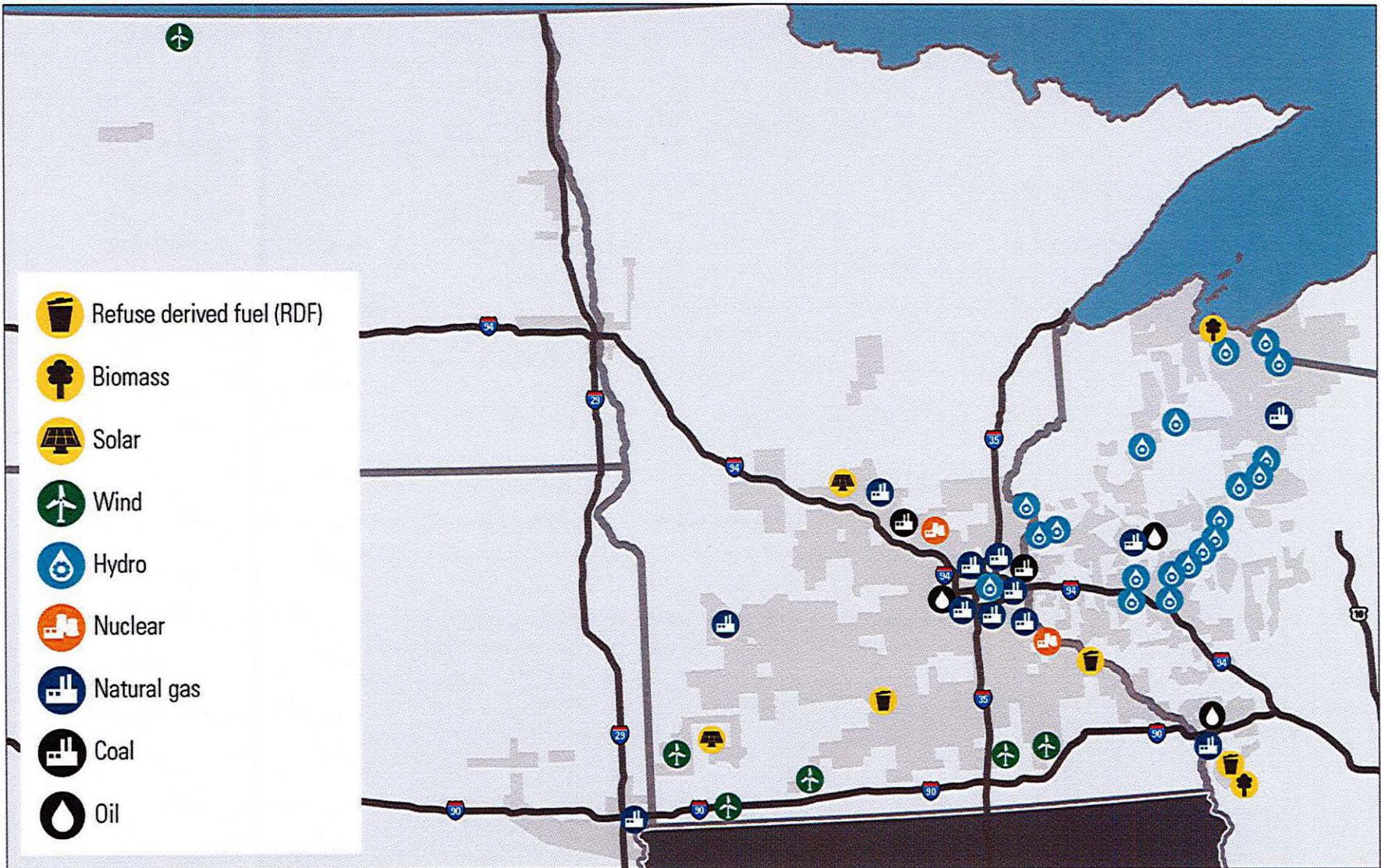




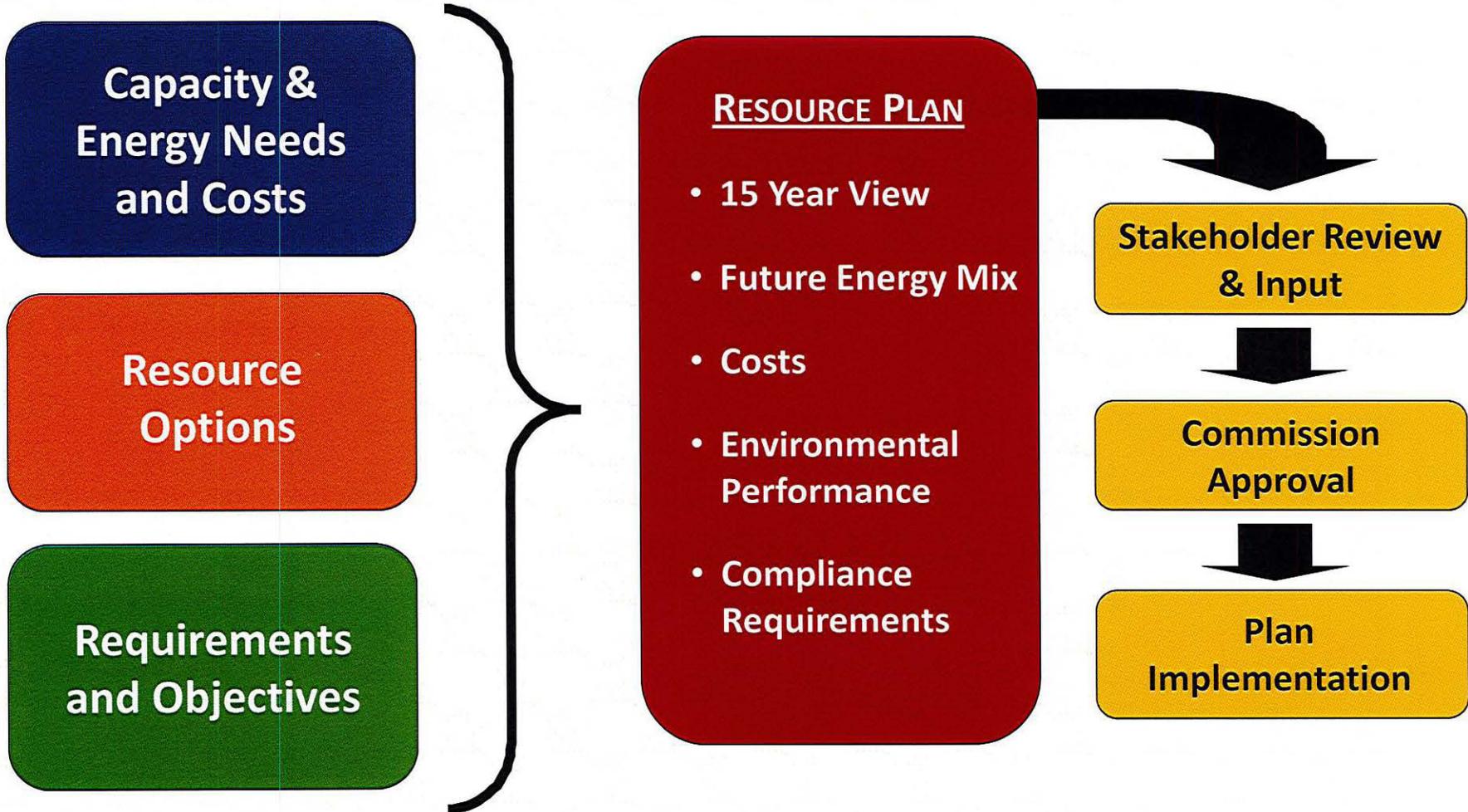
2016-2030 UPPER MIDWEST