



**Clean Energy Partnership  
Q1 Board Meeting  
March 25, 2019**

# Agenda

2:00-4:00pm

- Welcome and introductions
- Review and approve agenda and minutes
- EVAC appointments and Co-Chair update
- 2019 City franchise fee increase-enabled programming
- Metrics refinement update
- Work Plan activity updates
- Other updates
- Adjourn



# EVAC Update

**Advisory Committee to the  
Clean Energy Partnership**



# EVAC Representation

The Board intended for EVAC membership to include a diverse group, representing many interests of the community related to energy and climate, such as:

Affordability advocacy	Business interests – small and large
Clean energy	Community organizations
Economic development	Energy systems
Environmental justice	Energy efficiency
Green buildings	Labor and industry
Property management	Renewable energy
Rental housing	Public buildings
Students and academia	



## EVAC Election Process

- Applications accepted Sept-December '18
- Applications received = 30; 15 positions
- Planning team reviewed all applications, reaching a consensus to make recommendations to the CEP Board
- Board approved via email votes in December '18
  - Board appointed one co-chair – Becky Olson
  - EVAC elected co-chair - Patty O'Keefe



# 2019-2020 Board Appointed EVAC members

Name	Ward of Residence	Organization	Candidate's Comments
Robert Blake	St. Paul	MN Interfaith Power and Light/ Solar Bear	Red Lake Member
Margaret Cherne-Hendrick	8	Fresh Energy	Electrification
Rick Dallmeyer	St. Anthony	Project for Pride in Living (PPL)	LI-Nonprofit/Multi-Family
Timothy DenHerder-Thomas*	9	Cooperative Energy Futures / Community Power	Community Solar Gardens
Andrew Fang	6	Student (U of M)	Carbon Accounting
John Farrell*	11	Institute for Local Self-Reliance / Community Power	Energy Econ Benefits
Leah Hiniker	6	Hennepin County (Energy Manager)	Government Collaboration
Matt Kazinka*	9	Lake Street Council	Small Biz Outreach
Mauricio Leon	2	Met Council	Sierra Club Volunteer / Independent Representative
Patty O'Keefe*	10	Sierra Club	Workforce Subcommittee
Rebecca Olson*	3	Center for Energy and Environment (Home Energy Squad Manager)	Energy Efficiency
Julie Samuelson	Excelsior	Cushman & Wakefield (Facility Management)	BOMA Energy Committee Chair
Jamez Staples*	5	Renewable Energy Partners	Workforce
Elizabeth Turner	1	Passive House Architect	Teacher
Ansha Zaman	10	Center for Earth, Energy, and Democracy	Green Zone Work

\*Returning EVAC committee member.



# EVAC Co-Chair Update



# 2019 Plan for City Franchise Fee Increase-Enabled Programming



## 2019 Highlights



Programming increased from \$989,000 (2018) to \$2,780,000 (2019) to match franchise fee increase revenue



Continue and grow 2018 programs that demonstrate success, require additional 2019 funding, and leverage utility RE and EE programs

- Landlord Engagement in Green Zones
- Free HES Visits and 0% Financing for residential EE & RE projects
- Green Cost Share (Housing)
- Green Cost Share (Business)
- Workforce Assessment Recommendations
- Renewable Energy for Municipal Buildings



Leverage special grants and matching funds to join innovative opportunities with key City partners in pursuit of long-term CAP goals



## Passive House Development

Partner with CPED's *Minneapolis Homes Development Assistance* program to incentivize new passive housing on City-owned vacant lots.



- Goal is to build 6-10 homes of 1-4 units that use 80% less energy and are 100% electric
- Partner with CPED and affordable housing developers to build workforce expertise for passive housing design, construction, and certification
- Brings energy innovation via bonus incentives to a successful City program
- Leverage utility CIP programs like New Home Construction Rebates and CenterPoint Energy's Passive House certification incentives
- Xcel Energy is currently working on program design to incorporate Passive House design into their CIP rebate programs



## Passive House Pilot

Partner with MPHA on construction of ultra energy efficient 4-unit and 2-unit passive homes on two existing MPHA-owned sites.

