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SUBCOMMITTEE ON OUTDOOR LIGHTING STANDARDS

11

(PUBLIC WORKS AND TRANSPORTATION COMMITTEE)

12

Council of the County of Maui

13

M I N U T E S

14

March 21, 2002

15

Council Chamber

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2 S-OLS 03/21/02

1 CONVENE: 9:00 a.m.

2 PRESENT: Councilmember Michael J. Molina, Chair
3 Lee Altenberg, Member (In 9:12 a.m.)
4 Hannah Bernard, Member
5 Richard Chong, Member (Out 11:45 a.m.)
6 Mike Maberry, Member
7 Warren McCord, Member

8 EXCUSED: Councilmember Charmaine Tavares, Vice-Chair

9 STAFF: Gary R. Saldana, Legislative Analyst
10 Camille Sakamoto, Committee Secretary

11 ADMIN.: Jeff Murray, HazMat Officer, Department
of Fire Control

12 Cary Yamashita, Engineer, Engineering
Division, Department of Public Works

13 and Waste Management (Out 10:15 a.m.)
14 Howard Hanzawa, Engineer, Land Use and
Codes Division, Department of Public Works

15 and Waste Management
16 Greg Nakao, Electrical Inspection
Supervisor, Department of Public Works and Waste
Management

17 Kalvin Kobayashi, Energy Specialist,
18 Department of Management
Gregory J. Garneau, Deputy Corporation
Counsel, Department of the Corporation
Counsel

OTHERS: Richard J. Wainscoat, University of
Hawai'i, Institute of Astronomy
Steve Sutrov
Donna Brown
Lance Weisel, Managing Director, Sterling

19 Development Services
Leslie Kuloloio
20 Randy Nakama, Maui Electric Company Ltd.
Randy Piltz
21 Rob Hoonan
Bill George, Renaissance Wailea Beach
Resort
22 Brian Ige, Dowling and Company
Paul Chung, State Highway Engineer, Maui
23 District Office, State Department of
Transportation
24 Lynne Woods, President, Maui Chamber of
Commerce
25 Mercer "Chubby" Vicens
Additional attendees (3)

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1 PRESS: ?
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. .
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4 CHAIR MOLINA: (Gavel.) (Inaudible) Subcommittee on
5 Outdoor Lighting Standards Subcommittee is in
6 session for March 21st.
7 For the record, the members in
attendance; we
8 have Mr. Mike Maberry, Mr. Warren McCord, Mr.
Rick
9 Chong, and Hannah Bernard. Excused is Committee
10 Vice-Chair Charmaine Tavares and Committee
Member
11 Dr. Lee Altenberg.
12 We have from the Corporation Counsel's
office

13 Mr. Greg Garneau and Council Staff, Committee
14 Secretary Camille Sakamoto, and Gary Saldana,
the
15 Legislative Analyst.
16 Good morning, members.
17 MEMBERS: Good morning.
18 CHAIR MOLINA: Everybody ready for a day of work?
You
19 look all bright-eyed and ready to go, uh?
Okay.
20 Well, prior to hearing testimony, the
Chair
21 would like to provide an overview of the items
we
22 will be discussing at today's meeting.
23 First, the term of the Subcommittee and
24 review the response from the Corporation Counsel
25 regarding the working group disbanding and/or

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1 suspension of the Subcommittee.
2 Two, we will be taking a review of the
street
3 lighting demonstration project. Three, we will
be
4 looking at the disposal of low pressure sodium
lamps
5 and fixtures. And four, if time permitting, we
may

I
our
with
Chair

6 continue with the review of Sections .070 lamp
7 standards and Section .080 luminaire standards.
8 will give more detail on these items prior to
9 discussion.
10 If there's no objection --
11 MR. MABERRY: Mr. Chair?
12 CHAIR MOLINA: -- the Chair would like to proceed
13 public testimony. Mr. Maberry?
14 MR. MABERRY: Mr. Chair, just a reminder that the
15 had agreed to do accept a report from
16 Professor Wainscoat regarding the conference in
17 Chile on lighting --
18 CHAIR MOLINA: Yes.
19 MR. MABERRY: -- at our last meeting?
20 CHAIR MOLINA: Right.
21 MR. MABERRY: Thank you, sir.
22 CHAIR MOLINA: Okay, thank you.
23
24 ITEM NO. 1: OUTDOOR LIGHTING STANDARDS (MISC.)
25 CHAIR MOLINA: And the Chair would like to recognize

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1 Dr. Altenberg for today's proceedings.

2 Members of the public, testimony will be

3 accepted for our item on today's agenda. Those

4 wishing to testify should sign up at the

Secretary's

5 desk. Testimony shall be limited to three

minutes;

6 an additional minute to conclude the testimony

will

7 be granted subject to the discretion of the

Chair.

8 If testimony is not completed, an additional

9 three minutes will be given after all others

have

10 been heard.

11 Testifiers, you are requested to state

your

12 name for the record and to indicate who you are

13 representing if there is anyone or organization

you

14 are speaking on behalf for. And to minimize any

15 disturbances during the meeting, please turn off

16 your pagers and cellular phones or set them to

the

17 silent mode.

18 So at this time let us begin with public

19 testimony on today's agenda item. First, we

have

20 Dr. Richard Wainscoat, to be followed by Steve

21 Sutrov.

22 . . .BEGIN PUBLIC TESTIMONY. . .

23 MR. WAINSCOAT: My name is Richard Wainscoat. I'm an

24 astronomer at the Institute for Astronomy at

25 University of Hawai'i.

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1 The International Astronomical Union
2 recommends that at an observatory site,
artificial
3 light sources increase the natural sky
brightness by
4 no more than 10 percent. I've obtained some new
5 software which is basically the state of the art
6 software for calculating light pollution based
upon
7 population distribution. It allows
directionally
8 dependent calculations to be made. I've used
the
9 2000 census data for Hawai'i as input to the
model.
10 The data excludes the transient tourist
population,
11 so the model calculation provides a lower limit
12 estimate of the light pollution from Haleakala
13 Observatory.
14 So the software, after I ran it, the
result
15 was that the southeastern half of the sky, seen
from
16 Haleakala, has light pollution at about the IAU

17 level. So it's acceptable.
18 The problem is in the northwestern side
of
19 the sky. So a whole half of the sky is polluted
by
20 the lights of Maui. Light pollutions range from
21 about 10 percent to 30 percent. I must remind
you
22 that these are lower estimates because we're
23 ignoring the tourist population.
24 We do still intend to try to measure this
25 directly. It's actually quite difficult because
our

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1 instruments are designed to be used on
telescopes
2 and not with very wide angle lenses.
3 I've provided to the Committee some plots
4 showing the location of the major sources of
light
5 pollution for Haleakala. I've provided a plot
which
6 shows the whole of the Hawaiian island chain
which
7 is this plot, and it shows the local sources on
the
8 Island of Maui are dominant. Now this plot
includes

9 a distance correction.

10 The major sources of light pollution up

11 Pukalani, Makawao, Kihei, Kahului, and

12 Wailea-Makena. Together these towns produce

13 73 percent of Haleakala's light pollution. So

any

14 efforts to improve light pollution problems at

15 Haleakala should start with the localities

closest

16 to Haleakala.

17 I wanted to say a few words about

18 astro-tourism. The vast majority of the

tourists

19 that visit Maui live in locations with very bad

20 light pollution. About 99 percent of the U.S.

21 population, almost a hundred percent of the

European

22 Union, close to a hundred percent of the

Japanese

23 population, live in locations where the sky is

24 polluted. They cannot see the light -- the

night

25 sky properly. Many children grow up without

seeing

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1 the Milky Way.

in 2 Astro-tourism is being actively developed

3 Chile. One of the factors being used to market

4 Chile to international tourists is the dark and

5 clear sky. Astro-tourism is expending on the

offer 6 Big Island. Some hotels on the Kahala coast

7 stargazing, and there's a major program of

8 stargazing at Hale Pohaku.

9 If Maui takes control of its light

pollution 10 now and takes steps to darken its skies, it too

will 11 be able to invite tourists to enjoy the night

sky. 12 Thank you.

13 CHAIR MOLINA: Thank you, Dr. Wainscoat. Members, any

14 questions? Dr. Altenberg?

15 MR. ALTENBERG: I had a question. In your software

16 calculations, since it wasn't based on actual

17 measurements of the light pollution on Maui, but

18 based on a population distribution; is that

correct? 19 MR. WAINSCOAT: That's correct.

20 MR. ALTENBERG: So that it assumes a certain per

capita 21 light pollution, correct?

22 MR. WAINSCOAT: That's correct.

23 MR. ALTENBERG: So where did that assumption come

from? 24 Is it based on sort of the default kind of

spectrum 25 of lighting that is used?

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1 MR. WAINSCOAT: Yes.

data

2 MR. ALTENBERG: I see. So that's what? Sampled from

--

3 over a real, you know, real measurements of real

4 MR. WAINSCOAT: I believe that's correct.

5 MR. ALTENBERG: Yeah.

be

6 MR. WAINSCOAT: There are a lot of parameters that can

the

7 changed in the model. One of the things that

8 model doesn't take into account properly is the

Haleakala.

9 distribution of people on the slopes of

than

10 A lot of people live a lot closer to the summit

census

11 Pukalani, but I basically just had to use the

So

12 data and the location I've input to the model.

13 it's underestimated just to that also.

model

14 MR. ALTENBERG: Now, I would presume that in that

of

15 there is some kind of a menu option for the kind

16 lighting that these communities have that, have

17 light pollution ordinances in effect; is there?

is 18 MR. WAINSCOAT: There is an option, for example, which
into 19 to specify the amount of light that is spread
20 the upwards hemisphere. So that was set at
shielded 21 10 percent of this model. If you had fully-
of 22 lights, that would be 0 percent; and the amount
what I 23 light pollution would be about 60 percent of
24 calculated.
25 MR. ALTENBERG: Uh-huh. Okay.

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reflectivity 1 MR. WAINSCOAT: So another parameter is the
2 of the ground, which is, seem to be 15 percent.
3 MR. ALTENBERG: Does that vary from one location to
4 another appreciably?
if 5 MR. WAINSCOAT: The reflectivity can be higher. Like
6 you have snow, for example, it would be a lot
estimate. 7 higher. But 15 percent is a reasonable
8 Roads are a little darker. Grass is a little
9 lighter.
10 MR. ALTENBERG: Do you know of any studies that have

11 looked at the actual impact of light pollution
12 ordinances in the communities near observatories
13 that have adopted them?
14 MR. WAINSCOAT: I don't know of any studies. It was
one
15 of the things that I discussed with people at
the
16 light pollution conference. But whether we
could
17 actually do a study --
18 MR. ALTENBERG: Ah. So it's maybe something that
hasn't
19 yet been done to actually measure the impact of
20 light pollution ordinances on light pollution?
21 MR. WAINSCOAT: I think that's correct.
22 MR. ALTENBERG: Okay. Thank you.
23 CHAIR MOLINA: Okay, members, my other question?
24 Miss Bernard?
25 MS. BERNARD: Thank you for your testimony. I'm not
sure

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1 if you're familiar with any other nation's
attempts
2 to reduce the light pollution problems? I just
3 received an e-mail regarding one other nation
that
4 had adopted a countrywide code to -- are you

5 familiar with any of those?

6 MR. WAINSCOAT: Are you talking about I think it's
Czech

7 Republic?

8 MS. BERNARD: Yeah. Are you familiar?

9 MR. WAINSCOAT: Yeah. I was gonna talk a little bit
10 during my report on the light pollution
conference

11 about the Chile law where they've -- maybe I
should

12 just defer that. Well --

13 MS. BERNARD: Okay, I just wondered if you were

14 familiar -- and if it had been brought up at
this

15 conference in Chile where it was -- it seems
like

16 maybe there's a trend on an international scale
to

17 reduce light pollution.

18 MR. WAINSCOAT: I think that's correct.

19 MS. BERNARD: Thank you.

20 CHAIR MOLINA: Okay, thank you, Dr. Wainscoat.

21 Next to testify, we have Steve Sutrov to
be

22 followed by Donna Brown.

23 MR. SUTROV: Good morning, everyone. My name is Steve

24 Sutrov. I'm just gonna, have a couple comments
on

25 the process here. First off, I'd just like to
read,

12

the 1 in case you haven't read in a little while, just
2 purpose of this draft, very quickly.

curtail of 3 The purpose of this ordinance is a
4 the reverse and reverse the degradation of the
5 nighttime visual environment by minimizing light
6 pollution glare, light trespass through
regulation 7 of the form and use of outdoor lighting, and to
8 conserve energy and resources while maintaining
9 nighttime safety utilities, security, and
10 productivity.

all 11 I think we need to keep that in mind at
12 times here, that that is the purpose. It's --
the 13 purpose is for the County of Maui to help
reverse 14 the trend that we have right now of a problem, a
15 very serious problem with these light pollution.

We 16 have to be thinking about doing enough to
reverse 17 that trend.

bit, 18 If we think about just doing a little
19 it's not gonna be enough. We have to do enough
to 20 make a difference to reverse the trend. And so

21 that's what we have to be thinking about.
22 We have a group here of specialists, of
23 people that have personal interest in this, from
a
24 lot of different parts of our community that
we've
25 been discussing the pros and cons of a lot of

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1 different parts of the draft so far.
2 We have those that wanna maintain the
status
3 quo because of their financial viability. We
have
4 those that want to protect the environment
because
5 of, they have the interest of the entire County
and
6 even interests beyond that at heart. And the
people
7 of Maui, I believe, have full support in to
8 reversing this trend that we have.
9 And I think we need to discuss all the
10 issues. We need to modify parts of the draft
that
11 need to be modified. And so they are more
12 enforceable and a little more agreeable to a

we 13 consensus. But if we don't have that consensus,
any 14 can't find compromise, in a very, in a very, in
move 15 way, in parts of these ordinances, we have to
16 'em forward, though.
17 We have to take a vote. We have to move
'em 18 forward as a recommendation of the majority of
the 19 body here; and then it will go to Council, it
will 20 go to the public, and be discussed even further
and 21 scrutinized at that point, and the final
decision 22 would be made by Council and the public; or the
23 public and Council through public hearings and
24 through Council voting.
special 25 And so, yeah, I think -- and so our

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1 concerns in regards to special interests in this
2 draft, they should be possibly addressed through
rather 3 variance after the drafts has been adopted,
4 than --

5 MR. SALDANA: Three minutes.

6 MR. SUTROV: -- being talked about as of right now.

7 Thank you very much.

8 CHAIR MOLINA: Okay. Members, any questions for the

9 testifier? Mr. Chong?

10 MR. CHONG: Thank you, Mr. Sutrov. You made a
statement

11 saying that if there's no consensus, that we
still

12 need to move the ordinance forward. I don't
think

13 necessarily that's what we wanna do, in my
opinion.

14 Mean, is that what you're proposing -- without

15 consensus, you still wanna pass it on to the
full

16 Council?

17 MR. SUTROV: I think so. That's what this -- that's
your

18 designated duty right now is to discuss this at
any

19 length that you think you need to discuss it,
come

20 up with a consensus from these people that
you're a

21 part of, sir, and pass it forward with

22 recommendations.

23 Now, if you don't have a consensus of

24 recommendations, you still have to vote and pass
on

25 what the majority here believe to be
satisfactory as

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1 a recommendation. And at that point the Council
2 will decide and the public will decide, through
3 public testimony, what is appropriate to draft
into
4 this ordinance.

5 CHAIR MOLINA: Mr. Chong, just for -- and, Mr. Sutrov,
6 just for your information, the recommendations
from
7 this Subcommittee will first go to the Public
Works

8 Committee and, again, these are just
recommendations
9 coming from the Subcommittee. Depending on what
10 happens in these Public Works Committee, we
don't
11 know what will go on, you know, to the full
Council.

12 So I just wanted to make that clarification.
13 Any more questions for -- Mr. Chong, are
you
14 finished? Okay, we have Mr. Maberry, followed
by
15 Miss Bernard.

16 MR. MABERRY: Mr. Sutrov, if I may, you mean, as long
as
17 it's a majority decision of this body as opposed
to
18 a unanimous decision? Is that what you're
referring
19 to, possibly?

20 MR. SUTROV: I'm sorry, Mike?
21 MR. MABERRY: In other words, you would feel
comfortable
22 with it moving forward as long as the
recommendation
23 is not a unanimous recommendation, but if it's a
24 majority recommendation from this Committee?
25 MR. SUTROV: Absolutely. I think that was why this
body

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1 was formed is to go over the draft as it is
2 presented on paper and discuss those issues
which
3 you believe to be relevant to be discussed and
4 talked about, compromised, become more
enforceable
5 and then pass on those recommendations from
their
6 body here, not necessarily from resource people,
but
7 from your body through the full Council.
8 MR. MABERRY: Thank you, Mr. Chair.
9 CHAIR MOLINA: Okay --
10 MS. BERNARD: Along the same lines, point of
11 clarification. This in fact is governed by
Robert's
12 Rules of Order; is that correct?

13 CHAIR MOLINA: Yes. Uh-huh.
14 MS. BERNARD: So it's not a consensus-oriented body?
It
15 is based on --
16 CHAIR MOLINA: Well, we could base, on the discretion
of
17 the Chair, we could vote on each of the
18 recommendations and then from there it would go
on
19 to the Public Works Committee where we'll
deliberate
20 there and decide which of the recommendations --
of
21 course, it's up to the body, this Public Works
body
22 to make that decision as far as what
recommendations
23 will pass and go on to the full Council.
24 MS. BERNARD: Very good. Thank you.
25 CHAIR MOLINA: Okay. Any other questions for

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1 Mr. Sutrov --
2 MR. SUTROV: One quick comment, Mike.
3 CHAIR MOLINA: Go ahead.
4 MR. SUTROV: I've never been to or seen a Committee
5 meeting or Council meeting where resource people
are

is 6 able to ask questions of a testifier. So this
allows 7 really an unusual situation when the Chair
slowing 8 that here. So I'm just wondering if that is
9 down the process also.
10 CHAIR MOLINA: No, no, no. We -- today I've not had a
11 resource person ask a testifier. Again, it's up
--
12 if the Subcommittee --
13 MR. SUTROV: -- in the past, though? In the past
14 meetings?
15 CHAIR MOLINA: Yeah. Yeah. For me, I'm running the
16 meeting the way I see fit, and if it's up --
again
17 I've asked the body, if the body has had no
18 objections to having resource people --
19 MR. SUTROV: Absolutely.
20 CHAIR MOLINA: -- ask questions --
21 MR. SUTROV: All right. Thank you.
22 CHAIR MOLINA: Okay. Thank you.
23 Next to testify, we have Donna Brown, to
be
24 followed by Lance Weisel.
25 MS. BROWN: Hi, my name's Donna Brown. And I am the

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Community 1 marine option program coordinator at Maui
here 2 College, a marine biologist and -- but I come
the 3 more on a personal level than that.
 4 I am concerned about the marine life and
for 5 sea birds that are affected by the lights. But,
have 6 personally, I am a homeowner on West Maui, and
past 7 years I've loved looking out at the stars. We
it 8 several telescopes that we've used in our yards.
 9 And we've seen a lot of development over the
that 10 few years and a lot more lights going in. And
 11 becomes harder and harder to see the stars.
shining 12 Presently, we have some new neighbors
nice. 13 moved in just a few years ago, and they've seen
 14 that -- they like to have all these lights
could 15 up in their trees. And they think it looks
it 16 And I asked the guy if he could turn it down
 17 because, or turn the lights off, so that we
yard, 18 see the stars; and he says well, I like the way
 19 looks. And the trees are hanging over in our
 20 and we have no control over that.

