

CITY OF MINNEAPOLIS

Xcel Energy's proposed 2015-2030 Integrated Resource Plan

Presentation to CEAC

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What is Integrated Resource Planning?

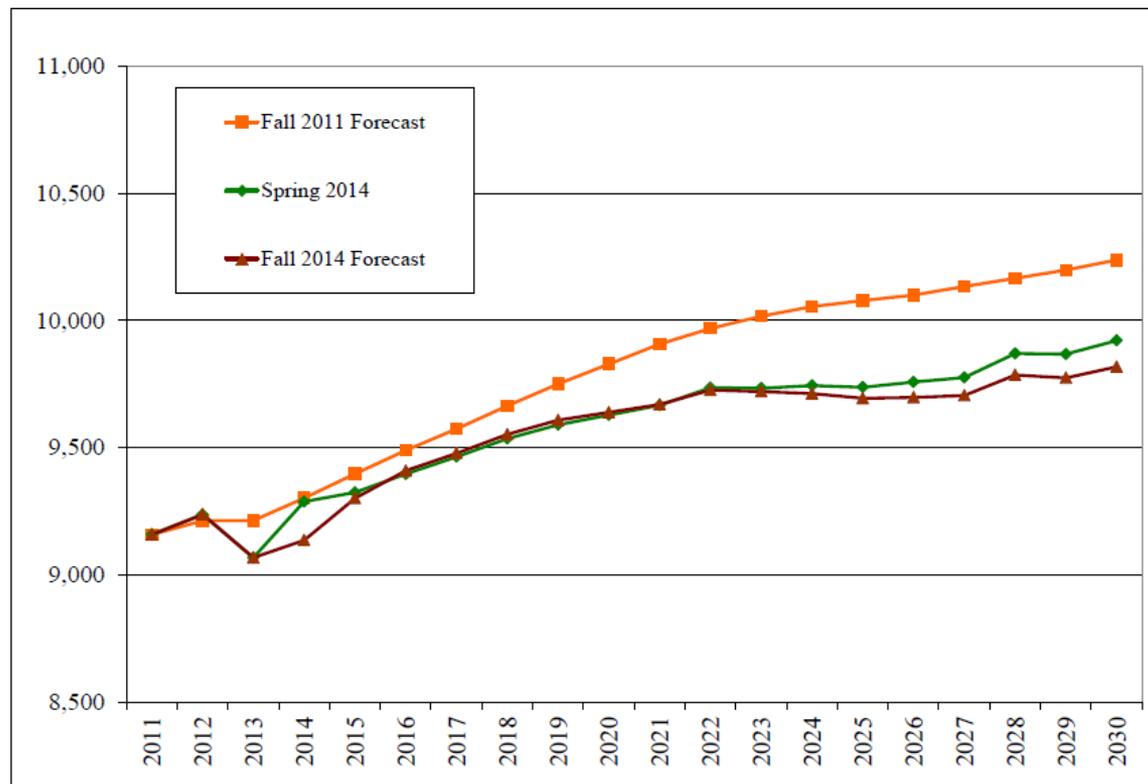
- A long-term (15 year) planning tool used by electric utilities to ensure it can meet customer needs in a reliable and low-cost manner
- It must be “integrated”: utilities must use supply and demand-side resources
- Must be filed every two years by statute
- Final plan is approved by the Public Utilities Commission (PUC)

Xcel Energy has filed a 2015-2030 Resource Plan

- This plan will have an impact on Climate Action and Clean Energy Partnership goals
- “Reply” comments are due October 2nd
- City’s Intergovernmental Relations Committee will be reviewing comments on September 17th
- Current draft comments: plan includes good things, and has areas that need improvement