RESOURCE PLAN

BRIEFING WITH SOUTH DAKOTA
PUBLIC UTILITIES COMMISSION
OCTOBER 12-13, 2016

Upper Midwest Generation Resources

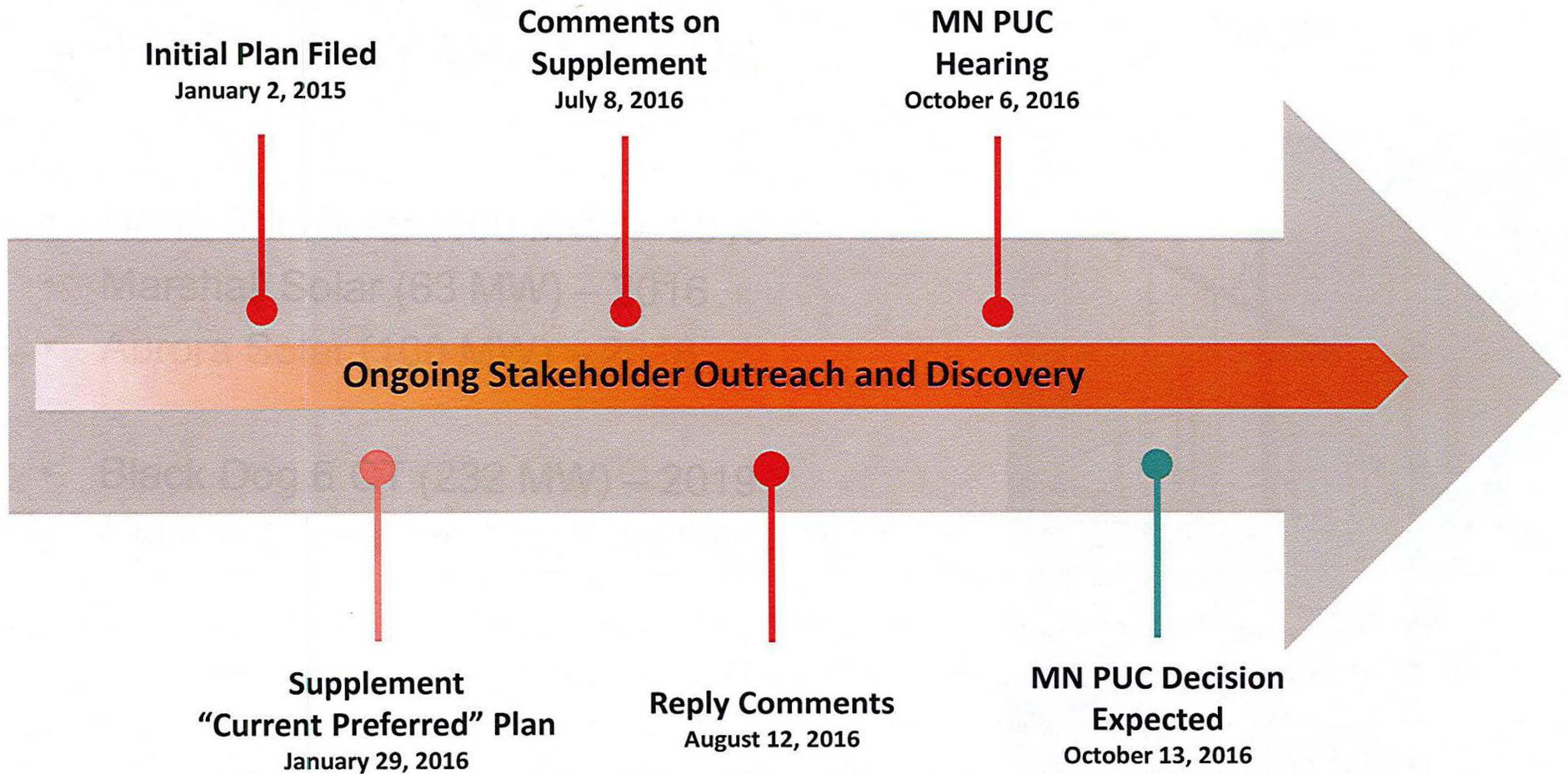
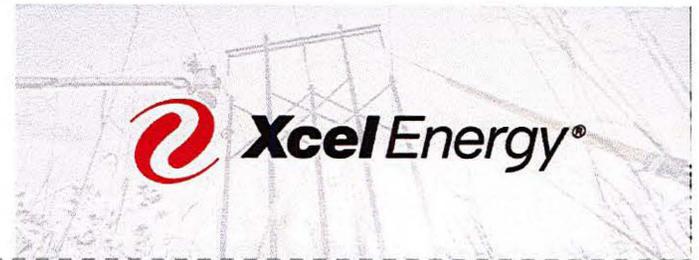


