MINNESOTA DEPARTMENT OF COMMERCE

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AN EQUAL OPPORTUNITY EMPLOYER

May 6, 2016

Daniel Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

RE: EERA Comments and Recommendations – Proposed Findings and Conclusions
Mankato Energy Center Expansion
Docket No. IP6949/GS-15-620

Dear Mr. Wolf,

Attached are comments and recommendations of Department of Commerce, Energy Environmental Review and Analysis (EERA) staff in the following matter:

> In the Matter of Mankato Energy Center II, LLC's Application for Site Permit for the 345 MW Expansion of the Mankato Energy Center

The application was filed on August 5, 2015, by:

> Heidi Whidden
> Calpine Corporation
> 500 Delaware Ave., Suite 600
> Wilmington, DE 19801

EERA staff's comments and recommendations address public comments on the environmental assessment prepared for the project and the applicant's proposed findings and conclusions. Staff is available to answer any questions the Commission may have.

Sincerely,

Ray Kirsch
EERA Staff

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BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

COMMENTS AND RECOMMENDATIONS OF MINNESOTA DEPARTMENT OF COMMERCE ENERGY ENVIRONMENTAL REVIEW AND ANALYSIS

DOCKET NO. IP6949/GS-15-620

Date: May 6, 2016

EERA Staff: Ray Kirsch……651-539-1841

In the Matter of Mankato Energy Center II, LLC's Application for a Site Permit for the 345 MW Expansion of the Mankato Energy Center

Issues Addressed: These comments and recommendations address: (1) public comments on the environmental assessment prepared for the project and (2) the applicant's proposed findings and conclusions for the project.

Documents Attached: EERA edited findings of fact

Additional documents and information can be found on eDockets: https://www.edockets.state.mn.us/EFiling/search.jsp (15-620) and on the Department's website: http://www.mn.gov/commerce/energyfacilities/Docket.html?Id=34238.

This document can be made available in alternative formats (i.e. large print or audio) by calling 651-539-1530 (voice).

Introduction and Background

On March 7, 2016, administrative law judge James E. LaFave presided over a public hearing on behalf of the Commission for Mankato Energy Center II, LLC's proposed 345 MW expansion of the Mankato Energy Center.[1] Citizens were afforded the opportunity to provide oral comments at the hearing and written comments through March 18, 2015.[2] Subsequently, Mankato Energy Center II, LLC (applicant) provided proposed findings of fact and conclusions of law for the project.[3] On April 13, 2016, Judge LaFave filed a summary of public testimony from the public hearing.[4]

[1] Ex. 17 (Notice of Public Hearing). All exhibit references are to the final exhibit list filed by the court reporter for the hearing, eDockets Number 20162-118060-01.
[2] Id.
[3] Proposed Findings of Fact Regarding the Expansion of the Mankato Energy Center, April 15, 2016, eDockets Number 20164-120151-01; Revised Findings of Fact for the Proposed 345 MW Expansion of the Mankato Energy Center, April 22, 2016, eDockets Number 20164-120529-01.
[4] Summary of Public Testimony, Office of Administrative Hearings, April 13, 2016, eDockets Number 20164-120013-01.

Department of Commerce, Energy Environmental Review and Analysis (EERA) staff provides these comments to address: (1) public comments on the environmental assessment (EA) prepared for the project and (2) the applicant's proposed findings of fact and conclusions of law (FOF) for the project.

EERA Responses to Comments on the Environmental Assessment

One comment was made during the public hearing regarding the environmental assessment (EA).[5] This comment was addressed by EERA staff at the hearing.[6] Two written comments were received during the public hearing comment period – a comment letter from the Minnesota Pollution Control Agency (MPCA)[7] and a comment letter from the applicant.[8] The MPCA indicated that it had no comments on the EA.[9] EERA staff provides these responses to the applicant's letter to ensure a complete record for the Commission.

Applicant Comments

The applicant noted that it found the EA to be a "concise and accurate representation of the project and its potential impacts."[10] The applicant agreed with the conclusions provided in the EA and had no comments on them.[11]

The applicant provided several points of clarification regarding information in the EA:[12]

- The new scheduled commercial operation date for the project is June 1, 2019, not July 1, 2018, as noted in the EA,
- The construction area for the combustion turbine generator and heat recovery steam generator is not – as noted in the EA – a paved impervious surface, but rather a graveled surface,
- Though there are no wetlands on the MEC site, there are wetlands outside of the site on property owned by the applicant, and
- The applicant clarified that it will utilize silt fencing solely for stormwater management as required by the stormwater construction permit for the project.