- Franchise Fee funding brings energy innovation to successful partner program
- Leverage utility CIP programs like New Home Construction Rebates

Units will be deeply affordable (30% AMI or below) with project-based subsidies.



An opportunity to advance building technologies and design, and serve as a learning lab for the City and MPHA.

Projects will be 80% more efficient than code, 100% electric, and net zero energy ready.



## REALIZE Public Housing Net Zero Retrofit



REALIZE is sponsored by RMI and funded by U.S. DOE to catalyze and scale a solution from the Netherlands to do net zero retrofits of multifamily buildings.

809 Spring St NE (MPHA) was selected as one of two pilot sites nationwide to receive technical assistance to implement the design.

Installation of prefabricated wall panels and new windows, new mechanical systems, and rooftop solar create a new air-tight building envelope and achieve net zero energy.

- \$175,000 in City funding leverages millions of dollars by other partners
- Leverage utility CIP programs like Energy Design Assistance (EDA)



## Integrated Utility Hub Feasibility Study

This technical and financial feasibility study of the Integrated Utility Hub (IUH) will detail the environmental, social, and economic performance outputs when solid waste and waste + stormwater are managed in a synergistic and closed loop system. The IUH is now included in the Upper Harbor Terminal (UHT) Core Concept plan.

- \$100,000 in City funding leverages >\$750,000 of funding by other partners
- Leverage utility CIP programs like Energy Design Assistance (EDA) and examine opportunities for partnering





## New Staff in Sustainability Division

3 new staff positions to build capacity in the Sustainability Division



1 FTE for a climate and energy regulatory policy position (“PUC” position) utilizing McKnight Foundation first-year match



2 FTEs to enhance outreach and program development in energy benchmarking and building policy.



## CEP Comprehensive Emissions Reduction Inventory

\$50,000 set-aside for any City share of potential consulting needed for Q4 CEP Board motion which directed the Planning Team to:



*Develop a comprehensive inventory of all emission reduction strategies, plans and programs that contribute towards achieving the City's emission reduction goals. The inventory should include an estimate of the metric ton reduction and percentage emission reduction goal of each strategy. The inventory should be included in the next CEP annual report and be updated annually.*



## EVAC Feedback on Planned Program Spend

Broad Theme: Passive House initiatives are innovative and needed to transition to fossil fuel-free housing, but the relative "bang for the buck" is small compared to other established programs receiving funding

### City Response

This investment leverages other City and public partner funding (\$300,000+) and priorities to seed innovation needed to reach our 2050 climate goals

- Project will include other priorities like: (1) workforce participation, (2) long-term affordability through land trust model, and (3) study of investment costs, climate impact, affordable housing goals, and scalability of three design versions of carbon-neutral, affordable housing
- Remaining funding near year-end will be rolled over to Green Cost Share programs with priority for housing



## EVAC Feedback on Planned Program Spend

Broad Theme: Workforce Assessment Recommendation's allocated budget should be much higher. Suggestions for funding areas were diverse, including: low-income and equitable workforce participation, training in Passive House construction techniques, and commercial building EE training.

### City Response

- Sustainability Division addresses workforce development by pursuing policies and programs that create a demand for skilled, clean energy jobs. We need internal and external partners to lead labor supply and training efforts
- Will have better idea of potential opportunities after review by the Minneapolis Workforce Assessment Task Force
- City will be expecting co-investment of resources from large employers such as the utilities in creating new programs or enhancing initiatives



## EVAC Feedback on Planned Program Spend

Broad 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

### City Response

Volunteers will be sought around EVAC's Q2 meeting for a work group

- City staff will meet w/ EVAC work group for a series of meetings this year
  - Commercial/Industrial vs Residential split; Innovation vs short-term impact
  - Commercial/Industrial programs and budget targets; Residential programs and budget targets
  - Reporting back to entire EVAC later in the year for updates and larger group feedback