21 So those are the kind of things I'd love
to
22 see that kind of stopped and see it where we can
23 have a dark sky so we can enjoy the moonlight
and
24 the stars again. So -- that's all I had to say.
25 CHAIR MOLINA: Okay. Thank you. Questions for the

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1 testifier? Miss Bernard.
2 MS. BERNARD: Thank you for your testimony. Donna, is
it
3 true that you've been involved in watching over
sea
4 turtle habitat late at night --
5 MS. BROWN: Yeah.
6 MS. BERNARD: -- for years?
7 MS. BROWN: Right. Yes, I have. And I have seen that
the
8 sea turtles become disoriented by lights. Also,
9 actually, the green sea turtles just in the past
10 two years have started nesting on Maui again
after
11 no known record of ever having any green sea
turtles
12 nesting on Maui. So that's the concern as
they're
13 coming back and more of them are starting to
nest.

dark 14 I think it's very important to keep as
So 15 as we can along the ocean and along the beaches.
16 these are endangered species, and we're enjoying
17 seeing them coming back, and we'd like to
protect 18 them as much as we can.
19 MS. BERNARD: No questions. Not of Donna Brown, but
of 20 one of our resource persons, so I'll defer if
21 anybody else has questions for Donna.
22 CHAIR MOLINA: All right. We'll have Dr. Altenberg to
be 23 followed by Mr. Maberry.
24 MR. ALTENBERG: Thank you for your testimony. You're
one 25 of the first people to personally testify about
the

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neighbor's 1 problem of light trespass and that your
2 lights are interfering with your use of your
3 property.
4 There's currently statewide law that
protects 5 people from noise pollution coming from
neighbors.

similar 6 Do you see the issue of light trespass as a
use 7 kind of thing in terms of interfering with your
8 of your property?
that 9 MS. BROWN: Yes, I do. I see it a lot. And in fact
down 10 I've even asked him if he could turn the lights
11 and he just said, sorry, but I like it that way.
count 12 You know, it's like as if your feelings don't
13 at all.
citizen 14 MR. ALTENBERG: What would you like to see that a
15 could be able to do in that circumstance?
shouldn't 16 MS. BROWN: I'd like to be able to see that they
17 have lights that shine into our yard or that
it, 18 interfere with our lighting. I'd like to see
19 that if they want to have lights in their own
20 yard -- and actually, these people have about
21 40 lights in their yard. I counted them.
22 And they have all their trees lit up with
23 lights shining up. And then they have smaller
24 lights all around and then they have these light
25 post lights all around. And it's -- well, they

1 built this huge mansion of a house too, so it's
2 kinda like they're just wasting energy and just
3 kinda like hey, we're rich, we can burn up as
much
4 as we want. You know?
5 MR. ALTENBERG: Would you, if you were to have two
6 different options, one would just be that they
would
7 have to shield their lights so that they
wouldn't
8 trespass on to your property; or that they would
9 have to turn off their lights by a certain time
of
10 night any lights that were trespassing on your
11 property, which of those would you prefer?
12 MS. BROWN: I'd rather have it so they couldn't have
it on
13 at any time 'cause that was one thing the guy
said.
14 He says, well, we turn 'em off. You know, they
turn
15 'em off at about 11:30 at night, but that's --
I'm
16 already in bed by then, so I kinda don't get to
go
17 out and look at the stars anymore.
18 And so, if they, you know, if they said
okay,
19 they would turn 'em off at 7 o'clock, then that
20 might be all right. But I think that they
shouldn't
21 be able to have lights shining up into the trees

hanging 22 like that and especially when the trees are
23 over on to our property.
24 MR. ALTENBERG: Thank you.
25 CHAIR MOLINA: Thank you. Okay, Mr. Maberry?

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any 1 MR. MABERRY: Yes, ma'am. Are you familiar with any
2 federal laws -- to get back to the turtles --
3 federal laws that may require the State or the
4 County of Hawai'i to provide some protection for
the 5 sea turtles and their nesting areas?
6 MS. BROWN: I'm not really sure about that, but I do
know 7 that they are federally protected under the
8 Endangered Species Act so I'm not sure about the
9 exact thing about lighting. I do know in
Florida 10 they've passed laws that they can't shine lights
11 there because of their sea turtle nestings.
12 But I don't know if it's a federal law or
13 not.
14 MR. MABERRY: Okay. That was the question I wanted to
15 ask, if I could follow up on Lee's question.
Have

16 you noticed the people outside actually enjoying
17 their trees being lit? Or are they just in the
18 house while the trees are lit?
19 MS. BROWN: I think they're just in the house, but
their
20 whole house is open to the out, you know --
21 MR. MABERRY: Okay.
22 MS. BROWN: -- they have windows all the way open, so
23 they're looking out from the house, I guess.
24 MR. MABERRY: Thank you very much.
25 CHAIR MOLINA: Okay, thank you. Thank you.

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1 Just for your information, resource
2 personnel, once we get into discussion, you can
ask
3 your questions.
4 ?: All right.
5 CHAIR MOLINA: Okay. Our last person to testify is
6 Mr. Lance Weisel. If I mispronounced your name,
7 please let me know.
8 For rest of the public, this is your last
9 opportunity to come up and sign up at the
Committee
10 Secretary's desk should you choose to testify on

11 today's agenda item.

12 MR. WEISEL: Good morning. I'm Lance Weisel. I'm the
13 managing director of Sterling Development
Services.
14 I'm speaking in favor of stricter ordinance on
this
15 light pollution issue. And I just wanted to
share
16 my personal experience with selecting these
types of
17 light fixtures in terms of the cost and the
benefit
18 to reduce light trespass. And I handed out some
19 information, but I think Mike Maberry and some
of
20 the other astronomers have covered that issue
much
21 better than I can.

22 What I see most in the community is that
it
23 would be fairly relatively inexpensive to
address
24 some of the improper lighting, to retrofit them
with
25 some shielding, includes all the street lights,
a

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1 lot of the other types of area in parking lot

like 2 lighting throughout the community. It seems
that 3 the issue of cost, I know some people have used
And 4 as an opposition to seeing stricter ordinances.
even 5 I just really don't see that when I shop for
for 6 fixtures. Rick Chong can, I think, concur that
7 when you're looking at a lot of manufacturers
8 these fixtures, it's hard to find fixtures that
9 aren't starting to incorporate more shielding.
effectiveness 10 And just as an example of the
here, 11 of adding shields, this light fixture right
our 12 this is a red light. And it's used in one of
area 13 projects now where we are lighting a parking
light 14 and entertainment area. And it's on 30-foot
15 pole.
about 16 This fixture only cost \$200. And it's
of 17 1000-watt metal halyde, which is presumably
yet 18 the worst kind of light you could have in terms
what 19 light pollution. It's very bright light. And
minimizing 20 we're still able to direct the light, which is
able 21 the shielding is particularly good at, is
22 any glare. You don't see the element. You're

23 to have the cut-off shield which is typically
24 adjustable.

25 And once you fall beyond the pole, or

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case 1 depending on how it's adjusted, like in this
2 once you get beyond 15 feet, you're down below
3 .3 footcandles from this fixture that's
illuminating 4 the ground underneath it at 32 footcandles.
5 So it's just an example of what quality
important 6 lighting can do, and I think it's not only
7 to make sure people start to specify the
appropriate 8 lighting that minimizes light pollution but also
9 look at what it's gonna take to go back and
correct 10 a lot of the deficient lighting we have or
incorrect 11 specified lighting we have right now.
12 In that handout too, there is the, on the
13 last page you'll see this example that I just
had 14 shown. And prior to that, there's a few photos
of 15 shielding that can be used to retrofit existing

can 16 lights that were not properly shielded. And you
for 17 see the cost on that is as low as \$15 a light
paramount 18 materials plus the labor to install.
19 So, in my opinion, the issue, it's
lighting 20 that we do something about it before it gets any
21 worse and we look at treating the existing
22 throughout the community.
23 CHAIR MOLINA: Okay. Thank you. We start first with
24 Miss Bernard, followed by Dr. Altenberg and
25 Mr. Maberry and Mr. Chong.

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heard a 1 MS. BERNARD: Thank you for your testimony. We've
more to 2 lot of speculation that it will cost so much
lights 3 either convert lights or to even produce new
that 4 that are not producing as much light pollution,
5 it's not worth it; that we can't do it; that we
6 won't be able to; the County can't handle it.
saying 7 And it sounds to me like what you're

as 8 is the opposite of that or that it's really not
9 expensive as we've been told.
10 MR. WEISEL: In my opinion, it's depends on the actual
11 light fixture and what's available for it and
the 12 quantity you're producing of these shieldings.
Some 13 things are available off the shelf. Other
things 14 that are very old fixtures and they'd have to be
15 something fabricated.
be 16 But I think each one, it has to at least
17 looked at and then a judgment can be made as to
18 whether it's cost effective or not to either
19 retrofit it with some shielding or replace it
with a 20 different light fixture. But I think that's
kinda 21 of on an individual basis. As long as there's
some 22 impetus there to push somebody to take that --
to 23 make those kinda studies. Yeah, my experience
is 24 that it's not a large cost.
25 CHAIR MOLINA: Okay. Dr. Altenberg, to be followed by

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1 Mr. Maberry.

2 MR. ALTENBERG: Thank you for your testimony. Now,
when

3 you said it's not a large cost, are you
referring to

4 the cost of retrofitting an existing unshielded

5 light?

6 MR. WEISEL: Actually, it's both, preferably on the
7 specification of new fixtures for new
developments

8 that they're specified to have full shielding;
and

9 in that particular case, as an example here,
that

10 particular light's \$200.

11 If you look at unshielded lighting which
is

12 becoming increasingly difficult to find, in my

13 opinion, you're looking at about the same price

14 range. So a lot of it's the matter of the

15 appearance that you want of the light. And so

16 that's on new fixtures.

17 For retrofitting the old ones, see, I
don't

18 think that's a very significant cost in most

19 circumstances. But again, it depends on the
type of

20 fixture and what the purpose of that fixture is.

21 MR. ALTENBERG: One -- I mean one thing we discussed
in

22 recent meetings was these new parking lot lights

23 that gone in on some of the big box and mall
stores,

Mart, 24 the Safeway center, the Maui Marketplace, Wal-
25 Home Depot. These use sag lenses which have a

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those. 1 significant up-light. And testimony from Eric
2 Miyasato is that there's no way to retrofit
3 There would just have to be replaced. Is that
4 congruent with what you would expect?
5 MR. WEISEL: Well, on some of the ones that have the
sag 6 lenses, the glare's reduced because they put the
7 film, they pull the bulb, the lamp up inside the
8 fixture. It may not actually protrude down into
the 9 lens area. So that helps. And it depends on
the 10 particular light, whether there's shielding
11 available or not for it. Ideally is that that
type 12 of light would never be specified in the first
13 place.
14 But looking at going back and correcting
it, 15 I think you have to look at individual light
16 fixtures. And if there's not something off the

17 shelf, you have to look at the cost of
fabricating
18 and installing something like that.
19 But I think it should be noted too, that
you
20 can also reduce the wattages oftentimes in the
types
21 of lights to illuminate an area if it's properly
22 shielded because the reflectors concentrate that
23 light in the areas that are intended to be
lighted
24 instead of having a lot of energy lost.
25 MR. ALTENBERG: That's something else that I would
have

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different 1 expected. And in this comparison of three
2 street light configurations that Mr. Miyasato
3 provided, the highest -- well, in a comparison
4 between an unshielded and a fully shielded high
5 pressure sodium lamps, 150 watts, there was
actually 6 higher average illumination coming from the
7 unshielded than from the shielded, which is the
8 opposite of what I would have expected. And
these
9 are with two particular models that are GE
street

10 lamp luminaires.

11 So it seems like we face a problem in
terms
12 of evaluating what a particular new statute
would
13 mean in terms of cost for the County, what the
14 availability is of luminaires that could be --
that
15 could retrofit our current luminaires and still
keep
16 the current pole configurations and also meet
the
17 IES standards.

18 And it seems like we're gonna have to
find
19 out what is available that could satisfy those
20 requirements. How would you see us going about
21 doing that?

22 MR. WEISEL: Well, ideally, again, there's the
studies,
23 the light fixtures on an individual basis, look
at
24 the type of light that is generating, whether it
be
25 low pressure sodium which can be filtered out
for

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I 1 the telescopes. Whereas the other lighting, as
that 2 understand it, cannot. So you have to look at
pressure 3 particular element to see how critical it is to
4 address that light. If it's already low
it, 5 sodium, even though it may not have shielding on
6 it may not be as critical.
say 7 For the other types of lighting, I would
8 that somebody has to look at those individual
9 fixtures and what's available currently, being
there's 10 manufacture to shield it properly, and if
go 11 nothing currently available, again how you would
effective 12 about fabricating something that would be
13 in shielding it and what the cost would be. And
cost 14 then based on that study, whether or not it's
15 effective to address those particular lights.
16 MR. ALTENBERG: What would it take to get that
services 17 information? Would we have to enlist the
18 of somebody in the light, in the illumination
19 industry?
could 20 MR. WEISEL: I would think an electrical engineer
too, 21 study that. And, you know, I would also hope
problems 22 that, you know, you look at the more major

23 first, try to itemize or prioritize it. And not
24 only County projects but private individuals
that,
25 or private developments, that they may have to
go

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their 1 back in and study what it would take to change
2 lighting and try to demonstrate one way or the
3 other, make the argument that it's not cost
4 effective, at least, to do it.

5 But there should be some, I think some
6 responsibility placed on the developer to
7 demonstrate that he can't adhere to a stricter
8 ordinance.

9 MR. ALTENBERG: Another matter, the current --

10 CHAIR MOLINA: Excuse me, Dr. Altenberg, can you hold
that
11 question for a moment? I do wanna give some of
the
12 other members a chance, and we'll come back to
your
13 question --

14 MR. ALTENBERG: Okay.

15 CHAIR MOLINA: -- for the testifier.

16 Mr. Maberry?

for 17 MR. MABERRY: Mr. Weisel, I wanna thank you very much
18 your testimony. I wonder if you believe that an
19 ordinance would help sort of empower the
developers 20 and the lighting engineers to become better
21 neighbors for those of us here on Maui.
22 MR. WEISEL: I think that's what it'll take. Already,
as 23 I said, in the -- just shopping for fixtures,
you've 24 already seen the pressure put on nationwide. So
25 you're seeing a difference in the type of
fixtures

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1 that are becoming available.
2 They're still fixtures out there that, if
a 3 person so chooses, they can find them that don't
4 adhere to stricter ordinances for light
trespass.
5 But unless there's some provision or some
ordinance 6 here that basically puts pressure on people,
they 7 have, in my opinion, too much latitude to select
8 incorrect fixtures.

you
to
A
think
Chong?

9 MR. MABERRY: And if I may quickly follow up. And so
10 as a person who actually has been involved in
11 development, feels that it is a good investment
12 be a good neighbor within the community?
13 MR. WEISEL: I think it makes a lot of sense. I think
14 it's socially responsible 'cause it's a lot less
15 wasted energy 'cause you're focussing the light.
16 lot of times you can have less wattage and still
17 illuminate the areas.
18 I think, yes, that's true, that -- I
19 that's a -- it's a necessary part of being a
20 responsible developer on Maui.
21 CHAIR MOLINA: Okay, thank you, Mr. Maberry. Mr.
22 MR. CHONG: Hi, Lance. Thanks for coming.
23 MR. WEISEL: Hi, Rick.
24 MR. CHONG: You work for Sterling Development?
25 MR. WEISEL: That's correct.

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you
1 MR. CHONG: And this demonstration that you had, the
2 1000-watt metal halyde was for a project that

3 are working on currently?

4 MR. WEISEL: That's correct, in Ma'alaea.

5 MR. CHONG: What kind of project is that?

6 MR. WEISEL: It's a miniature golf course.

7 MR. CHONG: So color rendition was critical?

8 MR. WEISEL: That's why we went with the metal halyde
as

9 opposed to high pressure sodium.

10 MR. CHONG: Is there a time period that these lights
will

11 come off?

12 MR. WEISEL: They go off at 10 o'clock.

13 MR. CHONG: In your comments about cost, \$200, that's

14 just, that's just material cost. In our
discussions

15 here in the committee, just so you know, to that
you

16 have to add labor. And 30-foot poles, meaning

17 somebody gets paid a lot of money to get in a
bucket

18 truck to get up that high. And it's not
necessary

19 the material cost that has been the deciding
factor;

20 it's the labor to pay an electrician 'cause you

21 can't just get the maintenance guy on a ladder

22 anymore to change a bulb. To change a luminaire

23 requires an electrician up on a, on a safety
type

24 bucket truck --

25 MR. WEISEL: Right.

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1 MR. CHONG: -- or whatever. So that drives labor
cost.

2 MR. WEISEL: You're talking for retrofitting
something?

3 MR. CHONG: Whatever you're gonna do. If you're gonna
4 replace it or retrofit it, you need to get
somebody

5 up there who's trained and qualified to be in a
6 truck like that --

7 MR. WEISEL: That's right.

8 MR. CHONG: That, that's cost that needs to be added
to
9 that \$200 or \$300, whatever the luminaire cost
is.

10 I think that was all the questions I
have.

11 Thanks, Lance.

12 MR. WEISEL: Okay. Right. And, Rick, if I could, to
13 follow-up on that. If you're installing a
fixture

14 anyway, though, you know, that's -- I mean, that
the

15 labor is actually immaterial because you're
gonna

16 have to put up the pole whether it have an
improper

17 fixture or the correct fixture.

18 MR. CHONG: You're right. I mean, I'm not against
full

with 19 cut-off. We don't have a problem with working
projects 20 full cut-off. Maybe that's -- in specific
design, 21 we like to use decorative pole tops. I mean,
22 certain projects beg for that kind of style,
23 whatever.
24 But in standard parking lots and whatnot,
25 full cut-off is not a problem for us lighting

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1 designers in the world.
2 MR. WEISEL: Right.
3 MR. CHONG: It's just the lamp choice that may give us
a 4 problem.
5 MR. WEISEL: Uh-huh. The low pressure sodium?
6 MR. CHONG: Yes.
7 CHAIR MOLINA: Okay. Thank you, Mr. Chong. Okay, and
for 8 Dr. Altenberg's final question? You can
proceed. 9 MR. ALTENBERG: Just about our sports lights are one
of 10 the worst offenders on the island. And are
there -- 11 would there be any way of, low cost way of

12 retrofitting those to at least improve on the
13 shielding that they're now completely lacking?
14 MR. WEISEL: I'm sure there is. I've not had to
actually
15 do that. But I would say that that is not much
16 different than what we've looked at on the Maui
golf
17 project too. We originally had looked at using
that
18 kind of flood lighting and determined that it
was
19 just -- we were right next to the highway. It
was a
20 big problem in terms of not only the glare, but
the
21 direct lighting for traffic.
22 But I think more of what you're talking
about
23 is for retrofitting something. And whether you
use
24 one big full shield to cover the entire light
25 cluster or whether you'd shield them
individually,

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1 I'm not really sure. That would be people like
Rick
2 Chong could address that.
3 But I'm certain that it could be done in
the

4 same way because you're not trying -- I mean,
5 there's no point in illuminating the sky with
those
6 kinda lights. The whole idea is to light the
field.
7 So all you have to do is have the reflective
8 shielding so that it cuts off along that plane
that
9 you don't want any light trespass beyond.
10 So, you know, it's logical that it could
be
11 done, and you'd have to look again at each
12 individual case what the cost would be to
correct
13 it.
14 MR. ALTENBERG: Okay, thank you.
15 CHAIR MOLINA: Okay. Thank you. Thank you, Mr.
Weisel.
16 MR. WEISEL: Thank you.
17 CHAIR MOLINA: Is there anyone else wish to testify at
18 this time? Committee Secretary, is anybody
signed
19 up? No?
20 Okay, at this point the Chair will close
21 public testimony on our agenda item for today.
22 . . .END OF PUBLIC TESTIMONY. . .
23 CHAIR MOLINA: Okay, members, at our last meeting, the
24 Subcommittee requested the Public Works and
25 Transportation Committee extend its term to 60
days

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13. 1 to June 1st at the Public Works meeting of March
2 The request was reviewed and the Committee voted
to 3 extend the term of this Subcommittee to
4 October 31st, 2002.
5 And during our last meeting, this
6 Subcommittee requested the Corporation Counsel
to 7 provide an opinion regarding the ability of
members 8 to meet after the dissolution of the
Subcommittee.
9 Accordingly, a memorandum was sent to the
10 Department of the Corporation Counsel requesting
an 11 opinion on the following matters: 1) the
12 applicability of the Sunshine Law to a working
group 13 of the Subcommittee; 2) Sunshine Law regulations
14 which may impact the Subcommittee members'
ability 15 to meet in whole or in part should we decide to
16 suspend operations for a specified period of
time; 17 3) effects of the Sunshine Law to members that
meet 18 after the Subcommittee term has expired; and
19 finally, the ability of Subcommittee members
meeting

20 with citizens groups to discuss outdoor lighting
21 standards.
22 At this time the Chair would like to
request
23 the Corporation Counsel to give their thoughts
on
24 that matter. Mr. Garneau?
25 MR. GARNEAU: Yeah, thank you, Mr. Chair. I actually

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should
a
of
the
for
1 prepared a memorandum that all of you folks
2 have in your binders. I don't know if y'all had
3 chance to read it or not --
4 CHAIR MOLINA: Members, if you look towards the back
5 your binders, the response from the Corporation
6 Counsel dated March 20th. It should be the last
7 four pages -- excuse me, well, next to the last
8 page. It's a three-page document or letter from
9 Corporation Counsel.
10 MS. BERNARD: May I ask a question while we're waiting
11 folks to find their pages?
12 CHAIR MOLINA: Go ahead, Miss Bernard.

of 13 MS. BERNARD: Realizing that it could take quite a bit
14 time to go through this document since I did it
15 myself already at home, I was wondering, I don't
16 know if we ever got to the point where we
actually 17 wanted to ask the question or raise the motion -
-
18 CHAIR MOLINA: Well, we're getting to that right now,
but
19 I wanted to get an opinion from the Corporation
20 Counsel, and then we'll continue with the
discussion 21 on this matter. Okay, Mr. Garneau?
22 MR. GARNEAU: Yes. Miss Bernard (inaudible) 'cause I
23 think I can actually summarize it pretty
quickly,
24 and we don't need a whole lot of discussion.
25 Essentially, as you'll remember, before
the

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there 1 extension of this Subcommittee was granted,
2 was some discussion about whether the
Subcommittee 3 should continue in its existing form or whether
it 4 should take some other form. And some of the

that 5 suggestions were that it suspend for a time and
the 6 there be working groups allowed hash out some of
dissolve 7 issues; that maybe the Subcommittee just
it on 8 and then people, you know, go about working on
continue as 9 their own; or that the Subcommittee just
10 it has.

