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COUNCIL OF THE CITY OF PHILADELPHIA

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JOINT COMMITTEES ON THE ENVIRONMENT

4

AND STREETS AND SERVICES

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Room 400, City Hall
Philadelphia, Pennsylvania
Monday, June 14, 2010
2:20 p.m.

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PRESENT:

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COUNCILMAN JAMES KENNEY, CO-CHAIR

12

COUNCILMAN CURTIS JONES, JR.

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COUNCILWOMAN BLONDELL REYNOLDS BROWN

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RESOLUTION 100291 - Resolution authorizing
City Council's Joint Committees on the
Environment and Streets and Services to hold
public hearings to investigate the benefits of
installing energy efficient Light Emitting
Diodes (LED) streetlights...

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COUNCILMAN KENNEY: Good

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afternoon, ladies and gentlemen. The

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Committee on the Environment and Streets

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and Services is now in session to hear

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testimony on a resolution. This is no

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need for a quorum today. There will be

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no action taken on any legislation. This

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is an informational hearing, and

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hopefully we can develop a strategy going

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forward.

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In the presence today is

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Councilperson Blondell Reynolds Brown and

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Councilman Curtis Jones.

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This is a resolution

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authorizing the City Council's Joint

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Committees on the Environment and Streets

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and Services to hold public hearings to

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investigate the benefits of installing

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energy efficient Light Emitting Diodes

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(LED) streetlights, reducing annual

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energy payments associated with

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streetlights, encouraging local

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manufacturing of LED streetlights, and

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financing capital purchases with proceeds

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2 from energy savings.

3 Please identify yourself,
4 whoever wants to begin, for the record
5 and proceed with your testimony.

6 MR. NEELY: I'm Edward Neely.

7 COUNCILMAN KENNEY: You have to
8 pull that close to you also. Thank you.

9 MR. NEELY: My name is Edward
10 Neely. I'm here representing Anaconda
11 Enterprises.

12 COUNCILMAN KENNEY: Whatever
13 way you'd like to proceed.

14 MR. NEELY: We're here to
15 discuss today or give you the background
16 on who IntenCity and the fixture that
17 we're looking to work with the City.
18 We're here to discuss the fixture we'd
19 like to work with the City to replace the
20 street lighting with, and we have the
21 owner of the company here as well to
22 discuss the background of the company and
23 the light itself. And then I will be
24 covering our future plans to go forward
25 with the City and what we'd like to do

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2 here in the City.

3 COUNCILMAN KENNEY: Okay. You
4 can identify yourself each individually
5 and then start, whoever wants to start
6 the testimony.

7 MR. WERNSDORFER: Peter
8 Wernsdorfer, Municipal Streetlight
9 Services, and we're here to assist Mr.
10 Neely and Mr. Bruck.

11 MR. BRUCK: Mike Bruck. I'm
12 here with IntenCity Lighting to discuss
13 our technology and our lighting system
14 basically compared to existing lighting
15 systems and to our competitors.

16 COUNCILMAN KENNEY: Who is
17 going to conduct the testimony first?

18 MR. NEELY: I'll let Mike start
19 and I'll just run the slides for him.

20 COUNCILMAN KENNEY: That's
21 fine. Thank you.

22 Whenever you're ready.

23 MR. BRUCK: Again, we are
24 IntenCity Lighting. Not many people have
25 heard of us. We're not GE, we're not

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2 Philips or those kind of people, but we
3 do have a strong electronics background,
4 which this new light is.

5 The technology is no longer a
6 bulb in a box. It is electronic. It's
7 solid state. It has been somewhat in its
8 infancy, as some people have said, but it
9 has matured very, very rapidly to general
10 lighting.

11 To give you a little bit of
12 background, we have another company,
13 sister company, called Electronic
14 Fabrication Services. We have for 25
15 years built very high reliability
16 electronic systems for heavy equipment,
17 for automated pharmacy equipment. We've
18 done -- in fact, I noticed some parking
19 meters here in the City of Philadelphia
20 that I probably built that are probably
21 being aged right now, because they've
22 been built for a long time, but computer
23 equipment, things of that nature we've
24 done.

25 And we recognize that the LED

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2 technology in lighting was more of an
3 electronic issue than a lighting issue.
4 There are certain things that have to be
5 done properly to make this thing work
6 like it should and last like it should.

7 So we've got kind of a
8 presentation here about our design
9 philosophy and how to build this. We've
10 also been in this business probably as
11 long as anybody in the LED business. We
12 started this project five years ago. So
13 we've made a lot of the mistakes. We've
14 seen the pitfalls. We know where all the
15 problem areas are that a lot of even
16 larger companies now are just now
17 beginning to recognize.

18 The issues to be addressed in
19 building something like this are
20 basically fourfold. You have to have the
21 proper optics to use all of the available
22 light to you. Currently, most of the
23 lighting is not energy efficient. It
24 never was intended to be energy
25 efficient. Energy used to be cheap, so

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2 you just put enough power into it, you
3 make enough light, you spray light out
4 there and you did the job. Today people
5 are much, much more conscious about that
6 energy usage.

7 So what we do is, we take the
8 LEDs and we -- by their nature, they help
9 us, but we focus that light where we want
10 the light. We put all the available
11 light where it belongs. That way, we
12 become very much more efficient and we
13 use much less power than even just the
14 LED alone spraying light out.

15 Thermals are a huge issue.
16 LEDs do not radiate heat like a bulb. It
17 has to be conducted away from the LED.
18 That's the reason you see a lot of heat
19 fans and things like that.

20 If you could back up just a
21 little bit, Ed, and I'll go into more
22 detail on some of this.

23 The electronics, again, it's
24 not a bulb in a box. There is electronic
25 circuits here involved. And the

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2 mechanics of it, it all has to fit
3 together and work properly and mount on
4 your poles properly and everything has
5 got to have kind of a symphony of things
6 working together to make it work
7 properly.

8 I'm trying to read this also.

9 They are small directional
10 points of light, and what that enables us
11 to do is, like this fixture here, is to
12 build a much smaller fixture than what
13 you're doing and control the light much
14 better. A typical HPS fixture, if you
15 were to control the light the same way,
16 you would have to have a five-foot
17 reflector. So the small points let us in
18 a small package take care of that issue.

19 This is kind of a part of our
20 patent application here. This lighting
21 reflector system is now patented and its
22 method of manufacture is patented.

23 It's got a sharp optical cutoff
24 also. This particular design -- and we
25 can vary it, the reflectors, for

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2 different designs, but this particular
3 design is made to put all of the light in
4 the street and not in your windows. So
5 we got a sharp cutoff at the sidewalks.
6 That way, we're not making yard lights.
7 We're trying to make streetlights, in
8 other words.

9 Here is a comparison of our
10 pattern versus a typical HPS pattern.
11 You can see that it is much more
12 controlled and does have that cutoff that
13 we're talking about. The HPS has a lot
14 of light that goes back behind the light
15 on what we call the house side of the
16 light.

17 (Witness talking without
18 microphone.)

19 COUNCILMAN KENNEY: The
20 stenographer won't be able to hear you,
21 so as he points out, could you explain
22 what he's pointing to.

23 MR. BRUCK: That right there is
24 the HPS fixture, and where he's pointing
25 is basically right under the fixture.

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2 Notice that the lines that come down
3 below, that's light that's coming behind
4 the fixture, and they are very far apart,
5 which means there's a lot of light levels
6 back there, where ours is much closer,
7 the lines are closer together, which
8 means that the light is dropping off much
9 more rapidly back behind the fixture
10 itself.

11 So an HPS may have more lumens
12 in the total fixture, but we are much
13 more controlled. We put the light where
14 it belongs.

15 This is also some of the things
16 that we can do with different patterns.
17 We can put the light in different places
18 with different reflectors.

19 Thermals are a huge issue in
20 this business. Again, they can't
21 effectively radiate the heat. So we have
22 to design a heat reduction system that
23 will work and maintain the life of the
24 LED. There's a lot of LED solutions out
25 there today. There's a lot of junk out

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2 there, but a lot of it is because they
3 are not managing the thermals properly.
4 Something that a lot of these people
5 haven't thought of yet is the solar
6 loading of an LED. LEDs can be damaged
7 due to high temperature even when they're
8 not on.

9 COUNCILWOMAN BROWN: Can or
10 cannot?

11 MR. BRUCK: Can, if not
12 properly maintained. If you look at our
13 heat sync design, this is a profile on
14 the thing of our actual heat sync here on
15 the light. We have fins not only on the
16 top that radiate the heat when it's on,
17 that becomes a solar collector during the
18 daytime, but we have heat fins on the
19 bottom that will radiate that heat away
20 from the LED during those sunlight
21 loading times, and we have proven that
22 that does work, and we do have a patent
23 on that now also.

24 We do have LM-79 testing, which
25 is third-party testing that gives

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2 performance specs on our light. We are
3 ETL for safety.

4 A lot of this stuff is not
5 going to mean anything to you. It's high
6 power factor. The engineers and all that
7 can get into the discussion of the
8 technical part of it, but we do have
9 quite a bit of third-party testing that's
10 totally independent of our own tests.

11 The mechanics of it, everything
12 external here is either anodized aluminum
13 or stainless steel. We decided we want
14 to build a fixture that's going to
15 outlast the LEDs. All of the
16 infrastructure and everything has to
17 withstand that test of time also. The
18 lenses are polycarbonate UV stabilized so
19 that sunlight doesn't degrade this for
20 many years. It's a very low, what we
21 call, an effective projected area as far
22 as wind loading. We have tested this in
23 a wind tunnel at 150 miles an hour, with
24 no movement whatsoever. We didn't go
25 past 150 miles an hour, so we thought

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2 that was sufficient. In fact, it's hard
3 to find a wind tunnel that will go past
4 that, but...

5 The reflectors are made of
6 highly polished anodized aluminum. The
7 reflector itself material has a 20-year
8 warranty on it that the manufacturer
9 gives us.

10 Everything is sealed as far as
11 the light engine is concerned. That is
12 very important, because LEDs can be
13 affected by moisture, so we make sure
14 everything is totally sealed for
15 moisture. We've submerged these things.
16 We've done testing like that to make sure
17 that we don't have that. That means that
18 unlike a typical fixture, we're not
19 sucking dirt up inside the lenses. We're
20 not losing our efficiency on the first
21 few months just from automotive fumes,
22 dust, dirt, that kind of thing. And it's
23 very lightweight compared to a typical
24 fixture. A typical HPS fixture is around
25 30 pounds. This is 15 pounds.