# CEP Metrics Refinement



## “How is the Partnership going?”

- Planning Team: We often discuss internally: “How is the Partnership going?” and “What impact is our collective work having?” We are also frequently asked this by external stakeholders.
- Board: Deep interest in what is the progress toward the City’s climate and energy goals, how much of that progress is attributable to the Partnership, and what does the future trajectory tell us.
- EVAC: Desire to measure the Partnership Activity impacts individually and gauge the CEP Work Plan’s magnitude of impact.

**CONCLUSION: Existing metrics do not provide a framework that clearly measures and illustrates any impact of the Partnership – past, present, and future.**



## CEP Metrics History

- Established both high-level and granular metrics in 2015

Metric	Unit(s)	Geography
Citywide GHG emissions	metric tons of CO2e	citywide
GHG emissions from electricity use	metric tons of CO2e	citywide
GHG emissions from natural gas use	metric tons of CO2e	citywide
Commercial building energy use	kWh, therms	citywide
Commercial building benchmarking results	Average ENERGY STAR score, Average EUI, Total EUI	buildings covered by ordinance
Commercial utility EE program utilization	Participation, incentive dollars, estimated energy savings, estimated cost savings	citywide
Residential building energy use	kWh, therms	citywide
Local or directly purchase renewable energy	mWhs	census tract
WindSource customers	count of customers, mWhs	census tract
Community solar garden subscribers	count of customers, mWhs	census tract
Rooftop solar	Count of interconnections, MWs, mWhs	census tract
Home Energy Squad visits	count of HES visits (rental and owner-occupied), estimated energy savings, estimated cost savings	census tract
Percent of eligible properties served by HES	percentage of eligible properties	census tract
HES-driven loans	count of loans, loan value	census tract
Low-income visits	count of CIP low income and WAP visits, estimated energy savings, estimated cost savings	census tract
Air sealing/insulation (ASI)	participation, estimated energy savings, estimated cost savings	census tract
Multi-family program participation	count of visits, count of dwelling units served, estimated energy savings, estimated cost savings	census tract
Percent of eligible MF properties served by MFBE	percentage of eligible properties	census tract
Percent of properties participating in MFBE that engaged in activity beyond audit & direct install (conversion rate)	Percent of properties	census tract

Minneapolis  
Clean Energy Partnership

2017  
ANNUAL REPORT



Published: July 2018

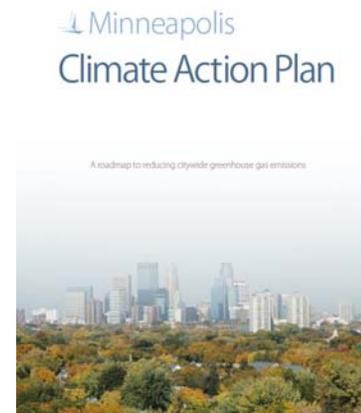
- Form the basis of quantifiable reporting in the CEP Annual Reports



## City Energy and Climate Goal Alignment

- Limitation: Current metrics only partially align with City's climate and energy goals
- Solution: Elevate 7 primary metrics to align with City goals. Continue to track other data in support of the primary metrics

