

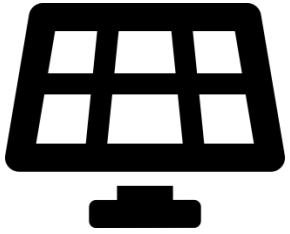
WHEN SUMMER SERVES A HOTDISH OF PEAK LOAD, DERS TAKE ACTION

A summary of
Minnesota's
first non-wires
alternative pilot

KEY CONCEPTS: NON-WIRES ALTERNATIVES

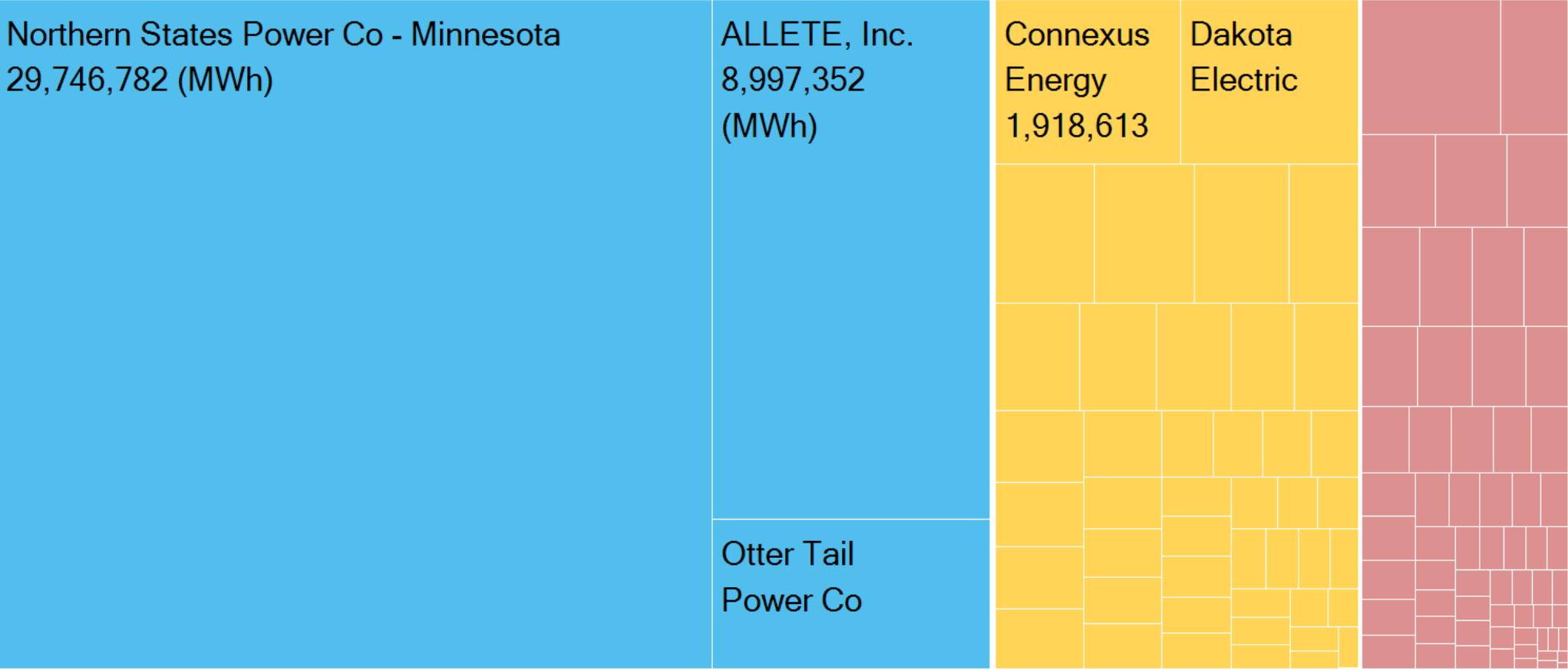
- NWA projects use geographically-targeted distributed energy resources to avoid the need for capital investments in transmission or distribution systems
- The non-wires project provides value by deferring or reducing (but not necessarily totally avoiding) the need for infrastructure investment

(for our project: deferral value = net present value of interest & other capital costs avoided, for the number of years the investment is deferred)



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MINNESOTA UTILITY SALES

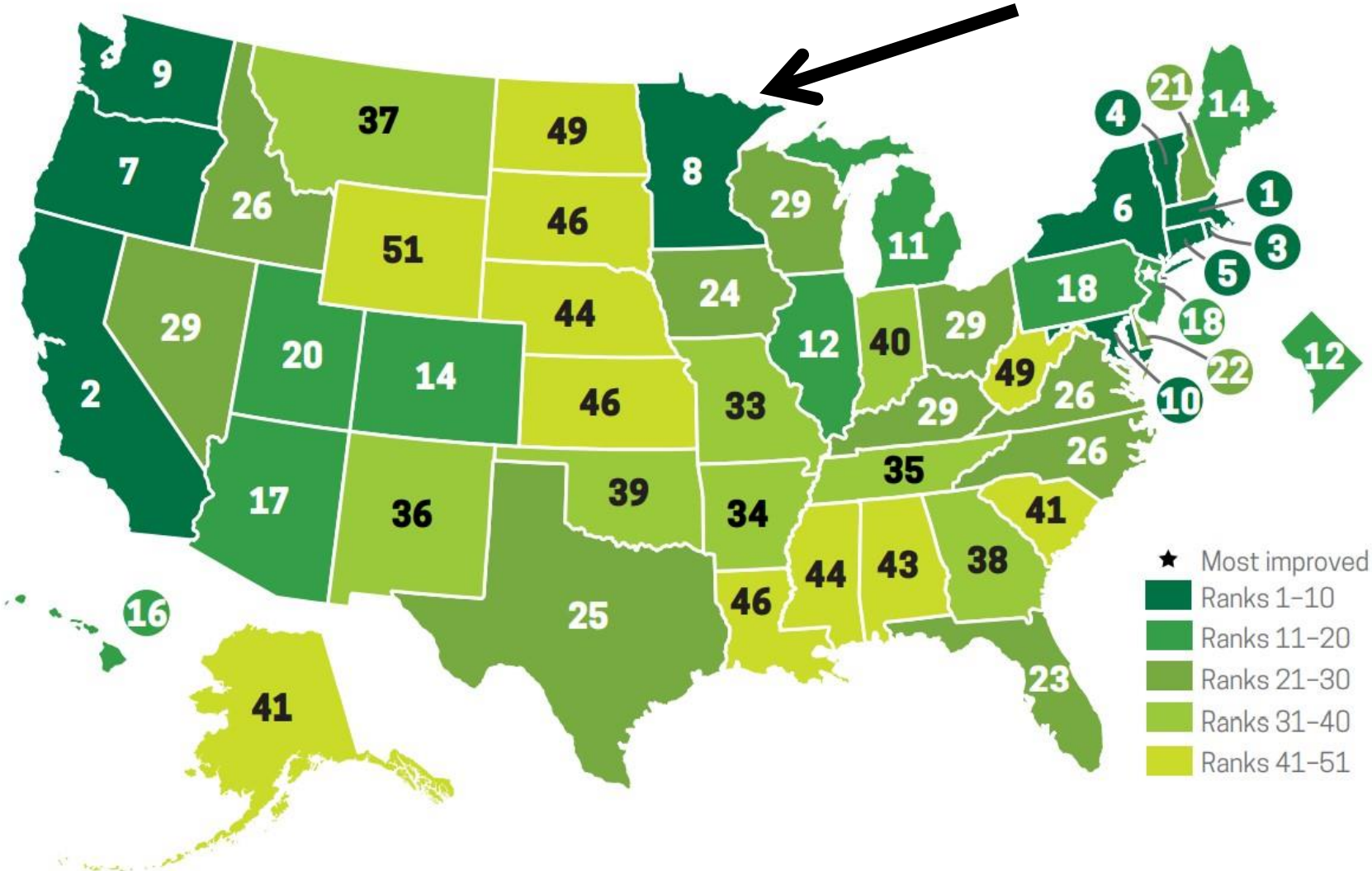


■ Cooperative
 ■ Investor Owned
 ■ Municipal



Source: EIA. 2018. [Annual Electric Power Industry Report, Form EIA-861 detailed data files.](#)

