



**Clean Energy Partnership
Q3 Board Meeting
July 25, 2017**



Agenda

11:30 Welcome & Introductions

11:35 Review and Approval of Agenda and Minutes

11:40 2016 Annual Report Presentation

12:00 Quarterly Update from EVAC Co-Chairs

12:15 Partnership Funding Discussion

- EVAC Funding Work Group Presentation
- Board Discussion and Motion

12:55 Announcements / Open Discussion

1:30 Adjourn



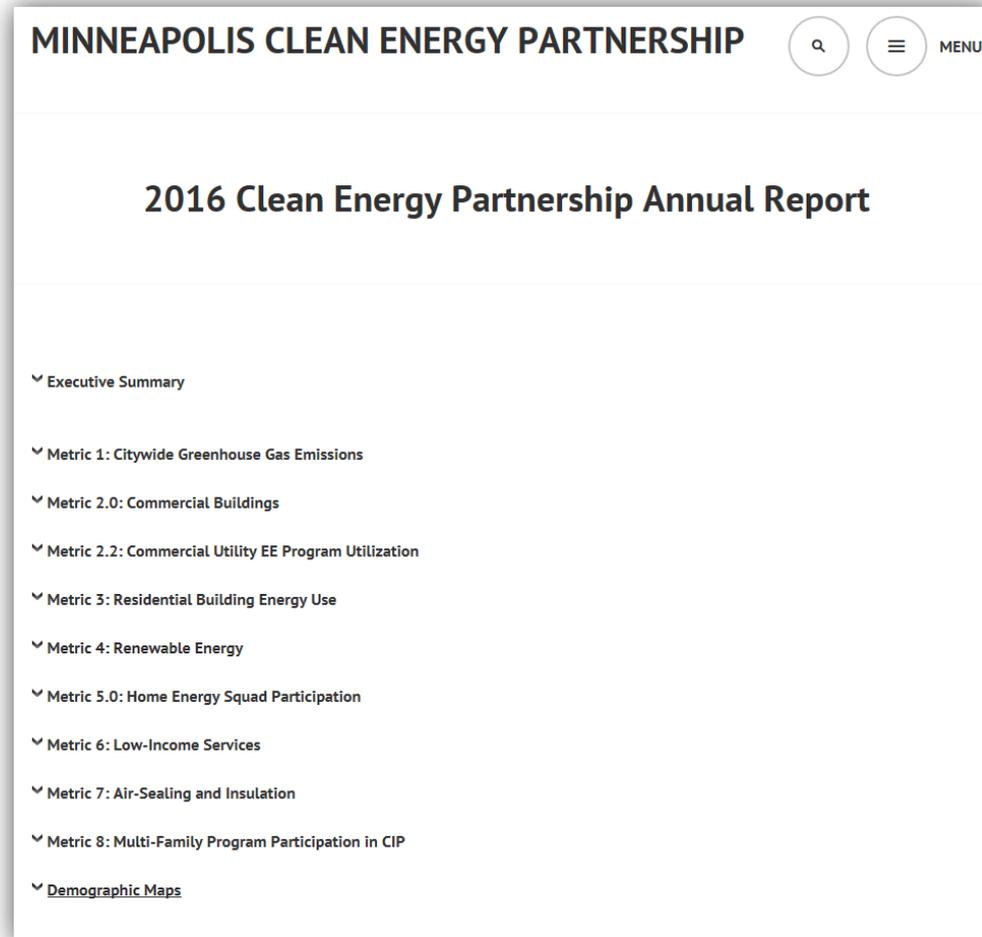
2016 Annual Report Presentation

Report is now web-based

- More accessible, increases usability, reduces printing, and is easier to update
- Links to programs and resources in report

Eight sections (metrics)

- Identified by the Board as critical areas of measurement in tracking progress toward Partnership goals.





2016 Annual Report Highlights

City of Minneapolis

- 17.4% decrease in GHG emissions since 2006, meeting 2015 goal!
- Piloted Green Business Cost Share Program pilot leveraged \$43k for \$400k in EE work, reducing 2.6 million lbs of CO₂

Xcel Energy; Energy Efficiency Programs

- \$15.7M in program investment in Minneapolis
- 7,600 participants, 78,008,624 kWh saved
- \$7.8M annual customer bill savings

CenterPoint Energy; Energy Efficiency Programs

- \$7M in program investment in Minneapolis
- 30,000 participants, 627,350 dekatherms saved
- \$2.8M annual customer bill savings



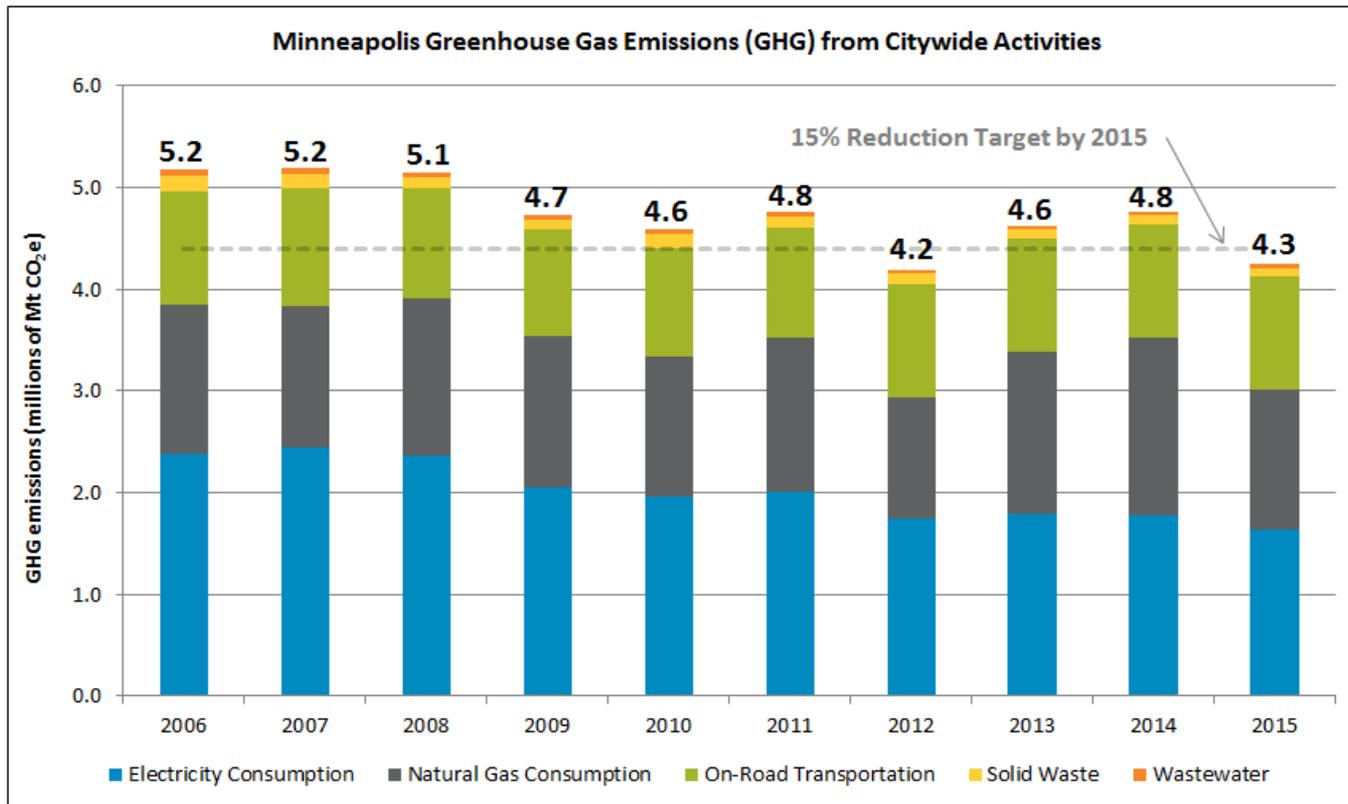
Metric 1: Citywide Greenhouse Gas Emissions

Metric		2014	2015
1.0	Citywide emissions (metric tons CO ₂ e)	4,758,487	4,250,783
1.1	Emissions from electricity use (metric tons CO ₂ e)	1,783,580	1,630,318
1.2	Emissions from natural gas use (metric tons CO ₂ e)	1,733,068	1,382,583

Both natural gas and electricity consumption and emissions decreased.

