thank you.
14	JUDGE DIPPELL: Public Counsel?
15	MR. WILLIAMS: Thank you.
16	CROSS-EXAMINATION BY MR. WILLIAMS:
17	Q. Since we're on the topic of resource
18	planning
19	A. Uh-huh.
20	Q what is the purpose of resource
21	planning?
22	A. To find the least cost alternative for
23	our customers to to to meet their demand needs,
24	whether that's from a supply resource perspective or
25	demand response initiatives.

1	Q. And for the resource planning that Empire
2	did for its filing that it has not yet made this year,
3	has Empire updated market prices for that filing?
4	A. It's my understanding that we have.
5	Mr. McMahon would probably be the better witness to
6	address all that, but yes, we have updated those with
7	ABB price forecasts, yes.
8	Q. And were those updated forecasts
9	presented to the Commission in this case?
10	A. I do not believe so. As we have stated,
11	the initial analysis we had showed an overall
12	levelized cost of energy
13	Q. I think you've answered the question.
14	A. Okay.
15	Q. What is Empire's current rate-base?
16	A. I believe total company, we have
17	1.6 billion roughly net assets, net plant.
18	Q. And do you know by how much Empire's
19	rate-base will increase if the Commission grants
20	certificates in this case?
21	A. Well, roughly our our portion of the
22	customer savings plan would require somewhere between
23	550, 600 million dollars of additional investment. So
24	increase that 1.6 billion by that amount.
25	Q. And how is it that Empire intends to
1	obtain a return of and return on its investment in the
----	--
2	wind projects that are the subject of this case?
3	A. Well, we would we would put these
4	assets in that rate-base and they would be treated
5	as as net plant and we'd get a return on equity
б	in in that manner is my I mean it would be the
7	wind project co's. Not those assets directly, but
8	the the portion of those our portion of the
9	investments in those wind project co's would be in net
10	plant.
11	Q. So ultimately Empire intends to get a
12	return of and on its investment from its re retail
13	customers. Correct?
14	A. That's correct.
15	Q. Does Em has Empire executed a tax
16	equity partnership agreement for any of the three wind
17	projects?
18	A. It is my understanding we have not
19	entered into full agreements, but Mr. Mooney would be
20	the correct person to ask the majority of those tax
21	equity questions.
22	Q. Does Empire have any have an
23	SPP-approved generation interconnection agreement for
24	any of the wind projects?
25	A. We do not have one in hand. We have

1 applied for interconnection agreements for all three wind projects. 2 Q. Do you know when you will have 3 4 generation -- SPP-approved generation interconnection agreements for any of the projects? 5 6 Α. We -- we applied in the 2000-- May of 7 2017 or the first quarter of 2017 -- first half -- let 8 me restate that. 9 We applied in May of 2017, which was the first DISIS study that SPP allowed in the -- the 2017 10 year. SPP has a long backlog for this interconnection 11 12 request. And as of today, they have told us they're going to start that study process in May of this year. 13 And how long will that study process 14 Q. 15 take? 16 Α. At this point they've told us it would be complete by October 20th. 17 Of? 18 Ο. Of this year. 19 Α. 20 0. So when you will have SPP-approved -- any SPP-approved generation interconnection agreement 21 depends upon SPP? 22 23 Α. Yes. I mean they drive the study process along with several participants, including ourselves 24 and other load serving entities and transmission 25

providers within the SPP footprint. 1 2 0. Do any of the electric utilities that are members of SPP have retail customer choice? 3 I couldn't answer that definitively. 4 Α. Are you aware of any utilities that are 5 Ο. in SPP that do have retail choice? 6 7 I'm hesitating because I -- I do not know Α. 8 the cooperatives like Golden Spread that are located 9 in Texas. I do not know what their retail choice availability of their customers is. So I couldn't 10 answer that positively one way or the other. 11 12 Well, let's exclude Texas from the SPP 0. footprint and then ask the question. Excluding 13 utilities in Texas, are you aware of any members of 14 15 SPP who have retail customer choice? I am not aware. 16 Α. 17 Ο. How many retail customers does Empire serve? 18 Roughly 175,000. 19 Α. 20 0. And how many of them are located in Missouri? 21 22 Α. Roughly 85 percent, 140-some-odd 23 thousand. 24 I think you testified last time it was Ο. around 153,000, but whatever 85 percent of 172 -- I'm 25

1	sorry. I think you gave a different number for that
2	too.
3	A. I think I probably gave 172,000 last
4	time. We've grown a little bit since we last
5	testified so we're up at 174-, 175,000 today.
6	Q. But 85 percent of that number, whatever
7	that is?
8	A. 84 percent.
9	Q. When is it that Empire projects that its
10	customers will start seeing bill savings from the
11	three generation projects for which Empire's seeking
12	certificates in this case?
13	A. You could probably Mr. Holmes would
14	probably be the best person to ask that, but it's my
15	understanding through the modeling, year three or
16	four, maybe five is is when we would see savings
17	come through. There will be some initial impacts due
18	to putting those assets into our our net plant in
19	service, but, you know, somewhere that tips in year
20	three, four or five. But Mr. Holmes could clarify
21	that.
22	Q. The market prices you used for that
23	modeling are increasing over time, are they not?
24	A. That's correct.
25	Q. Is there any point in time at where they

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don't? Where they level off or decrease going out 1 2 into the future? I would have to go back and look at the 3 Α. details. I know Mr. McMahon could answer that 4 5 specifically. 6 0. So you don't know? 7 I don't know if there's one or two years Α. 8 that it would dip. I do not know that. 9 What do you expect to happen to SPP 0. market prices when -- in the next few years? 10 You know, I think our -- our forecasts 11 Α. 12 show that they are slightly increasing, relatively flat, increasing over -- over a period of time due to 13 14 natural gas prices that drive a lot of the SPP market prices. So that would be my answer. 15 You don't view that to be inconsistent 16 0. 17 with the amount of wind that's anticipated to come on 18 in the next few years? Well, again, natural gas prices 19 Α. 20 historically and -- and per our modeling have largely driven the prices that we see in SPP. While I will 21 admit that the wind has helped reduce those, but -- we 22 23 have seen in the past, but still natural gas is the marginal price in SPP. 24 25 0. Does Empire have an immediate need to

1	expand its generating resource capacity?
2	A. We believe that by adding wind, we we
3	provide an improvement by lowering the overall cost to
4	our customers. So as Mr. Cooper explained, you know,
5	depends on definition of needs. It's my understanding
6	this Commission has used that definition of need to
7	also include improvements. So we have by adding
8	this wind, we improve by lowering the overall cost to
9	our customers.
10	Q. I think in your testimony you testified
11	Empire having something like 1,447 megawatts of
12	capacity, do you not?
13	A. Somewhere in that neighborhood would be
14	correct, yes.
15	Q. And is that SPP accredited capacity?
16	A. Do you by chance have a reference for me?
17	I'm looking through this here.
18	Q. I don't know that I have another copy of
19	it. I have a Empire DR response to a Staff Data
20	Request 11-52.
21	A. Uh-huh. I'm hesitating because I'm just
22	trying to figure out the amount of wind in that 1,447.
23	So if you showed me a table, I could probably say
24	answer your question yes or no.
25	Q. You mean something like this?

1	A. Yeah.
2	MR. WILLIAMS: May I approach?
3	BY MR. WILLIAMS:
4	Q. I'm handing you what's been well,
5	hasn't been marked for identification, but it's a
6	Empire response to Staff Data Request 11 well, at
7	least the Company's designated it Staff 11-52. Take a
8	look at that.
9	A. So could you ask me your question again?
10	Q. I was asking whether the 1,447 was SPP
11	approved capacity or if it's I'm sorry. Let me try
12	that again.
13	I'm asking whether or not it's SPP
14	accredited capacity or if it's something else, usually
15	nameplate or it may be a mix? I don't know.
16	A. Yeah. Well, I'm trying to reconcile
17	there's a 1,477 in ththe main response to the data
18	request. There's 1,477 megawatts of accredited
19	capacity capacity; 1,390 megawatts of that owned
20	and 86 megawatts of that purchased. So that purchased
21	would be coming from Plum Point and the two wind
22	farms.
23	I'm trying to reconcile when I look at
24	this table it says 1,447, which I think is the the
25	non excludes the I'm not sure what it excludes.

There's a difference of 30 megawatts there, but --1 2 0. Let's see. What exhibit number did we get? Do you have a copy of your Direct Testimony in 3 EA-2019-0010 that's been marked for identification as 4 5 Exhibit Number 1? 6 Α. Yes. 7 Do you want to turn to the page -- pages Ο. 8 6 and 7? 9 Okay. Α. There's a sentence that runs on into the 10 0. top of page 7. That's where the 1,447 megawatts first 11 12 shows up. Sorry. I was looking at the -- looking 13 Α. 14 at my surrebuttal there. 15 Yes, so I think with -- the clarification 16 is, is we own 1,447 megawatts and have purchased 17 generation capacity of 303 megawatts. And then when you go through the calculation to figure out what's 18 accredited, whether it's owned or purchased, that's 19 20 the 1,477 I was talking about earlier. Are you saying there's something that's 21 Ο. not clear in the data request response? Because it 22 23 was asking about this testimony and the 1,447? 24 Α. Right. And -- and what I'm saying is in 25 the testimony, the 1,447 talks about what we own

versus the Purchase Power Agreements that would be on 1 2 top of that from an accredited capacity perspective. 3 0. And the Purchase Power Agreements that 4 you're referring to are? The Elk River and Meridian Way Wind 5 Α. 6 Farms. 7 Don't you have a --0. And we have a Purchase Power Agreement 8 Α. 9 with Plum Point. And how much are those accredited at and Ο. 10 what are their nameplates? 11 12 The Elk River Wind Farm is accredited Α. according -- in the 2017 version, at 17 megawatts. 13 Ιt is 150 megawatts in total capacity. The Meridian Way 14 15 Wind Farm is -- in 2017, we had 19 megawatts of accredited capacity and it is 105 megawatts nameplate. 16 17 Ο. And Plum Point? Plum Point is -- our share of that unit 18 Α. is 101 megawatts of off-take. 51 megawatts of that is 19 20 ownership and 50 megawatts of it is Purchase Power 21 Agreement. 22 And is that SPP accredited or nameplate Q. 23 or both? 24 That would be -- that would be both Α. effectively, yes. 25

1	Q. And whenever you were talking about the
2	wind farms, you made a point about the SPP
3	accreditation in 2017. Do you know what those wind
4	farms are accredited at now by the SPP?
5	A. Off the top of my head, I do not know
б	what our our 2018 update was. Mr. Wilson's group
7	is that will be up here to testify later, he his
8	group oversees the updates of those statistics so he
9	could probably tell you specifically what they're
10	accredited now.
11	Q. Would you expect the accreditation to
12	have changed substantially?
13	A. Depends on what you call substantially,
14	but you could see them based off of historical wind in
15	the SPP footprint and the the so that
16	calculation tries to match up SPP overall's load along
17	with what has how the wind operates during those
18	peak periods and that's averaged over a historical
19	five-year period.
20	So you can see if a if a high year
21	drops off and we bring into a new year where there's
22	lower wind production and/or the SPP's peak is lower,
23	that that can change. So, you know, a 10 megawatt
24	change wouldn't probably be out of the out of the
25	norm, I guess

Would a 20? 1 Ο. -- or out of reasonable -- reason, I 2 Α. 3 quess. 4 Would a 20 watt -- megawatt change in Q. accreditation be something you would not expect? 5 N-- I mean, I don't think it's out of the 6 Α. 7 realm of possibilities. 8 Q. How much would be out of the realm of 9 possibilities? 10 Α. Well, I'd never expect to get the full nameplate capacity as an accredited capacity. 11 12 Would you expect to get 50 percent? Ο. 13 I would not, no. Α. 14 Q. 25 percent? 15 We could, yes. Α. 16 0. 40 percent? 17 Α. Again, it all depends on how the wind is blowing in August and/or October when those peak 18 periods occur -- I quess probably not October, but 19 20 August when the peak periods occur, how much wind is blowing versus the peak load. So I wouldn't think 21 22 that something much above 25 percent would be 23 expected. 24 Overall, do the utility members of the Ο. 25 SPP have excess capacity?

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I don't have a table in front of me, but 1 Α. 2 there is -- there is excess capacity in the SPP 3 footprint today. Do you have -- do you know approximately 4 0. what the capacity is in the SPP footprint? 5 6 Α. The -- the available generation capacity? 7 Ο. Yes. 8 Α. I don't. I know that peak is -- is 9 roughly somewhere between 50- and 55,000 megawatts. And I'm thinking I'm getting that right because I know 10 we've recently added North Dakota and South Dakota, 11 12 but I think our -- our peak capacity is somewhere between 50- and 55,000. 13 14 And you're probably trying to get to what is the excess reserve margin. I think SPP put out a 15 model that -- or not a model, but a report for 2018 16 17 that specifically addressed that. 18 Do you know what that report says? Ο. Don't hold me to this, but I believe it's 19 Α. 20 22 percent. When did the SPP energy market start? 21 Ο. I believe March of 2013; is that correct? 22 Α. 23 I think March of 2013. And the reason I probably hesitated there because I believe Ms. Mantle -- Mantle 24 25 in her testimony had said something along the lines of

1	2015, which struck me off because I thought it was
2	March of 2013.
3	Q. Hasn't been around too terribly long
4	though. Correct?
5	A. Within the last five years for for
б	sure, yes.
7	Q. And when is it that Empire entered into
8	its Purchase Power Agreement with for power from
9	Elk River?
10	A. That would have been in 2005.
11	Q. Early 2005 or late 2005?
12	A. I know the the in-service was December
13	of 2005. I don't know when we specifically entered
14	the agree the Purchase Power Agreement.
15	Q. And I think you may have said this
16	already, but how many megawatts is Elk River in terms
17	of nameplate?
18	A. 150.
19	Q. And what's the term of the Purchase Power
20	Agreement for energy from Elk River?
21	A. Twenty years.
22	Q. And why was it that Empire entered into
23	the agreement for Elk River power?
24	A. At the time we had a large amount of
25	combined cycle and and and combustion turbine

1	operations. So natural gas plants that operated and
2	natural gas prices were high, so largely we we
3	entered into those agreements as a hedge from an
4	energy perspective for those natural gas prices.
5	Q. So you when you say those agreements,
6	were you just referring to Elk River or Meridian Way
7	as well or maybe Plum Point?
8	A. Elk River and and Meridian Way. In a
9	similar time we were negotiating contracts for Plum
10	Point that helped diversify our overall portfolio.
11	Q. So you were you were Empire entered
12	into those agreements for economic reasons; is that
13	fair?
14	A. That would be fair, yes.
15	Q. And it was based on projections that was
16	going to be the least cost I guess mix in your
17	portfolio going forward?
18	A. Correct.
19	Q. How has that worked out?
20	A. You know, the the I guess you'd
21	have to be more specific with your question.
22	Q. Are those agreements currently in the
23	money?
24	A. Which agreements are you referring to?
25	Q. Elk well, let's do Elk River first.

1	Is Elk River in the money?
2	A. It would be roughly at market. I mean
3	today, but I mean we again, we have to look at this
4	not just today because the agreement's been in place
5	for 13 years. So when we entered in 2005 through the,
6	you know, 2010, 2011 time frame when natural gas
7	prices were high, yes, they definitely were. As
8	natural gas prices have gotten lower, it's it's
9	more marginal. Elk River is more marginal than it was
10	back in those time periods.
11	Q. Well, the projections you had at the time
12	you entered into the agreements don't match what's
13	occurred; is that correct?
14	A. I'd have to go back and look at the
15	agreements or the not the agreements, but the
16	projections. You know, that's a 13 years ago,
17	14 years ago analysis. So will I concede that the
18	projections are different than what reality is? Yes.
19	Q. Materially different?
20	A. Again, I'd have to go back and review
21	that before I could say yes or no.
22	Q. Is that true of Meridian Way as well?
23	A. Is what true?
24	Q. That you would have to go back and look
25	at the projections to see how they compare to what's

hap-- occurring now in order to express a view as to 1 2 whether or not they're -- they match or how much they differ? 3 Yes, I'd have to go back and look at 4 Α. 5 that. 6 0. Did Empire consider its experience with 7 Elk River and Meridian way whenever it was looking at 8 building these -- let's see -- Neosho Ridge, North 9 Fork Ridge and Kings Point Wind Farms? Α. We definitely looked it at from the 10 perspective of our participation in the SPP integrated 11 12 marketplace. Because the new wind farms from a market perspective, will be bid into the market very 13 similarly and we -- we have a lot of experience with 14 15 that. We have, at an arm's length, been 16 17 involved in -- I shouldn't say involved, but we -- we 18 have viewed the operation and maintenance practices and kept up with that. But largely from the operating 19 20 and maintenance perspective, the expertise that Algonquin and Liberty Power bring to the table drove 21 the -- more of the operation decisions around it. 22 23 Q. Well, did you look at how your forecast for Elk River and Meridian Way had panned out whenever 24 you were considering your forecast for the wind 25

projects that are the subject of this case? 1 2 Α. I can't say that was a large discussion, 3 no. Was it discussed at all? 4 Q. 5 Α. Not that I can recall. 6 0. I think you may have said this too, but 7 how many megawatts is Meridian Way? 8 Α. It is -- our share of that facility is 9 105 megawatts. Is Empire providing capacity and/or 10 0. energy to Monett and Mount Vernon currently? 11 12 Α. Yes. Will it after -- I think it's June of 13 Ο. 14 2020? 15 Α. Yes. 16 0. How? 17 Α. Through a -- I'd say a third-party Purchase Power Agreement with an intermediary party; 18 Missouri Public Utility Lines acting as that 19 20 intermediary. And are there designated supply side 21 0. resources at Empire for meeting the Mount Vernon and 22 23 Monett or the MPUA contract? 24 Α. Yes. And I don't know if we're getting into HC 25 Q.

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or not, so if we do --A. Uh-huh. Q. -- I won't in the question, but your answer might. A. Right. б (REPORTER'S NOTE: At this time an in-camera session was held, contained in Volume 3, page 126.)

1 (REPORTER'S NOTE: At this time, public 2 session was resumed.) MR. COOPER: Judge, we -- I think we're 3 getting into some confidential material. So if we 4 5 want to continue this, I think we need to go 6 in-camera. 7 JUDGE DIPPELL: Okay. 8 MR. WILLIAMS: I think I'm done. I mean if -- I wasn't certain if I was -- but I'm not 9 planning to go into the amounts or any of that. 10 11 Are you wanting something stricken or --12 MR. COOPER: Yeah, I think -- excuse me. 13 MR. WILLIAMS: Or I'm not sure I should 14 say stricken. 15 MR. COOPER: Our folks are bothered by the -- by the named sources and would want them 16 17 stricken. 18 MR. WILLIAMS: You're going to want those treated -- well, not stricken but treated as 19 20 confidential? 21 MR. COOPER: Correct. 22 JUDGE DIPPELL: So back to how many 23 questions? 24 MR. WILLIAMS: I think two, but --JUDGE DIPPELL: Just those last two 25

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questions? 1 2 MR. COOPER: I think two, yeah. JUDGE DIPPELL: Okay. So I will ask the 3 4 court reporter, when she's making the transcript, to 5 begin a highly confidential session at the -- at those 6 last two questions. And then did we need to go 7 in-camera to get the answer? I wasn't sure he 8 answered that last question. 9 MR. WILLIAMS: He did answer the 10 question. 11 JUDGE DIPPELL: Okay. 12 MR. WILLIAMS: And I think what you'll need to do is go back and -- on the video and ex-- or 13 14 make part of that confidential as opposed to available 15 to the public, but --JUDGE DIPPELL: Yeah. And I will -- I'm 16 17 sure our technical folks will love that. But just for reference, it is 11:38 on my computer, if that helps 18 determine where we are in the -- in the video. 19 20 So you -- that was the -- all of your 21 questions on those? 22 MR. WILLIAMS: With regard to the -- I 23 guess I'll call it indirect supply to Monett and Mount 24 Vernon, yes. 25 JUDGE DIPPELL: Okay. Okay. So then we

can call that the end of the in-camera session. Did 1 2 you have additional questions? MR. WILLIAMS: I don't think we actually 3 4 had anything that wound up being in-camera except for 5 some responses that were given out publicly that we're 6 now going to make confidential. 7 JUDGE DIPPELL: Okay. I guess I'm asking 8 do you have any additional questions? 9 MR. WILLIAMS: I don't believe I have any questions that will elicit any confidential 10 information at this point. 11 12 JUDGE DIPPELL: But you have additional cross-examination? 13 14 MR. WILLIAMS: Yes. 15 JUDGE DIPPELL: Okay. MR. WILLIAMS: No, I'm not done with 16 17 examination. 18 JUDGE DIPPELL: Okay. Go ahead. If -- Mr. Cooper or Mr. Mertens, if we do 19 20 get into something that you feel is confidential, just stop and -- and let us know and we will go in-camera. 21 22 Okay. Thank you, Mr. Williams. Go 23 ahead. BY MR. WILLIAMS: 24 25 Ο. Mr. Mertens, if Empire had not entered

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into that third-party contract to supply capacity and 1 2 energy to Monett and Mount Vernon, it would have that -- those resources available to sell into the SPP 3 market, would it not? 4 5 Α. Yes. Those units would not have been 6 designated to those two cities and they would have been Empire resources and treated like our -- the rest 7 of our units. 8 9 And it would have increased your 0. available capacity and ability to supply energy by 10 approximately 77 megawatts? 11 12 77, 78 megawatts is the City of Mount Α. Vernon and Monett's capacity requirements, yes, in 13 14 the --15 And what's Empire's retail peak load been 0. , maximum, the past few years? 16 17 Α. Roughly 1,200 megawatts is our all time 18 peak. And has it been roughly 1,200 megawatts 19 Ο. 20 for roughly a decade? I think we got near the 1,200 21 Α. Yeah. megawatt mark back in 2007, 2008 and that's where we 22 23 currently are, yes. 24 Well, my recollection it was something Ο. like January of 2018 you hit 2011 megawatts, but --25

1	A. 2011?
2	Q. No. 2018, January of 2018.
3	A. Yeah, but I think you said 2011
4	megawatts.
5	Q. Then I misspoke. I'm I'm sorry. What
6	I meant to say was my recollection is that you
7	testified that you'd Empire had hit a new peak in
8	20 January of 2018 of about 1,211 megawatts.
9	A. That's correct. I think we hit 1,211
10	then. If you go back to 2007 time frame, it was like
11	1,198. So we increased by, you know, 10 to 15
12	megawatts over that period as far as a from a peak
13	perspective.
14	Q. And is Empire projecting for that peak
15	load to increase dramatically over the next ten years?
16	A. You'd have to define dramatically, but we
17	do show that increasing. We we've been in a period
18	where we've been recovering from the 2011 tornado and
19	we've kind of got back to where we feel status quo and
20	our overall customer growth numbers are I don't
21	know I don't know what the right word's probably
22	not substantial, but we continue to see about
23	.8 percent customer growth on an annual basis.
24	Q. And that's what you're anticipating your
25	growth to be for the near term foreseeable future,

.8 percent? 1 2 Α. Well, that's the customer growth number -- number. On top of that customer growth, 3 which is largely div-- driven by residential 4 5 customers, we do have several of our commercial, 6 industrial customers making significant investments in 7 their local facilities that increase our load as well. 8 Q. Did Empire analyze looking at any of its 9 CTs being retired as opposed to -- strike that. 10 I want to turn to page 6 of your Direct Testimony in the 0010 case. 11 12 Okay. I'm there. Α. I think I have you in the right place, 13 0. but let's see. Well, skip that. 14 15 But do you agree with the statement that the wind in-- wind generation industry has been 16 17 maturing over the last 10 to 15 years? I do agree with that. 18 Α. Is it still maturing? 19 Ο. 20 Α. As with any industry, continually growing and learning. I would say the exponentially of that 21 learning curve is -- is starting to flatten out. 22 23 Q. Do wind farms generate electricity when the wind is not blowing? 24 25 Α. No.