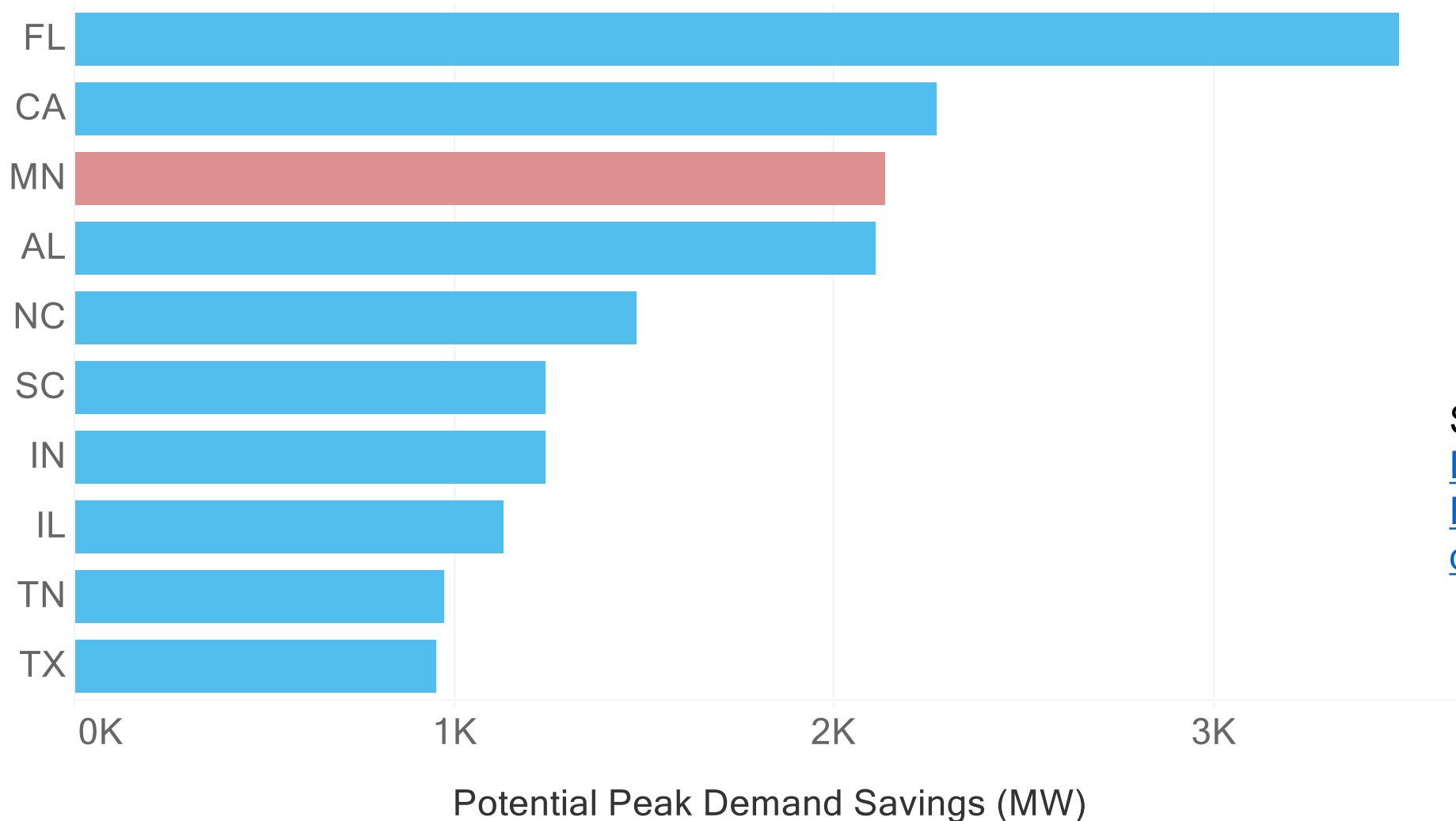
ENERGY EFFICIENCY LEADERSHIP



Source: ACEEE. 2018. [The State Energy Efficiency Scorecard](#)