Works 11 At this point, based upon the Public
extend 12 and Transportation's Committee decision to
the 13 till October, if you as a group want to continue
you're 14 way you have and meeting the way you have,
would 15 free to do that through October. And so there
16 be nothing to do. If the group feels that that
look 17 isn't, that this process isn't working, then we
18 at these other things.

19 So essentially, because this is a
20 Subcommittee of the Public Works and
Subcommittee. 21 Committee, it is an official Council
22 So therefore the State Sunshine Law does apply,
23 which is the reason why the proceedings are held
as 24 they are, you know, that they're noticed; that
the 25 public has an opportunity to testify at every

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to 1 meeting; that there's a Chair; that everyone has
processes 2 be recognized by the Chair. Just all the
3 we're using. Those are required by the State
4 Sunshine Law.

if 5 For a working group of this Subcommittee,

6 the Subcommittee is still in place and not
7 dissolved, it's not possible to have a working
group

noticed 8 of members of the Committee meet outside of

allows is 9 meetings. The only thing the Sunshine Law

on 10 for up to two people to conduct investigations

recommendation 11 the, you know, as part of their, as a

12 from the Subcommittee. They can't deliberate or
13 reach consensus. They can only bring back the
14 information.

15 So, for example, if there is a particular
and 16 issue related to, let's say, the turtle issue

17 that needed to be researched. The Subcommittee
18 could ask you, Hannah, to do that, and you could

19 come back with your information. That's
20 permissible. Or you could meet with Lee, and
you
21 two together could discuss it and bring back
your
22 information or something. That's all fine under
the
23 Sunshine Law.

24 But if we were, if you were to meet
25 separately from this group and have discussions
and

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reach 1 make some, you know, deliberations and try to
2 some sort of consensus, that's not permissible
under
3 the Sunshine Law.
4 So -- and then there was some question of
5 whether there could be, if the Subcommittee was
6 dissolved, does the Sunshine Law have
applicability?
7 And the answer's really no. At the point where
this
8 Subcommittee is resolved [sic], the Sunshine Law
is
9 no longer triggered because that applies only to
10 government actions. So if there's no
Subcommittee

11 of the council, there's no government action.
12 So, for example, this was originally
brought
13 as the ad hoc, an ad hoc citizens group. Well,
if
14 the Subcommittee were dissolved, there would be
15 nothing preventing that ad hoc group from
meeting
16 and whenever they like, wherever they like, for
17 whatever purpose they like, and then later on,
you
18 know, presenting that to the Council again if
they
19 wanted to.
20 In terms of the Executive Committees, you
21 know, within the Administration as opposed to
22 Council Subcommittees, making that distinction,
the
23 Administration can and does establish informal
24 groups all the time where they receive input
from
25 the public and they, you know, they're sort of

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1 administration-driven. Those are not, also not
2 covered by the Sunshine Law.
3 But if the Mayor were to, for example, by

4 executive order, establish a working group on
5 lighting with set members and set duties, that
would
6 be covered by the Sunshine Law. So it depends
on
7 the organization, how it's set up.
8 So essentially here, this Subcommittee is
a
9 formal one that's established by the authority
of
10 the County Council. So that's why all of these
11 rules kick in place and why we're somewhat
12 constrained by the procedures.
13 CHAIR MOLINA: Okay. I'll start first with Miss
Bernard,
14 to be followed by Mr. Chong.
15 MS. BERNARD: I'll let Mr. Chong go first.
16 MR. CHONG: Oh, thank you.
17 CHAIR MOLINA: Okay, proceed, Mr. Chong.
18 MR. CHONG: Ladies first always, Hannah.
19 MS. BERNARD: Okay.
20 MR. CHONG: Go ahead.
21 MS. BERNARD: All right. I'd like to make a motion at
22 this time.
23 CHAIR MOLINA: Okay, well, first I wanted to ask the
24 members -- before any motion, I'd like to just
at
25 least --

1 MS. BERNARD: Okay.

we'll

2 CHAIR MOLINA: -- get some questions first, and then

3 go on to the motion phase. Okay? Mr. Chong?

4 MR. CHONG: Mr. Garneau --

5 MR. GARNEAU: Yeah.

been

6 MR. CHONG: Could you elaborate on how, since we've

so

7 extended to October 31st, how this Committee, if

and

8 decided upon, would wanna disband at this moment

how

9 not wait till October 31st and let it expire,

10 would that come about?

it.

11 MR. GARNEAU: Right. What you'd have to do is have a

12 motion and you'd have to, as a group, vote on

forth

13 And if you decided that you would not like to

14 proceed with your charge, which is to bring

want

15 recommendations to the Public Works and

16 Transportation Committee, and that instead you

that

17 to dissolve, then you would just have to pass

18 and send it back to the Public Works and

would be

19 Transportation Committee. At that point it

20 an agenda item there and they would vote on it

21 themselves.

to 22 So the reality is if this group decided
23 dissolve and you tell the Public Works
intend 24 Transportation Committee that that's what you
25 to do, you're essentially, you know, I can't
imagine

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because 1 that they would say oh, no, well continue it
2 no way of forcing you to meet.
October, 3 So if you do nothing, you have until
4 and at that point you'd either have to make your
But 5 recommendations or ask for another extension.
would 6 if you determine that it's the best way to go
then 7 be to, you want to meet outside of this forum,
8 you'd have to -- the subject of the Sunshine Law
9 until it's dissolved, so you'd have to -- is
Transportation 10 recommend it to the Public Works and
they 11 Committee that that's what you want to do and
12 would have to take that up and they could change
the

13 date.

14 Really, this Subcommittee's a creature of

the

15 Public Works and Transportation Committee, so

they

16 have, the members there have ultimate control

over

17 its existence. But you'd have to let them, you

18 know, communicate with them.

19 CHAIR MOLINA: Okay? Any questions for Mr. Garneau at

20 this time? Mr. Maberry?

21 MR. MABERRY: No questions, sir. But I was -- Chair,

if

22 you're interested in sort of polling this body

to

23 see how they feel about this issue, I would be

happy

24 to go first.

25 CHAIR MOLINA: Sure. Okay. Well, the Chair was

intending

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1 on have a vote or have somebody make a motion to

as

2 far as the direction, whether they want to

maintain

3 this Subcommittee or look into disbanding it.

4 Okay, first of all, everybody else

complete

entertain

5 with questions for Mr. Garneau at this time?

6 Okay, at this time, the Chair will

7 a motion to either maintain this Subcommittee or

8 disband it. Okay, Miss Bernard?

9 MS. BERNARD: I'd like to make the motion to keep the

10 Subcommittee intact.

11 CHAIR MOLINA: Okay, is there a second --

12 MR. MABERRY: Second.

13 CHAIR MOLINA: Okay, the motion has been made by

14 Miss Bernard to maintain the Subcommittee. It's

15 been seconded by Mr. Maberry.

16 Discussion, members? As the maker of the

17 motion, Miss Bernard, your comments? You have

any?

18 MS. BERNARD: And just very briefly, I just think that

we

19 are getting very close to being able to give

20 recommendations and we can make them as motions

as

21 of today. I think we're ready to go with that.

And

22 we already discussed the fact that development

is

23 continuing.

24 While we're here meeting, we're seeing

lights

25 erected that are improper. Already they don't

even

ground. 1 comply with County Code and so we're losing

2 So my feeling is that we need to get going and

3 complete what we're here to do.

4 Thank you.

5 CHAIR MOLINA: Okay. Mr. Maberry?

thanking 6 MR. MABERRY: Yes, sir. I would like to start by

7 everyone that is involved in this process, all

the 8 members, especially the resource people. I know

9 they're giving up time from their lives, but

this is 10 an extremely important issue. It's the future

of 11 Maui. And I feel that the actions taken by the

12 Public Works Committee to extend the term, as

they 13 have done, clearly shows an endorsement by their

14 Committee for the process that we're undergoing

at 15 this time and that they recognize, just as

Hannah 16 has expressed, that we're losing ground every

day. 17 This is a process that hasn't just popped

up 18 on the radar screen recently again as was

mentioned 19 earlier in early, in earlier meetings; that this

20 process is actually, people have been looking at

wait 21 this issue since the late '80s. And we can't
22 another 10 years.
23 And I feel, as Hannah does, that we've
24 learned a lot in the last few meetings. I think
25 that the original ad hoc committee has
recognized

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1 some problems in our original draft.
2 For example, you know, if we do go to LPS
for 3 street lights, then, you know, the restrictions
that 4 are placed on current street lights, as far as
5 height goes at 20 feet, are absolutely
unnecessary 6 if you're using low pressure sodium as long as
7 they're full cut-off. And I think there can
even be 8 some more leeway with regards to the brightness
of 9 the bulbs which reduces the cost of lighting up
a 10 street properly and meeting the standards that
are 11 required for putting footcandles on the ground.
12 So I believe we're learning a lot. I
know it

it's 13 seems like a very painful and slow process, but
14 an incredibly important thing for Maui.
15 Thank you, sir.
Chong? 16 CHAIR MOLINA: Okay. Thank you, Mr. Maberry. Mr.
format as 17 MR. CHONG: I'm actually against continuing this
open 18 I stated in the last meeting. I find this very,
19 this format very, very confining in promoting
20 discussion.
21 I also find -- I mean, I'm not against an
full 22 ordinance. I'm, again, I'm all for shielding,
23 shielding.
kinda 24 I fail to see where we've come to any
25 compromise. We haven't actually voted on any or

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been 1 passed on any recommendations, but there hasn't
discussed. 2 any compromise in my mind in what we've
here in 3 And I'm not so sure that that's gonna happen
step 4 this format and that we still need to take a

of 5 back and get back into a task force or something
and we 6 that kind of format where it's an open table,
all 7 openly discuss and come up with a document that
8 parties are happy.

9 I think, as a Committee member, I'd be
Committee 10 disappointed if I handed something to the
11 above us and the Council that doesn't have
12 consensus. To me, I haven't done my job as a
13 citizen and as a person that does work in Maui
14 County. So I'm not for continuing in this
format.

15 CHAIR MOLINA: Okay. Thank you, Mr. Chong.

16 Dr. Altenberg?

17 MR. ALTENBERG: I'm wondering if there's anything
within 18 the options of the current format that could
address 19 the basically the kinds of interactions that
Rick is 20 talking about. As I gather, you're saying that
21 there's a kind of a, the structure is a bit of a
22 stifling to a free exchange of ideas. And I'm
23 wondering is that a necessary part of Robert's
24 Rules, or is it something that could be
incorporated 25 within our procedures of a Subcommittee?

the
1 CHAIR MOLINA: Well, I yield the mike at this time to
2 Corporation Counsel to give comments on that.
3 MR. GARNEAU: Well, it's more of the way -- this is a
4 Council Committee, so it's run by the Chair and
5 people have to be recognized. There's nothing
6 stopping members from bringing forth proposals
to
7 reach consensus. I mean, we -- in-between the
8 meetings of the Subcommittee, if members feel
like
9 certain, you know, they want to propose language
in
10 certain sections and bring that forward, there'd
be
11 no reason they couldn't.
12 But the discussion part really has to be
done
13 in this format. There's -- am I answering your
14 question?
15 MR. ALTENBERG: Well, maybe I could ask Rick to say
16 specifically what would you like to see
different in
17 terms of the nature of our interactions here?
18 MR. CHONG: I'll be point-blank honest. I'm the only
guy
19 in this Committee that's talking on the other
side
20 of the coin. I think you can all admit to that.

consensus 21 And so if we vote on recommendations or
22 like this motion, I'm going to be the only one
it'll 23 saying nay, and I'll never win a battle. And
24 go forth the way the rest of the Committee sees
it.
25 So to me, in my mind, and I'm not just a
sole

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1 person in the community that is looking for some
2 compromise, I think some of the resource people
here
3 and some of the people that have testified here
are
4 looking for some compromise, and I'm not sure
this
5 Committee is set up majority-wise or whatever to
do
6 that. And that's why I find it very tough to
work
7 in this format.
8 You folks can make a recommendation or
motion
9 to accept a paragraph. I may be the only guy
10 raising my hand saying I don't agree with it.
But
11 it'll still go forward and I have to live with
that,

of 12 and I can't do that. And if that's the format
the 13 the Committee, then I might as well step out of
14 Committee and not even be involved.
15 CHAIR MOLINA: Well, if the Chair could offer a little
16 comment to that. We have to be careful about
know 17 assuming how people may vote. But, you know, I
And 18 I can see where you're coming from, Mr. Chong.
19 I respect your opinions.
20 Okay, Miss Bernard?
21 MS. BERNARD: I'd just like to address the issue of
of 22 discussion and some of Rick's comments. First
Sanctuary 23 all, having been a member and Chair of the
eternity, 24 Advisory Council for what seems like an
25 who operated under the Robert's Rules of Order,

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1 absolutely, we can have better discussions with
2 Robert's Rules intact. They are stilted, and
it's 3 not the best. But we certainly can have better
4 discussion.

other 5 And to be fair to the rest of us on the
6 side of the coin, we've heard from resource
7 personnel for the first three or four meetings
that 8 we heard from resource personnel almost
9 exclusively about their concerns. And we actually got to
10 the point where we had a matrix bringing in
11 compromise, as far as, that was my understanding.
12 And so I assume that where we're at, at
13 the last meeting was we were about to look at a
14 matrix of options, and I think that there is some
15 understandable fear that those might have just
been 16 kiboshed -- nixed -- what the rest of the
17 Committee members would not have agreed to compromise.
18 And I personally feel like that's an
unfair 19 judgment on those of us who are more than
20 willing and have sat on many numerous Committees
composed of 21 people willing to compromise to find a solution
22 that we can all live with, that protects our
environment, 23 that protects our night sky, that supports our
24 shores and industry, really, for the long term.
25 These people are here at this table.

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1 So I'd like to offer to Rick, in
particular,
2 to not feel so alone. We have a whole, a whole
3 suite of resource people we've heard from, and I
4 know I have taken in their comments and am
5 evaluating those and making my decisions.
6 CHAIR MOLINA: Thank you, Miss Bernard. Mr. McCord?
7 MR. MCCORD: I apologize for not being here at the
last
8 session. Still a little hung over.
9 But two sessions ago I said that it was
most
10 important to not get too bogged down into the
11 technicalities of this thing so that we could
get
12 something on the books that would do a direction
13 toward reducing the light impact. I still
believe
14 that. And if compromise is what's gonna make
this
15 happen, I want to vote with the minority to get
16 something done to get something on the books.
And
17 so I'm willing to compromise.
18 And I would like to see this format
continue,

because 19 but I do believe that, particularly for me
20 this is not a technical area in which I really
21 shine, I would like to see a little more written
22 material that would show alternative motions or
23 alternative directions toward some of our sticky
24 problems.

25 But I think we can do it in this format.

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you -- 1 CHAIR MOLINA: Thank you, Mr. McCord. Mr. Maberry,
2 I thought I saw your hand up. Sorry.
3 Okay, at this point, there is a motion on
the 4 floor to maintain this Subcommittee. Is there
any 5 other final discussion before we take the vote?
6 Seeing none -- oh, okay. Dr. Altenberg?
7 MR. ALTENBERG: I guess I'd like to express some -- my
8 viewpoint in terms of the idea of compromise.
9 Often, you know, when parties are discussing
some 10 issue, there's areas of disagreement. And when
11 those areas are more carefully thought through
and 12 that often you can find solutions that are
solutions

13 for both sides, win-win.
14 So I think in the process of hashing out
15 disagreement, it's important to separate those
areas
16 where there's fundamental conflict from those
areas
17 where there may be some, a solution that
satisfies
18 both parties.
19 And there's only, you know, one way to do
20 that which is you really gotta think it through
and
21 you gotta look at the details. So my sense of
when
22 you come to an area where there's conflict is
not --
23 the first thing you do is not to try find some
point
24 midway between the two, but try to find a
creative
25 solution that actually solves both sides that's

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1 dealing with the more fundamental issue that's
2 represented.
3 And if it's something where the conflict
is
4 just fundamental, you can't get rid of it,
there's

5 no solution, it's just two opposing views, two
6 opposing interests, then compromise becomes a
7 necessity.

8 So that would be my, my approach to what
we

9 should do when we encounter conflicts between
10 positions on the surface.

11 CHAIR MOLINA: Okay. Thank you, Dr. Altenberg.

12 Mr. Chong?

13 MR. CHONG: Dr. Altenberg, I agree with you. But I
have

14 not heard anything or any motion or any
suggestion

15 in rewriting of this document from you or any of
the

16 other people who have strong interest in it
17 suggesting that we're gonna rewrite this and say
it

18 this way.

19 We've heard testimony, like Hannah said,
from

20 the resource people, but they're not voting
parties

21 of this Committee. We've heard testimony from
us

22 Committee members, but I haven't heard anything
or

23 seen anything in writing that says we're gonna
24 change this so that we take into what the
resource

25 people have said, what the community have said,
what

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1 we have all stated. It's still status quo.

made

2 So, I mean, to me that means we haven't

for

3 any progress. And this has been very stifling

4 me.

5 CHAIR MOLINA: Thank you, Mr. Chong. (Inaudible.)

6 Mr. Maberry had his hand up.

but I

7 MR. MABERRY: I'm trying to keep my mouth shut here,

you

8 can't on that one. I mean, what I have seen is,

I've

9 know, information from the resource people, but

is

10 got to point out that the majority of the public

You

11 in support of getting control of this issue.

to

12 know, I have to take exception to your referring

kind

13 the testimony of the public as being for some

14 of compromise.

15 CHAIR MOLINA: Okay, Dr. Altenberg?

16 MR. ALTENBERG: As far as what we've already discussed

17 here, there's only, there's one point where I've

to

18 actually offered some kind of a compromise text

vapor. 19 the draft which had to do with the mercury
20 And I suggested that there be a year after the
21 ordinance is enacted that people can continue to
buy 22 mercury vapor lamps so that if they want to
maintain 23 the service of some luminaire that they already
24 have, they'll have an opportunity to get an
25 inventory of replacement bulbs.

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1 So that was something that I suggested.
2 And -- but your response to that was you didn't
like 3 it. You still wanted people to continue to be
able 4 to buy bulbs forever for their mercury vapor
5 luminaires.
6 Another issue had to do with the
threshold 7 value for requiring full shielding, and you had
8 suggested that it be moved to something like
9 3000 lumens? So basically I didn't have enough
10 information to be able to evaluate that. And
what I 11 proposed is that we find out in the communities
that

shielding, 12 have set at 1800 lumen threshold for full
13 why they set it at that threshold? So that was
14 basically a proposal that we needed to get more
15 information and before I would be ready to say
16 anything either way.
17 So, in fact, a number of the other
issues, 18 you know, at least I haven't expressed what my
19 response was to the testimony we've heard, so
20 there's no way to know whether I'm compromising
or 21 not because I haven't suggested anything. We've
22 heard some very important testimony regarding,
you 23 know, the photometrics of different street light
24 configurations. And that, I think, is something
we 25 need to really further dig into before I'm
willing

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1 to recommend anything.
2 So basically, you know, I think we're
still 3 in the process of information gathering; and I
4 haven't, you know, and I think a lot of what was
in

until 5 the draft should be considered up in the air

I'm 6 we get that information. So in terms of where

quo or 7 coming from on these, you know, on the status

8 revisions, a lot of it we still need more

9 information.