RESOURCE PLANNING PROCESS



NSP RESOURCE PLAN

MINNESOTA REGULATORY TIMELINE



KEY ELEMENTS



**Maintain
Nuclear**



Maintain 1,100 MW Prairie Island Units 1 and 2 and 671 MW Monticello

**-1,362 MW
Coal**



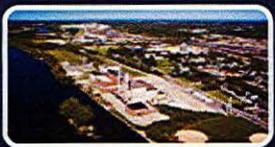
Retirement of Sherco Unit 2 (2023) and Sherco Unit 1 (2026)

**+786 MW
Combined Cycle**



New **786 MW** combined cycle unit at Sherco by 2026

**+1,380 MW
Combustion
Turbine***



1,380 MW of natural gas CT* by 2025

**+1,800 MW
Wind**



Addition of **1,000-1,500 MW** of wind by 2020 and **300-800 MW** between 2020 and 2030

**+1,000 MW
Solar**



Addition of **1,000 MW** solar between 2020 and 2030

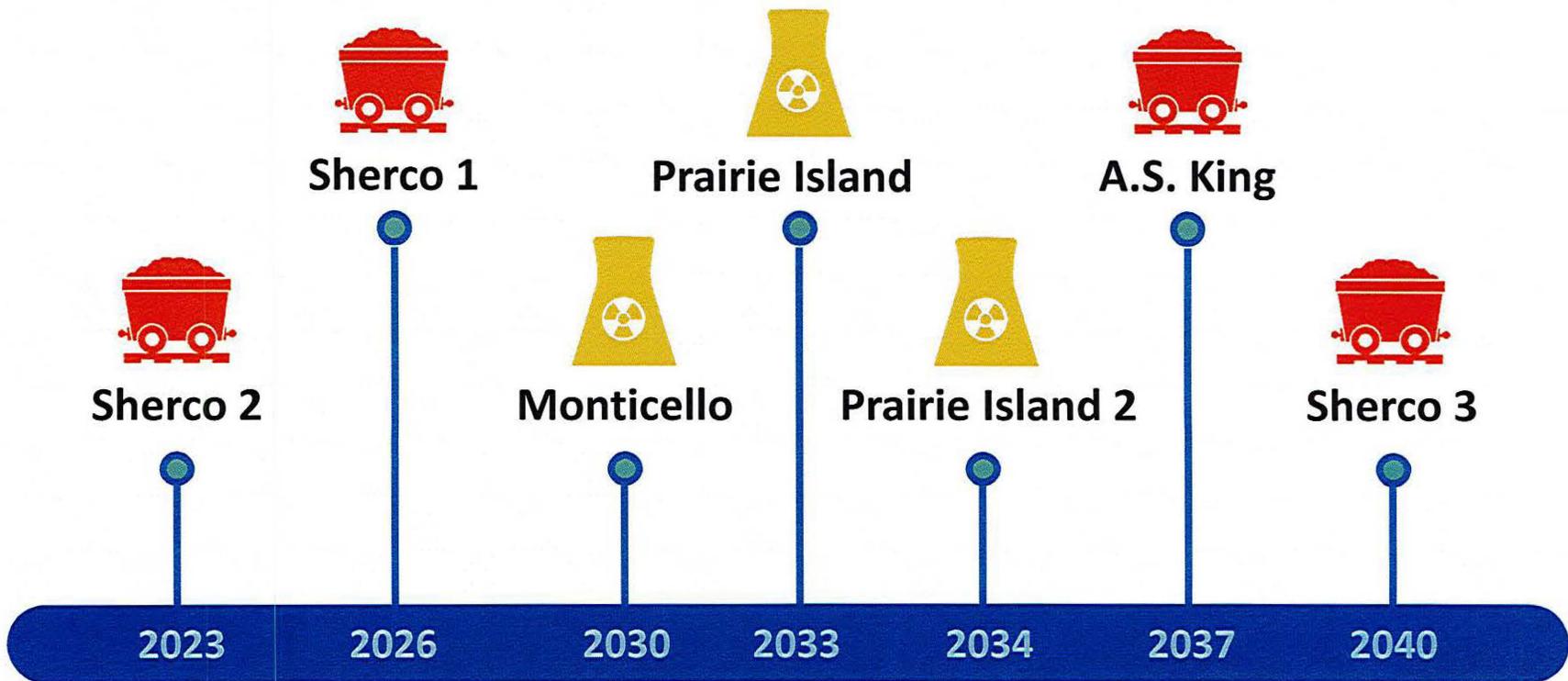
WIND RFP



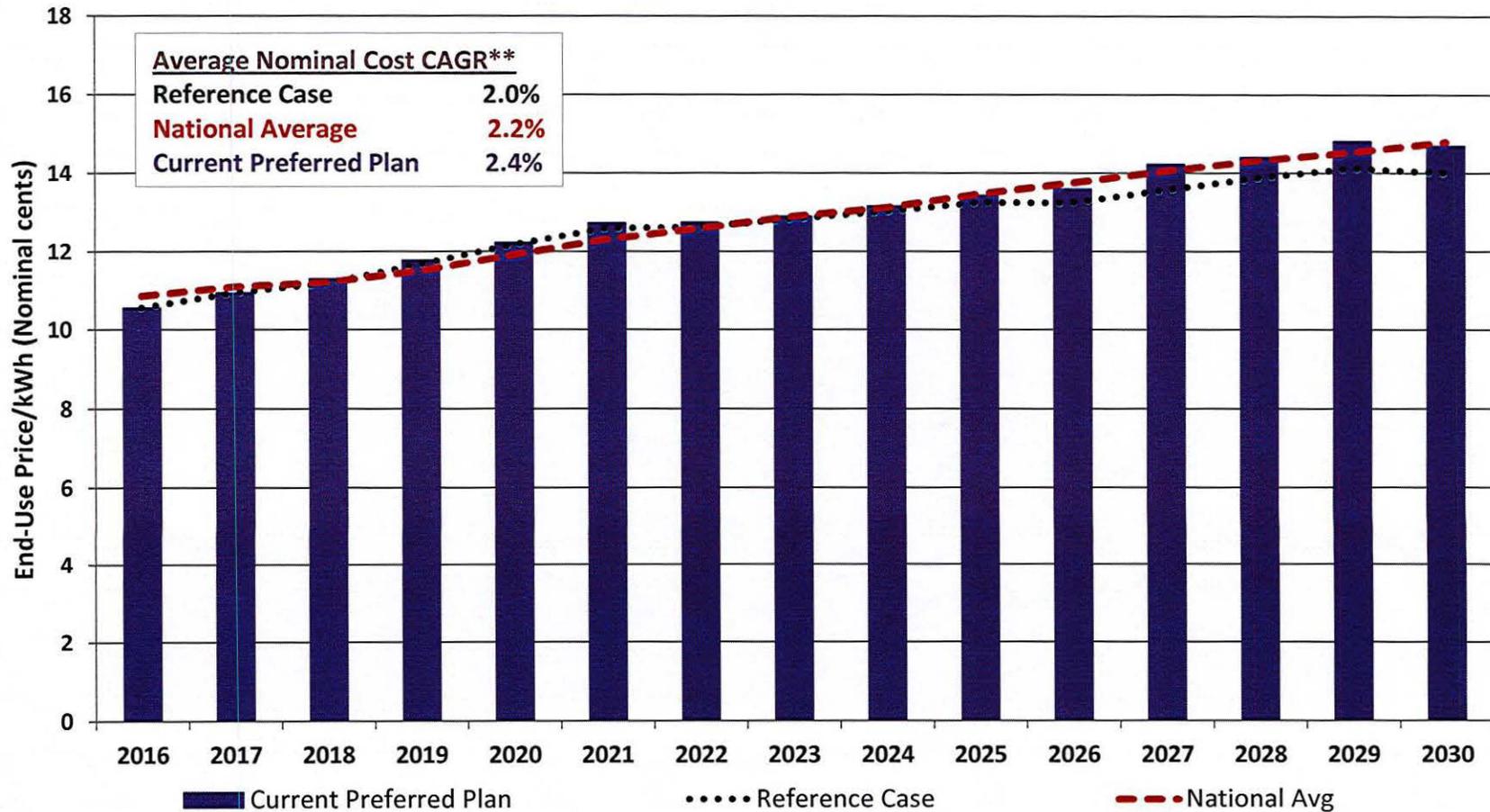
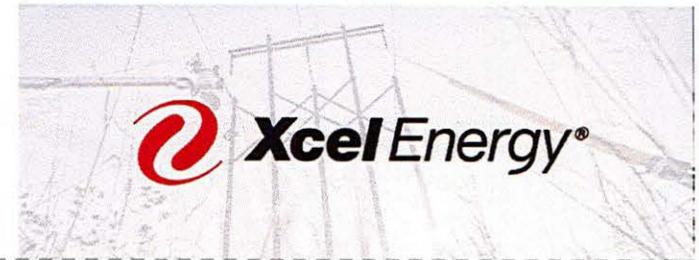
- Issued Sep 22
- Up to 1500 MW of Wind
- Soliciting PPA & Build to own
- Xcel Energy plans to submit self-build proposals for up to ½ of the 1500 MW
- Bids due Oct 25



