

**STATE OF MINNESOTA
MINNESOTA PUBLIC UTILITIES COMMISSION**

In the Matter of Xcel Energy's Competitive
Resource Acquisition Process for up to 800
Megawatts of Firm Dispatchable
Generation

Docket No. E002/CN-23-212

**INITIAL COMMENTS REGARDING
COMPLETENESS AND
SUPPLEMENTAL INFORMATION
OF INVENERGY LLC**

I. INTRODUCTION

Invenergy LLC (Invenergy) and its affiliates Lake Wilson Solar Energy LLC and Invenergy Cannon Falls LLC submit these initial comments in response to the Minnesota Public Utilities Commission (Commission) Notice of Comment Period, issued January 26, 2024 (Notice), and the following supplemental information:

1. Revised Checklists for the Lake Wilson Energy Center (Lake Wilson) and the Cannon Falls Thermal Energy Center (Cannon Falls);
2. Information addressing IRP Order, C.2 and 800 FD Order, Metric 61 for Cannon Falls;
3. Information addressing IRP Order, C.2. and C.4. for Lake Wilson; and
4. Data Intake Forms for Cannon Falls and Lake Wilson (filed separately as trade secret data).

II. COMPLETENESS COMMENTS

At this time, Invenergy does not have any comments regarding the completeness of Xcel Energy's and the other bidders' proposals. Including Xcel Energy's proposals, thirteen proposals were filed pursuant to Xcel Energy's competitive resource acquisition process. Procedurally, the Commission approved a competitive resource acquisition process with a framework similar to a Certificate of Need process in which Xcel Energy's preferred option and alternative proposals are

considered. These proposals far exceed the need of 800 MW of firm dispatchable resources as identified in the Commission’s Xcel Energy’s 2019 Integrated Resource Plan (IRP) order, which required Xcel Energy to use the Xcel-Bid Contested Case/Track 2 Process.¹ Due to the competitiveness and complexity of these proposals, this matter should be referred to the Office of Administrative Hearings for contested case proceedings.

III. SUPPLEMENTAL INFORMATION FOR CANNON FALLS

The following information applies to Section 11.3 of the proposal.

IRP Order C.2 – Expected Minimum Load: The expected minimum load is 80 MW per unit.

The following information applies to Section 12.3 of the proposal.

800 FD Order, Metric 61 – The Socioeconomic Factors of a Project’s Location: The socioeconomic factors at the Cannon Falls Facility are seen through tax revenue generated and contributions to the city of Cannon Falls via utilization of local suppliers and donations as seen in Tables 5 and 6 below.

Table 5: Cannon Falls Facility Local Vendors

Supplier	Description
Midwest Machinery	Various industrial type supplies
ACE Hardware	Used for various consumables along with event rentals
Kens Motor Repair	Motor rebuilds and new purchases
Ottomatic Lawn Care	Lawn care and snow removal
Mechanical Systems	Mechanical fabrication and on-site mechanical repairs and upgrades
Neufeld	Structural engineering and construction services.
Harris	HVAC services

¹ *In re Xcel Energy’s 2020-2034 Upper Midwest Integrated Resource Plan*, MPUC Docket No. E002/RP-19-368, Order Approving Plan with Modifications and Establishing Requirements for Future Filings at 32-33 (Order Points 3 and 6) (Apr. 15, 2022).

L&S Electric	Electrical testing, modification, and repair services.
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Table 6: Cannon Falls Facility Charitable Contributions

Organization	Amount
Food Shelf	\$1,500
Cannon Falls Police Department	\$1,500
Cannon Falls Fire Department	\$1,000
Cannon Falls Ambulance Service	\$1,000
Cannon Falls Museum	\$1,000
Cannon High School Scholarship	\$3,000
Cannon Valley Fair Sponsorship	\$1,000

800 FD Order, Metric 61 – The Involvement of Local Government, Community Organizations and, Where Relevant, Tribal Nations: The Cannon Falls Facility is not directly involved with the local government, community organizations, or tribal nations.