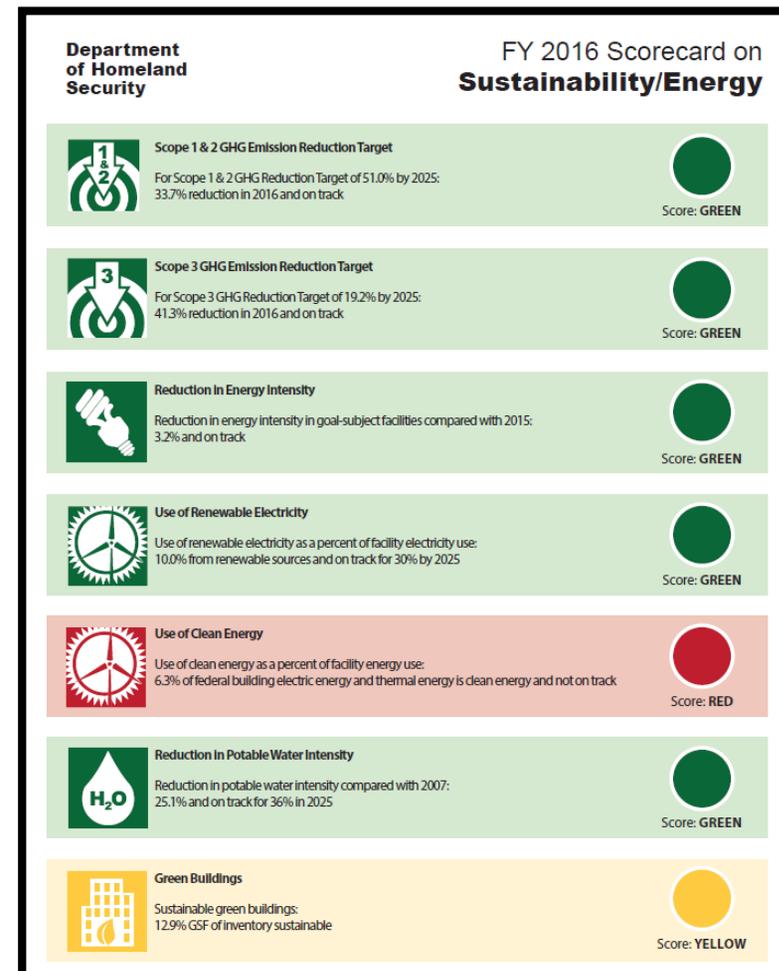
No.	CEP Metric	2017 Status	
1	GHG emissions (Community)	-20%	since 2006
2	GHG emissions (City enterprise)	-19%	since 2007
3	Residential Building energy use	-8%	compared to BAU
4	Commercial/Industrial Building energy use	-2%	compared to BAU
5	Renewable electricity percentage (Community)	29%	of total electricity consumed
6	Renewable electricity percentage (City enterprise)	31%	of total electricity consumed
7	Local and directly purchased renewable electricity	1.7%	of total electricity consumed





