

1 alluded to in the Union Electric testimony, the bulb
2 inside is a 2,500 luminaire series burning light. All
3 of this equipment is old. And we were always in sympathy
4 with the company's proposal to convert to mercury vapor.

5 I would contend that we did our utmost to
6 go along with that policy. But when this Benjamin proposal,
7 which you saw a slide of, was too expensive, we then pro-
8 posed to Union Electric the alternative which I propose
9 to demonstrate to the Commission, which is--I would also
10 point out that this assembly you see here is modular.
11 This shade comes off, you just saw me take the socket out.
12 And then what you're left with is a basic insulator assembly.

13 We came up with that alternative which goes
14 on to the existing post without removal. And we tried and
15 tried and tried and tried and failed to convince the
16 company that their labor costs would be reduced if they
17 accepted this alternative. And it got stymied somewhere
18 in the company. And that gives one cause for concern
19 later on about the workability of the committee thing
20 unless there is some safety valve.

21 Now, I would show you how this works. I'm
22 now unscrewing the four screws that holds the obsolete
23 socket assembly on these posts, parts for which are no
24 longer available. And you will see it as a simple cast
25 iron cup that has four screws in it.

1 Our grandfathers were very smart. All of
2 these 231 Posts have, at critical points, bronze meeting
3 cast iron, which means that they can be worked on.

4 I was challenged in some earlier phases of
5 these negotiations by the company to get these rusty old
6 things apart and I managed every time. And I know I'm
7 less talented than some of the people that Union Electric
8 has in the field.

9 At any rate, I'm holding up now the cast
10 iron socket cup and you will see it's a simple assembly,
11 has four screws in it which meet this old socket assembly
12 at four holes. That's what holds that light that you
13 see in the illustration up.

14 This assembly, and again, earlier in my--
15 in the hearing, I challenged the company's assertion that
16 replacement parts are not available.

17 This assembly is comprised, as is this
18 assembly, of component parts that fit together. This is
19 existing equipment still under the incandescent lighting
20 tariff of the company that functions most every night in
21 University City. This is also an assemblage of component
22 parts. This gray assembly which had the mercury vapor
23 light in it costs \$25 last time we looked. It turns out
24 by an accident of history, with increasing historical
25 consciousness in this country, that old things are coming

1 back. And it turns out that this is a vitreous enamel
2 shade assembly available from not one, but two or three
3 companies at the present time. Its catalog price is \$35.

4 This is nothing but a pipe adapter from a
5 hardware store. Inside is a piece of all thread pipe.
6 This is an assembly that the Standards Department of the
7 company refuses to accept. I am willing to go along with
8 that as long as these lights are preserved, because their
9 character, as you can see, has to do with the appearance
10 of the reflector and pendant bulb assembly.

11 I guess, and I will not bring it into
12 evidence, but I now allege that this luminaire is far more
13 efficient as far as light output is concerned than anything
14 the company now offers.

15 At any rate, I would like to show you now
16 how this goes together. Now, all of this of what you see
17 University City will have to do. The company is willing
18 to convert the excluded 231 lights to multiple circuitry
19 before turning the system over to University City. I go
20 along with that. It pains me that a company that has
21 so much talent and expertise as demonstrated by the slide
22 of the other trial light is unwilling to accept something
23 as simple as I hope to demonstrate now.

24 This socket cup would be attached to the
25 light. In other words, no mechanical removal. To use the

1 other light that we proposed in the proposal withdrawn,
2 the company would have had to physically remove that arm
3 from that post and then bring it back.

4 This simply requires that the old luminaire
5 with obsolete parts be removed and that this assembly is
6 made, devised to fit into the socket cup. And it goes up
7 in here like this. And the four screws fit in. Turn the
8 four screws like so. And notice that the mode of attach-
9 ment is exactly that of the old equipment, but that the
10 light, for all practical purposes, has now become a more
11 efficient non-incandescent lighting source in, if I may
12 say so myself, perfect conformity with the company tariff
13 and philosophical and energy conservation movement toward
14 non-incandescent lighting.