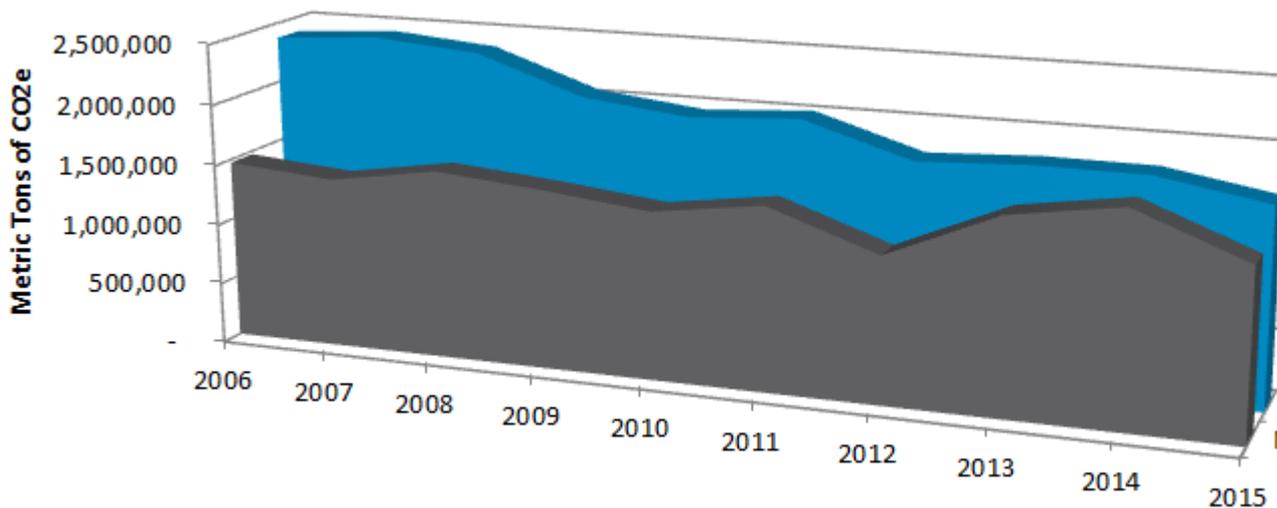
- Winter months of 2015 were warmer than in 2014.
- Despite summer of 2015 being slightly warmer than 2014.

Metric 1: Citywide Greenhouse Gas Emissions Decreased 17.8% in 2015 compared to the 2006 baseline, exceeding reduction goal of 15% by 2015.

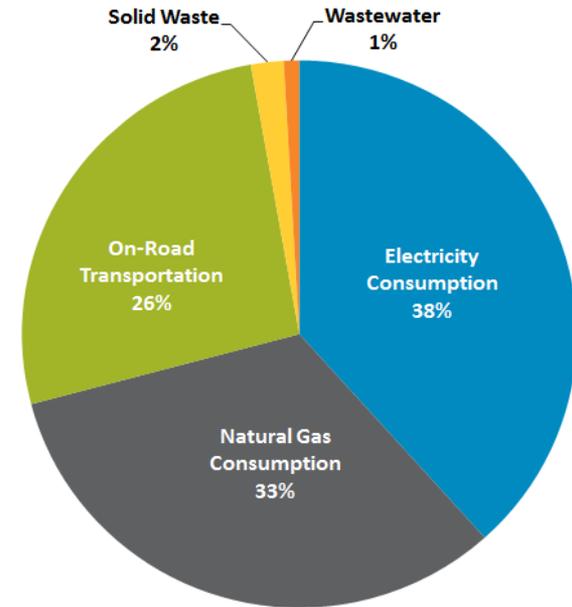


Metric 1: Citywide Greenhouse Gas Emissions

Emissions from electricity are the largest share; expected to be eclipsed by natural gas in the coming years.



Minneapolis Greenhouse Gas Emissions by Citywide Activities (2015)





Metrics 2.0 & 2.1: Commercial Buildings

Metric		2014	2015	2016
2.0	Commercial/Industrial building electricity use (MWh)	3,088,342	3,033,427	3,028,857
	Commercial building natural gas use (therms)	158,655,415	135,217,985	126,892,599
2.1	Average ENERGY STAR score of benchmarked buildings	74	71	Not yet available
	Average EUI of benchmarked buildings (kBtu/sqft/yr)	101	95	Not yet available
	Average weather-normalized EUI of benchmarked buildings (kBtu/sqft/yr)	95	99	Not yet available
	Total site energy use of benchmarked buildings (kBtu)	8,176,575,652	8,104,028,664	Not yet available

- Electricity consumption decreased 0.2% and natural gas consumption decreased 6.2%.
- 417 properties benchmarked in 2015 data.
 - Decreased average building energy use intensity (EUI), increased when accounting for weather.
- More data, explanation, and programs in [2015 Energy Benchmarking Report](#).



Metric 2.2: Commercial Utility EE Program Utilization

Metric		2014		2015		2016	
		Xcel Energy	CenterPoint Energy	Xcel Energy	CenterPoint Energy	Xcel Energy	CenterPoint Energy
2.2	Commercial utility energy efficiency program participation (customers)	653	311	757	473	918	399
	Commercial utility energy efficiency program participation (rebates)	688	1,096	1,249	1,219	1,758	1,063
	Rebate dollars spent	\$3,134,939	\$809,865	\$4,235,490	\$720,490	\$8,862,846	\$1,135,910
	Estimated annual energy savings	36,160,509 kWh	4,343,071 therms	43,204,422 kWh	2,668,485 therms	75,369,492 kWh	5,218,578 therms
	Estimated annual cost savings	\$1,952,667	\$2,844,873	\$4,622,873	\$1,280,162	\$7,536,949	\$2,811,119

- Cost savings increased by \$4.45M from 2015-16, \$10.35M total
- EDA saw a 154% increase in kWh saved and a 372% increase in Therms saved
- Rebate dollars increased 100% from 2015-16

Energy Design Assistance	2015		2016	
	Xcel Energy	CenterPoint Energy	Xcel Energy	CenterPoint Energy
Participants	24	11	31	25
Energy Savings	5,847,225 kWh	400,317 therms	14,902,577 kWh	1,890,915 therms
Rebates	\$592,603	\$140,596	\$2,139,146	\$302,767



Metric 3: Residential Building Energy Use

Metric		2014	2015	2016
3.0	Total electric use by residential customers (kWh)	980,965,000	945,334,750	970,280,366
	Total natural gas use by residential customers (therms)	130,883,472	102,326,656	94,204,489

Residential Electric

- Use increased by 2.6% in 2016
- 2.2% increase in customers
- Energy efficiency programs

Residential Natural Gas

- Use dropped 7.9% in 2016
- Warmer than average year*
- Energy efficiency programs

*12% warmer than the 10 year normal



Metric 4: Renewable Energy

Metric		2014	2015	2016
4.1	Windsorce Customers	9,906	11,154	11,926
	Windsorce MWs	45,534 MWs	33,309 MWs	36,125 MWs
4.2	Solar*Rewards Community MW	-	-	3
	Solar*Rewards Community Gardens			5
4.3	Solar*Rewards ¹ Participants	56	92	95
	Solar*Rewards MW	0.75	0.912 MW	1.005 MW
	Solar*Rewards MWs	930	1,050	1,150

