Clean Energy Partnership
Q2 EVAC Meeting
April 24, 2019

Welcome & Introductions
Review Agenda & Q1 Notes

Agenda

1. Welcome & Introductions 4:00
2. Review and approve agenda and Q1 minutes 4:05
3. Q1 Board Meeting Report 4:10
6. Metrics Refinement 4:45
7. Utility Conservation Improvement Programs 101 5:00
8. EVAC Franchise Fee Input Follow-up 5:15
9. Partner Updates 5:25
Adjourn 6:00
Minneapolis Energy Vision 2014

2019-2021 Work Plan Review & Update
Work Plan Development

Board Action:

1. Adopted CEP Priorities & Approaches for next Work Plan. Directed Planning Team to develop potential Partnership Activities for each priority.

2. Approved definition of Inclusive Financing.


Q1 → Q2 → Q3 → Q4

EVAC Review & Input

2019-2021 Work Plan Partnership Activities

ENERGY EFFICIENCY

EE.1 REDUCE NATURAL GAS USE FOR RESIDENTIAL CUSTOMERS

EE.2 REDUCE ENERGY USE FOR HIGH ENERGY SAVING POTENTIAL COMMERCIAL CUSTOMERS

EE.3 PURSUE ENERGY EFFICIENCY “PERFORMANCE PATH” AT CITY FACILITIES

EE. 4 FIELD TEST ENERGY EFFICIENCY AND CARBON CAPTURE TECHNOLOGY

EE. 5 SUPPORT RESIDENTIAL ENERGY DISCLOSURE POLICIES BY MAKING DATA ACCESSIBLE WITH TOOLS

RENEWABLE ENERGY

RE. 1 INSTALL ELECTRIC VEHICLE INFRASTRUCTURE FOR CITY FLEET

RE. 2 ACHIEVE 100% RENEWABLE ELECTRICITY FOR CITY ENTERPRISE AND COMMUNITY PATHWAY

RE. 3 PROVIDE SOLAR GARDEN AND ENERGY EFFICIENCY OPPORTUNITIES FOR LOW-INCOME COMMUNITIES

WORKFORCE DEVELOPMENT

WD.1 IMPROVE EQUITABLE ACCESS TO CLEAN ENERGY JOBS

INCLUSIVE FINANCING

IF.1 IMPROVE ACCESS TO ENERGY EFFICIENCY BY PROVIDING INCLUSIVE FINANCING
EE.1: REDUCE NATURAL GAS USE FOR RESIDENTIAL CUSTOMERS

SUMMARY
Partners will research, develop, and implement customer-specific and group tailored strategies to double residential participation in building envelope and high-efficiency equipment programs across the City with a specific goal for Green Zone participation.

Q1 UPDATES
- CNP assembled internal project team and drafted project scope of work, timeline, and budget.
- CNP is acquiring necessary resources and funding.
- CNP is compiling and evaluating data resources.
- Next Steps: Engage EVAC to provide input on data collection resources.

EE.2: REDUCE ENERGY USE FOR HIGH ENERGY SAVING POTENTIAL COMMERCIAL CUSTOMERS (PILOT)

SUMMARY
The utilities will create a focused effort to realize significant energy savings by targeting commercial buildings with the highest energy use intensity and highest energy use.

Q1 UPDATES
- Pilot goal of at least 35 customers over three years
- Long term projects, plan in capital budgeting cycles
- Work done in phases
- Planning team met early this year
- Xcel team meeting internally to identify customers
- Next step: Meet with City and CenterPoint re: customers & begin outreach
**EE.3: PURSUE ENERGY EFFICIENCY “PERFORMANCE PATH” AT CITY FACILITIES (PILOT)**

**SUMMARY**
The utilities will provide enhanced services to identify and act on opportunities to save energy at City facilities.

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**Q1 UPDATES**
- City has identified a 10% energy reduction goal
- City requested a focus on system optimization and building operator training
- City identified sites
- 70 sites evaluated for gas meter upgrades
- **Next Step:** Meet with City to begin audits

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**EE.4: FIELD TEST ENERGY EFFICIENCY AND CARBON CAPTURE TECHNOLOGY (PILOT)**

**SUMMARY**
The City will participate in CenterPoint Energy’s high efficiency, carbon-capture technology pilot program with CleanCO2 Carbon Capture Technologies.