## Metrics as a Snapshot of Progress

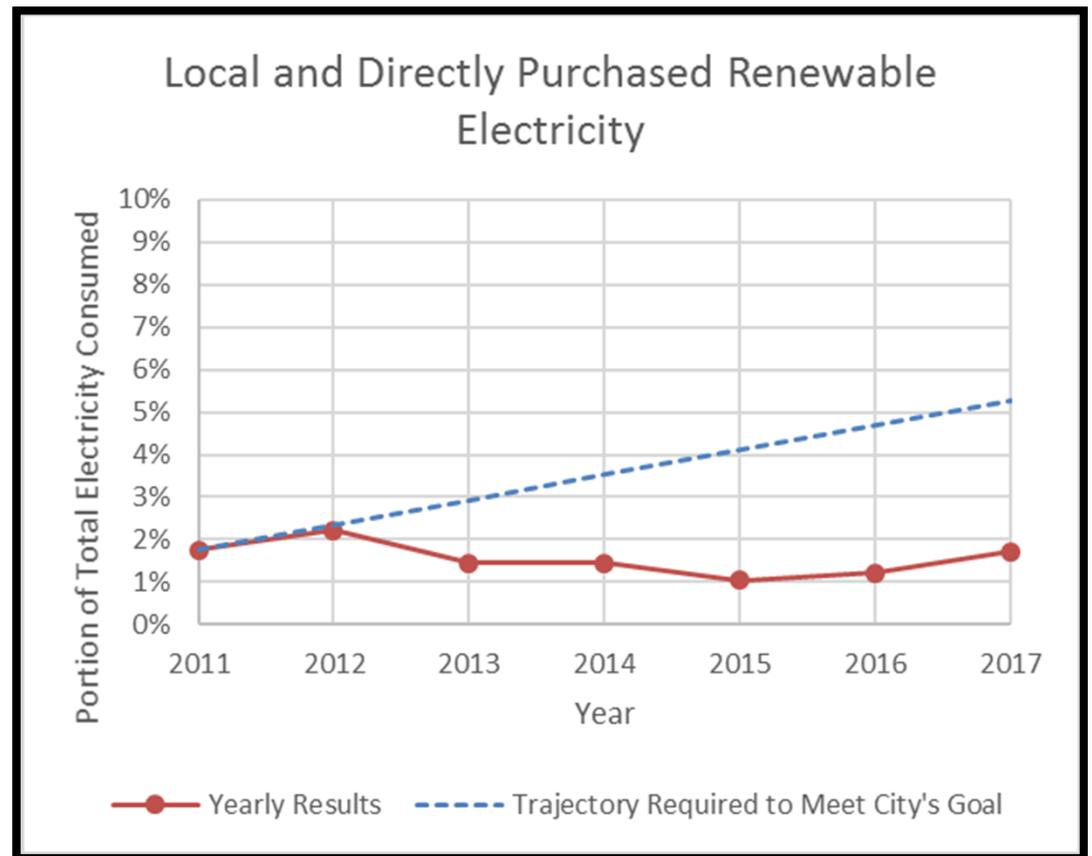
- Limitation: Current metrics (and annual reports and website) do not provide a clear snapshot of progress
- Solution: Provide a scorecard that assesses primary metrics in an easy-to-understand format. Provide an accompanying scorecard to illustrate 2019-2021 Work Plan progress by Partnership Activity.





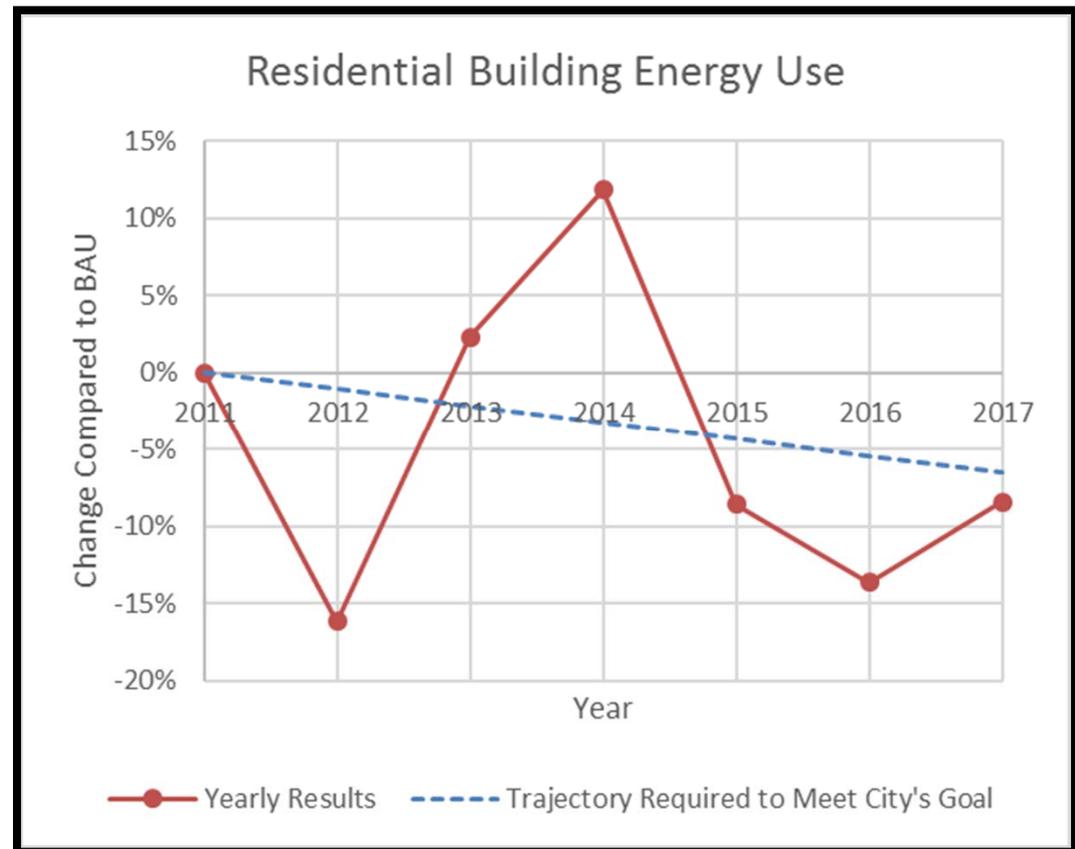
## Show Trends and Progress Toward City Goals