15 Now, what I ask is if this light is archi-
16 tecturally appropriate to the fixtures on which it goes
17 and it was not allowed to be accepted, I wonder and I
18 hope that the committee will function to provide archi-
19 tecturally appropriate lights.

20 The luminaire assembly with the shade
21 identical to the other is now mounted in the existing
22 Banner crossarm. And as you can see from the point of
23 view of appearance and function it's essentially the
24 same. It took me something around five minutes, talking
25 all the while, to get the luminaire attached to the other
light.

1 It is true as has been alleged, that maybe
2 it would require to remove this cup, that this entire
3 assembly would have to go to the shop or be removed to
4 the pole, because you have to put a grandfather size
5 pipe wrench on to turn this socket cup. Happily, our
6 grandfathers just attached these cups by the first two
7 or three threads. It's an easy pull. I'm amazed how
8 easy it is to work with cast iron.

9 I now propose to convert the light the
10 rest of the way.

11 Here is another item I have in my hand,
12 what is called a pole ballast. It is a remote ballast
13 manufactured by the Advance Transformer Corporation.
14 The company is unwilling to consider this alternative.

15 Again, I voted for the agreement and I have
16 no doubt about the good faith of the company executing
17 the agreement. I entered into it, as I say, reluctantly,
18 because this was the only way to preserve the character
19 of these lights, at the same time going along with company
20 policy.

21 This is made by a very large concern. I
22 have an assurance from the representative that the company
23 that makes this would guarantee it for two years against
24 all failures. Union Electric was aware of that.

25 At any rate, what I will do now, these

1 are wires that I have--before the hearing began--pulled
2 through the light. This is the way these lights are
3 wired. And I will now connect--I will try to connect--
4 I'm sorry. I should have--I will not--I'll have to remove
5 this from the--what I'll have to do, if I can, and I'm
6 sorry for the inadvertency--

7 EXAMINER CADIEUX: Let's go off the record.

8 (Discussion off the record.)

9 EXAMINER CADIEUX: Back on the record.

10 WITNESS CARL: What you see here is what
11 the Stipulation would offer University City, in fact,
12 is that Union Electric is willing to supply to the end
13 of this cup a source of multiple power and then turn the
14 system over to University City. So what is then required
15 is this, you simply connect the source of the multiple
16 power to the luminaire right here. I am now connecting
17 the source of multiple power to the luminaire. And as
18 I say, I have repeatedly contended, I have seen demonstrations
19 of their ability in our neighborhood. I think that it
20 would be possible for them to do this.

21 I guess what I'm trying to do in this
22 demonstration is to show why I signed the agreement. I'm
23 showing you, in effect, what University City is willing
24 to do once these lights are turned over to them under the
25 terms of the Stipulation.

1 I am now insulating the connections I have
2 made at this proposed luminaire. And now I am offering
3 up the luminaire into the socket cup and this could be
4 done by a Union Electric technician from a bucket truck.

5 The luminaire that is proposed here offers
6 an advantage over those naked incandescent bulbs.

7 The one thing, and I, again, have tried to
8 look at it from the company's point of view, they're
9 very tempting targets for stones. This has a guard around
10 it. It has a heavy glass globe. And we've even had an
11 incident of vandalism on that laboratory light that was
12 shown on Mr. Dieckgraefe's presentation. It took close
13 to ten minutes of concerted destruction to break it, as
14 opposed to just a single stone, and it still worked after
15 the kids got finished with it.

16 Now, these lights, once that wiring is done,
17 you cap these finials, these flames referred to in the
18 testimony are really decorative caps to allow the electrician
19 to pull the wires and do the manipulations required in the
20 pole.

21 Now I will install this pole ballast. Now,
22 remote ballast fixtures, there are a few, I think a
23 couple of hundred. They're used in Jefferson City on the
24 High Street shopping center. And Union Electric has a
25 few remote ballast fixtures still in its care from what

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1 I've been able to see in the City of Overland.