1	Q. Do you agree that it's most likely that
2	if wind is blowing where the Neosho Ridge, North Fork
3	and Kings Point Winds Farms are located, it's probably
4	blowing across the SPP region or a good swath of it?
5	A. There are are variations that we see
6	even with our two existing wind farm, Elk River and
7	Meridian Way that we have Purchase Power Agreements
8	with, that we can see significant differences between
9	the amount of output at those facilities based on the
10	wind resources. But I would say largely if the if
11	it's windy in the Central Plains, you're going to see
12	it across all Missouri, Oklahoma, Kansas. It's just a
13	relative basis as to how much.
14	Q. I have some questions regarding the more
15	global, the second Stipulation and Agreement. Are you
16	familiar with it?
17	A. Which one are you referring to? I mean
18	the the one
19	Q. The one that was filed Friday afternoon
20	that's all the parties, except Public Counsel, have
21	either
22	A. Yes.
23	Q joined or not opposed.
24	A. Yes, I was I'm familiar with that.
25	Q. On page 4 under Number 12-A, which is

dealing with -- it says, the header, CCN Conditions. 1 2 Α. I'm there. The end of A says, And in a manner that 3 Ο. is not detrimental to EDE's customers. 4 What does Empire understand that to mean? 5 6 Α. During negotiations there was discussion 7 that the wind farms would not be bid in at a negative 8 price. And, in fact, it is sometimes to our benefit 9 and the customers' benefits to offer those in at negative prices because of the nature of the 10 production tax credits. 11 12 Would you explain that more? 0. Α. So as was discussed this morning, the 13 14 production tax credit today is worth 24 dollars per 15 megawatt hour. So it is actually to -- versus shutting the wind generation off or bidding it in --16 17 not bidding it in at negative prices, you can actually 18 bid it in at up to negative 24 dollars per megawatt hour and it's actually to the benefit of customers and 19 20 the off-takers of the production tax credits, et cetera that you actually continue operating even at a 21 negative price because you're still getting the credit 22 23 for those production tax credits. And that production tax credit goes to 24 Ο. 25 the tax equity partner; that's the plant. Correct?

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The -- the production tax credits, yes, 1 Α. 2 the -- the tax equity partner would get the benefit of 3 those. So why is it if the tax equity partner is 4 Ο. 5 getting the production tax credit benefit, that Empire's customers benefit even if the wind is 6 7 negative to say 23 -- negative 23 dollars? 8 Α. And Mr. Mooney can be the one that can take this on a little bit bitter, but you know, the 9 tax equity partners assuming over a per-- over a 10 ten-year period a certain amount of generation. 11 So 12 there is a true-up period at the end of that based on how much actual production there is. 13 So it is to our benefit to keep operating 14 15 that wind farm, to make that production, to get that 16 tax equity partner per se out of the wind farm and 17 that flip date as soon as possible. But Mr. Mooney could probably address that more technically than I 18 could. 19 20 Ο. And then the first part of that sentence talks about operating in accordance with Southwest 21 Power Pool integrated marketplace rules. What was 22 23 contemplated by that, if anything? 24 Α. Well, we just wanted to make sure that, 25 you know, we could not sign up as a load-serving

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1	entity and a transmission provider in there. We have
2	to comply with those inmat integrated marketplace
3	rules. So we were just trying to assure whatever we
4	assigned up for took that into consideration.
5	Q. So, for example, if the rules were
6	changed so that wind was curtailed whenever you the
7	SPP was experiencing market negative market prices,
8	would that be an example of a circumstance?
9	A. If if the SPP and its member entities
10	made that change, then yeah, we'd have to comply with
11	those rules.
12	Q. So if there's a conflict between the SPP
13	marketplace rules and I guess what you could otherwise
14	do in a manner that's not detrimental to EDE's
15	Empire's customers, you'd have to comply with
16	marketplace rules. Right?
17	A. Yes. We'd have to comply with
18	marketplace rules. And and to be clear, today we
19	can't just withhold a generation, whether it's a wind
20	farm or a thermal unit. They have to be bid into the
21	market if they're available.
22	Q. Does Empire have discretion as to what
23	price they're bid into the market if they're
24	available?
25	A. Yes, we do.

Is it unfettered? 1 0. 2 Α. No. There are limitations as to what we could bid our units in. 3 And what are those limitations? 4 Ο. 5 Α. I believe the rules are no greater than a 6 23.5 percent margin above our -- our actual cost --7 variable cost to run the unit, fuel and/or variable 0 8 and M. 9 But not capital costs? 0. I guess I don't understand your question. 10 Α. Capital costs aren't a factor that comes 11 0. 12 into play on -- at what price you can bid into the SPP market? Is -- I'm just trying to get clarification. 13 14 Α. Yeah. 15 Because you said marginal costs like fuel 0. and O and M. 16 17 Α. And, you know, again, I'm not the expert. I'm tr-- I'm not as -- as -- for wind generating 18 units, I'm not as familiar what capital components may 19 20 be able to. Since there's no fuel cost, there has to be some basis in there. I'm not as familiar with 21 that -- those rules. 22 23 Well, what about for coal or gas-fired Q. units? Are you more familiar with those? 24 Right. We are not allowed to include 25 Α.

capital costs in -- in those bidding parameters. 1 2 Ο. And I want to turn to -- let's see. Tt's another one of the CCN conditions under 12, 12-E. 3 Ιt says, Empire shall file a copy of the SPP Definitive 4 5 Impact System Impact Studies. 6 Is that literally correct or is there a 7 typo in there, or do you know? 8 Α. What would you believe the typo would be? 9 So Definitive Impact Study Impact Studies is a -often referred to as the DISIS, so --10 So that is -- there's nothing wrong with 11 0. 12 how that's worded is what you're saying? Not that I'm aware. 13 Α. That's what I was asking. The wording 14 Ο. 15 looked awkward. It reads a little weird, yeah. I'll 16 Α. 17 agree with you, yes. And it talks about in its subsequent 18 0. quarterly report, Empire shall address any results of 19 20 the study that are a material change in assumptions or costs related to the wind st-- projects. 21 22 What quarterly report is that referring 23 to? 24 I believe as part of this process, we Α. have -- we have agreed that we would file quarterly 25

1	updates to the parties to keep them apprised of the
2	overall construction proc pro process as well as
3	any material changes to the projects.
4	Q. So I'll I'll make sure you're aware of
5	this. If you look at 12-D, it talks about filing
6	quarterly quarterly reports with the Commission.
7	Is this a different quarterly report or the same?
8	A. It would be the same.
9	Q. And other than including a proposed plan,
10	is there anything else that Empire's required to do
11	under this agreement with the results?
12	A. Could you ask that question again?
13	Q. Well, what I'm trying to get at is are
14	you going to do anything more than just make a report
15	to the Commission? Does it require Empire to do
16	anything else?
17	A. I think we're we the reports re
18	or the stipulation requires us to file a report to
19	keep parties apprised so that when we go into the next
20	rate proceedings, everyone is up to speed. And when
21	these these units are put into permanent rates,
22	that we're all on the same page which would be very
23	similar to any other unit we've done in the past.
24	Q. So it's to keep everyone apprised, but
25	it from what you're saying, there's no I'll call

it rubber meets the road until some subsequent rate 1 2 case? I don't -- I don't think there's anything 3 Α. 4 in here that would -- that requires us to say whether 5 we're going to stop the project or renegotiate. But 6 obviously as part of our prudent process and ability 7 to get these into rates the next time, it will be our 8 job to manage them just as we have any -- all the rest 9 of our previous projects. And what's Empire's understanding of --10 0. I've heard the term "decisional prudence," but is the 11 12 Commission deciding now for purposes of a rate case if this agreement's approved, that these are the wind 13 projects that Empire should be building at this time? 14 15 Α. Could you ask that agwen -- could you ask 16 that again? Sorry. 17 Ο. Well, I've heard it called decisional prudence. Is it your understan-- is it Empire's 18 understanding that under this agreement, the decision 19 20 about whether or not these wind projects should be built by Empire at this point in time is being 21 decided? 22 23 Α. I guess I'd respond -- again I'm not -not an attorney, but we are going through the 24 25 certificate of convenience and necessity process to

1	allow us to proceed with construction and
2	implementation of these. So I'll allow you to legally
3	interpret what that means.
4	Q. So you don't have well, let me ask it
5	this way. Do you have an opinion about the clause
6	that says EDE should be and this is 13. EDE should
7	be authorized to record its capital investment to
8	acquire the wind projects as utility plant in-service
9	subject to an audit in its in EDE's next general
10	rate case? What in your opinion, what significance
11	is that language, if any?
12	A. Not an accountant or or attorney, but
13	it allows us to to go forward, record those
14	investments. And then the the prudency of the
15	the way we made those investments or the decisions
16	around those investments would be handled in the next
17	rate case.
18	Q. So but in your view then, the next
19	rate case wouldn't be addressing whether or not the
20	investment should have been made?
21	MR. COOPER: Objection. Mister
22	Mr. Mertens has already said he's not an attorney. I
23	think the nature of the question is the legal
24	implication of decisions that are made or might be
25	made by the by the Commission in their implication

1	for rate cases. But we we certainly could brief
2	these things.
3	MR. WILLIAMS: I just asked if he has an
4	opinion about it. If he doesn't, that's fine.
5	JUDGE DIPPELL: I'm going to allow the
6	question, but the the witness can state whether he
7	knows or has an opinion. But he has stated that he is
8	not an attorney so we'll we will actually leave the
9	weight of legal opinions to the briefs.
10	THE WITNESS: Could you ask me the
11	question one more time, Mr. Williams?
12	BY MR. WILLIAMS:
13	Q. All I'm really trying to get at is
14	whether or not you have an opinion about whether or
15	not we'd be litigating in the Empire's next rate
16	case whether or not Empire should have built these
17	wind projects if the Commission grants certificates in
18	this case?
19	A. It is my nonlegal opinion that if we had
20	all parties that signed up to this so we had a
21	Unanimous Stipulation and Agreement and we had no new
22	parties in in the next case, that we would not be
23	questioning the prudency decision around the wind
24	farms based on this Number 13.
25	But again, I will defer that to legal

briefs and my counsel. We'll see how hard he sighs 1 2 after that response. Turn your attention to -- I guess it's 3 0. paragraph 21, the market price protection mechanism. 4 And under this mechanism it could be -- it will be at 5 6 least ten years, but it could be longer; is that 7 correct? 8 Α. State that again for the ten years. 9 That the mechanism will be in place at Ο. least ten years, but it could be a little bit longer, 10 as much as eleven months longer or more. 11 12 My understanding of it, it's supposed to 0. be ten years and then we would, you know, potentially 13 14 true it up in a rate case if it was -- if that rate case wasn't until eleven months after that ten years. 15 But Mr. Holmes could correct me later when he gets up 16 17 here if there is -- if I'm misinterpreting that. 18 Well, is it ten years from the latter 0. rate case where any of these wind projects are 19 20 included in Empire's revenue requirement? I quess I'll state it this way. My 21 Α. interpretation is if we got rates effective for these 22 23 wind farms in May of 2021, then that ten-year period would end in May of 2031. 24 And under this market price prot-- well, 25 0.

1	you're familiar with the purchase and sale agreements
2	for the wind farms. Correct?
3	A. At a high level. Mr. Mooney and then
4	secondary Mr. Wilson would probably be the better
5	folks to ask details about those PSAs.
6	Q. Well, without getting into what they are,
7	do those contracts include provisions for when Empire
8	will be responsible for increased costs?
9	A. Increased costs associated with the
10	construction?
11	Q. Yes.
12	A. There are they are fixed price
13	contracts. And with any fixed price contracts, if
14	there's a scope associated with that. So if things
15	would material materially change from the scope,
16	sub-surface conditions or something along those lines
17	that you know, engineering specs are different than
18	what we put in that scope, then yeah, there would be
19	provisions for change orders.
20	Q. Are there provisions that put well,
21	aside from change orders, I'm I'm looking for if
22	there are particular things that don't occur or that
23	do occur that are anticipated that if they happen or
24	do not happen, that Empire would pay any increased
25	costs associated with that?
1	A. You'll have to ask Mr. Mooney these
----	--
2	specific questions.
3	Q. I was trying to avoid getting into
4	anything confidential. I think I'll stay that way at
5	this point.
6	And then on paragraph 22 about future
7	battery energy storage technology, that contemplates
8	that if a certificate's not required for that storage,
9	then Empire will make some kind of a presentation
10	to and it says the parties. Who are the parties?
11	What's your understanding of who the parties are?
12	A. Well, I think, you know, in general it
13	would be the parties that are signatories to this.
14	But obviously we would have no objection to the normal
15	participants in our integrated resource planning
16	process being part of that presentation.
17	Q. It's not contemplating a presentation to
18	the Commission. Correct?
19	A. I don't believe so.
20	Q. Could Empire provide renewable energy
21	credits to customers without building these wind
22	projects?
23	A. Beyond the the PPAs that we already
24	have or I guess clarify what you're you're
25	asking there.

1 Ο. No, not beyond the current PPAs 2 necessarily. You have excess renewable energy credits now, do you not? 3 4 Α. That's correct. 5 Ο. And you could sell those or supply those 6 to retail customers potentially, could you not? 7 Α. We do today, yes. No further questions at this time. Thank 8 Q. 9 you, Mr. Mertens. Α. 10 Thank you. JUDGE DIPPELL: Thank you. Are there 11 12 questions from the Bench, Mr. Chairman? 13 CHAIRMAN SILVEY: I just have one 14 question first. 15 QUESTIONS BY CHAIRMAN SILVEY: 16 Do you know where in the queue these 0. 17 particular projects are at SPP? 18 When you say where in -- where in the Α. queue they're -- I mean we are in the --19 20 0. Well, it's not the only wind project that SPP is considering. 21 22 Α. Right. So we're -- we're part of a --23 that large DISIS study that -- that -- and within that DISIS study, there are -- you know, there's not an 24 25 order. We're all just aggre-- aggregated together

within that study process. So at this point we're 1 2 being held up because the 2016 study process is not complete. 3 And that's the one that finishes in 4 0. October? 5 6 Α. Our 2017 is scheduled to begin in May and 7 be complete in October. So the 2016 study process is 8 scheduled to be done by May of this year. Does that 9 make sense? Q. 10 Okay. Thank you. JUDGE DIPPELL: Commissioner Hall, did 11 12 you have questions? 13 OUESTIONS BY COMMISSIONER HALL: 14 0. Yeah. Do you know what the un--15 undepreciated plant in rate-base is for Asbury? I'm told it's roughly 200 million. Do you know? 16 17 Α. That was what I was getting ready to say, that exact number. Roughly 200 million dollars. 18 19 Okay. And the capacity is -- is 198 0. 20 megawatts; is that correct? 198, 200, yes, it's right in there. 21 Α. 22 And somebody -- one of the attorneys in Q. 23 opening said that it's running at 15 percent of capacity. Is that about right? 24 Fifteen or --25 Α.

1	Q. Fifteen is what I thought I heard, but
2	maybe I misheard.
3	A. I it's capacity factor in 2018 was
4	roughly around 55 percent.
5	Q. Okay. I probably misheard then. Okay.
6	Is that for Asbury, is does does Empire
7	self-schedule that with SPP or do they bid in a price?
8	A. We we bid that unit in just like all
9	the rest of ours. We bid in a price.
10	Q. Now
11	A. And I could I could there are times
12	where we may self-commit it for operational issues,
13	but the majority of the time and I'm say speaking
14	over 90 percent of the time, it's it's bid into the
15	market.
16	Q. Okay. Is that how you would anticipate
17	these wind facilities be handled as well or would they
18	be self-scheduled?
19	A. They'd be bid into the market.
20	Q. They would be bid in?
21	A. Yes.
22	Q. Would they be bid in at a dollar?
23	A. There could be times that could call for
24	a dollar, yes.
25	Q. In fact, there could be times that it

1	would be, from a financial perspective, wise to bid in
2	at at a negative number?
3	A. That's correct.
4	Q. But regardless of what it's bid in at, it
5	clears at the LMP. Correct?
6	A. That's correct.
7	Q. So were you involved in putting together
8	these scenarios that are attached to the stipulation
9	or would that be
10	A. That would be Mr. Holmes would have done
11	that.
12	Q. Mr. Holmes.
13	A. Yes.
14	Q. Okay. So he he would be he would
15	be able to answer questions about the the various
16	prices that are utilized in those in those four
17	scenarios?
18	A. He would be the witness to cover that,
19	yes.
20	Q. Okay. So looking at page 4 of your
21	Surrebuttal, you you you note that 40 percent of
22	the 600 megawatts at issue here would would be
23	che ovo megawaces ac issue here woard would be
	covered essentially by the expiring contracts with
24	

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1	A. Correct. Those those units are
2	roughly together, 255 megawatts. So that's roughly
3	40 percent of the 600 megawatts that we're adding.
4	Q. So there's there's an additional
5	60 percent that at this point in time you don't
б	you you don't know if there is if there will be
7	a need for that in terms of Empire's requirement to
8	find generation to meet load?
9	A. I mean that that that additional
10	60 percent would be above what we currently have, yes.
11	Q. So so would would that additional
12	60 percent just be sold into into the SPP market?
13	A. It, like all of our generation, is is
14	sold into the SPP market, yes.
15	Q. But that 60 percent would would be
16	additional sales that would flow back to customers
17	through the FAC. Correct?
18	A. That's correct.
19	Q. And so when when the revenue
20	requirement is being set or being set being
21	estimated, those those FAC sales are taken into
22	account?
23	A. Correct.
24	Q. You had a couple of questions from Public
25	Counsel related to condition 12-A on the non-unanimous

stip and I'm not sure I understood the answer. 1 Were 2 the -- it -- the projects shall be operated in accordance with applicable SPP marketplace and in a 3 manner that is not detrimental to Empire customers. 4 What does that mean? 5 So simply put, the -- the -- when we were 6 Α. negotiating this, there was parties that believed that 7 8 we should not bid the units in at a negative price or 9 make them available at a negative price. And that's just simply -- we have to make them -- bid them into 10 the -- into the market. So per the rules, we have 11 12 to -- we have to make them available. And secondarily, there are times, just 13 14 like you pointed out, that at a negative price, it may be to our customers' benefit to actually bid them even 15 at a negative price. So that's what those two 16 17 sentences together are trying to address. So what is that requiring you to do that 18 0. you would not otherwise do? What -- what protection 19 20 is that providing your customers? I guess that's what I'd probably say. A, 21 Α. probably from -- from our operational standpoint is 22 23 nothing different than what we do today. And I think there were some parties wanting us to do differently 24 25 than what we do today and we -- we felt that was not

in the interest of all of our customers or all 1 2 parties. 3 0. All right. Thank you. Uh-huh. 4 Α. 5 QUESTIONS BY JUDGE DIPPELL: 6 0. I just wanted to make one clarification. 7 We -- you've mentioned the DISIS study and just in 8 case that wasn't already clear, that's the Definitive 9 Impact System Impact Study. Correct? 10 Α. Correct. Thank you. Ο. 11 Okay. 12 MR. COOPER: We might amend that to be 13 the Definitive Interconnection System Impact Study, 14 so. 15 JUDGE DIPPELL: Okay. Thank you. Is -- is there further cross -- let me 16 17 just ask in general, is there further cross-examination based on Commission questions? 18 COMMISSIONER HALL: I'm sorry. I have 19 20 one more question. 21 JUDGE DIPPELL: Go ahead, Commissioner Hall. 22 23 COMMISSIONER HALL: I apologize. JUDGE DIPPELL: That's fine. 24 FURTHER QUESTIONS BY COMMISSIONER HALL: 25

Is there any SPP requirement that --1 Ο. 2 that -- that Empire have capacity to meet its load? Yes. We have to have a -- there's a 3 Α. 4 12 percent reserve margin that we have to meet. 5 0. But you couldn't meet your load through a 6 bilateral contract or -- or through -- through 7 generation that's not your own or --8 Α. We -- we could go out and contract 9 capacity, yes. We could enter into a bilateral agreement for it. 10 Okay. Thank you. 11 Ο. 12 JUDGE DIPPELL: Okay. My -- my question is pertaining to when to break for lunch. So is there 13 14 going to be significant questions on further 15 cross-examination? MR. WOODSMALL: I'll probably have two 16 17 minutes. MR. WILLIAMS: I'll have just a few 18 questions depending on what others ask. 19 20 JUDGE DIPPELL: And would there be significant redirect after that? 21 22 MR. COOPER: Probably not -- probably not 23 significant. 24 JUDGE DIPPELL: Okay. Then let's qo ahead and continue and try to finish this witness 25

before we break for lunch. 1 2 So is there further cross-examination from Renew Missouri? 3 4 MR. OPITZ: No, thank you, Judge. 5 JUDGE DIPPELL: Division of Energy? MS. REEVES: No, Judge. 6 7 JUDGE DIPPELL: Missouri Energy Consumers 8 Group? 9 MR. WOODSMALL: Yes, Your Honor. Real 10 quickly. FURTHER CROSS-EXAMINATION BY MR. WOODSMALL: 11 12 There was a reference to a 15 percent 0. capacity factor, and I believe I might have caused the 13 14 confusion. Would you agree that, in general, wind is 15 given a capacity factor of about 15, 17 percent by 16 SPP? 17 Α. It's given a roughly 15 percent accredited capacity factor, not a capacity factor. 18 So of the nameplate capacity, it's our experience that 19 20 roughly 15 percent of that could be counted as accredited capacity. 21 22 Gotcha. Okay. Turning to provision Q. 23 12-A, let me see if I -- if I can help with this. 24 Would you agree that there are two interested parties 25 in the production from these wind projects; that is,

the tax equity partner and the utility, slash, 1 2 customers? 3 Α. Correct. 4 Okay. And there are situations in which Ο. those interests may not align, that the tax equity 5 6 partner may want this project to generate energy no matter what the market price. Would you agree with 7 8 that? 9 Α. I'd agree with that. Okay. And -- and that is because the tax 10 0. equity partner is getting money from the PTCs, they 11 12 might want this project to generate even when the market prices are detrimental to the customers and the 13 14 utility? 15 Again, I'll point to probably Mr. Mooney Α. to help -- help answer, but I -- even in those 16 17 scenarios, it would be to the customer's advantage 18 from the perspective of, you know, making that tax equity partner whole sooner rather than later. 19 20 Ο. Okay. And all this says is that you will dispatch into SPP in a manner that is not detrimental 21 to the customers; that is, you won't dispatch solely 22 23 in a manner that it's beneficial to the tax equity 24 partner? 25 Α. That's correct.