BASELOAD FLEET TRANSITION



BENEFITS ACHIEVED AT A REASONABLE COST



*National energy cost forecast from Energy Information Administration (EIA) Annual Energy Outlook 2015, Table Energy Supply, Disposition, Prices and Emissions. End use prices, all sector average.

** CAGR = Compound Average Growth Rate

A photograph of a power line tower at sunset. The sky is a mix of orange, yellow, and dark blue. The tower is a dark metal structure with cross-arms. Power lines stretch across the frame. In the foreground, there are silhouettes of tall grasses and a road. A semi-transparent white box is overlaid on the left side of the image, containing the text "QUESTIONS?".

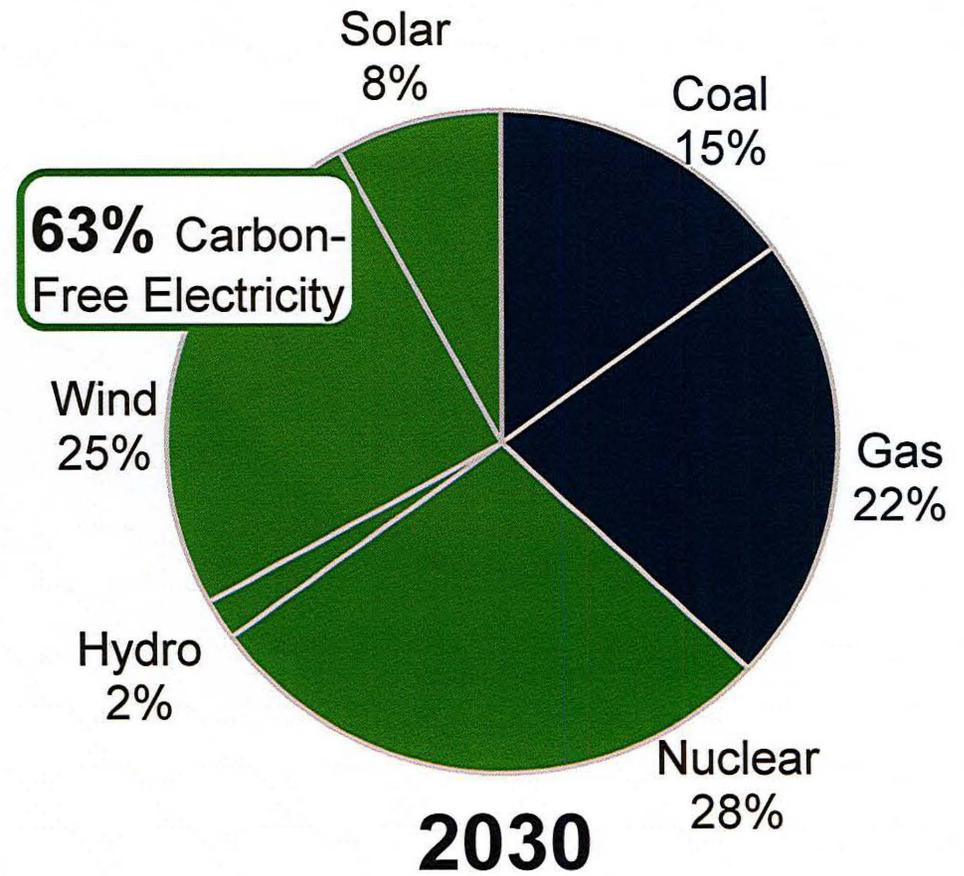
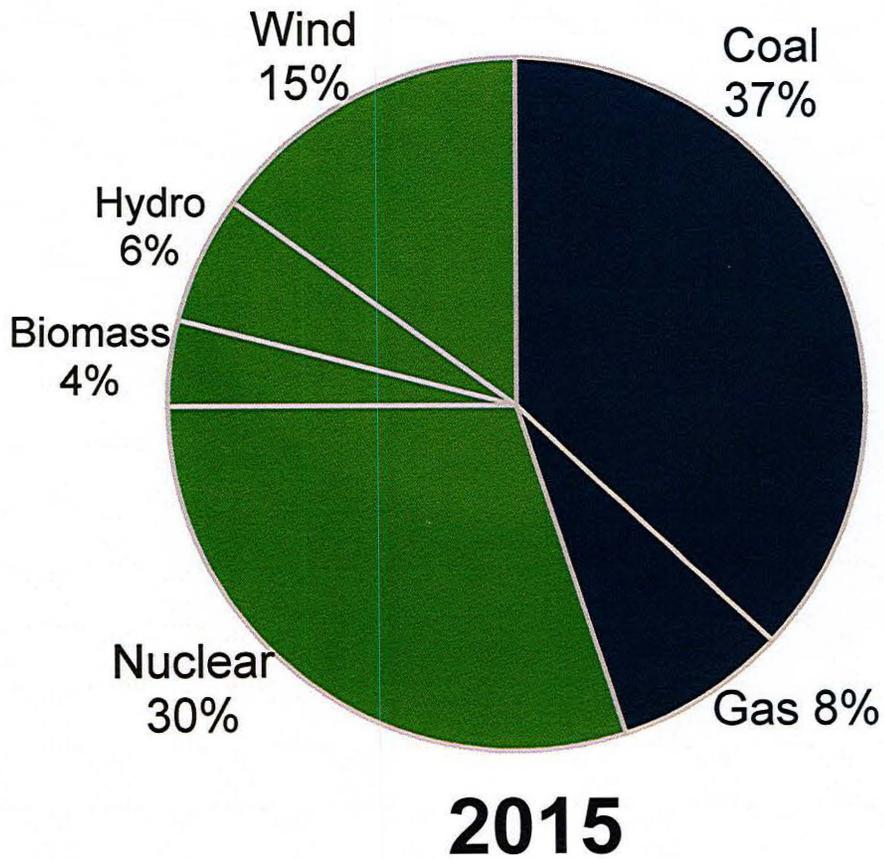
QUESTIONS?

The image is a composite graphic. The top half features a vibrant sunset sky with orange and yellow clouds. The bottom half is split into two panels: the left panel shows silhouettes of wind turbines against a dark horizon, and the right panel shows silhouettes of trees with a bright sun low on the horizon. A white horizontal band across the middle contains the text 'APPENDICES'. The entire composition is overlaid with a grid of thin white lines and decorative wavy lines at the bottom.