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2 The mounting mechanism is
3 proprietary to us. As you see, it fits
4 up inside the arm or pipe, and
5 basically -- I don't know if you can
6 point to it, Ed. There's a knob that
7 gets turned and there's an expansion
8 joint that then expands inside the pipe
9 and locks it in place, and that was part
10 of our wind tunnel testing also, that
11 that mechanism will withstand that kind
12 of loads.

13 COUNCILMAN KENNEY: On the
14 typical streetlight that we have now,
15 what would need to be changed in addition
16 to the fixture itself? What would it
17 plug into?

18 MR. BRUCK: Probably nothing.

19 COUNCILMAN KENNEY: So would it
20 extend out?

21 MR. BRUCK: You can extend it
22 out on the existing pipe, typically is
23 what happens. You take the old fixture
24 down, you put this one in and attach
25 three wires.

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2 COUNCILMAN KENNEY: Okay.

3 MR. BRUCK: The same three
4 wires you're using now.

5 COUNCILMAN KENNEY: There's
6 only three Councilmembers here, so if
7 they want to jump in and get some
8 illumination on your -- illumination. I
9 did not mean that.

10 MR. BRUCK: We use that term.

11 COUNCILMAN KENNEY: --
12 (continued) on what you're saying or some
13 clarification, that would be helpful.

14 MR. BRUCK: Sure.

15 COUNCILMAN KENNEY: You don't
16 need to be recognized.

17 COUNCILMAN JONES: Thank you,
18 Mr. Chairman. This is the first time
19 I've heard you give a joke, so I'm --
20 really good. Listen, I'm impressed.

21 Couple of quick points. Have
22 you done comparisons per unit cost versus
23 our existing units? What are the cost
24 comparisons?

25 MR. BRUCK: I don't have that

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2 necessarily with me as far as your exact
3 lights. I don't have that information
4 yet, but we can do that for you.

5 COUNCILMAN JONES: We'll
6 probably get that from the Commissioner,
7 if indeed she's going to testify.

8 MR. BRUCK: Typically the
9 initial cost is more expensive, but the
10 payback is very quick also.

11 COUNCILMAN JONES: And you've
12 done analysis of that?

13 MR. BRUCK: Yes.

14 COUNCILMAN JONES: And a
15 break-even point for the City would be?

16 MR. BRUCK: We can do that for
17 you, yes.

18 COUNCILMAN JONES: By way of
19 maintenance, have you done any
20 maintenance comparisons to what our
21 existing light fixtures are?

22 MR. BRUCK: Not your existing
23 fixture again, but once we know more
24 about your systems here, we can do those
25 comparisons for you, and we probably

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2 would need data from you also to do that
3 properly.

4 COUNCILMAN JONES: So we have
5 not gotten to the point where we've done
6 apples to apples comparisons of these?
7 This is early in the process.

8 MR. BRUCK: Sure.

9 COUNCILMAN KENNEY: This is the
10 beginning.

11 COUNCILMAN JONES: This is the
12 beginning, okay.

13 So by way of maintenance, what
14 has been your experience? Are you in
15 other cities at this point?

16 MR. BRUCK: I'm sorry?

17 COUNCILMAN JONES: Are you in
18 other municipalities?

19 MR. BRUCK: We are doing tests
20 in many more municipalities, yes.

21 COUNCILMAN JONES: Which ones?

22 MR. BRUCK: We've done tests in
23 Los Angeles. We've done tests in
24 Houston. And these are progressing on
25 also. Sitka, Alaska; Oakland,

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2 California.

3 Do we have some in the City,

4 Tom?

5 Stanford. We're doing a deal
6 with Stanford now, Connecticut. So we've
7 got quite a few out there. We've got
8 about 4,000 fixtures in the field right
9 now.

10 COUNCILMAN JONES: And what is
11 your average unit's life expectancy?

12 MR. BRUCK: We're projecting 15
13 years minimum.

14 COUNCILMAN JONES: Thank you,
15 Mr. Chairman.

16 COUNCILMAN KENNEY:
17 Councilwoman Brown.

18 COUNCILWOMAN BROWN: This is
19 incredibly interesting. Thank you very
20 much. Councilman Jones touched on a few
21 questions. One is your experience in
22 other municipalities. So we will look
23 with interest to the yield of those
24 potential contracts.

25 The break-even point would be

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2 very, very useful. We recognize, most of
3 us on this committee, that when you're
4 looking for energy efficiency, thinking
5 about going green, the output on the
6 front end is what it is, but given the
7 long-term implications make it indeed
8 worthwhile and beneficial.

9 So you say you have something
10 pending in Stanford, and you've named a
11 number of municipalities. Are those
12 opportunities at different stages of
13 development?

14 MR. BRUCK: They are at
15 different stages. I didn't mention North
16 Little Rock, which is one of our local
17 ones also that has done a lot of testing
18 for us.

19 COUNCILWOMAN BROWN: So talk
20 that through. You say they're doing
21 testing. What does that mean?

22 MR. BRUCK: They're basically
23 putting up fixtures from a lot of
24 different people, even other
25 technologies, and just trying to evaluate

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2 the whole setup right now.

3 COUNCILWOMAN BROWN: I see.

4 MR. BRUCK: One of the things
5 that we've done, though, we adopted this
6 early, so that, again, we've gotten a
7 long way down the road compared to a lot
8 of people, and we've developed a unique
9 technology, we think. What we've done is
10 started at the LED and the physics of the
11 light and the LED and worked our way
12 outward to build a fixture that works
13 properly. A lot of people in here now
14 are just throwing LEDs on something and
15 trying to make it work. Time will tell
16 as to how those will work. We can
17 predict it, but to the general public,
18 time will tell.

19 COUNCILWOMAN BROWN: And of
20 those potential opportunities, which one
21 is close to closure, an actual contract?

22 MR. BRUCK: Stanford,
23 Connecticut is probably the closest.
24 Behind it, North Little Rock, Arkansas.
25 We think maybe Houston. I'm talking to

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2 my national sales manager here.

3 COUNCILWOMAN BROWN: Of course.

4 You got to have a team.

5 MR. BRUCK: They're about a

6 year away with Houston.

7 COUNCILWOMAN BROWN: And when

8 you look at the Stanford, Connecticut

9 opportunity, how much lead time, planning

10 time went into the ultimate hopeful

11 culmination of the deal?

12 UNIDENTIFIED SPEAKER: Over 18

13 months.

14 COUNCILWOMAN BROWN: Very

15 helpful. Thank you.

16 COUNCILMAN JONES: Just real

17 quick followup. Is there a solar

18 component to this?

19 MR. BRUCK: As far as energy?

20 COUNCILMAN JONES: Could there

21 be?

22 MR. BRUCK: There can be.

23 Solar is difficult in that you have to

24 deal with more than just solar. You have

25 to have battery systems that back that up

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2 or work in conjunction with it.

3 COUNCILMAN JONES: So that
4 would drive the unit cost up.

5 MR. BRUCK: So you got to
6 charge the batteries during the daytime,
7 use the batteries at night. The battery
8 technology is the key component there.
9 It's just not quite there yet as far as
10 being affordable. The batteries that
11 we've looked at that would power this
12 light properly are about twice as
13 expensive as the light itself.

14 COUNCILMAN KENNEY: Plus I
15 assume the seasonal nature of the sun.

16 MR. BRUCK: Exactly, and in the
17 northern latitude, it's even worse.

18 COUNCILMAN KENNEY: Right.
19 Please continue.

20 MR. BRUCK: We're working on a
21 project right now for solar and wind, but
22 it's for Haiti where you're in the
23 equator zone with lots of wind, lots of
24 sunlight.

25 COUNCILMAN KENNEY: You can

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2 proceed with your testimony as you were
3 giving it, continue with the
4 presentation.

5 MR. BRUCK: Okay. Basically
6 we're getting into our current products
7 here. We have different outputs of the
8 streetlights. We build parking garage
9 lights. That's probably our biggest
10 installations right now, is in parking
11 garages. We've done several medical
12 centers.

13 Can I mention some of those,
14 Tom?

15 (Witness speaking without
16 microphone.)

17 COUNCILMAN KENNEY: You're
18 going to have to repeat what he says.

19 MR. BRUCK: Albany Med has just
20 signed on with us. Berkshire Medical,
21 we've done all of their parking garages
22 to date. Albany, New York Airport,
23 Albany Airport, we're going to do the
24 roofs and the parking lots. The parking
25 lots are basically the streetlight.

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2 Con-Ed is working specifically with
3 garages right now, towards that anyway.

4 COUNCILMAN KENNEY: Okay.

5 MR. BRUCK: We build also a
6 wall pack unit, which is this unit here.
7 That would work well in parking garages,
8 stairwells. It also works well in
9 tunnels. And I understand you have a lot
10 of tunnels in this area that we could
11 light up that way.

12 COUNCILMAN JONES: One of the
13 questions offline before we started our
14 official hearing was the color
15 combination that might indicate an Amber
16 Alert or indicate danger or indicate
17 directional patterns that pedestrians and
18 vehicles needed to go in cases of
19 emergency. Has there been some thought
20 given --

21 MR. BRUCK: There hasn't been
22 anything done yet there, but it's all
23 very technically feasible to do. It's
24 not that difficult. You can add some
25 colors into this thing to give you what

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2 you're talking about as far as pathways
3 or emergency exit routes. It's possible
4 to also network these via RF, radio
5 frequency type networks, so that you can
6 have a command and control type situation
7 over your lighting to turn the lights on
8 and off. In fact, we discussed this with
9 North Little Rock in some of their parks.
10 They have a park that is the second
11 largest land area park in the U.S. under
12 Central Park, New York where they want --
13 we're talking about doing that kind of
14 thing. They wanted to modulate the
15 lights slightly at park closure time to
16 let everybody know the park is going to
17 close, and then they wanted to dim the
18 lights down in the off hours to save more
19 energy yet, but incorporate -- you can
20 incorporate a lot of things if the
21 numbers are there to do it, but
22 technically it's feasible to do all of
23 those things. It's a matter of numbers
24 and cost.

25 General characteristics and

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2 benefits, again, life expectancy of LEDs
3 if they're done properly -- I'll say that
4 if the thermals are done properly and
5 everything is done like it should be are
6 50,000 hours or greater now, and that's
7 based on what we call a 70 percent lumen
8 maintenance. That means at 50,000 hours
9 we'll still have 70 percent of the output
10 we started with.

11 Energy usage is basically cut
12 in half or better now. LEDs are getting
13 better, so we're getting even better with
14 that. We've seen a lot of good reports
15 on that.