- Limitation: Current metrics and reporting do not succinctly and accurately show trends
- Solution: Graph primary metrics over time to highlight trends and compare against trajectories needed to reach City goals



## Minimize Weather Impacts in Annual Data

- Limitation: Some key metrics show large annual fluctuations; very difficult to discern trends and City goals progress gap
- Solution: Create a weather normalization methodology to minimize the impacts of yearly weather variation





# City's Energy Vision 2014 is without Numerical Goals

- Limitation: The City's *Energy Vision 2014* does not contain numerical goals or metrics to track progress against
- Solution: Determine if there are any key metrics that could be established and that can be reasonably tracked year-over-year

## City of Minneapolis Energy Vision 2014

### A. Reliable and Affordable Energy Services

All city residents and businesses are supplied with reliable, affordable, and high quality electric and natural gas service. Through a combination of highly efficient end-use of energy and efficient energy delivery and generation, Minneapolis is a national leader in low cost and high quality energy services.

Disparities in the relative cost of energy services for low-income households are aggressively mitigated. Rates are competitive, so that existing businesses in the city thrive and new business activity is attracted to the city.

Table 12: Metric 6.0: Xcel Energy's Low-income CIP Program Utilization, 2015-2017

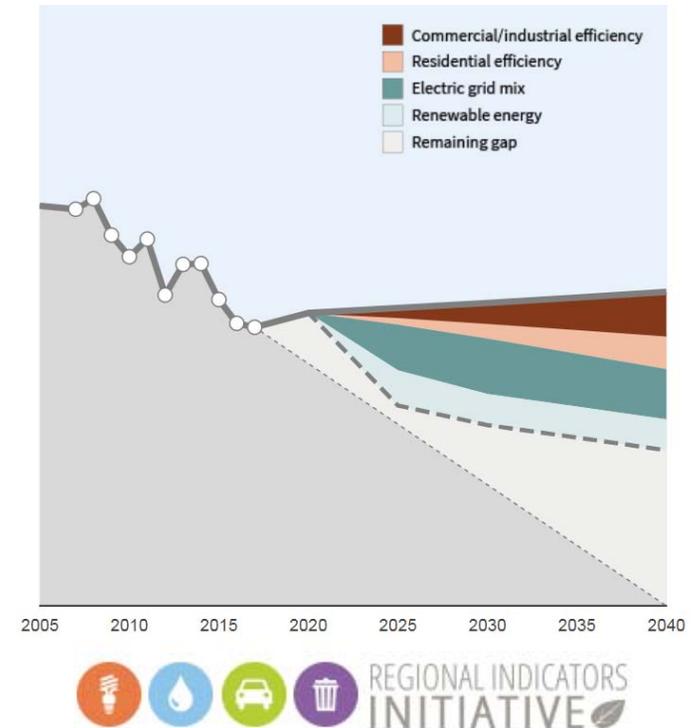
Metric		Xcel Energy		
		2015	2016	2017
6.0	Number of low-income program participants	661	1,331	596
	CIP low-income dollars spent (\$)	324,360	334,018	629,357
	Estimated annual energy savings (kWh)	359,233	491,532	423,297
	Estimated annual cost savings (\$)	32,331	49,153	45,018



