Jensen, Bruce, CDA

From: Erica Etelson <ericaetelson@gmail.com>
Sent: Monday, May 09, 2016 8:49 AM
To: Jensen, Bruce, CDA
Cc: Shawn Marshall
Subject: Questions for MRW

Good morning, Bruce, thanks for forwarding these questions to MRW.

Best,
Erica

What is the conclusion that 80% of job growth will be attributable to bill savings based on? What are the inputs and methodology for arriving at 80%?

The technical study for Clean Power SF (whose program will be half the size of Alameda's), projects (p. 138) the creation of 4600 local construction jobs. Likewise, the Silicon Valley Community Choice Energy technical study projects (p.37), for a program one-fifth the size or Alameda's, 370 local construction jobs. By contrast, our study projects 80 local construction jobs. What factors account for such a huge discrepancy?

Given that Bay Area Smart Energy 2020 (p.108) estimates enough residential and commercial rooftops to house 3764 MW of solar (enough to meet total electricity demand), why is the local development scenario pegged at 10%?

What is the basis underlying the assertion of a 15% premium for local solar and a 55% premium for small-scale solar? Do those figures represent up-front or levelized costs?

Can the study incorporate the recent analysis by the Rocky Mountain Institute demonstrating that community-scale solar costs can be reduced by 40%?

Does the energy efficiency analysis include demand side management activities such as peak load shaving, dynamic pricing and storage? Please identify which DSM tactics were incorporated.

Given Bay Area Smart Energy 2020's conclusion (pp.72-84) that 23% demand reduction can be achieved via demand side management and 30% through energy conservation, why does the study propose a tiny 10MW demand reduction by 2030?

Where does the $3.5M figure for energy efficiency program admin funds come from (slide 20)?

Is EBCE entitled to claim the $26M in public program purchase charges paid by Alameda customers or does that automatically go to PG&E?

Does the projected energy efficiency budget include potential cap & trade revenue that the program may be eligible to spend?

Does the model presume that energy efficiency savings will reduce customers' bills or be captured by and reinvested in program?

Does the GHG reduction analysis include GHG savings from demand reduction?

Do the analyses of GHG reductions, bill savings and economic benefits assume that the program engages in integrated power planning?

Does the study make any assumptions about the % of PG&E's load that will depart for Community Choice programs (ours and others) between now and 2030? How would significant load departure affect any of the modeling?

Slide 24 notes that FY2016 construction trade prevailing wage is 19% higher – please clarify—higher than what?

Slide 26: The 1720 annual jobs – does that mean an additional 1720 jobs each year or a relatively stable (with some annual fluctuations) set of jobs over the period studied? Are these temporary or long-term jobs?

Is the model assuming any specific % of wind power being generated at Altamont? To what extent does it anticipate development of new wind resources?

What is the cost difference between wind and solar development and how does that play into the modeling?

Has there been any evaluation of local siting opportunities for medium and utility-scale wind and solar?

Slides 29 and 30: Given the high % of jobs predicted for construction and local government (both of which are strongly unionized), why is such a low % of union jobs projected?

Are the union/non-union projections based on national or Alameda County workforce characteristics?

Elvia Hamann

~~1.3.0~~ 1.1.22

Ratio needs label here & is repeated in 4.10.3

Elvia Hamann

Recital #3 – too brief

Purpose needs to be more prominent – list of itemized goals we've been working with for months

Kevin Jackson, City of Piedmont kjackson@ci.piedmont.ca.us

Would you please provide the jurisdictional load numbers?

In doing so would you please provide information on how that load is calculated. For example, does residential rooftop solar subtract from that load?

1. 15% cost premium for local does not include the multi-plier effects related directly to the Direct vs. Local Total

so it sounds like local solar generation is more expensive. but you need to add the value of local indirect jobs created.

Pg 5

2. Why is 10% renewable the Maximum? seems like that is self-limiting

3.

Notes from Andy Katz, andykatz@sonic.net 510-465-4400

- Question/concern about barriers, (finance cost, etc.) to faster build-out and EE implementation.

- Clarifications: Inclusion of NEM in modeling? Hydro scenarios all CAISO/PCC 1?
- Does rate analysis assume direct union const. jobs?
~~Why are so many direct jobs non-union?~~
(asked) ~~What's the percent of union construction jobs?~~
- Will (1) Direct Statewide and (2) Scenarios 2 and 3 be included in macroeconomic analysis?

asked: - Rate sensitivity for 15% 20% local
- If discussing limits in Alameda Co, consider Contra Costa Co.

(p4) much more information needed.
Units?
Year?
assumptions, if any, that went into load estimates

(p11) Why would PG+E rates go up and down so much? Why wouldn't the shifts be anticipated and flattened over time?
Please include more info on whether these PG+E Rates are from PG+E or independent projections

GHGs: (p15)

What time frame is used for GWP? (@ 20, 100 yrs)
What gases are included?
Are any short-lived pollutants included?

(p19) Would be more useful to know impacts of EE programs than # of programs

(p29) Please clarify this is for 2017-2030 (if that is true)

⟹

Question

Why are you only anticipating 10% (not higher) renewable supply by 2030 from LOCAL solar resources.

Why can't the local share be higher – what are the impediments?

on slide 5 you show smaller ~~[illegible]~~ local projects (<3MW); 55% premium over large project.

How did you arrive at the 55% premium, and is it based on current costs?

Questions - Monica Padilla

1. Please demonstrate how the base case PCIA is calculated.

2. Where do you incorporate RES Adequacy cost for system, local and flexible capacity?
   - What are these costs?
   - What are the assume capacity obligations?
   - What is the annual peak capacity?

3. With so much solar concentration, do you how do you estimate congestion cost assoc. w/ various solar contracts?

4. Do you assume an Energy Storage obligation? →

   If so what is the capacity and annual $ amount?

5. PG&E's forecast of generation rates between slides 8 and slide 11 don't seem to trend the same. Please provide actual generation rate projections by year in ¢/kwh.

6. Can we get a copy of the model for the technical analysis?

7. Per solar or remote renewables, what are the Transmission cost assumptions? No new transmission? Additional transmission?

- Did MRW's study consider the impact of Climate Change on large hydro-electric resources (i.e. large hydro may be diminishing b/c of decreased precipitation & increased temperature = less Sierra Snowpack)

- Did MRW analysis consider the fact that the twice-through cooling requirements of Diablo Canyon Cove into effect in 2022? (This is three years before the 2025 relicensing of the Nuclear Power plant.)

- Can MRW comment on "Bucket Zero" Resources used by PG&E for RPS Compliance?