EERA staff finds that these points of clarification do not require amendment of the EA. They do not change the analysis in the EA regarding the potential impacts of the project or possible mitigation measures.

Lastly, the applicant requested amendment of Section 4.2.4 of the Commission's generic site permit

[5] Public Hearing Comments of Mr. Drew Campbell, March 7, 2016, at 21-22, eDockets Number 20163-119204-01 [hereinafter Public Hearing Transcript].
[6] Public Hearing Comments of Mr. Ray Kirsch, at 21-22, Public Hearing Transcript.
[7] Comment Letter from the Minnesota Pollution Control Agency, March 18, 2016, eDockets Number 20163-119582-01 [hereinafter MPCA Comment Letter].
[8] Comments on the Environmental Assessment Prepared for the Proposed 345 MW Expansion of the Mankato Energy Center, Calpine Corporation, March 18, 2016, eDockets Number 20163-119274-01 [hereinafter Calpine Comment Letter].
[9] MPCA Comment Letter.
[10] Calpine Comment Letter.
[11] Id.
[12] Id.

template to allow for construction of the project during all hours of the day (daytime and nighttime) provided that the applicant at all times comply with Minnesota noise standards.[13] This request is not a comment on the EA and is addressed in EERA staff's comments on the applicant's proposed findings and conclusions (below).

EERA Comments on the Applicant's Proposed Findings and Conclusions

EERA staff comments on the applicant's proposed finding and conclusions (FOF) consist of two parts. Part one, below, discusses EERA staff's recommended changes to the applicant's proposed FOF. Part two (Attachment A) is an edited version (underline and strikethrough) of the applicant's proposed FOF. References to specific findings in the following discussion are to the findings as numbered in the applicant's proposed FOF unless otherwise noted.

Footnotes
EERA staff recommends that footnotes be provided throughout the FOF for each sentence (fact) in the proposed findings. The applicant, in its revised findings, has provided footnotes; however, these footnotes frequently address only a portion of the sentences within each finding. EERA staff has provided recommended footnotes throughout the proposed findings (see Attachment A).

Summary of Conclusions
EERA staff recommends editing the summary of conclusions to shorten the summary, to include in the summary a conclusion regarding the permitting of the project, and to introduce the findings of fact.

Applicant
EERA staff recommends editing Finding 3 to remove modifiers describing Calpine's fleet of power plants in North America.

Description of the Proposed Project
EERA staff recommends editing Finding 7 to remove descriptions of chemical deliveries and backup electrical power, as these descriptions are not supported by the record.

EERA staff recommends editing Finding 12 to clarify that the project was selected in a bidding process established by the Commission and to remove redundant text – text that is included in Finding 18.

Procedural Background
EERA staff recommends editing Finding 17 to remove a date which is not supported by the record.

EERA staff recommends editing Finding 22 to clarify that the Commission issued a notice of a public comment period for comments regarding site permit application completeness.

EERA staff recommends editing Findings 24 and 25 so that they proceed in chronological order.

EERA staff recommends editing Finding 28 to clarify the comments of the Minnesota Department of Transportation.

[13] Id.

EERA staff recommends editing Findings 30 and 31 to shorten and clarify these findings.

EERA staff recommends editing Finding 33 to focus the finding on the Commission's issuance of a public hearing notice.

EERA staff recommends editing Finding 36 to clarify that EERA first issued the EA for the project and then issued notice of the availability of the EA.

EERA staff recommends editing Finding 37 to clarify that notice of the availability of the EA was published in the EQB Monitor.

EERA staff recommends adding EERA Finding 38 to note that copies of the EA were distributed to public agencies with authority to permit or approve the project.

EERA staff recommends editing Finding 40 to focus the finding on procedural matters.

Public and Agency Participation
EERA staff recommends changing the title of Section IV of the proposed FOF to "Public and Agency Participation." This section of the FOF discusses scoping and hearing comments received for the project.

EERA staff recommends editing Finding 48 to clarify the applicant's commitments regarding wages for construction workers by including the testimony of the applicant at the public hearing.

EERA staff recommends editing Finding 52 to clarify the applicant's comment regarding Minnesota's noise standards and potential nighttime construction activities for the project.

Application of Siting Factors

Displacement
EERA staff recommends editing Finding 60 to clarify that displacement applies solely to residential or commercial buildings that could be removed (displaced) by the project.

Noise
EERA staff recommends editing Finding 62 to describe mitigation measures for construction noise and anticipated impacts.