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**Q1 UPDATES**
- 2 potential test sites identified at City facilities.
- 6 potential test sites identified in Minneapolis; 9 sites outside the Minneapolis.
- Met with State and local building code officials.
- **Next Steps:** On-site evaluation of potential test-sites, early May.
**EE.5: SUPPORT RESIDENTIAL ENERGY DISCLOSURE POLICIES THROUGH DATA ACCESSIBILITY AND TOOLS**

**SUMMARY**
The City of Minneapolis will collaborate with partners to create and modify tools to support compliance with a new set of residential energy disclosure policies for multi-family benchmarking, truth in sale of housing (TISH) and residential energy rental lease disclosures that the City will enact in 2019.

### Key Takeaways

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<th>City of Minneapolis</th>
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<td>Primary Support</td>
<td>Xcel Energy and CenterPoint Energy</td>
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<td>Customer Segment</td>
<td>Residential</td>
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<td>GHG Reduction</td>
<td>1-2% annually</td>
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<td>Equity Element</td>
<td>Yes</td>
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<td>Workforce Element</td>
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### Q1 UPDATES
- City Council adopted residential energy disclosure ordinances in Feb.
- Partners are collaborating on tools to help customers comply with the time-of-rent ordinance (2021 start date) while following data privacy requirements.
- Planning Team has met three times to discuss options.
- Next Steps: Meet again after next internal assessment by utilities is complete.

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**RE.1: INSTALL ELECTRIC VEHICLE INFRASTRUCTURE FOR CITY FLEET (PILOT)**

**SUMMARY**
The Partners will design a program to spur transition of the City’s combustion engine fleet to electric.

### Key Takeaways

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<td>Primary Support</td>
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<td>Customer Segment</td>
<td>City Enterprise</td>
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<td>GHG Reduction</td>
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<td>Equity Element</td>
<td>No</td>
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<td>Workforce Element</td>
<td>TBD</td>
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### Q1 UPDATES
- Xcel Energy designed and filed a proposal with the PUC for City EV fleet infrastructure.
- Received approval of the pilot 4/11.
- Xcel Energy will install, own, and maintain a dedicated service connection, including transformer upgrades, service conductors and new meter.
- Next Steps: Xcel and City meet to continue purchase & install planning.
**RE.2: ACHIEVE 100% RENEWABLE ELECTRICITY FOR CITY ENTERPRISE AND COMMUNITY PATHWAY**

**SUMMARY**
Partners will create a pathway for meeting the City’s 100% renewable electricity enterprise goal after the current Renewable*Connect tranche subscriptions expire while meeting the City’s priorities.

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**Q1 UPDATES**
- The City will update the Council’s PECE Committee in May 2019 regarding the creation of a blueprint for the 100% community-wide renewable electricity goal.
- Xcel Energy is developing a product called Certified Renewable Percentage to retire system renewable energy credits on behalf of its customers that will allow them to claim the percentage of system renewable generation equivalent to their consumption.

**RE.3: PROVIDE COMMUNITY SOLAR AND ENERGY EFFICIENCY OPPORTUNITIES FOR LOW-INCOME COMMUNITIES**

**SUMMARY**
A low-income Community Solar Garden will be developed incorporating energy efficiency to subscribers and the surrounding neighborhood.

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**Q1 UPDATES**
- Xcel Energy worked with current Renewable Development Fund recipient to utilize leftover grants funds & add a LI Solar Garden
- Xcel Energy and CenterPoint Energy will target subscribers and surrounding community for energy efficiency – CIP funds
- **Next Steps:** Contracts signed and filed with PUC, EE effort mapped out
**WD.1: IMPROVE EQUITABLE ACCESS TO CLEAN ENERGY JOBS**

**SUMMARY**
Partners will review findings from the Workforce Development Assessment and stakeholder input to execute activities that improve equitable access to clean energy jobs. Partners will consider resources and opportunities to address equity and workforce needs as part of each Work Plan Partnership Activity.

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**Q1 UPDATES**
- A *Minneapolis Renewable Electricity and Energy Efficiency Workforce Assessment* by the NASEO, Energy Futures Initiative, and BW Research is nearly complete.
- The utilities, in addition to other organizations, are on the task force and have been engaged during the stakeholder interview process.