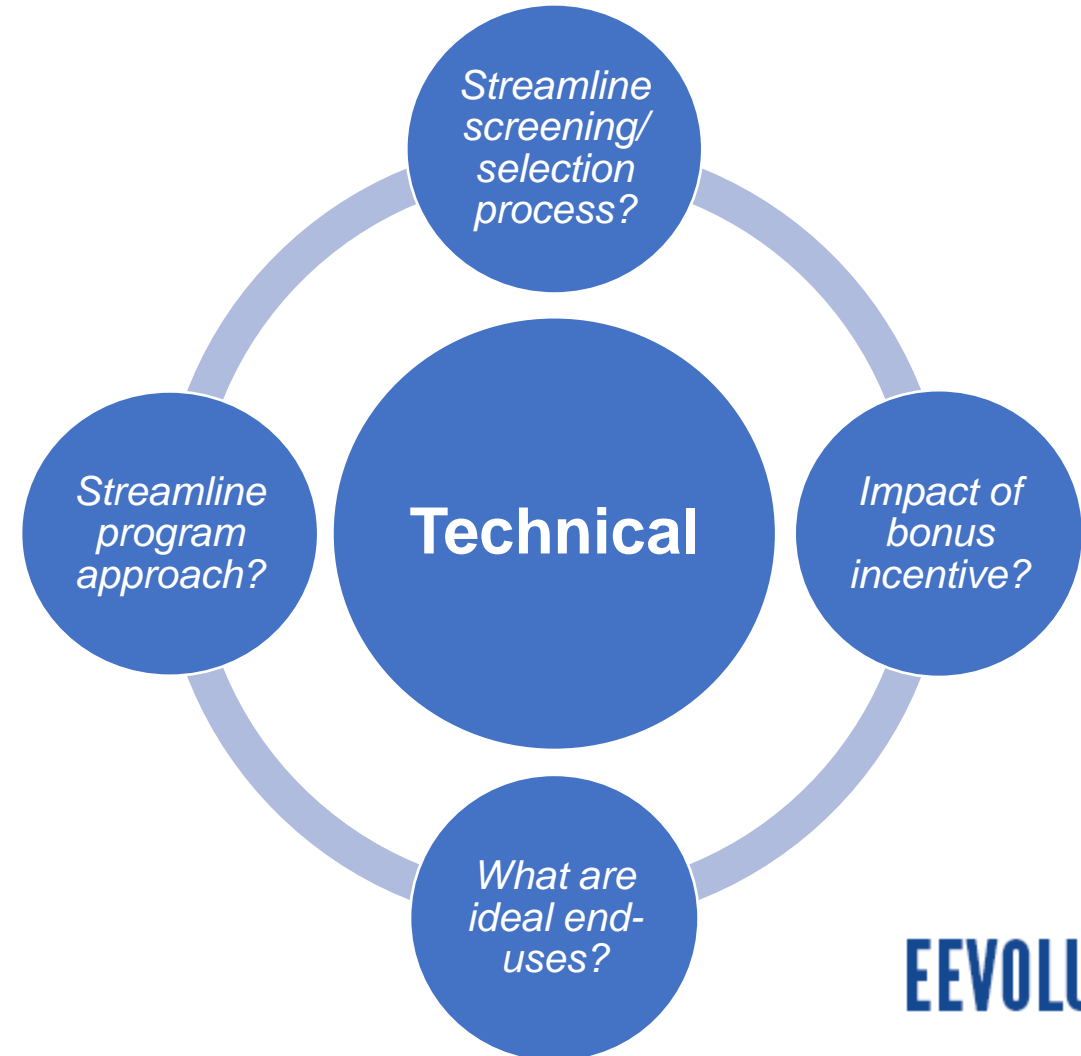
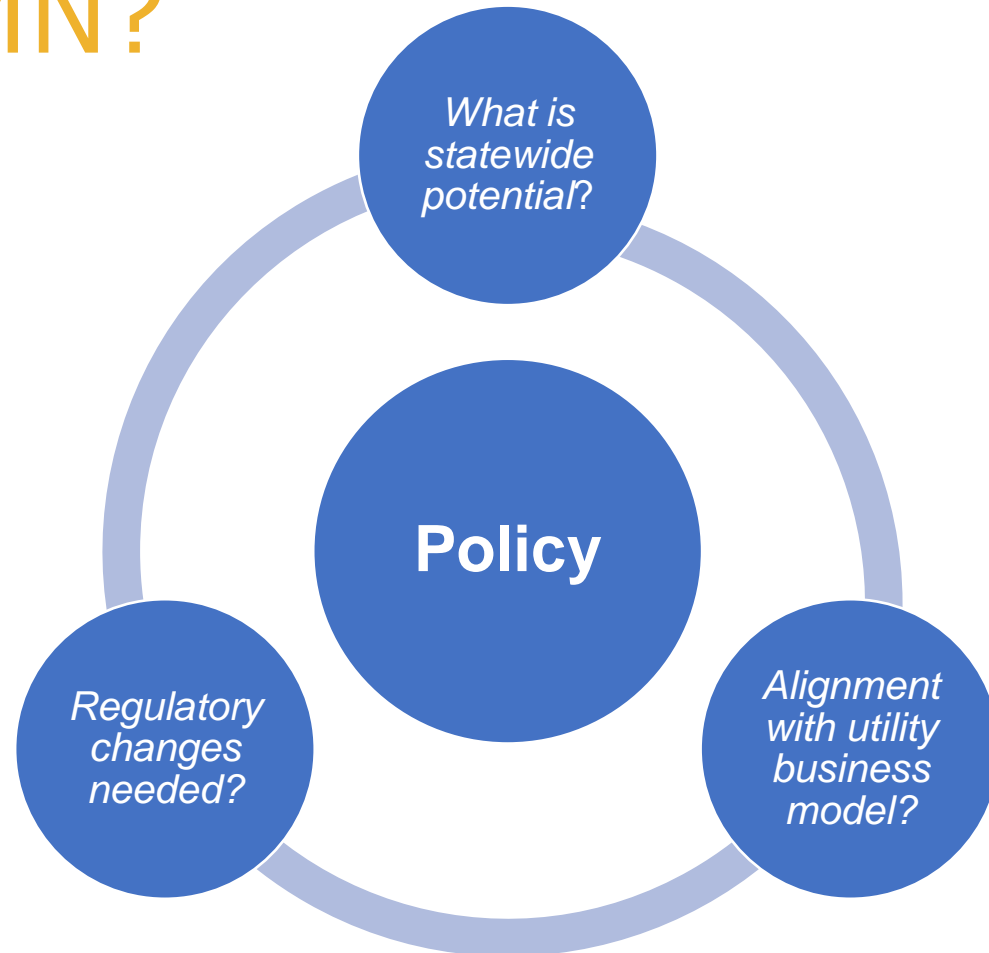


TOP 10 US STATES FOR DEMAND SAVINGS (MW)

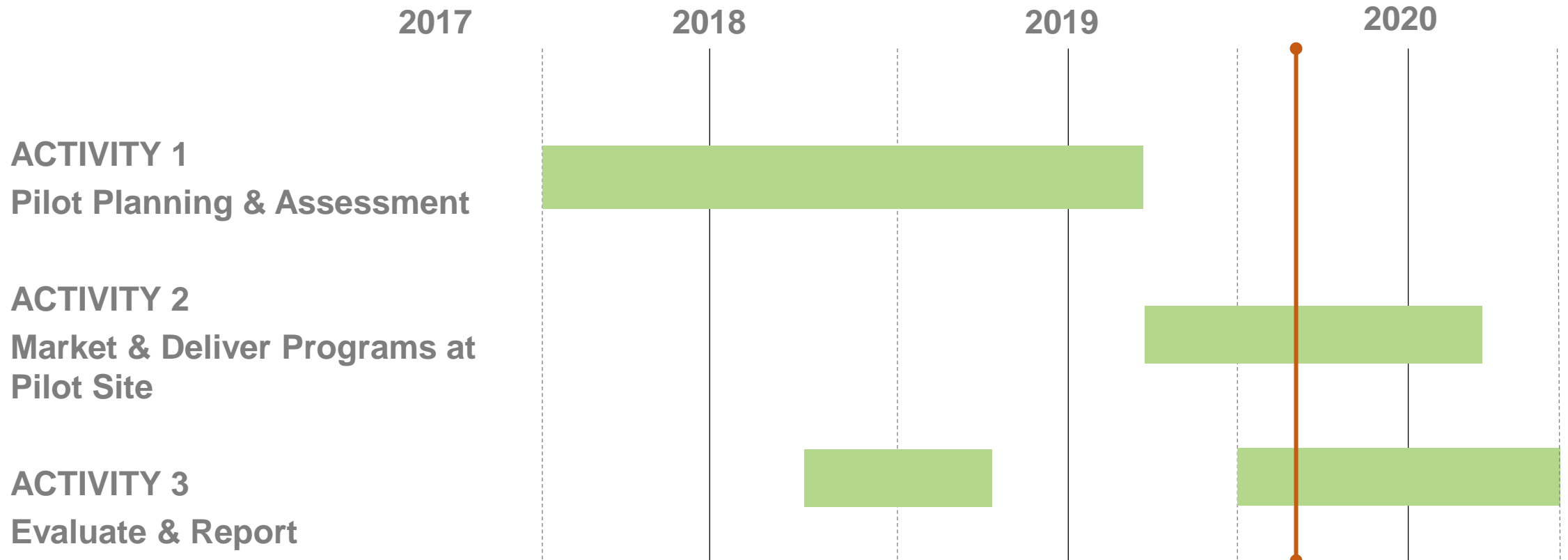


Source: EIA. 2018. [Annual Electric Power Industry Report, Form EIA-861 detailed data files.](#)