800 FD Order, Metric 61 – The Commitment to The Use of Diverse Suppliers, as Demonstrated by a History of Use on Recent Projects: As an existing facility, the Project is no longer pursuing additional suppliers and the current diversity of its existing suppliers is unknown.

800 FD Order, Metric 61 – The Payment of Prevailing Wages, and Workforce Training Opportunities: All seven full-time employees are compensated at prevailing-wage rates. Each year, the technicians receive training on forklift operation, safety, fire protection, and other site related tasks.

The revised completeness checklist for Cannon Falls is included in Attachment A.

IV. SUPPLEMENTAL INFORMATION FOR LAKE WILSON

The following information applies to Section 7.3 of the proposal.

IRP Order C.2 – Expected Minimum Load: The Lake Wilson Energy Center can be scheduled down to no load on the system; however, the BESS can be scheduled down to negative load.

IRP Order C.4 – Limitations on Operations: The Lake Wilson Energy Center plans to sell the generation at the project busbar. The solar portion of the facility is able to follow Automatic Generation Control signals and is subject to the temperature constraints in Section 7.4.3 based on the current assumed equipment. The BESS portion of the facility is limited to one cycle/day of operation and temperature constraints based on the final selection of equipment.

The revised completeness checklist for Lake Wilson is included in Attachment B.

Dated: February 16, 2024

Respectfully submitted,

/s/ Ingrid Bjorklund

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ATTORNEY FOR INVENERGY LLC

Attachment A: Revised Application Content Requirements Completeness
Checklist for the Cannon Falls Thermal Energy Center

**REVISED APPLICATION CONTENT REQUIREMENTS
COMPLETENESS CHECKLIST
CANNON FALLS THERMAL ENERGY CENTER**

Minnesota Rule	Required Information	Application Section(s)	Exemption Granted
7849.0200, Subp. 4	Cover Letter	Filed Separately	No
7829.0500, Subp. 2	Brief summary of filing on separate page sufficient to apprise potentially interested parties of its nature and general content	Page ii	No
7849.0200, Subp. 2	Title Page and Table of Contents	Pages iii-iv	No
7849.0240	Need Summary and Additional Considerations	3.0	Yes - Partial
Subp. 1	Summary of major factors that justify the need for the proposed facility	3.1	No
Subp. 2	Relationship of the proposed facility to the following socioeconomic considerations	3.2	Yes - Partial
Subp. 2(A)	Socially beneficial uses of the output of the facility;	-	Yes
Subp. 2(B)	Promotional activities that may have given rise to the demand for the facility; and	-	Yes
Subp. 2(C)	Effects of the facility in inducing future development	3.2.1	No
7849.0250	Proposed LEGF and Alternatives	4.0	Yes - Partial
A.	A description of the facility, including:	4.0	No
(1)	Nominal generating capability of the facility, and discussion of economies of scale on facility size and timing;	4.1	No
(2)	Description of anticipated operating cycle, including expected annual capacity factor;	4.2	No
(3)	Type of fuel used, including the reason for the choice, its projected availability over the facility's life, and alternate fuels, if any;	4.3	No
(4)	Anticipated heat rate of the facility; and	4.4	No
(5)	To fullest extent known to applicant, the anticipated area(s) the facility could be located;	4.5	No
B.	Discussion of Alternatives – Purchased power	-	Yes
C.	Proposed Facility and Alternatives	-	Yes
D.	A map showing applicant's system; and	4.6	No
E.	Other information about the facility and alternatives relevant to determination of need.	None	No
7849.0270	Peak Demand and Annual Consumption Forecast	-	Yes
7849.0280	System Capacity Description	-	Yes
7849.0290	Conservation Programs	-	Yes
7849.0300	Consequences of Delay	-	Yes