## Next Steps

- 2018 Annual Report (*summer 2019*): Incorporate new key metrics, scorecards, and trend graphs
- 2019 Annual Report (*summer 2020*): Align, when possible, Partnership Activity impact reporting with new key metrics and future forecasting of progress toward energy and climate goals
- Engage EVAC to determine if any select, key *Energy Vision 2014* elements can be tracked annually via quantifiable metrics (particularly regarding equity and workforce)

EXAMPLE Visual of GHG Wedge Forecasting





## Work Plan Activity Updates

- Residential Energy Disclosure ordinances passage and disclosure tools
- IF.1 – Inclusive Financing
- EE.1 – Residential Natural Gas reduction
- EE.2 – High Energy User Commercial Customers & NRG discussion
- EE.3 – Energy Efficiency at City Facilities – 10% reduction goal
- EE.4 – Field Test Carbon Capture Technologies
- RE.1 – EV Infrastructure for City Fleet
- RE.2 – 100% Renewable for City Enterprise and Identify pathway for City
- RE.3 – Low Income Community Solar Garden with Energy Efficiency
- WD.1 – Workforce Development

### Other Updates:

- CenterPoint Energy's Renewable Natural Gas Proposal



# Residential Energy Disclosure Ordinances passage and disclosure tools



## Passage of Ordinances

City Council passed slate of residential energy disclosure ordinances on February 15 by a 13-0 vote; approved and signed by Mayor.

1. Multifamily Building Residential Energy and Water Benchmarking
  - Phased in beginning 2019
  - *Completes CEP 2017-2018 Work Plan Item No. 7*
  
2. Truth in Sale of Housing (TISH) time-of-sale energy report
  - Anticipated start: 2020
  - *Completes CEP 2017-2018 Work Plan Item No. 5*
  
3. Time-of-Rent energy disclosure
  - Anticipated start: 2021
  - *Completes CEP 2017-2018 Work Plan Item No. 5*



## Passage of Ordinances

City Council's accompanying staff direction:

*Directing staff to request that the Clean Energy Partnership work to increase the capacity of home energy audit and home energy efficiency services provided through the utilities' Conservation Improvement Program to meet the demand in Minneapolis communities. City staff are requested to explore additional partnerships with organizations who may be qualified to provide residential energy audit and asset rating services recognized by the City. The Partners are requested to present to the Public Health, Environment, Civil Rights and Engagement Committee in the third quarter 2019 regarding the Clean Energy Partnership's annual report, including updates on Home Energy Squad participation, wait times and efforts at reducing them, and current and future efforts at workforce diversification.*



## CEP 2019-2021 Work Plan

### **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.

- Ordinance adoption completes Step 1
- Step 2: Begin Implementation of City energy disclosure policies with multi-family benchmarking, collaboratively reduce barriers, and develop utility tools when necessary to ease compliance.



## ENERGY BENCHMARKING RESOURCES



Access your building's natural gas energy use data and streamline benchmarking with Energy Tracker from CenterPoint Energy



**You can't manage energy you don't measure.**



## Inclusive Financing

Clean Energy Partnership Board approved definition (May 30, 2018; Q2)

*“Inclusive Financing allows direct investment in resource efficiency upgrades on the customer side of the meter through an on-bill approach regardless of the customer’s income, credit score, or renter/owner status. Under this definition debt is not accrued by the customer.”*



## 2019-2021 Work Plan Partnership Activity

Approved by the CEP Board on Nov. 8, 2018; Q4

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

#### **DESCRIPTION**

- The Partners will jointly approach Public Utilities Commission staff, Department of Commerce staff and/or other appropriate parties asking for clarification on necessary next steps with intent to undertake a pilot program.
- The Partners will consider feedback from stakeholders and findings of the market potential and financial impact study in designing an IF pilot program.
- The Partners will work together to resolve and overcome barriers, creating a program that provides a reasonably beneficial service to customers.