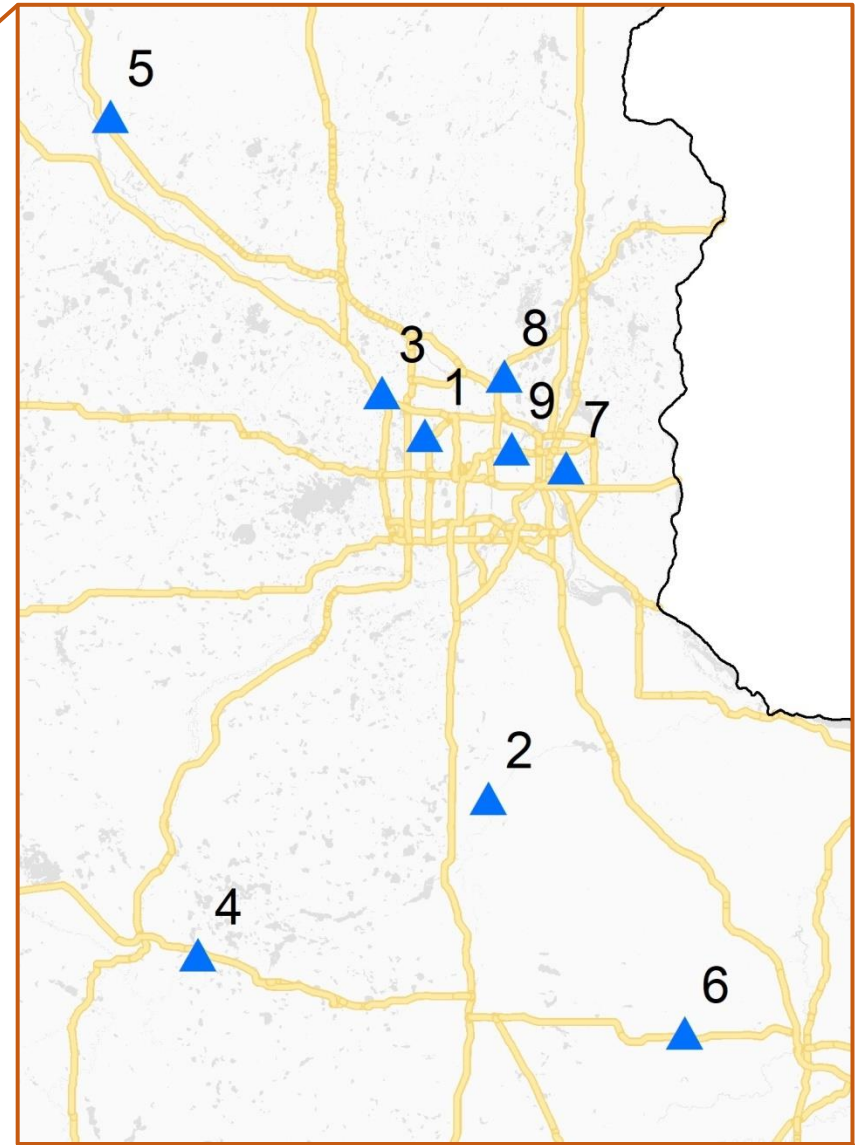
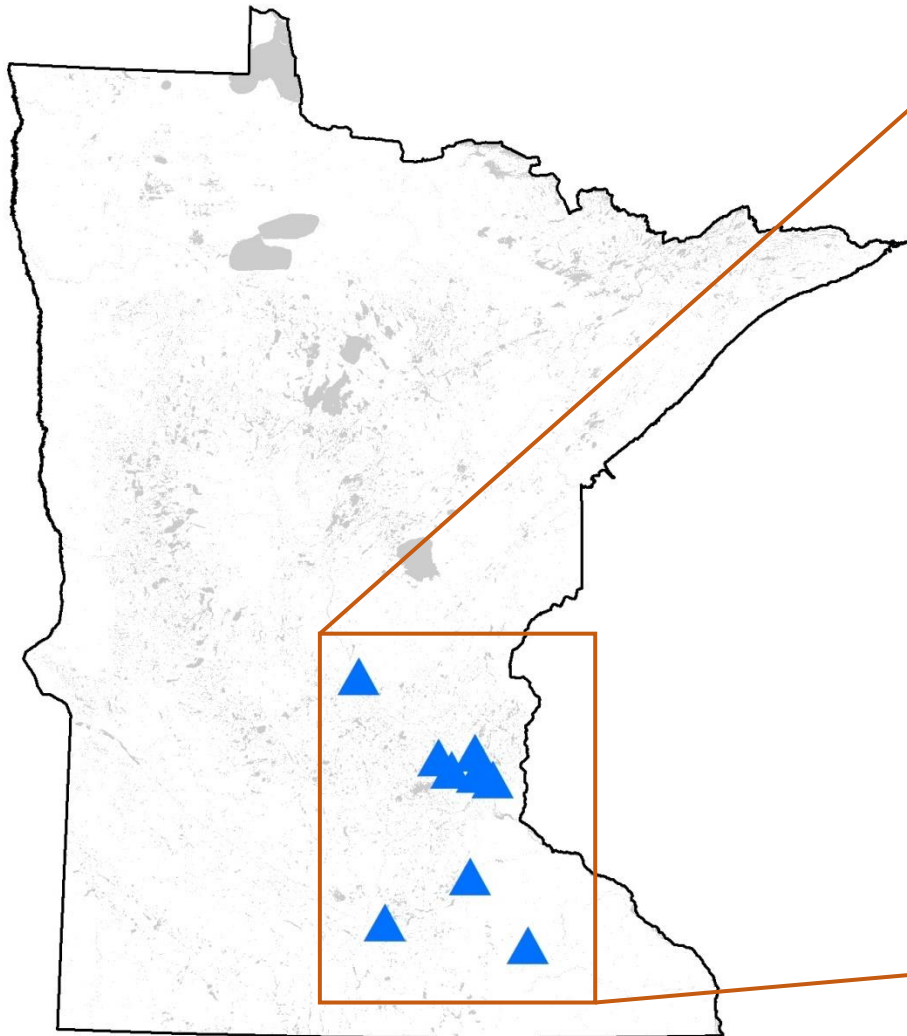
OVERALL RESEARCH QUESTION: CAN WE EXPAND THE USE OF NON-WIRES ALTERNATIVES IN MN?