Minnesota Rule	Required Information	Application Section(s)	Exemption Granted
7849.0310	Required Environmental Information	9.0	No
7849.0320	Information for Generating Facilities and Alternatives	-	Yes unless new resource
7849.0340	No-Facility Alternative	-	Yes
IRP Order	Supplementary Data Required for Alternative Providers	11.0	No
A.	Developer experience and qualifications.	11.1	No
B.	Pricing of the proposal,	11.2	No
(1)	The term	11.2	No
(2)	In-service date	11.2	No
(3)	Contract capacity	11.2	No
(4)	Capacity payment	11.2	No
(5)	Fixed operations and maintenance payment	11.2	No
(6)	Variable operations and maintenance payment	11.2	No
(7)	Fuel payment	11.2	No
(8)	Tax-related payments and other costs	11.2	No
C.	Scheduling provisions, including but not limited to	11.3	No
(1)	Planned maintenance	11.3	No
(2)	Expected minimum load	11.3 (supplemental filing)	No
(3)	Ramp rates	11.3	No
(4)	Limitations on operations	11.3	No
D.	Discussion of the guaranteed performance factors, such as construction costs, unit completion, availability, and efficiency.	11.4	No
E.	Any other key contract terms the provider requires.	11.5	No
800 FD Order	Supplementary Data Required for All Providers	12.0	No
Metric 32	Provide a climate change analysis of the proposal consistent with the Minnesota Environmental Quality Board's environmental assessment worksheet guidance for developing a carbon footprint and incorporating climate adaptation and resilience	12.1; see also 9.0	No
Metric 32	Identifying whether the proposal is located in an environmental justice area using census criteria in Minnesota Statute 216B.1691, subd. 1(e)	12.2	No
Metric 61	Information necessary for consideration of Energy Justice factors	12.3	No
	The socioeconomic factors of a project's location	12.3 (supplemental filing)	No

Minnesota Rule	Required Information	Application Section(s)	Exemption Granted
	The involvement of local government, community organizations and, where relevant, Tribal Nations	12.3 (supplemental filing)	No
	The estimated local tax revenue it will produce	12.3	No
	The temporary and permanent jobs it will create	12.3	No
	The commitment to the use of diverse suppliers, as demonstrated by a history of use on recent projects	12.3 (supplemental filing)	No
	The payment of prevailing wages, and workforce training opportunities	12.3 (supplemental filing)	No
§§ 216B.2422, subd. 4; 216B.243, subd. 3a	Whether the applicant for a project generating nonrenewable energy has demonstrated that the project is less expensive than one generating renewable energy or is otherwise in the public interest.	13.1	No
§ 216B.243, subd. 3(10)	Whether the applicant is in compliance with Minnesota's renewable energy objectives, including purchasing energy from C-BED projects.	13.2	No
§ 216B.2426	Whether the applicant has considered the opportunities for installation of distributed generation.	13.3	No
§ 216B.243, subd. 3(12)	Whether an applicant proposing a nonrenewable energy generating plant has assessed the risk of environmental costs and regulation over the expected useful life of the plant.	13.4	No
§ 216B.1694, subd.(2)(5)	Innovative Energy Project Whether the applicant has considered an innovative energy project as a supply option before expanding a fossil-fuel-fired generation facility or entering into a 5+-year purchased power agreement.	13.5	No

Attachment B: Revised Application Content Requirements Completeness
Checklist for the Lake Wilson Energy Center