¹Solar Rewards includes both Solar Rewards and Made in Minnesota Participants

- First of the Community Solar Gardens came online in 2016
- Windsorce customers continued to expand, though MWs are down due to specific large customers leaving program
- Solar*Rewards saw an increase as gardens came online
- The rollout of Renewable*Connect and more CSG's coming online in 2017 will yield substantial growth in this sector in next years annual report

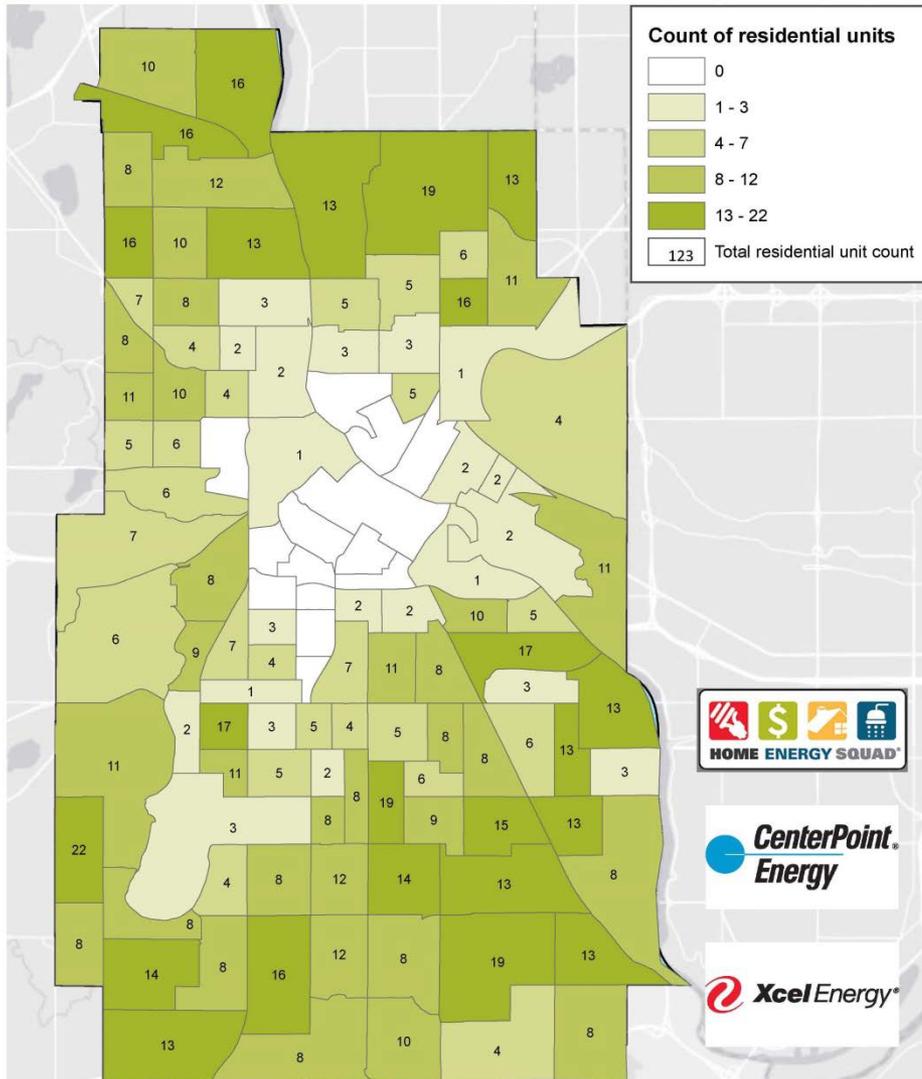


Metric 5: Home Energy Squad Participation

Metric		2014	2015	2016
5.0	Home Energy Squad participation	731	1,198	837
	Annual energy savings (kBtu)	6,605,790	10,825,904	7,563,674
	Estimated annual cost savings	\$99,031	\$136,161	\$77,354
5.1	Percent of 1-4 unit residences served by HES (incremental)	0.8%	1.0%	0.9%
5.2	Energy efficiency loan count	11	47	43
	Total value of loans	\$72,519	\$279,882	\$192,234

- Participation in the HES decreased from 2015 to 2016, in part due to a decrease in multifamily building participation.
- HES pilot program between CEE and CenterPoint Energy successfully increased implementation of recommended insulation and air sealing home upgrades.
- 32 residents received zero-interest loans for air sealing and insulation upgrades through the City/CEE loan offering.

Metric 5.0: Home Energy Squad Participation, 2016



- Metric 5 map shows the distribution of participation in the Home Energy Squad program throughout the City.



Metric 6: Low-Income Services

Metric		2015		2016	
		Xcel Energy	CenterPoint Energy	Xcel Energy	CenterPoint Energy
6.0	Number of low-income program participants (CIP)	661	583	1,331	453
	CIP low-income dollars spent	\$324,360	\$921,832	\$334,018	\$1,618,735
	Number of Weatherization Assistance Program (WAP) Visits *	168		122	
	WAP dollars spent	\$916,805		\$448,356	
	Estimated annual energy savings (CIP only)	359,233 kWh	231,859 therms	491,532.21 kWh	57,547 therms
	Estimated annual cost savings (CIP only)	\$32,331	\$122,208	\$49,153	\$37,305
6.1	Xcel Energy Power-On Participants	924		2,313	
	Xcel Energy Power-On Total Spent	\$598,752		\$1,887,408	
	Xcel Energy Senior Discount Participants	4,790		4,790	
	Xcel Energy Senior Discount Total Spent	\$862,200		\$1,008,796	
	CenterPoint Energy Bill Pay Assistance Participants	4,000		3,450	
	CenterPoint Energy Bill Pay Assistance Total Spent	\$2,200,000		\$1,178,370	

*96 of the 122 WAP visits in 2016 were combo LIW/WAP visits

- Low-income utility energy efficiency programs reached 1,784 residents in 2016, saving them over \$86,000 on utility bills.
- Combined, the utilities provided 10,553 Minneapolis customers with \$4,074,574 in bill pay assistance in 2016.



Metric 7: Air-Sealing and Insulation

Metric		2015	2016
7.0	Count of participating customers	335	277
	Estimated annual energy savings (therms)	74,741	64,404
	Estimated annual cost savings	\$42,069	\$42,292

- CenterPoint Energy's Residential Weatherization project provided rebates for insulation and air sealing in 277 homes, saving those residents about \$42,000 in natural gas heating costs per year.



