Future/Existing Programs and Grid Stakeholder Meeting - November 16, 2018

| Xcel Energy | Alice Jackson, Neil Cowan, Eric Van Orden, Kevin Cray, Stephanie Voss, Kerry Klemm, Jack Ihle, Shewit Mikael, Shawn Queenan, Dara Ward |
|-------------------------|---|
| OCC | Chris Neil |
| City of Boulder | Matt Lehrmanm, Yael Gichon |
| City of Denver | Tom Herrod* |
| CEO | Lyndsey Stegall*, Jocelyn Durkay |
| Clean Energy Collective | Raphael Schiffman |
| COSEIA | Mike Kruger |
| Set Ventures Group | Walter Sharp |
| Grid Alternatives | Tom Figel |
| Independent Advocate | Karey Christ-Janer |
| WRA | Erin Overturf |
| CO Army National Guard | Brett Jackson* |
| Namaste Solar | Rick Coen*, Nick Williamson, Heath Mackay* |
| ASES | Carly Rixham |
| EPA | Tim Rehder |
| Budget | Wendy Painer* |
| NREL | Chandra Shaw* |
| Photon Brothers | John E. Johnson |
| Solar and Petros Pace | John Bringenberg |
| NIST | Don Archibald |
| U.S. EPA | Tim Rehder |
| EOC | Andrew Bennett, Luke Ilderton |
| Vote Solar | Rick Gilliam, Michael Hiatt |

>>Note: Hearing everyone on the phone was difficult so if you are not represented, please let us know and we can add folks to this list.

^{*}On Phone

I. Welcome & Introductions

Kevin started meeting with introductions and Neil went over action items from last meeting.

A. Admin and Action Items

a. Wind source to Renewable connect

- i. The federal government has the largest interest in this.
- ii. This is ongoing/ closed

b. Stakeholder Website

i. How often is this used? A lot of material on the site is on the RESA summary report, so Xcel is thinking about only having the current year information-Taking down everything pre-2018

c. Monthly RESA Report

i. Xcel is hesitant about housing this information in another report. Since the PUC website contains all of the reports.

II. Renewable*Connect – Eric Van Orden

a. Residential

- i. Potential discussion about Windsource/Renewable*Connect transition, does this mean dropping windsource to transition to Renewable*Connect?
- ii. Can you get credit for windsource AND R*C?

b. Commercial

i. 572 Participants

c. SG &PG Customers

i. 153 premises, 39.7 MW

Discussion

Do you have data on how much demand there is?

Over 100 MW of interest

Is there data or insight if the residential opening was longer, that they would've increased? If we had the capacity available?

• Residential customers had 2 months to enroll prior to larger commercial projects. This seems to have increased enrollment.

Is the 100 mW of interest because a few large customers didn't enroll fast enough?

• Of that 100 MW of interest, there was a portion of that was able to enroll in the last enrollment period of renewable connect.

Could you explain the allocation systems for the Renewable connect enrollment?

- We're not sure. We can reach out to Account Management.
- Kevin: Everyone got 20% of what they asked for.
- The credits were filed yesterday

Can you switch your RECS to another property that is on Renewable connect?

- Eric: Windsource can be layered on any other program. But the Windsource can only cover the remaining kW that is not covered by the other program the customer is enrolled in.
- WRA: They feel that Windsource doesn't make sense with today economics and charging a person a "good person tax" doesn't make sense.
- Phone: Solar Gardens customer does not receive the REC, but Renewable Connect customer does receive the REC.

Can you end up with a negative bill balance?

Yes, that is a possibility.

d. Solar*Rewards/Dashboards

- i. Many of the NEM large projects, many will not come into fruition.
- ii. In the settlement agreement 139 MW for Solar Rewards capacity and we are well above it.
- iii. Currently, NEM is 3MW per month, while SR is 1 mW per month of applications.

Discussion

City of Boulder: Is there a range or estimate for the incentive for the large?

We cannot disclose that.

CEO: Why was there such a large increase of cancelled applications in 2018?

• We are not sure, maybe the customers cancelled because the project would not be completed by the end of the year

Kerry: Solar Rewards projects take longer to get done. Why?

No one's sure. This is something more to explore.

Will there be a continuation of the Solar Rewards program?-Namaste Nick

- Nick: I find it annoying to explain to customers.
- WRA: Solar Rewards program needs to be used to leverage communities and customers that
 would not traditionally enroll, such as low income customers. WRA believes the RES statute
 requires some sort of DG solar program.
- Cary: This is all dependent on the new RES plan, with the new governor.

WRA: The rec and the incentive are being conflated. She agrees that the incentives should decrease, but REC still have value and XCEL is still purchasing RECs from customers. Xcel needs REC in order to meet DG requirements. Since more customers are now going to be net-metering only, Xcel will need to think about where it will get it's RECS.