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1	Q.	Okay. No further questions. Thank you.
2		JUDGE DIPPELL: Thank you. Is there
3	further cross	s-examination from Staff?
4		MS. MERS: No, thank you.
5		JUDGE DIPPELL: Public Counsel?
6		MR. WILLIAMS: Thank you.
7	FURTHER CROSS	S-EXAMINATION BY MR. WILLIAMS:
8	Q.	Mr. Mertens, you remember that Chairman
9	Silvey asked	you about where the projects were in the
10	SPP queue?	
11	А.	That's correct.
12	Q.	And your response was related to DISIS?
13	А.	Yes.
14	Q.	Is that related to generation
15	interconnect	ion agreements?
16	Α.	Yes.
17	Q.	And is that a precursor to actually
18	entering into	a generation interconnection agreement?
19	Α.	Yes.
20	Q.	And is that study what will determine the
21	cost of doing	g the interconnection?
22	Α.	Yes.
23	Q.	And ultimately those costs the results
24	of that study	y will be what Empire decides, whether to
25	go forward wi	ith a generation interconnection; is that

correct? 1 2 Α. We -- we will be st-- part of that study process, yes, to determine the overall cost that we'd 3 4 have to pay ultimately. Well, once a study is completed, you'll 5 Q. 6 know what costs SPP is saying it will require in terms 7 of I think upgrades to its system or --8 Α. Right. 9 Whatever it takes that Empire will be 0. responsible for to interconnect with SPP's 10 transmission system. Correct? 11 12 Α. Correct. And then at that point Empire will make a 13 0. 14 decision about whether or not to enter into a 15 generation interconnection agreement with SPP? 16 Α. Correct. 17 Ο. And the results of those studies then set at least some of the terms of that generation 18 interconnection agreement? 19 20 Α. Correct. Then you had some questions or a question 21 Ο. with Commissioner Hall, one or more, where you were 22 23 talking about Meridian Way and Elk River and capacity. Will Empire still have sufficient capacity to meet --24 meet its load even if it doesn't have Meridian Way and 25

1 Elk River? 2 Α. Today we would, yes. 3 Ο. Do you anticipate you would in 2028, all 4 other things remaining equal? 5 Α. Yes. 6 0. Congratulations on your new employment. 7 Thank you. 8 Α. Thanks. 9 JUDGE DIPPELL: Is there redirect? MR. COOPER: There is. Thank you, Your 10 Honor. 11 REDIRECT EXAMINATION BY MR. COOPER: 12 13 Mr. Mertens, you were asked about Ο. forecasting. And I think you used the -- the sort of 14 15 common description that -- that -- that they're inaccurate or incorrect the day they're put forward. 16 17 Correct? You remember that? 18 Α. Correct. And yet the Company utilizes forecasting 19 Ο. 20 extensively, doesn't it? That's correct. 21 Α. 22 And in particular, it uses ABB forecasts Q. 23 in a variety of -- of ways? 24 Correct. Α. And has that been done for a number of 25 Ο.

1 years? 2 Α. Yes. You know, since at least 2005 it's 3 been part of our integrated resource planning process. 4 And I assume that that's because you Ο. 5 believe that those -- those forecasts have value to 6 you? 7 That's correct. Α. 8 Q. You had a couple different discussions 9 about, oh, the DISIS and the timing of that and interconnection agreements. Has Empire done 10 interconnections and interconnection agreements 11 12 before? Yes, we have. For basically every 13 Α. 14 generating unit that we've added as long as I've been 15 there. 16 So you have experience in -- in how that Ο. 17 process works and potential costs and that sort of 18 thing? Correct. You know, if you go back to our 19 Α. 20 participation in Iatan 2, Meridian Way, Elk River, you know, we went through the same DISIS process. 21 And very similar to now, that -- for whatever reason, 22 23 that's been a very log-jammed study process. And, you 24 know, we usually have to start making construction and 25 project decisions before we have those agreements in

hand. 1 2 0. So it's not unusual for -- for that to come together late in the -- in the process? 3 It would be the norm, unfortunately. 4 Α. No. 5 0. You had a discussion with I believe it 6 was Mr. Williams about accredited capacity -- Empire's 7 current accredited capacity. And -- and there was 8 some -- some different numbers I think as to -- to the 9 Company's total accredited capacity. I kind of think you -- you got to this, but -- but just to make sure, 10 will -- will wind assets accredited capacity commonly 11 12 change from year to year? 13 Α. Yes. 14 0. And to your knowledge, does that happen with Empire's wind assets between -- I don't know what 15 16 we're -- two years you were talking about, 2017 and 17 2018? 18 Yeah. I think we saw a step change in Α. 19 those years. 20 Ο. There was some discussion about Meridian Way and -- and Elk River, the -- the Purchase Power 21 Agreements on those facilities and -- and Empire's 22 23 expectation in regard to those. 24 I think in the last case when you got into some of those conversations, we talked about 25

things that Empire could have done differently or 1 2 could do differently in regard to those projects if it owned them rather than took in -- in accordance 3 4 with the Purchase Power Agreement. Do you remember 5 that discussion? 6 Α. Yeah. I -- I recall us discussing that, 7 yes. 8 Q. Would -- would you have more options 9 available to you if you owned Elk River and Meridian way? 10 We believe so. We --11 Α. 12 MR. WILLIAMS: Judge, I'm going to object to this as going beyond the scope of cross and 13 14 Commissioner questions. MR. COOPER: Well, I believe Mister --15 Mr. Williams was asking about, you know, what the 16 17 Company thought about Meridian Way, Elk River, kind of 18 the -- their performance under those Purchase Power Agreements. And so it seems to me it's -- it's 19 20 certainly within the scope of that to -- to ask Mister -- Mr. Mertens how -- how that would have been 21 different had the Company owned those -- those assets 22 23 and was able to have other options at this point in time, like retooling or whatever they might be at this 24 25 time.

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1	JUDGE DIPPELL: I'm going to overrule the
2	objection and allow it.
3	THE WITNESS: Yes, I believe I I was
4	stating that and recalling the discussion last
5	time. You know, we would have the option to re-power
6	those ourselves, potentially get more output from
7	them. And probably most importantly, you know, get
8	the full life of those assets versus being stuck to a
9	20-year PPA agreement.
10	BY MR. COOPER:
11	Q. And when you say re-power, I assume that
12	means that's an opportunity with some investment,
13	but it's it's an opportunity to update them to more
14	advanced technology than they may have today?
15	A. Right. Just as we discussed earlier, the
16	wind industry continues to evolve. We could take some
17	of those, you know, newer blades, those type of
18	things, retrofit the existing unit to get more output
19	and and capacity and take the benefit of those to
20	our customers.
21	Q. There was a fair amount of discussion
22	about or some discussion anyway about bidding in of
23	the wind farms and the SPP and different aspects with
24	that. But ultimately whose responsibility are those
25	wind farms in terms of how they are treated in SPP,

how they're bid in, how they're operated? Is that 1 2 Empire's responsibility? With our existing Purchase Power 3 Α. 4 Agreements or --5 Q. No, no. I'm sorry. With the -- the proposed wind projects that we're considering in this 6 7 case, there was some discussion about interaction with 8 tax equity partners. But -- but ultimately whose 9 responsibility is it to bid those into the SPP market? Ultimately those would be Empire Α. 10 11 Districts. 12 And to operate them as well? 0. 13 That's correct. We may have third-party Α. 14 services, but it would be still under our management. 15 Ο. Right. 16 MR. COOPER: That's all the questions I have, Your Honor. 17 18 JUDGE DIPPELL: I just had one 19 clarification, Mr. Cooper. I think you mentioned a 20 name in the kind of forecasts and you used an acronym and I wasn't sure I caught that. 21 22 MR. COOPER: ABB. 23 JUDGE DIPPELL: And do you know what that stands for? 24 25 MR. COOPER: I think that's actually

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their -- their business name as near as I can tell. 1 2 JUDGE DIPPELL: Oh -- oh, okay. ABB. 3 Yeah. All right. That was -- never mind. 4 MR. COOPER: A business rather than a 5 type of forecast. 6 JUDGE DIPPELL: Right. Okay. Thank you. 7 Well, with that then, I believe that that 8 concludes your testimony, Mr. Mertens, and you may 9 step down. It is almost 12:30 and we will break for lunch. We will -- let's return at 1:40. Go ahead and 10 qo off the record. 11 12 (A recess was taken.) (OPC Exhibits 200-HC, 200-P, 201-HC, 13 14 201-P, 202-HC, 202-P, 203-HC, 203-P, 204-HC, 204-P, 205-HC, 205-P, 206-HC, 206-P and Staff Exhibits 100, 15 101-HC, 101-P and 102 were marked for identification.) 16 17 JUDGE DIPPELL: We are back after our lunch break and ready to begin with Empire's next 18 witness. 19 20 MR. COOPER: Empire would call Mr. David Holmes, please. 21 22 (Witness sworn.) 23 JUDGE DIPPELL: Thank you. Go ahead, 24 Mr. Cooper. 25 DAVID HOLMES, being first duly sworn, testified as

1	follows:
2	DIRECT EXAMINATION BY MR. COOPER:
3	Q. Please state your name.
4	A. David Holmes.
5	Q. By whom are you employed and in what
6	capacity?
7	A. Liberty Utilities (Canada) Corp. And the
8	director of EAM transformation strategy.
9	Q. Have you caused to be prepared for the
10	purposes of this proceeding certain Surrebuttal
11	Testimony in question and answer form?
12	A. I have.
13	Q. And is it your understanding that that
14	testimony has been marked as 4-HC for the highly
15	confidential version and 4-P for the public version?
16	A. I do.
17	Q. Did you previously have corrections that
18	needed to be made to pages 12 to 14 of your testimony?
19	A. I did.
20	Q. Is it your understanding that those
21	corrected pages were filed with the Commission on
22	March the 15th of 2019?
23	A. Yes, that's my understanding.
24	Q. And is it your understanding that the
25	testimony that has been provided to the court reporter

today contains those corrected pages? 1 2 Α. It is. Okay. If I were to ask you the questions 3 Ο. 4 that are contained in Exhibits I quess 4-HC and 4-P 5 today with the corrected pages we just discussed, 6 would your answers be the same? 7 Α. They would. 8 Q. Are those answers true and correct to the 9 best of your information, knowledge and belief? Α. 10 Yes. MR. COOPER: Your Honor, I would offer 11 12 Exhibits 4-HC and 4-P into the -- into evidence and tender Mr. Holmes for cross-examination. 13 JUDGE DIPPELL: So let me make sure I've 14 15 got this correct. So the pages that were filed on March 15th are now attached to that testimony as it 16 17 was given to the court reporter? 18 MR. COOPER: Not just attached. They were -- they were substituted for the original 12 --19 20 JUDGE DIPPELL: They were substituted. 21 Okay. MR. COOPER: -- to 14. And -- and that's 22 23 the notation on my list I guess with corrected pages there next to 4-HC and 4-P. 24 25 JUDGE DIPPELL: Okay. Okay. But the --

so they are substituted then at least in the version 1 that the court reporter has. Correct? 2 MR. COOPER: Correct. 3 JUDGE DIPPELL: Okay. So the -- I'm 4 5 going to call it the corrected tes-- Surrebuttal 6 Testimony of David Holmes has been offered, Exhibit 7 Number 4. Would there be any objection? And that's 8 both highly confidential and public. Any objection? 9 Seeing none then, I will admit Exhibits 4-HC and P. 10 11 (Exhibits 4-HC and 4-P were received into 12 evidence.) 13 JUDGE DIPPELL: Is there 14 cross-examination from Renew Missouri? 15 MR. OPITZ: No, thank you, Judge. 16 JUDGE DIPPELL: Division of Energy? 17 MS. REEVES: No, thank you, Your Honor. 18 JUDGE DIPPELL: MECG? MR. WOODSMALL: Briefly, Your Honor. 19 20 CROSS-EXAMINATION BY MR. WOODSMALL: Good afternoon, sir. 21 Ο. 22 Α. Good afternoon. 23 Q. Nice to see you again. You're familiar with the Market Protection Plan that was dealt --24 developed in the CSP docket? 25

1	A. I am.
2	Q. And you're familiar with the Market
3	Protection Plan as contained in your Surrebuttal or
4	Surrebuttal Testimony; is that correct?
5	A. I am.
6	Q. And you're familiar with the Market
7	Protection Plan that is contained in non-unanimous
8	stip; is that correct?
9	A. I am.
10	Q. Okay. I wanted to ask some questions to
11	make sure the Commission is familiar with what is
12	contained in the stipulation and how it differs from
13	other versions. First off, would you briefly describe
14	how the Market Protection Plan works?
15	A. The Market Protection Plan is trying to
16	look at the value created by the wind farms, looking
17	at SPP revenue, the costs to own and operate the
18	facilities and the associated value assigned to the
19	replacement of the PPA.
20	It looks at it over a ten-year period and
21	provides an additional level of protection. In the
22	unlikely event that the the the value is not
23	created, there's the ability for sharing up to
24	52.5 million Missouri jurisdictional to go back to the
25	customers after the ten years.

1	Q. Okay. And you say that's the the
2	stipulation version. In your testimony, can you tell
3	me what the customer protection was in that?
4	A. Sure. In in that, there were a couple
5	of differences. There was a value added to part of
б	that wind value for capacity over the ten years
7	associated with the facilities. And the customer cap
8	was at or sorry, the the Company maximum was
9	25 million. And there was also a dead band of kind of
10	2 million dollars that was applied on an annual basis
11	as well. I believe those are the three major
12	differences.
13	Q. Okay. And so on the customer cap, in
14	your testimony, it was 25 million; is that correct?
15	A. Correct.
16	Q. And in the CSP version, it was 35
17	million?
18	A. Correct.
19	Q. And in this version, how much is it?
20	A. 52.5.
21	Q. Okay. And can you tell me how the
22	dead band operated in previous versions of the Market
23	Protection Plan?
24	A. In previous versions the dead band would
25	either slow how fast you could dig a hole essentially.

1	So it would if the annual wind value was negative
2	10, 2 million of that would not count in the value
3	that would then go into sharing. So instead of
4	10 million that would be shared to 5 million, and
5	5 million, 2 million would would be in that dead
6	band. And you would then only have 8, which would be
7	then 4 and 4.
8	It worked in both directional
9	directions. So if you were going into a more negative
10	value, you went down a little slower, but also if you
11	were climbing out of that negative value, you would go
12	up a little slower. So with with that gone, in the
13	worst case scenarios there is an additional kind of
14	20 million of value that comes back to on the
15	customers' side.
16	Q. And in this stipulation version, the dead
17	band has been eliminated; is that correct?
18	A. That is correct.
19	Q. And would you agree that the MPP is
20	easier to administer with the elimination of the dead
21	band?
22	A. Yes.
23	Q. Okay. You mentioned the capacity value
24	line. That was something that was contained in the
25	MPP version of your Surrebuttal Testimony; is that

correct? 1 2 Α. That is correct. And it's been eliminated in the context 3 Ο. of the stipulation? 4 5 Α. That is correct. 6 0. Okay. Finally, let's talk about how the 7 Market Protection Plan will be implemented as far as 8 how and when it will hit rates. Can you tell me --9 would you agree that the Market Protection Plan will not have an impact on rate cases, but rather any 10 amounts will be recovered at the end of the ten-year 11 12 period? So the intent is to track the 13 Α. Yes. performance over the ten-year period. And then if 14 15 there is a balance at the end that requires a regulatory liability to be created, it would be 16 17 created and amortized based on the rate case after the end of the quarantee period. And in such then, 18 there's no -- there's one adjustment being made to 19 20 rates. You don't get an up or down during the interim periods. 21 And that may alleviate some volatility 22 Q. 23 concerns, would you agree? 24 It would, yes. Α. 25 Q. Okay. And final-- and also, any

1	regulatory liability, according to the stipulation,
2	would also car include carrying costs over and above
3	the 52.5 million; is that correct?
4	A. That is my understanding.
5	Q. Okay. And then what if the regulatory
6	liability is above 52.5 million? How is that treated?
7	A. At that point it would go back to the
8	Commission for the parties to to decide how to deal
9	with it.
10	Q. Okay. And do you believe in your expert
11	opinion that the MPP contained in the stipulation is
12	in the public interest?
13	A. I do.
14	Q. And why is that?
15	A. I think that what the MPP does is it adds
16	another layer of protection for low probability events
17	and a level of of protection that I don't believe
18	is is precedented in in Missouri for for
19	supply side generation. And it provides protection up
20	to the kind of the 0.5 percent probability where we
21	don't we think that 52.5 million covers us in a
22	in a P-95.
23	So a probability that the wind will
24	exceed that amount of generation 95 percent of the
25	time and in a low market environment, which ABB

1	defines as kind of the 10 percent probability. So,
2	you have enough of a guarantee to cover off something
3	during a a 5 percent event at the same time as a
4	10 percent event, so you end up with a pretty low
5	amount. So I think you provide this provides a lot
6	of adequate protection that is, again, to my
7	understanding, unprecedented.
8	Q. Thank you. No further questions.
9	JUDGE DIPPELL: Is there
10	cross-examination from Staff?
11	MS. MERS: Yes, there is.
12	CROSS-EXAMINATION BY MS. MERS:
13	Q. Good afternoon.
14	A. Good afternoon.
15	Q. Are you familiar with the corrected work
16	papers and testimony of OPC witness John Riley?
17	A. Yes.
18	Q. With his correction, do you agree with
19	his analysis?
20	A. To which specific exhibit?
21	Q. We can go through all of them.
22	A. Oh, okay. So I I I primarily
23	focused I believe on JSR-R2 where he's calculating
24	the the the revenue requirement of the wind
25	projects. I believe it's been deemed highly

confidential. I don't have a copy and I don't believe 1 2 that was updated during his corrected testimony. 3 MS. MERS: Okay. I guess to be safe, we 4 should go in-camera. 5 JUDGE DIPPELL: Okay. At this time we're 6 going to go in-camera. If there's anyone in the room 7 who is not authorized to hear highly confidential 8 information, I would ask you to leave at this time. 9 COMMISSIONER HALL: Let me just ask, what -- what's -- what's confidential about it? 10 11 JUDGE DIPPELL: Ms. Mers? 12 MS. MERS: I believe it -- I mean --THE WITNESS: I'm -- I'm just reading --13 14 MS. MERS: It's not my information. Ι 15 think it was the -- OPC's marked it confidential and they might have marked it confidential based on 16 17 Empire's assertions. So other than that, I --THE WITNESS: I'm not -- I don't have a 18 copy either. I have the public version in front of 19 me, so it just says HC. 20 JUDGE DIPPELL: Are we going to ask 21 questions about the confidential documents? 22 23 MS. MERS: Yes. I think out of an abundance of caution, if Empire thinks that this 24 information --25

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1 COMMISSIONER HALL: And I'd like to know 2 why Empire thinks this information is confidential. 3 MS. MERS: Also, if I could approach to 4 give him a copy of it. 5 THE WITNESS: It's OPC document. 6 COMMISSIONER HALL: Okay. 7 MR. COOPER: Your Honor, we're going to 8 hand some documents to the witness and hope he knows 9 what he's looking at here. JUDGE DIPPELL: Do we need a minute off 10 11 the record to --12 MR. COOPER: We do, Your Honor. JUDGE DIPPELL: Let's go ahead and go off 13 14 the record briefly. 15 (Off the record.) JUDGE DIPPELL: Okay. We're back on the 16 17 record -- we're back on the record. Okay. So the witness now has a corrected schedule from Mr. Riley's 18 testimony, JSR-R2. And that is marked as highly 19 20 confidential. Correct? That's what we're looking at, Mr. Cooper? 21 22 MR. COOPER: I believe so. 23 JUDGE DIPPELL: And this was marked as confidential by Public Counsel because it contained 24 information that Empire had marked as confidential 25

when they provided it to Public Counsel; is that 1 2 correct? MR. HALL: Yes, that is correct. 3 4 MR. COOPER: I believe that's correct as 5 well. 6 JUDGE DIPPELL: Okay. 7 MR. COOPER: And I believe Empire's --8 and Mr. Holmes can explain this a little bit perhaps more fully than I can, but it is the revenue 9 projections that -- that are sensitive to -- to 10 Empire. So that's -- that's the -- I believe that 11 12 that is the -- sort of the sensitive point for us, but again, Mr. Holmes can probably explain that a little 13 14 better. 15 COMMISSIONER HALL: Well, and I'd like to 16 know why those are sensitive. 17 THE WITNESS: So I -- I don't see a problem with JSR-R2. What we -- what we've been 18 trying to be careful about is ABB's forward price 19 20 curve is proprietary. People have to pay and subscribe to it. So that's the piece that becomes 21 22 confidential if there's the forward kind of price 23 curve that's kind of clear and transparent. 24 I -- I don't -- because Mr. Riley shows 25 kind of an expected revenue, it's more kind of

1	bundled. It it I don't know if you'd
2	necessarily glean that from this so I don't see a
3	problem subject to my counsel, you know, the so I
4	think this is okay.
5	JUDGE DIPPELL: All right. Then if if
б	counsel agrees that this can then be public, we will
7	remain in the public session. And if this schedule
8	can be
9	COMMISSIONER HALL: And I would just
10	going forward, simply because something is identified
11	as confidential by someone, if someone here wants to
12	clear the hearing room because it's confidential, I'd
13	like them to explain in that request why it's
14	confidential. But I understand that explanation.
15	JUDGE DIPPELL: Okay. Let's go ahead
16	then. Ms. Mers, you can continue.
17	BY MS. MERS:
18	Q. It sounds like you don't agree even with
19	the corrected analysis. Could you point out the areas
20	of disagreement and explain the issues you have?
21	A. Sure. So in general, when when we're
22	trying to look at what is the net impact of of the
23	wind projects from kind of a net revenue requirement
24	basis, in my Surrebuttal I kind of walk through the
25	kind of the two major items that that kind of look

1	different to me, which would be the expected revenue
2	line item where the expected revenues projected by
3	Mr. Riley are are less than what we had been
4	projecting for the wind projects revenue through, you
5	know, the docket 2018-0092 which showed all our market
6	price forward estimates for this. And so that I think
7	becomes pretty significant.