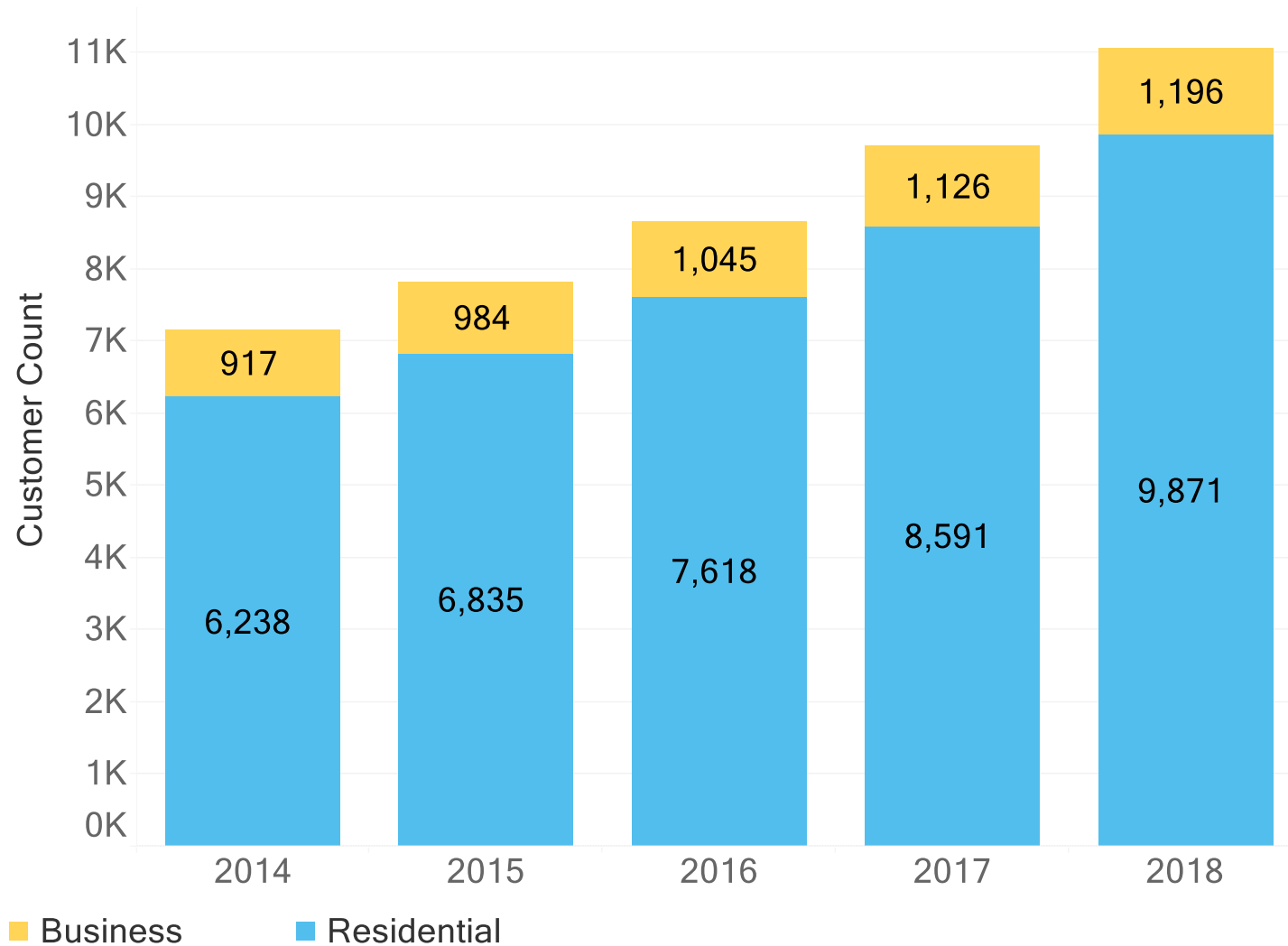
OVERALL PROJECT TIMELINE



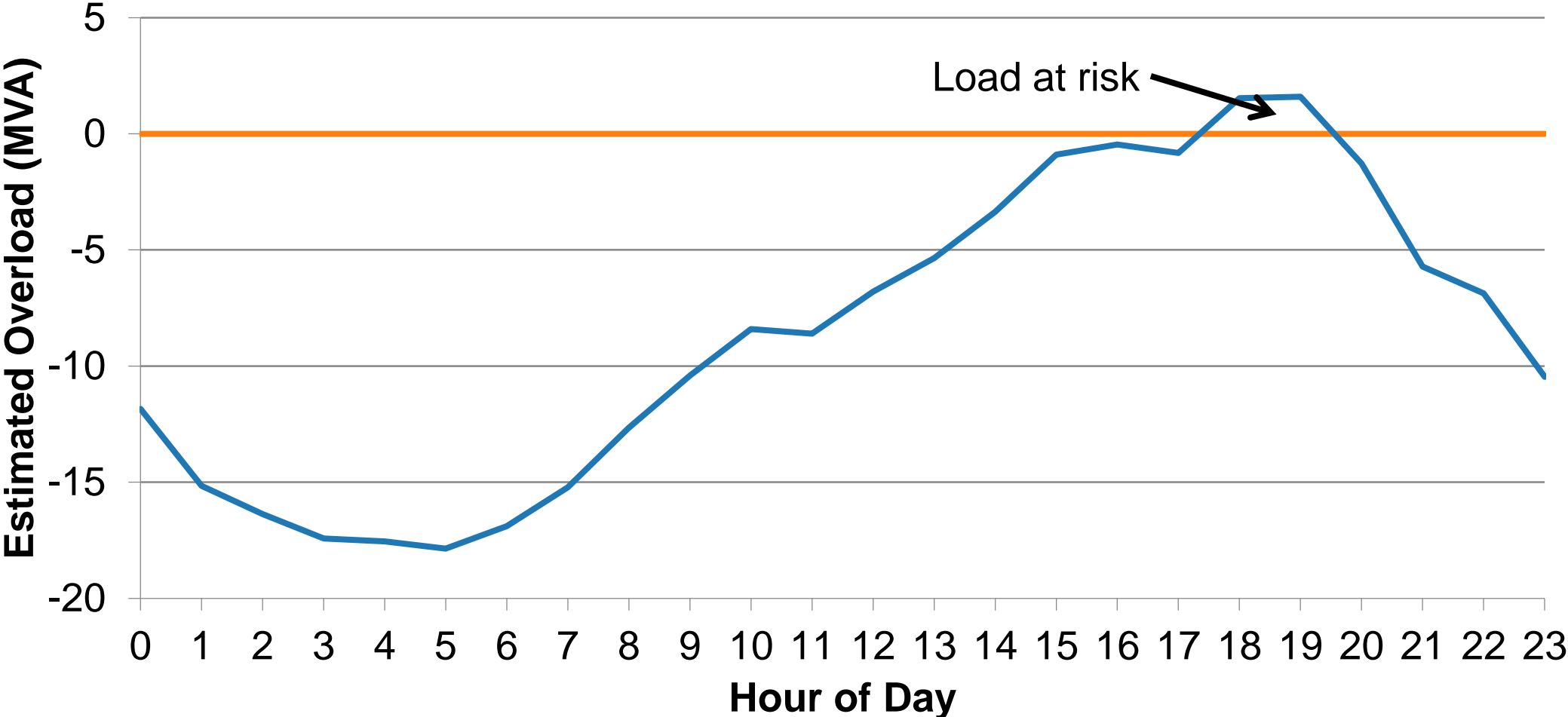
SITE SELECTION



SITE CHARACTERISTICS



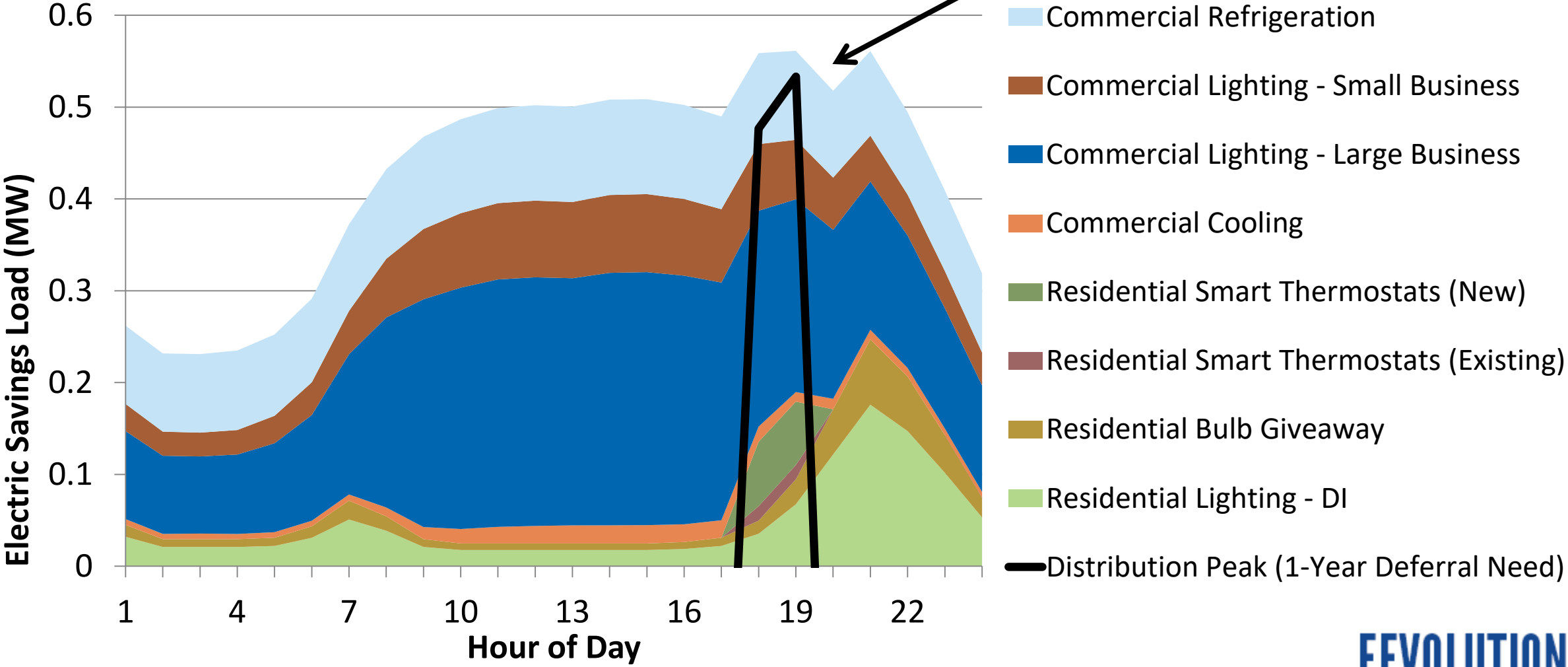
ESTIMATE OF LOAD AT RISK



DER PROGRAM GOALS

	2019 Participant Goal	% Increase from Average	Total Budget Increase	Demand Reduction (kW)
Residential Lighting – Direct Install	150	650%	\$10,500	51
Residential Bulb Giveaway (New)	1,200	N/A	\$1,332	21
Residential Smart Thermostats	80	340%	\$13,200	70
Commercial Refrigeration (New)	7	N/A	\$24,900	83
Commercial Lighting – Large Business	52	86%	\$66,924	223
Commercial Lighting – Small Business	34	89%	\$20,706	69
Commercial Cooling	18	64%	\$4,200	14
Total			\$141,762	531

DER LOAD SHAPES

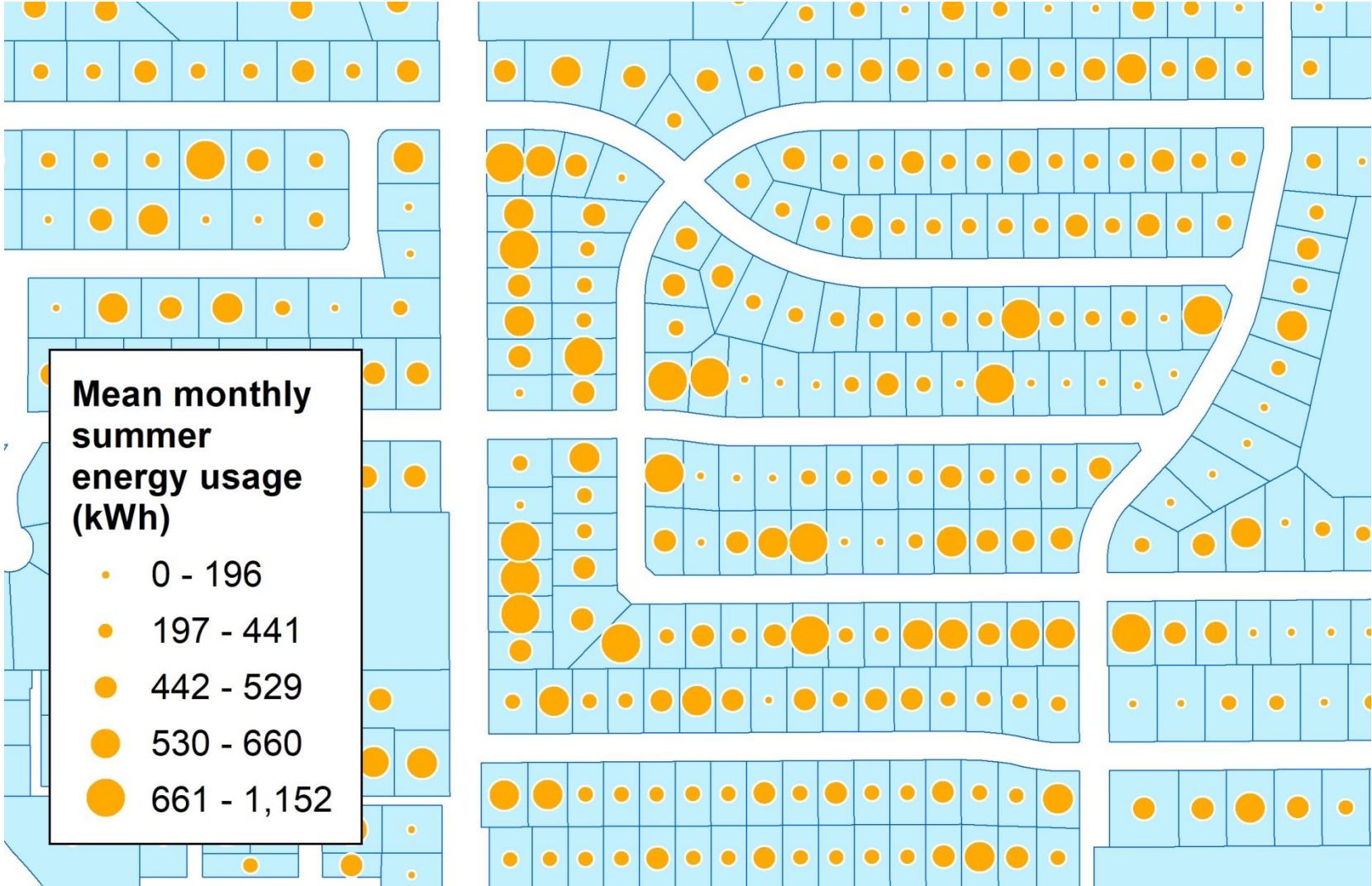


EXISTING DEMAND RESPONSE

- High penetration of existing demand response enrollment on target feeders
- Current subscriber count:

	Customer Count	Total Subscribed (kW)
Residential Saver's Switch	4,451	3,286
Saver's Switch for Business	518	698

RESIDENTIAL ANALYSIS



BUSINESS ANALYSIS

- High summer kW
- Business type
- Past program participation
- Aerial imagery analysis for cooling opportunities



COMMUNITY BASED MARKETING



Source: HMA Architects. 2017. [Sauk Rapids Government Center](#).

JUMP INTO SUMMER SAVINGS

Xcel Energy is teaming up with the cities of Sartell and Sauk Rapids to offer the City Summer Savings Program. Business owners will have the chance to save money on their utility bills by upgrading inefficient equipment and taking advantage of available rebates.

Two energy experts from an Xcel Energy service provider will come to your business to assess energy saving materials and equipment. Options may include high-efficiency show cases, refrigerators, door weather seals, and more.

Don't delay, schedule your appointment today!

ENERGY SAVINGS OPPORTUNITIES FOR BUSINESSES

Xcel Energy is teaming up with the cities of Sartell and Sauk Rapids to offer the City Summer Savings Program. Business owners will have the chance to save money on their utility bills by upgrading inefficient equipment and taking advantage of available rebates.

Bonus rebates from Xcel Energy are available for businesses that complete recommended upgrades — for a limited time only.