**IE.1: IMPROVE ACCESS TO ENERGY EFFICIENCY BY PROVIDING INCLUSIVE FINANCING (PILOT)**

**SUMMARY**
The Partnership commits to an inclusive financing (IF) pilot program to help customers overcome barriers to financing home energy upgrades.

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**Q1 UPDATES**
- Working Group met six times to outline key features of pilot program.
- Winthrop & Weinstein provided legal opinion.
- U of M Energy Transition Lab feasibility study is being prepared by Cadmus.
- DOC funding legal analysis to outline regulatory path options.
- **Next Steps:** Board to consider regulatory paths and next steps (June)
Metrics Refinement

“How is the Partnership going and what is its impact?”

• Answer: See the Annual Report...

**CONCLUSION:** Existing metrics do not provide a framework that clearly measures and illustrates any impact of the Partnership – past, present, and future.
Simplify & align with City’s climate and energy goals...  
...And make status/progress easier to understand at-a-glance

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<tr>
<th>No.</th>
<th>CEP Metric</th>
<th>2017 Status</th>
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<tbody>
<tr>
<td>1</td>
<td>GHG emissions (Community)</td>
<td>-20% since 2006</td>
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<tr>
<td>2</td>
<td>GHG emissions (City enterprise)</td>
<td>-19% since 2007</td>
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<td>3</td>
<td>Residential Building energy use</td>
<td>-8% compared to BAU</td>
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<tr>
<td>4</td>
<td>Commercial/Industrial Building energy use</td>
<td>-2% compared to BAU</td>
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<tr>
<td>5</td>
<td>Renewable electricity percentage (Community)</td>
<td>29% of total electricity consumed</td>
</tr>
<tr>
<td>6</td>
<td>Renewable electricity percentage (City enterprise)</td>
<td>31% of total electricity consumed</td>
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<td>7</td>
<td>Local and directly purchased renewable electricity</td>
<td>1.7% of total electricity consumed</td>
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Show historic trends...  
... and weather normalize when necessary  
... to build toward forecasting
Quantifiable metrics for *Energy Vision 2014*?

Aspirational vision, but without quantifiable goals or metrics

**Request for EVAC:**

1. Propose to the Planning Team and the Board two key, quantifiable metrics for equity and workforce that can be reasonably updated annually and that are jointly pertinent to the Partners.
2. Convene interested EVAC members prior to Q3 meeting and report back

Utility Conservation Improvement Programs 101
Utility CIP 101

• Utility Regulation
• CIP Statutes and Rules
• Overview of Programs
• Local and National Context

Utility Regulation: Big Picture

• Electric and natural gas utilities are highly regulated businesses
• The Minnesota Department of Commerce (Department) has authority over CIP programs and performance
• The Minnesota Public Utilities Commission (MPUC) has the authority to approve/disapprove cost-recovery
CIP History

1980s: Energy conservation pilot program
1991: Spending requirements
2007: Next Generation Act - Energy savings requirements

CIP Benefits

• Participant customers can save money on energy bills and receive rebates
• All customers save money by avoiding the need for additional generation plants
• Communities make progress towards climate and energy goals
• Utilities have a financial incentive to run strong programs, achieving high levels of energy savings for low cost
Requirements

• Minimum Spending Requirements
  – 0.5% of Gas Company’s state revenue
  – 2.0% of Electric Company’s state revenue

• Annual Energy Savings Goals:
  • 1% of gas retail sales
  • 1.5% of electric retail sales;

• Administered by Gas & Electric Companies
  – Paid for by all ratepayers; unless exemption filed (some large customers are eligible)

Planning & Reporting

• CIP Triennial Plans
  – Programs evaluated by DOC for cost-effectiveness and the reliability of technologies
  – Program modifications (including pilots) can be submitted anytime
  – Next submission – June 2020 (Due to 1-yr DOC extension)