Metric 8: Multi-Family Program Participation in CIP

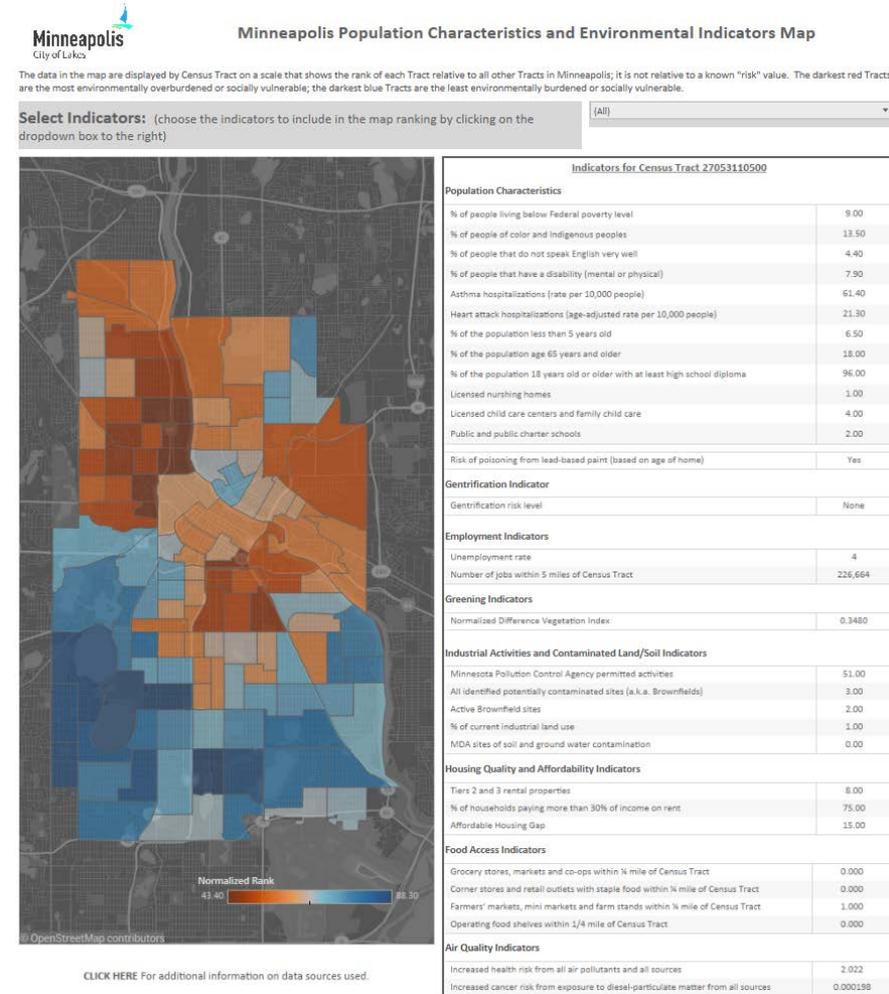
Metric		2015		2016	
		Xcel Energy	CenterPoint Energy	Xcel Energy	CenterPoint Energy
8	Multi-family program participation	623	136	619	90
	Estimated annual energy savings	3,282,658 kWh	709,335 therms	5,422,415 kWh	760,144 therms
	Estimated annual cost savings	\$294,576	\$364,661	\$542,242	\$452,839
	Rebate dollars spent	\$468,587	\$245,840	\$1,649,393	\$302,767

- 2016 was the first full year for the jointly offered Multi-Family Building Efficiency project, which had 29 Minneapolis buildings complete energy audits in 2016.
- Xcel Energy and CenterPoint Energy both saw increased energy savings and rebate spending for multi-family participants in their conservation programs in 2016 compared to 2015.

Demographic Maps

Demographic and socio-economic maps previously were developed to help EVAC’s Engagement Subcommittee and to ensure Partnership work advances equity.

The City developed an interactive [Minneapolis Population Characteristics and Environmental Indicators Map](#). Map includes all previous indicators as well as new indicators to measure gentrification risk, vegetation levels, industrial activities and contaminated soils, housing quality and affordability, food accessibility, and air quality.





Quarterly Update from EVAC Co-Chairs



Partnership Funding Discussion

- **EVAC Funding Work Group Presentation**
 - **Board Discussion and Motion**



Partnership Funding Recommendations

Matt Kazinka
EVAC Funding Work Group Member



- 6 EVAC members (John, Timothy, Patty, Billy, Julia, Matt)
- 3 Partnership staff (Bridget, Audrey, Luke) supported the Work Group, with additional consultation from mayoral and council staff
- 9 very early morning meetings from December 2016 to July 2017
- 33 pages of findings and recommendations in the report
- 1 EVAC vote in approval of the proposal

Our Process by the Numbers

“The Energy Vision Advisory Committee recommends that the Clean Energy Partnership Board support the City of Minneapolis in meeting the goals of the Climate Action Plan and Energy Vision by supporting the City in amending the ordinances that set franchise fee rates with CenterPoint Energy and Xcel Energy to increase the franchise fee rates by 0.5% in each customer class. This revenue shall be dedicated to the Clean Energy Partnership to facilitate equitable access to energy efficiency, renewable energy, and workforce development in the energy sector for all residents and businesses in Minneapolis regardless of race, socioeconomic status, or property ownership status.”

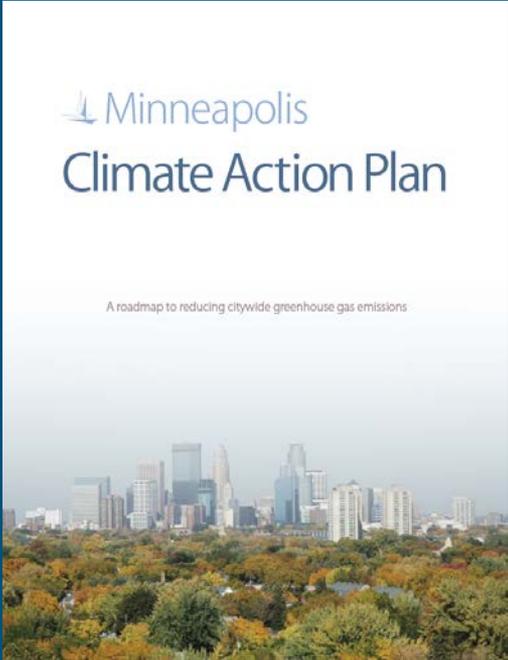
Motion language passed by EVAC at July 11 meeting

The Case for Increased Funding



- Three studies show significant potential for energy efficiency
- New Minnesota statewide efficiency potential study underway

Energy Savings Potential

The image shows the cover of the Minneapolis Climate Action Plan. At the top left is the Minneapolis logo, a stylized 'M' with a tree. To its right is the word 'Minneapolis' in a sans-serif font. Below that is the title 'Climate Action Plan' in a larger, bold sans-serif font. Underneath the title is a subtitle: 'A roadmap to reducing citywide greenhouse gas emissions'. The background of the cover is a photograph of the Minneapolis skyline, with several skyscrapers visible, partially obscured by a layer of trees in the foreground that have yellow and orange autumn foliage.

Minneapolis Climate Action Plan

A roadmap to reducing citywide greenhouse gas emissions

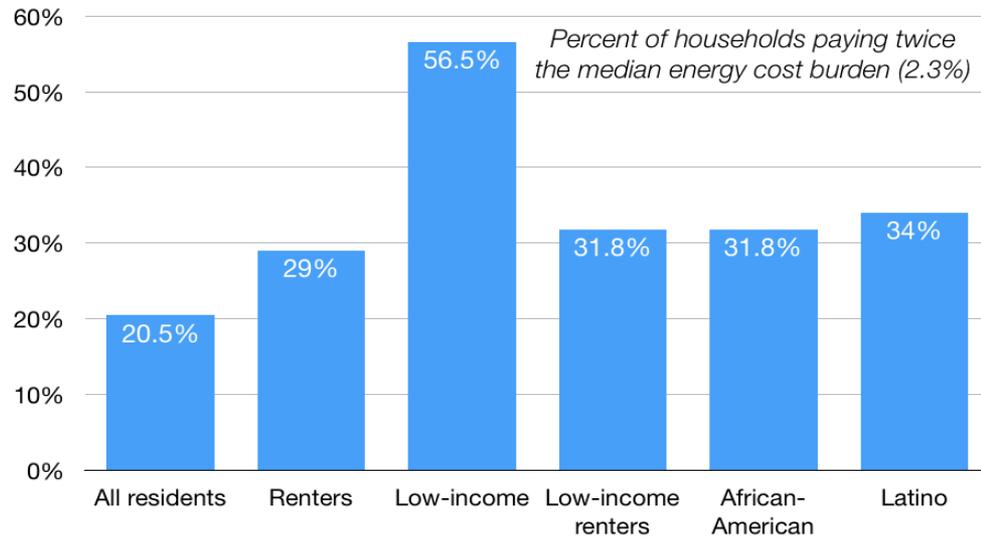
- Reduce greenhouse gas emissions by 30% by 2025 and 80% by 2050.
- Reach an electricity supply that is almost carbon emission free by 2040.
- By 2040, race, ethnicity, income, and age will no longer be indicators for who bears pollution impacts or receives economic or environmental benefits.
- Reduce energy use by 17% by 2025.
- Reach 75% of single- and multifamily households with whole-house energy efficiency retrofit services by 2025 (up from 5% in 2012).

