

APPENDIX K

Generation Project Operation Detail

Lyon County Generating Station Project
Combined Application
MPUC Docket Nos. E002/CN-25-145, G002/GS-25-154,
E002/TL-25-161 & G002/GP-25-163
May 2025

Appendix K
Project Operational and Cost Data
Lyon County Generating Station

Table K-1 Project Generating Capability, Each Turbine

Summer Conditions (95°F, 20% Relative Humidity)			
Capability		Net Heat Rate (Btu/kWh) (HHV)	Efficiency (%) (HHV)
% of Base	MW		
<i>[TRADE SECRET DATA BEGINS...]</i>			
██████████	████	██████	████
<i>...TRADE SECRET DATA ENDS]</i>			
Winter Conditions 30°F, 60% Relative Humidity)			
Capability		Net Heat Rate (Btu/kWh) (HHV)	Efficiency (%) (HHV)
% of Base	MW		
<i>[TRADE SECRET DATA BEGINS...]</i>			
██████████	████	██████	████
<i>...TRADE SECRET DATA ENDS]</i>			
Reference Temperature Conditions (52°F, 55% Relative Humidity)			
Capability		Net Heat Rate (Btu/kWh) (HHV)	Efficiency (%) (HHV)
% of Base	MW		
<i>[TRADE SECRET DATA BEGINS...]</i>			
██████████	████	██████	████
████	████	██████	████
██████████	████	██████	████
<i>...TRADE SECRET DATA ENDS]</i>			

Table K-2 Project Fuel Requirements – Lyon County Generating Station

Rule Reference	Description	Project Data
7849.0320, C(1)	Fuel Source	Northern Border Pipeline Co.
		<i>[TRADE SECRET DATA BEGINS...</i>
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
		<i>...TRADE SECRET DATA ENDS]</i>

Table K-3
Project Cost Summary Lyon County Generating Station

Item	Lyon County Generating Station
In-Service Date	December 2028
	<i>[TRADE SECRET DATA BEGINS...</i>
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
	<i>...TRADE SECRET DATA ENDS]</i>
Estimated number of construction jobs	170 FTEs
Estimated number of operations jobs	5 FTEs

Table K-4
Additional Content Requirements

Rule Reference	Description	Project Data
7849.0250, A(1)	Nominal Generating Capability of each Unit	210 MW
7849.0250, A(2)	Operating Cycle	Simple Cycle
7849.0250, A(2)	Expected Annual Capacity Factor	10%
7849.0250, C(2)	Service Life	40 years
7849.0250, C(3)	Estimated Average Annual Availability	+95%
7849.0320, A	Estimated Land Requirements	Up to approximately 40 acres for CT's and associated facilities
7849.0320, E (1)	Estimated Maximum Groundwater Pumping Rate for each Unit	67 gal/min
	Surface Water Appropriation	None
7849.0320, E (2)	Estimated Annual Project Groundwater Appropriation (assuming RO purification process)	788 gal/year
7849.0320, E (3)	Annual Project Surface Water Consumption	None