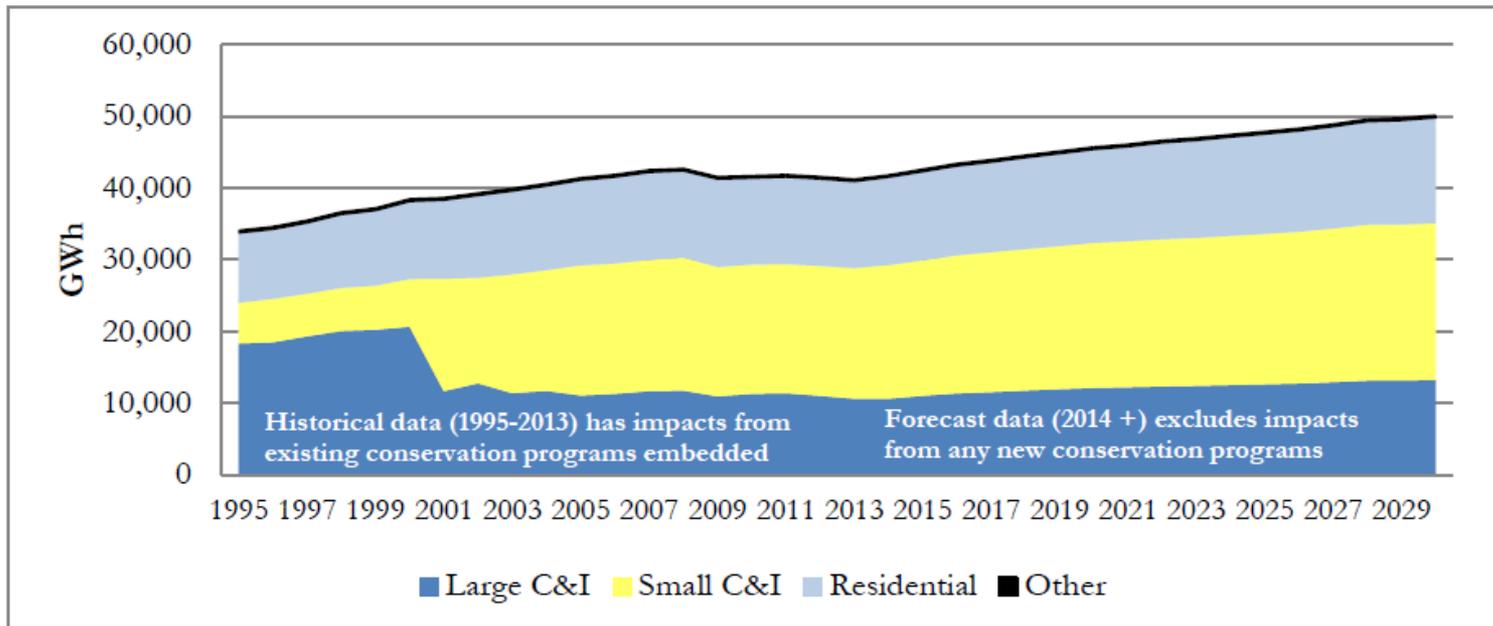
Needs forecast

Figure 4: Historic and Forecast Peak Demand



Needs forecast

Figure 5: Historic And Forecast Annual Retail Sales By Class
(Losses not included)