**REVISED APPLICATION CONTENT REQUIREMENTS
COMPLETENESS CHECKLIST
LAKE WILSON ENERGY CENTER**

Minnesota Rule	Required Information	Application Section(s)	Exemption Granted
7849.0200, Subp. 4	Cover Letter	Filed Separately	No
7829.0500, Subp. 2	Brief summary of filing on separate page sufficient to apprise potentially interested parties of its nature and general content	Page ii	No
7849.0200, Subp. 2	Title Page and Table of Contents	Pages iii-vii	No
7849.0240	Need Summary and Additional Considerations	3.0	No
Subp. 1	Summary of major factors that justify the need for the proposed facility	3.1	No
Subp. 2	Relationship of the proposed facility to the following socioeconomic considerations	3.2	Yes - Partial
Subp. 2(A)	Socially beneficial uses of the output of the facility;	3.2.1	Yes
Subp. 2(B)	Promotional activities that may have given rise to the demand for the facility; and	-	Yes
Subp. 2(C)	Effects of the facility in inducing future development	3.2.2	No
7849.0250	Proposed LEGF and Alternatives	4.0	Yes - Partial
A.	A description of the facility, including:	4.1	No
(1)	Nominal generating capability of the facility, and discussion of economies of scale on facility size and timing;	4.1.1	No
(2)	Description of anticipated operating cycle, including expected annual capacity factor;	4.1.2	No
(3)	Type of fuel used, including the reason for the choice, its projected availability over the facility's life, and alternate fuels, if any;	4.1.3	No
(4)	Anticipated heat rate of the facility; and	4.1.4	No
(5)	To fullest extent known to applicant, the anticipated area(s) the facility could be located;	4.1.5	No
B.	Discussion of Alternatives – Purchased power	-	Yes
C.	Proposed Facility and Alternatives	-	Yes
D.	A map showing applicant's system; and	4.2; Figures 4 & 5	No
E.	Other information about the facility and alternatives relevant to determination of need.	None	No
7849.0270	Peak Demand and Annual Consumption Forecast	-	Yes
7849.0280	System Capacity Description	-	Yes
7849.0290	Conservation Programs	-	Yes
7849.0300	Consequences of Delay	-	Yes

Minnesota Rule	Required Information	Application Section(s)	Exemption Granted
7849.0310	Required Environmental Information	5.0	No
7849.0320	Information for Generating Facilities and Alternatives	6.0	No
A.	Estimated land requirements for facility, water storage, cooling system, and solid waste storages	6.1	No
B.	Estimated amount of vehicular, rail, and barge traffic due to construction and operation	6.2	No
C.	For fossil-fueled facilities	6.3	No
(1)	Expected regional sources of fuel	6.3.1	No
(2)	Typical hourly and annual fuel requirement	6.3.1	No
(3)	Expected rate of heat input in Btu/hour	6.3.1	No
(4)	Typical range of fuel's heat value and typical average of fuel's heat value	6.3.1	No
(5)	Typical ranges of sulfur, ash, and moisture content of fuel	6.3.1	No
D.	Fossil-fuel facilities – Emissions	6.3.2	No
(1)	Estimated range of emissions of sulfur dioxide, nitrogen oxides, and particulates in pounds/hour	6.3.2	No
(2)	Estimated range of maximum contributions to 24-hr ground level concentrations of sulfur dioxide, nitrogen oxides, and particulates in micrograms per cubic meter	6.3.2	No
E.	Water Use for Alternate Cooling Systems	6.4	No
(1)	Estimated maximum use, including groundwater pumping rate in gallons/minute and surface water appropriation in cubic feet/second	6.4	No
(2)	Estimated groundwater appropriation in million gallons/year	6.4	No
(3)	Annual consumption in acre-feet	6.4	No
F.	Sources and types of discharges to water	6.5	No
G.	Radioactive releases	6.6	No
(1)	For nuclear facilities, typical types/amounts of radionuclides released in curies/year	6.6	No
(2)	For fossil-fueled facilities, estimated range of radioactivity released in curies per year;	6.6	No
H.	Types and quantities of solid wastes in tons/year	6.7	No
I.	Sources and types of audible noise attributable to facility operation	6.8	No
J.	Estimated work force required for facility construction and operation	6.9; see also 3.2.1	No
K.	Minimum number and size of transmission facilities required to provide a reliable outlet for the generating facility	6.10	No
7849.0340	No-Facility Alternative	-	Yes
IRP Order	Supplementary Data Required for Alternative Providers	7.0	No
A.	Developer experience and qualifications.	7.1	No
B.	Pricing of the proposal,	7.2	No