I'll 10 CHAIR MOLINA: Okay, thank you, Dr. Altenberg. Okay,

had 11 allow one more member to -- I think everybody's

gives 12 their say on this matter. After Miss Bernard

13 her comments, the Chair would like to make his

14 comments; and then we'll go ahead and take the

vote 15 'cause I think we've discussed this thing, this

16 particular matter enough.

17 Miss Bernard?

the 18 MS. BERNARD: Okay, it's pretty simple. It's just in

heard 19 spirit of cooperation. I think, Rick, you've

20 from us that the real intent is to try and work

out 21 something that we can all live with.

to 22 And I just, I can't encourage you enough

23 please don't jump off the Subcommittee if we

stay 24 intact and to stay engaged because your comments

and 25 your participation have really helped me a lot

to

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process. 1 find a place where I need to go to in this

2 And I can't do it without your expertise.

echo 3 CHAIR MOLINA: Okay, thank you, Miss Bernard. And I

you. 4 that sentiment, Mr. Chong. We definitely need

5 I give my general comments. Again, this

this 6 Subcommittee is the first step in addressing

come 7 ordinance. And whatever recommendations that

the 8 out of this Subcommittee, we will be voting on

9 recommendations prior to the termination of this

go 10 term which ends in October. Now, then it has to

the 11 to the Public Works Committee where ultimately

12 decision makers are there, and whatever

13 recommendations pass, if any, will go on to the

full 14 Council.

15 In the meantime, this does not preclude

your 16 anyone in the general public from talking to

17 Council members about concerns regarding this

that 18 ordinance. So it's a long step. So anything
19 happens here is just the beginning.
20 So, again, these are just
recommendations.
21 But I think, looking at this whole matter, I
think
22 we have learned a lot about lighting in itself.
And
23 we've heard concerns from both sides of the
coin, so
24 to speak. So I think there has been benefit
with
25 this Subcommittee being formed.

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call 1 So with that, the Chair would like to
2 for the votes. All those in favor of
maintaining
3 the Subcommittee say aye.
4 SUBCOMMITTEE MEMBERS VOICED AYE.
5 CHAIR MOLINA: All those opposed?
6 SUBCOMMITTEE MEMBER VOICED AYE.
7 CHAIR MOLINA: Okay, the Chair will mark one no from
8 Mr. Chong.
9 VOTE: AYES: Subcommittee members Altenberg,
Bernard,
10 NOES: Maberry, McCord, and Chair Molina.
Subcommittee member Chong.

11 ABSTAIN: None.
12 ABSENT: None.
13 EXC.: Vice-Chair Tavares.
14 MOTION CARRIED.
15
16 ACTION: APPROVE continuation of
Subcommittee's charge.
17
18 CHAIR MOLINA: So the Subcommittee's term will be
extended
19 till October 31st, and we'll continue to meet in
20 this matter. And again, from what the
Corporation
21 Counsel told us about Sunshine Laws, it still
22 applies. So we do have somewhat of a long time
23 where, for example, if Dr. Altenberg and Mr.
Chong
24 can meet on their own and discuss any changes or
25 revisions to the ordinance, that can occur.
Miss So at this point, the Chair would like to
discuss our next meeting sessions. Myself and

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1 Tavares, we are in the middle of the budget
sessions
2 so there will be no more meetings for the months
of
3 April and May. But at this time, again, if any
of

if 4 the members, no more than two people at a time,
5 you wanna meet and talk things over during that
6 time, you are permitted to.
7 Here are the dates for June. It's the
8 Chair's intent to meet just once a month.
9 Dr. Altenberg, I know, expressed a concern at
our 10 Public Works meeting on March 13, meeting twice
a 11 month doesn't give him enough time to gather
enough 12 information.
13 So at this point the Chair's intent is to
14 meet once a month; and if need be, as we get
closer 15 to the deadline in October, if we need to add an
16 additional meeting, say, maybe a second meeting
for 17 September or a second meeting for October, the
Chair 18 will take that into consideration. But for, at
least 19 for the time being for the months of June, July,
and 20 August, I'm looking at one meeting a month.
21 Members, let's discuss three possible
dates 22 for June's meeting. I'm looking at June 5th,
23 June 12th, or June 26th. Comments? Mr.
Maberry?
24 MR. MABERRY: June 26 would be preferable, sir. I'll
be 25 out of the country the rest of that month.

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everybody 1 CHAIR MOLINA: Okay. How does June 26 work for
2 else?
3 MR. CHONG: 26 does not work for me.
4 CHAIR MOLINA: Okay, Mr. Chong will be out. How about
5 Dr. Altenberg, does that work for you?
6 MR. ALTENBERG: They all look fine for me.
7 CHAIR MOLINA: Miss Bernard, it's okay for you?
8 Mr. McCord? Okay. All righty. For the Chair,
9 June 26 works. I think I'm pretty open to all
three
with 10 dates myself. So the Chair would like to go
11 June 26. Mr. Chong, you're gonna be --
12 MR. CHONG: I'll be out. I'll be out-of-state
probably.
13 CHAIR MOLINA: Okay. I would like to get you in
there.
14 MR. MABERRY: I can waive, sir.
15 CHAIR MOLINA: You can waive? Okay, can we go with
16 June 12th then, members?
17 MR. CHONG: That should be all right.
18 CHAIR MOLINA: Okay. Okay for the record, Gary,
19 June 12th, same time, 9:00 a.m.
20 For July's meeting, we have two dates,

members? 21 July 10th or July 24th. Comments from the

22 Both days work for myself --

23 MR. CHONG: I'm out of town also on the 24th.

24 MR. MABERRY: I'll probably be out of town on the

24th.

25 CHAIR MOLINA: Okay. How about let's tentatively set

it

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1 for July 10th then? Okay, July 10th, members?

2 And as far as August goes, I have three

3 dates, August 7, 21st, and 28th. Any comments?

4 7th, 21st, or 28th?

5 MR. McCORD: If no one else cares, I'd just as soon as

6 skip the 28th. I probably will be out-of-state.

7 CHAIR MOLINA: Okay. 7th or the 21st, members?

8 MR. CHONG: I'll be -- I think the 7th is when the

9 Illuminating Engineering Society of North

America

10 conference is, I think.

11 CHAIR MOLINA: Okay. How about August 21st, members.

12 MR. CHONG: That would be better for me.

13 CHAIR MOLINA: Okay. August 21st it is.

14 September, I'm looking at -- ooh,

for 15 September 11th or the 25th. That's -- can we go
Members, 16 the 25th on that one? Okay. Thank you.
17 September 25th.
9th or 18 And for October, we're looking October
In 19 the 23rd. Any comments? How about October 9th?
October 20 case we do need another meeting at least for
21 we can consider the 23rd. Mr. Maberry?
22 MR. MABERRY: Sir, that's the last meeting and I'll
23 probably be in Washington at that time. Is
24 there --?
25 CHAIR MOLINA: Would you like -- you're looking at
what?

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1 The 9th or the 23 --
2 MR. MABERRY: The 9th I'll probably be out-of-state,
sir.
3 CHAIR MOLINA: So the 23rd?
4 MR. MABERRY: That'll be fine, sir.
5 CHAIR MOLINA: Members, the 23rd? Okay. And again,
as we
6 approach the deadline, if we do need another
meeting
7 or two -- the Chair will take that into

8 consideration. Okay? Dr. Altenberg?

9 MR. ALTENBERG: I just wanted to verify with the other

10 members about moving to this one-month interval,

11 that it would be good for them as well.

12 CHAIR MOLINA: Members, any objections to just meeting

13 once a month? Because we do have a long span.

14 Mr. Maberry?

15 MR. MABERRY: Sir, I'd like to recommend that we try
it

16 for a couple of months. But I actually think, I

17 would hope that we don't have to continue
through

18 October. I would think that we should be able
to

19 get some compromise going here and get some
things

20 settled. I would certainly hope so.

21 CHAIR MOLINA: And I'm somewhat stepping on the gas
pedal,

22 members. I would like to at least try to
address

23 matters and, you know, speed things up a bit.
But

24 we do have a long stretch, so if we can again
focus

25 on, not get too much into the issue of the

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of 1 technicalities as Mr. McCord was saying, a lot
sometimes 2 the _____ technical discussions that we
3 get lost. And I think we can at least make some
4 progress. I believe we have made some progress.
5 Miss Bernard?
make 6 MS. BERNARD: I'd like to propose or even potentially
not. 7 a motion. I don't know if it's appropriate or
months 8 But I'd like propose that during these two
we 9 when the Council members are not available, that
10 can come up through e-mail with a suite of
through 11 recommendations that we have hammered out
so 12 e-mail on the issues that we've been discussing
actually 13 that when we come to our next meeting we
14 can do some voting.
on 15 CHAIR MOLINA: Okay. I don't know if we need to vote
16 that, but I think all the members --
17 MR. CHONG: Great idea.
even 18 CHAIR MOLINA: Good idea? Okay. Yeah, let's -- so
at 19 though we meet just once a month, I mean, we can
20 least keep up --
internet, 21 MR. CHONG: Does the Sunshine Law apply to the
22 e-mail?

can't, 23 MR. GARNEAU: Yeah. And that's the problem. You
members, 24 if you want to investigate or as individual
sections 25 if there's, for example, Rick, if there's

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say, 1 of the Code, if you want to go through it and,
communicate 2 you know, these are the sections I have problems
3 with, this is my compromise language and
4 that to Mr. Saldana, that's fine.
5 But you can't e-mail together and come up
6 with compromise language or Miss, you know,
were 7 Miss Bernard, if you had some sections that you
to 8 willing to compromise on already and you'd like
learned 9 propose alternate language from what you've
up 10 so far from the resource people, you could come
you 11 with those as well and communicate those. But
12 can't --
13 MS. BERNARD: Fine.

any
deliberate
to
had, in
you've

14 MR. GARNEAU: -- either meet as a group or e-mail or
15 other way come up with compromises and
16 outside of the Committee.
17 CHAIR MOLINA: Okay, Miss Bernard?
18 MS. BERNARD: But then Gary would forward the comments
19 the rest of us; is that correct?
20 MR. GARNEAU: He could. Yeah, but then in terms of --
21 MS. BERNARD: Then we respond to Gary?
22 MR. GARNEAU: What could happen is, is that if you
23 this two-month period, there may be things
24 already learned, so there may be parts of the
25 ordinance that you already want to make

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he
Gary
know,
so

1 recommendations. And Rick may have parts that
2 would like to make recommended changes from what
3 you've learned from the resource people.
4 You could submit all of those to -- and
5 could certainly tally them all up and say, you
6 these are comments and send them back out to you

7 you could look at them before the meeting. But
the
8 actual voting on it, deciding it, deliberating
on it
9 is there.
10 And along the same idea, the Subcommittee
has
11 spent a lot of time so far with all of the
resource
12 people here and in this learning mode. So --
but
13 that your meetings don't have to be with all the
14 resource people included every single time.
15 Once you feel like you have enough
16 information, you can have -- your meetings
should
17 just focus on this ordinance, that's what your
task
18 is. And you spend your time hashing these
things
19 out and so, you know, I would encourage you to
think
20 about between now and next time what you've
learned
21 so far and what compromise language you may like
to
22 propose. Nothing wrong with that, so that you
get a
23 more meaningful meeting when you come back.
24 CHAIR MOLINA: Okay. Miss Bernard?
25 MS. BERNARD: I'm not sure how much longer we're gonna

67

from 1 continue the meeting today, but I wanted to ask
2 one of our resource personnel for some comments
3 before you adjourn the meeting. That's all.

had 4 CHAIR MOLINA: Okay. Okay, members, at this time I
5 planned to move on to the next portion of our
6 meeting, but I think the Chair senses it's time
for

7 a break. So let's take ten minutes and
reconvene at

8 10:25. (Gavel.)

9 RECESS: 10:15 a.m.

10 RECONVENE: 10:27 a.m.

11 CHAIR MOLINA: The Public Works and Transportation
12 Subcommittee on Outdoor Lighting is now back in
13 session.

14 Thank you, members, I think we had a very
15 healthy discussion prior to break. At this time
16 before going into our next agenda item for
today, I

17 believe Dr. Altenberg or Miss Bernard had a
question

18 or concern. We'll start first with Dr.
Altenberg.

19 MR. ALTENBERG: Well, in the way we had started to
20 approach the process of reviewing the draft
21 ordinance was basically go in, go through it in
a

might 22 linear fashion. But I'm wondering whether it
23 make sense to basically see those areas where we
could 24 think we could all consense and see what we
time 25 approve as recommendations and then take our

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1 and dig into those areas where there's still
2 contention, where we need to hash things out.
3 So, you know, we might be able to
actually 4 come up with things that we could submit,
forward on 5 to the Public Works Committee in terms of
partial 6 recommendations that they could already start to
7 deliberate on; and then, you know, continue our
work 8 on the trickier issues.
9 So I'm wondering if that might be a
10 beneficial process.
11 CHAIR MOLINA: You got me on that one. Mr. Garneau,
is 12 that possible that we could submit, I guess --
well, 13 I guess, for me as the Chair of the Public Works

from 14 Committee to take in partial recommendations
approved 15 this Subcommittee and deliberate on those
something 16 recommendations in Public Works; is that
I'm 17 that can be done or? -- I don't know. I think
get 18 just thinking that it may be cleaner if we just
19 all the recommendations at one time rather than
20 piecemealing this. Any comments for me?
sure, 21 MR. GARNEAU: Yeah. If you ask me if it's possible,
22 the Subcommittee is charged with making
23 recommendations to the Public Works and
24 Transportation Committee. If you wanna do that
a
then, 25 little at a time, you can. It would be up to

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1 the Public Works and Transportation Committee,
2 whether they would put that item on the agenda,
for
3 them to deliberate, or whether they wanted to,
you
4 know, hold till your finished your business.
It'd
5 be their decision.

had 6 CHAIR MOLINA: Okay. And Miss Bernard, you were, you
7 your hand up earlier or you gonna yield to
8 Mr. Maberry?
9 MS. BERNARD: I am.
10 CHAIR MOLINA: Okay. Mr. Maberry?
11 MR. MABERRY: I actually liked where he was going
12 initially, but I would personally prefer that we
13 just forward one document and --. Otherwise
it's
14 gonna really muddy things up for us trying to go
and
15 testify in support of other things and -- just
seems
16 cleaner. But I do like the first, where he was
17 going with the first part of his, his questions,
18 sir.
19 CHAIR MOLINA: Okay. Thank you. All right. If
there's
20 no other discussion at this time, the Chair
would
21 like to yield the microphone to the analyst,
22 Mr. Gary Saldana, to discuss with us our street
23 lighting demonstration project.
24 Mr. Saldana?
25 MR. SALDANA: Okay, thank you, Mr. Chair.

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1 Subcommittee members, I have been doing a
2 little bit of research based on the direction
from
3 the Subcommittee on determining the feasibility
of
4 doing the lighting demonstration project for
5 streetlight location. And with the help of
6 Dr. Altenberg, we were able to locate a provider
7 that would donate low pressure sodium fixtures,
and
8 these are 90- and I believe, I believe, 90- and
9 135-watt fixtures. There's two of each.

10 And what we would need to do, however, is
we
11 would still need to get a hold of the lamps
itself.
12 They are just donating the fixtures.

13 And during previous discussions, the
14 Subcommittee had reviewed the idea of having
such a
15 demonstration project done on Kula Highway, next
to
16 the entrance of King Kekaulike High School up in
the
17 Pukalani area.

18 And basically what I've done is since
then,
19 we've maintained communication with Dimensions
20 Electric who are gonna donate the fixtures.
We've
21 contacted Maui Electric and Randy Nakama about
22 possible installation of these fixtures. And it

allowing 23 appears that also the State is agreeable to
24 the demonstration project to take place on Kula
25 Highway.

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for 1 Now, one of the things we were trying to
2 determine is what location might be appropriate
3 this demonstration project. So I went up and I
4 actually took some photographs of the area, and
I 5 wanted to share those with you today if I could,
6 just to kinda give you an idea of what we might,
7 what we as Staff might recommend as a potential,
as 8 a potential demonstration project location.
9 So if you'll bear with me one second, let
me 10 put it on the screen and then we'll, I'll go
over 11 these photos with you. Okay, the first photo
that 12 you are looking at is a photo right at the
entrance 13 of, or photos right at the entrance of King K.
14 School, right along Kula Highway. You'll have
15 unshielded high pressure sodium lights on either

the 16 side. There's three going down the hill; and on
going 17 opposite side of the entrance, there's three
18 up the hill. And both of these are currently
19 unshielded.
these 20 And I was thinking that either one of
21 locations might be an appropriate location to
sodium. 22 actually make the conversion to low pressure
23 These are how the lights look close up. You can
24 tell; you see the bulb hanging down or the lamp
how 25 hanging down, and it is unshielded. And this is

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more 1 these lights look at night. They're a little
2 rounded glow, and you can see that they have an
3 unshielded appearance.
do 4 Next in this area -- why this area is
5 probably a great location to do this type of, to
K. 6 this type of exhibit is because just above King
7 School, a matter of a few hundred yards, are
8 shielded high pressure sodium lights. There's a

on 9 series of high pressure lights that are shielded
10 either side of the street. As you look, you can
11 compare. This is the shielding that's been
12 retrofitted on to these lights.
13 So what's good is you'll be able to
compare 14 what these shielded lights are like versus the
15 unshielded lights. And this is just another
version 16 of another location of the shielded lights in
this 17 location.
18 Actually, while I was out, I had, was
taking 19 pictures of other lights. I had heard locations
of 20 potentially other low pressure sodium lights.
And 21 I, as you can see on the notation, there's a
22 question mark right next to low pressure sodium.
I 23 wasn't sure. But this kind of fit the
description 24 because it was a long, long fixture, as was
provided 25 to us before.

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it 1 And when I took a picture of the light,
kinda 2 was a yellow light. And as you can tell, it's
can't 3 hard to tell in this picture, but you really
kinda 4 tell the colors of the cars below it. So that
an 5 gave me an impression that it maybe was a low
he's 6 pressure sodium and maybe Rick can kinda give me
7 idea of whether or not this is, based on what
8 been able to see.
Community 9 There was another location at Maui
pressure. 10 College as well that might have had a low
also 11 It was the long, long fixture and lamp. And it
12 provided that yellow, yellow glow to it as well.
colors 13 And as noticeably, you cannot really tell the
14 of the vehicles below it as well.
before 15 So basically, basically, what we have
Subcommittee 16 us is whether or not we want to, the
17 wants to proceed with the demonstration project.
to 18 The Committee -- or actually, there's going have
19 be some costs involved in terms of, in terms of
20 labor, labor expenses. And if we cannot get the
21 actual lamps donated, then there may be costs
22 involved with that.

23 We do need to go through a permit process
24 with the State. To give us an idea, actually,
the
25 permit process actually is pretty simplistic.
But

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1 we also have to decide whether or not the County
or
2 Maui Electric would be the appropriate applicant
for
3 doing the demonstration project as well.
4 And in terms of the duration of the
5 demonstration project, the State would prefer
that
6 it be no more than a week.
7 ?: What?
8 MR. SALDANA: Their concerns are liability issues.
And,
9 unfortunately, we had a representative here
earlier,
10 but he had to leave, and he would have been
willing
11 to talk about that. But that's one of issues
that
12 they are concerned with is they're willing to
allow
13 it to happen, but they don't want the duration
to be
14 for an extended period of time.

15 And that should do it, Mr. Chair.

16 CHAIR MOLINA: Thank you, Mr. Saldana. We could go
ahead
17 and have our lights put back on. And just for
your
18 information, members, the representative from
the
19 Department of Transportation was here earlier
but
20 had to leave. His name is Mr. Paul Chung.
21 Any questions you may have, you can
forward
22 them to myself or Gary, and we can try and get a
23 response from Mr. Chung.
24 Mr. Chong? Rick?
25 MR. CHONG: One, I would recommend that you talk to
Dexter

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Philips 1 Kumano again from Philips Lighting to see if
my 2 Lighting is willing to donate the lamps. He's
to 3 favorite lamp rep be cause he always is willing
4 get any kind of lamp that I've always asked for
work 5 samples; he's always willing to chip in. So I
6 with him quite a bit. So I would think he'd be

7 willing to do that.

