

COMPARISON OF IRP WITH ALTERNATIVE PLANS



Xcel Energy has proposed building a huge fossil gas plant near Becker, MN. But Xcel never seriously looked at low-cost renewable energy and energy storage as alternatives to building dirty gas infrastructure that would be around for decades. Several organizations, including the Sierra Club, CEO*, and the Citizens Utility Board, developed alternative plans for generating sufficient, reliable clean energy at a lower cost than Xcel's 15-year plan. Not only do their plans produce cleaner energy, but their price tags also are \$1 billion to \$2.2 billion less expensive than Xcel's 2020-2034 plan.

	XCEL'S PREFERRED PLAN	SIERRA CLUB'S CLEAN ENERGY PLAN	CLEAN ENERGY ORGANIZATIONS* (CEO) PLAN	CITIZENS UTILITY BOARD (CUB)
COAL	RETIRES: <ul style="list-style-type: none"> • Sherco 1 in 2026 • Sherco 2 in 2023 + seasonal dispatch • Sherco 3 by 2030 • King in 2028 	-SAME-	-SAME- Plus: Seasonal dispatch of Sherco 3	RETIRES: <ul style="list-style-type: none"> • All coal plants by 2025
COMBINED CYCLE GAS	ADDS: <ul style="list-style-type: none"> • Sherco 800 MW combined cycle gas plant in 2027 	NO NEW FOSSIL GAS GENERATION	NO NEW FOSSIL GAS GENERATION	NO NEW FOSSIL GAS GENERATION
OTHER POTENTIAL GAS	ADDS: <ul style="list-style-type: none"> • 2,600 MW firm peaking 2030-2034 modeled as generic Combustion Turbine (CTs) gas plant 	NO NEW FOSSIL GAS GENERATION Including No New CTs	NO NEW FOSSIL GAS GENERATION Including No New CTs	NO NEW FOSSIL GAS GENERATION Including No New CTs RETIRES: • 559 MW CT
UTILITY SCALE RENEWABLES	ADDS: <ul style="list-style-type: none"> • 3,500 MW utility scale solar 2025-2030 • 2,250 MW new wind by 2035 	ADDS: <ul style="list-style-type: none"> • 1,350 MW utility scale solar by 2034 • 4,320 MW new wind by 2034 	ADDS: <ul style="list-style-type: none"> • 8,300 MW of wind • 5,500 MW of solar hybrid • 1,500 MW of solar 	ADDS: <ul style="list-style-type: none"> • 3,940 MW utility scale solar by 2035 • 4,522 MW new wind by 2035
UTILITY-SCALE PAIRED SOLAR-PLUS STORAGE (HYBRID SOLAR)	NONE	ADDS: <ul style="list-style-type: none"> • 4,070 MW solar • 1,080 MW battery 	REPLACES Sherco gas plant in 2027 with <ul style="list-style-type: none"> • 1,000 MW of hybrid solar • 250 MW of hybrid battery storage 	
DISTRIBUTED SOLAR	PLANS FOR: <ul style="list-style-type: none"> • 863 MW community solar • 276 MW DG solar 	PLANS FOR: <ul style="list-style-type: none"> • 2,050 MW community solar • 1,851 MW DG solar 	PLANS FOR: <ul style="list-style-type: none"> • 600 MW of distributed solar 	ADDS: <ul style="list-style-type: none"> • 1,965 MW DG solar: rooftop, community, any connected to dist. system
BATTERY STORAGE	NONE	ADDS: <ul style="list-style-type: none"> • 1,020 MW by 2034 	ADDS: <ul style="list-style-type: none"> • 1,500 MW of 6-hr flow battery • 1,400 MW of battery storage hybrid • 1,200 MW of battery storage • 1,000 MW of 8-hr flow battery 	ADDS: <ul style="list-style-type: none"> • 1,368 MW by 2035
NUCLEAR	Monticello license extension through 2040	Monticello license extension ends 2030 (no further extensions)	Monticello license extension through 2040	Monticello license extension through 2040
DEMAND-SIDE MANAGEMENT	<ul style="list-style-type: none"> • 780 GWh/year savings through 2034 • 400 MW new DR by 2023 	-SAME-	<ul style="list-style-type: none"> • 2,000 MW of energy efficiency • 500 MW demand response 	<ul style="list-style-type: none"> • 622 MW/year energy savings • 2,134 MW total DR by 2035 (1,189 new), 650-1000 MW available at any one time
CARBON FREE ELECTRICITY PRODUCTION	80% by 2030	100% by 2040	~85% by 2035	89% by 2035
REDUCTION IN RETAIL RATES				36% by 2035
SAVINGS TO CONSUMER		<ul style="list-style-type: none"> • Clean Energy for All plan will save customers more than \$2.2 billion over the planning period (2020-2034) compared to Xcel's plan, and achieve 90% reduction in carbon emissions by 2030 	<ul style="list-style-type: none"> • Several hundred millions of dollars less than Xcel's plan with Sherco gas • Avoids 35 million tons of CO₂ by 2045 • Avoids thousands of tons of nitrogen oxides and particulate matter 	<ul style="list-style-type: none"> • Saves ratepayers \$1 billion per year by 2035, \$6.45 billion total between 2020 and 2040 • 2.15 cents/kWh cheaper than Xcel's plan

* CEO = Clean Energy Organizations - a collective of Fresh Energy, Clean Grid Alliance, Union of Concerned Scientists, and Minnesota Center for Environmental Advocacy.