16 City of North Little Rock did a
17 test for us. They put up one of our
18 5,000 lumen SL 50-watt lights up against
19 a 250-watt HPS. They metered both
20 individually, and apparently the meters
21 don't work unless you get up to a certain
22 level real well and they said, Well, the
23 meter with the LED is broke. It's not
24 working, because it's not registering
25 enough. So the head of the Streets said,

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2 Go out there and change that meter.

3 Well, the guy went out there. He didn't

4 change the meter. He swapped the two.

5 Now the other meter is broke. So

6 basically they couldn't register it.

7 They were saying about one-fourth in that

8 particular test. Not all LEDs will meet

9 that, but it's 50 percent or greater.

10 I don't know where I was, Ed,

11 on that.

12 Light quality of an LED in this

13 case is a white color rather than the

14 orange glow that you see from an HPS.

15 That in itself gives you much better

16 visibility under the light. Even though

17 the lumens are not there, just due to the

18 white lights, you can see colors

19 properly. It works excellent under

20 security cameras, and I think we may have

21 some slides of some before and after's.

22 Security people love it because they can

23 see under their security cameras the

24 colors of cars, the clothing that people

25 are wearing. It's actually visible now.

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2 This is kind of a comparison
3 chart that -- it's probably a year old
4 comparing efficiencies of LEDs with other
5 technologies, and there has been a report
6 that was just put out by the DOE that
7 says that on average, LEDs are 20 percent
8 more efficient than any other
9 high-intensity discharge lighting on the
10 market today, and they did a comparison
11 of average of a lot of different lights.
12 And that's coming directly from the
13 Department of Energy.

14 This is a typical graph of
15 savings of HPS over LED, and basically we
16 have a calculator where you can plug in
17 your electric rates. You can plug in
18 your maintenance costs, the cost of the
19 fixtures, all of this kind of stuff, and
20 it will actually give you the payback in
21 years of what it takes to pay back and
22 actually pay for the lights.

23 COUNCILMAN KENNEY: This is a
24 similar concept to an individual
25 residence or business that does an energy

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2 audit and determines what needs to be
3 done to improve the energy efficiency of
4 the building and then uses those savings
5 to finance the work itself.

6 MR. BRUCK: Yes. Yes.

7 COUNCILMAN JONES: May I --
8 where are you manufacturing out of?

9 MR. BRUCK: Today we're
10 manufacturing in Dardanelle, Arkansas.

11 COUNCILMAN JONES: And are all
12 of the subcomponent parts pretty much
13 American?

14 MR. BRUCK: Pretty much they
15 are. We do meet the Made in America Act
16 requirements, and we're moving more and
17 more in that direction as time goes on.
18 Some of the things we are getting now are
19 overseas, but some of the parts,
20 electronic parts, up until recently
21 weren't available except from overseas,
22 but we are now working with more and more
23 American companies as they become
24 available.

25 COUNCILMAN KENNEY: Perhaps if

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2 it's part of your testimony to discuss, I
3 don't know if this is the appropriate
4 time or not, the potential manufacturing
5 opportunities in the event that there is
6 a source of need in this region that
7 maybe you could --

8 MR. BRUCK: We are in
9 discussion right now with Anaconda
10 Enterprises about doing a final assembly
11 plant in the local area if the numbers
12 make it reasonable to do so.

13 COUNCILMAN KENNEY: If the
14 demand is there, then you can manufacture
15 them here?

16 MR. BRUCK: Yes.

17 COUNCILMAN KENNEY: And also
18 the workforce that would potentially be
19 working there, this is a process that
20 people can be trained to do?

21 MR. BRUCK: Yes. As far as
22 final assembly, yes. We would maintain
23 as far as the technical aspect of the
24 light engine, because that's our
25 expertise and keeping the quality where

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2 we want, but as far as taking those
3 pieces then and producing it into various
4 forms, we don't have a serious problem
5 with that at all.

6 COUNCILMAN KENNEY: And one of
7 the initial discussions that I had with
8 the rest of the folks when we first met
9 was that there would be no problem or
10 would it be encouraged to consider people
11 who are reentering the workforce after
12 incarceration that that's the kind of a
13 position or manufacturing job that's very
14 trainable and that folks could do and
15 make a decent living. So the potential
16 down the road would be not only increased
17 street lighting -- better street
18 lighting, a savings on electric,
19 manufacturing it here and employing
20 people that are difficult to employ and
21 getting them back on their feet. So
22 that's all -- they're all doable issues?

23 MR. BRUCK: Yeah. These are
24 things that Ed and his team are working
25 on here locally.

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2 COUNCILMAN JONES:

3 Mr. Chairman, that sounds like a stimulus
4 package to me.

5 COUNCILMAN KENNEY: Yes.

6 MR. BRUCK: This is a
7 photograph of a street in North Little
8 Rock that we did. These poles are
9 actually higher than what we recommend,
10 but you can kind of see the color
11 rendering underneath. You can actually
12 see the colors in the flag and the car
13 and clothing, things like that. Under an
14 HPS fixture, you would see yellows and
15 browns basically and not the other
16 colors.

17 It's got a very low profile
18 once you get it on a pole. It looks
19 strange and all that up close, but when
20 you get it 35 feet in the air, it
21 virtually disappears.

22 This is a parking garage. This
23 particular garage is in Pittsfield,
24 Massachusetts at Berkshire Medical
25 Center. They're spaced a little bit

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2 further than we liked, but that was their
3 requirement and the customer was happy,
4 so we were very happy with it.

5 This is the wall pack in a
6 stairwell. And I don't know if you can
7 tell from this slide, but concrete
8 stairwells are kind of bland, but there
9 is a fire alarm thing there that's red.
10 You can kind of see how the red color
11 actually shows up in this.

12 These are various things here.
13 On the -- see, that's a before of AMRI.
14 That's AMRI in Rensselaer, New York.
15 That's a parking lot with high-pressure
16 sodium, and then on the right is the same
17 parking lot with our fixtures. And you
18 notice how the trees in the background
19 all the sudden show up green and all of
20 the colors start coming out where you can
21 actually see.

22 The security people loved it
23 after that. They said this is the first
24 time they've ever actually seen anything
25 in their security cameras.

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2 That one I believe is in North
3 Little Rock. That's one Tom put up
4 somewhere else. On the right is a
5 university parking lot, Oleana.

6 COUNCILMAN JONES: Do the
7 elevation of the actual poles that
8 they're attached to, do the tests still
9 bear out at varying heights?

10 MR. BRUCK: You can -- with the
11 electronic data and files that we have,
12 you can predict what you will get at
13 various heights. That's very easy to do.
14 It will affect the spread. That's one
15 thing I didn't mention about our
16 streetlight versus probably 99 percent of
17 everybody else out there doing LED. You
18 notice our LEDs are pointing outwards,
19 not straight down. The hardest part to
20 light is the longest distance, and so
21 what we did was, we pointed the LEDs at
22 the hardest place to light up and then we
23 used the reflector system to fill in
24 underneath. So we get a much broader
25 spread. We're not as bright right under

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2 the pole as everybody else, but we've
3 evened that light out where you get a
4 more even light throughout the whole area
5 that you're trying to light up. We're
6 putting light out 60 to 80 feet,
7 depending on height, away from the pole,
8 usable light. So we're not building
9 flashlights. We're not trying to just
10 light a spot. We're trying to light an
11 area with this.

12 These are some -- one of the
13 things that we can do in parking garages,
14 tunnels, indoor things especially, is
15 actually predict what it's going to look
16 like before we ever do anything. We'll
17 take the third-party files, electronic
18 files that have been made, not by us but
19 by a testing laboratory, and put that
20 into a computer program and actually
21 predict what all the light levels are
22 going to be before we ever put a system
23 in. We can verify that the system is
24 going to work before we ever put the
25 first light up.

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2 That's the computer-generated
3 model right there of what we were going
4 to see at Berkshire Medical. And if you
5 back up, Ed, there's the actual photo.
6 So it's very, very close to real world
7 when we do a simulation.

8 COUNCILMAN KENNEY: Would you
9 be willing, with the cooperation of the
10 Streets Department, to maybe pilot a
11 street or two in the City --

12 MR. BRUCK: Sure.

13 COUNCILMAN KENNEY: -- just so
14 people can get an idea how it would work?

15 MR. BRUCK: Right.

16 COUNCILMAN KENNEY: I guess
17 we'll have to have something in the 4th
18 Councilmanic District.

19 COUNCILMAN JONES: Absolutely.

20 COUNCILMAN KENNEY: We're
21 At-Large Councilmembers, he's a District
22 Councilperson, so we're not going to get
23 away with not doing something in the 4th,
24 that's for sure. Correct?

25 COUNCILMAN JONES: Correct.

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2 COUNCILMAN KENNEY: And you

3 live in the 4th?

4 COUNCILWOMAN BROWN: Yes.

5 COUNCILMAN KENNEY: We're done

6 then.

7 The other issue is one of

8 installation. We had had initial

9 discussions relative to how they would be

10 installed and by whom, and the team had

11 agreed that in the event that this thing

12 or something move forward, that you guys

13 would be willing to train our District

14 Council 33 folks on how to do it, how to

15 take it apart, install it and maintain

16 it, so that we don't have any feelings

17 amongst our workforce that somehow we're

18 trying to replace them in this process.

19 MR. BRUCK: We can train the

20 installation in less than 15 minutes.

21 It's very simple.

22 COUNCILMAN KENNEY: Okay.

23 Any other questions for this

24 particular witness?

25 (No response.)

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2 COUNCILMAN KENNEY: Anyone else
3 who is going to testify? Please, if
4 there's anything else that you have to
5 offer or --

6 MR. NEELY: You go ahead. I'll
7 close.

8 COUNCILMAN KENNEY: Please
9 re-identify yourself for the record.

10 MR. WERNSDORFER: Peter
11 Wernsdorfer, Municipal Streetlight
12 Services.

13 In briefly speaking to
14 Mr. Neely before we came down today, a
15 couple of things about the cost return
16 and your return on your investment in
17 these lights. First, when you assess
18 your costs and you decide -- or you
19 assess the cost of operating the system
20 and the installation and everything else,
21 there are more than just the simple
22 components of people putting the lights
23 on the poles and then turning the switch
24 back on. One is, we're in an era of
25 de-regulated electricity and, as you

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2 know, PECO's rate caps expire on January
3 1st, and so you have a whole new scenario
4 emerging I don't know that anybody has
5 addressed, recognizing that no one has
6 really seen where the market will go, but
7 I'll give you some examples, and one of
8 them I'll address in my former capacity
9 as the Director of Public Works in the
10 City of Allentown. And I'm not really
11 sure whether I should be offended that
12 you guys didn't bring up the fact that I
13 tested lights for you, but I'll let it
14 go.