8 So I would ask him --

9 MR. SALDANA: Thanks.

10 MR. CHONG: We should really work on DOT to allow us
to
I
11 leave that up for a longer period than a week.

12 mean, I think a month might be better. A week's
13 really ridiculous, in my mind.

14 CHAIR MOLINA: So noted. Miss Bernard to be followed
by
15 Mr. McCord and Mr. Maberry?

16 MS. BERNARD: I don't know if our DOT specialist would
17 have been able to answer this perhaps better
than
18 any other resource personnel here. But I'm
19 wondering what kind of lighting we have on Hana
Highways.
20 Highway between Hansen Road and Haleakala

21 Does anybody know? They're yellow.

22 ?: High pressure.

23 MS. BERNARD: High pressure?

24 ?: Yeah.

25 CHAIR MOLINA: Okay.

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1 MS. BERNARD: Thank you.

2 CHAIR MOLINA: Mr. McCord? To be followed by --

3 MR. McCORD: Mr. Chairman, we were discussing this
thing

4 without a motion. I would like to move that we

5 proceed with this project, and I agree with

6 Mr. Chong that one week is ridiculous. Let's
ask

7 for at least a month.

8 I think it would be important not only
for

9 the Committee to see it, but I'd like to get a

10 little reaction from people. I'm sure we can
get

11 some reaction from people in Kula 200 and Kula

12 residents because they're concerned about this.
And

13 those -- I think there are three or perhaps four

14 light poles in this area that are not shielded
and

15 really stand out from the ones that have been

16 shielded.

17 So I'd like to move that this project
move

18 forward.

19 CHAIR MOLINA: Okay. Mr. McCord, before you make your

20 motion, can I go ahead and just poll the members

21 first, if that's okay with you? Mr. Maberry?

22 MR. MABERRY: Well, I would definitely support doing
this,

23 and I think that's a good location. I think
Gary's

24 done a good job in picking out the spot.

number 25

I am totally confused considering the

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as 1 of places around the United States and as well
issue 2 the Big Island why there would be a liability
what is 3 considering that that area is overlit beyond
4 required by regulations anyhow? I mean, I would
5 like to get some written opinion from them as to
6 what the situation is because that area does not
7 have the traffic to justify that many lights.

8 CHAIR MOLINA: Okay. Mr. Chong?

on 9 MR. CHONG: I would also like to recommend we have up

10 Kula Highway an unshielded high pressure sodium
11 luminaire, a retrofitted shielded high pressure
12 sodium luminaire. It would be nice to see also
at 13 the same time already, I mean, a factory
designed 14 fully shielded high pressure sodium luminaire
15 because there is a big difference between that
and a 16 retrofitted shielded luminaire.

need 17 So that would be also something that we

and 18 to identify a location where that happens, Gary,
time. 19 that we could journey to and look at the same
20 CHAIR MOLINA: Okay. Dr. Altenberg --
21 MS. BERNARD: I thought you were just moving down the
22 line.
23 CHAIR MOLINA: Oh. Okay. All right, we're gonna
yield 24 the mike to you, then, Miss Bernard.
25 MS. BERNARD: That's okay.

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Just 1 I know you'll hear from me eventually.
2 a matter of time.
project 3 I don't wanna move forward with this
red 4 considering we have to go through the kinds of
think 5 tape that we might have to with the State. I
6 we were discussing sending some members to Big
and 7 Island to see examples that are already in place
answer 8 to talk with the personnel there who could
other 9 the questions we had about safety and so many

you 10 issues that we had. And that seems to me that,
11 know, we were gonna do one or the other:
12 Demonstration project on Maui or go to Big
Island.
13 So, to me, it seems like we really have
to
14 ask which one is most cost effective and is
going to
15 happen the fastest.
16 CHAIR MOLINA: Okay, if I could get Mr. Saldana. I
factor 17 believe that was a major issue was the cost
at 18 for the Big Island, right? What are we looking
as 19 as cost compared to doing the demonstration here
20 opposed to going to the Big Island?
21 MR. SALDANA: Well, assuming that we can get the lamps
of 22 donated, it would probably much so be the cost
fee. 23 installation. There's not gonna be a permit
the 24 The State said that it would go ahead and waive
25 permit fee.

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I'm 1 And I had put in a call to Dexter, and
2 just waiting to hear back from him. He hasn't
3 responded back. I was hoping that that might be
a 4 resource for getting the lamps.
5 And, you know, initially when, in
discussing 6 this with the State, I did ask for a month, 30
days, 7 and there was some dead silence on the phone.
And I 8 guess the guy must have fallen over or
something. 9 He said, he said that's way too long.
10 So -- but we could still submit the
request 11 for 30 days and see what happens. You know,
there's 12 no reason why we couldn't do that.
13 Now, the other factor that will come into
14 play, if we're doing different types of
retrofitting 15 lights, then it's a matter of being able to
16 determine the cost of those, because what Mr.
Chong 17 had recommended was that we also sample certain
18 other lights, and those haven't been donated at
this 19 point; so that we're gonna have costs involved
in 20 that as well.
21 And I would imagine that Randy from Maui
22 Electric could give us an idea as to what the
labor

23 costs might be for this as well.
24 CHAIR MOLINA: Randy, are you prepared to respond at
this
25 time? Members, I'll come back to questions from
you

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1 in a moment.
2 MR. NAKAMA: I'm Randy Nakama, Maui Electric. I guess
3 Gary and I discussed the cost for retrofitting
the
4 four lights with low pressure sodium. And our
cost
5 would be \$575 to do that.
6 CHAIR MOLINA: Okay. Thank you. Dr. Altenberg?
7 MR. ALTENBERG: That's the labor cost; is that right?
8 MR. NAKAMA: That's correct.
9 MR. ALTENBERG: Okay.
10 CHAIR MOLINA: Okay, thank you. Continue, Dr.
Altenberg?
11 MR. ALTENBERG: I'd like to backtrack for a second.
On
12 the value or purpose of it, of this
demonstration,
13 there's, in the testimony that, you know, among
the
14 testimony we've received and also input from the
15 resource people here, there's been a lot of fear
and

And 16 loathing expressed about low pressure sodium.
afraid 17 it's this, you know, phantom that we're all
seen 18 is gonna come to Maui and -- but nobody's ever
19 on Maui.
in 20 So I think there's a very important value
the 21 terms of the political process, which is that
about. 22 public can see what it is that we're talking
23 And so having a place where there's low pressure
24 sodium, you know, as the street lighting where
25 people can go to it and see what it is we're

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important 1 debating, themselves, the general public, for an
2 extended period of time, I think is very
of 3 in terms of, you know, grounding the citizenry
4 Maui in the issue.
these 5 So I would rather see someplace where
6 lights could stay up, you know, for the duration
of

you 7 the Subcommittee. And, you know, so that when,
news 8 know, this issue will probably surface in the
say 9 from time to time and somebody will read it and
10 I wanna, you know, I wanna know what this low
be 11 pressure sodium thing is like; and they should
like 12 able to go straightaway and see what it looks
13 to wherever it's been set up.
because 14 Now, it was proposed the Kula Highway
15 there's been a lot of complaints about the new
this 16 lighting that's been installed there. And if
17 demonstration gave a much improved aspect to it,
18 that would be nice to be able to see.
would 19 But, you know, one of the things that I
20 like, that would be good is if somebody can park
21 their car and be able to walk around under the
low 22 pressure sodium light and see what it feels
like, 23 see what it looks like. That would be
important. 24 And then being able to leave it, just leave it
up, 25 you know, basically indefinitely, I think that
would

1 be important.

2 So whether the Kula Highway location
could

3 satisfy those points, I don't know -- I don't

4 know -- get information. But I would be open to

5 also considering other locations for this

6 demonstration.

7 CHAIR MOLINA: Okay. Thank you. Mr. Maberry,
followed by

8 Mr. Chong.

9 MR. MABERRY: Mr. Chair, I apologize for not knowing
the

10 name of the church, but right there across the

11 street from Five Trees, there's a church with a

12 private road going makai. And the pastor there,

13 they actually did have a mercury vapor lamp
street

14 light on a pole there at that intersection of

that

15 private road.

16 And I would be happy to speak to the
pastor

17 and see if they would be willing to let us put
one

18 up, like Lee says, for the duration and that
would

19 still be in the same general area where people
could

20 still see all the different types of lights in
one

21 general area. It wouldn't be exactly be
22 side-by-side, but that could be an option.
23 CHAIR MOLINA: Okay, we'll take that into
consideration.
24 Mr. Chong, followed by Miss Bernard.
25 MR. CHONG: I like Dr. Altenberg's idea of leaving it
up

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1 for the duration of the Committee. In
2 Miss Bernard's comment about going to the
3 Big Island, on the Big Island we won't have the
high
4 pressure sodium comparison. And I think that's
an
5 important comparison.
6 People stand under both sources, within a
7 short time frame. Without having to go on a
plane,
8 we're gonna forget what you saw.
9 CHAIR MOLINA: Miss Bernard?
10 MS. BERNARD: In that case, I feel like it's probably
11 worthwhile especially because of informing the
12 citizenry of Maui that they can see what it
looks
13 like, I really think it's a great thing to have
it
14 here.

15 And I, actually, now am recalling that
16 there's another private citizen who had
volunteered
17 to erect this kind of lighting on his property.
So
18 maybe that's something that we want to -- you
know,
19 before we start thinking about we have to do it
a
20 particular way, I guess, first of all, go ahead
and
21 agree that the Subcommittee thinks is
worthwhile. I
22 think it's a great time to vote on the motion
that
23 went before us and so worth.
24 CHAIR MOLINA: Okay, at this point, Mr. McCord, if you
25 would like to continue and proceed with your
motion,

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1 if you choose to?
2 MR. McCORD: Yes, I will move that we proceed with
3 securing the funds to install these fixtures,
4 procure the fixtures and whatever else it takes,
and
5 do it at the King Kekaulike site. I think it's
6 important to do the streetlights because those
are

7 certainly gonna be much evident --

8 CHAIR MOLINA: Okay. Mr. McCord, what we'll do, why
don't

9 we go ahead and make the motion first --

10 MR. McCORD: I'll make the motion --

11 CHAIR MOLINA: -- to have the street lighting
12 demonstration project. And once you get your
13 second, then I'll turn the mike -- just trying
to

14 follow parliamentary procedures here.

15 Okay, a motion has been made by Mr.
McCord to

16 have the street lighting demonstration project.
Is

17 there a second?

18 MR. MABERRY: Second.

19 CHAIR MOLINA: Okay, it's been seconded by Mr.
Maberry.

20 Okay, Mr. McCord, you have the mike. If you'd
like

21 to discuss your motion.

22 MR. McCORD: Sorry.

23 CHAIR MOLINA: No apologies needed.

24 MR. McCORD: I think it's very important to get the
public

25 input into this thing. And I think it's
important

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1 to do those street lights. I understand the
2 bureaucratic reticent to make any changes,
3 particularly when you call up someone and say we
4 wanna do this to your street lights, they get
5 nervous. Let's just go a little higher and get
the
6 whole thing done for a period of six months.

7 I think it'd be important to have the
public,
8 the fire department, the police department, and
9 other people that are concerned with this issue
on
10 Maui to be able to see this demonstration.

11 CHAIR MOLINA: Thank you. Miss Bernard?

12 MS. BERNARD: I don't know if I need to offer a
friendly
13 amendment or whether it's just a point of
14 discussion. But I don't know that we want our
15 motion to be restricting us to a particular site
and
16 that we have to obtain funding unless that's
17 something that the County needs to have in place
in
18 order to request the funds.

19 And like I say, we have maybe private
20 citizens who'd be willing to do this, and I'm
just
21 wanting this to happen as fast as possible. So,
do
22 we need that? Do we need a formal motion for
funds?

23 CHAIR MOLINA: So you're proposing to amend the motion

24 to --

25 MS. BERNARD: Is it so -- well, I guess, first I need
to

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1 have my question answered. Do we need to have
this
2 particular request in order to secure funding
from
3 the County?

4 MR. McCORD: Let me clarify my motion. I didn't
intend to
5 make it County money. I just said secure the
funds.

6 CHAIR MOLINA: Secure whatever funds necessary --

7 MR. McCORD: Secure funds, whatever is necessary --

8 CHAIR MOLINA: Just sort of leaving it broad?

9 MR. McCORD: Exactly.

10 CHAIR MOLINA: Let me get an opinion from the Corp.
11 Counsel on this. Mr. Garneau, can you comment
on
12 this?

13 MR. GARNEAU: Yeah, I would say limit your motion to
allow

14 you to do what you need to do. So if you only
want

15 to be King K. site, then say that. If you only
want

16 County funds to be used, then say that. If you
17 wanna be able to explore all options, then leave
it
18 more general.
19 MS. BERNARD: Okay. Then I do offer a friendly
amendment.
20 CHAIR MOLINA: Okay, and your --
21 MS. BERNARD: And that would be to simply take out the
22 wording that says that we want to secure the
funds
23 and at that particular site and have it be that
we
24 do support a demonstration project that is
viewable
25 by citizens of Maui, wherever on Maui.

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1 CHAIR MOLINA: Okay. Member --
2 MS. BERNARD: And for a long term.
3 CHAIR MOLINA: Okay, members, is that clear as to the
4 proposed amendment?
5 MR. McCORD: Sure. I'll accept the adjustment.
6 MR. SALDANA: Mr. Chair?
7 CHAIR MOLINA: Okay. And is there a second to that
8 proposed amendment?
9 MR. CHONG: Second.
10 CHAIR MOLINA: Okay, it's been seconded by Mr. Chong.

11 Discussion on the amended motion. Dr.
Altenberg?
12 MR. ALTENBERG: I guess it seems really important that
we
13 be able to, wherever we get this demonstration
we be
14 able to leave it up. So -- now, I would say --
I
15 would be willing to say let's go, let's do this
16 demonstration in a place where it can be left up
for
17 the citizens of Maui to watch. And if we can do
18 that at King Kekaulike, that King Kekaulike
site, as
19 shown by Mr. Saldana, yes. But if we can't,
then we
20 need to find another location.
21 CHAIR MOLINA: Okay. Thank you. Mr. Maberry?
22 MR. MABERRY: If we are unable to get it long term
where
23 you have, you know, sought to get it, and if we
24 can't get it placed near the church on the
private
25 road, I can volunteer the Institute for
Astronomy's

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1 parking lot there in Kula.
2 CHAIR MOLINA: Okay. So noted. Dr. Altenberg?

3 MR. ALTENBERG: I do agree with Warren that it's very
4 important that we see street lights 'cause
that's
5 the main area that needs retrofitting and that
we
6 can project in the future. And so I would want
to
7 target this demonstration towards street lights
in
8 particular so that we can see what our options
are
9 for street lights.

10 CHAIR MOLINA: Okay. Mr. Maberry?

11 MR. MABERRY: Question, point of -- not point of
12 information. Actually a question. Lower Kula
Road
13 is a County road and we wouldn't have the
problems
14 with the State as far as getting to be able to
put
15 it up for the long term on a County road.

16 Could we possibly replace it, say, at
that
17 intersection there of Copp Road and Lower Kula
Road,
18 which I think is actually on a cartilage of or
an
19 area of the Institute for Astronomy's offices?

20 MR. SALDANA: Interestingly enough, if we do it on a
21 County road, we're getting into other issues.

22 CHAIR MOLINA: Liability. Just what we need.

23 MR. SALDANA: Because, because we would, the Council
would
24 formally have to act on the acceptance of the

25 donation of the lamps and the fixtures.

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1 CHAIR MOLINA: Okay, Mr. McCord?

2 MR. MCCORD: Just in support of the Kekaulike area, I

3 think it's so important for people to be able to
see

4 this. That's a readily identifiable area. It's

5 passed by everybody that goes up to Kula, and
it's

6 just an ideal location. And there's no doubt

that

7 those lights are superfluous. I can't see a

8 liability problem at all.

9 But I think it's important to make this
broad

10 enough so that we can get a demonstration

wherever

11 it is.

12 CHAIR MOLINA: Okay. Thank you, Mr. McCord. Any

other --

13 Miss Bernard?

14 MS. BERNARD: Okay, so where do we go from here if we

15 decide we've recommended this now, is this the

16 County's responsibility to move forward with
this

17 request from our Subcommittee?

18 CHAIR MOLINA: That's a good question.

amended 19 MR. CHONG: Well, the motion didn't specify -- her
20 motion did not specify a location.
21 MR. MABERRY: Correct.
22 MR. CHONG: So we can discuss the location later on. I
23 mean, we just need to pass this motion.
24 CHAIR MOLINA: We have an amended motion on the floor
the 25 right now. So why don't we go ahead and vote on

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Altenberg? 1 amended, proposed amendment prior -- Dr.
2 MR. ALTENBERG: Can other amendments be offered?
3 MS. BERNARD: Yes.
4 MR. ALTENBERG: At this moment?
amendment 5 CHAIR MOLINA: You can make an amendment to the
6 if you choose to do so.
7 MR. ALTENBERG: So I would amend it to add that the
8 demonstration be of street lights. That would
be my 9 friendly amendment.
10 CHAIR MOLINA: Okay. Demonstration be street lights.
that 11 MR. MABERRY: Question for the motion? We recognize

my

12 it is street lights. So you want on a street is

13 question. Does it have to be --

14 MR. ALTENBERG: Yeah.

15 MR. MABERRY: -- on a street as opposed to a --

16 MS. BERNARD: A parking lot.

17 MR. MABERRY: -- street light at a parking lot?

18 MR. ALTENBERG: Yes.

19 MR. MABERRY: Okay.

20 CHAIR MOLINA: Street lights on a street.

21 MR. SALDANA: Mr. Chair?

22 CHAIR MOLINA: Mr. Saldana?

23 MR. SALDANA: Could I clarify a couple things? In the

long

24 initial amendment, the term was to use for a

that

25 term, for a long period of time. Could I get

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1 defined?

2 CHAIR MOLINA: Okay.

3 MR. SALDANA: Because are we looking --? One of the

4 things that we are looking at is that Dimensions

5 Electric is lending us these fixtures --

6 MR. MABERRY: Okay.

7 MR. SALDANA: -- they're not giving them to us. So we

selfish 8 have to give them back. Don't mean to sound
are 9 or anything, but he was very clear in that they
10 being loaned to us.
11 CHAIR MOLINA: Correct me if I'm wrong, did someone
12 suggest that, I guess, till the end of the term
of 13 the Subcommittee, we're looking at October?
14 MS. BERNARD: Yes.
15 CHAIR MOLINA: Mr. Saldana, do you believe from now
till 16 October, they'd be receptive to that, or you're
not 17 sure?
18 MR. SALDANA: I can always ask.
19 MR. CHONG: You can always tell'em come and get it.
20 CHAIR MOLINA: Miss Bernard?
21 MS. BERNARD: If I could just offer some words, I
think 22 perhaps we just wanna say for as long as
possible, 23 and take out long term. Use the term as long as
24 possible.
25 CHAIR MOLINA: As long as possible. Okay.

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1 Dr. Altenberg?

2 MR. ALTENBERG: Well, the question comes up since
suppose

3 the State says possible is a week? I think that
4 would not be acceptable.

5 CHAIR MOLINA: We really need to be more specific,
yeah.

6 MR. ALTENBERG: Yeah. So --

7 CHAIR MOLINA: 30 days? 60 days? 90 days?

8 MR. CHONG: Just ask for the stars and then duration
of

9 the Committee.

10 MR. MABERRY: Yes.

11 MR. CHONG: Yeah.

12 CHAIR MOLINA: All right. So October 31st.

13 MR. CHONG: No. Just duration of the committee. What
if

14 we extend ourselves --

15?: Yeah.

16 MR. CHONG: -- for some crazy reason?

17 CHAIR MOLINA: It would be crazy, eh? At this point I
18 have no intentions of extending any term.

19 MR. CHONG: Well, I'll -- come September, we'll
probably

20 have a better idea of that, but we don't know
that.

21 And so why October 31st? Just say duration of
the

22 Committee.

23 MR. ALTENBERG: I would second that motion.

24 MR. SALDANA: Mr. Chair?

25 CHAIR MOLINA: Okay, Mr. Saldana?

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1 MR. SALDANA: I would imagine if the State is anything
2 like the County, they would want a date as to
how
3 long this project will be in effect. So not to
4 compromise your ability to act, it would
probably be
5 preferable to set a date.