Resource additions

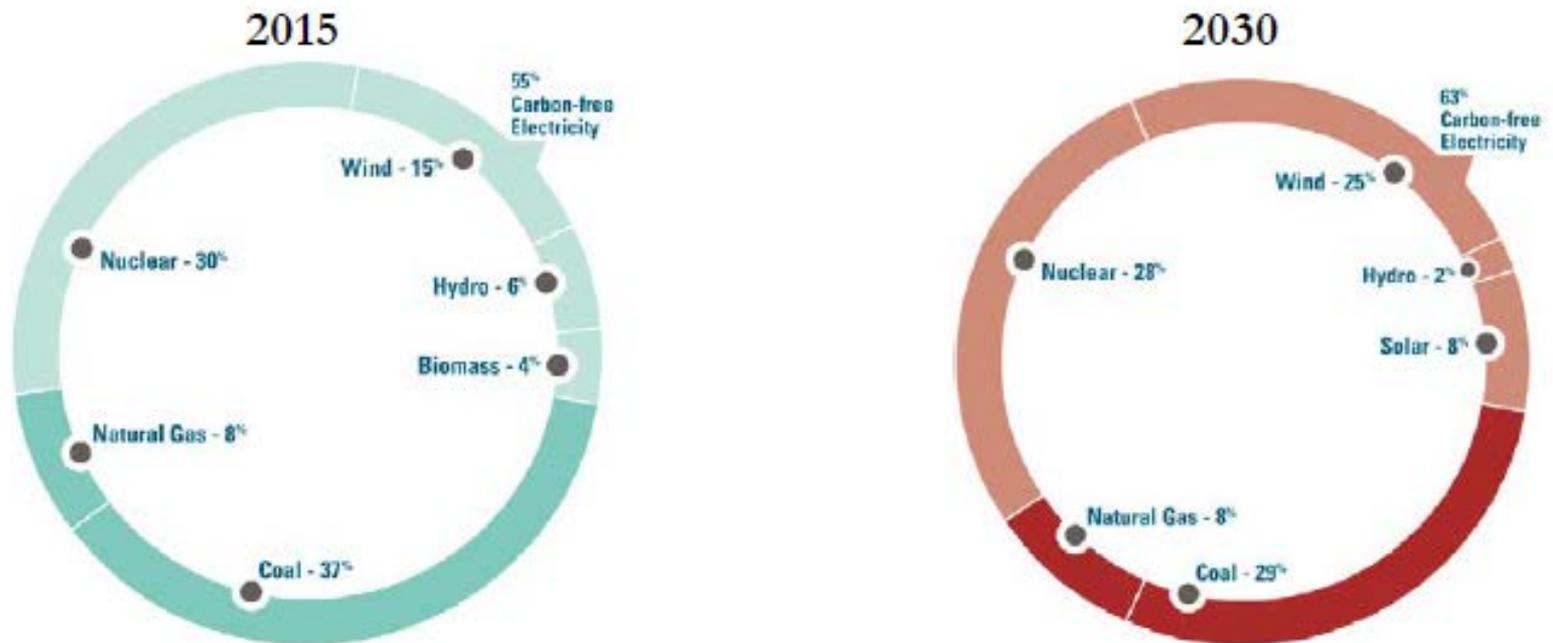
Table 2: Preferred Plan Expansion Plan

Resource	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Resource	Total
Small Solar	18	18	14	13	13	13	16	19	23	28	33	40	48	58	69	83	Small Solar	506
Large Solar	-	-	187	-	-	-	-	-	-	100	400	300	200	500	-	200	Large Solar	1,887
Wind	-	-	-	-	-	600	-	-	200	-	600	-	400	-	-	-	Wind	1,800
CT	-	-	-	-	-	-	-	-	-	-	876	438	219	219	-	-	CT	1,752
CC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CC	-