15 COUNCILMAN KENNEY: The lights
16 that they tested for you in Allentown --

17 MR. WERNSDORFER: Because here
18 in Pennsylvania we like to pretend we're
19 parochial and the laws of the universe
20 only apply to us. So I just want to make
21 sure we know there is a Pennsylvania
22 firm.

23 COUNCILMAN KENNEY: You're from
24 the East, so you're all part of the same.

25 MR. WERNSDORFER: Right.

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2 COUNCILMAN KENNEY: In

3 Allentown, were the lights tested in a
4 residential or a commercial street
5 setting or were they tested in --

6 MR. WERNSDORFER: Actually in
7 both. We did on the Susquehanna Street
8 Bridge, and I actually have some electric
9 bills and I think Ed has some copies that
10 he obtained officially through the Open
11 Records Act as well, but -- and we also
12 tested them in the Theatre District, and
13 I will say that that occurred after I
14 left the city, but the ones on the
15 Susquehanna Street Bridge is actually one
16 of the last work orders I authorized for
17 anybody to do.

18 But if you take a look at them,
19 there are two components to it. One is
20 that we've significantly reduced the
21 demand -- the actual demand in kilowatts
22 and reduced the number of kilowatt hours
23 burned, and as you'll see, the bill
24 dropped considerably. And it's just a
25 matter of three lights, mind you, but

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2 it's pretty significant.

3 We're going back to that issue,
4 though. Where the market is going to go
5 in terms of the cost of electricity is
6 actually completely unknown, except that
7 we know it's going to go up. And I think
8 my understanding of it is is that the
9 current costs that you have are modeled
10 on current rates, and I think there's a
11 need to model based just on some
12 projected rates, and I give you some
13 examples.

14 In Allentown, in PPL's region,
15 mind you, on the SE tariff, streetlights,
16 we were buying energy, energy only, the
17 energy component of the bill, at a half a
18 cent a kilowatt hour. After
19 de-regulation, it jumped to 10.12 cents
20 per kilowatt hour. It's a pretty
21 significant change. So when you discuss
22 the issue of cost avoidance being
23 savings, think about where that's going
24 to go and how you model that
25 appropriately, because that's really an

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2 issue.

3 The other --

4 COUNCILMAN KENNEY: I think on

5 top of that -- and I'm not sure. I think

6 the Streets Department can correct me if

7 I'm wrong, but I do not believe we have

8 meters. I think it's kind of an

9 estimated agreement with PECO as to the

10 number of lights, the power that's needed

11 to power them, but I don't think there's

12 any spinning --

13 MR. WERNSDORFER: There's no

14 meters, no.

15 COUNCILMAN KENNEY: I am

16 correct?

17 MR. WERNSDORFER: Yes.

18 COUNCILMAN KENNEY: There's no

19 spinning meter, so it makes it even a

20 little more subjective. Not subjective,

21 but a little less understandable what's

22 going on.

23 MR. WERNSDORFER: You're

24 absolutely correct, and even though it's

25 un-metered, though, there are models that

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2 you can use to address that issue.

3 The other thing is is that as
4 MSS and our affiliated companies, we
5 operate about 70,000 streetlights in the
6 State of Pennsylvania. We have
7 experience in configuration probably that
8 nobody else has. Utilities typically
9 haven't versed themselves in that,
10 because they just went out and put up
11 lights where people wanted them. We were
12 targeting that as a means of cost
13 avoidance.

14 So our belief is that it makes
15 it -- through configuration, we can make
16 LED economically feasible, and we'd be
17 happy to work with the City of
18 Philadelphia and do that.

19 COUNCILMAN KENNEY: I think in
20 addition to the City of Philadelphia, I
21 think we need to work with PECO, because
22 they would have to -- in any scenario of
23 cost savings, they would have to buy in
24 to the model and to the number that
25 ultimately comes about, because that's

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2 either a negotiation or discussion
3 between the City and PECO now. So what I
4 would like at some point in time, if I
5 can get the Streets Department after
6 their testimony to maybe arrange some
7 kind of meeting or discussion of it with
8 PECO to see whether or not based on the
9 number of streetlights we have in every
10 street in the City, what's that number to
11 run it a year under the current rates,
12 what will it be under the new rates and
13 what would they agree to would be savings
14 in the event that theoretically every one
15 of these lights were replaced with LED.

16 MR. WERNSDORFER: That's
17 correct on a straight calculation basis,
18 but there's also other things you can do
19 in terms of configuration of getting
20 lighting onto the street that allow you
21 to reconfigure how you do that that yield
22 additional cost savings. We know from
23 our experience in doing that that that
24 leads to economic benefit that make LEDs
25 feasible now.

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2 COUNCILMAN KENNEY: Okay.

3 MR. WERNSDORFER: And it's a
4 multiple-part problem, I agree.

5 That said, I think ideally --
6 and I think you just expressed it -- that
7 you put the tools into place to give
8 people those means to do that, you can
9 reach a solution that seems not just
10 equitable, that it seems accurate and
11 that gives you those cost savings, and
12 that becomes a method by which because of
13 the cost of LEDs, you can use your cost
14 savings, your cost avoidance as a means
15 of funding the implementation. And we
16 think we have a model that we can assist
17 you with in doing that.

18 COUNCILMAN KENNEY: Okay.

19 Please identify yourself for
20 the record.

21 MR. NEELY: Edward Neely,
22 Anaconda Enterprises.

23 When Anaconda was originally
24 approached, Councilman Kenney, what our
25 approach was then and still our approach

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2 now is to negotiate a deal with the City
3 to replace the streetlights, and in doing
4 so, if we can get such a portion of the
5 lights that it makes it feasible for
6 everyone, we would be willing to open up
7 an assembly factory here, could possibly
8 be in the Navy Yard, could be one of
9 these type sites where we can reutilize
10 some of that underutilized space, and
11 we're also looking at using ex-offenders,
12 people coming out of incarceration,
13 helping them get back on track and on
14 their feet. We're looking to pay them a
15 very favorable wage and also giving them
16 medical benefits as well.

17 In conjunction with that, we'd
18 also be willing to provide them with
19 training annually in various different
20 fields to help them get their lives back
21 where they need to be so they can help
22 join back into a productive part of
23 society.

24 If the City decided to do a
25 streetlight program with LED, on average

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2 with our fixture, you're looking at
3 reducing your street lighting carbon
4 emissions footprint by about 60 percent.
5 That's a major reduction in your carbon
6 emissions right now. And on top of that,
7 that 60 percent is also based on the
8 power savings that you'd use. So if
9 you're paying \$12 million a year right
10 now for streetlights on power, just on
11 the power side or piece of that alone,
12 you're looking at 60 percent reduction.

13 So this is a win-win for the
14 City and us, we feel, and we feel like we
15 can all get together and make a program
16 that would work for the City as well as
17 for us to make this happen.

18 COUNCILMAN KENNEY: Is it your
19 contention as the company who
20 manufactures that there is enough
21 patented items that -- who would be a
22 comparable competitor?

23 MR. BRUCK: Right now we don't
24 have any comparable competitors that
25 we're aware of, and we're continually

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2 trying to stay ahead of that game. We
3 have on just this one fixture, we have
4 four patents right now.

5 COUNCILMAN KENNEY: And what
6 you had testified earlier to is that the
7 other LED-producing companies or
8 manufacturing companies don't have --
9 that it's not the same technology?

10 MR. BRUCK: It is not the same.
11 It's the same LEDs. It's in how we
12 package those LEDs and how we apply those
13 LEDs that is different in this case.
14 From the optic side to the thermal
15 management, even the mechanics, we've
16 done -- again, we started from the LED
17 and taken the physics of what's given us
18 and worked outward to come up with this
19 light that we feel is superior to
20 everyone that's out there right now.

21 COUNCILMAN KENNEY:
22 Councilwoman Brown.

23 COUNCILWOMAN BROWN: I'm struck
24 by your knowledge base of this, so tell
25 us a little bit about your background.

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2 MR. BRUCK: My background is
3 basically 25 years in electronics
4 manufacturing and design. There have
5 been other people helped with the design,
6 other engineers. We've got some back-up
7 people right now, but my background
8 specifically is in electrical
9 engineering, design and manufacturing.

10 COUNCILWOMAN BROWN: Thank you.

11 COUNCILMAN KENNEY: Thank you
12 very much for your testimony. I would
13 like you to please stay by so that if
14 something is raised during the
15 Administration's testimony, that we could
16 have a discussion about it before we
17 leave.

18 MR. BRUCK: Sure.

19 COUNCILMAN KENNEY: Thank you.

20 MR. NEELY: You want us here?

21 COUNCILMAN KENNEY: You can
22 just spread out in these chairs here.

23 Mr. Doyle.

24 Right now we've had
25 Mr. Wernsdorfer, Mr. Bruck, Mr. Neely.

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2 Is there a Mr. Masur here?

3 (No response.)

4 COUNCILMAN KENNEY: Okay.

5 (Witnesses approached witness
6 table.)

7 COUNCILMAN KENNEY: Please.

8 Commissioner, I'm sorry. I didn't
9 realize you were testifying. I just had
10 Mr. Doyle's name.

11 Good afternoon. Please
12 identify yourself.

13 COMMISSIONER TOLSON: Good
14 afternoon. Clarena Tolson, Commissioner
15 of the Streets Department. Councilman, I
16 know that you did not know I was going to
17 be here today.

18 COUNCILMAN KENNEY: Nice to see
19 you, though.

20 COMMISSIONER TOLSON: But given
21 the importance of this issue, I felt it
22 was important to be here along with
23 Joseph Doyle, who is more than competent
24 to handle this, as he's a street lighting
25 engineer for a number of years and now

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2 also our Chief Traffic and Street
3 Lighting Engineer.

4 This issue in terms of
5 innovation is important to the Streets
6 Department. As you know, we have used
7 LED technology for a number of years in
8 our traffic signals, and we've been in
9 the process of converting or just began
10 the conversion of all of our red, yellow
11 and green in our traffic signals. So we
12 find that staying ahead of or with
13 technology is important, not only to our
14 budget but also to our environment.
15 Technology is critical and key to all
16 that we do.

17 I would say that relative to
18 LEDs for streetlights, over the last two
19 years we've probably met with a handful
20 of firms, approximately a half a dozen of
21 firms, to discuss their technology. This
22 is ever-evolving technology, and we
23 certainly would look forward to the
24 opportunity to meet with IntenCity as
25 well. We have not met with them to date,

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2 but we'd love to meet with them as well
3 to discuss their approach and some of the
4 assumptions that they made within their
5 documentation.