• Annual CIP Status Report submitted to DOC/PUC
  – April [Electric] & May [Gas] Companies
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<th>Residential</th>
<th>Commercial</th>
<th>Other</th>
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<tr>
<td>• Home Efficiency Rebates</td>
<td>• Heating &amp; Water Heating Rebates</td>
<td>• IF.1 Inclusive Financing</td>
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<td>• Air Sealing &amp; Insulation Rebates</td>
<td>• Foodservice Equipment Rebates</td>
<td>• Renewable Natural Gas Pilot Proposal</td>
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<td>• No Cost DIY Kit</td>
<td>• Custom Rebates</td>
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<td>• Home Energy Squad</td>
<td>• Energy Analysis</td>
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<td>• Home Energy Reports</td>
<td>• Design Assistance</td>
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<td>• High Efficiency Home</td>
<td>• Process Efficiency</td>
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<td>• New Home Construction Rebates</td>
<td>• Training &amp; Education</td>
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<td>• On Bill Loan Repayment Tool</td>
<td>• Multi-Family Building Efficiency</td>
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<td>• EE.1 Reduce NG for Residents</td>
<td>• Energy Data Aggregation Tool</td>
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<td>• EE.4 EE and Carbon Capture</td>
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<td>• Commercial Efficiency</td>
<td>• Energy Information Systems Pilot</td>
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<td>• Computer Efficiency</td>
<td>• ENERGY STAR® Retail Products Platform Pilot</td>
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<td>• Cooling Efficiency</td>
<td>• RE.1 EVs for City fleet</td>
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<td>• Custom Efficiency</td>
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<td>• Lighting Efficiency</td>
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<td>• Recommissioning</td>
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<td>• Saver’s Switch Business</td>
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<td>• Turn Key Services</td>
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<td>• EE. 2 Engage High Savings Potential Customers</td>
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<td>• EE.5 Performance Path for City Facilities</td>
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<td>• Green Zone Community Engagement</td>
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<td>• EE. 5 Energy Disclosure Policies &amp; Tools</td>
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<td>• 0% Interest Loans</td>
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<td>• Inclusive Financing Feasibility Study</td>
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<td>• Landlord Engagement</td>
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<td>• Passive House</td>
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<td>• Home Energy Squad Subsidy in Green Zone and residents between 50-100% AMI</td>
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<td>• Green Cost Share (Housing)</td>
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<td>• Green Cost Share (Multi-Family)</td>
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<td>• Green Cost Share (Business)</td>
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<td>• Small Business Energy Initiative</td>
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Utilities Conservation Improvement Programs

How are we doing in Minneapolis - 2017?

• $18 million invested in Minneapolis energy conservation.

• $12 million saved by customers in first year energy bill reductions.

• An estimated 98,660 metric tons of carbon dioxide equivalent emissions avoided.
  – Or the GHG equivalent of energy used in over 11,000 homes for one year (EPA.gov GHG Equivalencies Calculator).
How does Minnesota compare?


CITY OF MINNEAPOLIS

Franchise Fee Increase-Enabled Programming

Planning for 2020-2021

April 24, 2019
Broad EVAC Feedback Theme

• EVAC wishes to be more engaged in budget allocation discussions for specific programming/categories and hearing about the strategic thinking and opportunities behind new programs

EVAC Engagement Plan

• Provide voluntary engagement opportunity for interested EVAC members
  o Optimize quarterly meeting time with brief updates

• Two-Year Budget
  o Provides program stability
  o Aligns with potential City two-year budgeting cycle
  o Lowers admin time and costs

• Focus on budgeting ratios and minimums
• Identify year-end fallback opportunities
Planning for 2020-2021 Programs

- **Q2**
  - "Big Picture" (Optional Meeting)
  - EVAC Quarterly Meeting

- **Q3**
  - Residential Programming (Optional Meeting)
  - EVAC Quarterly Meeting

- **Q4**
  - Commercial Programming (Optional Meeting)
  - EVAC Quarterly Meeting

- **2020-2021**
  - True-up with adopted City budget by City Staff
  - Ongoing implementation by City staff and program partners

Structure of Optional Meetings

- **“Big Picture” Meeting**
  - Commercial vs Residential Balance
  - Innovation vs Established Program Balance
  - Incentives for fuel switching

- **Residential programming**
  - Review current programs and discuss ways to optimize
  - Suggest potential future programs

- **Commercial programming**
  - Review current programs and discuss ways to optimize
  - Suggest potential future programs
Partner Updates

MN Time of Use Pilot
Pilot Background

• What initiated the pilot?
  – Inclining Block Rate Intervenor Proposal in 2013 filed rate case
  – Settlement in that case led to Alternative Rate Design Docket for residential customers
  – Preliminary TOU Pilot plan presented at April 2017 Commission Planning meeting