2
3 at any rate. I am now going to take this
4 ballast and I am going to put the input side of the
5 ballast--the ballast fits into this back chamber here,
6 lower the ballast inside.

7 Now, in actual practice there is the post
8 coming through, the ballast can fall through to the floor
9 here in the hearing room, but the post you see up on the
10 illustration in the city's exhibit keeps the ballast
11 from falling through. It's just a requisite of the
12 demonstration.

13 I now take the wires from the luminaire and
14 I am now connecting the luminaire to the ballast required
15 for the operation.

16 Now, these are the things that University
17 City will do. I signed the agreement, as I say, because
18 it was the only way of saving these lights. They are
19 a part of University City history. The Mayor of University
20 City would like to see something come off in the way of
21 historical preservation for the city's 75th anniversary.

22 CHAIRMAN SLAVIN: Do you have an explanation
23 of why the company would refuse to do that work and only
24 University City can?

25 WITNESS CARL: In other words, I have not,
and I would like to get an explanation from the company

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1 why it is unable to accept this at first. And I'm not
2 trying to disparage them. I am willing to work with them.
3 I have sat down with them at the table and negotiated
4 this.

5 I have never gotten a satisfactory explanation
6 from the company--and I like all the people I have talked
7 with at the company--why this was unacceptable. I was
8 told that the Standards and T & D people just didn't want
9 to touch this.

10 CHAIRMAN SLAVIN: If I recall from the
11 public testimony, there was something, and I'm not sure
12 it was your testimony or someone else's, Mr. Carl, in
13 reading the transcript, that there are different code
14 requirements if Union Electric does the wiring work or
15 if the City does the wiring work. And the standard is
16 relaxed for the company and not for the city.

17 WITNESS CARL: That's correct. And that's
18 one of the reasons I feel that the Stipulation is a good
19 document. The way it will work is that if the company--
20 the county has taken the position that if the company
21 works on the system before turning it over to University
22 City, it can operate under those relaxed code provisions,
23 and then the system will be grandfathered unless there is
24 extensive work or some kind of hazard resulting.

25 CHAIRMAN SLAVIN: Would the type of work that

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1 you're doing here meet the code requirements?

2 WITNESS CARL: Oh, this is all code work.
3 I have how many electrical engineers watching what I'm
4 doing. I'm connecting the black wire to the black wire
5 and the white wire to the white wire. I don't have a
6 grounded circuit, but then neither does the State of
7 Missouri in the wall.

8 CHAIRMAN SLAVIN: You don't want to use this
9 building as any example that meets any code requirements,
10 including the elevators.

11 WITNESS CARL: Well, anyway, this, as far as
12 I can see, would be a code installation. It has to do with
13 the reutilization of existing series circuitry for multiple
14 circuitry that the contention about the code comes.

15 CHAIRMAN SLAVIN: Well, so I don't get too
16 far away, if you can't answer my question, Mr. Barnes,
17 can you answer my question?

18 Why does the company refuse to do this
19 work?

20 MR. BARNES: We could put on a rebuttal
21 witness to answer that question at the conclusion of
22 Mr. Carl's demonstration.

23 WITNESS CARL: Okay. The light is converted
24 to mercury vapor and, misgivings of engineers aside, I
25 will now connect a source of multiple power, so to speak,

1 which is the language of the Stipulation, to the light.
2 And I do that by just taking an ordinary household cord
3 for the purposes of our demonstration to hook it up.

4 As I say, I am willing, and I have said
5 repeatedly, even in my initial statement, I am willing to,
6 and I signed the agreement because I can live with it.
7 It was, and I still feel it is, the best deal that
8 University City is going to get from Union Electric.