6 Joseph Doyle is going to offer
7 some testimony that probably will delve
8 into more of the technical aspects of
9 some of the issues that are at hand, but
10 we both remain here to answer any
11 questions that you may have.

12 You did offer in your earlier
13 commentary about doing a pilot with
14 IntenCity. We are presently doing a
15 pilot with one company, but we would be
16 more than happy to pilot, do some work
17 with IntenCity as well.

18 This is a very competitive
19 arena, and to the extent that they'd be
20 willing to donate any equipment so that
21 we can test it in the field and work with
22 them on performance and any other issues,
23 we will gladly do that.

24 Thank you.

25 COUNCILMAN KENNEY: Thank you.

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2 Please identify yourself for
3 the record.

4 MR. DOYLE: Joseph M. Doyle,
5 Chief Street Lighting and Traffic
6 Engineer.

7 Councilman, I have some
8 prepared testimony, if I can just read
9 that into the record.

10 COUNCILMAN KENNEY: Please.
11 Thank you.

12 MR. DOYLE: Good afternoon.
13 I'm Joseph M. Doyle, Chief Traffic and
14 Street Lighting Engineer for the
15 Philadelphia Streets Department.

16 The Philadelphia Streets
17 Department owns and maintains
18 approximately 108,000 street and alley
19 lights that currently use high-pressure
20 sodium fixtures. Currently, the City
21 pays approximately \$15 million to operate
22 the street lighting system each year.

23 The development of LED
24 technology has steadily progressed from
25 residential lighting to commercial and

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2 industrial lighting equipment and has now
3 reached the point where roadway lighting
4 illumination has become practical. The
5 marketplace is currently inundated with
6 new products from old and new
7 manufacturers aimed at the municipal and
8 utility owners of street lighting. Each
9 product must be evaluated on its own
10 merits of efficiency and illumination
11 characteristics when being considered for
12 use in street lighting. It is our
13 opinion that this is a promising
14 technology, but still nevertheless still
15 in its infancy.

16 The Streets Department is
17 actively monitoring the development of
18 LED streetlights. We have met with over
19 a half dozen vendors and have even
20 installed several LED fixtures that were
21 provided by a vendor free of charge to
22 test their performance. These devices
23 are located just outside of the windows
24 of City Council Chambers.

25 Several factors work against

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2 the economic merits of using LED
3 streetlights in Philadelphia at the
4 present time. First, the initial cost of
5 purchasing new LED luminaires is
6 relatively high when compared to our
7 current high-pressure sodium system.
8 Second, the expected useful life of LED
9 luminaires is roughly half of a standard
10 HPS luminaire at this time. Third, the
11 normal range of energy reduction for LEDs
12 tends to be in the 25 to 50 percent range
13 of an equivalent HPS fixture. However, a
14 50 percent reduction in consumption does
15 not equal a 50 percent reduction in
16 energy cost under the City's current rate
17 structure. Presently, PECO rates include
18 a fixed connection charge that is not
19 subject to a reduction if energy
20 consumption is reduced.

21 The Streets Department
22 continues to analyze the possibility of
23 migrating to an LED streetlight system.
24 When considering costs, we must consider
25 not only power cost savings but capital

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2 costs, maintenance costs and the loss of
3 value if we migrate to a new system
4 before the existing system reaches the
5 end of its useful life. Under various
6 swap-out scenarios, the annualized costs
7 for the total of power, maintenance and
8 capital would be on the order of several
9 million dollars more per year than the
10 City currently pays.

11 There are several key variables
12 that may change as the technology evolves
13 and matures. Certain changes could make
14 the economics work for the City of
15 Philadelphia. These include the cost of
16 or useful life of the LED luminaires and
17 our electricity rate structure.

18 In summary, the Streets
19 Department is open to considering new
20 technology for street lighting and we are
21 monitoring these issues. However, we
22 would like to see the industry mature
23 before we make significant investments
24 that will likely be in the tens of
25 millions of dollars. A recent article in

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2 the magazine of the Illuminating
3 Engineering Society, entitled "Lessons
4 from the Field," by James Broderick,
5 Program Manager for the U.S. Department
6 of Energy's Building Technologies
7 Program, reinforces our conclusion. In
8 this article, Mr. Broderick concludes his
9 review of potential LEDs for street
10 lighting with the following quote:
11 "Three U.S. Department of Energy gateway
12 installations, one of which was for
13 street lighting, illustrate that a
14 go-slow approach with LEDs still makes
15 the most sense."

16 Thank you for your time and
17 opportunity to testify. I would be happy
18 to take any questions that you may have
19 now.

20 COUNCILMAN KENNEY: Thank you
21 very much.

22 It seems in a couple areas
23 there seems to be a real disagreement
24 relative to your view of the lifespan of
25 an LED light and what's been testified to

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2 already, because they're polar opposites.

3 The folks that have testified today

4 relative to their product contend that

5 the LED lasts longer than the current

6 fixtures, and you're saying in your

7 testimony it lasts for half the life.

8 MR. DOYLE: I think what

9 happens, Councilman, I think our

10 agreement on the life expectancy of the

11 LED is somewhat similar. Where we

12 disagree on is the life of the current

13 system. Our current lamps that we are

14 purchasing for use in our streetlights

15 have a rated life of 40,000 hours.

16 COUNCILMAN KENNEY:

17 High-pressure sodium?

18 MR. DOYLE: High-pressure

19 sodium. They're using a number much less

20 than that, and I think that's where the

21 disagreement occurs.

22 COUNCILMAN KENNEY: A number

23 much less than what?

24 MR. DOYLE: The 40,000 hour

25 lamp that the industry is now

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2 manufacturing provides an obviously much
3 longer life expectancy than I think was
4 possibly used in their analysis.

5 COUNCILMAN KENNEY: So there's
6 a disagreement there on how they compare?

7 MR. DOYLE: Yes.

8 COUNCILMAN KENNEY: Why would
9 the City ever -- and you didn't enter
10 into this agreement, so I'm asking it
11 rhetorically. Why would the City ever
12 enter into an agreement with PECO that
13 said that if we reduce our energy
14 consumption, we don't realize the
15 savings?

16 MR. DOYLE: Well --

17 COUNCILMAN KENNEY: It doesn't
18 make sense.

19 MR. DOYLE: Let me explain
20 than, Councilman. The rate structure
21 that we're presently using has been
22 approved by the Public Utility
23 Commission. It's a longstanding system
24 of rates and tariffs, as you know. The
25 connection fees that the utility charges

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2 us are significant. The energy costs are
3 relatively low. As long as we have the
4 same number of streetlights, in the range
5 of 100,000, we are still going to pay a
6 connection fee to PECO regardless of the
7 energy consumption.

8 COUNCILMAN KENNEY: So of the
9 \$15 million it costs to power the system,
10 what percentage are connection charges
11 and what percentage is energy?

12 MR. DOYLE: It's in the ball
13 park of about two-thirds is the cost for
14 connection fees and one-third is for the
15 cost of energy. And that's where the
16 savings do not accumulate as
17 significantly as if it was all energy
18 charges.

19 COUNCILMAN KENNEY: Again --
20 and you might not have the answer to
21 this -- historically why would we
22 negotiate a deal with PECO that requires
23 two-thirds of our costs go to a
24 connection fee and one-third go to energy
25 consumption?

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2 MR. DOYLE: Well, Councilman,
3 it's not a negotiation, I mean, in a
4 sense that these rates are approved and
5 have been promulgated by the Public
6 Utility Commission for use for both the
7 City streetlight system and for other
8 streetlight systems.

9 COUNCILMAN KENNEY: For how
10 long?

11 MR. DOYLE: The current rate
12 structure has been in place since the
13 '90s and then preceding that back
14 decades.

15 COUNCILMAN KENNEY: So, again,
16 rhetorically, are we bound by this
17 forever? I mean, if we're bound by this
18 structure for the next ten years, there's
19 no incentive to reduce energy costs.

20 MR. DOYLE: First of all,
21 Councilman, these rates are consistent
22 across the board for all street lighting
23 systems both in the City and outside the
24 City. This is an issue that we have been
25 raising in our conversations with PECO

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2 with the rate changes when the rate caps
3 come off next year. I know our Law
4 Department and others within the
5 Administration are trying to find a
6 better way to reduce this imbalance of
7 cost, but for the present time, that's
8 the system under which we are operating.

9 COUNCILMAN KENNEY: But
10 testimony has been today that in other
11 cities where things are moving forward,
12 there's an 18-month period of RFQ, RFP,
13 selection, negotiation. So in that
14 timeframe, the energy rates are going to
15 change. Isn't this the opportune time to
16 have something ready to go or have at
17 least two or three, four vendors ready to
18 go with a new construct while these new
19 rates are being determined?

20 I mean, to me it makes no sense
21 to have a structure -- and, again, this
22 is a PUC structure, it's not your
23 structure -- that says regardless of what
24 you save in energy, you're still going to
25 pay these fixed costs. There's no

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2 incentive to reduce consumption, to
3 reduce carbon footprint and to reduce
4 costs to the taxpayer.

5 COMMISSIONER TOLSON:

6 Councilman, I think we would agree with
7 you, and it is our intention to intervene
8 with the PUC relative to this rate case
9 and the changes that are going to be
10 coming about. The rates that are set by
11 the PUC impact, as Joe was saying, the
12 entire state. They're not individually
13 negotiated for Philadelphia or some other
14 community or some other business. So we
15 are living within a rate structure that
16 is determined for us.

17 We do agree with you that given
18 the present structure, it does challenge
19 us with regard to an incentive to do
20 something differently with our system.
21 However, that has not been the thing that
22 incents us. Our incentive has been to be
23 prepared for whatever may come along
24 relative to rates or otherwise and also
25 environmental stewardship. So even

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2 absent, say, a rate benefit, we are
3 trying to do the right thing with regard
4 to the system. Other things that impact
5 our decision-making are not just the
6 rates, but also the useful life of the
7 system that we have in place.

8 COUNCILMAN KENNEY: What's the
9 oldest -- I don't know how you divide up
10 your districts from a street lighting
11 perspective, but what's the oldest set of
12 equipment that's out there now in a
13 particular designated area?

14 MR. DOYLE: In time?

15 COUNCILMAN KENNEY: Do we do it
16 in locations or are they interspersed?
17 There's old ones and new ones and not so
18 old ones?

