

Future/Existing Programs and Grid Stakeholder Meeting – February 23, 2018

Xcel Energy	Neil Cowan, Ryan Matley, Eric Van Orden, Kevin Cray, Stephanie Voss, Shawn Queenan, Kerry Klemm, Kristin Gaspar, Cheryl Wells, Jaclyn Webb, Craig Groeling(phone), Michael Pascucci, Jack Ihle
ASES	Carly Rixham
OCC	Chris Neil
CEO	Lyndsey Stegall, Jocelyn Durkay,
COSEIA	Rebecca Cantwell, John Bringenberg
Set Ventures Group	Walter Sharp
Grid Alternatives	Tom Figel, Vicky Mandell
Independent Advocate	Karey Christ-Janer
WRA	Erin Overturf, Nathan Dunkley
CO Army National Guard	Brett Jackson
City of Boulder	Matt Lehrman
Microgrid Energy	Daniel Merkle
Namaste Solar	Rick Coen, Heath MacKay
Navigant	Stuart Schare(phone)
EPA	Tim Rehder
SEIA	Sara Birmingham
EOC	Jennifer Gremmert, Andrew Bennett
Vote Solar	Rick Gilliam

>>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.

I. Welcome & Introductions

Kevin started the meeting with introductions, and handed the floor over to Neil. Neil opened the floor with some ideas:

- Going from three stakeholder meetings, down to one.
 - “Meet with all the stakeholders before decisions have been finalized, or rate changes have been proposed” – Gilliam
 - “How about other meetings like DSM?” - Bringenberg

Administrative & Action Items from Last Meeting:

- Good productive discussions – maybe have pre-filing meetings for ideas
- Next Meeting – May 18

II. Renewable Connect & Renewable Landing Page Update – Jackie Webb

A. Program Update for 2018

- 50 MW additional solar
- Capacity based subscriptions
- Flexible terms: monthly, 5-year, or 10-year
- RECs retired on behalf of customer

B. Program Timeline

- Customer webinars- Webinars will be where commercial customers can have many of their questions answered
- Enrollment for Residential and C-class is through “My Account” (see usage then make decision)
 - • Separate form if there are multiple properties
- Program Launch
 - March 26 (tentative): Phase I, R and C class
 - May 21 (tentative): Phase II, all other customers
- System in service - 6 months of construction
 - billing begins in December

C. Enrollment Process

- Phase I
 - R and C Class customers only
 - March 26, open for 8 weeks
 - Enrollment through My Account
- Phase II
 - All remaining customers
 - May 21, open for limited time
 - Enrollment through XcelEnergy.com

D. Robust Marketing

- Radio (NPR and Pandora) –Social Media targeted for specific regions –Bill inserts, and emails
- No direct marketing to Windsource customers

- Fuel credit will be decided on an annual basis based off of yearly averages

Discussion

- Walter** - Will the bill credit or charge change?
Jaelyn – Yes.
Chris Neil: Penalty of Withdrawal?
Jaelyn - \$50 residential \$100 C/I \$per KW charge for large customers
EOC – What if someone goes from month to month but wants to change to year or 5 year?
Jaelyn – Depends on if it is sold out.

E. Renewable Experience

- Advisor tool on CO renewable landing page
- Link to renewable program comparison chart from R*C program page
- Presentation of other program options from individual program pages

Discussion

- John** - Survey questions – one seemed odd, possibly political
“Should renewable programs be fully funded by those who participate?”
Seems slanted towards Xcel’s programs
Kerry – This is a program questioner but not Net Metering.
Dan Merkle - How was the bar size decided? Savings and Time; “They seem to direct customers towards Xcel’s programs such as R*C
Rick C – Private market not be hidden....
Maybe have the first question as “Do you need help choosing a program?”
Heath M. – Where did we come up with the bar graphs? Seems to be weighted to Solar Connect.

Rebecca (COSEIA) – requested to have a link to list of solar developers, per settlement roughly 50% or more of the industry are COSEIA members

Landing Page is good – but the tool/bars

ACTION ITEM: Subgroup - Hold a meeting within a month about the Renewable Experience. The landing page is good but the tool/bar needs fixed. Can we get path of questions and how they get directed to programs? Input by middle of next week for a meeting later in the week.

III. Dashboards – Eric Van Orden

- Eric stepped through all the dashboards.