## Inclusive Financing Pilot Features

1. Customer & Project Eligibility
2. Participation Process
3. Energy Savings & Payment Calculation
4. Program Cost Recovery
5. Non-Payment Cost Recovery
6. Payments Tied to the Meter
7. Equipment Ownership
8. Quality Assurance
9. Evaluation Metrics
10. Program Administration



# Summary of Regulatory/Legislative Considerations

Presented to the CEP Board on July 27, 2018; Q3

No.	Regulation	Opportunity or Constraint	Approach
1	<b>REASONABLE RATES</b> MN § 216B.03	Opportunity	Demonstrate that IF encourages energy conservation
2	<b>ENERGY SAVING POLICY GOAL</b> MN § 216B.2401	Opportunity	Demonstrate that IF is cost effective strategy to reduce energy costs for customers
3	<b>DEFINITIONS</b> MN § 216B.02	Constraint: IF is not consistent w/ Statute definitions b/c premise efficiency improvements are not equipment used by a public utility to deliver or measure gas.	Modify statute to include IF in 'Public Utility'/'service definition -or- Offer IF as CIP Program
4	<b>NONPERMISSIBLE REASONS TO DISCONNECT SERVICE</b> MN Admin Rule (R.) 7820.1300	Constraint: Rule (a) prohibits utilities to disconnect for nonpayment for services rendered to a previous customer at premise; and (b) prohibits utilities to disconnect for failure to pay for appliances or services that are not an integral part of utility service.	Request a variance to allow disconnection for non-payment of IF -or- Request PUC order/rulemaking to find IF consistent with Utility/Service Definition
5	<b>ENERGY CONSERVATION IMPROVEMENT</b> MN § 216B.241	Constraint: Statute (Subd. 3) improvements must remain with the property owner, (Subd. 5d) authorizes on-bill loan repayments, (subd. 5d (g)) prohibits disconnection for non-payment of loan, and (subd. 5d (h)) repayment is obligation of loan signatory not subsequent customers.	Modify statute to authorize IF and request program approval from MN DOC -and- Modify Statute to authorize disconnect for failure to pay IF Charges



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## Remaining Work Plan Activity Updates

- Residential Energy Disclosure Tool
- IF.1 – Inclusive Financing
- EE.1 – Residential Natural Gas reduction
- EE.2 – High Energy User Commercial Customers & NRG discussion
- EE.3 – Energy Efficiency at City Facilities – 10% reduction goal
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- RE.1 – EV Infrastructure for City Fleet
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- RE.3 – Low Income Community Solar Garden with Energy Efficiency
- WD.1 – Workforce Development

### Other Updates:

- CenterPoint Energy's Renewable Natural Gas Proposal



# Adjourn

Next Board Meeting

June 17, 2019

3:00-5:00pm

Minneapolis Public Library, Doty Board Room



# BACKGROUND SLIDES



# Cadmus Minnesota Tariffed Financing Feasibility Study

Prepared for: Energy Transition Lab University of Minnesota Law School

## Scope of Work

- A market potential study in Minneapolis, Minnesota, and other regions
- A measure screening tool that evaluates cost effectiveness of EE and RE upgrades (ex. Insulation, HVAC, solar)
- A benchmarking study that estimates the potential scale and cost to implement tariffed financing
- A utility and rate payer impact assessment
- A final report; *Anticipated May 2019*



## 2019-2021 Work Plan Partnership Activity

Board Motion on July 27, 2018; Q3

Clean Energy Partnership Board Motion (July 27, 2018; Q3)

*“Direct Planning Team to develop an Inclusive Financing Activity for consideration at the Q4 Board Meeting. This activity shall include a commitment to an inclusive financing pilot project and, as a first step, jointly approaching Public Utilities Commission staff, Department of Commerce staff and/or other appropriate parties to undertake a pilot.”*