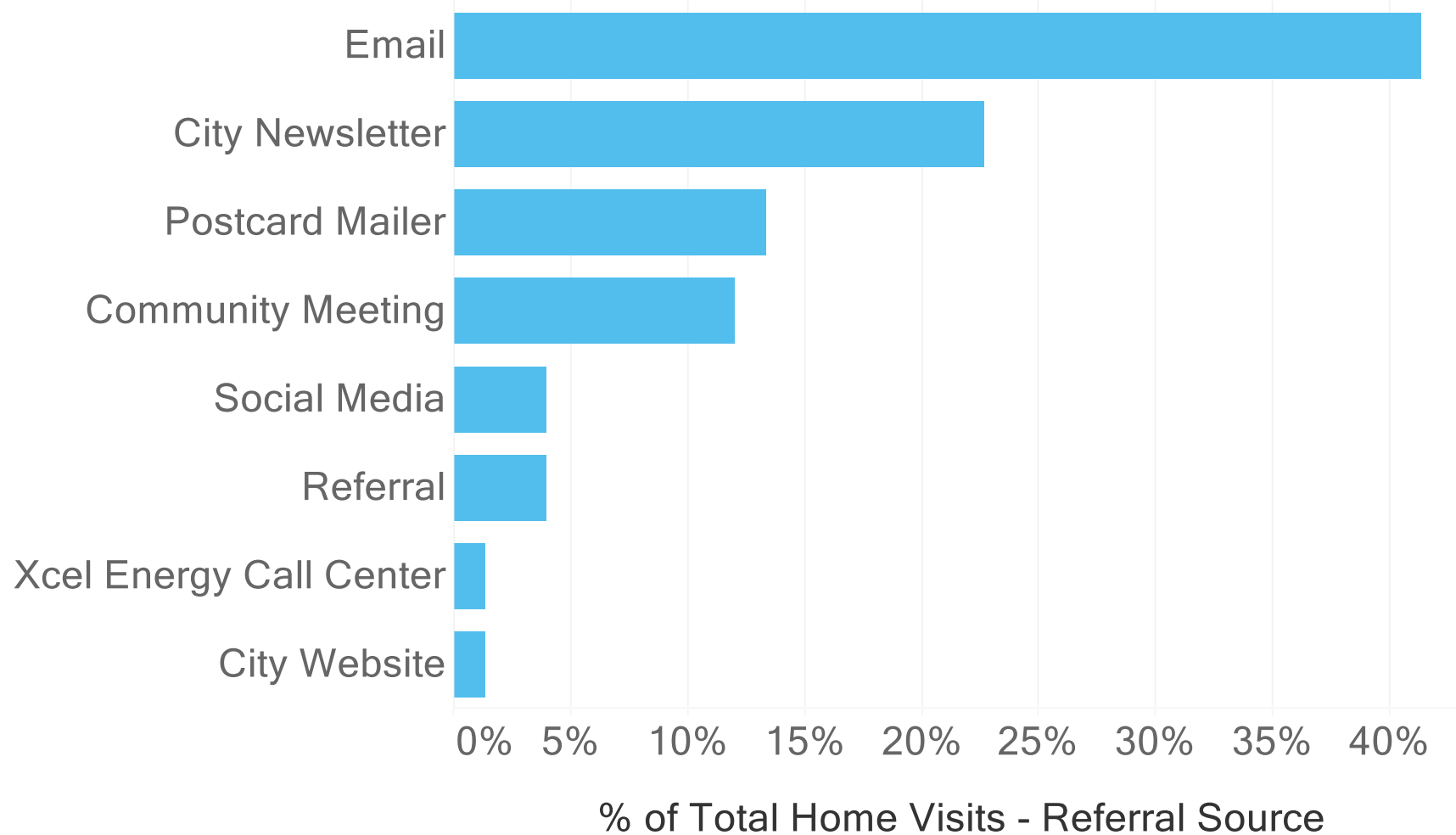
Xcel Energy* **Sartell** **City of Sauk Rapids**

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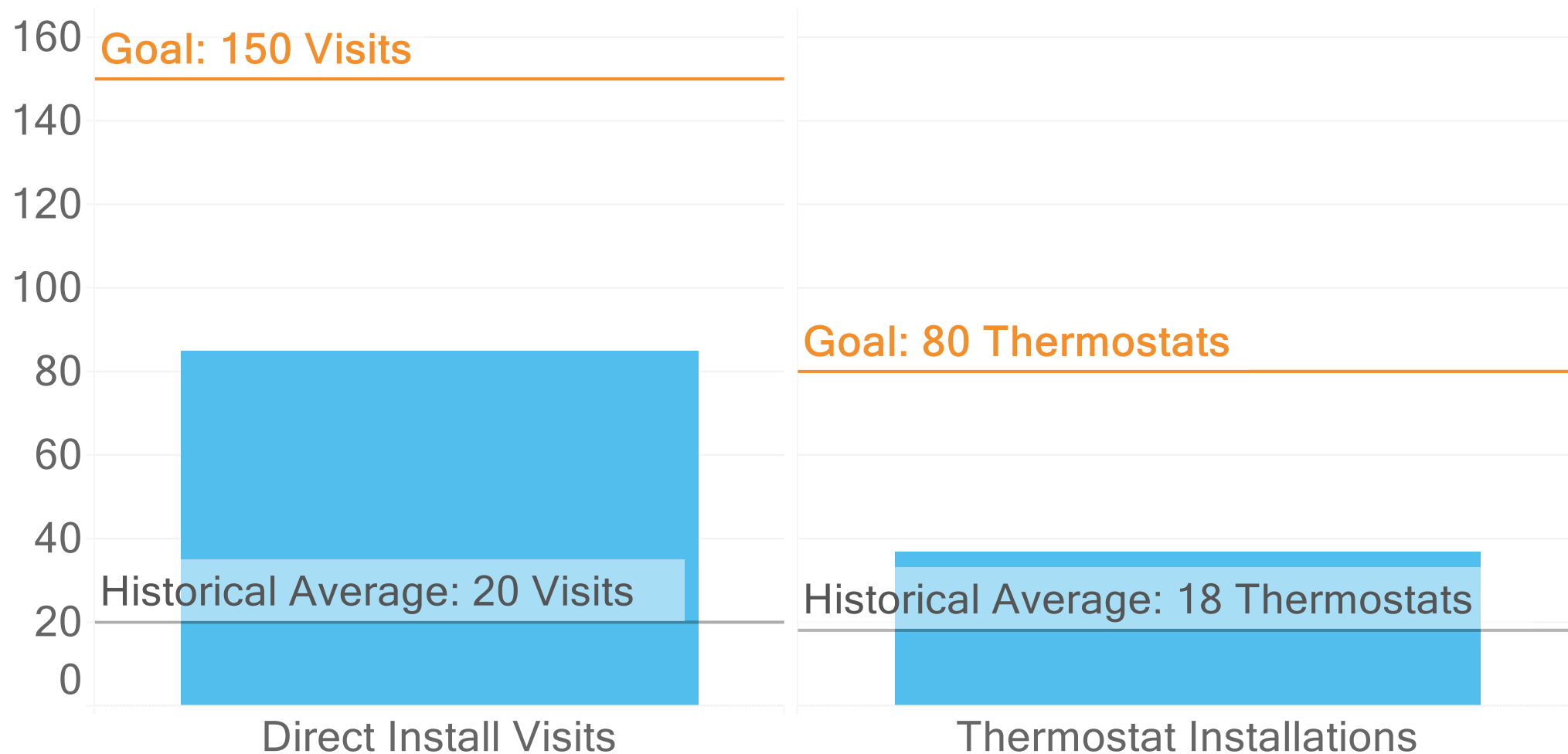
BUSINESS AUDITS



