San Francisco Public Utilities Commission  
Citizens’ Advisory Committee  
Power Subcommittee  

Meeting Minutes - Approved  

Tuesday, February 5, 2013  
5:30 p.m. – 7:00 p.m.  
525 Golden Gate 2nd Floor O’Shaughnessy Conference Room  

Members  
Doug Cain – Chair (D3)  Walt Farrell (D7)  Avni Jamdar (M-Env. Group)  
Stephen Bjorgan (M-Eng./Financial)  Ted Ko (B-Small Business)  

M = Mayoral appointment, B = Board President appointment  
Staff: Teresa Young  

ORDER OF BUSINESS  

1. Call to order and roll call at 5:38 p.m. when quorum was achieved.  
   Present: D.Cain; S.Bjorgan; W.Farrell; A.Jamdar; T.Ko;  
   Staff Present: M.Tienken; T.Young  

2. Approval of the January 8, 2013 meeting minutes  
   T.Ko moved; S.Bjorgan seconded. Minutes approved by acclamation.  


4. Report from the Chair: Doug Cain  
   D.Cain was asked by Terrence Jones to develop resolutions. He encouraged  
   the Power Subcommittee to develop resolutions as well.  

5. Staff report: T.Young  
   Charles Sheehan will make a presentation about wireless streetlight controls at  
   a public meeting on February 12, 2013.  
   Work for the wireless streetlight pilot areas is coming up this spring.  

6. Presentation and Discussion: Wireless Streetlight Controls, Mary Tienken,  
   SFPUC Power Enterprise  
   Discussion and Q&A:  
   D.Cain: Have you issued a Request for Proposals (RFP) for the lamps?  
   M.Tienken: No, we have not issued an RFP yet. We haven’t bought the lamps  
   yet, because they need to be installed with the whole system.  
   D.Cain: So, you’re going to buy this from an integrated supplier?  
   M.Tienken: We’re working to buy that as a functional system from different  
   suppliers. We need to decide on how we go with the control systems.  
   T.Ko: What is the source of the delay? Is that going to start in one to two  
   years?  
   M.Tienken: The pilot project will take six months to assess. That will get us to  
   July or August of this year. Then we’ll issue an RFP for buying the products,  
   but maybe the installation as well as a turnkey solution. That would take  
   another six months. Hopefully we’ll be doing installations this time next year.  
   W.Farrell: So, it’s not working well yet?  
   M.Tienken: The pilot project has not been without problems.  
   D.Cain: What kind of problems?
M.Tienken: The system includes a node, which is installed on the streetlights, and a gateway, which communicates with the home base. Because there were so many cellphone towers in downtown, the gateway had to be moved three or four times before we found a place that it could communicate with the lights and back to the central server. Testing the strength of the gateways is part of the pilot project.

A.Jamdar: Are you going to test the same product and gateway?
M.Tienken: There will be seven products and all will be installed in Downtown. Three will be in Irving and four will be installed in Presidio Heights. The basic functions are the on/off schedule, failure detection, adjustment of the schedules, lumen adjustment, and other possible features that we’re not sure about using just yet.

S.Bjorgan: So you can put a device on it and leverage the wireless network?
M.Tienken: Essentially. Most of the devices that were provided to us had more vision than reality. The system can’t do all these things. Some do one or two things, but there’s not a system that does all of these things.

W.Farrell: Is the problem communication? Does the data come in?
M.Tienken: It’s mostly that the various devices are proprietary. They have communication protocols that only work with a certain type of wireless system. There are not that many devices that work on open standards.

S.Bjorgan: Is this ad hoc networking? Does each light communicate with the next one?
M.Tienken: Most of the systems are mesh networks. They communicate with all the lights within certain distances. There are also systems that communicate back with the gateway.

W.Farrell: How would it adapt to the fog? Would you make lights brighter?
M.Tienken: The system could dim lights during certain hours or conditions. Right now, the lights are on for maximum usage.

W.Farrell: Would it make it easier for robbers?
M.Tienken: We’ll see. We met with police captains and they raised these issues. Different studies say different things about that. We’ll have some local evidence.

S.Bjorgan: When was this directive conceived?
M.Tienken: The money available was $8M in July 2010.

S.Bjorgan: How much do we save in terms of money?
M.Tienken: We’ll save about $500,000 a year in energy value. We pay PG&E for the wheeling cost.

S.Bjorgan: What’s the simple payback period?
M.Tienken: When it was first modeled 2 years ago, it was 11-12 years. But as the efficiency has gone up, the cost has gone down.

D.Cain: What is the total budget is?
M.Tienken: $16M was allocated, and now it looks like it would cost less than that.

D.Cain: Something around $900?
M.Tienken: That’s where we’re seeing right now. The City of Oakland just awarded a contract that’s at about $450-$500 a fixture and installation. That’s the depreciation of cost.

W.Farrell: Where does the $150 go?
M.Tienken: The $150 is just the product cost, doesn’t include installations. The $450 does.

S.Bjorgan: There were multiple funding sources. Did they provide any funding?
M.Tienken: $3M in the form of a 3% loan.

T.Ko: How many streetlights are managed by PG&E?
M.Tienken: 19,000. We’re only planning to convert our cobra heads.

T.Ko: Are there any plans for PG&E to do something similar?
M.Tienken: We have encouraged them. They are interested, but I don’t know if there is commitment.

T.Ko: Ideally, if they would do this, you’d want a system that talks to each other instead of two separate systems. If there are reported streetlight outages, it would go to a central system to be triaged out.