EERA staff recommends editing Finding 63 to describe estimated operational noise levels with respect to state noise standards.

EERA staff recommends editing Finding 64 to note that noise levels associated with operation of the project are anticipated to be within state noise standards.

Aesthetics
EERA staff recommends editing Finding 65 to remove mention of road and traffic movement.

EERA staff recommends editing Finding 66 to note that the tallest structure that will be installed as part of the project is a new combustion turbine generator (CTG) stack.

EERA staff recommends editing Finding 68 to note that water vapor plumes may emanate from the CTG stacks and the cooling towers of the project under certain meteorological conditions.

EERA staff recommends adding EERA Finding 72 to summarize potential aesthetic impacts.

Socioeconomic Impacts

EERA staff recommends removing Finding 71 because the proposed text does not address potential socioeconomic impacts.

EERA staff recommends adding EERA Finding 74 to discuss potential adverse economic impacts of the project.

Cultural Values

EERA staff recommends editing Finding 73 to discuss cultural values in the project area.

EERA staff recommends adding EERA Finding 76 to discuss potential impacts to cultural values as a result of the project.

Public Services

EERA staff recommends editing Finding 76 to remove possible routes for vehicle traffic.

EERA staff recommends editing Finding 77 to note that no impacts to the Mankato municipal airport are anticipated.

EERA staff recommends editing Finding 80 to note that the applicant will work with the Mankato wastewater treatment plant (WTTP) so that the WTTP can supply additional cooling water needed for the project.

EERA staff recommends adding EERA Finding 86 to discuss potential impacts to electrical service as a result of the project.

EERA staff recommends adding EERA Finding 87 to discuss potential impacts to natural gas service as a result of the project.

Effects on Human Health

EERA staffs recommends removing Finding 85 as the topic (air emissions) is discussed more specifically and more clearly in Finding 86.

EERA staff recommends editing Finding 86 to remove redundant text and to include the mitigation strategy of limiting the hours of operation of the emergency generator and fire pump.

EERA staff recommends adding EERA Finding 92 to discuss air modeling conducted by the applicant and potential health impacts due to air emissions.

EERA staff recommends editing Finding 89 to note that air emissions risk analysis conducted for the project indicates that potential health risks due to air emissions from the project are within state guidelines and minimal.

EERA staff recommends adding EERA Findings 95-98 to discuss the potential impacts of greenhouse gas emissions from the project.

EERA staff recommends editing Finding 90 to discuss potential health impacts from the handling of cooling wastewater.

EERA staff recommends editing Finding 91 to discuss potential health impacts from the handling of domestic wastewater.

ERRA staff recommends editing Finding 92 to discuss potential health impacts from stormwater.

EERA staff recommends removing Finding 93 as the height of the proposed new CTG stack is not relevant to potential public health impacts.

EERA staff recommends editing Finding 94 to note that potential impacts due to water vapor plumes are anticipated to be minimal.

EERA staff recommends adding EERA Finding 103 to discuss potential health impacts due to fire and electrocution.

Archaeological and Historic Resources

EERA staff recommends creating a separate section for this topic (Finding 99), reflecting the fact that it is separate siting factor in Minnesota Rule 7850.4100 (Factor D) and is not related to impacts on land-based economies (Factor C).

Effects on the Natural Environment

EERA staff recommends editing Finding 100 to note that air emission standards are protective of public health and welfare, including the welfare of plants and animals.

EERA staff recommends editing Finding 110 to clarify that there are no wetlands within the fence line of the existing plant.

EERA staff recommends editing Finding 111 to note that groundwater impacts can occur through contamination of surface waters.

EERA staff recommends editing Finding 115 to note that oil removed from stormwater will be properly managed and disposed of.

EERA staff recommends adding a finding number to the applicant's proposed text describing potential impacts to the environment due to the handling of cooling wastewater (EERA Finding 129).

EERA staff recommends adding EERA Findings 130-133 to discuss potential environmental impacts due to the evaporative loss of cooling water.

EERA staff recommends editing Finding 120 to note that there is no existing vegetation within the fence line of the plant and to note that the project will require the use of approximately 15 acres of agricultural or industrial land for construction laydown and parking.

Rare and Unique Natural Resources
EERA staff recommends creating a separate section for this topic (Findings 123 and 124), reflecting the fact that it is separate siting factor in Minnesota Rule 7850.4100 (Factor F) and is differentiated from impacts to the natural environment (Factor E).

EERA staff recommends editing Finding 123 to shorten and clarify the finding.

EERA staff recommends editing Finding 124 to note that the northern long-eared bat roosts in trees during the summer.