A. Net metering only Applications-

- Pegged for 63MW, approaching 100MW
- Want month to month reporting, quarterly, cumulative? CSEIA appreciates M to M
- “Concerns for the resource planning people because allocated was 24mw and its approaching 100MW (resource planning is aware of the programs) capacity added outside of the program?”
- Too much capacity? Hard to forecast for net metering and installed capacity

Dark blue in graphs represent about 50% of total completion. Possible more cancellations from solar rewards looking to get deposit back vs net metering.

Discussion

Rick C. – kW and application numbers

Eric – kW and applications are basically the same.

Chris Neil – Worried about growth and resource planning.

***Make sure Resource Planning is aware of the concern that NEM only isn't included in the ERP - only RE Plan capacity.

IV. Solar Rewards- Kristin Gaspar

A. Analyzing the cancellations in Q1 from 2017, analyzing 2018 and why there were cancellations?

- No real answer, possibly looking to get deposit back? Too soon and realize it's not for them?
- Q1 had three duplicate applications from three different installers.
- 1st warning given. No changes to their user accounts at this time.
- 2nd warning reduces installer to one user license.
- during Medium program openings only
- No oddities/bug identified in system after IT review but rather user error.
- All duplicates were entered more than 1 minute apart - 1 minute rule working
- Users can check if application was accepted in user portal
- Program is staying open longer.

Discussion

- Brett:** What is the penalty?
Kristin: \$1500 that goes to RESA (application fee)
Brett: Can they use that forfeited fee for a new project?
Kristin: No

B. Medium Program New Duplicate Rule

- We know mistakes happen. But, there are also deliberate duplications.
- Have to reserve judgement and be fair across the board.
- Slow down and make entries count.
- We are open to holding trainings before the next program opening to review best practices.
- 1:1 with installer
- Xcel hosted training (in-person or webinar)
- COSEIA member call

Discussion

Medium seemed to be open a lot longer – the demand is not as high as it used to be.

Rick – impact to the pricing was happening before the tariff change happened.

C. Large Programs

- **The large RFP a single customer can take all 10MW or it can be split into multiple**
 - Weighs program to one large customer? “No, fair playing field for everyone.”
 - Can large customers continue to participate? “Yes. All customers can continue to participate as long as capacity remains.”

Discussion

- Heath** – Can IBM participate again?
Xcel - Yes
Sara – 10MW of Net-Metering Only project on the report
Kristin – Could be application that is hanging out there or going to be voided.

D. Battery Interconnection Update

- Continue to review battery design packages in greater detail prior to application submittal so that subsequent submissions of that design should have fast approval.
 - Reviewed six different design combinations so far
 - Host continual training with engineers on battery review procedures
 - Just over 10% Completed and over 60% in Final Documentation

Discussion

- Rick** – Is this just large scale?
Xcel - Retail/Residential/Small
Karey – Is there any way company can shine light on Senator Fenburg’s bill?

V. Solar Rewards Community – Shawn Queenan.

A. Subscriber participation uptick in 2017

- Program participation grew by nearly 25%
- Average subscriber received a bill credit of \$168.87

B. 2018 Q1 Forecast

- 63MW planned to be interconnected by year end
- >1/3rd of 2016 RFP projects are in study or have an IA already
- 80% of 2016 Standard Offer projects have IAs signed or issued
- Many targeting Q2 and Q3 interconnections
- Program expected to double total interconnections 2018
- Release 2017 RFP, 2018 Low Income RFP, 2016 Standard Offer and other associated offerings

C. Low-Income SR*C RFP Bid Review

- **Eligibility Screening**
 - Was bid submitted before the RFP closed?
 - Did it include required bid fee?
 - Were all bid forms completed?
 - Does proposed system qualify as a community solar garden?
 - Is proposed interconnection within 18 months of award?
 - Will the proposed system use approved technologies?
 - Did the bid have a REC price based on production or up-front payment?

Discussion

- Heath** - Standard Offer for LI?
Xcel - 30 – 2017
35 - 2018

VI. Product Development Update – Eric Maurer & Ryan Matley

A. Future of Renewable Connect /Windsorce

- More info for willingness to pay –future of Windsorce and Renewable Connect? Thoughts: Is there a way to combine the two offerings? They are fundamentally different. Cost factor issues of combining them
- Price is market based off of REC –Retired REC on their behalf –RC buying into a new resource – New or existing resources?
- Concerns with collapsing or combining-expand and create more options but don't shrink options
- What are the benefits of each program? Helping to educate customers on benefits
- Channeling resources in the Energy Outreach Colorado?
- Can we see how to quantify previous Windsorce funds were allocated for wind and then how that affected the market and amount of increase in Wind energy?