8 And then depending on the -- the manner, 9 the -- if the expected revenue -- the way I read Mr. Riley's testimony is the expected revenue is the 10 SPP revenue. And so if you have -- sort of have the 11 12 SPP revenue and then add back in the hedging costs, I'm not sure if that's adding in additional cost 13 14 because, again, since the hedge is between Empire and 15 the wind projects, if Empire's paying a hedge down to the wind projects, then, you know, it's kind of taking 16 17 from one company, putting it back in the same company. So -- so there would be a revenue line item that would 18 qo in there as well. 19

So based on my understanding of the -the expected revenue item, I think that that becomes off. And I know that there's commentary that yes, the wind project co pays out contribution to some of that revenue to tax equity, but we believe that that's captured in the tax equity contribution line item

1	where you're covering off both pay-go and cash
2	distribution. So those were the the major ones
3	from my from my surrebuttal.
4	Q. So the the pay-go payments and the
5	the fact that you believe that it's captured in the
6	the tax equity line item, that has the effect of
7	double counting?
8	A. So I think the easiest way to look at the
9	wind revenue requirement for these facilities is to
10	have the hedge net out. And and that's kind of
11	what I propose in, you know, my schedule to my
12	surrebuttal.
13	I think it's DH-S-1 where we show and
14	I think Mr. Mooney has some information on the the
15	way the hedges kind of net out where you end up with
16	what is the net impact, which becomes SPP revenue less
17	your operating and and and all the costs
18	associated with putting new plant in service,
19	operating and maintaining it and the tax equity piece.
20	If you do all the hedge treatment, I did
21	expand in the bottom section of my surrebuttal all
22	the the kind of the transactions between the wind
23	project co's and the old co-op just to try to show
24	that that it's if you do the simplistic way, you
25	get the same result as the kind of the detailed

1 way. So again, on the assumption that the expected 2 revenue is SPP revenue, then I think that there's just 3 a cost without an offsetting well, where did that 4 money go to.

Q. So if the worst case scenario did occur and market prices would drop, aside from the market price protection mechanism, is there any other potential upside to customers in that situation?

9 Α. So in the event that you had really low market pricing, obviously customers were going to 10 benefit because their purchase power costs are going 11 12 to vastly reduce. And if the -- under the -- under the stipulation Market Protection Provision obviously, 13 14 if -- if something went really bad and it exceeded the 52.5 million, then there becomes options again for the 15 parties to discuss with the Commission. 16

Q. And isn't it true that all electricity generated by Empire's generation units generate revenues from the SPP integrated marked?

20 A. Correct.

21

Q. And that all electricity --

A. Sorry. I'm -- there could be an exception on Plum Point, but other than that.

Q. And all the electricity needed to meetload is purchased from the integrated market.
1 Correct? 2 Α. Correct. So there would be nothing unique about 3 0. how this wind project would be run and treated in SPP 4 5 compared to any of your other generating units. 6 Correct? 7 That's correct. Α. 8 Q. And much like all of your other 9 generating units, you would expect to have a return of and on projects operating in this manner. Correct? 10 That's correct. 11 Α. 12 And do you have any generating units Ο. currently being used solely to meet native load? 13 14 Α. We use all of our generating units as a portfolio to meet our portfolio of -- of load 15 requirements. Not sure if that answers your question. 16 17 Ο. Outside of the SPP integrated market? No. All -- all generation in SPP is 18 Α. offered into SPP and all of our load purchases come 19 20 out of SPP. SPP serves as a clearinghouse to combine buyers and sellers of the least cost solution to 21 the -- to the market. 22 23 Q. And my final question, is it your understanding that the guarantee period may be longer 24 than ten years if the wind projects come in service in 25

1	different rate cases?
2	A. Based on the way the stipulation is
3	written, I believe it's it is specified in there as
4	ten years from sorry. I'm just looking for the
5	exact wording.
6	Q. The and I'd be referring to the
7	guarantee period of the MPP if that helps clarify.
8	A. Right. And so the guarantee period I
9	believe in the in the stipulation agreement in
10	Section 21 that the mechanism would go into effect at
11	the first day of the month after the effective date of
12	rates in which wind project is first placed into
13	service and shall remain in effect for ten years
14	following the effective date of rates resulting from
15	the first general rate case and all wind projects are
16	included in rates.
17	Q. So that contemplates a wind project going
18	in in one rate case, but then the ten-year period
19	kicking off from the first rate case in which all the
20	wind projects
21	A. That is
22	Q are included?
23	A my interpretation, yes.
24	Q. Okay. Thank you very much.
25	JUDGE DIPPELL: Is there

cross-examination from Public Counsel? 1 2 MR. HALL: Yes, Your Honor. CROSS-EXAMINATION BY MR. HALL: 3 4 Good afternoon. Q. Good morn-- good afternoon. 5 Α. 6 Ο. You know, Mr. Holmes, I don't think we've had the pleasure. I think I'm the only differing 7 8 actor in this case, so --9 Other -- I met you a couple of weeks ago. Α. Other than that, yes. 10 So help me out. Is it -- would you agree 11 0. 12 that like you're the market price modeling guru behind 13 this? I helped prepare and document the --14 Α. the -- kind of the spreadsheets for the market price 15 16 protection. 17 0. So your counsel, Mr. Cooper, he referred to you as the market price provision expert then. Can 18 I ask you on the market price projections that were 19 20 used in this modeling? 21 Α. Yes. And can I ask you about market prices 22 Q. 23 generally then? I think so. 24 Α. 25 Q. Cool. So help me -- okay. Basic macro

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level. Basic macro level economics. In -- supply has 1 2 an inverse relationship to -- to price. Correct? 3 Α. You're saying supply and price are 4 related? 5 Are inversely related, yes. Q. 6 Α. And by inversely you mean as supply goes 7 up, price is going to go down? 8 Exactly. I mean generally we know that Q. 9 supply goes up, prices go down. You agree with that. Correct? 10 I do. 11 Α. 12 And if I were -- if an investor were 0. wanting to strategize a high return scheme -- high 13 14 return investment strategy based on high -- high 15 returns -- or sorry, let me rephrase that. An investor were looking into high 16 17 returns, they wouldn't nec-- they wouldn't necessarily want to look for high supply, would they? 18 I -- I don't exactly know where you're 19 Α. 20 going. Like -- I don't know. No, not going anywhere. Just generally. 21 0. Okay. Let's put in --22 23 My understanding of --Α. 24 0. Let's -- let's put it in a real world 25 example. So --

1	A. Thank you.
2	Q the technology of hydraulic fracturing
3	became very commonplace around 2007, 2008. And as a
4	result, you would are you aware that like gas
5	prices went down as the supply of gas went up?
б	A. Yes.
7	Q. So high gas producers so the there
8	may have been individual gas producers making money
9	over the past ten years, but the price per volume of
10	gas has dropped?
11	A. Yes. The market price of gas has
12	dropped.
13	Q. And the only way to increase your profit
14	in that type of environment would be to increase your
15	volume to offset your low cost per volume. Correct?
16	A. Not necessarily. You're making an
17	assumption of what your prior cost was of production.
18	Q. Okay. But that's that's fair.
19	Assume but assuming no other changes, if you have a
20	decreasing price per vol decreasing price per unit,
21	you need to make up for that with volume. Correct?
22	A. Well, again, not necessarily. It would
23	depend on why you got a decreasing price. So if your
24	premise is that you create hydraulic fracturing and
25	that that is now a new cost way of creating gas, then

that means you're no longer on the old cost which 1 2 would have driven the old price. So, you know, profitability's not just the sales side. 3 Maybe I -- maybe we should reorient away 4 0. 5 from gas. So Empire's looking to make money on wind with this. Correct? 6 7 Empire's looking to provide our customers Α. 8 a low cost, low risk solution for our portfolio. And 9 we think that wind helps get to that portfolio level of lower cost and lower risk scenario. 10 Because you think wind will be 11 0. 12 profitable? Because we think that as you go through a 13 Α. 14 supply side resource study, as per kind of Case 2018-0092, if you run a series of options on supply 15 side resources and you look at different potential 16 17 price outcomes, that -- that it shows a benefit in that if market prices are increasing, then lower price 18 wind provides a benefit. If market prices are -- are 19 20 decreasing, that there is either a benefit from the wind or benefit from reduction on customer load costs. 21 22 I don't believe that answered my Q. 23 question. Are you saying that you believe that wind won't be profitable in the future? Because my 24 question was yes or no, do you believe wind will be --25

does Empire believe wind will be profitable in the 1 2 future? Define future. Like on these projects, 3 Α. yes, we believe these are profitable projects. 4 How --5 how about that? Is that good? 6 0. Okay. 7 Α. Okay. 8 Q. Do you -- so are you expecting wind 9 prices to increase over the life of these projects? Α. Which wind price? The cost or the 10 revenue side? 11 12 The revenue side. 0. 13 We're expecting -- so as per the -- the Α. 14 projected revenues from -- again, from the -- the 15 customer savings plan docket, that's what our 16 projections are and that those do show increasing. 17 And if you want kind of details on that price formation side, Witness McMahon's an expert on the 18 price formation side of that forecast. 19 20 Ο. You used the estimated -- I may have mismatched some words. You used -- you have used 21 these revenues in your work papers though? 22 23 Α. Correct. From the modeling out of ABB, we've pulled over those market prices to help show 24 25 these scenarios in the market price per -- protection

provision. 1 2 And this is the same modeling that Empire 0. thought would -- Empire saw prudent to use in the IRP. 3 4 Correct? 5 Α. Which -- which modeling? So --6 Ο. In your integrated resource plan 7 modeling. You are -- Empire's working with ABB for 8 that. Correct? 9 For which year? Α. For -- I think I'm getting some papers 10 0. shuffled my way. For 2016? 11 12 Right. So in 2016's IRP we went through Α. the -- the process largely with ABB doing a lot of 13 the -- providing both the price formation and the kind 14 15 of supply side resourcing and the production cost resources. We did the same thing in the CSP in --16 17 for -- as we went through that process in 2017, 2018. Okay. And for 2019? 18 0. In 2019 we're still using ABB's forward 19 Α. 20 projections on market curves, but we are using Charles River Associates to do the actual 2019 IRP work. 21 22 Were those updated numbers used in the --Q. 23 these work papers now? 24 These work papers are still based Α. No. off of the fall 2017 curves, which are where the end 25

of the docket 2018-0092 had finished. So that was the 1 2 numbers used. So you haven't updated anything -- you 3 0. haven't updated those numbers since the last case? 4 Not in these files, no. 5 Α. 6 Ο. Do you believe the model -- do you 7 believe -- do you believe that the model in the work 8 papers that you've provided would be more accurate if 9 those numbers were updated? Maybe. I think that these are still in 10 Α. the range of good. I think Witness McMahon will talk 11 12 about whether or not there's been any, you know, macro changes that would make this a out-of-range type of 13 14 estimate. But they still seem reasonable and when we look at what the kind of -- the prices are in the 15 Empire area where these wind farms are going, seems 16 17 still very reasonable. 18 Okay. So you said reasonable. Would a 0. reasonable investor want to rely on the most recent 19 20 data or data from years prior? I can't speak for all reasonable 21 Α. investors, but I would say you go through and you run 22 23 a series of risk analysis and you figure out what is your range of -- of -- of numbers and you pick a point 24 to proceed with your project. And I feel that we are 25

1 in a good spot for that. 2 MR. HALL: Your Honor, may I approach? JUDGE DIPPELL: 3 Yes. 4 BY MR. HALL: Now, that -- that heavy tomb I've just 5 Ο. handed you is a copy of a -- one of -- is a portion of 6 7 the transcript from the prior -- I'm going to call it a sister docket to this, the EO-2018-0092. You were a 8 witness in that case. Correct? 9 Α. 10 Yes. And you testified on same or similar 11 Ο. 12 matters as you're testifying now. Correct? I'm sorry. You testified in that case in the same or 13 14 similar matters as you're testifying now today in this 15 docket. Correct? I think so. 16 Α. 17 0. Okay. Could you please turn to page 586? It should be top right above the PDF pages I printed 18 19 out. 20 Α. Yep. 21 Ο. Okay. Can you follow -- follow along. There's a -- line 3, this is a question from 22 23 Ms. Stephanie Bell. She was then counsel for City of Joplin, now counsel for Missouri Department of 24 25 Conservation. She asked you, Was the ABB 2017

forecast lower than the 2016 forecast? 1 2 Do you see where I'm reading? I do. 3 Α. And by lower she is asking about lower 4 Ο. 5 market -- she was looking at the lower revenues from 6 the model SPP revenue. Do you remember when she asked 7 you that question? 8 Α. Sure. 9 And you answered that the 2017 forecasts Ο. were lower than the 2016 forecasts? 10 11 Α. Correct. 12 And then she asked you, And do you expect 0. that trend to continue? 13 14 Did I read that correctly? 15 Α. That's what the paper says, yeah. And your answer, if I'm reading this 16 0. 17 correctly is, I don't think so, but I'd be speculating. 18 Am I reading that correctly? 19 20 Α. I think so. Okay. About five minutes ago you said 21 Ο. that you do see -- or at least you predict that the 22 23 wind prices are going to increase. Last year you said that any information as to wind prices decreasing 24 would be speculation. So --25

1	A. Okay. So
2	Q. Am I understanding you correctly then
3	that any any wind price decrease would be a
4	speculation on your part, but you know that the wind
5	prices are going to increase?
6	A. Both the 2017 and the 2016 curve, both
7	have increasing prices on both of them. So to say
8	that a 2017 curve is lower than a 2016 curve in
9	talking about, you know, a 30 20- to 30-year curve
10	in the future going up or down, I can't say. But I
11	would say that both of those still show increasing
12	pricing over time. And I don't see any reason why
13	that won't continue to happen, especially on an
14	inflationary basis.
15	Q. If you'll please skip forward to page
16	592. As Ms. Bell continued questioning you, I'm at
17	line 16, please correct me if I'm reading this
18	incorrectly. She asks, With more wind adding to SPP,
19	would you expect that trend to continue?
20	Did I read that correctly?
21	A. As it relates to it looks like negative
22	price intervals?
23	Q. Yes.
24	A. Yeah. I believe you're reading that
25	correctly.

1 So her question was with more wind being 0. 2 added to the SPP, would you expect the trend of increasing negative price mark -- price intervals to 3 continue? And your answer was, I'm not certain of 4 5 that. 6 Α. Correct. Your ans-- your answer going forward was, 7 0. 8 To me, negative pricing is an imbalance of generators 9 following the market signals in real-time. And there's many ways in which that can be accomplished. 10 And I do believe that RTOs work to eliminate deltas 11 12 and with the day ahead. But that means I don't know enough to know. 13 14 You don't know enough to know as to whether or not increasing wind -- increasing wind 15 supply will result in more negative pricing. Do you 16 17 still stand by that answer today? 18 Correct. Because negative pricing is not Α. a function of just more wind. 19 20 Ο. And despite what we agreed earlier that increasing supply results in lower prices? 21 22 Α. Correct. Again, are you proposing that 23 every negative price comes with generators that can't turn off and that all negative prices are a result of 24 25 over-supply? Like there's a lot of ways and reasons

on what creates negative pricing. And an increase of 1 2 wind is not the only factor. So how --Well --3 0. -- people choose to mitigate these things 4 Α. in the future, especially if they're driven by cur--5 constraints or other, I don't know. 6 7 I guess I'm not really proposing Ο. 8 anything. I just want to see where your knowledge and 9 assumptions come into when you use these revenues in your work papers. 10 11 Α. Right. 12 Ο. Do you --And so we do rely on ABB as an expert 13 Α. 14 modeler --15 I -- pardon me. I didn't ask a question 0. there. 16 No problem. 17 Α. 18 What -- would you please turn to your 0. work papers actually? I'm looking at the back of --19 20 or sorry. I shouldn't have said these are your work papers. I'm looking at the Non-Unanimous Stipulation 21 and Agreement and I jumped ahead and called these work 22 23 papers because I see these four worksheets at the 24 back. They look modeled very much off your work 25 papers. Am I correct on that?

1 These are examples of the way the market Α. 2 price protection would work. Are these modeled off the work papers 3 0. 4 that you've provided the parties in this case? 5 Α. Yes. 6 Ο. So you -- you -- so you can speak to 7 these worksheets then? 8 Α. Yes. 9 I'm hoping that you can help explain a Ο. little bit of confusion I have. I'm looking at the 10 low market case example. This was a case that Staff 11 12 highlighted in their opening. Do you have that in front of you now? 13 14 Α. Is it the P-50 low or the P-95 low? 15 The P-50 low marked case example. 0. 16 Α. Okay. 17 0. Where -- row 18, farthest right column has the number 9,776,501. 18 19 Uh-huh. Α. 20 0. Okay. Tell me what this -- the PPA replacement value, row 15, is. 21 22 The PPA replacement value is a -- an Α. 23 assigned amount of value from the fact that when the PPAs roll off, that there -- these wind farms will 24 provide support to our PS requirements and other 25

1	value.
2	And so it's detailed if you backed up
3	a bunch of pages in Exhibit C, kind of five pages
4	back, it's essentially doing a proration of the amount
5	of energy that is replaced from those PPAs. So as the
6	PPA rolls off and is replaced by these and we're
7	prorating the amount of energy that's replaced by the
8	PPA over the total revenue requirement of the new
9	projects to create a value stream that went into the
10	MPP calculation.
11	Q. Okay. So where is that money coming
12	from?
13	A. It's a value assigned in in lieu of
14	replacing those other PPAs. So again, looking at the
15	portfolio benefits of the project and trying to say
16	what else is contributed onto the wind value.
17	Q. Why is there value to that?
18	A. We believe that it has value. Otherwise,
19	we think that, again, when you're looking at a
20	portfolio over this 20-, 30-year period, you're going
21	to have to replace if you didn't replace the
22	wind the PPAs with this wind, you'd be replacing
23	with some other wind. And so we're just assigning
24	some of that future portfolio value in this document.
25	Q. Okay. So years one you have a zero and

that's because these wind PP-- the PPAs are still 1 2 operating then? That is correct. 3 Α. And you're getting renewable energy 4 0. 5 credits at that time. Right? That is correct. 6 Α. And that's the same case for years two 7 0. 8 through five as well? 9 Α. That is correct. Five years of getting renewable energy 10 0. 11 credits? 12 From the -- from the new projects or from Α. the old projects? Because I guess you would be 13 14 looking at -- you'd come from both at that time 15 period. Sorry. I didn't mean from these new 16 0. 17 projects. I mean for five years you've indicated zero 18 values because you're already getting the P-- the PPAs are still active? 19 Correct. You haven't replaced anything. 20 Α. Got it. And you know that these 21 Ο. renewable energy credits can be banked for future 22 23 redemption. Correct? 24 I don't have a lot of knowledge on the Α. RPS stuff. I think Mr. Wilson is the better witness 25

on recs and rec treatment with buying and selling. 1 2 Ο. And yet you attributed a value to them and put that in your modeling for the spreadsheets? 3 I did. By no means did I create the 4 Α. 5 spreadsheet on my own. We worked with many stakeholders to try to determine what was fair and 6 7 appropriate value and how to calculate it and we 8 documented it appropriately. One of those other -- was one of those 9 0. other stakeholders Staff? 10 11 They were. Α. 12 Okay. Were you here to listen to Ο. Ms. Mers opening? 13 14 Α. I was. 15 And so she brought -- she blew this Ο. spreadsheet up for everyone. Did you see that? 16 17 Α. I did. And she pointed to this 9,776,501 number. 18 0. And that is -- that's in row 18, the accu-- what you 19 20 call -- or what is called the Accumulative Annual Wind Value. Am I reading that correctly? 21 22 Α. Correct. 23 Ο. Is that the number that goes directly -in -- in this hypothetical entertained by this 24 25 spreadsheet, is that the number that Empire's

1	customers pocket?
2	A. At the end of the I'm not sure if I
3	would use the word "pocket." Again, the purpose of
4	the MPP is to determine if you need to create a
5	regulatory liability to help compensate back. Since
6	there's a positive value after the ten years, there
7	would be no action. It would be zero and you'd
8	continue the operations for the next 20 years of this
9	wind farm.
10	Q. But so the actual number that you would
11	flo that presumably may be flowed back to customers
12	is not the very right end of row 18, is it? Because
13	you take this annual wind value and then that's
14	applied with a sharing value. Correct?
15	A. No. You have a positive value here. So
16	upside is all to customers. And so the way this is
17	going to happen is the the the wind farms will
18	continue through rate cases and they'll be providing
19	benefits based on more of row 16. Right? They're
20	going to be going through and providing value.
21	The the whole part down in row 18 is
22	to try to say if there's a negative number, well, then
23	that's where the Company has to provide more value
24	back to the customers. So hopefully that made sense.
25	Q. So at the end of ten years then, in this

1	hypothetical the 9 million figure is a positive and so
2	that would be that is what goes to Empire's
3	customers at the end of ten years in this
4	hypothetical. Right?
5	A. No. So again, the only purpose of the
6	MPP is for the downside protection to customers.
7	Right? So these are these are wind farms, they're
8	in rates, they're generating they they generate
9	costs and and and revenues, they're going to be
10	treated through rate cases.
11	And the purpose of this is to create a
12	tracking mechanism so that if something goes bad at
13	the end of the ten years, we have a way of flowing
14	credit back to customers. In in this scenario,
15	they would customers would have been seeing benefit
16	probably since year six and then the the total sum
17	of their benefits after the ten years that they would
18	have already seen, we're estimating at that
19	9.7 million dollars.
20	Q. Okay. So you have the 9 million number
21	and then beneath that in the annual sharing value sum,
22	that's broken down to 4 million. That 4 million is
23	half of the 9 million. Correct?
24	A. That is correct.
25	Q. What is that 4 million?