• What does it look like?
  – Large scale opt-out
  – Bill protections for first year and low income participants
  – Cost duration method based rate design

• How was it developed?
  – 8 stakeholder workshops
  – Nationally renowned time-based rate design expert
  – MN PUC approved

Objectives of Pilot

• Provide rates that accurately reflect the costs of energy
• Reduce peak demand-related system costs to mitigate need for future investments in the system
• Indemnify low-income customers
• Give customers adequate tools to access and understand their usage data
• Identify and explore effective customer engagement strategies
• Shift customer energy use to overnight periods when wind generation is highest
**Benefits of Time of Use**

- Gives **consumers** more **control** over their bills, beyond conservation
- Encourages the use of **renewable energy** sources
- Gives consumers better **insight** into their energy use
- Opportunity to **save** on **bills**

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**Time of Use Rate**

- Cost of energy is based on how much energy is used and **TIME of day**
- 3 pm – 8 pm weekdays is the “on peak period” where energy is most expensive
- The “mid peak period” is from 6 am – 3 pm, and 8 pm – 12 am*, where energy costs are similar to now.
- 12 am – 6 am is the “off peak period”, where energy is the cheapest.

*Note: weekends and holidays are mid peak
Estimated Bill Impacts – No Behavioral Change

Average Monthly Bill: Low Energy User*
2.2% bill decrease (40¢)

*144 kWh per month

Estimated Bill Impacts – No Behavioral Change

Average Monthly Bill: Typical Energy User*
0.1% bill decrease (5¢)

*506 kWh per month
**Estimated Bill Impacts – No Behavioral Change**

![Average Monthly Bill: High Energy User*](chart)

*1% bill increase ($1.65)

*1.262 kWh per month

**Location**: Hiawatha-Midtown and Eden Prairie

**Participants**: 17,500
- 10,000 in treatment group, who are placed on the rate
- 7,500 in control group

**Powered by advanced meters**

**Pilot Implementation**

- **Location**: Hiawatha-Midtown and Eden Prairie
- **Participants**: 17,500
  - 10,000 in treatment group, who are placed on the rate
  - 7,500 in control group
- **Powered by advanced meters**
Pilot Neighborhoods

Minneapolis Neighborhoods
Customer Engagement Strategies

- Who is most engaged?
  - Language Barriers?
  - Community Engagement

- Who is at risk of bill increases?
  - Low Income?
  - Bill Protections

- Who has biggest opportunity to shift peak demand?

Discussion

- Ideas on engagement within community?
  - Key community members, associations or other channels?
- Questions or concerns?
Certified Renewable Percentage

Minnesota

April 8, 2019

What is the Certified Renewable Percentage?

Certified Renewable Percentage
Renewable energy delivered as a share of total sales to retail customers

Energy Mix
Renewable generation as a share of total generation

Certified Renewable Percentage
Renewable energy delivered as a share of total sales to retail customers

Electric Grid

Voluntary Renewables
Wholesale Contracts
Trade Margin Sales
Losses

Retail Sales

Additional CRP REC retirements
RES REC retirements

REC sales (if any)

RECs retired on behalf of R*C / Windsorce customers

RECs transferred per contract or banked

RECs banked and not retired
**Transparent Reporting**

- No need for customers to enroll, subscribe, or pay extra to use
- Will be incorporated into annual Energy and Carbon Emissions Report
- Will be third party verified by LRQA

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**How the CRP is Calculated**

\[
\text{Total renewable energy generated (MWh) on behalf of retail customers}^* - \left( \text{Generation associated with voluntary renewable programs} + \text{REC Sales} + \text{Wholesale REC Transfers} \right) - \left( \text{Usage associated with voluntary renewable programs} + \text{Solar*Rewards Generation} \right) = \frac{\text{RECs withheld for the trade margin adjustment}}{\text{Total renewable energy generated by all system resources (MWh)} \times \text{Trade Margin Sales (MWh)}}
\]

\[^*\text{Xcel Energy will retain RECs issued in a given year based on the portion of sales that are trade margin sales. This is calculated at the OpCo level. The Certified Renewable Percentage will not apply to trade margin sales.}\]
Partner Updates

Adjourn