19 COMMISSIONER TOLSON: It does
20 move around the entire City, but I think
21 the oldest we have --

22 MR. DOYLE: It's about 15 years
23 old now.

24 COUNCILMAN KENNEY: And what's
25 the life?

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2 MR. DOYLE: Approximately 25.

3 COUNCILMAN KENNEY: So the
4 oldest is 15. And what percentage of our
5 stock is, if you know -- if you don't
6 know, you can get back to us. What
7 percentage of that stock is 15 years old
8 based on the 108,000?

9 MR. DOYLE: I would say about
10 15 to 20 percent.

11 COUNCILMAN KENNEY: So you
12 could potentially do this in a phased
13 effort.

14 MR. DOYLE: Yes.

15 COUNCILMAN KENNEY: Plus not
16 taking into account -- not at this point
17 taking into account all the other
18 benefits to having an LED system in more
19 safety and more light direction and the
20 ability to light up areas from a public
21 safety standpoint.

22 MR. DOYLE: Yes.

23 COUNCILMAN KENNEY: So that's a
24 subjective issue that you can't really
25 put a number, a financial number, on.

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2 MR. DOYLE: Correct.

3 COUNCILMAN KENNEY: Would it
4 make --

5 COMMISSIONER TOLSON: Into the
6 capital costs that go along with it.

7 COUNCILMAN KENNEY: Right. But
8 my point is, in the next year while we're
9 having this discussion, intervening,
10 doing whatever we're doing, PUC, PECO, if
11 we were to be able to get a construct
12 that allowed us to take advantage of
13 energy cost savings, to be able to
14 utilize that energy cost savings to
15 capitalize that money to buy the new
16 lights and it was not this tens of
17 millions of dollars in capital up-front
18 costs, would that be something that's
19 appealable or appealing to the
20 Department?

21 COMMISSIONER TOLSON: I think
22 we are certainly looking forward to all
23 opportunities. So, yes, we would gladly
24 look at all of our options. But just to
25 be clear, I'm not sure about the exact

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2 cost of this fixture per se, but in our
3 system of 100,000 lights -- it's in
4 excess of 100,000 lights -- if you're
5 talking about a capital cost of \$800 to
6 \$1,000, we're now talking about \$80 to
7 \$100 million in our capital costs.

8 COUNCILMAN KENNEY: But my
9 point is, hypothetically, if the rate
10 structure allows for the benefit of
11 energy cost savings and that money could
12 be dedicated to be capitalized to buy the
13 lights, it wouldn't be the out-of-whack
14 capital expenditures that you anticipate.

15 COMMISSIONER TOLSON: As long
16 as the payback --

17 COUNCILMAN KENNEY: If we had a
18 \$4 million, \$5 million energy savings
19 that we can't take advantage of now, only
20 a third of it, but if we could take
21 advantage of the energy savings and that
22 4, 5 million can be capitalized annually
23 to purchase the lights we need, without
24 having to go into the --

25 MR. DOYLE: Councilman, one

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2 thing when you're running the numbers,
3 when you're talking about the full amount
4 of 4 to 5 million, that's if the entire
5 system has been converted over.

6 COUNCILMAN KENNEY: Correct.

7 MR. DOYLE: So obviously in any
8 kind of staged implementation, there's
9 going to be a much smaller initial
10 savings to therefore capitalize on.

11 COUNCILMAN KENNEY: Unless the
12 City determines it's appropriate to put
13 more capital money up front, a \$5 million
14 capital expenditure to start, and then
15 reap the benefits of the energy savings
16 going forward. That's something -- I
17 mean, I don't expect 108,000 lights to be
18 turned over in one year. I mean, the
19 manufacturing of it is impossible to
20 begin with. This probably has to be a
21 five to seven, if it happened, a five- to
22 seven-year kind of roll-out, I would
23 think. And I was wondering, and I'm
24 wondering out loud, whether PECO would be
25 even interested in potentially, because

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2 of their energy -- their environmental
3 concerns and environmental activities, to
4 partner somehow with this whole thing.

5 So before I recognize
6 Councilman Jones, what I would like to
7 see is not an RFP but how about an RFQ
8 that just goes out based -- anyone can
9 respond, based on what we anticipate, on
10 what the responders anticipate happening
11 in the rate changes and what's going on
12 in the next year. I'd be interested to
13 see what people have to say or what they
14 think.

15 I can't see just being married
16 to this high-pressure sodium forever,
17 because -- for whatever reason. I think
18 we need to look at changing the way in
19 which we look at street lighting and in
20 energy use, and we're never going to
21 change it if we don't change it or don't
22 look to see whether it's changeable.

23 COMMISSIONER TOLSON:
24 Councilman, I think that we agree with
25 you in the concept. What we've been

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2 challenged with so far, what the vendors
3 have been challenged so far is just
4 working out the costing, because the
5 high-pressure sodium system, the change
6 to LED is not so dramatic.

7 COUNCILMAN KENNEY: In what
8 way?

9 COMMISSIONER TOLSON: In terms
10 of the advancement in technology, in
11 terms of the benefit. The decrease in
12 life expectancy, in turn the energy
13 savings, all that together is not so
14 dramatic, which is why we've been
15 challenged so far, which is why we
16 suggested that maybe this is still in its
17 infancy and it's going to evolve more.

18 We're with it. We're going to
19 continue to evaluate that as it comes
20 along, because we are not married to
21 high-pressure sodium.

22 COUNCILMAN KENNEY: I don't
23 mean this as a criticism to the
24 Department, because I think you guys do a
25 good job, but the problem with

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2 Philadelphia, in my experience in the 50
3 years or so I've been living here, is we
4 never get up front on the infancy. We're
5 always trying -- I mean, the stuff that
6 we're dealing with now in environmental
7 concerns and environmental issues, cities
8 have been doing for 25 and 30 years. I
9 mean, we just started five, six years ago
10 in dealing with our environment. I mean,
11 rather than wait -- we tend to wait and
12 see what's going to happen 15, 20 years
13 from now than getting in on the ground
14 floor and being a model as opposed to
15 being reactive to it. That's my -- I
16 don't mean it specifically in this area,
17 but in lots of areas. We just wait ten,
18 15, 20 years that cities have been doing
19 things and now all the sudden we're going
20 to get on board. I'd rather try to get
21 at the forefront of something than --
22 because we'd probably be one of the major
23 cities -- only major city in the country
24 moving -- not moving -- not thinking
25 about it, but actually moving in that

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2 direction, unless there's some other city
3 that's way ahead of where we are now in
4 the discussion.

5 COMMISSIONER TOLSON: I think
6 that you have heard that there aren't
7 other cities that are doing it as yet,
8 and there may be a reason for that,
9 Councilman. It's just not quite there
10 yet for this application. I think that
11 some applications that are smaller in
12 scale, they're great and I think at some
13 point it's going to be ready for the
14 curbside, but it's just not there yet.

15 COUNCILMAN KENNEY: Plus the
16 other issue that I think is very
17 important to look in a forward-thinking
18 way is creating manufacturing
19 opportunities for our residents, which
20 don't come around all the time, and I
21 don't know of any other companies you're
22 talking to that are making the offer to
23 manufacture the items here in the City,
24 which is something that doesn't happen
25 all the time. So I would ask you to

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2 think about that, take that into
3 consideration, and really not just wait
4 to see what happens, but maybe we can be
5 more proactive in seeing how we get
6 there.

7 COMMISSIONER TOLSON: We can
8 certainly do that, Councilman.

9 MR. DOYLE: Also, Councilman,
10 the Department of Energy does have an
11 extensive testing program in place for
12 LED street lighting, and that information
13 is kind of feeding back into the industry
14 as well, and there's a lot to be learned
15 from that. And so there are clearly
16 other cities and test sites going on
17 where information is already being
18 gathered, and we can utilize that in our
19 planning as well.

20 COUNCILMAN KENNEY: And you're
21 willing to make a test site -- allow the
22 City to be a test site for this
23 particular product?

24 MR. DOYLE: Given certain
25 considerations in it, yes. The material

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2 being donated to the City would then
3 allow us to do that.

4 COUNCILMAN KENNEY: Okay.
5 Councilman Jones.

6 COUNCILMAN JONES: First of
7 all, thank you for bringing this
8 illumination to Council. I think it's
9 important, because as we start to cite
10 energy costs as a factor in our
11 budgeting, \$15 million worth of street
12 lighting juxtaposing about 1,500 PECO
13 accounts, which equates to about \$64
14 million we spend annually with PECO as a
15 municipality, it doesn't take a CPA to
16 understand it starts adding up, and if we
17 don't start the process of evaluation,
18 selection and then replacement -- the
19 sooner we get started, the sooner we
20 start to save. Even if it's ten percent,
21 even if the estimates are off, even if
22 it's ten percent, that's a chunk of
23 change that keeps a recreation center
24 open.

25 The other thing that I will

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2 agree with the Chairman about is, we
3 cannot be afraid to kind of look and
4 make -- we can be ahead of New York on
5 some things, God forbid, or LA or other
6 major municipalities and come up with
7 innovations.

8 Where do we currently get our
9 streetlights from?

10 MR. DOYLE: We purchase them
11 at -- the Cobra fixtures, that's the
12 standard streetlight in Philadelphia, is
13 purchased from GE Lighting Systems.

14 COUNCILMAN JONES: And so
15 locally?

16 MR. DOYLE: Where are they
17 located?

18 COUNCILMAN JONES: No. Is the
19 GE a locally based GE?

20 MR. DOYLE: Well, the --

21 COUNCILMAN JONES: We have a GE
22 headquarters who used to be at 30th
23 Street.

24 MR. DOYLE: They're located in
25 North Carolina. The factory that

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2 manufactures -- they have one factory in
3 the United States and it's located in
4 North Carolina.

5 COUNCILMAN JONES: That's not
6 quite Philadelphia, nor the 4th District,
7 but okay. My point being that it's
8 important that we try to use our
9 procurement prowess, power, purchasing
10 power, to stimulate local
11 entrepreneurship and create jobs here,
12 which is a powerful incentive for me. So
13 any demonstration, any beta testing that
14 we can do now to start this process --
15 and I trust you to determine what is the
16 best product, but I do remember when PECO
17 came in here and told us that these 583
18 bulbs here would last ten years, I think
19 we have at least half a dozen or so that
20 are out now, and it's not been ten years.

21 COUNCILMAN KENNEY: I assume
22 they're under warranty, too. Some of
23 them just don't function, may be a
24 defect.

25 COUNCILMAN JONES: But the

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2 point is that you're going to have this
3 kind of beta testing process, and I think
4 the sooner we start, the better, and why
5 not be first as opposed to last as a
6 municipality.