City of Minneapolis Energy Vision 2014

This Energy Vision identifies Minneapolis' long-term energy goals that guide the Minneapolis Energy Systems Pathways Study, authorized by the City Council on April 12, 2013. The Energy Vision was developed after a thorough inventory of existing City policies, actions, and programs, then enhanced and clarified through stakeholder discussions. It is an aspirational document, intended to bring City residents and businesses together around a common set of goals, serve as a foundational document for the Pathways work to follow and may guide future decision-making about Minneapolis' energy system.

Ambitious Goals

Higher Energy Cost Burden for Low-Income, Non-White Residents



Source: *Lifting the High Energy Burden in America's Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities* (ACEEE April 2016)

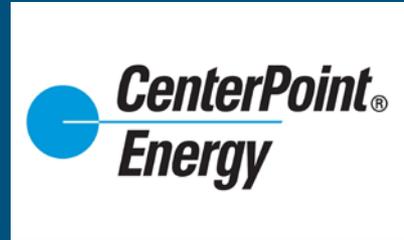
- Equity is a major goal in Minneapolis
- Relevant for residents *and* businesses
- Equity is not an criteria that the state's regulatory process uses to evaluate CIP program impacts.

Equity

2016 CIP Spending in Minneapolis



\$15.7 Million



\$7.1 Million

Leveraging CIP investment

Mayors of 7,400 cities vow to meet
Obama's climate commitments

Mayors, Sidestepping Trump, Vow to Fill Void on Climate Change

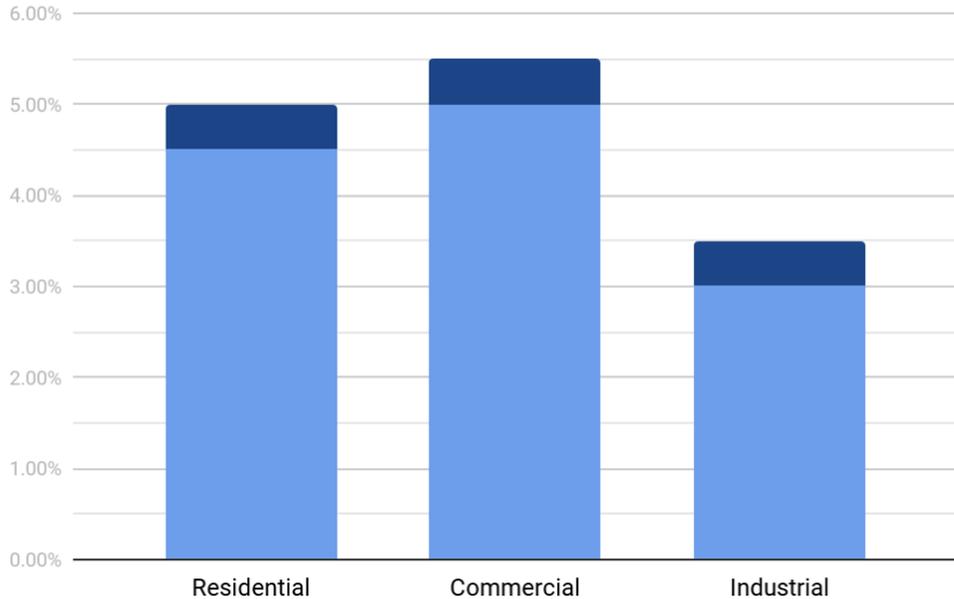
**Governors, mayors vow to continue the green
fight despite Paris Accord pull-out**

**American Mayors Vow To Fight
Climate Change Despite
Withdrawal From Paris
Agreement**

Cities taking leadership

Proposed Funding Source

Franchise Fee Rates by Customer Class



EVAC recommends increasing the franchise fee rates by 0.5 percentage points in each customer class:

- Residential: 4.5% → 5.0%
- Commercial: 5.0% → 5.5%
- Industrial: 3.0% → 3.5%

Our Proposal: Increase the Franchise Fee

Total Estimated New Revenue Generated by Increasing the Franchise Fee



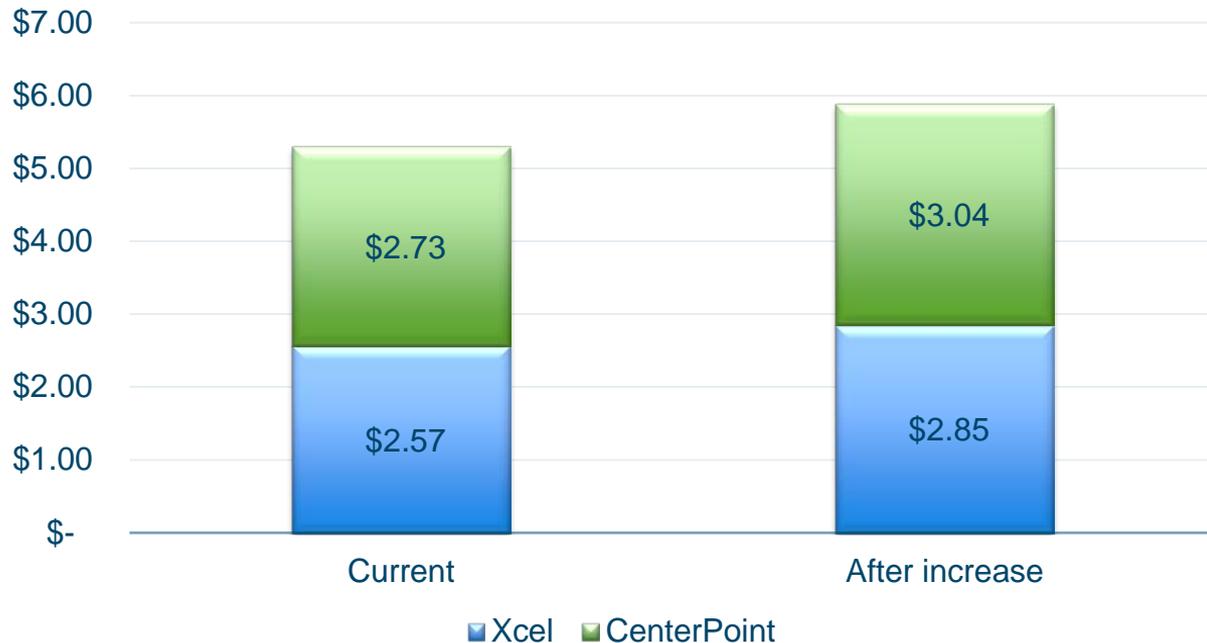
Estimated revenue increases are based on averages. Actual fee collection is variable based on weather.