9 Now, their contention is and I was told
10 this informally--now we will have--flat lux, mercury vapor
11 light.

12 CHAIRMAN SLAVIN: Does it kill mosquitoes
13 too?

14 WITNESS CARL: It attracts them. They
15 love it.

16 CHAIRMAN SLAVIN: Now, if you can electrify
17 those little metal things on the outside you can zap the
18 bugs.

19 WITNESS CARL: At any rate, what I'm trying
20 to say is, they say, and I'm trying to understand it--and,
21 as I say, I can live with the agreement--they say that
22 because this funny luminaire which is down-shining, which
23 is pendant, which means it shines down, is not adaptable
24 to lights other than Banner 231's, they are not willing
25 to accept it. Yes, in some ways, it is probably as cheap

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1 and easy a solution as putting that alternate luminaire
2 on a post that sticks up like the capitol lights. If
3 you could close your eyes and imagine the capitol lights
4 converted to mercury with a globe that looks the same,
5 that's the proposal.

6 But I guess that's what bothers me is that
7 I cannot understand. And I would love the rebuttal witness
8 to tell me why it is that this is so unacceptable.

9 I signed the agreement; I am willing to
10 live by it. But I'm scratching my head and I'm letting
11 the company know, this is the first time I've really had
12 a chance to talk to you folks this way, I cannot under-
13 stand what it is that's so disturbing about this to you-
14 all given your talents and abilities.

15 EXAMINER CADIEUX: Well, the company will be
16 given the opportunity to present a rebuttal witness, and
17 rather than continuing on that, they'll have that opportunity.

18 WITNESS CARL: I can't think of any more.

19 I would say that the process of converting
20 these lights are little different from the ones with the
21 post tops.

22 I can't begin to say, and this will be my
23 concluding statement, Mr. Cadieux, and I thank you-all for
24 indulging me in this bit of fantasy, I took this thing
25 all the way from St. Louis to show you.

1 I guess I can't understand what the problem
2 is with this, with the procedure being essentially the same
3 for the conversion.

4 In other words, the lights that are still
5 going to be in the tariff have to be converted to multiple,
6 University City has to supply Union Electric with parts,
7 should they become exhausted, yet Union Electric is willing
8 to keep those within its fold.

9 Union Electric is not willing to keep the
10 231's in its fold unless, and this is a provision of the
11 Stipulation that is implied in, I believe, A, if I--Jack
12 is much more conversant--if the neighborhood is willing
13 to allow the entire crossarm and pendant luminaire assembly
14 to be removed and surmounted with a post top, then we
15 can stay within the company's fold. But the entire
16 character of this light from an architectural point of
17 view, and I would contend and allege again, from an illumination
18 point of view, its efficiency, its effectiveness as a
19 street light, since it's below tree cover, the fact that
20 this pie-pan reflector, which is readily available, is
21 also something that keeps the light out of second floor
22 bedrooms and on the street, it is an effective good kind of
23 street light, not unlike the cobra head boulevard lights
24 that are so much in use today.

25 I have nothing else to say.

1 EXAMINER CADIEUX: Mr. Barnes, do you have
2 any questions of this witness?

3 MR. BARNES: We have no questions or cross-
4 examination, but we would like to reply to him through a
5 rebuttal witness.

6 EXAMINER CADIEUX: All right. Let's see if
7 there is any cross-examination by any of the other parties.

8 Mr. Banks.

9 MR. BANKS: Yes, your Honor.

10 CROSS-EXAMINATION BY MR. BANKS:

11 Q Mr. Carl, do you have any idea how much this
12 cost of conversion might be?

13 A Well, Mr. Banks, what I can go by are the
14 catalog prices of the items you see assembled together.
15 The ballast that you see, the ballast in the back is
16 \$30-odd last time we checked the price. The luminaire that
17 the mercury bulb is in is 25, the shade is 35.

18 So the entire assembly comes in at around,
19 ballast included, at about \$100.

20 Q Okay. You spoke about the forethought of
21 your forefathers who had installed some bronze fittings or
22 something so that these parts could be worked on. But when
23 I was at one of the Union Electric facilities, I saw one
24 of those crossarms and it was very, very rusted. And I
25 was wondering, wouldn't that rust in some of the crossarms

1 make the conversion significantly more difficult than
2 what we saw here today?