Г

1	A. So that is representing half of the
2	accumulated wind value.
3	Q. And that's di is that divided as to the
4	wind co and Empire's customers?
5	A. So the in again, because it's a
6	positive number, nothing will happen. But the
7	intention would be you take the balance after the ten
8	years, you apply a sharing value, 50/50. And if that
9	is a negative value, then that creates a regulatory
10	liability that you have to provide as a credit back to
11	customers after the end of the guarantee period.
12	Q. So then okay. So let's play this out.
13	We've had a Market Protection Plan for ten years. In
14	this case now, we have we have the 9 million at the
15	end. Do Empire's customers get to pocket all of that
16	in their lower rates or what?
17	A. Correct. So they would have already
18	received it. Because the wind farm's already in rates
19	and they're already in the cost-of-service up above,
20	they will have already seen it. So again, the MPP is
21	just to cover the downside risks of these low
22	probability events where you might need to provide
23	additional credits back to customers.
24	Q. Where so you're saying they've already
25	seen those benefits once you see the positives at

about -- I think year 6 in the annual wind value you 1 2 have 4 million? That is correct. 3 Α. Where we're also paying for 18 million in 4 0. 5 a -- for a PPA -- PPA replacement value? We've assigned 18 million of value there 6 Α. 7 and -- and basically avoiding having to replace it another way, yeah. 8 9 For credits that can be banked? 0. No. Not for credits. For avoiding to Α. 10 pur-- to replace those wind farms without their owned 11 12 assets. Looking -- stepping back and looking at 13 0. all of these spreadsheet, I see that there's a 14 15 expected case, a high case, a low case and low market/low wind case. There's four different ones. 16 Т 17 see that the first three that I mention use a value of P-50, whereas, the final one, low market and low wind 18 case, uses a P-95 value. Explain to me what the P --19 20 the P values are again. So P values represent kind of a 21 Α. confidence interval or like a probability of what is 22 23 the amount of wind that would be expected over a period of time. since obviously wind is variable, 24 25 you're not going to have the exact same predicted

1	output every year.
2	P-50 is deemed the expected case. It's
3	the amount of wind that you would expect to see
4	50 percent of the time over a period of time. P-75 is
5	a lower number because it's got a higher probability
6	of being exceeded over that time period. And so P-75
7	would be a number that you will exceed 75 percent of
8	the time. And then down to P-90 and P-95.
9	So with the workbook we provided, it
10	creates toggles. So if people wanted to play with
11	different combinations, they could see it. We
12	provided four examples for clarity.
13	Q. So your P-95 scenario then is where
14	you where we can expect the most certainty as to
15	wind production?
16	A. It's a pretty unlikely scenario. Like by
17	definition, it's a 5 percent scenario.
18	Q. So we're just dealing with a P factor of
19	.05 then?
20	A. By that are you just trying to say
21	5 percent?
22	Q. Yeah. Referring back to
23	A. Yeah.
24	Q like basic stats. I so I'm curious
25	because like you said, you brought you brought

illustrative examples, but then for your low 1 2 market/low wind example where -- so we expect the lowest revenues with the lowest amount of wind, you've 3 given us the highest certainty as to wind production 4 5 in this example. You've given --6 Α. Yeah. 7 -- us -- you've inputted P-95 instead of 0. 8 the P-50. 9 Correct. We were trying to portray Α. within the data set we had, what would be a worse case 10 11 scenario. 12 And all the other ones use P-50? Ο. Α. That's correct. 13 14 Q. So it's apple, apple, apple, orange? 15 We were trying to portray a range of Α. 16 options. And I believe the parties all have the 17 workbooks so you could look at any combination you would like. 18 Workbooks -- you know this was filed on 19 0. 20 Friday. Correct? The document is in the substantial same 21 Α. form as it was a year under the CSP case, so there's 22 23 a -- I don't know. 24 So that's a yes then? You were aware Ο. that this was filed Friday? 25

1 Α. Yes, I'm aware. 2 Ο. And submitted for parties for consideration --3 In the same form as the document was 4 Α. 5 12 months ago, yes. 6 Ο. Uh-huh. Thank you. Yes is fine. 7 Now, Mr. Woodsmall just asked you about -- he called it a customer cap and then you 8 9 clarified as a -- you called it something else. Do you remember what you called it? 10 I don't know what you're referring to. 11 Α. 12 I believe he was talking about the 0. 52,500,000 exposure. And Woodsmall called that a 13 14 customer cap and then you clarified and said it was a 15 Company cap, I believe? 16 So the way it's set up right now is that Α. 17 there is a guarantee up to 52.5 Missouri 18 jurisdictional. If you were to -- and it's 50/50 sharing. So once you get above that, all options come 19 20 back on the table to the Commission, to the stakeholders. So if you consider that an escape hatch 21 would probably be also a customer at 52.5, you could 22 23 look at it depending on how you wanted to look at it. Okay. So how -- how does that play out 24 Ο. 25 on this ten-year Market Protection Plan cycle? So let

1	me give you a ridiculous hypo. First year,
2	200 million dollars lost. 200 is higher than 52.
3	Have we reached the cap then?
4	A. Right now it's contemplated to look at
5	over a ten-year period. My understanding is that any
6	party has the right to petition the Commission at any
7	point in time kind of regardless of the agreement,
8	not
9	Q. Is that anywhere explicitly stated in the
10	agreement? I couldn't find that anywhere.
11	A. I'm not a lawyer, but my understanding is
12	those are your rights under law, that parties have the
13	right to object to anything at any time.
14	Q. So first year in we see if Public
15	Counsel sees a loss, we could petition to stop Market
16	Protection Plan after the first year?
17	A. I'm not sure your rights under law, but
18	I'm sure you would have whatever rights you would
19	have.
20	Q. Okay. Well, put away the petition. So
21	let's how is this going to work in a rate case?
22	Empire's going to come in soon, we see we see a
23	delta. How do we address that? Do we push that off
24	to wait for ten years or do we address it then in that
25	rate case?

1	A. The contemplated market price protection
2	right now is that you would track the performance over
3	the time and you would deal with it at the end of the
4	ten years. Obviously each rate case would be treated
5	as prudent cost-of-service and and would be, you
6	know, dealt with in in the normal manner and people
7	would challenge as they saw fit.
8	And if you thought that there was some
9	disastrous outcome, you would have whatever your
10	rights are under the law to to object.
11	Q. So shareholders aren't going to am I
12	right to say that shareholders aren't being exposed to
13	that 15 million dollar value until the end of ten
14	years 52 million, pardon me?
15	A. I believe that that is correct. We had
16	originally proposed interim adjustments to flow back
17	if there needed to be flow back early. And then
18	through working with other stakeholders to come to
19	larger agreement for rate stability, it was deemed to
20	push that out until the end of the ten years.
21	Q. Okay. But so as it is now then,
22	ratepay shareholders aren't exposed to that
23	52 million dollar figure until the end of ten years.
24	Meanwhile, over ten years customers are paying for the
25	wind farms in rate-base?

In the low events -- low probability 1 Α. 2 events where things could be not good, I believe that that's correct. 3 Okay. The total am-- I mean this is a --4 0. 5 you're looking at a billion dollar project but only 500 million in rate-base. Correct? 6 7 Α. Yep. Q. All of these -- would you please look at 8 9 the only one that -- this -- I'm looking at the table for low market/low wind case again. 10 Uh-huh. 11 Α. 12 Row 48, Missouri reg input. Ο. 13 Α. Yep. 14 Ο. What does that 39 number mean? Or sorry, 39,712,233. 15 16 Α. So the -- the market price protection, it 17 goes through and calculates everything at the -- the gross value of all the wind plants. And so it comes 18 down with the sharing value and you end up with -- in 19 20 this scenario, 46.7 million of -- of funds that would be owing up at the -- the total wind level. And 21 then -- so that 39 is after you've applied the 22 23 Missouri jurisdictional factor to determine what is the -- the amount that would have to be flowed back as 24 a credit to the Missouri customers. 25

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30-- 39 million is the credit to 1 0. 2 customers? In this --3 Α. Q. In this scenario? 4 5 Α. In this scenario, correct. 6 Ο. But they'll still have paid -- but 7 they're still paying for a 500 million dollar asset in 8 rate-base? 9 Α. That is correct. 500 is higher than 39? Just as a number. 10 Q. Yeah. 11 Α. 12 Mr. Holmes, are there any other Ο. provisions of this stip that you feel qualified to 13 14 speak to? I actually -- I'm sorry. That was -- I think that could have been phrased in -- I phrased 15 that in the worst possible way. 16 17 If I want to go through the stip, if there's a provision in the stip that you don't feel --18 if you feel like there's another witness that could 19 better speak to it, just please stop me and let me 20 know. 21 22 Α. Okay. 23 I'm looking at paragraph 12, CCN Q. 24 conditions. There's the phrase "and in a manner that 25 is not detrimental to Empire's customers."

1 Α. Yep. 2 Were you -- are you -- are you familiar Q. with this term? Can I ask -- can I ask you questions 3 on this term? 4 5 Α. Sure. I can answer at high level. 6 Details would be Mr. Wilson. But if it's something 7 simple, I'm sure I can help you out. 8 Q. I guess I'm just curious. There's no --9 is there a definitions paragraph or anything in this to define what detrimental means? 10 Not to my knowledge. 11 Α. 12 Do you see -- do you think a customer has Ο. taken a detriment if they have a fixed income and 13 14 their rates have gone up? 15 I -- I don't know. Α. Did -- is there a witness on your team 16 0. that would be able to better speak to this? 17 18 Α. Well, I don't really understand the 19 question. Okay. So scenario A, customer with fixed 20 0. income. Scenario B, the only X factor that has 21 changed is the rates have gone up, income stays the 22 23 same. Has that customer received a detriment? 24 Sorry. Is the premise of the question Α. 25 that the only thing that has changed in the providing

1	of the utility service is just the wind farms and
2	nothing else?
3	Q. The only change in the scenario is that
4	otherwise safe and adequate service has been provided,
5	but now the rates have gone up.
6	A. Okay. So is the question just related to
7	if rates go up for providing just and reasonable
8	service, is that a detriment?
9	Q. To the customer, yes.
10	A. Again, I struggle a little bit with
11	detriment, but I would acknowledge that if a person's
12	costs go up, that most people would deem that bad. I
13	guess it would come down to do you have an
14	alternative? And if it's fair and reasonable rates,
15	you know, I would assume that their alternative is not
16	to turn off their power, so
17	Q. I guess
18	A. I think you're just trying to say that is
19	costs going up if your revenue doesn't go up, bad.
20	Then I guess
21	Q. Well, I'm I'm confused too. I'm
22	trying to figure out what do you think this term
23	means? Because I don't know what detriment means.
24	A. Well, I think this this term is pretty
25	simple. This term is about bidding into the the

1	marketplace and trying to make sure that you offer in
2	your generation at a value where it makes more sense
3	to operate then not operate. Right?
4	So as as as the market price as
5	the clearing price in the market drops, at some point
6	it does not make sense to run. So the easy example
7	would be like a gas unit. If it's come below your
8	cost of emission plus fuel costs plus your variable
9	O and M, you would no longer operate because your
10	costs are higher than your your revenues.
11	So this term is just really trying to say
12	if you're o if you're going to offer the wind into
13	the market, you have to do it at a level that there is
14	at least more value being created by operating than
15	not operating.
16	Q. Was this what Mr. Mertens was referring
17	to when he when my co-counsel asked him on this
18	provision, Mr. Mertens referred to bidding into the
19	market with negative pricing?
20	A. Yes. That's my understanding of this
21	clause.
22	Q. So this this clause stops that
23	bidding?
24	A. No. It makes sure that you're bidding it
25	rationally. Right? So you would have to show that

1	your bidding process, the exact same as the bidding
2	process we use for the current, you know, wind PPAs,
3	is a is a reasonable process. Right? So this is
4	the same way you offer in all your other generation.
5	Q. Is that all this term means?
6	A. That's my understanding.
7	Q. Do you have any do you have any
8	knowledge as to why it was phrased in a manner that is
9	not detrimental to customers as opposed to how you
10	just explained?
11	A. Other than what Mr. Woodsmall had kind of
12	said earlier when he asked Mr. Mertens, no.
13	Q. Okay. Can you speak at all to paragraph
14	17, 17-A?
15	A. No. Asbury
16	Q. Agreement with I think that's
17	International Brotherhood of Electric Workers.
18	A. Yeah. I've not been involved in any of
19	the Asbury stuff.
20	Q. Who should we ask on that paragraph?
21	A. I don't know. Mr. Mertens was was
22	was probably your best. Otherwise, I'd probably talk
23	to Mr. Wilson is is the next most reasonable
24	person.
25	Q. Thank you. Can you speak to page 13, if

there's in-service criteria. I'm looking at paragraph 1 2 5. In-service criteria, I'd talk with --3 Α. with Mr. Wilson. 4 5 Ο. Okay. So I should -- so we should ask Mr. Wilson on this? 6 7 Α. Right. 8 Q. Okay. Well, Mr. Holmes, do you have a 9 copy of your testimony in front of you? I do. 10 Α. I noticed on page 2, line 19 you are 11 0. 12 talking about Mr. Riley's analysis and you remarked that there's many differences and one typo. Correct? 13 You wrote that. Correct? 14 15 Α. I did. 16 Was there any reason why you fixated on 0. 17 that typo? 18 So I was asked, you know, do I agree Α. with -- with the calculations for Mr. Riley's revenue 19 20 requirement. And so the typo does flow -- or what I perceived as a typo does flow through the revenue 21 requirement calculations. So it was just -- it was 22 23 just a comment that there's a typo I noticed that could affect the revenue requirement. 24 25 0. You were im-- were you -- so were you

1	implying some type of credibility failing because he
2	used a typo?
3	A. I was saying that the numbers are wrong
4	as a result of it. It's minor in my opinion, but
5	there's you know, it's in the year 2025 under PTCs.
б	There are negative values everywhere in the schedule
7	and then that one is a positive value. So it's
8	it's minor, but it just means that the number the
9	math is just a little off. That's all.
10	Q. Okay. Can you help me out here? On
11	page 6, line 11 you're you're referring to a
12	schedule that you've attached to the back of your
13	testimony. And the phrase the sentence that you
14	have is, The net Empire cast position position is
15	shown in row 67 and it's the sum of several sum of
16	several other rows. Correct?
17	A. Yep.
18	Q. That schedule is DH S-1 or 2?
19	A. I think we're in 1. Yeah, Number 1.
20	Q. Okay. Because when I go to 1, I go to
21	row 56 and I don't see anything in that row. Am I
22	missing something?
23	A. I don't know. I'd have to add up the
24	other three numbers to see if 59, 61 and 65 still
25	equal 67.

1 MR. HALL: Okay. I have no further 2 questions, Your Honor. JUDGE DIPPELL: Are there questions from 3 the Commission, Mr. Chairman? 4 5 CHAIRMAN SILVEY: Yeah, I do have a 6 couple. Thank you. 7 QUESTIONS BY CHAIRMAN SILVEY: 8 Q. On the Non-Unanimous -- Non-Unanimous 9 Stipulation and Agreement, page 4, do you have that in front of you? 10 I do. 11 Α. 12 Okay. Down at the bottom in 12, sub D 0. 13 there's a sentence here that I'm a little confused by. 14 It says, Plans and specifications. Empire shall file 15 with the Commission quarterly progress reports on the construction level plans and specifications for the 16 17 project. And the first report shall be due on the earlier of the first day of the first calendar quarter 18 beginning after the CCN is issued. 19 20 It seems to me like that sentence was starting out to be an either/or statement and yet 21 there's only one option. So how would -- how would 22 23 you take that? 24 I would take it that -- that Empire's Α. agreeing to try to provide updates on how things are 25
1	going. And and so they're like many stips,
2	there was probably a couple options and one probably
3	was deleted. But I think for plans and
4	specifications, Mr. Wilson's your your best to
5	answer if you if I had something wrong with that.
6	Q. Okay. On page 5, this is going to be the
7	end of the top paragraph. It says, In its subsequent
8	quarterly report, Empire shall address any results of
9	the study that are material changes in assumptions or
10	costs related to the wind projects.
11	How would you define material?
12	A. I don't know. I'm not sure. I'd be
13	guessing if I throw out a number.
14	Q. Well, I mean if if that is the
15	threshold for for which they're supposed to be
16	addressing the results of the study, how will we ever
17	know if a material threshold has been reached? Is
18	there a dollar figure or a percentage?
19	A. I'm sure we would can come whether
20	it's a dollar figure or a percentage, I'm sure if
21	if it was something we could work out with Staff and
22	the other stakeholders, we'd pick a reasonable number
23	for providing the updated documentation at on a
24	change of the interconnection costs. And I'm sure
25	that that's we can be pretty flexible I'm sure on

that. 1 2 Okay. And then on page 18 -- and I think Q. you kind of touched on this a while ago early on in 3 the testimony. I think there were some questions 4 5 about this. But the 52.5 million dollar figure. Why 6 does the Company believe that 52.5 guarantee is 7 reasonable and what is included in that that is above 8 the original 25 million that the Company supported? 9 So as we went through the process with Α. other stakeholders to try to come to an agreement on 10 what's a -- you know, a good, fair and reasonable 11 12 amount of protection, certain items in, you know, the way we assigned value had changed. 13 14 And so both in the customer savings plan docket last year and in my surrebuttal, the -- the max 15 16 quarantee has kind of always been able to cover this 17 P-95 low or kind of our worse case, 0.5 percent scenario. And so this -- this 52.5 still does cover 18 It's just now that there is, you know, no 19 that. 20 dead band and the capacity value is out, the -- the 25 million from my surrebuttal was -- you know, was no 21 longer as -- as -- as accurate. 22 23 So I think we -- the 52.5, the fact that 24 it covers up to kind of a 0.5 percent probability, we feel that's a good number. 25

1 So does that 52.5 number include 0. 2 protections for network upgrade costs? It does. So network upgrade costs would 3 Α. 4 be -- go into the calculation as part of the -- the 5 net plant part and then it does flow through the costs. 6 7 Okay. And then back to my previous 0. 8 question, is there another witness that the Company's 9 going to put on that would be better to answer the question on what is material? 10 Yes. I'd ask Mr. Wilson. He's going to 11 Α. 12 be doing most of the construction-related document providing. 13 14 Q. Okay. Thank you. 15 CHAIRMAN SILVEY: Thank you, Judge. JUDGE DIPPELL: Commissioner Hall? 16 17 Sorry, Commissioner Kenney? COMMISSIONER KENNEY: I have no 18 19 questions. 20 JUDGE DIPPELL: Commissioner Hall? **QUESTIONS BY COMMISSIONER HALL:** 21 Good afternoon. 22 Q. 23 Α. Good afternoon. 24 You said earlier that -- that customers 0. benefit from -- from -- from low market prices, but 25

that's not taken into account in the MPP; is that 1 2 correct? 3 Α. That's correct. Can you -- can you elaborate on that? 4 Q. So when we did the -- the production cost 5 Α. 6 modeling, when we did the -- all the customer savings 7 plan, we were looking at, you know, all of our 8 generation supply side resources and all of the -- the 9 load costs so -- when we run through the different scenarios. 10 And the -- the portfolio effect is very 11 12 beneficial on adding wind when you have load. And yes, we have -- you know, we have some coal and we 13 14 have some gas and other generation parts, but the wind 15 does provide kind of some risk mitigation aspects. 16 And yes, if market prices crashed to, you 17 know, zero, that's -- that would be bad for -- for new generation, but there is an offset even in that worst 18 case scenario as the customers' purchase cost goes 19 20 down. Right? None of the -- none of the thermal 21 units would ever run again if you went to that power amount, so there's a lot of weird things that happen. 22 23 But hopefully that answers your question. And so if -- if those -- if the market 24 0. 25 prices were to go down significantly, ratepayers would

benefit through -- through the fuel adjustment clause. 1 2 Correct? That -- that is correct. 3 Α. Now, you're not saying that the addition 4 Ο. of 600 megawatts of wind is necessarily going to have 5 6 much of an impact on -- on market prices, or are you? We don't see it as a -- as a massive 7 Α. 8 swing in our portion to -- to rege-- you know, all the 9 market prices, no. Okay. So if -- if market prices were to 10 0. go down significantly with or without this additional 11 12 600 megawatts, customers would benefit probably about the same? 13 I believe that's about correct. 14 Α. 15 So then the only difference would be that Ο. 16 customers are paying for this 600 megawatts of wind? 17 Α. For the downside? 18 Ο. Yeah. I would say that is -- if you only 19 Α. Yes. 20 look at the downside, yes. If you do consider that there is always the chance there could be an increase 21 in price, then the -- that's when the wind would 22 23 provide significant price protection. 24 0. Which is the perfect segue into my next line of questioning. And that is that there seems to 25

be some mild consensus that -- that there is going to 1 2 be some increase in -- in wind prices, in -- in -right? 3 In -- in market prices? 4 Α. 5 Q. Yes. 6 Α. Yes. I would --7 And what do you attribute that to? 0. 8 Mr. McMahon's going to be your best on Α. 9 the -- kind of the macro level price formation that ABB does that -- that shows how prices go up over time 10 in -- in their forecast. So he'd be the best. 11 I do 12 rely on that ABB forecast as a professional opinion of where gas and electricity prices are going to be 13 14 moving. Well, does -- does the phasing out of the 15 0. PTC plan do that as well? 16 17 Α. It changes on your cost side, but for the most part, wind is not on the margin to set the 18 electricity price. Right? So the -- when the -- when 19 20 the market clears, there's one price that -- that kind of goes and then is adjusted for congestion. 21 And that's typically going to be a gas unit, although, you 22 23 know, there are sometimes wind's on the margin and other sometimes coal's on the margin so --24 25 Q. Well, but -- but one of the main reasons