Total new revenue generated annually

Xcel	\$2,029,000
CP	\$861,000
Total	\$2,890,000

New Revenue Generated by Fee Increase

Average Monthly Residential Franchise Fees

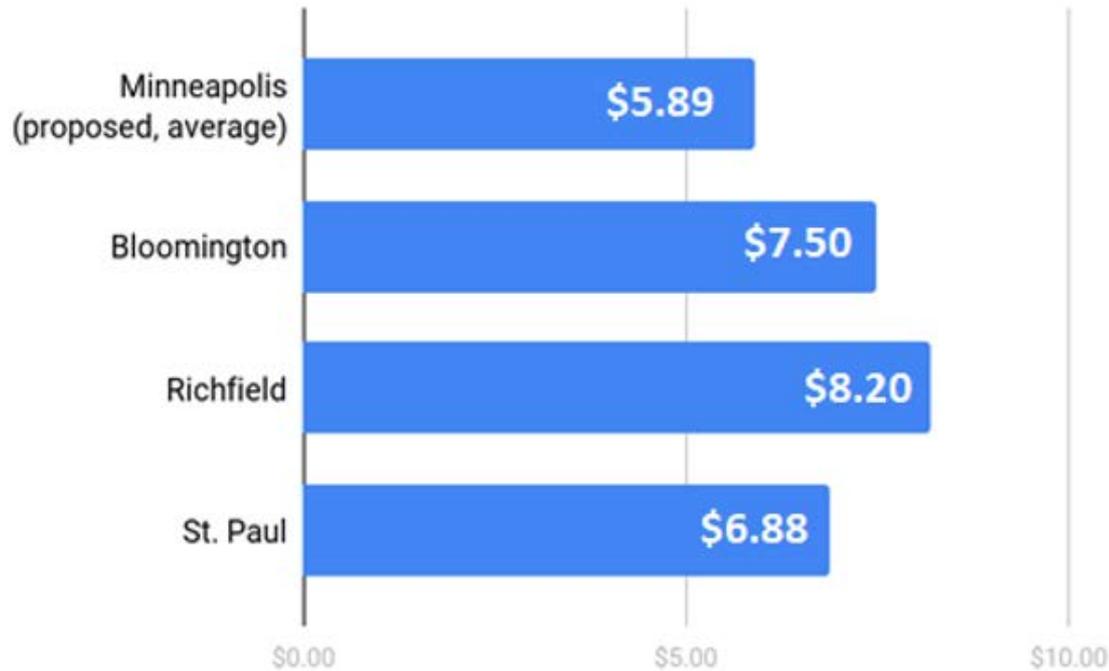


Monthly total residential per-customer fees

Current	\$5.30
Incremental increase	\$0.59
New total	\$5.89

Impacts on Residential Rate Class Customers

Monthly Franchise Fees (Residential)



- Minneapolis has a proportional fee rate structure, while most other cities have flat rate structures.
- St. Paul has an additional volumetric fee on top of base fee of \$6.88.

Residential franchise fees compared to other metro-area cities

Average Monthly Commercial Franchise Fees



Monthly total commercial per-customer fees	
Current	\$72.81
Incremental increase	\$7.28
New total	\$80.10

Impacts on Commercial Rate Class Customers

Average business electricity franchise fee

	Average business	24/7 gas station	Large grocery store
Average monthly franchise fee:	\$50	\$166	\$952
Effect of 0.5% increase:	\$5	\$17	\$95

- Commercial customers have a huge variety in expenses, depending on their type of business.
- These examples drawn from the average franchise fee collected by Xcel Energy from two local chain stores with several locations within Minneapolis.

Example of Variety in Commercial Rate Class

Industrial per-customer franchise fee increases



- The industrial rate class is made up of the highest energy users.
- Xcel has over 1,000 customers in the Industrial rate class; CenterPoint has fewer than 50, which skews their average sharply upwards.

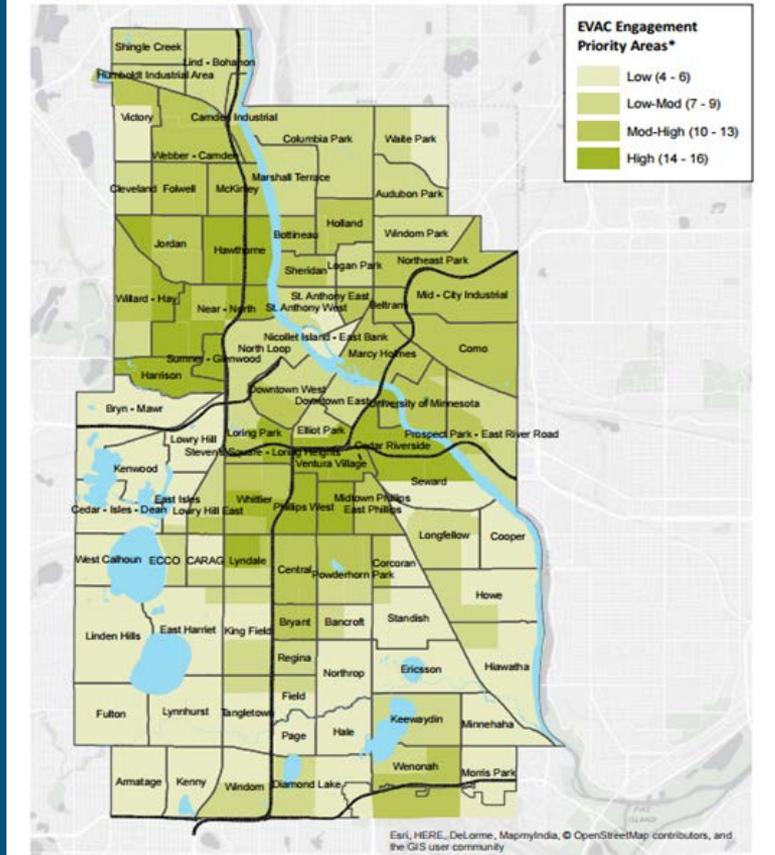
Monthly total industrial per-customer fees	
Current	\$1,160
Incremental increase	\$193
New total	\$1,353

Impacts on Industrial Rate Class Customers

Proposed
Activities

Residential

Engagement Priority Areas (income version: 80% AMI)



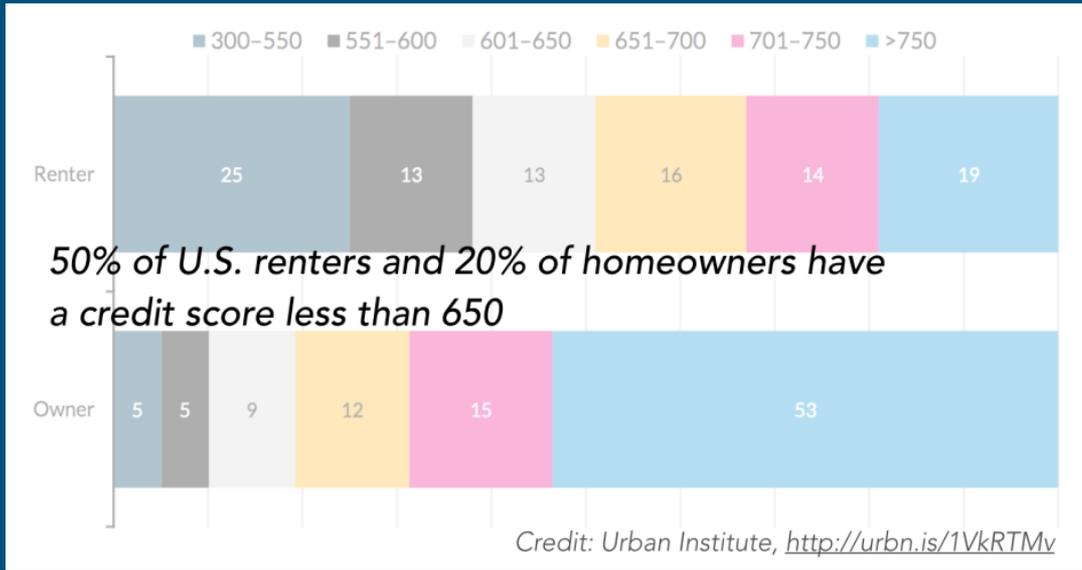
- Expand and build upon the lessons learned from the Community Engagement Pilot
- Partner with local community-based organizations to expand outreach, engagement, education, and program sign-ups