Minnesota Rule	Required Information	Application Section(s)	Exemption Granted
(1)	The term	7.2	No
(2)	In-service date	7.2	No
(3)	Contract capacity	7.2	No
(4)	Capacity payment	7.2	No
(5)	Fixed operations and maintenance payment	7.2	No
(6)	Variable operations and maintenance payment	7.2	No
(7)	Fuel payment	7.2	No
(8)	Tax-related payments and other costs	7.2	No
C.	Scheduling provisions, including but not limited to	7.3	No
(1)	Planned maintenance	7.3	No
(2)	Expected minimum load	7.3 (supplemental filing)	No
(3)	Ramp rates	7.3	No
(4)	Limitations on operations	7.3 (supplemental filing)	No
D.	Discussion of the guaranteed performance factors, such as construction costs, unit completion, availability, and efficiency	7.4	No
E.	Any other key contract terms the provider requires.	7.5	No
800 FD Order	Supplementary Data Required for All Providers	8.0	No
Metric 32	Provide a climate change analysis of the proposal consistent with the Minnesota Environmental Quality Board's environmental assessment worksheet guidance for developing a carbon footprint and incorporating climate adaptation and resilience	8.1; see also 5.0 and 6.0	No
Metric 32	Identifying whether the proposal is located in an environmental justice area using census criteria in Minnesota Statute 216B.1691, subd. 1(e)	8.2	No
Metric 61	Information necessary for consideration of Energy Justice factors	8.3; see also 3.2.1	No
	The socioeconomic factors of a project's location	8.3.1	No
	The involvement of local government, community organizations and, where relevant, Tribal Nations	8.3.2	No
	The estimated local tax revenue it will produce	8.3.3	No
	The temporary and permanent jobs it will create	8.3.4	No
	The commitment to the use of diverse suppliers, as demonstrated by a history of use on recent projects	8.3.5	No
	The payment of prevailing wages, and workforce training opportunities	8.3.6; see also 3.2.1	No
Metric 32	Minn. R. 7849.1500 Subp. 2: Impacts of Power Plants	9.0	No
A.	The anticipated emissions of the following pollutants expressed as an annual amount at the maximum rated capacity of the project and as an amount produced per kilowatt hour and the	9.1	No

Minnesota Rule	Required Information	Application Section(s)	Exemption Granted
	calculations performed to determine the emissions: sulfur dioxide, nitrogen oxides, carbon dioxide, mercury, and particulate matter, including particulate matter under 2.5 microns in diameter		
B.	The anticipated emissions of any hazardous air pollutants and volatile organic compounds	9.2	No
C.	The anticipated contribution of the project to impairment of visibility within a 50-mile radius of the plant	9.3; see also 5.1	No
D.	The anticipated contribution of the project to the formation of ozone expressed as reactive organic gases. Reactive organic gases are chemicals that are precursors necessary to the formation of ground-level ozone	9.4	No
E.	The availability of the source of fuel for the project, the amount required annually, and the method of transportation to get the fuel to the plant	9.5	No
F.	Associated facilities required to transmit the electricity to customers	9.6	No
G.	The anticipated amount of water that will be appropriated to operate the plant and the source of the water if known	9.7; see also 6.4	No
H.	The potential wastewater streams and the types of discharges associated with such a project including potential impacts of a thermal discharge	9.8; see also 6.5	No
I.	The types and amounts of solid and hazardous wastes generated by such a project, including an analysis of what contaminants may be found in the ash and where the ash might be sent for disposal or reuse	9.9; see also 6.7	No
J.	The anticipated noise impacts of a project, including the distance to the closest receptor where state noise standards can still be met	9.10; see also 6.8	No
§§ 216B.2422, subd. 4; 216B.243, subd. 3a	Whether the applicant for a project generating nonrenewable energy has demonstrated that the project is less expensive than one generating renewable energy or is otherwise in the public interest.	10.1; 10.2	No
§ 216B.243, subd. 3(10)	Whether the applicant is in compliance with Minnesota's renewable energy objectives, including purchasing energy from C-BED projects.	11.0	No
§ 216B.2426	Whether the applicant has considered the opportunities for installation of distributed generation.	12.0	No
§ 216B.243, subd. 3(12)	Whether an applicant proposing a nonrenewable energy generating plant has assessed the risk of environmental costs and regulation over the expected useful life of the plant.	13.0	No

Minnesota Rule	Required Information	Application Section(s)	Exemption Granted
§ 216B.1694, subd. (2)(5)	Whether the applicant has considered an innovative energy project as a supply option before expanding a fossil-fuel-fired generation facility or entering into a 5+-year purchased power agreement.	14.0	No