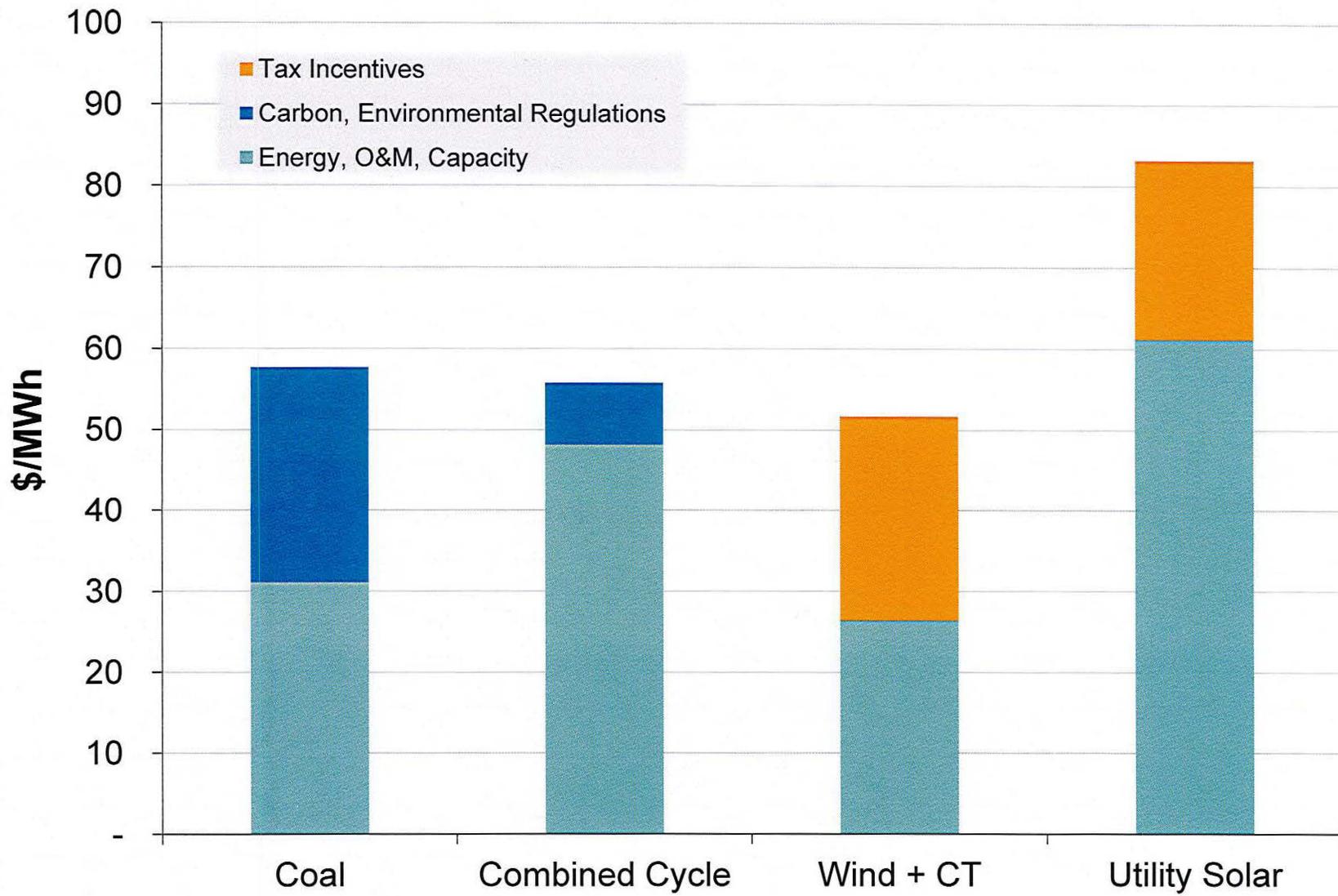
APPENDICES

ENERGY VISION:

2016-2030 UPPER MIDWEST RESOURCE PLAN



ENERGY COSTS ARE CONVERGING





Xcel Energy[®]

RESPONSIBLE BY NATURE[®]