3 A Well, Mr. Banks, I would reply that the
4 crossarm you see there through the kindness of Mr. Gillum
5 is one of those horrible, rusty, grubby, grumpy, nasty
6 looking crossarms that you saw that I took home and took
7 a wire brush to and a pipe wrench, where necessary, and
8 brought it back to its former glory.

9 Now, specifically, to reply to your question,
10 it is true that the proposal involving this luminaire might
11 have invoked some of the difficulties that bother you.

12 In other words, the removal of the entire
13 crossarm and the removal of the socket cup would require
14 some fairly strenuous physical force. But to unscrew those
15 four screws on a socket cup, I have not, and this again,
16 the company can confute what I say if it wishes, I don't
17 think any of the field people have ever had any trouble
18 unscrewing those four brass screws in the socket cup.

19 Again, my final statement, I am more than
20 willing to live by the Stipulation. It just pains me to
21 see that the modus operandi by which the Stipulation exists
22 is specifically excluded from it.

23 Q It's my understanding that the Stipulation
24 is all-encompassing enough so that if the committee agreed,
25 that luminaire could be used on that setup using one of the
options.

1 Am I mistaken in that belief?

2 A I did not sign the Stipulation with that
3 understanding in mind.

4 The Stipulation was written in such a way
5 if, as I interpret it--and Mr. Barnes could amplify this if
6 he wishes--was specifically written to exclude the 231 Posts
7 with the crossarms.

8 EXAMINER CADIEUX: Would any of the parties
9 wish to state their understanding of the Stipulation con-
10 cerning that point?

11 MR. KAY: Perhaps I can address that.

12 The standard that was alluded to in the
13 Stipulation for a standard was that this select committee
14 would select luminaires that would be adaptable to a
15 good percentage of their service area and not be available
16 to a minute or miniscule amount of customers, that they
17 would be able to broadly adapt this throughout the many
18 states that they operate in. And thus, to the best of
19 my knowledge and understanding, the 231 Banner Posts and
20 crossarms are really only available in a very limited
21 quantity in the St. Louis County area, and thus would be
22 excluded from the adaptability of that type of standard
23 lamp shade and luminaire from the standard which would be
24 offered to everyone.

25 MR. KELLEHER: I think that's our general

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1 understanding. It mostly comes from the company's position
2 that what we offer to one customer in terms of a luminaire
3 should be offered to and adaptable for all, or at least
4 a good percentage, as Dennis was saying, a good percentage
5 of our customers.

6 CHAIRMAN SLAVIN: Does that go to the point
7 or the question that I raised earlier on No. 4: What is
8 standard?

9 MR. KAY: Uh-huh.

10 MR. KELLEHER: It does.

11 CHAIRMAN SLAVIN: And you're claiming that
12 this is not standard, despite Mr. Carl's testimony which
13 shows this to be a very easy conversion and inexpensive in
14 terms of buying parts?

15 MR. KELLEHER: What we are saying in "4. a)"
16 is that when we will install standard non-incandescent
17 street lighting luminaires, we are speaking of Union
18 Electric's standard stock parts, either right now or after
19 the committee has suggested and Union Electric has adopted
20 new standard luminaires.

21 CHAIRMAN SLAVIN: If the committee were to
22 choose this as a standard item, then your position would
23 change?

24 MR. KELLEHER: It could possibly change.

25 WITNESS CARL: I would just rebut one
thing.

1 This particular conversion that you saw,
2 the committee reports, and I have every reason to believe
3 as much interaction as I had with company people, that
4 they would consider such a conversion or conversions in
5 good faith. But this one has already been bumped out of
6 the box.

7 The company ultimately has the last say in
8 the deliberations of the committee.

9 CHAIRMAN SLAVIN: No, I would say perhaps
10 the Commission might have the last say.

11 WITNESS CARL: Begging your pardon.

12 CHAIRMAN SLAVIN: If there is a proceeding
13 before us, which is the question that both Commissioner
14 McCartney and I have raised several times, which concerns
15 us about the Stipulation and concerns us in bringing it
16 to the attention of the rest of the Commissioners. You
17 are open-ended, so to speak. All we have so far from the
18 parties--and it is an informal agreement to bring the
19 results of the committee work before the Commission on an
20 informal basis.