Resource additions

Figure 10: Energy Mix – Preferred Plan



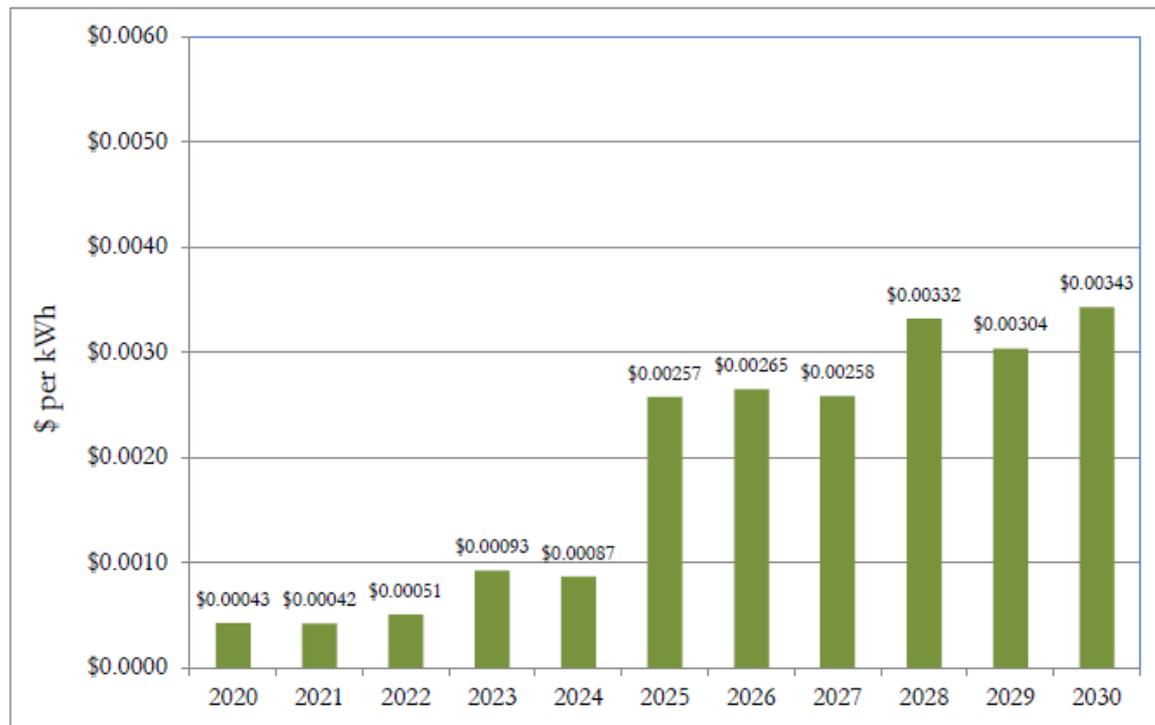
Energy efficiency

Table 4: Recommended DSM Goals

		2016-2021	2022-2030
Scenario	Rebate Level	GWh	GWh
1.5%	75%	444	393

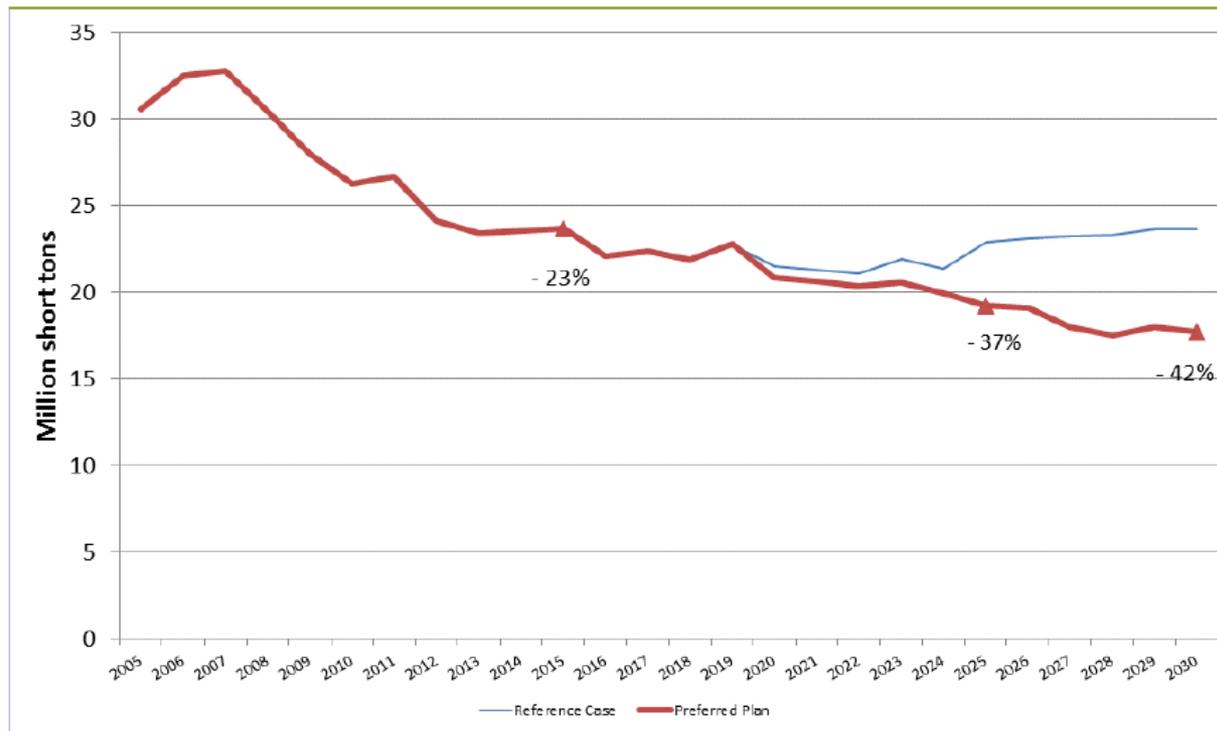
Rate impacts

Figure 2: Incremental Rate Impact of Preferred Resource Plan
State of Minnesota – All Customers