6 MS. BERNARD: Okay, say, October 31st then.

7 CHAIR MOLINA: Okay, that's a --

8 MS. BERNARD: That's plenty time.

9 CHAIR MOLINA: -- good. You brought up a good
suggestion,

10 Mr. Chong, I just wanted add.

11 MS. BERNARD: We should be finished.

12 MR. MCCORD: This is definitely a motion by Committee.

13 CHAIR MOLINA: So we have here an amendment to the
14 amendment to the motion, the original motion on
the
15 floor.

16 MR. MABERRY: Let's withdraw everything and start with
a
17 clean motion, Mr. Chair.

18 ?: Can we hear the text?

19 CHAIR MOLINA: Okay. The Chair would like to take a
brief

subject 20 recess and discussion this. Brief recess,
21 to the call of the Chair. (Gavel.)
22 RECESS: 10:58 a.m.
23 RECONVENE: 11:00 a.m.
24 CHAIR MOLINA: Lighting Subcommittee is now back in
25 session. The Chair has structured the
amendments,

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final 1 more like deciphered them. So prior to any
2 discussion, the Chair would like to call for the
3 vote on the first proposed amendment, which is
to
4 have the demonstration project shall be
conducted
5 with street lights on streets.

6 All in favor of the proposed amendment
say
7 aye.

8 SUBCOMMITTEE MEMBERS VOICED AYE.
9 CHAIR MOLINA: All oppose? Thank you. The Chair mark
it
10 unanimous.

11
12 VOTE: AYES: Subcommittee members Altenberg,
Bernard,
Chong, Maberry, McCord, and

13 Chair Molina.
14 NOES: None.
14 ABSTAIN: None.
14 ABSENT: None.
15 EXC.: Vice-Chair Tavares.
16 MOTION CARRIED.
17 ACTION: APPROVE amendment (street light
18 demonstration) to main motion.
19 CHAIR MOLINA: Now, we'll be voting on our second
proposed
20 amendment which was to conduct the demonstration
21 project until the specified date of October
31st,
22 2002. All those in favor say aye.
23 SUBCOMMITTEE MEMBERS VOICED AYE.
24 CHAIR MOLINA: All those opposed? Thank you.
25

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Bernard,
1 VOTE: AYES: Subcommittee members Altenberg,
2 Chong, Maberry, McCord, and
Chair Molina.
3 NOES: None.
4 ABSTAIN: None.
5 ABSENT: None.
6 EXC.: Vice-Chair Tavares.
7 MOTION CARRIED.
8 ACTION: APPROVE amendment (request
demonstration
main
9 remain until October 31, 2002) to
10 motion.

motion, 8 CHAIR MOLINA: Now, members, we go to the original
9 as amended, which was to have the demonstration
10 project. All those in favor say aye.
11 SUBCOMMITTEE MEMBERS VOICED AYE.
12 CHAIR MOLINA: All those opposed? Thank you, members.
13 The motion has passed, as amended.
14
Bernard, 15 VOTE: AYES: Subcommittee members Altenberg,
16 Chong, Maberry, McCord, and
Chair Molina.
17 NOES: None.
18 ABSTAIN: None.
ABSENT: None.
19 EXC.: Vice-Chair Tavares.
20 MOTION CARRIED.
21
22 ACTION: APPROVE main motion as amended.
23
24 CHAIR MOLINA: Okay, now, let's go to our next agenda
25 item. And at this point, the Chair would like
to
the
call upon Mr., shall we say Capt. Jeff Murray of
fire department, to be on standby here. The

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1 Subcommittee requested the information relative
to

2 the disposal of low pressure sodium fixtures and
3 lamps.

4 The State Department of Health Solid and
5 Hazardous Waste Branch provided a response
6 stating that the DOH does not have specific rules
7 regulating the proper disposal of LPS lamps and fixtures.
8 The State indicated that a determination must be
9 made regarding if the sodium in the LPS is considered
10 hazardous.

11 And the Chair invited representatives
12 from the State DOH Solid and Hazardous Waste Branch
13 and the County HazMat office to assist us in
14 determining the proper handling of spent LPS lamps and
15 fixtures.

16 Unfortunately, the State representative
17 could not be with us today. However, we do have
18 here to Capt. Jeff Murray, the County HazMat officer
19 assist the Subcommittee in determining proper
20 disposal of the lamps and fixtures.

21 And before I proceed with you, Capt.
22 Murray, the Chair would like to recognize our other
23 resource personnel. We have from the Public Works
24 Department, Mr. Howard Hanzawa and also Mr. Greg
Nakao. And from the Department of Parks and

Halverson 25

Recreation, we have on-call, Mr. Robert

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Department,
personnel

1 and we also have from the County Energy
2 Mr. Kal Kobayashi; and as far as resource
3 up front here, we have to my far left, we have
4 Mr. Brian Ige who represents the developer's
5 perspective.

sector,

6 From the cultural, Hawaiian cultural
7 we have Uncle Les Kuloloio. From the hotels and
8 resorts, we have Bill George and Rob Hoonan.

From

9 the commercial lighting industry, Randy Piltz,

and

Electric

10 we heard Randy Nakama who represents Maui

Chamber

11 earlier. And we have Lynne Woods from the

Lynne

12 of Commerce. I saw her earlier, and I think

13 had to leave, but she was here earlier.

the

14 And we have Dr. Richard Wainscoat, the
15 astronomer for the Institute for Astronomy from

16 University of Hawai'i. And hopefully I covered

17 everybody here.

18 Okay. Miss Bernard?

19 MS. BERNARD: Question about the resource people.

Sorry

20 to delay your presentation, Mr. Murray,

21 Capt. Murray.

22 Is it poss -- I guess I need to hear the

23 agenda items again when his presentation is

finished

24 because I did want to offer an opportunity for

some

25 of our resource personnel and one person in

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1 particular, Uncle Les, to speak. And I just

didn't

2 want us to run out of time, so --

3 CHAIR MOLINA: Sure.

4 MS. BERNARD: -- if I could indulge --

5 CHAIR MOLINA: Well, we'll try to expedite things.

6 MS. BERNARD: Thank you.

7 CHAIR MOLINA: Okay, Capt. Murray, if you'd like to go

8 ahead and give us an overview?

9 MR. MURRAY: Okay, question was asked to the fire

chief on

10 disposal of low sodium lamps. And we don't take

11 care of disposal, but I went and found some
12 information from the manufacturers and the
people
13 that sell it. And this is what was said for
14 disposal of those items.
15 And as you can see, the first page is
pretty
16 hard to read, so what I did was typed out
exactly
17 what it said. And this was consensus of three
18 different manufacturers of these types of
lights.
19 And through the research, this is what we found.
20 And I guess some of the questions that the
County
21 had would be how would they go about disposing
of
22 their lamps once they're spent, and this would
be
23 the way to go.
24 CHAIR MOLINA: Members, any questions for Capt. Murray
at
25 this time? Mr. McCord?

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1 MR. McCORD: I've read it, and it's very
straightforward.

2 Thank you very much, Captain. I think that that
3 solves that problem.

George 4 CHAIR MOLINA: Capt. Murray. Hang on. I know Mr.
5 I guess has a question for you at this time.
6 Capt. Murray, I just want to ask you one
7 quick question. How hazardous is the, this LPS?
8 Maybe we're talking real poison and death and
all 9 that stuff? I mean, I'm just trying to make it
as 10 simplified as possible. Straight to the point.
11 MR. MURRAY: Okay, as simplified as possible, anything
out 12 of its manufactured state could cause a problem
to 13 anybody. You know, just a word of wisdom is, if
you 14 purchase something, just remember, you own it.
So 15 once it's spent, what type of product you buy,
needs 16 to either be recycled or dumped or neutralized
at 17 some point in time. So something I'd really
think 18 about. And this one seems to be one of the
better 19 ones.
20 CHAIR MOLINA: Okay. Mr. Maberry, followed by
21 Mr. Altenberg.
22 MR. MABERRY: Doesn't this also apply to many other
23 things, like oil from your cars or --
24 MR. MURRAY: Absolutely.
25 MR. MABERRY: -- fluorescent tubes or -- so this is
any

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1 worse than any of those on the environment?

2 MR. MURRAY: On the environment, probably not.

3 MR. MABERRY: Okay, thank you very much --

4 MR. MURRAY: Just as bad.

5 CHAIR MOLINA: Okay. Dr. Altenberg?

6 MR. ALTENBERG: As I understand, what you have to do
in
basically
it
around
then
other
inactive.
couldn't
done

7 disposing of a low pressure sodium lamp is

8 break it apart in, like in a dumpster, and hose

9 down till the sodium burns without anything

10 that it could ignite. And once it's burned,

11 you could basically just throw it away as any

12 kind of unregulated garbage; is that correct?

13 MR. MURRAY: That's correct. As opposed to -- as the

14 manufacturer has stated, then it becomes

15 MR. ALTENBERG: Yeah.

16 MR. MURRAY: As far as what happens after that, I

17 tell you. This is just the research that I've

that. 18 in a couple days. I really couldn't answer
I've 19 MR. ALTENBERG: Yeah. Anyway, that jives with what
perhaps 20 also read in researching that issue. Now,
of 21 one of resource people could answer the question
22 our high pressure sodium lamps or other kinds of
proceedings 23 high intensity lamps. Somebody in these
24 said that they have, that they are shipped back
to 25 the Mainland somewhere intact because of the
mercury

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1 content that's in them. Does anybody recall who
2 said that and can they confirm that?
let's 3 CHAIR MOLINA: Okay, tell you what Dr. Altenberg,
4 get through with Capt. Murray --
5 MR. ALTENBERG: Okay.
of 6 CHAIR MOLINA: -- first, and then we can refer to one
7 the resource personnel after we're done with --
8 MR. ALTENBERG: Okay.
his 9 CHAIR MOLINA: -- Capt. Murray. I know Mr. McCord had

10 hand up. He wanted to ask a question.

11 MR. McCORD: Well, actually, not. I think that I'm a

12 little confused. You said burn. And I am under

the

13 impression that when you hit one of the these

things

14 when it's hot, it will burn --

15 MR. MURRAY: Right.

16 MR. McCORD: -- but when you destroy one of these

things

17 in a dumpster, all you're doing is neutralizing.

18 There's no fire?

19 MR. MURRAY: No, not at all.

20 MR. McCORD: So clear, there's no fire when you break

21 these things up and dispose of 'em. It's simply

22 neutralizing the sodium. The only burn, if you

add

23 water when they're hot.

24 CHAIR MOLINA: Okay, all righty. I'd like the ask one

of

25 our resource personnel, Mr. George, to respond

to --

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1 first of all, any final questions from [sic]

2 Capt. Murray at this point?

3 Okay, Dr. Altenberg, and then we'll go to

4 Mr. George.

5 MR. ALTENBERG: Have you ever heard of anything from,
say,

6 the fire departments on the Big Island about
what

7 they do or any issues they've encountered in
8 disposing of low pressure sodium lamps?

9 MR. MURRAY: Actually, since last week, this is the
first

10 we heard of it.

11 MR. ALTENBERG: Ah.

12 MR. MURRAY: So it was very good research for us
because

13 if we ever came across this situation in the
future,

14 now we'd be able to handle it a lot better. My
only

15 concern that I had was -- and I need to do
little

16 more research on -- is the mercury lamps. And
I'm

17 not sure if they get sent back.

18 MR. ALTENBERG: Uh-huh. Okay, thank you.

19 CHAIR MOLINA: Capt. Murray, one more question. Do
you

20 know the County's waste generator status for
this?

21 Do you know?

22 MR. MURRAY: What do you mean by that?

23 CHAIR MOLINA: We have like a waste, a generator that,
I

24 guess, disposes of waste? Do we have anything
like

25 that?

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1 MR. MURRAY: I am not sure.

2 CHAIR MOLINA: Not sure? Okay. And do you know if
the

3 County's able to treat its own hazardous waste
if

4 the sodium in this low pressure is, you know,

5 appears to be hazardous material other than what
--

6 MR. MURRAY: I think that would be probably in a
question

7 that Public Works should answer, I think.

8 CHAIR MOLINA: Public Works?

9 MR. MURRAY: Yeah.

10 CHAIR MOLINA: Okay. Mr. Hanzawa?

11 MR. HANZAWA: I'm a nontechnical person on this
subject

12 matter, so I'll have to defer that question to

13 someone else. Sorry.

14 CHAIR MOLINA: We can maybe ask, send a letter to your

15 department, I guess.

16 MR. HANZAWA: Yes.

17 CHAIR MOLINA: Okay. These questions are -- Miss
Bernard?

18 MS. BERNARD: I just was -- I was just gonna offer a
point

19 of clarification that there are private
companies in

Unitek. 20 Hawaii'i that do handle hazardous waste, like
21 And I don't know what the County does. But I do
22 know that there are private companies that do.
23 CHAIR MOLINA: Okay. Mr. Chong?
24 MR. CHONG: Capt. Murray, in your research, did you
think
25 of also talking to the Hawaii'i County fire

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they 1 department and their HazMat people to see if
sodium 2 have encountered any issues with low pressure
3 in their longer experiences with it?
also 4 MR. MURRAY: I can check. I can check with them and
who is 5 the professor from University of Hawaii'i Hilo
information 6 just retired. I'm sure he has a lot of
7 on that.
8 CHAIR MOLINA: Do you know his name offhand, that
9 professor?
and 10 MR. MURRAY: Dr. John Bowen. So you want me go ahead
11 get some information --
12 CHAIR MOLINA: Yes, as much as you can --

13 MR. MURRAY: I'll do that.

14 CHAIR MOLINA: We'd appreciate that. Okay, Mr.
George, I

15 know you had some comments. You wanna go ahead
16 and -- or response?

17 MR. GEORGE: Yes, my name is Bill George. Capt.
Murray, I

18 just wanted to ask one question. Is lead a
19 hazardous substance that we would have to be
worried

20 about?

21 MR. MURRAY: Absolutely.

22 MR. GEORGE: Based on this letter from the Department
of

23 Health on March 12, it's in your binders if you
24 wanna look at it, it's the second item on the
second

25 page -- third one, I'm sorry, third one from the

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1 rear.

2 It says the State Department of Health
does

3 not have the specific rules regulating dispose
of

4 LPS lamps and fixtures. However, based on
research

that 5 conducted by our Staff, it is our understanding
Elemental 6 spent LPS lamps contain elemental sodium.
on 7 sodium may be considered a hazardous waste based
LPS 8 its reactive characteristics. And the entire
waste. 9 lamp would have to be disposed as hazardous
of 10 In addition, the metal and glass portions
11 lamp may contain lead which is also a hazardous
12 substance.
once 13 The problem with breaking these is that
14 the sodium comes in contact with air, it'll
if 15 spontaneously combust. That's the problem. So
dumpster 16 you're throwing it, just throwing it in a
it. 17 by itself, it would combust whatever's around
18 It would start a fire.
Health 19 The way they -- in this Department of
find 20 and some of my research that I've been trying
asking 21 out and I've also been asked the -- I've been
do 22 the question to a lot of the manufacturers, what
23 they do with the mercury 'cause there's a bit of
they 24 mercury that they use inside the vessel when
what 25 create the vacuum. And I've been asking them

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1 happens to that.

2 And they say, well, it's minimal. Well,

3 there's also mercury, so you might wanna check

into 4 that.

5 MR. MURRAY: Okay.

6 MR. GEORGE: The way that they're telling me to do

this is 7 you take a 55-gallon drum, you put water in it,

you 8 throw the bulb in it, and you have somebody

there 9 smash the glass. And what's supposedly that

does is 10 the water neutralizes the sodium, and that's the

way 11 you're supposed to do it.

12 Then you have to have a way to get the

glass 13 and all the particles and the mercury and the

lead 14 out of the water and then do it again.

15 That's the reason why Dr. Altenberg

brought 16 up the point about I'm the one that sends back,

17 based on our corporate standards, we send all

our

anything, 18 bulbs back, whether it's incandescent or
19 fluorescent. Nothing's allowed to go in the
20 dumpster based on reactivities.
21 That's just like a regular fluorescent
tube,
22 even the low mercury ones which they call --
Philips
23 has one called Alto? We send all of 'em back
24 anyway.
25 So there is a cost involved, and
something

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1 that the County might want to get involved with
2 saying that all bulbs should be sent back to
3 licensed hazardous substance receiving
facilities.
4 So I have a bill of lading on every one I send
back.
5 But that's what I found out, and I still
6 haven't found out what the County of Hawai'i is
7 doing with their bulbs because he takes 'em all.
8 And I did ask him the question he was going to
find
9 out, but he didn't come back to me.
10 They aren't doing the water trick. So
what

what 11 I'm thinking -- and like I said, I don't know
12 they're doing, so I won't try to guess -- but
13 they're not doing it properly. So they haven't
14 figured out the system yet.
Maberry, 15 CHAIR MOLINA: Okay. Thank you, Mr. George. Mr.
16 to be followed by Miss Bernard.
17 MR. MABERRY: Therefore based on your expert testimony
with 18 that there isn't any difference between dealing
19 the LPS lamps and dealing with any other lamps
you 20 have with regards to the amount of lead that is
in 21 them and since you're sending them all back,
you'd 22 have to send back, you'd be sending 'em back
anyhow.
here 23 And I believe that there was a comment
24 by another resource person to address that issue
25 which I'd like to do before we carry on to
another

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1 issue. I think Professor Wainscoat actually has
2 something he'd like to add to that.

3 CHAIR MOLINA: Okay. Dr. Wainscoat?

4 MR. WAINSCOAT: I just like to add that low pressure

5 sodium by its nature has a very small amount of

6 sodium in it. And I think that a lot of the

fears

7 that are being raised are red herrings. The

amount

8 of elemental sodium in these lamps is a tiny

9 fraction of atmospheric pressure, and the risk

of

10 fire of anything else when they're broken is

tiny.

11 Sodium, when it reacts with water, becomes

sodium

12 hydroxide.

13 CHAIR MOLINA: Okay. Thank you.

14 MR. GEORGE: Bill George. Just in response to the

15 question about that. I did check with our

carrier.

16 They will not accept LPS lamps. We'd have to

find a

17 source that would be willing to do that, collect

it

18 here on Maui or something, and then send it

back.

19 And the reason why is because you still

have

20 to break it. They will not accept the lamp

intact

21 to be shipped. That was the problem that came

up

22 with this company that we're dealing it out of -

-

23 it's called economy maintenance. And they send

us a

it 24 container with plastic liner bags and you send
accept 25 back sealed up and all that. They will not

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1 LPS. They have never dealt with it.
2 CHAIR MOLINA: Okay. Thank you, Mr. George.
3 Miss Bernard?
4 MS. BERNARD: Once again, it seems like we could
really 5 benefit from the Big Island's experiences with
their 6 lighting. So I'd like to respectfully request
of 7 the Chair or of Mr. Saldana that we obtain a
visit 8 or some kind of documentation -- I mean, I
really 9 don't want us to reinvent the wheel, and I know
none 10 of us does either.
11 Let's get in touch with our Big Island
12 resource personnel; and I know that you have
tried 13 so far, Bill, but I think that we need to, from
14 County to County, we need to get some
communication 15 going here. I just request that.

16 CHAIR MOLINA: All right. Thank you, Miss Bernard.
17 MR. GEORGE: Yes, Bill George. Just in response to
that
18 question, I did contact Lyman Jakahi, and he did
19 give us, he did give me some dates that he would
be
20 available. I put it on the e-mail. I don't
know if
21 everybody got it or not, that he had some dates
if
22 anybody wants to check with me.
23 Let's see; I can check it real fast.
He's
24 not gonna be available in June, July, and
September
25 for ten days. So May, June, or August were his

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1 openings that he would have. And he was very
2 cordial and very willing to, if we got there, he
3 would do anything, you know, check on anything
we
4 wanted.