Expanded Single Family and Multifamily Engagement



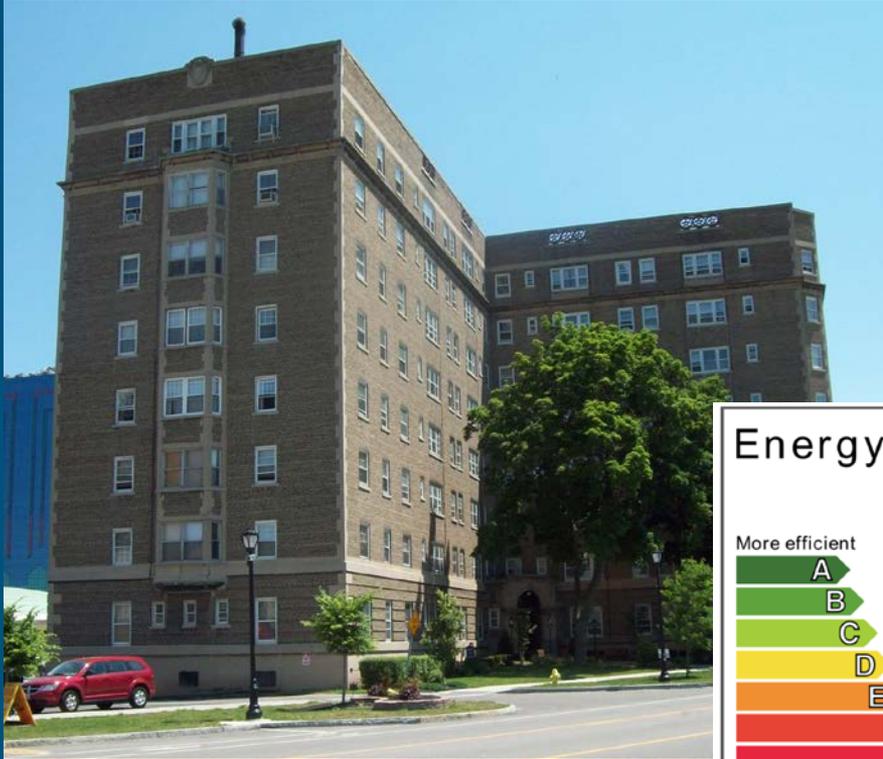
- Partner with program implementers to strategically subsidize whole-home energy assessments (ie. Home Energy Squad visits)
- Target low-income and hard-to-reach customers
- Pair up with incentives and other methods to increase program conversion rates

Strategically Subsidize Energy Assessments

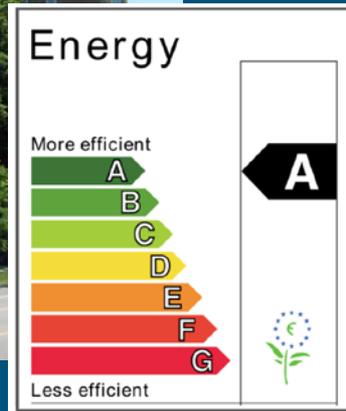


- Study and implement methods to improve accessibility of existing financing tools
- Pilot, where appropriate, new tools for financing (ie. on-bill financing models)

Increase Accessibility of Financing Tools

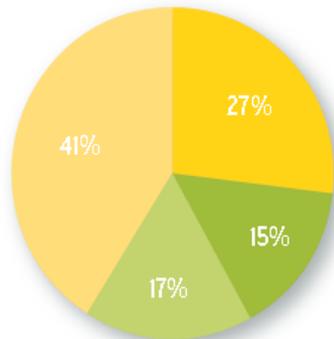


- The benchmarking program can be expanded from commercial buildings to multifamily buildings, which will increase our ability to target resources and generate more energy savings.



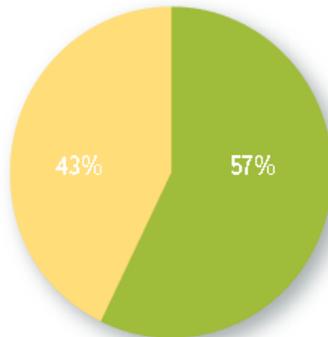
Expand Benchmarking to Multifamily Buildings

Rental Units by Affordability & Building Size in the Twin Cities Metro Area



- 1-4 Units Affordable
- 1-4 Units Not Affordable
- 5+ Units Affordable
- 5+ Units Not Affordable

Subsidized vs. Unsubsidized Affordable Rental Units in the Twin Cities Metro Area



- Subsidized
- Unsubsidized

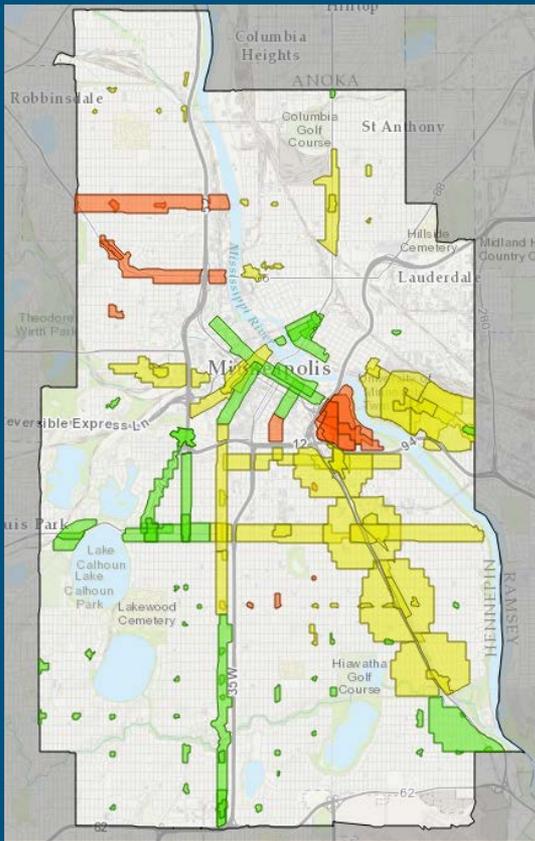
Source: Greater MN Housing Fund, "The Space Between: Unsubsidized Housing Potential in Minnesota"

- There is a crisis in housing affordability in the Twin Cities, and unsubsidized affordable housing is a key resource to preserve.
- Energy efficiency programs can be a key tool for maintaining housing affordability
- EVAC Multifamily Work Group is developing recommendations

Preserve Existing Unsubsidized Affordable Housing

Proposed
Activities

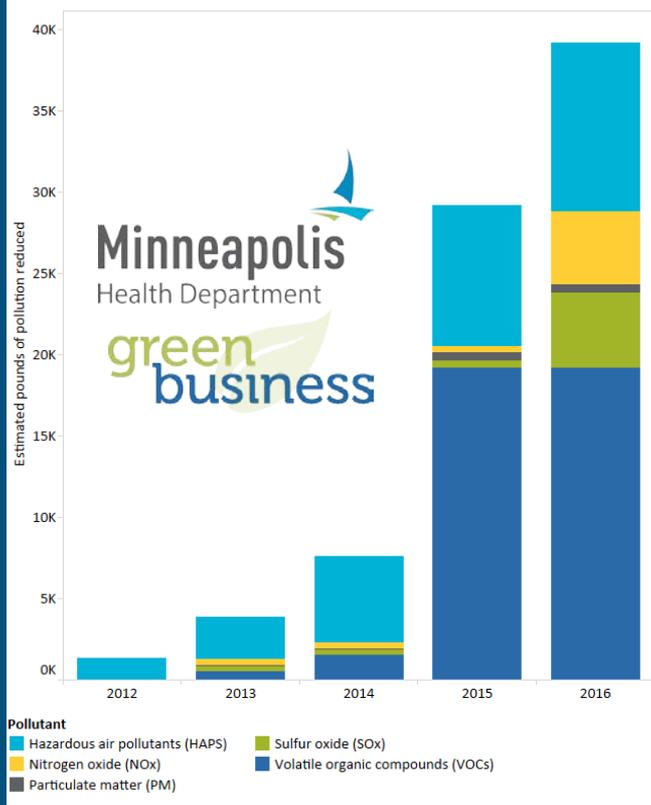
Commercial



- Specialized engagement strategies are needed to ensure that small businesses learn about and participate in efficiency programs
- CPED has several programs to engage small businesses that could serve as a model for a city-wide engagement program
- EVAC's Small Business Work Group is developing recommendations for how to do this