Discussion

- ERIN O.(WRA) -** Windsorce: prior understanding that renewables cost more, outdated due to the fact that renewables have come down. No ability to offset fuel costs if you are 100%, “do gooder tax” creating more of a mix of renewables and less with one source
- OCC:** because WS has strong history - in calculation include older resources that cost us more, like Cedar Creek at \$55/MWh. Balancing resource could include batteries. Think about system as a whole, including existing renewables.
- COSEIA** thinks Windsorce alternative needs to be open to competitive market
- Gilliam:** If lower renewable prices continue, community choice aggregators will come in.

Action Item: Q2 more of a PD Update

What is a cost-based resource? (Neil) What is the resting cost???

VII. Hosting Capacity Resource Update – Kevin Cray

VIII. Renewable Survey – Cheryl Wells

- Cheryl gave an update on the survey results, which were overall favorable, and outlined what additional analysis will be done and presented at the next workgroup
- 70% who responded were Windsorce

IX. M-Docket – Neil Cowan

- QF
- ERP
- RES
- DRP

X. Voluntary Carbon Reduction – Eric Maurer

- Multiple value streams – one step

Discussion

Walter – Is there a way to get type 2 customers to participate, since they are not allowed to export?

Eric - Customers not on time related rate – these customers.

Rick – Caution – Customer-sited storage to contribute to grid, we should make sure these restrictions are software and not hardware. Trust invertors to not distribute to grid.

A. DR Events

- 4 hour event
- Near-Daily Dispatch
- 10-Minute Response

Discussion

Rick - Rate of Discharge – How are you judging that?

Eric – Discounting the rate of capacity in DR program.

B. Vendor Eligibility

- Deployment
- Utility experience
- Integrated API with DRMS provider
- Battery control capabilities

C. Next Steps

- Rebate levels
- Size of program
- Measurement and verification plan
- Filing approach and timing

- Interconnection interactions

Discussion

Rick – Some sort of incentive to get people to participate?
Neil – Think of Saver Switch, so yes.... Some sort of incentives

XI. Avoided CT Starts meeting Debrief – Steve Wishart/Neil Cowan

XII. SPVTOU Tariff– Steve Wishart

- Pay per peak kW
- 30 MW Cap

Discussion

Chris Neil - Sum of their PV systems – 30 MW

- Time shifting
- Company is not in a place to lower 30% requirement(load factor)
 - Lowering to 24% would only add 6%

Discussion

John – Result of how we approach net metering – sg demand customer – special designed rate – Xcel brought to industry. 18% customers are not served by this rate – so we are leaving out SG customer base. **Concerns** – SG rate - top to bottom opportunity to do Net-Metering, we should be looking into how to serve these customers.

Erin – Three Case Settlement – rather than having a rate for solar and class, but for different technologies – hoping for discussion for rate design.

Wishart – Buy-all, sell-all concepts.

Wishart – Usually done in a Phase II – TOU in Commercial use.

ACTION – Have conversation about Rate Design for Commercial Customers – Any initial data request coming from stakeholders for next meeting.

XIII. PLEXOS Modeling

A. 2 Methods

- Solar weighted marginal cost
- Hourly PLEXOS marginal cost weighted by representative solar patter

Future/Existing Programs and Grid Stakeholder Group
Meeting No. 1/Q1 2018
February 23, 2018 (9 a.m. – 1 p.m.)

- Hourly penalties removed
- QF methodology
- Solar patterns – fixed panel vs 1 axis tracking
 - Avoided solar costs
- Compare baseline PLEXOS total costs to other scenarios with incremental solar additions (50MW, 250MW, 500MW)
- Avoided fuel, VOM, purchased energy, starts, wind curtailment
- Does not address capacity credits or avoided T&D issues

Discussion

Chris Neil – Does Solar goes on and off? – **Steve** – 15 minute increments

**ACTION – Avoided Costs – CEP 2026 what would it be without the CEP(original ERP)?
(Rick)**

XIV. Wrap – Review Action Items, Future Agenda Items, Schedule Next Meeting