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1	why wind isn't on the margin is because of the PTC.
2	Because it's bid in at a dollar frequently.
3	A. Correct. So the PTC helps make it more
4	cost effective up front typically to to reduce what
5	your costs are. Right? Ror for us, we're using the
6	tax equity to reduce the up front cost and get some of
7	the pay back over time.
8	As the PTCs are phased out, remember
9	they're they're going to be there for ten
10	existing projects these projects will have that PTC
11	value for ten more years. So it will be a long time I
12	think before you see that phase-out of the PTC drive
13	through on the market price. And again, I think
14	Mr. McMahon's your better guy for those detailed
15	market formation stuff.
16	Q. Ten years at the 24 dollars?
17	A. So
18	Q. I thought it phased out.
19	A so the phase-out is based off of the
20	percentage of qualification. I think Mr. Mooney's got
21	this. So
22	Q. Okay.
23	A if we get this in start of
24	construction 2016, placed in service 2020, we get
25	100 percent of the PTCs. After that, they drop by

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1	20 percent. But the 24 dollars goes up based on an
2	inflation number. And again, Mr. Mooney will correct
3	me. There there's an IRS inflation number so it
4	will go 24 and eventually will tick up to 25. They
5	don't do decimal points so it's 24, and it will go 25,
6	and then three, four years later it will go to 26.
7	Q. What's what's the total cost of this
8	project?
9	A. That's in Mr. Mooney's testimony. But
10	like your 550 million is what we're looking at in
11	increasing our net plant, I believe. Something in
12	that range.
13	Q. But I thought that the increase in
14	rate-base was going to be about 50 percent of the
15	total cost of the project?
16	A. Correct.
17	Q. Okay.
18	A. And again, Mr. Mooney's got the exact
19	purchase price numbers.
20	Q. Okay. The the four scenarios that are
21	attached to the non-unanimous stip
22	A. Uh-huh.
23	Q can you tell me what what the
24	market price is for each of those scenarios or where I
25	might look to find that?

1	A. So there is an exhibit of in my
2	testimony that does have it. It's a little bit more
3	buried. It in kind of a quick level, in the mid
4	ABB market price, we've got 26 dollars a megawatt hour
5	in 2021.
6	Q. Okay. Is that an this is for the
7	expected case example?
8	A. Correct.
9	Q. Okay. Which which exhibit are you
10	referring to?
11	A. Hold on. Actually I did find it. It's
12	in my
13	MR. COOPER: And I just want to ask one
14	question I guess of the witness. And this is kind of
15	a sore subject from earlier. But I just want to make
16	sure that Mister Mr. Holmes is thinking about
17	whether which items are confidential and which
18	aren't as he works his way through this.
19	COMMISSIONER HALL: Fair enough.
20	THE WITNESS: I think individual data
21	points, not so bad. Full curves, that's when it
22	I I I'm going to keep flipping for
23	it, but I did print one out that shows the market
24	price that goes with the mid, the low and the high if
25	you if you wanted it until I find that piece of

1 paper. 2 So it's in -- there's a hole punch right in the schedule name. I think it's in DS -- DH S-2 in 3 4 the highly confidential. BY COMMISSIONER HALL: 5 6 0. Well, so it's fine to -- to get the 7 actual dollar amount for each of those scenarios? 8 Α. Yes. 9 Ο. Okay. So in DH S-2, in the highly confidential, 10 Α. at the bottom of the -- the bottom of the page, you --11 12 after you get to -- go through my revenue requirement calculation, you'll see mid modeled SPP revenue in 13 dollars, you'll see the modeled energy in gigawatt 14 hours. And then the actual revenue in dollar per 15 megawatt hour for the mid, the low and the high 16 17 scenario. So it gives you some basis to compare at 18 least. JUDGE DIPPELL: Are those -- those pages 19 20 in that schedule, do they have any numbers or name? They do not. 21 THE WITNESS: MR. COOPER: Well, they -- yeah, they 22 23 don't have numbers, but they -- they have a schedule designation. But as Mister -- Mr. Holmes pointed out, 24 25 if you're -- if you've three hole punched, you've lost

1	them.
2	COMMISSIONER HALL: Yeah. That's what
3	I'm suffering from.
4	JUDGE DIPPELL: Only if you didn't double
5	side.
6	THE WITNESS: So it's below that.
7	That's that's number one. You no yeah.
8	Close. Keep going. More. One more. There you go.
9	So see down at the so if you look at
10	the bottom there, just before that big dark line you
11	see the wor you'll see the three points. There's a
12	mid model SPP revenue and with the dollar sign and
13	then a gigawatt hour and then a dollar per megawatt
14	hour and then it shows the forecast. And all those
15	numbers are straight out of that customer savings plan
16	docket 2018-0092.
17	BY COMMISSIONER HALL:
18	Q. So where's the dollar amount per megawatt
19	hour?
20	A. Just the very first row below that dark
21	line that goes all the way across.
22	Q. Okay.
23	A. There you go.
24	Q. 23, 26, 20
25	A. Correct.

Okay. And -- and this came from what 1 0. 2 source? That came out of the -- the ABB modeling 3 Α. 4 that we did during the customer savings plan. So we 5 pulled that dollar per megawatt hour and applied it to 6 the updated production numbers. 7 And have any parties taken issue with 0. 8 that methodology that you're aware of? Not that I've discussed, no. 9 Α. Ο. Okay. So that's the -- that's the mid--10 that's -- that's the expected case? 11 12 Yeah. And then the low is two rows below Α. that and the high --13 14 Q. Okay. 15 -- is two rows below that. Α. Okay. And so then let me just make sure 16 0. 17 that I -- of the four scenarios, the only one that 18 would implicate the -- the MPP is the fourth scenario? 19 Α. Correct. 20 Ο. And in that scenario there would be 46 million dollars in a regulatory liability? 21 22 And it ends up being the 39 for the Α. 23 Missouri level. So the 46 would be all the projects and then there would be a 39 at the Missouri level. 24 25 0. And so under -- under that scenario,

ratepayers are -- are protected from 50 percent of 1 2 their -- of what would otherwise be a loss --That's correct. 3 Α. -- or an increase in rates? 4 Q. 5 And then obviously we were hoping that Α. 6 even in that bad scenario, that you still have a -- a 7 wind farm that's now one-third depreciated that still 8 has the ability of providing value for the next 9 20 years after that. So nothing in these four scenarios takes 10 0. into account how much of this wind is being produced 11 12 to certain native load and how much of it is going into the integrated marketplace for sale -- well, 13 for -- for sale to others? 14 Well, so all Empire generation goes into 15 Α. the integrated marketplace. So you can't really kind 16 17 of trace electron to electron. So I think the -- it works off of the same thought process from the rest of 18 the ABB modeling of everything goes in, everything 19 20 comes out. And there's a lot of timing issues that can create differences, but yeah. 21 But it -- it -- in other words, it 22 Q. 23 doesn't matter if Empire is long or short. It's the same -- same dollars? 24 25 Α. Correct. This does not contemplate a

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1	long or short position.
2	Q. I think that's all I have. Thank you.
3	JUDGE DIPPELL: Is there
4	QUESTIONS BY JUDGE DIPPELL:
5	Q. Oh, I guess before I've got one one
6	question for you. I I had asked questions earlier
7	about the differences between this Stipulation and
8	Agreement and the one in the prior case. Can you shed
9	any light on
10	A. Yeah. So between Case 2018-0092, the
11	a lot of the there are a lot of similarities.
12	The the ways we calculate the annual wind value is
13	the same. The dead band was eliminated. So in the
14	worst case scenario, there's 20 million dollars kind
15	of more protection for customers. So when the dead
16	band was eliminated, that that that was you
17	know, a 20 million dollars change there. And then the
18	guarantee cap went from 35 million in 2018-0092 to the
19	52.5 for the Missouri jurisdictional amount now.
20	And then the other piece would be when to
21	apply the credit through that regulatory liability.
22	In the the customer savings plan case, there it
23	was contemplated to make an adjustment to rates at
24	each rate case during the ten-year period and then do
25	a true-up. And then after working with stakeholders

to get people comfortable, it was thought that that 1 2 could create too much volatility and so we deferred it to the end in this one. 3 I believe those are the -- the material 4 5 changes from -- from the CSP case to this one. 6 Ο. Okay. Thank you. 7 JUDGE DIPPELL: Is there further 8 cross-examination based on questions from the Bench 9 from Renew Missouri? 10 MR. OPITZ: No, thank you, Judge. JUDGE DIPPELL: Division of Energy? 11 12 MS. REEVES: No, thank you, Judge. 13 JUDGE DIPPELL: MECG? 14 MR. WOODSMALL: Very briefly. 15 FURTHER CROSS-EXAMINATION BY MR. WOODSMALL: Getting to a question from Commissioner 16 0. 17 Hall, you were asked about the increase in rate-base and how much this would cost. Do you recall that 18 question? 19 20 Α. I do. The im-- the cost to Empire, the increase 21 Ο. in rate-base, if you will, would be roughly 22 23 550 million dollars; is that correct? That's my understanding. 24 Α. Okay. But the total cost of the wind 25 Q.

1	project, that is the cost including the piece
2	contributed by the tax equity partner, would be
3	somewhat above that; is that correct?
4	A. Yeah. Your gross numbers are cle you
5	know, more in the billion dollar range. And, again,
б	Mr. Mooney has got the exact figures for all that.
7	Q. Okay. No further questions. Thank you.
8	JUDGE DIPPELL: Staff?
9	FURTHER CROSS-EXAMINATION BY MS. MERS:
10	Q. Going back to the four scenarios you just
11	went through with Commissioner Hall, I just want to
12	make sure that that everybody has the same
13	understanding and you have the same understanding and
14	I have the same understanding.
15	That in that low market case and low wind
16	example, it includes both the low market price and
17	wind production at P-95, which means that 95 percent
18	of the time you would expect to have more wind
19	production and only 5 percent of the time you would
20	expect to have less wind production. Is that correct?
21	A. That's correct.
22	Q. Okay. And then finally, in these
23	assumptions, these scenarios, would you agree that
24	when you're getting like the zero liability, it is
25	because the wind revenues have covered the cost of the

wind revenue requirement in rate-base so customers are 1 2 held neutral? 3 Α. Yes. Q. Okay. Thank you. I have nothing 4 5 further. 6 JUDGE DIPPELL: Is there anything from 7 Public Counsel? 8 MR. HALL: Yes, briefly. Thank you. 9 FURTHER CROSS-EXAMINATION BY MR. HALL: Mr. Holme-- Mr. Holmes, Commissioner Hall 10 0. asked you about whether or not customers will see 11 12 benefits even though the market prices are zero. Do you recall that question? 13 14 Α. Yes. 15 Okay. Work this out for me. If there Ο. 16 are zero revenues, the tax equity partner is still 17 going to receive some value from the hedge. Correct? 18 I'm -- I probably won't be able to do all Α. of the math in my head on where you're going to 19 20 like -- to be able to walk through that, but if -if -- in a hypothetical world, if electricity prices 21 went to zero, the wind farms would not do very well, 22 23 as would any generator. But load would obviously benefit. 24 25 0. So explain this situation to me. So you

have zero revenues. There's just nothing. Does that 1 2 mean that both the tax equity partner and Empire receive nothing or is -- or is the hedge going to make 3 4 up some of that? So the hedge is paid from Empire to the 5 Α. 6 wind co and then so -- I'm not -- okay. Can you ask that again one more time? 7 8 Q. Sure. So you have zero revenues going 9 towards the wind co. 10 Α. Okay. And now the wind co is going to be 11 0. 12 splitting the -- your revenue bucket between tax equity partner and Empire. Am I understanding that 13 14 correctly? 15 Α. Subject to Mr. Mooney who is our tax 16 equity expert, yep. 17 0. Sure. Okay. Now, Empire is paying a hedge to the wind co, is it not? 18 19 Α. It is. 20 Ο. Okay. If there's zero revenues --Zero SPP revenues is what --21 Α. Zero SPP revenues, correct. 22 Q. 23 Α. So then there's a hedge revenue. That -that's what you're saying? 24 25 Q. There's a hedge revenue paid for by

Empire. 1 2 Α. Correct. 3 Q. Just --4 So that's a cost. Okay. Yeah. Α. 5 Q. Secure the tax equity partner? 6 Α. Uh-huh. 7 So when there's zero revenues --0. 8 Α. Zero SPP revenues. 9 Zero SPP revenues, you're saying that 0. customers still get a benefit because they get the 10 benefit of the hedge that they supported? 11 12 So I'm saying if in the hypothetical Α. No. world the market prices go to zero, every generator is 13 14 in pr-- going to have problems, including these wind 15 projects. Right? In the hypothetical world that you 16 can't sell your energy for anything, all generators 17 will have a problem. 18 My -- my comment was if electricity goes to zero, load can purchase energy for free. 19 So the 20 benefit was not tied to the wind projects going to zero dollars nor do I believe it's likely that 21 energy's going to zero dollars in the next ten years. 22 23 Q. But even in that crazy hypothetical then, Empire is still spotting a hedge for this 24 relationship? 25

1 Α. Correct. 2 Q. Thank you. Okay. 3 JUDGE DIPPELL: Is there any redirect? 4 MR. COOPER: There is. Thank you, Your 5 Honor. REDIRECT EXAMINATION BY MR. COOPER: 6 7 Mr. Holmes, on that last question that 0. 8 you just got, you talked about this example where the 9 price goes to zero and I think you said all generators have a problem. By that, do you mean generators other 10 than just wind generation? 11 12 I do. Α. And explain that a little bit. So you --13 0. 14 you're talking coal, natural gas, all generators have a problem. Right? 15 16 Right. Your primary source of revenue in Α. 17 SPP is energy revenues. And if all generators don't have energy revenues, then they all need to have their 18 cost-of-service paid for in some other way. 19 20 0. And in -- as we talked about before, those other generation options have costs as well. 21 Correct? The cost of the -- the fuel? 22 23 Α. Cost of the fuel, labor, maintenance. Ιt doesn't go away if you're not running. You have to 24 25 maintain a plant; otherwise, it degrades really

quickly, especially thermals. 1 2 You were asked questions about your Ο. Schedule DH-S-2. And maybe -- I don't know whether 3 you can do this or not, but -- but you specified 4 5 the -- the prices I think or you were pointing out the 6 prices that were utilized for the mid case. Can you 7 describe how those compare to prices that have been 8 experienced? 9 My understanding from Empire's trailing Α. 12-month revenue estimates for kind of 12 months 10 ending January 2018, the -- the -- the market price at 11 12 Asbury was 28 dollars a megawatt hour and the market price that Empire was purchasing at was 30 dollars a 13 14 megawatt hour. 15 So when -- when I look at what's forecasted here for -- for prices in the mid and 16 17 compare it to other prices that we see in the marketplace today, I -- I still feel comfortable with 18 the revenue forecast as presented. 19 20 Ο. During your -- your testimony there was discussion about bid pricing and I think there was 21 some of that this morning as well. Is the bid price 22 23 the same as the settled price? So all generators will offer based 24 Α. No. on usually the rules, which is usually your marginal 25

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1	cost of variable energy subject to, you know, minor
2	adjustments. SPP's job is to balance all of its
3	supply side versus all of the load and ancillary
4	requirements.
5	Subject to all the constraints they have,
6	they settle it out and create what that final market
7	price is, but all generators receive what their market
8	price is, not what their offered price is.
9	Q. So those are those are two different
10	things ultimately?
11	A. That's correct.
12	Q. I I think there was a question
13	around I think it was the stipulation at page
14	about P-95 low and questions about rate-base in there
15	that I didn't I didn't quite understand. But when
16	you go through the the Market Protection Provision,
17	the rate-base impact of this investment, that's a part
18	of the the cost of the wind, isn't it?
19	A. Correct. The the impact on rates will
20	be the the the total revenue requirement for the
21	plants less any of the the revenues that it
22	generates.
23	Q. Also, you may have gotten to this later,
24	but there were some questions about, you know, where
25	would the customers see the benefits, where would

you know, where would they see the benefits along the 1 2 way. And I think is that through the -- the revenues that are flowed through the fuel adjustment clause? 3 4 Α. Yes. Early on, Attorney Hall asked you some 5 0. 6 questions about just basic -- what's that? 7 MR. HALL: We are both attorneys. 8 MR. COOPER: Commissioner -- oh, I'm sorry. Well, I'm trying to --9 MR. HALL: You need -- you need to be 10 more specific. 11 12 MR. COOPER: I'm actually referring to OPC Attorney Hall here so I don't know how better to 13 14 do that, so. 15 JUDGE DIPPELL: You said it correctly. 16 MR. COOPER: I guess I can say OPC 17 Attorney Hall as opposed to Commissioner Attorney Hall or something. 18 BY MR. COOPER: 19 20 Ο. When the OPC attorney was cross-examining you earlier, he asked you some questions about just 21 sort of a high level supply versus -- or interaction 22 23 of supplies and price. Do you remember that? I do. 24 Α. 25 Q. Is that easily applied to a situation

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1	where we're talking about electric generation? Are
2	there other other factors that that come into
3	play when you start talking about the pricing of of
4	this generation in the market? And I guess I'm
5	thinking about transmission and other things that may
6	impact the ultimate price.
7	A. Yeah. There are. And obviously
8	Mr. McMahon is being a kind of a markets and price
9	formation expert will be able to provide much more
10	adequate detail.
11	Q. Let me ask this as well just to see if
12	you have an answer. But is there a reason that in the
13	0092 case the Company focused on projects in or near
14	its service territory?
15	A. Yes. SPP has has a lot of inflexible
16	generation, both both from large coal plants and
17	from large wind resources and and has been trying
18	to catch up on transmission build-out for the last
19	probably ten years they've been going pretty hard at
20	it, but there are lots of congestion type of type
21	of issues.
22	Empire does is in a higher priced area
23	and and we were very cautious to try to avoid high
24	basis differentials to help make sure that these wind
25	projects both would provide you know, a more true

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1	hedge up against our load, but also take off that risk
2	that other transmission developments would happen
3	between our customers and these projects that could be
4	unforeseen in the future. So we certainly were
5	interested to keep them close by and were very happy
6	with how close they we were able to get them.
7	Q. That's all the questions I have.
8	JUDGE DIPPELL: Thank you. I believe
9	that concludes your testimony, Mr. Holmes, and you may
10	step down.
11	With that, I think we can take a short
12	break. Return at 3:40.
13	(A recess was taken.)
14	JUDGE DIPPELL: We are back on the record
15	after a short break and we are ready to begin with
16	Empire's third witness.
17	MS. KNOWLTON: Good afternoon. The
18	Company calls Todd Mooney.
19	(Witness sworn.)
20	JUDGE DIPPELL: Thank you. Go ahead.
21	TODD MOONEY, being first duly sworn, testified as
22	follows:
23	DIRECT EXAMINATION BY MS. KNOWLTON:
24	Q. Good afternoon. Would you please state
25	your full name for the record.

1 Α. Todd Thomas Mooney. 2 0. Mr. Mooney, by whom are you employed and in what capacity? 3 I'm employed by Liberty Utilities 4 Α. 5 (Canada) Corp. in the capacity of vice president finance and administration. 6 7 Have you caused to be prepared for the 0. 8 purposes of this proceeding certain Direct and 9 Surrebuttal Testimony in question and answer form? Α. Yes. 10 Is it your understanding that the 11 Ο. 12 testimony has been marked as Exhibits 5-HC and 5-P, your Direct Testimony in label Docket EA-2019-0010, 13 14 6-HC and 6-P, your Direct Testimony in Docket Number EA-2019-0118, and tes-- excuse me, Exhibit 7-HC and 15 7-P, Surrebuttal Testimony, both highly confidential 16 17 and public? 18 That's my understanding. Α. Yes. Do you have any changes that you would 19 0. 20 like to make to your testimony at this time? No, I do not. 21 Α. 22 If I asked you the questions which are Q. 23 contained in Exhibits 5-HC, 5-P, 6-HC, 6-P, 7-HC and 7-P today, would your answers be the same? 24 25 Α. Yes, they would.

Are those answers true and correct to the 1 0. 2 best of your information, knowledge and belief? 3 Α. Yes. 4 MS. KNOWLTON: Your Honor, I offer 5 Exhibits 5-HC, 5-P, 6-HC, 6-P, 7-HC and 7-P into 6 evidence. 7 JUDGE DIPPELL: Would there be any 8 objection to Exhibits 5, 6 and 7, the highly 9 confidential and the public versions, coming into the record? 10 Seeing none then, I will admit those 11 12 Exhibits. (Exhibits 5-HC, 5-P, 6-HC, 6-P, 7-HC and 13 7-P were received into evidence.) 14 15 MS. KNOWLTON: The Company would make Mr. Mooney available for cross-examination. 16 17 JUDGE DIPPELL: Is there cross-examination by Renew Missouri? 18 MR. OPITZ: No, thank you, Judge. 19 20 JUDGE DIPPELL: Division of Energy? MS. REEVES: No, Your Honor. 21 22 JUDGE DIPPELL: MECG? 23 MR. WOODSMALL: Very briefly. CROSS-EXAMINATION BY MR. WOODSMALL: 24 25 0. Good afternoon, sir.