Fund City-Wide Small Businesses Engagement

Estimated amount of pollution avoided through the Green Business Cost Share program (2012-2016)

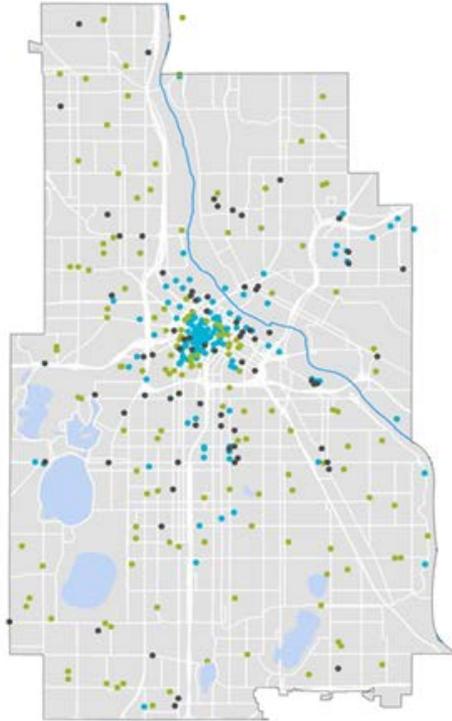


- The City of Minneapolis' Green Business Cost Share program offers financial incentives to help businesses invest in energy efficiency.
- Funding leverages rebates and private investment at a rate of 6:1.
- Significant potential for foundations and other entities to match these funds.

Expand Minneapolis Green Business Cost Share Program

- Private 50,000-100,000 sq.ft.
- Private 100,000+ sq.ft.
- Public

Represents
70% of all
commercial
building space



- The Benchmarking ordinance has uncovered significant opportunities.
- Additional training and technical resources can be targeted towards buildings with high potential.

Increase Assistance to Benchmarking Participants

Discover Savings With a Turn Key Assessment and Free Implementation Services

Turn Key Services

Turn Key Services is a full-service program designed to provide our customers with on-site energy efficiency assessments and/or free implementation services they need to make energy-saving improvements.

There are two ways you can take advantage of this program, depending on what stage you're at with any energy efficiency project.

1. Do you want to make your facility more energy efficient, but don't know where to start, or want to identify all possible energy-saving improvements?

Sign up for a low-cost, on-site assessment and get expert advice, a comprehensive report and bonus rebates that'll lower the cost of the improvements you make. Plus, you'll receive free implementation services of your choosing.

2. Do you have a specific energy efficiency project in mind, but don't have the resources to get it started and completed?

Take advantage of free implementation services at any time on any qualifying energy efficiency project, with or without getting an assessment.

On-site Energy Assessment —sign up and you'll receive:

Advice from experts:

An energy advisor will conduct an ASHRAE Level 1 energy assessment at your facility to identify improvements which can have the biggest impact on reducing your energy costs.

Plus, buildings that are 5,000 sq. ft. to 75,000 sq. ft. will also receive a recommissioning, or tune-up analysis to identify low- and no-cost adjustments* that can be made to existing equipment to reduce energy use.

An in-depth report:

Once the assessment has been completed, you'll receive a comprehensive energy assessment report which includes:

- Improvements recommended for your facility
- Potential energy savings
- Outline of simple paybacks

Expertise

Take advantage of free implementation

Whether you received a Turn Key Assessment, or just have an energy efficiency project that you identified on your own that you want to complete, you can take advantage of the program's free project implementation services. Choose the services that are right for your needs—all at no cost:

- Facilitate meetings with internal stakeholders to obtain project approval
- Prioritize conservation opportunities and provide further evaluation
- Conduct a financial analysis on projects being considered
- Evaluate proposals and coordinate/verify project implementation
- Complete and submit rebate paperwork

No-cost services

- Utility efficiency studies (such as Xcel's TurnKey program) help businesses with complex systems uncover the best opportunities.
- We can strategically subsidize the upfront cost of these studies, especially for medium sized businesses with limited resources.

Subsidize Building Efficiency Study Programs

Questions?



Board Motion in support of increased, dedicated funding for the Partnership:

“The Board has received the report, *Funding the Minneapolis Clean Energy Partnership: Recommendations from the Energy Vision Advisory Committee (EVAC)*. The report states that additional, dedicated, long-term funding is necessary in order to achieve the goals of the Clean Energy Partnership.

Increased utility program funding is possible, subject to State regulatory restrictions; however, utility programs alone cannot be targeted exclusively to Minneapolis residents and businesses or fully meet the greenhouse gas emissions reductions and equity goals of the Clean Energy Partnership.

The Clean Energy Partnership Board supports additional, dedicated City funding for new and existing programs to increase energy efficiency and renewable energy investments with a specific focus on equity and greenhouse gas emissions reductions. “



Next Steps for an increase to the franchise fee:

- **The increase of a franchise fee requires a change in City ordinance**
- **We are looking forward to receiving feedback from the Community Engagement Pilot Project, which will provide valuable findings and recommendations in ways to increase equitable participation in utility energy efficiency programs. In particular, findings will focus on engaging neighborhoods with characteristics that have historically been associated with low participation in energy efficiency programs. We are expecting this report this upcoming winter.**



Announcements / Open Discussion



Renewable*Connect Agreement for City Enterprise

Authorizes a new agreement with Xcel Energy to participate in their Renewable*Connect Program to purchase up to 17.8 million kWh of renewable electricity annually. Of this total, 14 million kWh will be purchased by the Convention Center and 3.8 million kWh will be purchased by the Water Treatment Plant.

- Additional Staff Direction: Directs Finance & Property Services staff to seek up to an additional 50 million kilowatt hours per year from the Renewable*Connect Program when sufficient renewable energy is made available for purchase from Xcel Energy.



Staff Direction Regarding Options for 100% Renewable Sources for City's Electricity Usage

101,000,000 kWh annual electricity consumption for City enterprise (water, buildings, street lights & signals)

- 0.4% is currently renewable (City owns the RECs)

2 phases of Analysis:

- Phase 1 (by Aug 28): Analyze current and project electricity usage over the next 10 years and identify options for obtaining renewable electricity.
- Phase 2 (by Oct 30): Get forecast from Xcel through the Partnership regarding ability to provide renewable resource w/ RECs. Analysis also to include financial, budgetary, climate impacts and considerations.



Small Business Refrigeration Program Update

- Target Group: Groceries & Convenience Stores
 - Larger groceries added to help with cost effectiveness
 - RFP going out within the next week
 - Filing with Department of Commerce September
 - Roll out, beginning of 2018
 - Leverage with Green Business Cost Share Program
- Met with EVAC SB workgroup twice
 - Discuss details and worked through concerns
 - EVAC SB group supports this project
 - EVAC would like to develop a city wide SB program with contracted
 - community engagement agencies



Building Sector Workshop Updates – All Partners

2017-2018 Work Plan Items 14 & 15

Minneapolis Public Schools

- Held on July 5th

Office Buildings

- Held on July 11th
- 23 Customers Attended
- Paired benchmarking data with energy efficiency program opportunities

Hotels

- To be held in August/September



Low Income Community Solar Garden

- Assessing potential to extend scope of existing RDF-grantee project to include Minneapolis project
- Xcel Energy facilitating discussions with project-grantee and City of Minneapolis



Xcel Energy's 1,550 MW Wind Addition

- On July 6 the MN Public Utilities Commission approved our plan
- Aim to have all projects operating by end of 2020
 - ✓ Approximately doubles amount of wind on system
 - ✓ Saves customers about \$4 billion over projects' lifetimes
- Expect NSP energy mix will be 2/3 carbon free by 2021



Next Meeting Date: October 5, 2017

Time: 3:30 – 5:30

Xcel Energy

401 Nicollet Mall

Adjourn