Boulder: Is there an ability to shift capacity between small, medium, and large? Why is there a RFP for large program?

- Kerry: It's cost effective to bid.
- Boulder: This is not accessible; we feel that there is no transparency in this process. Could you
 we receive information on what BIDS people are getting.
- Kevin: Cost effectiveness is the largest criteria. If there was a lack of bidding and there was a set incentive cost, we would see less demand to enroll.

e. Medium Program

- i. Medium program is seeing less and less enrollment. There was a lot of duplicates.
- ii. 24 MW per year are allocated to medium program.

Discussion

Why are there not as many completions? - Namaste Nick

- We don't know. It could be due to the nature of the projects.
- There was debate on the chart.

f. Small Solar Rewards

Discussion

Does the large program have negative prices for RECs?

• No, that would make no sense. You could just be NEM customer...

Why are the medium application not selling out, the REC is too low?-COSEIA Mike

- The incentive is set from the settlement.
- This change occurred linearly, it was not a sharp decrease. This seems to be a larger market trend, external from XCEL energy's incentive offering.

Will there be any changes to the SPVTOU commercial rate?-Chris

• Their members don't like the rate. They don't like the qualification standards for the rate and wanted to let everyone know that pain point still exists.

III. COSEIA – New CEO – Mike Krueger

IV. Solar Rewards Community Presentation – Shawn Queenan

- a. There was a slowdown in the development in project due to the Colorado board.
- b. There's been a change in customer enrollment.
 - i. 2018
 - a. More of the allocation is going to municipalities, schools, universities.
 - b. We will adjust accordingly, to meet this demand and imbalance.
 - ii. Kevin
 - a. Residential dropped from 20% to 10%
 - b. Market based developers are targeting the commercial sector.

iii. 2019 Overview

- a. We are seeing less bids in this opening
 - Walter: It is not profitable to create a 100 MW system, instead of 4 20MW systems or interconnected multiple buildings at once. The economies of scale are not there.
 - 2. **Xcel** would like to set up a working group for the 2019 RFP release.

Walter: Mid December would be a good time for this subgroup to meet up and create a plan.

All stakeholders agree for Mid-December

Discussion

Is 2018 RFP included in this report?

• 2018 RFP awards have not been announced yet so it's not included in this dashboard.

Why is there less residential?

- Commercial customers are easier to manage than many residential customers.
- Boulder: The larger administrative costs and pain as well as the amount of allocation is why this trend is occurring.
- Commercial customers are more dependable to finance and manage in general.
- Many installers have a waitlist of customers wanting to bid, if there's an opening the installer would preferably be commercial buildings.

WRA: Believes the limited competitive bids with negative pricing is the reason why installers choose easier customers like commercial customers. Thinks that the trend where less residential customers are signing up, is going to increase.

Walter: Thought that the change to the load factor would help residential customers, but this did not occur.

Cary: This trend shows potential for a new product. Finding another way to satisfy this demand

WALTER Sharp: We see a lot of customers enroll in the Solar community program instead of the medium program since it is more profitable.

Kevin: This could have affected t medium program enrollment

Do you know of any gardens that fall out?

• That has not occurred; all solar gardens have been complete.

V. Solar Floating Photovoltaic Opportunities – Walter Sharp

a. See presentation

VI. Check-In & Look Forward – Alice Jackson

- a. 2016 we took a different approach working together.
 - i. Is it working? What isn't working? More or less what you thought you'd get out of it.

Discussion

Walter – He welcomes the group and likes that he can come in even if he is not an intervenor. It broadened the group.

Karey - Community Choice Aggregation – thinks Xcel should start the formal planning if passed. Would want Xcel to find a way for communities to go 100% renewable – but under Xcel.

- o Alice went on a tour of the state, and is working with communities.
- o Walter Single Net-Metering Aggregation
 - Alice: This is a program and system that utilities have difficulty adopting because it's using Utility resources with very little return.
- (CEC) Solar Developer perspective—Above average, likes the website and resources

Erin Overturf -

- Least amount of attention
 - thinking about future programs/pilots. Might want to work together to see how to implement new offerings.
 - EV's
 - Collaborate
- o Alice: Brainstorming program and pilot improvements/ideas.

ACTION ITEM: List of what we have talked about in the past (Maybe subgroup)

John J - PVTOU Rate - How do we do Medium program better?

Brett Jackson – How do you feel it is going? How do you think we can do better?

 Alice – I think we need to talk about what is going to be next. Future groups need to be focused on where we are going.

VII. Conclusion and Wrap-Up

- a. Breaking down the stakeholder groups into Grid/existing/future
 - i. Later Meetings:
 - a. Future Format:
 - One meeting for discussing and evaluating current programs (December/January)
 - ii. Brainstorming new programs (Mid Next year)
 - iii. Should there be a separate meeting about the Grid or should this be combined with another group?