Good afternoon. 1 Α. 2 You're the tax equity guy for Empire; is Ο. 3 that correct? That is what I've been called. 4 Α. 5 0. Okay. Now, under the tax equity 6 mechanism structure, a tax equity partner will provide 7 some of the up front capital contribution in exchange 8 for getting the accelerated depreciation and 9 production tax credits; is that correct? Α. That's correct. 10 And can you tell me why Empire is willing 11 Ο. 12 to forego accelerated depreciation and production tax credits instead of -- in -- in place of getting the --13 14 the up front contribution? 15 Α. Sure. So Empire's willing to partner 16 with the tax equity partner so the tax equity partner 17 can monetize those tax benefits because Empire doesn't have the tax appetite at present to receive those 18 benefits in a timely fashion. 19 20 In the past, Empire has used bonus depreciation to claim depreciation for tax purposes at 21 a far greater pace than for regulatory purposes and, 22 23 hence, has not had a cash tax payable position for some time. As well, production tax credits for the 24 25 wind projects will be very substantial and Empire

1	would not be able to utilize them all as they are
2	earned.
3	By partnering with the tax equity
4	partner, the tax equity partner can monetize those tax
5	benefits as quickly as possible; thus, providing
6	benefit due to the time value of money.
7	Q. So to a large extent, those benefits, the
8	production tax credits and the accelerated
9	depreciation, would be lost to some extent to the
10	extent they were retained by Empire?
11	A. Yes. Those those benefits I
12	wouldn't use the term "lost," but they would be
13	reduced in value because they would be used years
14	later. And with the time value of money, there would
15	be a reduction in the value that Empire would be able
16	to realize from them.
17	Q. Great. Thank you. No further questions.
18	JUDGE DIPPELL: Is there cross from
19	Staff?
20	CROSS-EXAMINATION BY MS. MERS:
21	Q. Good afternoon, Mr. Mooney.
22	A. Good afternoon.
23	Q. Without getting into confidential
24	information, is Empire still engaged in productive
25	discussions with tax equity partners?

1 Α. Yes. 2 Ο. And do you remain optimistic about reaching agreement with a tax equity partner? 3 4 Α. Yes. 5 0. Are you familiar with OPC's testimony 6 regarding the hedging agreements? 7 Α. Yes. 8 Q. Do you agree with those concerns? 9 Α. In fact, I spent a number of No. paragraphs and pages of my Surrebuttal Testimony 10 expressing my concerns with the OPC's position. 11 12 It seems to me that there almost might be Ο. a misunderstanding about what the hedging agreement 13 14 is. Would you agree with that? 15 Especially the misunderstanding Α. Yes. being that the hedge has no net impact to Empire or 16 17 Empire's customers because, in essence, whatever 18 Empire pays to the wind project under the hedge, the wind project pays back to Empire as cash distributions 19 20 for its operations. And I guess to make sure everybody's on 21 0. the same page, could you just briefly explain the 22 23 hedging agreement? 24 So the hedging agreement is a fixed for Α. floating price swap. It sets a fixed price and to the 25

extent that the wind project realizes prices for
selling energy into SPP that is below that fixed
price, Empire will pay the difference for a defined
quantity.

5 The opposite is also true. To the extent 6 that the wind project realizes -- the wind project 7 realizes prices by selling it into SPP that are higher 8 than that fixed price, it's the wind project that has 9 to pay Empire.

The other key thing to note is that since Empire owns the wind project, the net cash flows from the wind project, which do include the hedge revenues, end up being distributed back to Empire.

Q. So do these misunderstandings impact the accuracy of some of the work papers and analysis that OPC has provided?

17 Α. Yes. I believe Mr. Holmes already mentioned that in the testimony of Mr. Riley, there 18 was a line item added to one of the schedules that 19 20 indicated that the hedge was an absolute cost to the wind projects to Empire's customers. That is, in 21 fact, inaccurate and not true. There is no net cost 22 23 to Empire's customers from the hedge.

Q. And you might have mentioned this, butdoes the hedge have rate-making implications?

No, it does not. 1 Α. 2 And finally, is it appropriate to tie the Q. tax equity's ROE to Empire's ROE as OPC has suggested? 3 No, I don't believe so. There is 4 Α. 5 rationale that I present in my Surrebuttal Testimony that indicates that this comparison is -- is not valid 6 7 and the -- the argument, even if you were to accept 8 it, which -- which we do not, is actually confusing. 9 The rate of return on investment that -that the tax equity partner is earning with return on 10 equity, which are two completely different concepts --11 and, in fact, if you compare related concepts, return 12 on rate-base to the return on investment that the tax 13 14 partner was earning, they are approximately equal. 15 Q. Thank you so much. JUDGE DIPPELL: Are there -- is there 16 17 cross-examination from Public Counsel? 18 MR. HALL: Yes, Your Honor. CROSS-EXAMINATION BY MR. HALL: 19 20 0. Good afternoon. Good afternoon. 21 Α. You spoke just recently on the production 22 Q. 23 tax credits. I notice that part of your testimony or -- actually I -- never mind. 24 25 It wasn't your testimony, but there's

been a lot of discussion of a prior ruling of this 1 Commission on the Clean Line case. Are you familiar 2 with that decision? 3 Sir, can you repeat the name of that 4 Α. 5 case? 6 0. The Clean Line case. Grain Belt. Sorry. 7 I have heard that mentioned today. Α. Ι 8 have not read that ruling nor seen a summary of it. 9 MR. HALL: Your Honor, may I approach? JUDGE DIPPELL: 10 Yes. BY MR. HALL: 11 12 I'm afraid I only have one copy of this, 0. Todd. 13 14 Α. Thank you. 15 Mr. Mooney, I've just handed you a copy Ο. of the Commission's order on -- in the Grain Belt case 16 17 and I turned to page 29. Could you please turn to paragraph 94 in that decision? 18 19 Α. Okay. 20 Ο. And in there that's a Commission Finding of Fact that, quote, The wind industry will not need 21 the federal production tax credits after 2023 because 22 23 of continuing technology improvements. Did I read that correctly? 24 25 Α. Yes.

1	Q. Do you disagree with the Commission?
2	A. I have not been able to read this;
3	therefore, I've not formed a basis of opinion. To
4	form a basis of opinion, I would need to understand
5	what those technology improvements were and how they
6	were impacting the levelized cost of energy with wind
7	compared to other energy generating sources. Those
8	are all things I have not done, especially since this
9	is the first time I've read this document.
10	Q. But you would normally trust a Commission
11	Finding of Fact?
12	A. I trust that the Commission has weighed
13	evidence very carefully and come to a conclusion that
14	it believes in.
15	Q. And you have no reason to doubt them at
16	this time?
17	A. I have no reason to doubt the Commission,
18	no.
19	Q. Ms. Mers from Staff questioned you about
20	the tax equity partner. You are you seem confident
21	that there discussions are productive as that we
22	will have a tax equity partner?
23	A. Yes.
24	MR. HALL: Your Honor, may I approach
25	again?

JUDGE DIPPELL: 1 Yes. 2 BY MR. HALL: Mr. Mooney, the small forest of trees 3 0. I've handed you is a copy of the transcript from the 4 5 sister docket in this case, the EO-2018-0092 docket. 6 Are you familiar with that case? 7 Α. Yes, I am. 8 Q. Were you a witness in that case? 9 Α. Yes, I was. Would you please turn to page 436 in the 10 Ο. book I've given you? At this segment of the hearing 11 12 Mr. Woodsmall from MECG was questioning you. He starts asking on line 10, And the tax equity partner 13 14 has not yet been identified for this project; is that 15 correct? Did I read that correctly? Yes, you did. 16 Α. And what was your answer at that time? 17 0. That's correct. We have not finalized 18 Α. the selection of the tax equity partner was my answer 19 20 at that time. And then he went on to ask, And so the 21 0. contract then obviously hasn't been nailed down; is 22 23 that correct? Or he said, Is that correct and I quit. And I ask you now, am I reading that correctly? 24 25 Α. Yes.

And what was your answer at that time? 1 Ο. 2 Α. At that time the answer was, That's correct, although we are advancing in discussions. 3 4 And this hearing was held May 10th of 0. 5 2018. Correct? I don't recall the exact date, but I 6 Α. 7 trust your recollection. 8 Q. May 10th. And had a tax equity partner 9 been identified when you -- when Empire filed the application for this docket? 10 We are working with Wells Fargo as a tax 11 Α. 12 equity partner. As indicated in my Direct Testimony for this case, we are continuing to work with Wells 13 14 Fargo and are advancing in preparation of a binding 15 term sheet. 16 Ο. But you can't identify them as a tax 17 equity partner now? Well, if you use the word "identify" in 18 Α. terms of we have found a partner, we have found one. 19 20 If you use the term "identify" to mean have we signed definitive agreements, we have not signed definitive 21 agreements. 22 23 Q. Do you have a copy of the Non-Unanimous Stipulation and Agreement between the parties that was 24 filed in this docket on Friday? 25

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Yes, I do. 1 Α. 2 Would you please turn to page 4 and look Q. at footnote 2? I'm reading here that there may be 3 multiple tax equity partners and multiple wind -- wind 4 holding companies as a result. Am I reading that 5 6 right? 7 That's what footnote 2 says, yes. Α. 8 Q. So we may not be dealing with just Wells 9 Fargo if at all in this -- as a tax equity partner? Α. That's correct. 10 Would that result in differing hedge 11 Ο. 12 prices? 13 No. Α. If we have mul-- just be clear. 14 Q. If we have multiple different tax equity partners, they'd 15 all have the same uniform hedge price? 16 17 Α. Each project will have a hedge contract. In fact, in my testimony I filed the key terms for the 18 Kings Point and the North Fork Ridge hedges. 19 Those 20 are key terms that are defined for those projects and hedges will be entered into under that basis. 21 The -those key terms are specific to each project. 22 There 23 was not a separate hedge for each tax equity provider for each project. 24 25 Q. Okay. And despite this year of not

1	having it nailed down and now we might have more tax
2	equity partners, you're confident that you'll find a
3	tax equity partner?
4	A. Yes. We have found a tax equity partner
5	with whom we are currently in detailed discussions,
6	but with whom we have yet to execute a definitive
7	agreement.
8	Q. Now, if we could deve a bit if we
9	could dive a bit deeper into the hedge. We don't need
10	to drag it out, but so on I found out on page 2 and
11	6 of your surrebuttal and page 20 of your Direct
12	Testimony you've used a phrase or something thereof
13	that, quote, The hedge, in fact, has no rate-making
14	impact whatsoever.
15	Does that sound like something in your
16	testimony?
17	A. That's that sounds like a
18	representation of my testimony, yes.
19	Q. Okay. And Staff counsel re just asked
20	you something to that effect as well and you agreed
21	that there's no rate-making impact?
22	A. Yes.
23	Q. Does that mean then that we're not going
24	to see any hedge activity through the fuel adjustment
25	clause?

1	A. I'm not aware of how the fuel adjustment
2	clause functions. I just know that there will be no
3	rate-making impact from the hedge with Empire
4	receiving or paying payments to the wind project and
5	then the wind project making payments or making lower
б	payments to Empire that will result in a net zero for
7	the hedge.
8	Q. You don't see the fuel adjustment clause
9	payments as part of customer rates?
10	A. I did not say that.
11	Q. But do you see those as part of customer
12	rates?
13	A. I understand that the fuel adjustment
14	clause is a mechanism by which customer rates are
15	adjusted, but I would have to defer to a subject
16	matter expert other than myself on that issue.
17	Q. Mr. Mooney, did you answer a Company Data
18	Request 1318 from pardon me just a second. Pardon
19	me. This is OPC Data Request 1318.
20	A. I don't find it on my records, but there
21	were quite a number so I'm pretty sure I did.
22	MR. HALL: Pardon me, Judge, as I
23	approach counsel. Your Honor, may I approach?
24	JUDGE DIPPELL: Yes.
25	MS. KNOWLTON: We'd like a copy of what

1	you've handed the witness, please.
2	MR. HALL: Your Honor, I'll we'll get
3	a copy at this moment. Mr. Mooney, could I get that
4	back? Thank you.
5	JUDGE DIPPELL: Are you going to continue
6	with questioning or do we need to wait?
7	MR. HALL: Pardon the delay, Your Honor.
8	I won't [sic] keep going. I'll continue questioning.
9	BY MR. HALL:
10	Q. When you say so when you say no
11	rate-making impact, is there going to be will we
12	see any hedge activity when Empire comes in for its
13	next rate case?
14	A. When Empire comes in for the next rate
15	case, assuming that rate case is after Empire acquires
16	the facilities, it's important to note that there are
17	two elements to the hedge. There's not just the cash
18	received or paid by Empire to the wind project, but
19	the cash distributions received by Empire from the
20	wind project.
21	When looking at the hedge portion of
22	those cash distributions, it will be equal and
23	opposite to the hedge cash paid or received by Empire;
24	thus, adding them when added together, it will
25	equal zero. So by hedge activity, there will be

1	activity with two sides of a hedge transaction that
2	will net to zero.
3	Q. Well, you but those numbers will be
4	presented and accounted for in a rate case. Correct?
5	A. I believe so.
6	Q. I mean I'm really just curious. So are
7	we going to see the math in a rate case? Will it be
8	part of traditional rate-making or are we going to see
9	this in FAC? Or will we not see any of this at all
10	and you're just telling us that it goes out to net
11	zero?
12	A. Well, I believe I presented in my
13	Surrebuttal Testimony an example. I provided numerous
14	data requests which I've included in the Surrebuttal
15	Testimony as exhibits that demonstrates the
16	functioning of the hedge. When Empire proceeds to the
17	rate case, there's there's no intention to try to
18	include benefits for shareholders and not for
19	customers. There's no intention whatsoever other than
20	to properly reflect the net impact of the hedging
21	transaction, which is zero.
22	Q. Is there a difference between rate-making
23	impact and the phrase "rate impact" to you?
24	A. I I'm sure there's a distinction, but
25	at present I don't know if there's a material

difference. 1 2 0. So would you -- would you say then that the hedge has no rate impact to customers? 3 4 The hedge should have no rate impact to Α. 5 customers. 6 0. The rate -- no customer rate will go up a 7 cent because of the hedge? 8 Α. That is correct. 9 And customers won't be paying for the Ο. hedge through the fuel adjustment clause? 10 If the appropriate rate-making treatment 11 Α. 12 is implemented which accounts for both elements of the 13 hedge, yes. 14 MR. HALL: Your Honor, may I approach 15 aqain? 16 JUDGE DIPPELL: Yes. 17 THE WITNESS: Thank you. BY MR. HALL: 18 Again, I apologize for the delay, but 19 0. 20 Mr. Mooney, I have handed you a copy of a data request that was sent to you, OPC DR 1318. Do you recognize 21 this data request? 22 23 Α. Yes. 24 MS. KNOWLTON: I would just like to note 25 for the record that what Mr. Mooney is being shown is

from the prior docket, EO-2018-0092 and is dated 1 2 April 30th, 2018. MR. HALL: Yes, that is correct. 3 4 JUDGE DIPPELL: Thank you. 5 MR. HALL: Thank you. BY MR. HALL: 6 7 Mr. Mooney, the question in that data 0. 8 request was whether -- how and whether the hedge 9 amounts will be recorded in the Uniform System of Accounts. Do I have that correct? 10 11 That's correct. Α. 12 And then in response B you posited that 0. it's anticipated that the net cost revenue of the 13 14 hedge will be recorded in Account Number 555 purchase 15 power. Am I reading that correctly? 16 Α. Yes. Should I -- from this then, do I -- is it 17 0. your opinion that putting this into Account Number 555 18 is not rate-making? 19 20 Α. Sorry. Could you please repeat the question? 21 You've repeated -- you've repeated your 22 0. 23 assertion that the hedge just has -- has no rate-making impact. Correct? 24 I have indicated that it has no 25 Α.

1	rate-making impact. And I've mentioned in responding
2	to some of your questions earlier that it is important
3	to look at both elements of the hedge, the element
4	being the payments received by or paid by Empire to
5	the wind project as well as the cash distributions
6	from the wind project that are paid to Empire. The
7	cash flows around in a circle and nets to zero.
8	And so if you look at this data request
9	and focus only on one of the two legs, that is
10	accurate for that half of the hedging transaction.
11	But this data request, to my knowledge, does not
12	address the other half of the rate-making treatment.
13	Q. So it is getting rate-making treatment
14	though? So when you say no rate-making impact, you're
15	just saying that it's going to that you're looking
16	at the end result zeroing out. You're not looking at
17	whether or not we'll all have to deal with the hedge
18	in a fuel adjustment clause case or a future rate case
19	or anything like that?
20	A. I'm indicating that the net impact of the
21	hedge is zero. And if you decompose zero into two
22	separate items, one a plus, one a minus, the net
23	impact is zero. And, hence, you could interpret that
24	as being you can exclude it entirely from
25	consideration or you can include both elements that

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1	have a net impact of zero and achieve the same result.
2	I'm not indicating a preference for one method or
3	another.
4	Q. Okay. As long as I got that. Is this
5	the same was that your understanding of the hedge
6	incorporated in the Non-Unanimous Stipulation and
7	Agreement that was filed?
8	A. Was my under sorry. Can can you
9	please repeat that question? Rephrase that?
10	Q. Sure. The hedge as you've just described
11	it, was that function incorporated in the
12	Non-Unanimous Stipulation and Agreement that was
13	filed?
14	A. I don't believe the Non-Unanimous
15	Stipulation and Agreement addresses all of the details
16	of that rate-making. So I guess the the response
17	to that would be I believe it was incorporated, but it
18	did not go into details.
19	Q. Is the is it your understanding that
20	the hedge is part of the proposed Market Protection
21	Plan?
22	A. Let me take a look at the proposed Market
23	Protection Plan because I'm not aware of the
24	paragraphs that specifically address the hedge. Can
25	you point me to

1	Q. Well, the Market Protection Plan is
2	paragraph 21 of the Non-Unanimous Stipulation and
3	Agreement. And I'm sincerely asking. I see no
4	reference of the word "hedge" in this document.
5	Q. Right. Thank you for that clarification.
6	So with no reference to the hedge in the document,
7	that would adopt the approach that the hedge has zero
8	impact. And as a matter of simplification, it has not
9	been specifically called out in the document.
10	An alternative approach could have been
11	taken to go into very detailed accounting of which
12	FERC accounts would be used for what elements, but I
13	understand that that is not the approach that was
14	taken in Stipulation and Agreement as and that is
15	what is reflected in the document.
16	Q. I'd like to go through a few of the stip
17	terms of what's there. If there's anything at which
18	point you believe another witness would be more
19	capable to speak to, please stop me and let me know.
20	A. Will do.
21	Q. Turning back to page 4, paragraph 12-A,
22	there's the phrase that the wind projects will not be
23	operated in a manner that's in a manner detrimental to
24	customers' ratepayers to Empire's customers. Do
25	you see where I'm reading?

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1 Α. I see where you're reading. 2 0. What does that phrase mean to you? I believe you already asked Mr. Mertens 3 Α. 4 and Mr. Holmes this question. I would concur with 5 their testimony. Well, you see, I'm asking -- so Mertens 6 0. 7 was phrasing -- I don't want to misquote anyone, but 8 whatever Mertens' answer was, you gave a very emphatic 9 breathing "no" from the back gallery so I wanted to make sure we were all getting it right. This phrase 10 is just relating to whether or not Empire's going 11 12 to -- this phrase bars Empire from selling the wind at negative prices in the market? 13 14 Α. That is not what this phrase means. 15 What's it mean? Ο. 16 This phrase means that Empire will Α. 17 continue to operate wind projects in the exact same 18 way that it is currently operating the Elk River and Meridian Way wind projects, which is in a way that is 19 20 consistent with the SPP rules and in a manner that is not detrimental to customers. 21 Was there a reason why a vague phrase 22 Q. like "not detrimental" was used instead of talking 23 about the bidding into the market? 24 I don't believe that "not detrimental" is 25 Α.