7 COUNCILMAN KENNEY: Just one
8 question about the Cobra lights. What's
9 the length of the contract? Is there a
10 lifespan of that contract?

11 MR. DOYLE: Well, we currently
12 have the -- it's a one-year contract
13 renewable for three years, and I think
14 currently it's about halfway through the
15 time period.

16 COUNCILMAN KENNEY: How old is
17 the contract overall? Not the current
18 term of the contract. Was this a
19 renewal?

20 MR. DOYLE: We've been --

21 COUNCILMAN KENNEY: Because
22 I've seen these lights on the poles
23 forever.

24 MR. DOYLE: Right.

25 COUNCILMAN KENNEY: It's a

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2 one-year contract with three year

3 options.

4 MR. DOYLE: The Procurement

5 Department bids this on a four-year

6 cycle. It's gone back several cycles

7 that -- we've been purchasing GE

8 equipment for the past 15 years.

9 COUNCILMAN KENNEY: Do we ever

10 put it out for bid again?

11 MR. DOYLE: It's rebid every --

12 COUNCILMAN KENNEY: So it's

13 not -- okay. So it's a one-year contract

14 with three one-year options?

15 MR. DOYLE: Right.

16 COUNCILMAN KENNEY: And then a

17 rebid?

18 MR. DOYLE: Yes.

19 COUNCILMAN KENNEY: And they've

20 won the bid?

21 MR. DOYLE: Every --

22 COUNCILMAN KENNEY: Has anyone

23 else bid?

24 MR. DOYLE: There's other

25 vendors who have bid. Procurement

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2 actually runs the process, so we'd have
3 to check with them exactly to see who the
4 alternative bidders have been. But it's
5 bid through a local supply house, so it's
6 not bid directly from GE. The current
7 contract is actually with Rumsey
8 Electric, who provides the material.

9 COUNCILMAN KENNEY:
10 Councilwoman Brown.

11 COUNCILWOMAN BROWN: What is
12 your interface with the Department of
13 Sustainability? And I guess the broader
14 question is, what is the Mayor's
15 practice, if you will, for department
16 heads to interface with the Department of
17 Sustainability as it relates to keeping
18 up with technology?

19 COMMISSIONER TOLSON: We work
20 hand in glove.

21 COUNCILWOMAN BROWN: So in the
22 early part of your testimony you talked
23 about how the Department does just that,
24 try to stay ahead of or keep up with
25 technology as it relates to the

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2 efficiencies in your department?

3 COMMISSIONER TOLSON: That's
4 correct, Councilwoman.

5 COUNCILWOMAN BROWN: Provide a
6 couple of recent examples where as a
7 result of your involvement with the
8 Office of Sustainability, there have been
9 clear management changes in efficiencies
10 in the Streets Department.

11 COMMISSIONER TOLSON: Surely.
12 One big example is happening right now.
13 We're going to have a fairly significant
14 event around it. Is a conversion of our
15 traffic signals to LED. Some years ago
16 the Streets Department on the front end
17 of technology but saw that it was going
18 to be doable and successful converted
19 reds to LED. In the intervening years,
20 we were unable to convert the balance.
21 Through work with the Office of
22 Sustainability, their support with
23 securing a grant and also a leadership in
24 insight in terms of helping us press the
25 issue, we're able to secure support to

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2 get the greens and yellows converted as
3 well as the reds to LEDs.

4 COUNCILWOMAN BROWN: By

5 "support," you mean financial support?

6 COMMISSIONER TOLSON: Financial
7 support.

8 COUNCILWOMAN BROWN: Through
9 grants that that office wrote, that the
10 Office of Sustainability wrote?

11 COMMISSIONER TOLSON: Yes.
12 They helped us secure that, yes.

13 COUNCILWOMAN BROWN: To better
14 the efficiencies in your department?

15 COMMISSIONER TOLSON: Yes.

16 COUNCILWOMAN BROWN: So a model
17 already exists. So fast forward to the
18 discussion that we're having here today.
19 Has your office and the Office of
20 Sustainability looked at how eventually
21 the capital improvement can or should be
22 made to modernize our streetlights?

23 COMMISSIONER TOLSON: I think
24 that what's happening now is that we're
25 staying on top of the LED streetlight

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2 issue. As I mentioned, it even predates
3 the Sustainability Office, but even now
4 we developed a close relationship in
5 working on the LEDs for the traffic
6 signals. But we stay on top of this
7 issue, but because of our present rate
8 structure, we know what that is and we
9 offer some advice to potential vendors
10 about how things could work with that.
11 But even still, with our future rates, as
12 the Councilman noted, we don't know what
13 that's going to be, and neither do our
14 vendors. We could make some assumptions
15 and build models around that, but there
16 is some risk we're trying to build
17 assumptions around that, but it's just
18 understanding in our environment how can
19 we make it work. We presently have a tap
20 that clarifies some of the numbers. The
21 utility costs are about 13 million total
22 per year for utility costs. Of that, ten
23 to 11 is what we call the tap, the
24 connection fee, and the balance is actual
25 electric usage.

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2 COUNCILWOMAN BROWN: I see.

3 COMMISSIONER TOLSON: So we've
4 done some innovative things to try to
5 reduce our tap costs, but we are working
6 with what we are working with, and so is
7 every other municipality. We're working
8 in -- we use our energy in off-peak hours
9 and we are currently negotiating what we
10 are going to be paying for future energy.
11 We're looking for what we're going to pay
12 for our energy uses in the future.

13 COUNCILMAN KENNEY: I'm sorry.
14 Negotiating with who?

15 COMMISSIONER TOLSON: We're
16 negotiating with potentially other
17 vendors.

18 COUNCILMAN KENNEY: Other
19 vendors of electricity?

20 COMMISSIONER TOLSON: Yes.

21 COUNCILMAN KENNEY: How many
22 are there?

23 COMMISSIONER TOLSON: I don't
24 know that answer. I can get it for you.
25 What the world looks like, I don't know

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2 what the world looks like, but I can find
3 that out for you.

4 And as I mentioned earlier, we
5 do intend to intervene on the rate case.
6 So we are trying to do what we can in
7 terms of the structure, and then also
8 trying to be innovative and just staying
9 out front. Our concern whenever we build
10 any system is to try to build it so that
11 it can be successful. We do test some
12 things, but we don't like to test things
13 if we know that there's significant
14 amount of risk. It may be profitable for
15 a business, but it may not be profitable
16 for the City.

17 COUNCILWOMAN BROWN: Sure.

18 COMMISSIONER TOLSON: So we
19 just try to get a little bit more
20 assurance about where the technology is
21 going and whether it's going to work, and
22 right now this infrastructure is fairly
23 expensive for what we may be getting.
24 This is not a switch-out of a bulb. They
25 used the example this is not a bulb

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2 replacement. It is not. There was some
3 comment that this is a proprietary system
4 or parts of it were proprietary, which
5 means that you can only buy it from one
6 place. You can't bid it like we bid
7 right now for a Cobra head with various
8 people.

9 COUNCILMAN KENNEY: But there's
10 a downside of being able to bid it also,
11 because you can't negotiate it. If it's
12 sole source, you can negotiate it at
13 least and get other benefits from it.

14 The fear I have based on their
15 testimony and what you know about the
16 technology is that particular system may
17 be LED and if you compare it to three or
18 four other LED systems, they may not all
19 be apples and apples.

20 COMMISSIONER TOLSON: That's
21 correct.

22 COUNCILMAN KENNEY: It might be
23 apples and peaches, but the problem is is
24 that then where does -- the argument then
25 comes, is it in fact sole source.

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2 Because if there are six or seven
3 patented bells and whistles on this that
4 don't exist on any other competitor, you
5 could argue -- whether or not the Law
6 Department would agree or we would be
7 sued by some of the other vendors --
8 whether or not that in fact is sole
9 source, if they have a technology that
10 the other companies do not have or employ
11 and can't employ it because they don't
12 have the patent on it.

13 COMMISSIONER TOLSON:

14 Councilman, as I mentioned, I have not
15 met with this company, so I don't know
16 what this offers, but we'd be more than
17 glad to hear that, to understand what is
18 so different about them versus the other
19 competitors in the field.

20 COUNCILWOMAN BROWN: Does your
21 department have -- we are government.
22 We're not major corporations, but it
23 sounds like to me this falls under
24 research and development. So does that
25 exist any place in government or in the

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2 Office of Sustainability? I'm asking. I
3 don't know.

4 COMMISSIONER TOLSON: Our
5 research and development comes about
6 through the knowledge of some of the
7 people that we have in our department.
8 For example, Joe Doyle, who is
9 well-versed technically, research-wise,
10 technically in the field of energy usage,
11 streetlight energy, is well-versed,
12 actually teaches courses in this
13 industry. We have people like that. In
14 traffic we have a guy named Charlie
15 Denny. Similarly, these are -- I call
16 them technicians -- people who are
17 well-knowledged in the field.

18 COUNCILWOMAN BROWN: Sure.

19 COMMISSIONER TOLSON: So we
20 depend on those type of people who are
21 engineers with experience and who know
22 the industry --

23 COUNCILWOMAN BROWN: Sure.

24 COMMISSIONER TOLSON: -- to
25 stay ahead of things. It's my job as the

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2 Commissioner to encourage them to engage
3 new technology, innovation as a forefront
4 of where we want to go as an
5 organization, and that is important to
6 us.

7 COUNCILWOMAN BROWN: Thank you
8 both for your testimony.

9 COUNCILMAN KENNEY: Let me just
10 sum up a little bit relative to the
11 purpose today. I wanted to start this
12 public conversation, which we've done and
13 will continue to do. I would
14 appreciate -- and I know you've offered
15 already to do so. I would appreciate it
16 if you would agree to meet with -- and
17 you have agreed -- to meet with this
18 company to see what's different about
19 this particular product as opposed to the
20 others that you've looked at already.
21 And I also would like you to look at the
22 possibility of doing something with an
23 RFQ that would get responses from
24 companies around the country on what it
25 is -- how they see what's coming, both

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2 from a technological advancement
3 standpoint, from a rate cap removal
4 standpoint, and have them put their best
5 feet forward and see if we can't get at
6 least a database of information to begin
7 to expand the discussion a little bit,
8 because I think an RFP certainly has
9 other implications, but an RFQ is
10 something you can gather information. Of
11 course, the response won't be as in-depth
12 as responding to an RFP or an RFI, but
13 either RFQ or RFI would be an interesting
14 process to see what kind of responses you
15 get based on citywide phase-ins, what
16 they feel they can save in the way of
17 energy costs in the event that we have a
18 different PUC construct. All those
19 things I think would be interesting to
20 start now, because within the next year,
21 two years, 18 months is when everything
22 is going to shift, and I'd rather be
23 prepared -- and I know you are preparing
24 to be prepared, but I would like to see
25 what the private sector responds to in

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2 the way of just an RFI or RFQ.