Total greenhouse gas emissions

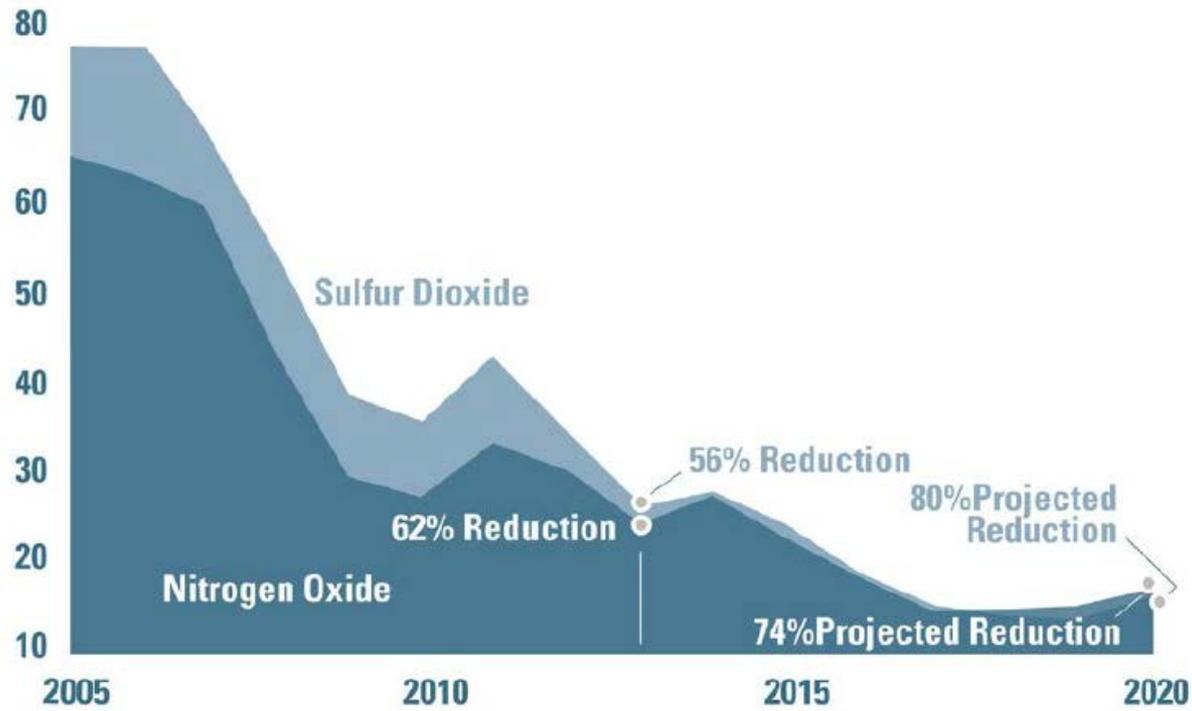
Figure 4: NSP CO₂ emissions from owned and purchased power, under Reference Case and Preferred Plan



Note: Chart shows CO₂ emissions from 2005 to 2030 (actual emissions for 2005 through 2013, forecast emissions for 2014 through 2030). Percentage reductions are relative to 2005.

Criteria pollutants

Figure 8: NSP Emissions of NO_x and SO_2
2005 to 2020



Minneapolis (draft) comments

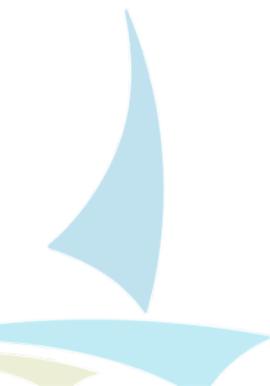
The City and Xcel Energy will continue to work collaboratively to pursue State and City goals for greenhouse gas emissions reduction and demand side management savings. **Adopting an energy savings goal above 1.5 percent may be appropriate.**



Minneapolis (draft) comments

A final resource plan with carbon intensities at or below those identified in the Preferred Plan for 2025 is necessary for the City to meet its medium-term greenhouse gas reduction goal.

(Greater reductions may be possible!)



Minneapolis (draft) comments

The adopted 2016-2030 Resource Plan should provide certainty about the timing of repowering or retirement of Sherco Units 1 and 2.



Minneapolis (draft) comments

Xcel may be underestimating the impact of, and customer demands for, distributed resources like rooftop solar and community solar gardens.



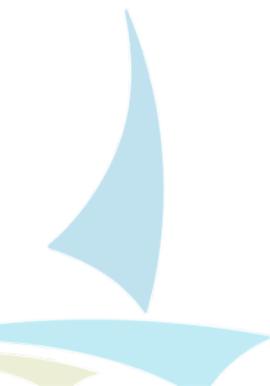
Minneapolis (draft) comments

Energy customers are increasingly seeking access to additional options for clean, renewable, affordable and reliable energy. Xcel Energy should respond to this demand proactively.



Minneapolis (draft) comments

We encourage Xcel Energy, the Commission and the Department of Commerce to continue to look beyond 2030, and plan for deep greenhouse gas emissions reductions.



Links

- Xcel Energy Resource Plan documents:

<https://www.xcelenergy.com/Company/Rates & Regulations/Resource Plans/Upper Midwest 2016-2030 Resource Plan>

- Comment to the PUC:

Mn.gov/puc → “Speak Up” link