1	vague. In fact, I believe that it means and I'm
2	not a lawyer so I can't interpret legal language, but
3	I would say "not detrimental" means we're not causing
4	harm to customers and in a way that is consistent with
5	how we've been operating and bidding the Elk River and
6	Meridian Way wind facilities for more than a decade.
7	Q. Mr. Mooney, could you please turn to
8	page 8, paragraph 17, regarding Asbury. I'm looking
9	at 17-A. Can you speak to that?
10	A. No, I cannot.
11	Q. Who would be the proper Empire witness to
12	question on this?
13	A. I believe Mr. Holmes already identified
14	Mr. Wilson or Mr. Mertens as the appropriate witness.
15	Q. Mr. Mooney, can you speak to the wind
16	project in-service criteria on page 13?
17	A. I have some general familiarity, but I
18	would recommend Mr. Wilson is the witness to be
19	requesting information about this provision.
20	Q. Okay. I'll defer questions on that to a
21	later time.
22	Mr. Mooney, do you have a copy of your
23	Surrebuttal Testimony in front of you?
24	A. I do.
25	Q. Would you please turn to page 18? I'm

looking at lines 5 through 13. Do you follow? 1 2 Α. Not there yet. 3 Ο. Oh, pardon me. Sorry. Could you please repeat the page 4 Α. 5 number? 6 0. Page 18. 7 Α. Okay. I've got page 18. 8 Q. Okay. I believe we'll have to go 9 in-camera at this time. I just wanted you to see what we were talking about beforehand so we can ascertain 10 whether or not we will need to go full in-camera. 11 12 JUDGE DIPPELL: Okay. So --13 MR. HALL: Do I move to go in-camera at this time? 14 15 JUDGE DIPPELL: -- there's either 16 in-camera or not in-camera, so --17 MR. HALL: Well, this -- this isn't -- I move to go in-camera. 18 19 JUDGE DIPPELL: Are you going to ask 20 specific questions about the information that has been designated as highly confidential? 21 MR. HALL: Yes. I only had some 22 23 question -- I only had some question as to whether we would go in-camera because the Commission indicated 24 25 that if we were to go in-camera and clear out the

1	room, we should be certain as to whoever is
2	maintaining confi confidentiality should be able to
3	express and justify that.
4	As this is not information that Public
5	Counsel's maintaining confidential, I wanted Empire to
6	see what we're looking at before we I started going
7	into it the subject matter.
8	JUDGE DIPPELL: Okay. And is the subject
9	of that information from lines 5 through 13 on page 18
10	of the stip and agreement that was designated highly
11	confidential by Empire, is that
12	MS. KNOWLTON: Correct. Starting on line
13	6 through line 11 is information that relates to
14	confidential Vestus pricing.
15	JUDGE DIPPELL: Okay. Okay. Well, if
16	you maintain that this still needs to be confidential,
17	we can go ahead and go in-camera. So I will ask
18	anyone in the room not able to hear confidential
19	information and if the attorneys would help police
20	that and I will go to the in-camera session.
21	(REPORTER'S NOTE: At this time an
22	in-camera session was held, contained in Volume 3,
23	pages 267 to 269.)
24	
25	



1 (REPORTER'S NOTE: Public session was 2 resumed at this time.) JUDGE DIPPELL: We're back in the public 3 session. You can continue. 4 5 MR. HALL: Thank you Mr. Mooney. I have 6 no further questions at this time. 7 THE WITNESS: Thank you. JUDGE DIPPELL: I apologize. Are there 8 9 questions from the Commission, Mr. Chairman? 10 CHAIRMAN SILVEY: Yes. Thank you. QUESTIONS BY CHAIRMAN SILVEY: 11 12 Do you have a copy of the Non-Unanimous 0. Stipulation and Agreement? 13 14 Α. Yes. 15 Okay. Great. On page 6, you have a Ο. chart there. Second row of the chart starts with 16 Approximate Expected Return. What does that return 17 18 include? Does it include just equity or both debt and equity? 19 20 Α. I'm unaware of how tax equity partners financed our investments in wind projects, in tax 21 22 equity partnerships for wind projects. But one would 23 expect, like any company, they would use both debt and

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25 leverage ratio would be for that investment.

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equity to finance. What I don't know is what their

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1	Q. Okay. Is there going to be any other
2	witness that may have a better answer for that or
3	A. No. I believe I am the most qualified
4	witness, but I I don't know, for instance, what
5	criteria a bank like Wells Fargo would contemplate in
б	terms of percentage equity versus percentage debt for
7	such an investment.
8	Q. But you would expect to include both?
9	A. Yes.
10	Q. In some ratio?
11	A. Yes.
12	Q. Okay. Thank you. And then how will
13	Empire know when the tax equity partner has met their
14	expected return? Are there reports or
15	A. There's a detailed tracking model in form
16	and substance very similar to the work papers that
17	were filed with this application. So each project has
18	a very detailed financial model that keeps track of
19	all of the cash flows, production tax credits and tax
20	balances for the the projects and keeps track of
21	the return. And that model is updated on a quarterly
22	basis throughout the ten-year anticipated lifetime of
23	the tax equity partner's involvement.
24	Q. Okay. And it's expected that it will be
25	approximately ten years when they meet their expected

return? 1 2 Α. That's correct. And the market price protection is in 3 Ο. 4 place for exactly 120 months after it begins. So what 5 happens if they meet their expected return let's say 6 in 7 years or if it takes 15 years? How would 7 those -- how would those be treated? 8 Α. With respect to the tax equity 9 partnership, if they meet their return in a shorter 10 period of time -- seven years would be exceedingly fast, but just sticking with that example, then at 11 12 that time Empire would have an ability to purchase the remainder -- the remaining 5 percent stake that the 13 tax equity partner had. 14 15 The -- the benefits to Empire would be exceedingly substantial, given if tax equity earns 16 their return in that short of a period, then almost by 17 definition there would be no implication to the MPP 18 because it would be in such a favorable position, no 19 20 regulatory liability would be created. In the opposite scenario, if the tax 21 equity return takes longer to -- to achieve then the 22 23 expected 10-year time frame, that expected 10-year time frame then would be longer than -- sorry, the 24 time frame for tax equity to achieve its return would 25

1	extend let's just say for example to 12 years. That
2	12-year period overlaps with the 10-year period of the
3	MPP and I'm afraid that I'm not familiar with the
4	provisions in the MPP for that type of overlap.
5	Q. Okay. And then on page 8 as it pertains
б	to Asbury, Number 17, B says that if Asbury is sold or
7	retired between general rate cases, the Commission
8	should authorize Empire to create a regulatory asset
9	representing the undepreciated balance of the Asbury
10	facility.
11	So does this Stipulation and Agreement
12	create that or does it does it mean that Empire
13	will come back if that situation occurs for the
14	Commission to create the regulatory asset at that
15	time?
16	A. Well, I'm not a lawyer and can't
17	necessarily interpret the language. I think it was
18	one of our witnesses that that testified that the
19	use of the word "should" in this instance is in
20	essence a position presented by the parties to the
21	Commission, and the Commission then clearly has the
22	authority to make that decision.
23	But I believe this language indicates
24	this is the position put forward by the signatories to
25	this Non-Unanimous Stipulation and Agreement as a

1	recommendation to the Commission.
2	Q. Okay. And then in the next one, in C, it
3	uses the language, If Asbury is sold or retired
4	between general rate cases, EDE will will create a
5	regulatory liability account.
6	So is that something that they would come
7	back to or under the Stipulation and Agreement, is
8	that something that would automatically happen? And I
9	guess my question is why is the language different in
10	B and C and how those are handled?
11	A. While I can't speak to how this pertains
12	to the rules of the Commission, I would indicate that
13	the intent is that we are in agreement with the notion
14	that Empire's not going to benefit its shareholders by
15	shutting Asbury, realizing cost savings and flowing
16	through those savings to shareholders rather than
17	customers. Hence, the use of the word "will" is an
18	indication of our intent to benefit our customers.
19	Q. Okay.
20	CHAIRMAN SILVEY: Thank you, Judge.
21	JUDGE DIPPELL: Commissioner Kenney?
22	COMMISSIONER KENNEY: I have no
23	questions.
24	JUDGE DIPPELL: Commissioner Hall?
25	QUESTIONS BY COMMISSIONER HALL:

Good afternoon. 1 0. 2 Α. Good afternoon. Empire is planning on purchasing the wind 3 Q. projects on or around January 4th of 19-- of 2021; is 4 5 that correct? 6 Α. Yes. 7 And the hope is for an in-service date of 0. 8 December 31, 2020. Correct? 9 I would say that that's not the planned Α. in-service date. That would be cutting it fairly 10 close. The planned in-service date is -- is earlier, 11 12 but the purchase date by Empire is at the beginning of 13 January. 14 Q. Okay. I was just looking at pages 24 and 15 25. 16 Pages 24 and 25 of which testimony? Α. 17 0. Direct. JUDGE DIPPELL: Commissioner Hall, he has 18 19 direct from both cases. Do you --20 COMMISSIONER HALL: Oh. THE WITNESS: Is this the November 18th 21 22 testimony or the October testimony? 23 BY COMMISSIONER HALL: 24 Ο. October. 25 JUDGE DIPPELL: So that's --

BY COMMISSIONER HALL: 1 2 0. So has that changed since then? And that's fine if it has. 3 I -- I don't recall. Perhaps it has --4 Α. oh, I -- I can verify if you would like me to. 5 6 Well, the in-service date has to be Ο. 7 before the -- the wind projects are purchased? 8 Α. The in-service date has to be before, 9 yes. Okay. So the -- the sooner the better, 10 Ο. but that is the -- that's the final deadline. 11 And 12 I'm -- and I'm getting to this because at least in this prior testimony, you -- you made that point in 13 14 order to make it clear that the Commission -- that the 15 Company would like the Commission to act quickly on 16 the request. 17 Α. Yes. The December 31st, 2020 date is the last date that the wind turbines can be placed in 18 service and still qualify for 100 percent of PTCs. 19 20 Ο. And that's because you've -- you've -you've already met the -- the -- the 2007 -- FERC 2017 21 deadline for starting construction, but you have to 22 23 have it done within four years of that? That's correct. 24 Α. 25 Ο. Are there hedging agreements with just

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the two Missouri wind farms or is there also one 1 2 with -- with the Kansas wind farm? There's also one with the Kansas wind 3 Α. 4 farm. 5 Q. Okay. I must -- same terms? 6 Α. Very similar terms. Slight difference in 7 pricing I believe in -- in cents, not dollars. 8 Q. Okay. And in this testimony you also --9 and again, I'm looking at this Direct Testimony from October of '18. You -- and it was indicated here that 10 it was confidential so I won't give the number, but 11 12 the -- the levelized cost of energy for the three projects. 13 14 Α. Right. 15 And I'm wondering if you could explain to Ο. me why that is significant to -- to the determination 16 17 that's being -- the application that's pending before the Commission? 18 Why the levelized cost of energy is an 19 Α. 20 important metric? 21 Ο. Yes. 22 That is a metric that we have used to Α. 23 make sure that as we move forward from the previous docket, the 2018-0092 with the full generation fleet 24 25 savings analysis, that we ensure that we are

proceeding on the same basis as was analyzed in that 1 2 docket in all material respects. In order to do so, we have focused on the 3 4 metric levelized cost of energy as a way to ensure 5 that as we've negotiated the purchase sale agreements 6 and finalized and executed those agreements, that the 7 updated costs, whether it is capital costs or 8 operating costs do result in a materially similar 9 value for LCOE. And then by extension, deliver the same level of benefits to customers as was put forward 10 in the previous docket. 11 12 Okay. And if I were to compare the 0. levelized cost of energy with the projected market 13 price in SPP, what would I do with the difference 14 15 between those two numbers? The difference between those two numbers 16 Α. 17 if -- if I'm following your question correctly, let me know if I'm not, I believe would represent the 18 anticipated -- the forecasted savings that will be 19 20 attributed to customers. And then you -- you also noted that 21 0. Empire does not have the tax appetite -- and I guess 22 23 that's a term of art -- to take advantage of the accelerated depreciation and the tax credits. What is 24 tax appetite? Is that the size of the company or --25

1	or
2	A. And sorry, maybe that's an imprecise
3	term. With the previous use of bonus depreciation for
4	previous capital expenditures, Empire has accumulated
5	tax loss carry forwards. Those tax loss carry
6	forwards can be used to offset cash tax payable in
7	future years.
8	Q. And they have to be used within a certain
9	number of years?
10	A. I'm not familiar, but that's the general
11	concept that applies, yes. Production tax credits
12	similarly. I think it's a bit of a different issue
13	where with the production tax credits with over
14	2.4 million megawatt hours of anticipated annual
15	generation, the value of the tax generated in any
16	given year actually exceeds the income tax liability
17	that Empire would have before considering other loss
18	carry forwards or those tax credits and, hence,
19	the the size of the projects, combined with the
20	previous tax loss carry forwards from bonus
21	depreciation mean that Empire cannot realize cash
22	savings from these tax benefits in the near term.
23	Q. And so that's the difference between the
24	position that Empire is in and say Ameren or KCP&L
25	with regards to their wind projects? They they

1	they have the tax appetite to
2	A. Yes. That's correct I I believe on
3	both fronts. I'm not familiar with their actual tax
4	position, but I know that they are much larger
5	organizations and 600 megawatts would be a much
6	smaller proportion generating production tax credits
7	that that might not offset their full income tax
8	liability.
9	Q. Okay. Thank you.
10	A. Thank you.
11	JUDGE DIPPELL: All right. Is there
12	further cross-examination based on questions from the
13	Bench from Renew Missouri?
14	MR. OPITZ: No, thank you, Judge.
15	JUDGE DIPPELL: Division of Energy?
16	MS. REEVES: No, Your Honor.
17	JUDGE DIPPELL: MECG?
18	MR. WOODSMALL: No, thank you.
19	JUDGE DIPPELL: Staff?
20	MS. MERS: No, thank you.
21	JUDGE DIPPELL: Public Counsel?
22	MR. HALL: None at this time.
23	JUDGE DIPPELL: Is there redirect?
24	MS. KNOWLTON: Very limited, thank you.
25	REDIRECT EXAMINATION BY MS. KNOWLTON:

1	Q. Mr. Mooney, you were asked about the
2	Company's identification of a tax equity partner by
3	OPC Counsel Hall and whether there would be multiple
4	partners. Does Wells Fargo have any role in
5	soliciting other tax equity partners to participate in
6	the transaction that's being proposed?
7	A. Yes. Wells Fargo is leading that
8	solicitation. Has, in fact, contacted a number of tax
9	equity partners who are very interested in the project
10	and has identified a short list of those other
11	partners with whom to then move forward in a short
12	time frame.
13	Q. Would those other tax equity partners
14	participate on the same terms that Wells Fargo does
15	with regard to its investment?
16	A. Yes.
17	Q. Commissioner Hall asked you about the
18	Company's request for an or asked you with regard to
19	the timing of the Com of the need for an order in
20	this docket. Would you explain what is driving the
21	Company's request for an order relatively quickly in
22	this docket?
23	A. Well, as as mentioned earlier, there
24	is the ultimate deadline of needing to have the
25	projects placed in service by December 31st, 2020 in

order to be eligible for the full PTC value. And in 1 2 order to do so, there are obviously interim deadlines in terms of starting construction. 3 Those construction deadlines would see 4 5 the project starting construction on June 15th for the 6 Neosho Ridge project and somewhat later, I don't 7 recall the exact dates, for Kings Point and North Fork 8 Ridge. It's at the -- at those dates that in order to 9 maintain that schedule and complete the projects on time, that Empire has to commit significant funds to 10 the projects through bond supply agreements and 11 12 engineering procurement and construction agreements with an EPC contractor. 13 14 So with those significant financial 15 commitments, Empire would like to have a certainty as to the regulatory outcome before committing Empire 16 customers to those significant financial commitments. 17 MS. KNOWLTON: The Company has nothing --18 nothing further for Mr. Mooney. 19 20 JUDGE DIPPELL: Okay. Thank you. Mr. Mooney, I believe that concludes your 21 testimony and you may step down. 22 23 THE WITNESS: Thank you. 24 JUDGE DIPPELL: Okay. It is almost 20 till 5:00. I had not intended to go past 5:00 this 25

evening, but maybe we could go ahead and take 1 2 advantage of the last 20 minutes and get Mr. McMahon started. 3 4 MS. KNOWLTON: Sure. We'd be glad to. 5 MR. WILLIAMS: We may get him finished. 6 MS. KNOWLTON: The Company calls James 7 McMahon. 8 JUDGE DIPPELL: Let's take just a brief 9 break while the witnesses switch. I'm just -- I'm just going to go off the record for about five 10 minutes. We'll come back on at a quarter till. 11 12 (A recess was taken.) JUDGE DIPPELL: Okay. We are back on the 13 14 record and Mr. McMahon --15 THE WITNESS: Yes. JUDGE DIPPELL: -- is that the way you 16 17 say it? Sorry. I mispronounced it earlier -- has taken the witness stand. Do you -- let me go ahead 18 and swear you in. 19 20 THE WITNESS: Uh-huh. 21 (Witness sworn.) 22 JUDGE DIPPELL: Thank you. You can go 23 ahead. 24 CASEY JAMES MCMAHON, being first duly sworn, testified as follows: 25

DIRECT EXAMINATION BY MS. KNOWLTON: 1 2 0. Good afternoon. Would you please state your full name for the record. 3 4 Casey James McMahon. Α. 5 Q. Mr. McMahon, by whom are you employed and 6 in what capacity? 7 Charles River Associate as vice Α. 8 president. 9 0. Have you caused to be prepared for the purposes of this proceeding certain Surrebuttal 10 Testimony in question and answer form? 11 12 Α. Yes. Is it your understanding that that 13 Ο. 14 testimony has been marked as Exhibits 7-P and 8 --15 Α. Yes. -- for identification? 16 0. 17 Α. Yes. Oh, excuse me. Just -- I -- correct 18 0. that. Just 8. 19 20 Α. Yes. Do you have any changes that you would 21 0. 22 like to make to that testimony today? 23 Α. I do not. 24 If I asked you the questions contained in Ο. that testimony in Exhibit 8 today, would your answers 25

be the same? 1 2 Α. Yes. Are those answers true and correct to the 3 Ο. best of your information, knowledge and belief? 4 5 Α. Yes. 6 MS. KNOWLTON: Your Honor, I offer 7 Exhibit 8 into evidence. 8 JUDGE DIPPELL: Would there be any 9 objections to Exhibit 8? Seeing none, then I will admit it. 10 (Exhibit 8 was received into evidence.) 11 12 MS. KNOWLTON: The Company offers Mr. McMahon for cross-examination. 13 JUDGE DIPPELL: All right. Is there 14 15 cross-examination from Renew Missouri? MR. OPITZ: No, thank you, Judge. 16 17 JUDGE DIPPELL: Division of Energy? MS. REEVES: No, Your Honor. 18 JUDGE DIPPELL: MECG? 19 20 MR. WOODSMALL: No questions. 21 JUDGE DIPPELL: Staff? 22 MS. ASLIN: Just a few questions. 23 CROSS-EXAMINATION BY MS. ASLIN: 24 Mr. McMahon, are you familiar with the Ο. testimony of OPC witnesses Marke and Mantle and the 25

concerns that they expressed regarding these projects 1 2 generally? Yes. 3 Α. And what sort of analysis would you 4 0. 5 usually expect to support the sort of claims that they 6 make? 7 Well, I would expect -- first of all, Α. 8 their claims are generally about historical pricing 9 conditions and the current situation in SPP. And I would expect modeling that looks to supply and demand 10 in the future to drive decision making. 11 12 And did you see that sort of analysis in 0. 13 OPC's testimony? 14 Α. No. 15 Based on your experience, is every 0. project that enters the SPP queue eventually built? 16 17 Α. No. No. Many -- many more projects enter the queue than are built. 18 Thank you. No further questions. 19 Q. 20 JUDGE DIPPELL: Anything from Public 21 Counsel? MR. WILLIAMS: Just a few. Thank you. 22 23 CROSS-EXAMINATION BY MR. WILLIAMS: Good afternoon, Mr. McMahon. 24 0. Good afternoon. 25 Α.

1	Q. Are you familiar with technology
2	improvements that have taken place in the wind wind
3	generation industry?
4	A. Yes.
5	Q. Are you familiar with wind generation
б	technology improvements that have not yet made it into
7	commercial operation?
8	A. No.
9	Q. Earlier you heard a quote from a
10	Commission Report and Order on remand in the Grain
11	Belt case
12	A. Uh-huh.
13	Q that the Commission recently a
14	finding of the Commission that it recently made and
15	I'll repeat it for you. Quote, The wind industry will
16	not need the federal production tax credit after 2023
17	because of continuing technology improvements, closed
18	quote.
19	Do you agree or disagree with that
20	statement by the Commission or have no opinion?
21	A. I have an opinion that the production tax
22	credit has been extremely favorable to wind,
23	particularly as capacity factors have risen. And so
24	I I think that the PTC is still a very important
25	part of a project decision.

Well, specifically do you agree or 1 Ο. 2 disagree with the Commission's statement that the wind industry won't need the production tax credits after 3 2023? 4 5 Α. I think it depends on -- on what your 6 view is on -- on the wind and the future of -- of wind 7 technology. I think that wind will continue to be 8 built in s-- at some level without the production tax 9 credit, but not nearly to the levels of today. No further questions. 10 Q. 11 JUDGE DIPPELL: Are there any questions 12 from the Commission --COMMISSIONER KENNEY: I have none. 13 14 JUDGE DIPPELL: -- Commissioner Kenney? 15 I don't have any at this time either. 16 However, there may still be some questions for you, 17 Mr. McMahon, from the Bench. Are you -- are you planning to stay the -- stay and be here tomorrow? 18 THE WITNESS: I didn't intend to be on 19 20 the stand today, so yes I'll be here tomorrow, yeah. 21 JUDGE DIPPELL: Okay. I -- I hate to ask 22 you to --23 THE WITNESS: That's fine. 24 JUDGE DIPPELL: -- hang around if you 25 hadn't planned on that, but -- is there any redirect

based on the cross-examination? 1 MS. KNOWLTON: There's none. 2 3 JUDGE DIPPELL: Okay. Well, then at this 4 time I will -- I will tell you that you can step down, 5 but I'm going to hold you for further questions if 6 they come up. I will let you know as soon as I do 7 whether there are any additional Commissioner 8 questions. I wasn't expecting to get this far either, 9 so -- so you can go ahead and step down for now. THE WITNESS: Thank you. 10 JUDGE DIPPELL: Okay. Is there anything 11 12 else? I think that's about a good place to stop for the day. And maybe we'll have a little more airflow 13 14 tomorrow, it won't be quite as stuffy in this room. 15 Is there anything else that we need to take care of 16 before we go off the record? 17 MR. WILLIAMS: 8:30 tomorrow morning? JUDGE DIPPELL: 8:30 is what I had in 18 mind. Not seeing any major objections, so 8:30 we 19 20 will resume in the morning. We will conclude Mr. McMahon and go on to Mr. Wilson. We can go ahead 21 and go off the record. 22 23 (WHEREUPON, the hearing was adjourned until April 9, 2019 at 8:30 a.m.) 24 25

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2	
3	I, Tracy Thorpe Taylor, CCR No. 939, within the
4	State of Missouri, do hereby certify that the
5	testimony appearing in the foregoing matter was duly
6	sworn by me; that the testimony of said witnesses was
7	taken by me to the best of my ability and thereafter
8	reduced to typewriting under my direction; that I am
9	neither counsel for, related to, nor employed by any
10	of the parties to the action in which this matter was
11	taken, and further, that I am not a relative or
12	employee of any attorney or counsel employed by the
13	parties thereto, nor financially or otherwise
14	interested in the outcome of the action.
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17	Tracy Thorpe Taylor, CCR
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