21 Now perhaps the parties would go a step
22 further and say that should the committee work amicably
23 and in good faith, as it suggested, that they could make
24 a recommendation to the Commission in that report for the
25 appropriate tariffing and stocking of items, which takes

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1 us a great deal further than what I would call simply
2 submitting an informal report to the Commission.

3 Mr. Barnes, would you agree to that?

4 MR. BARNES: I'm not so sure we would agree
5 to that. We would like to have the final control over the
6 kinds of luminaires that we will install and I think--I
7 suspect that what you suggest will actually give the
8 Commission the final say in the kinds of luminaires that
9 we can keep in stock and will install.

10 So I'm not so sure we would go along with
11 that suggestion, if it was a suggestion.

12 CHAIRMAN SLAVIN: Even though you would
13 agree, as a committee member, that that would be an
14 appropriate course of action for you to take?

15 MR. BARNES: The course of action that I
16 think a party could take as was suggested this morning by
17 Mr. Brady would be the formal complaint route.

18 If Union Electric rejects a committee proposal,
19 I think the formal complaint route would be open.

20 CHAIRMAN SLAVIN: The only problem with that
21 is that this Stipulation sets a time certain for your
22 tariff to go into effect.

23 MR. BARNES: That is correct.

24 CHAIRMAN SLAVIN: And that concerns me,
25 because you may not have completed all the work that needs

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1 to be done without these tariffs taking effect.

2 MR. BARNES: I'm sure the Commission, if
3 such a formal complaint arose, could give an expedited
4 hearing on the matter.

5 CHAIRMAN SLAVIN: Not under our present
6 workload, maybe it will get better.

7 MR. KAY: Perhaps I can add to that, we do
8 have a--we've discussed this concern and it was a concern
9 of the city that the committee perhaps would be ineffectual.
10 And in order to ensure that we would be able to move along
11 so that the company would try its best to accept what
12 the committee recommends, is that we have recommended, via
13 the attorneys, that the company appoint someone very high
14 up in the company who would have the ability to make
15 proper contacts within the company within the Standards
16 Division, et cetera, and the city, through its city manager,
17 would appoint the necessary expertise people to that
18 committee, and that the committee meet and come down with
19 some sort of recommendation no later than March the 1st.
20 These are rough guidelines. They're just ideas that we've
21 thrown across the table.

22 And then after that, that the company be
23 given 45 days to either accept or reject those additional
24 standards as recommended by the committee.

25 I think an indication of the good faith on

1 both the part of the committee, the city, and the company
2 would be very forthcoming by April the 15th, which is
3 still a month or more away from the effective date of the
4 tariffs. I think that then we could tell whether or not
5 anybody is acting in bad faith, and we could immediately
6 bring that to the attention of the Commission or do whatever
7 else we feel necessary to bring the bad faith party back
8 in light.

9 Again, we both--or all three of us, rather,
10 have signed this in good faith, and if we don't get results
11 or if we don't obtain the same end, then somebody is going
12 to be acting in bad faith.

13 CHAIRMAN SLAVIN: Well, I guess--I wish I
14 had more--I'm going to try to get into a good faith viewpoint,
15 but when I see a demonstration like has been put on by
16 Mr. Carl, information which has been available and rejected
17 by the company for how long, Mr. Carl?

18 WITNESS CARL: This proposal--a year, Jack?

19 CHAIRMAN SLAVIN: I have a little trouble
20 trying to figure out how a committee is going to accomplish
21 something which Mr. Carl has been unable to do.

22 MR. KAY: Well, I don't want to really get
23 into my closing argument, but the city all along--as other
24 cities and other governmental agencies, is not running over
25 with money and funds to spend on any frills. We were not