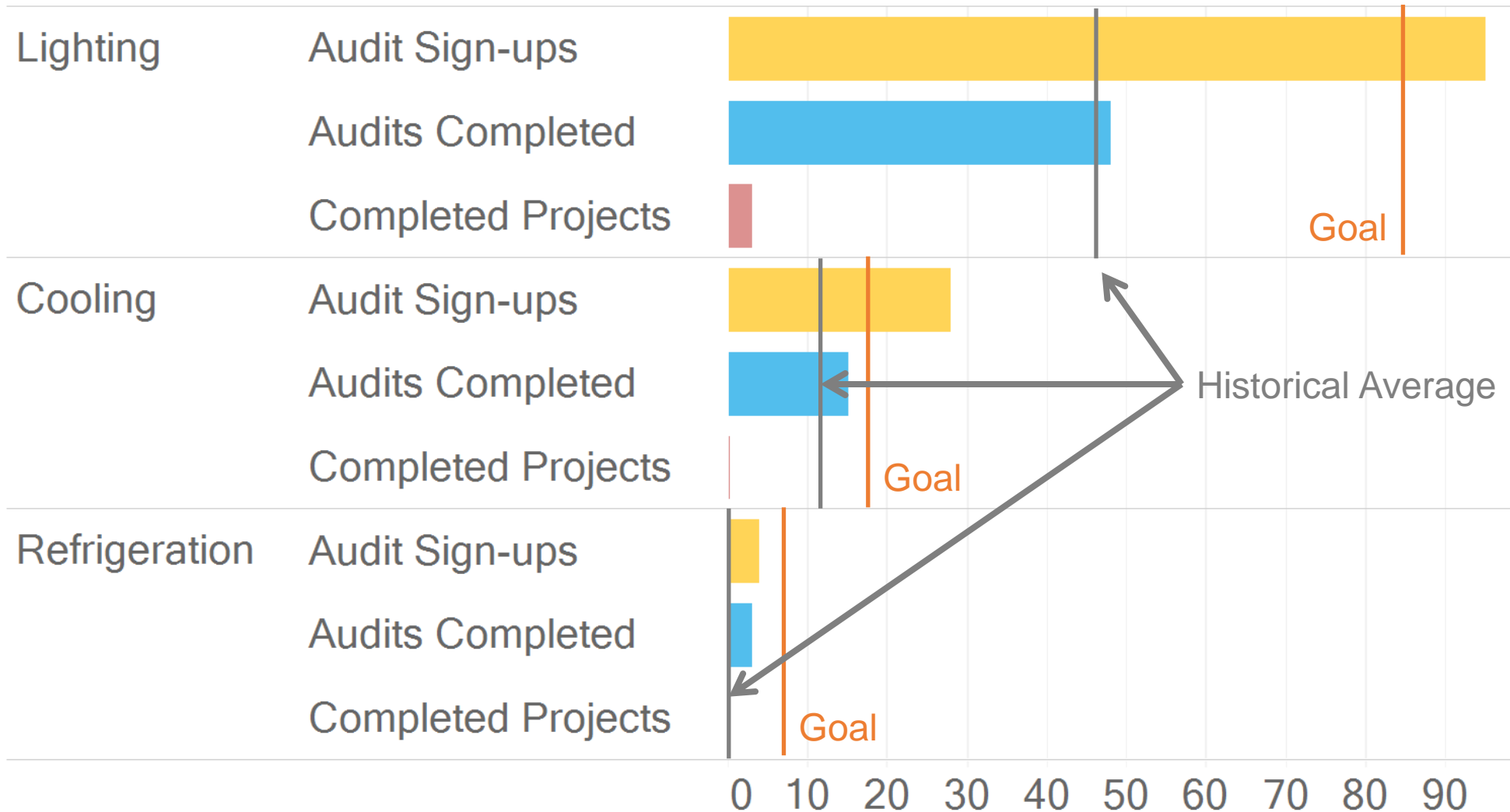
RESULTS TO DATE: RESIDENTIAL REFERRAL SOURCES



RESULTS TO DATE: RESIDENTIAL VISITS AND THERMOSTAT INSTALLATIONS



RESULTS TO DATE: BUSINESS AUDITS AND COMPLETED PROJECTS



EARLY TAKEAWAYS

- Existing demand response resources can be deployed at a distribution level



Presenter's Direct Load Control Switch on AC Unit

EARLY TAKEAWAYS

- Existing demand response resources can be deployed at a distribution level
- **Non wires alternative pilots can be useful to break down internal silos**



Source: [Good Free Photos.](#)

EARLY TAKEAWAYS

- Existing demand response resources can be deployed at a distribution level
- Non wires alternative pilots can be useful to break down internal silos
- **Higher and faster penetration of existing programs is achievable**

JUMP INTO SUMMER SAVINGS

Xcel Energy is teaming up with the cities of Sartell and Sauk Rapids to offer residents the chance to save money on utility bills with the City Summer Savings Program.



Schedule a visit
Residents can schedule a home energy visit for FREE. Call **651-328-6226** to schedule your visit today. Visits are limited—you must have your visit completed by August 31.



Complete your visit
Two energy experts from an Xcel Energy-qualified service provider will come to your home and install energy saving materials on the spot for free. Options may include: LED light bulbs, high-efficiency showerheads and faucet aerators, door weather stripping, and more.



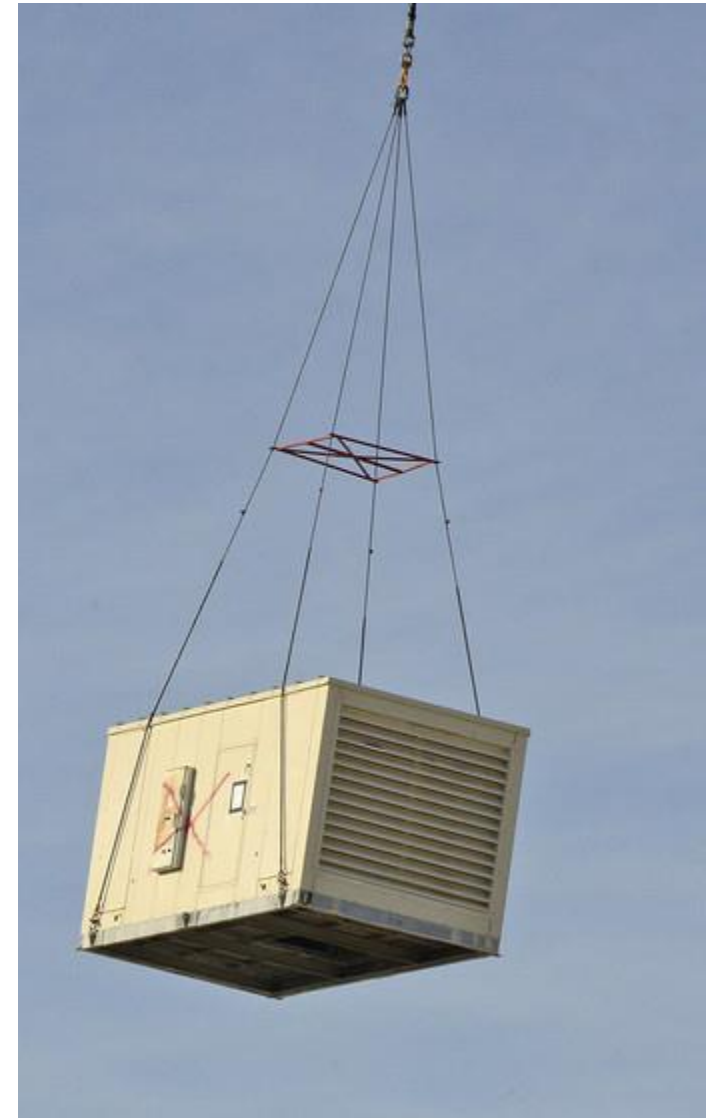
Sign up for AC Rewards
If compatible with your home's cooling and internet communication systems, you can have an ecobee smart thermostat installed free when you enroll in Xcel Energy's AC Rewards program.

Don't delay, schedule your visit today! Call 651-328-6226
Xcel Energy must be your electric service provider.



EARLY TAKEAWAYS

- Existing demand response resources can be deployed at a distribution level
- Non wires alternative pilots can be useful to break down internal silos
- Higher and faster penetration of existing programs is achievable
- **Tight budget – heavy lift**



Source: Edwards Air Force Base

EARLY TAKEAWAYS

- Existing demand response resources can be deployed at a distribution level
- Non wires alternative pilots can be useful to break down internal silos
- Higher and faster penetration of existing programs is achievable
- Tight budget – heavy lift
- **Partnering with local communities can pay off, even with boundary challenges**



Source: HMA Architects. 2017.
[Sauk Rapids Government Center.](#)

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Thank you for attending our Summer Conference!

**Register for AESP's Certificate of Excellence DSM
Program Management Cohort in Toronto**

October 7-10, 2019

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ASSOCIATION OF ENERGY
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