3 COMMISSIONER TOLSON: Surely.

4 COUNCILMAN KENNEY: Thanks.

5 Is there anything that was put
6 out there in the City Administration's
7 testimony that you'd like to talk about
8 or get back on the record?

9 So, Commissioner and Mr. Doyle,
10 I appreciate your testimony. Again, we
11 want to continue to have this public
12 conversation, but I would like to get
13 them on the record again as to a couple
14 things they may want to respond to so we
15 have a clear record back and forth, not
16 that one assertion is right and one is
17 wrong. I just want to make sure that we
18 have a clear record so we can have a
19 discussion. But thank you for your
20 attendance and your testimony.

21 Gentlemen, if you want to come
22 back.

23 (Witnesses approached witness
24 table.)

25 COUNCILMAN KENNEY: Again, it's

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2 tedious, but please identify yourself for
3 the record again.

4 MR. BRUCK: Mike Bruck with
5 IntenCity Lighting.

6 COUNCILMAN KENNEY: Whoever
7 wants to respond to what was said.

8 MR. BRUCK: The main thing I
9 want to respond to is the lifetime --

10 COUNCILMAN KENNEY: It's easier
11 to respond here. I know you feel rude
12 having your back to them, but the most
13 important person in the room that needs
14 to hear you is right up here.

15 MR. BRUCK: Okay. Is the
16 longevity of LEDs versus the
17 high-pressure sodium. One thing you have
18 to look at is not just the bulb itself,
19 but the system as a whole. The LEDs
20 we've designed are basically more of a
21 system. The LEDs will last 50,000 hours
22 or more, again, designed properly around
23 that with the technology.

24 One thing that wasn't mentioned
25 in this versus high-pressure sodium is

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2 how temperature affects those things
3 versus the LED. Typically very cold
4 winters will shorten the life of an HPS
5 bulb, vibration, those kinds of things.
6 Those go away with LED technology. These
7 things love the cold weather. In fact,
8 the colder it is, the longer they last
9 and the brighter they get.

10 COUNCILMAN KENNEY: We don't
11 like the cold weather. We don't like
12 it --

13 MR. BRUCK: We don't have that
14 problem in Dardanelle, Arkansas.

15 COUNCILMAN KENNEY: Right,
16 Commissioner, we don't like the cold
17 weather, do we, especially when it's got
18 snow in it?

19 We had a bad winter.

20 MR. BRUCK: So there's
21 variables there. Also is a system --
22 again, we're a totally sealed unit as far
23 as the lighting system itself, so we're
24 not getting the dirt and all that. We're
25 not having the degradation of light as

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2 time goes on just due to dirt and fume
3 infiltration into the system.

4 Also, one thing I didn't
5 mention, which is also patented
6 technology, is the photo control in
7 these. Typically a Cobra head photo
8 control is a twist-lock device that just
9 sits on top, and that is one of the main
10 failure points of a Cobra head system
11 today. I don't know how you do it here,
12 but a lot of cities, when they go out to
13 work on a light, they will automatically
14 change that photo control because it's
15 fairly cheap and they know it's going to
16 fail, so they just change it while
17 they're there.

18 Ours is a downward-looking
19 solid-state photo control that is not
20 sitting on top. We don't have the water
21 intrusion problems with that. From a
22 technical standpoint, it looks at a
23 narrow band of infrared light rather than
24 visible light to trigger it, which is a
25 component of sunlight. Therefore, the

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2 light itself does not turn itself back
3 off. So it's looking at a totally
4 different component of sunlight than
5 we're emitting. And being as part of
6 this sealed unit, we don't have bird
7 problems, dirt problems, again, water
8 intrusion, those kinds of things.

9 COUNCILMAN KENNEY: How about
10 bullet problems?

11 MR. BRUCK: We have tested
12 that.

13 COUNCILMAN KENNEY: Well, it's
14 an issue, sad to say.

15 MR. BRUCK: It's going to be.
16 It depends on the size and velocity of
17 the bullet.

18 COUNCILMAN KENNEY: Okay.

19 MR. BRUCK: Basically. BB
20 guns, no problem. It will withstand it
21 without a problem at all. Twenty-two's
22 most likely will withstand. You go up
23 above that and it's going to be where you
24 hit it kind of thing.

25 COUNCILMAN KENNEY: Right. I

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2 understand.

3 MR. BRUCK: Vibration, with
4 this being all solid state, is not an
5 issue at all.

6 COUNCILMAN KENNEY: Okay.
7 Anything else you want to add just to
8 finish up or are there any other items
9 that you want to touch on that were
10 touched on by the Streets Department?

11 MR. NEELY: One of the issues
12 that we'd like to talk about is in the
13 documentation that we prepared for you,
14 we did some comparisons. Those are based
15 off of assumptions that we had off of
16 very limited documents just to get this
17 whole thing going. So those numbers we
18 can sharpen up as we move into further
19 discussion and have more access to that
20 information.

21 The other side of it is that
22 the biggest thing that we have to all
23 remember here is that we're talking about
24 apples and oranges. It couldn't be more
25 different than the two technologies.

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2 They're all meant to do the same job.

3 The technologies are incredibly night and
4 day different. The benefits of each are
5 great. Some are greater than others, and
6 the LED is definitely the way that we are
7 moving forward. I've worked personally
8 with PP&L over the last three and a half
9 years to get them to commit to a rate
10 structure that allowed for LED lighting
11 to their municipalities. That was just
12 filed on March 31st with the PUC. The
13 PUC had no problems with it. The rate
14 case itself did go back, not relevant to
15 the LED portion, but the rate case itself
16 did go back for further discussion, and
17 July 1, I believe, is the next vote date
18 on that. January of the following year
19 would be the --

20 COUNCILMAN KENNEY: I was not
21 aware until the testimony of the Streets
22 Department that two-thirds of the \$15
23 million is the privilege of plugging into
24 the system. So, I mean, again, that's
25 something maybe I don't know if you knew

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2 in your calculations on energy savings,
3 which again cuts it down to a third right
4 now. It doesn't mean that won't change.
5 With the PP&L one, was that a similar
6 situation?

7 MR. NEELY: With PP&L, they --

8 COUNCILMAN KENNEY: Where they
9 weren't giving the municipality credit
10 for energy savings?

11 MR. NEELY: PP&L's agreement
12 with their municipalities by sound of the
13 testimony today -- and I haven't looked
14 at your agreement with PECO, but PP&L's
15 agreement is quite a bit different than
16 that scenario. If you don't mind, I'd
17 like to let Peter answer that. He's a
18 little more versed in that.

19 COUNCILMAN KENNEY: Sure.

20 Please identify yourself.

21 MR. WERNSDORFER: Right,
22 restate my name. Peter Wernsdorfer,
23 Municipal Streetlight Services.

24 There were a couple of things,
25 Councilman Kenney, if I can go back to

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2 it. One of the things I brought up is
3 this issue of configuration. What's
4 germane to the discussion is that while
5 there may be 108,000 area lights inside
6 the City, I don't think anybody is
7 advocating replacing every one of them.
8 I mean, there's some applications where
9 LEDs aren't going to be applicable, and I
10 don't think anybody is thinking about
11 that. But the issue of configuration
12 comes to mind, because specifically
13 because of the -- and, yes, I was aware
14 of that. That's one of the reasons we
15 ran our model the way we did. We work in
16 a number of the different utility
17 territories in the state and we're quite
18 familiar with how the utility companies
19 approach it. So the issue of
20 configuration leads you to the point
21 where you can use appropriate lighting to
22 use the cost of removing fixtures. Just
23 say you took 10,000 -- you have 108,000.
24 Say you took 10,000 of them and you had
25 \$7 a month. Right there you're saving --

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2 that leads you to some serious capital to
3 put into LED. And when I said it yields
4 immediate results, that's specifically
5 what I was trying to address.

6 COUNCILMAN KENNEY: Okay.

7 MR. WERNSDORFER: So I
8 appreciate the chance to just clarify
9 that for the record.

10 COUNCILMAN KENNEY: So your
11 testimony was with knowledge of the
12 current rate structure?

13 MR. WERNSDORFER: Yes, sir.
14 Oh, absolutely, yes.

15 COUNCILMAN KENNEY: Well --

16 MR. WERNSDORFER: And -- I'm
17 sorry, not to interrupt, but we do look
18 forward to having the discussions with
19 the Commissioner and Mr. Doyle to move
20 that forward.

21 COUNCILMAN KENNEY: The two
22 things --

23 MR. WERNSDORFER: A lot of
24 information to be exchanged.

25 COUNCILMAN KENNEY: I guess the

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2 two things I would ask you guys to do --
3 and you've heard this, but just formally,
4 is to again meet with them and also try
5 to determine what is the best kind of
6 demonstration street that you could help
7 us with in taking a look at.

8 MR. WERNSDORFER: Absolutely.

9 COUNCILMAN KENNEY: And you're
10 willing to do that?

11 MR. NEELY: Yes. We'd like to
12 look at some of your worst-case scenarios
13 actually and see what we can do to make
14 those. If we can make your worst-case
15 scenarios much better, then we're very
16 confident --

17 COUNCILMAN KENNEY: I think
18 we'll have to bring the Police Department
19 in for some advice on that one. So that
20 might be helpful if they could give us an
21 idea of what their needs are, too.

22 So that's an agreement, and
23 then we can move forward from here and
24 hopefully we can have either another
25 hearing or some other discussions on

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2 this.

3 MR. NEELY: Absolutely.

4 COUNCILMAN KENNEY: Is there
5 anyone else to testify on this
6 resolution?

7 (No response.)

8 COUNCILMAN KENNEY: Is there
9 anything you gentlemen need to add?

10 (No response.)

11 COUNCILMAN KENNEY: Thank you
12 very much. We enjoy having hearings we
13 actually learn something, which there's a
14 number of issues that both from you guys
15 and the Streets Department this Committee
16 was illuminated and it will be in the
17 forefront going forward. So we do
18 appreciate your time and your testimony
19 and for coming in and everybody's
20 attendance. Thank you.

21 That will conclude the business
22 of the Committee on Environment and
23 Streets and Services.

24 MR. NEELY: Thank you.

25 (Joint Committees on the

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2 Environment and Streets and Services

3 concluded at 3:45 p.m.)

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