5 CHAIR MOLINA: Okay, thank you, Mr. George. Okay,
6 members? Dr. Altenberg?
7 MR. ALTENBERG: Could we not simply request from the
8 appropriate Big Island office a one-page report
on

disposal? 9 how they handle their low pressure sodium

yeah? 10 CHAIR MOLINA: Okay, maybe we could do that. Gary,

11 Get an official response?

preliminarily 12 MR. SALDANA: Well, yeah. I've called them

response 13 and have pretty much still gotten the same

14 that Mr. George offered. I had spoken with

15 Mr. Jakahi as well, and he pretty much said that

16 they put it in, they crack the lamp, place it in

will 17 water, and let it sit there for a while so it

in 18 neutralize. However -- I mean, we can get this

would 19 writing from them as well if the Subcommittee

20 like that.

not 21 However, just as a note, the State does

22 recognize this as proper handling or proper

23 disposal. They, in reviewing, in reviewing that

about 24 procedure with the State, they had questions

but 25 it. So we could get that information from them,

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1 whether or not that's the proper answer is still
2 left up to be decided by the State.

3 CHAIR MOLINA: Okay. Thank you, Mr. Saldana.

4 MR. ALTENBERG: Point of clarification.

5 CHAIR MOLINA: Dr. Altenberg?

6 MR. ALTENBERG: Are you saying that the State did not,
7 could not answer whether it was proper or that
they

8 said it is improper?

9 MR. SALDANA: They didn't say it was improper. But
they

10 questioned it. They questioned the procedure.

11 MR. ALTENBERG: Another thing I think we need to have
12 answered is in documents of the State of
Hawai'i,

13 they state that low pressure sodium has mercury.

14 And documents from the U.S. Environmental
Protection

15 Agencies, they say that low pressure sodium
lamps

16 have no mercury. We need to somehow get an
answer

17 to that in terms of the overall waste issue of
the

18 low pressure sodium.

19 CHAIR MOLINA: Okay, so noted. Miss Bernard?

20 MS. BERNARD: Yeah, I was just gonna request that
perhaps

21 we can request of the State in writing the
answers

22 to these questions and the EPA.

23 CHAIR MOLINA: Okay, that's a good suggestion. Okay,
24 members, any other questions or concerns
regarding

25 the disposal of LPS lamps and fixtures? Okay,

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1 seeing none, the Chair would like to thank
2 Capt. Murray from the fire department for
sharing
3 his thoughts on this matter.
4 MR. MURRAY: You're welcome. Thank you, Mr. George
for
5 sending those things off-island. I really
6 appreciate that.
7 CHAIR MOLINA: Okay, thank you. Okay, next, members,
we
8 have --
9 MS. BERNARD: Excuse me, Mr. Chair?
10 CHAIR MOLINA: Yes.
11 MS. BERNARD: I'm sorry to interrupt you. But could I
12 respectfully request that you, can you tell us
again
13 the list of agenda items we have yet to cover
and
14 are we adjourning at 12:30?
15 CHAIR MOLINA: Yeah. I was hoping to adjourn at
around
16 12:00. I do have a trip to Moloka'i I have to
make
17 for a public hearing, but we do, next on our
agenda

the 18 we have -- well, if time permitted a review of
19 draft bill but also a presentation from
20 Dr. Wainscoat as well. So other than what we've
21 already covered, those are the other two items.
And 22 of course there's a request, you wanted to hear
23 from --
24 MS. BERNARD: Yes.
Wainscoat 25 CHAIR MOLINA: -- Uncle Les. So being that Dr.

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1 and also the review of the draft bill is on the
2 prior agenda, I will, I would like to hear from
3 Uncle Les, too.
4 So if we can proceed first with
5 Dr. Wainscoat's presentation. He did tell me
you're 6 going to limit the presentation to about
7 ten minutes, and then we'll open the floor for
some 8 questions from the members. So depending on how
9 much [sic] questions Dr. Wainscoat has will
10 determine how much time Uncle Les has. Okay,
thank 11 you.

12 MS. BERNARD: So we'll be moving Uncle Les after
13 Dr. Wainscoat?
14 CHAIR MOLINA: Yes.
15 MS. BERNARD: Thank you very much.
16 CHAIR MOLINA: Okay, Dr. Wainscoat? Would you like to
17 come to the front?
18 MR. WAINSCOAT: I will try to summarize the highlights
of
19 a three-day conference in ten minutes. I'll do
my
20 best.
21 CHAIR MOLINA: High points.
22 MR. WAINSCOAT: Definitely high points.
23 The conference was attended by about, I
24 think, 132 people. About half of the attendees
were
25 from Chile, half of them were international

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1 participates.
2 The conference was conducted in two
3 languages, Spanish and English, which was a
first
4 for me. There was simultaneous translation into
the
5 other language. About two-thirds of the talks
were

6 in English, one-third in Spanish.

7 It was held in the regional government
8 building, the equivalent of the Hawai'i State
9 Capitol just.

10 It was quite a high profile meeting. It
got
11 press coverage in the newspaper daily, the
12 television daily. The governor attended, mayors
of
13 many cities in the northern regions of Chile
14 attended. And other people that attended were
15 astronomers, engineers, and educators.

16 Chile has enacted a national law that
affects
17 lighting in Regions II, III, and IV. Chile is,
18 instead of having states, it has regions that
run
19 from Region I in the north of Chile to Region IX
in
20 the south of Chile.

21 So Regions II, III, and IV are the
regions
22 where the observatories are located in Chile.
They
23 have a national law now that all lights in those
24 regions are shielded. And no more than either
.8
25 percent or 1.8 percent of the light output is

115

1 allowed to go above the horizontal plane.

2 The law applies to all public and private

3 lighting, and there is to be full compliance

within

4 five years. So during the period that I was

there,

5 I was actually able to visit the photometric lab

in

6 the University in Galbariza(?) where they

measure

7 the luminaires to check compliance with the law.

8 So this is one of the reasons why the

meeting

9 was heavily attended by a lot of people from

Chile

10 because it's gonna have a big impact on all the

11 street lights and other public lighting in

Chile.

12 Chile is taking the astronomy there very,

13 very seriously and protecting the skies very

14 seriously by making strong national laws like

this.

15 And Chile is not a wealthy country. It's a

16 developing country.

17 One of the highlights of the meeting to

me

18 was the presentation of a world atlas of light

19 pollution. The earth is being repeatedly imaged

by

20 a U.S. defense meteorological satellite. And

from

of 21 the satellite images of the earth at night, maps
And 22 light pollution of the earth have been created.
North 23 I've included a map of the world and a map of
the 24 America in the information I've distributed to
versions 25 Subcommittee. I've also printed out larger

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this 1 of the image of the world and North America on
2 table.
no 3 In those maps, anywhere that is black has
4 light pollution. Anywhere that is gray is in
5 danger. Anywhere that is any other color has a
6 light pollution problem. If you were to place
Maui 7 on those maps -- unfortunately, they didn't
cover 8 Hawai'i in the data that they processed --
9 would be colored blue. Sorry, Maui would be
colored 10 blue on those maps.
11 Now, I have made contact with the people
that

the 12 did this work. I've requested that they process
that 13 Hawai'i data that they have. They have said
it, 14 it'll take them about two weeks of work to do
get to 15 and I think it would be very valuable that we
by 16 see those. And I have very high confidence that
and 17 the next meeting that I'll have those in my hand
18 will be able to share them with the Committee.
19 There was a presentation by the
International 20 Dark Sky Association, and I've included in the
21 packet of brochure about the International Dark
Sky 22 Association. That's an organization that works
to 23 preserving the dark sky. I'm a member, and I
think 24 Mr. Chong might be a member. I'm not sure.
25 MR. CHONG: I'm a member. Definitely a member.

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1 MR. WAINSCOT: Among the items that they discussed is
2 they urged that you use only full cut-off
lights.

lights 3 You use only what lights are needed. You use
4 only when they're needed. They provided some
5 demonstrations of how bad lighting can decrease
you 6 security. So if you're not careful with design,
hide. 7 can actually create shadows where people can
8 And you think you're safe and you're not.
and 9 They talked about the effect on wildlife;
10 the effects that they discussed go beyond some
of 11 the things that we've heard at this, in this
12 Subcommittee, included insects, mammals, birds,
13 fish, amphibians, and reptiles. And they talked
14 about turtles in Florida.
15 They also talked about public health. In
16 particular, better lighting reduces stray light.
17 Decreasing stray light allows people to sleep
health. 18 better. And sleeping better leads to better
19 And there's been a recently published paper that
breast 20 linked bad street lighting to increases in
21 cancer.
the 22 There was -- I'm going very fast through
23 contents of the meeting. I'll just pick some
24 special highlights.
forbids 25 Texas has now passed a state law that

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not

they've

to

people

get

the

education

could

see,

the

we

1 use of state funds to purchase lights that are
2 full cut-off. And in Texas they, in order to
3 protect the sky around McDonald Observatory,
4 been able to secure some private funding from
5 donations that are being, the money's being used
6 provide rebates to replace bad lights. So
7 come in and hand in their bad light, and they
8 basically a coupon that they can purchase a good
9 light with, and that's been very successful.
10 There was a very good presentation from
11 Austrian science week related to public
12 about light pollution where they got people in
13 Austria to go out and see how many stars they
14 see. And based upon how many stars you could
15 you could measure the light pollution throughout
16 country of Austria.
17 And this is something that I think that

18 could fruitfully apply to Hawai'i to get
children to
19 go out and look at the sky to realize what
they've
20 lost in terms of light pollution. I think if
people
21 did in this Honolulu, they would get a very
22 different answer to on Maui and again very
different
23 to what they see on the Big Island.
24 There is also some funding from UNESCO to
25 educate people about light pollution. That's

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1 possible. It's being approved, but apparently
2 UNESCO's frozen funding to European countries.
So
3 it's not clear whether that's gonna proceed or
not.
4 The Canary Islands is also a site where
they
5 are some major observatories. They have an
6 interesting approach to low pressure sodium in
that
7 they use a mixture of low pressure sodium light
and
8 white light. So it's -- I mean, it's sort of
9 90 percent low pressure sodium with 10 percent
white

concerns 10 light added. That's to overcome people's
11 about color recognition, I think. They turn the
12 white lights off at midnight.
extra 13 The problem with this is that it has
14 cost because then you need to have luminaires
for 15 the low pressure sodium light and for the white
16 light. So that's the compromise that they
adopted 17 in the Canary Islands.
18 There was a very interesting and scary
talk, 19 a review on space advertising, that space
20 advertising is already possible with existing
21 technology. Items could be placed in orbit that
are 22 ten times as bright as the full moon. And
objects 23 can be placed in 24-hour orbits so that they're
24 always visible at night.
25 Other things that were unpleasant were --

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will, 1 there's an organization called Celestis which
2 for a fee, launch part of your cremated remains
into

been 3 space or impact them on the moon. There have
4 anniversaries, things to be placed in orbit to
5 celebrate anniversaries such as Eiffel Tower,
put 6 UNESCO, there are many people who would like to
7 space art up in orbit. And there's also the
8 possibility that things could be put in orbit to
9 provide emergency lighting, which is a positive
10 thing, if it's needed.
11 And there was a very good talk by an
12 engineer, a lighting engineer called Hy Kaplan.
13 Among the points that he talked about was that
if 14 lighting ordinances can cause light pollution,
15 they're bad.
16 An example that he showed was that
there's a 17 lighting ordinance related to automatic teller
18 machines in California that's propagating to
many 19 states that has bad flaws in it and is producing
20 excessive lights. And we have to watch out and
make 21 sure that that law doesn't, someone doesn't
22 introduce that law in Hawai'i.
23 Controls on mounting heights and
luminaire 24 design can result in excessive light. So if you
25 force people to have low lighting poles, then
they

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an 1 may need to use more lights to produce, to light
2 area properly.

3 He pointed out that equipment can lead to
4 light pollution. Example, exposed components on
5 equipment are bad. Installation of luminaires,
if 6 they're not installed properly as they're
designed,
7 then they can produce light pollution. And he
8 stressed that all luminaires should be full cut-
off.

9 Design defects can add to light
pollution.
10 If you're, you need to understand whether you're
11 illuminating something that's a vertical surface
or
12 a horizontal surface. Lights need to be
coordinated
13 with the surroundings. There's no point putting
a
14 light up on a pole if there's a tree right under
the
15 pole, and the tree just reflects all the light
back
16 into the sky and designs must not produce light
17 trespass.

18 He also stressed that limited knowledge

19 contributes to light pollution. In particular,
20 repeating old ideas. I think this is a lot of
21 what's happening in Honolulu and perhaps what's
22 happening here is that you're continuing to use
the
23 same lighting fixtures as you used before and
not,
24 not knowing how lighting systems function, just
25 using the old, same old design as has been used
in

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1 the past.
2 So he urged people to follow the progress
of
3 lighting ordinances, use proper equipment and
4 techniques, spread the work on good designs and
put
5 light only where it's needed, and to stay up to
6 date.
7 So even if we pass a lighting ordinance
from
8 this Subcommittee and the Council, there will be
9 needs in the future to revise it as the
technologies
10 change. Perhaps in 10 or 20 years time the
light of
11 choice will be light emitting diode and not high

lamp. 12 pressure sodium lamp or a low pressure sodium
13 That's all I have to report.
14 CHAIR MOLINA: Okay. Committee members, questions?
Let's 15 start with Mr. Chong, followed by Mr. Maberry.
16 MR. CHONG: Thank you, Dr. Wainscoat. I wish I could
have 17 attended.
18 One question, Chile as a nation, are they
all 19 LPS on the exterior?
20 MR. WAINSCOAT: They are -- all the lights that I saw
were 21 HPS. They did not attempt to change to LPS.
22 MR. CHONG: So their new national law just means they
have 23 to have full cut-off HPS luminaires?
24 MR. WAINSCOAT: That's correct.
25 MR. CHONG: Okay, thank you.

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1 CHAIR MOLINA: Okay, Mr. Maberry?
2 MR. MABERRY: Not considering the difference in the
different 3 latitude of these two locations and the
4 parts of the sky that are available from the two
5 different observatory sites when I'm comparing

quality 6 Mauna Kea versus Chile; but considering the
world 7 of the site as a whole, we typically hear that
the 8 Mauna Kea's considered the best site in the
into 9 and that the Chile sites are considered like in
10 top 2 or 3; is that correct? That kinda leads
11 my next question.
the 12 MR. WAINSCOAT: I think that Mauna Kea is regarded as
particular 13 best, very likely the best site, and in
14 because of the way that the air flows over the
15 mountain. Haleakala has similar properties of
how 16 the air flows over the mountain. Chile does
have 17 somewhat better weather. So there's a
compromise, 18 if you want to regard it as that.
19 MR. MABERRY: Okay, so would it be fair to say that
two 20 between Hawai'i and Chile, they're about the top
-- 21 sites in the world regardless which one's first
22 MR. WAINSCOAT: That's correct.
23 MR. MABERRY: -- just for the point I'm trying to
make? 24
you 25 Okay. When I look at your map, I do, you know,
mentioned earlier that Hawai'i, or in particular

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you, 1 Maui, would be quite blue. We're assuming, and
2 we'll find out probably at our next meeting.
3 But when I look at this map, I see that
most 4 of Chile is blue.
5 MR. WAINSCOT: You might be confusing the gray color
on 6 the map with the blue.
7 MR. MABERRY: Okay. Probably if I go down there, it
looks 8 a little different, but it sure looks to me like
I 9 see quite a bit of blue and gray. Yeah, I see
what 10 you mean. That's more Peru, I guess. Okay,
gray. 11 But at any rate, the point is is that
they 12 are definitely in the running, in the top
running, 13 for some of the next generation large telescope
14 projects that are coming up; and that they have
15 taken it as a national interest to try to
protect 16 their night sky in order to draw these future
17 projects and to continue to draw projects; and
that 18 it certainly would behoove us to probably take a

State 19 little stronger consideration, maybe even at a
20 level for our sites in order to protect them and
21 somewhat in competition for these future
projects.
22 Is that a fair thing to say?
23 MR. WAINSCOAT: They have been very aggressive in
24 protecting that region of the country. And they
25 also been very aggressive in protecting the
radial

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1 spectrum for radial astronomy --
2 MR. MABERRY: Right, which we --
3 MR. WAINSCOAT: -- in that part of the --
4 MR. MABERRY: -- have a huge problem of -- it's
another
5 issue entirely. Thank you.
6 CHAIR MOLINA: Okay. Thank you. Members, any other
7 questions for Dr. Wainscoat at this time? Thank
8 you, Doctor, for that very --
9 MS. BERNARD: Thank you.
10 CHAIR MOLINA: -- informative presentation. Space
11 advertising, huh? Goodness.
12 Okay, at this time, I'd like to call upon
13 Uncle Les to, I guess, do a presentation via
request

14 from Subcommittee Member Bernard.
15 MS. BERNARD: Basically I feel like we have not really
16 heard enough from a representative from the
Hawaiian
17 culture. And I feel very uncomfortable without
the
18 mana'o f the host culture on this issue. We
haven't
19 heard about the possible impacts of light
pollution
20 on astral navigation for the, you know,
navigating
21 arts and many other components, including the,
you
22 know, the turtle usage of ancient habitat or
even
23 within the last 30 years. And so I thought it
would
24 be really important to hear from Uncle Les
today.
25 CHAIR MOLINA: Okay. I believe Uncle Les did share
some

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1 mana'o with us at one of our prior meetings.
2 MS. BERNARD: That I wasn't at?
3 CHAIR MOLINA: -- too. Yeah.
4 MS. BERNARD: Good.

ahead 5 CHAIR MOLINA: Okay, maybe you weren't there, but go
6 and have Uncle Les share with us his thoughts.
7 MR. KULOLOIO: Well, just by -- excuse me, Uncle Les
8 Kuloloio, yeah?
9 Just by listening to the resource people
and 10 the concern on just the turtle alone, the turtle
11 alone comes from a dark environment. The darker
it 12 is, the more, the better it shares itself
because 13 the turtle is a day and night. Daytime they can
14 feed, come up to the light and also they go
down.
the 15 But I was talking about the eggs. When
right 16 turtle lay their eggs, they need a place. And
17 now in Maui, you don't have egg nesting areas.
18 Unlike Kealia, we witnessing the return of the
19 turtles.
usually, 20 But all the turtles that come up is
turtle 21 toward my experience, is so far, my dad was a
22 hunter in Pa'ia. That's why I can say this.
23 And they, so far, all the turtles I'd
24 witnessed, is usually on a lighted beach. They
don't 25 would pick the dark side to access. Why, I

they 1 know. But when they come up for their nesting,
2 like peace and quiet.
slowest 3 They're slow moving creatures, the
4 that I've seen. And they're clumsy, yeah,
they've 5 real clumsy. And with their slow motion
creature, 6 it bangs into things. It's a creature that
knows 7 the environment more than us.
8 During the high tides that's when they'll
9 come on to a sandy beach. During the low tide,
Punalu'u, 10 you'll see them, like, if you folks visit
11 on the Big Island, we can learn from Punalu'u.
turtle 12 Punalu'u is the best place that I've seen a
13 sanctuary, in Ho'onaunau, where there's no
lights. 14 And using that aspect from the Punalu'u and
15 Ho'onaunau, you're gonna see that the turtles
are 16 totally congregated there. Now whether it's in
17 enough spot for nesting, no, because it doesn't
have 18 the sand beaches. They go elsewhere.
19 But where they congregate, these two
areas

and 20 show it. Waiohonu. Waiohonu in Hana and _____
turtles 21 all these other places like in Lana'i, the
Lana'i, 22 out there -- I don't know what they doing on
beach on 23 but right now. But, for example, that long
beach 24 Lana'i, by shipwreck? You can see they on the
25 'ass why. No lights.