A.Jamdar: I just wondered how common it is in the United States for LED lights.
M.Tienken: LED lights are being installed everywhere: Walnut Creek, Alameda, San Jose, Los Angeles, and most East Bay cities. It’s largely being limited by
funding. The project was funded before the crust of the wave. Now, the number of cities that has done conversions has grown.

D.Cain: With the installed base, why does San Francisco have to do this prototyping?
M.Tienken: The controls are preventing us from moving forward.
D.Cain: No one else has a control system?
M.Tienken: The control systems haven’t been widely implemented.
D.Cain: Why is San Francisco choosing to pilot this?
M.Tienken: I think it’s because the City is interested in using the most innovative solution available. The control system will cut down on operational costs by allowing us to know immediately if there is a problem.
D.Cain: Referring to the list of what these systems could do, each of the companies that you’re testing only does a few of these.
M.Tienken: As a separate effort from what I described tonight, we are doing another pilot project related to controls that does many of the functions mentioned. Because there were two different procurement efforts associated with the different pilot methods, this presentation is related to the most recent and biggest pilot projects. There is a system currently installed on Minna Street between 4th and 6th Streets that controls lights, and in the next few months we’re connecting charging stations and the 5th Street and Mission garage along with traffic signal controls along Mission Street. That is a joint project with SFMTA to see if there is a miracle system that could do all these things. This will show us if there are opportunities to join efforts in these types of systems.
D.Cain: Does that mean SFMTA will chip in?
M.Tienken: That would be the idea.
D.Cain: Who gets to keep the intellectual property on all of this?
M.Tienken: The contracts that we developed say the provider is the owner of the intellectual property.
D.Cain: I thought you were taking two different suppliers and you’re doing the integration?
M.Tienken: The vendors themselves do the integration. We’ll be buying the system already integrated, so that we don’t have the liability associated with making two products work together.
D.Cain: Do they give you warranties?
M.Tienken: The warranties are 5 to 7 years.
D.Cain: I think LEDs are expecting to go down below conventional buying. I’m wondering if you could take advantage of cost in those contracts.
M.Tienken: There is some language in our procurement contracts that allows us to capture the lowest price. On the flip side, if price goes up, it could go up in some standard index.
W.Farrell: If one of these things goes out, how do you see it?
M.Tienken: The node that’s attached to the fixture communicates wirelessly to a laptop. It is a graphic display of the City that shows all SFPUC lights. There are different kinds of messages that show if a light isn’t working.
W.Farrell: For an area where you want to adjust the lighting, could that be done too?
M.Tienken: That could be done by toggling a switch.
W.Farrell: Normally do they just go on and off?
M.Tienken: There’s a photocell.
D.Cain: (To T.Ko) When these LEDS were first mentioned there was a list of the multiple uses, what is that?
T.Ko: This is already a pretty comprehensive list.
D.Cain: So when you put out your RFPs, where do you advertise?
M.Tienken: I’m not the person posting the RFPs. I’m not sure.
D.Cain: What companies are looking at these systems to bid on?

7. Discussion of Future Resolutions: S.Bjorgan
S.Bjorgan reintroduced three previous resolution topics.

Fee Schedule and Forms Resolution: S.Bjorgan took the Water and Wastewater Subcommittee’s inputs and asked that the fee schedule and permit process has a flow chart posted on the website.
D.Cain: The only change I would make is to have it published on paper and website.
S.Bjorgan: This is just to get the fees as they are today out there.
T.Ko: if you’re going to remodel a building, will you be going to the SFPUC’s website first or another agency?
S.Bjorgan: if this is a commercial environment, they want you to have water on site, you have to submit plans as well as gather permits from DBI, Fire, Water, etc.
D.Cain: It’s all done on the 5th floor at DBI.
T.Ko: The only reason I ask is that if we make it available on SFPUC’s website, that’s great. We need to make sure there are links to that on DBI’s website also.
S.Bjorgan: If you’re building a building, you typically know where to go.
D.Cain: The contractors know where to go. The general public doesn’t know.

D.Cain: I suggest a change at the bottom of the resolution: add that this material “should be published online and in paper form to be available at the DBI along with other similar forms there, and in the same location as those other forms”.
W.Farrell: What do people do now?
D.Cain: They muddle through.
W.Farrell: If they were required to prepare a process, how long would it do to do so?
D.Cain: I don’t know. It’s spread around and they need to centralize it and put together a fee schedule.
W.Farrell: Do you have to put in a wastewater system?
D.Cain: There are multiple permits for multiple uses that the PUC charges for.
S.Bjorgan: I’ll remove wastewater because no one is required to do that right now.

Motion to approve Fee Schedule and Forms Resolution with amendments:
S.Bjorgan moved; T.Ko seconded. W.Farrell called for a vote. Resolution approved unanimously without opposition.

Possible RECO Resolution: S.Bjorgan reintroduced the background information and the Subcommittee discussed drafting a resolution to discuss at a future meeting.

Possible Bond Resolution: S.Bjorgan provided background information on this draft resolution.

8. Future Agenda Items
   a. Discussion with Power Staff about developing resolutions from Subcommittee – regulatory affairs – What are the avenues of change that this body can take to change how PG&E is managing their streetlights.
   b. Discussion Bond and RECO resolutions
   c. Power Enterprise Focused Budget Presentation

9. Announcements: The next regularly scheduled meeting of the Power Subcommittee will take place on Tuesday, March 5, 2013.

10. Adjournment at 6:58 p.m. W.Farrell moved; T.Ko seconded.