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from 1 So that's another factor we can learn
think, 2 what's happening to the turtle alone. And I
thing, 3 I think might be not only the turtle. Other
other. 4 other animals that just blend in with each
5 Finally, I just wanted to close up, the
coral 6 turtle, the turtles here are now living on the
I 7 heads. Mainly it's because of overpopulation.
8 mean, that's separate from light. Yeah?
9 Overpopulation and all that of men.
places 10 But the eating place is, their feeding

by 11 are still here but is being polluted also, not
12 light but other things. So you can see all this
13 pollution is always incurring [sic] and their
14 birthplace is -- we need to find out about their
turtle 15 birthplace is more on Maui and to include the
Where 16 study about how lights impact them. Yeah?
17 are their birthplaces beside Kealia that we
think it 18 is.
19 All sandy beaches are their birthplaces,
so I 20 don't wanna go further into that, that
discussion 21 about those beaches and who use it. But all
sandy 22 beaches are their birthplaces. No question of a
23 doubt. Rocky areas, sea weeds, is something
24 elsewhere they go eat. But the sandy beaches
are 25 their birthplaces. And that's all I can share
with

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1 you. We need to do more studies on the turtles.
2 Va Laz(?) did some study. I visited the

Ni'ihau. 3 Necker Islands and the, what you call? The
down 4 And when we went to Ni'ihua and when we went
5 there, wow, the environment down there on the
6 northern western Hawaiian islands is so great.
7 Because why? Why? Because it's dark. And you
have 8 that, that whole ecology.
9 You know, like when Maui was dark, we had
'40s. 10 more things, in the '60s, in the '50s, in the
11 Now it's not dark, and, you know, it's
12 overpopulated. People tramping over the place.
13 There is a concern. And the turtle is part of
the 14 process. You need the take care of that.
15 Anyway, that's what I need to share.
16 MS. BERNARD: Mahalo.
17 CHAIR MOLINA: Okay. Thank you. Any members, any
18 questions for Uncle Les at this time? Okay,
19 Dr. Altenberg?
and I 20 MR. ALTENBERG: Well, an issue that surfaced before,
21 think I've mentioned this is, that some of the
22 representatives from the resorts have expressed
23 concern about the idea of restricting their
ability 24 to illuminate the beaches because that is
currently 25 a part of their security system. And so I'm

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what 1 wondering from a Hawaiian cultural perspective
or 2 is your vantage point on the rights of resorts
to 3 any other person who has built along the beach
4 illuminate it for the purpose of protecting
5 themselves from liability, etc.?
directly 6 MR. KULOLOIO: Well, I can't answer that question
7 because, but I know that, you know, like we were
8 just was talking, we need to balance things out
how 9 we gonna live in this environment, how we gonna
work 10 with each other. So I think we gotta base it
upon 11 that.
lights 12 But the thing I can say is that, eh,
13 are good in some fashion, but can we make some
study 14 nights when there's no lights? So that we can
15 both sides, taking care the turtles?
16 The nights, they are calendar nights in
that 17 Hawaiian nights that I would like to study is
the 18 we protect all muku nights the darkest nights on

19 calendar. The pokane [sic] night, the darkest
20 nights where you see the last quarter of the
moon
21 when the moon disappears, that's the kind night
22 culturally, yes, culturally, I think we should
not
23 have our beaches lighted up. Using those one
week
24 calendar nights, the darkest nights of the week,
of
25 the month. Yeah? Every month.

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Yeah? 1 Oh, yeah, and do a study. Do a study.
2 And really we're gonna contribute everything for
the
3 culture, for the nature, for our shorelines, for
the
4 turtles. And it's gonna be a process that all
of
5 us, including me, have not learned Maui's
culture
6 yet. It's a beginning.
7 Eh, first time I working with this light
8 thing. Now I'm beginning to say wow. It's a
new
9 thing for me. I didn't consider that. I'm a
night

light 10 diver, but now oh, it's different thing how
11 affects other creatures in the world.
12 CHAIR MOLINA: Okay --
question 13 MR. KULOLOIO: Did I mention -- did I answer your
14 about perhaps we could balance it out?
15 CHAIR MOLINA: Okay, all righty. Thank you, Uncle
Les.
16 And Miss Bernard, before we do so, I know,
17 Mr. Chong, you have to leave for a flight, so --
18 MR. CHONG: Yeah.
19 CHAIR MOLINA: -- I wanna thank you for your
20 contributions, and we shall see you in June.
And in
21 the meantime, keep the lines of communications
22 opened with Staff and myself as far as there's
any
23 data or information that you have.
24 Okay, Miss Bernard?
25 MS. BERNARD: Oh. I wanted to also tag on to the
turtle

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1 question Bill George had asked earlier about the
2 nesting habitats for turtles. And I had made
3 inquiries to George Balazs, our National Fishery

and
4 Service federal turtle expert for the Pacific,
5 of Skippy Hao our State biologist and of Bill
6 Gilmartin who actually used to run the
Endangered
7 Species Program for the feds for 15 years who
was
8 tasked with protecting the turtles and monk
seals.
9 And George and Bill Gilmartin both
concluded
10 that we should share where the nesting sites are
11 with the public in order to better protect them.
12 Both feel that, you know, reducing the lighting
is
13 gonna better protect the turtles. But I still
have
14 not yet heard back from Skippy.
15 And when I spoke with him when he was
here
16 last time, he did not want the sites revealed.
But
17 we're waiting to hear it now that he's heard
from
18 George and Bill to see if he will now decide
that
19 it's okay. And then if that's acceptable, then
I
20 can bring a map of the nesting habitat that we
know
21 of for both 'Ea and Honu, both the green and the
22 hawksbill sea turtles.
23 And I think it's important for us to
realize
24 that what we're looking at is a population that,
25 30 years ago, there was certain amount of

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now 1 disturbance at Kealia from the military. And
back 2 we're seeing a recruitment of that population
habitat. 3 to the area and re-establishment of their
population 4 And to think about, you know, the
 5 is growing, as Uncle Les said. There are more
 6 turtles out there than were before they were
 7 protected in 1976. But there's a threat. It's
that's 8 fibropapilloma for the greens, the disease
 9 killing them. So, on the one hand, we have a
 10 younger population coming up, but the older
 11 population is declining.
 12 And one more thing about the Endangered
question 13 Species Act was brought up. Mike asked a
 14 of Donna about the ESA. And we know that the
ESA 15 can be used to change lighting on beaches. It
has 16 been used.
 17 It was used in Florida so assist the
County.

Daytona 18 I think it was Daytona. It might have been
lighting 19 that was, that was forced to change their
lawsuit. 20 by the ESA, by an individual who brought a
21 And it's in our, it's in our records that, the
22 correspondence about that.
before, 23 But just so we, you know, as I said
and 24 so we know. It's better for us to be proactive
25 to go about this mindfully, rather than have the

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fall 1 force of any of an even greater law come and
2 like an ax on our necks.
3 CHAIR MOLINA: Okay, thank you, Miss Bernard.
4 Mr. Maberry?
Duvall 5 MR. MABERRY: Very briefly, sir, I ran into Fern
6 who is a biologist for the State who's provided
7 testimony to us before. And he told me that he
had 8 provided Professor Altenberg with some
information 9 about contacting someone in the federal
government

of 10 regarding the same type of an issue because some
possibly 11 the night flying birds that we have here are
12 considered migratory and that there could
13 be federal action against us. Did you have --
14 ?: Yes.
15 MR. MABERRY: -- information on that?
16 MR. ALTENBERG: I attempted to contact the woman whose
out 17 name I can't recall at the moment, but she was
that 18 of town and incommunicado. But I can attempt
19 again.
20 MR. MABERRY: Thank you.
point, 21 CHAIR MOLINA: Thank you. Okay, members, at this
from 22 the Chair would like to just get a few brief
23 comments if they have any from, I guess, first
24 Mr. Ige. If any comments at this time from the
25 developers' perspective on what you've been

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1 listening to?
2 MR. IGE: I only wanna comment on your demonstration
site.

on 3 I didn't comment on it earlier, but I'll check
4 it. I believe on the roadway that goes to
5 Kamehameha School we have a full cut-off of high
for 6 pressure sodium fixtures. So if you're looking
do 7 an area, that might be a good area where you can
8 a comparison. But let me check on it first and
9 verify if in fact that's the case.
Bernard? 10 CHAIR MOLINA: Okay, thank you, Mr. Ige. Miss
we're 11 MS. BERNARD: Can we have that just e-mailed since
the 12 not meeting for two months? Could we just have
13 information e-mailed to us, Gary?
14 MR. SALDANA: Yeah. I can --
15 MS. BERNARD: Thank you.
with 16 CHAIR MOLINA: I don't think that would be a problem
17 the Sunshine Law.
18 MR. MABERRY: Clarification --
19 CHAIR MOLINA: Mr. Maberry?
20 MR. MABERRY: Do you mean the, not the band-aid fixed
21 ones? You mean you actually have the original -
22 MR. IGE: Yes --
23 MR. MABERRY: -- full cut-off?
high 24 MR. IGE: -- it's a full cut-off fixture, but it's
25 pressure sodium.

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1 MR. MABERRY: Correct. But it's down the road --

2 MR. IGE: Yeah, it leads down the road --

3 MR. MABERRY: Okay.

4 MR. IGE: -- from Kula Highway down --

5 MR. MABERRY: Okay, thank you very much.

6 MR. IGE: -- to Kamehameha School.

7 CHAIR MOLINA: Okay, thank you. Dr. Altenberg?

8 MR. ALTENBERG: Steve Sutrov had mentioned to me that

9 these lights are very similar to the ones that

are

10 in Wailea, the street lights there. So that

might

11 be something to keep an eye out for.

12 CHAIR MOLINA: Okay, thank you. Okay, I know Mr.

Hoonan

13 had his hand up earlier today. Any comments

you'd

14 like to make before we close?

15 MR. HOONAN: Just something really quick here; and

it's in

16 a broad sense is that I wanna say, first of all,

how

17 much I admire your passion and the work that

you've

18 done and also that I'm not sure there were some

19 testimony and some comments made about big

business

20 and things like that. And fortunately or
21 unfortunately, I guess I represent a big
business
22 here on Maui.
23 But I also want to urge that in the next
two
24 months please contact me if you need to. I
would
25 like to not be put in a box as someone that
doesn't

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1 care about the natural resources nor do our
2 industry. We do care. I do passionately care,
and
3 I think I share a lot of common ground with you
4 folks that possibly you maybe not even know.
5 Please look beyond our designation as an
6 industry. And I really embrace your passion and
7 commend you on the work you've done.
8 CHAIR MOLINA: Okay, thank you, Mr. Hoonan. Mr.
Maberry?
9 MR. MABERRY: Yes, sir. I would like to thank you for
10 that comment. And I am very confident now that
11 we've been in these sessions for some time that
12 there are actually some alternatives to meeting
your
13 needs that we've --.

by 14 I mean, we just actually discovered quite
high 15 accident here recently that, for example, that
area 16 pressure sodium lights can be used on a beach
17 provided they have an amber lens over them. Now
18 while that's not a complete no-cost item to you
19 folks, it may be reasonable in order to protect
our 20 environment. And so, you know, I think we've
come a 21 long way and I think we have, we will continue
to 22 find more common ground. Thank you.
23 CHAIR MOLINA: Okay. Thank you. Miss Bernard?
24 MS. BERNARD: Yeah, I'd just like to echo that. And I
25 know your depth of commitment from the work that

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issue 1 you've tried to do in working with us on this
it 2 for almost two years now. So, yeah, we'll get
3 right. Thank you.
And 4 CHAIR MOLINA: All right. Thank you, Miss Bernard.
5 one last person. Mr. Piltz, from the lighting

6 industry sector, if you'd like to share any
7 comments?
8 MR. PILTZ: I have to agree with the rest of the
people up
9 here that your commitment to find a better way
to
10 help the environment. And one of the things we
are
11 concerned in the commercial area is that we
retain
12 our safety for our patrons and we look for some
13 common ground.
14 CHAIR MOLINA: Okay, thank you, Mr. Piltz. Mr.
Saldana
15 would like to share some photos through the
miracle
16 of technology on some of the lights that were
just
17 discussed. Mr. Saldana, if you'd like to share
some
18 of these fantastic photos with us before we
close,
19 I'd appreciate it.
20 MR. SALDANA: I just wanted to show a real quick
photo.
21 Brian Ige was mentioning about the full cut-off.
22 Unfortunately, I didn't get pictures of full
23 cut-offs at the King K. School. I actually
didn't
24 look up the driveway to see if those were in
fact
25 full cut-offs.

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that 1 But I noted that there are full cut-offs
2 were just recently installed along Honoapi'ilani
3 Highway right there by, going toward Ma'alaea.
4 These are, if you'll notice all the road
5 construction in that intersection, these are the
6 lights that went up. They are full cut-off
sodium 7 vapor lights.

8 And this basically is an overview of what
the 9 lights are looking like. So they are being
10 installed. And according to Randy Nakama, I
11 understand that these lights are going to be,
12 they're pretty much so the standard for most of
the 13 street lights in the future here in Maui.

14 CHAIR MOLINA: Thank you, Mr. Saldana. Mr. Maberry?

15 MR. MABERRY: Along this line, it just kinda jogged my
16 memory. We recently, I was actually contacted
by 17 the national park and told that Kamehameha
Schools 18 was looking for a variance for installing
19 lighting for their new stadium, which, of
stadium 20 right in the same general area as Kekaulike.
course, is
And

21 those of us who live in that area and, you know,
22 enjoy having the lights come on; and we
appreciate,
23 of course, the kids need to enjoy their sports.
But
24 we were thinking oh, my gosh, there's gonna be
25 another stadium, you know, just down the street

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1 there.
2 But Lee Altenberg got in touch -- could
you
3 kinda pick up the story for me --
4 MR. ALTENBERG: Yeah, after hearing about the request
for
5 the variance, I contacted the headmaster at
6 Kamehameha High School, Rod Chamberlain, and
told
7 him about the process of the Subcommittee and
about
8 our concern about light pollution and the
testimony
9 complaining about the King Kekaulike School.
10 Anyway, his response was that this is an
area
11 that they want to consider one of their
priorities
12 to create neighbor friendly lighting and that

I 13 they're gonna pursue some of the references that
14 had forwarded to him, including mentioned a soft
etc. 15 lighting systems fully shielded sports fields,
16 so -- and he said it was just in time.
17 He said six months from now if I'd
contacted 18 him, they might already have some problems, some
19 commitments to other design. But he said we
20 contacted them just at the right time.
21 MR. MABERRY: So that's my point, sir --
22 CHAIR MOLINA: That's good to know.
23 MR. MABERRY: -- I mean, this is very important that
we're 24 doing this now and that we work our way through
it, 25 no matter painful it is. Thank you, sir.

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1 CHAIR MOLINA: Thank you. Well, Dr. Altenberg?
2 MR. ALTENBERG: There's an issue that I wanna have an
3 opportunity to bring up as a proposal before we
4 adjourn today, when the time is appropriate.
5 CHAIR MOLINA: Oh. Go ahead --
6 MR. ALTENBERG: -- that time now?
7 CHAIR MOLINA: You can do it.

8 MR. ALTENBERG: Okay, based on the reports that Eric
9 Miyasato gave where he showed these three
different
10 configurations: One with fishbowl lens; one
with a
11 full cut-off, both high pressure sodium; and
then
12 one with a Guardco low pressure sodium
luminaire;
13 When you look at the photometrics of
that, it
14 would seem to indicate that the 150-foot
interval,
15 which I know is used at least in some of these
16 street lights, for example, at Keali'i alanui,
17 that's 150-foot interval, that a switch to the
18 particular fully shielded luminaire that he
19 analyzed, would drop the average illuminance
below
20 the IES recommendation;
21 And the use of the low pressure sodium
22 luminaire by Guardco at 90 watts would drop it
even
23 further. That suggests to me that before we're
in a
24 position to adequately recommend regarding,
25 certainly regarding any retrofitted street
lights,

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there 1 we need to be able, we need to know whether

2 are available luminaires that would allow such a

3 retrofit without having to move our street light

as I 4 poles. Because moving the street light poles,

5 understand, could cost something like \$2,000;

County 6 And that would be prohibitive for the

7 to entertain. So that we, you know, he gave us

a 8 sample of three luminaires, but there are dozens

and 9 dozens of options out there. And it's certainly

10 beyond my research capability to find out, to

11 analyze the photometrics of that.

12 But I think that's necessary information

13 before we can, before we can recommend anything

14 regarding retrofit of our current street lights.

We 15 need to know what the possibilities are and what

16 kinds of costs that we might be able to, you

know, 17 how low the costs could possibly be.

18 So we need to somehow get that

information, 19 and I don't know how might that best might be

20 achieved, whether something that Rick Chong

would be 21 able to do by himself as, for the service of the

22 committee, or whether we have to go through

other

can 23 channels. But I need that information before I
the 24 make any recommendation about retrofitting of
25 street lights.

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1 CHAIR MOLINA: Okay. Thank you, Dr. Altenberg.
2 Mr. Maberry?
3 MR. MABERRY: I'm assuming then, that, you know, if
you're 4 talking about existing street lights with 120
feet 5 that you have a fixed type pole that you're
6 comparing both, you know, both systems,
luminaires 7 against. What is -- it would also seem logical
then 8 that you could increase the wattage of the LPS
bulb 9 in order to compensate. So I'm not sure I
10 understand --
11 MR. ALTENBERG: Well, see, there's the issue of -- at
12 least as we previously presented it, it seemed
that 13 a lot of the cost of retrofitting would be paid
back 14 by electricity savings.
15 MR. MABERRY: Oh, okay.

16 MR. ALTENBERG: If we don't have those electricity
17 savings --
18 MR. MABERRY: Right.
19 MR. ALTENBERG: -- then there is substantial cost that
20 will never, never be paid back --
21 MR. MABERRY: I got it.
22 MR. ALTENBERG: -- and the County needs to know what
23 that's gonna be.
24 MR. MABERRY: Thank you.
25 CHAIR MOLINA: Okay. Thank you, Dr. Altenberg. And
we'll

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good 1 take that concern under consideration. A very
2 one. Okay --
anything 3 MR. ALTENBERG: So I guess I'm saying, can we say
this 4 today so that by our next meeting we can have
5 information? Is there an action --
6 CHAIR MOLINA: We'll try.
7 MR. ALTENBERG: -- that we take?
take 8 CHAIR MOLINA: Well, we -- I don't believe we need to
9 any formal action. We can just, just through a
--

10 Mr. Garneau? We don't need to take any formal
11 action; we can just go ahead and submit this to
the
12 Staff, and go ahead and get this information?
13 MR. GARNEAU: Yeah, that's correct.
14 MR. ALTENBERG: So you're saying that the Staff, the
15 County Staff would be able to do that study and
16 provide us with that information, if requested?
17 CHAIR MOLINA: If requested, yeah. I believe they
could.
18 I'm not a hundred percent sure on that. Mr.
Piltz?
19 MR. PILTZ: I believe the person that was here the
last
20 time that gave us some information from Telsa,
their
21 manufacturer's representative, and that person
22 couldn't -- if Staff would get in touch with him
out
23 of Honolulu. They could get us that information
24 that you would need.
25 MR. ALTENBERG: Eric Miyasato, you mean?

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1 MR. PILTZ: Right. I'm not sure that was his name,
but --
2 MR. ALTENBERG: Yeah, that's right. Yeah.

3 MR. PILTZ: I know he's with Telsa, and their
4 manufacturers' representative of various
lighting
5 fixtures, and they're be able get that for us.
6 CHAIR MOLINA: Okay. I'm sure Mr. Saldana can get in
7 contact with Mr. Miyasato and get that
information
8 provided to you well before, hopefully well
before
9 the June 12 meeting date.
10 MS. BERNARD: Oh, good. Okay.
11 CHAIR MOLINA: Okay, members, with that, I would
like,
12 the Chair would like to, ask you to let you know
13 that it is my intention that the June 12 meeting
to
14 start reviewing the bill again itself. I think
15 we've done a lot of information gathering up to
this
16 point.
17 And in the meantime we will keep you
posted
18 on the matter regarding the street light
19 demonstration. So when we do get that
information
20 we'll be sure to keep you aware. So we'll keep
the
21 lines of communications open. And if you come
22 across any type of information this Subcommittee
23 needs, please feel free to e-mail or call myself
or
24 Mr. Saldana.
25 And the Chair again thanks you all for
your

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1 participation. And we shall see you on June 12.

2 This meeting is adjourned. (Gavel.)

3 MS. BERNARD and MR. ALTENBERG: Thank you.

4

5 SUBCOMMITTEE MEMBERS VOICED NO OBJECTIONS. (Excused:
Richard Chong, Charmaine Tavares)

6

7 ACTION: DEFER pending further discussion.

8

9 ADJOURN: 12:01 p.m.

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1 C E R T I F I C A T E

2 STATE OF HAWAII)

3) SS.

4 CITY AND COUNTY OF MAUI)

5

for 6 I, JOY C. TAHARA, Certified Shorthand Reporter

proceedings 7 the State of Hawaii, hereby certify that the

8 were taken down by me in machine shorthand and was

9 thereafter reduced to typewritten form under my

of 10 supervision; that the foregoing represents to the best

11 my ability, a true and correct transcript of the

12 proceedings had in the foregoing matter.

of 13 I further certify that I am not attorney for any

14 the parties hereto, nor in any way concerned with the
15 cause.

16 DATED this 25th day of April, 2002, in Honolulu,
17 Hawaii.

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25

JOY C. TAHARA, CSR NO. 408
Notary Public, State of Hawaii
My Commission Expires: 10/11/02

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