Applicability of Design Options
EERA staff recommends editing Finding 126 to describe the project relative to this siting factor.

Use or Paralleling of Existing Rights-of-Way
EERA staff recommends editing Finding 128 to describe the project relative to this siting factor.

Use of Existing Large Power Generating Plant Sites
EERA staff recommends removing Finding 130 as the analysis of the EA with respect to the use of existing sites is captured in Finding 129.

Electrical System Reliability
EERA staff recommends editing Finding 131 to note that the project will ensure reliable electrical power and to note that the project was selected by the Commission in a competitive resource acquisition process.

EERA staff recommends removing Finding 132 as the analysis of the EA with respect to electrical reliability is captured in Finding 131.

Unavoidable Impacts
EERA staff recommends editing Finding 133 to note that the use of natural gas is an unavoidable impact because natural gas is a limited carbon feedstock.

EERA staff recommends removing Finding 134 because the analysis of the EA with respect to unavoidable impacts is captured in Finding 133 and because there are not state guidelines from many unavoidable impacts.

Irreversible and Irretrievable Commitments of Resources
EERA staff recommends editing Findings 135 and 136 to state them as findings rather than conclusions of the EA.

Notice

EERA staff has highlighted Finding 138 in Attachment A. Based on the hearing record, the applicant did not provide notice to the Commission, public, and local governments in satisfaction of applicable Minnesota statutes and rules. Specifically, the applicant did not provide notice of submittal of its site permit application in accordance with Minnesota Rule 7850.2100.

EERA staff notes that the applicant has taken steps to remedy this missing notice.[14] EERA staff recommends that Finding 138 be revisited and appropriately revised based on the applicant's remedial actions and any associated public comments.

Completeness of the EA

EERA staff recommends editing Finding 142 to note that the EA prepared for the project is complete because the EA and the record address the issues identified in the scoping decision.

Site Permit Conditions

EERA staff recommends editing Finding 143 to note that the conditions in the Commission's generic site permit template are applicable to the project.

EERA staff recommends replacing Finding 143a with EERA Finding 155 so that the finding describes the applicant's request regarding Minnesota noise standards without regard to the appropriateness of the request.

EERA staff recommends removing Findings 143b-d as these findings are applicant interpretations of generic site permit template language that are not supported by the record.

EERA staff recommends adding EERA Finding 156 to note that Minnesota noise standards allow for and provide permissible noise levels for daytime and nighttime activities.

Conclusions

EERA staff recommends numbering the conclusions independently from the findings.

EERA staff recommends editing EERA Conclusion 1 (Finding 144) to note the applicant and the project name.

EERA staff recommends editing EERA Conclusion 2 (Finding 145) to note that the project was selected by the Commission in a competitive resource acquisition process established by the Commission.

[14] Calpine Letter to the Commission, May 5, 2016, eDockets Number 20165-121062-01; Notice of Site Permit Proceedings and Additional Comment Period, May 5, 2016, eDockets Number 20165-121071-01.

EERA staff has highlighted EERA Conclusion 3 (Finding 146) in Attachment A. EERA staff recommends that EERA Conclusion 3 be revisited and appropriately revised based on Finding 138 (discussed above).

EERA staff recommends editing EERA Conclusion 8 (Finding 151) to note that the conditions of the generic site permit template should be incorporated into the site permit for the project.

EEAR staff recommends adding EERA Conclusion 9 to allow for daytime and nighttime construction activities at the project site, provided that all activities are in compliance within Minnesota noise standards.

IN THE MATTER OF THE APPLICATION FOR A SITE PERMIT FOR THE EXPANSION OF THE MANKATO ENERGY CENTER

DOCKET NO. IP-6949/GS-15-620

PREPARED FOR THE PUBLIC UTILITIES COMMISSION

STATEMENT OF ISSUE

Has the Applicant satisfied the factors set forth in Minnesota Statues Section 216E.04 and Minnesota Rules Chapter 7850 for a Site Permit for a 345 megawatt ("MW") expansion of the Mankato Energy Center (the "Expansion Project")[1] in Mankato, Blue Earth County, Minnesota?

SUMMARY OF CONCLUSIONS

Specific details regarding the proposed construction and operation of the Expansion Project were presented within the Site Permit Application[2] and additional subsequent submittals provided by the Applicant. The Expansion Project was further analyzed within an Environmental Assessment (EA)[3] prepared to evaluate the Expansion Project. Based on information submitted by the Applicant and ~~evaluated within~~on the EA, potential impacts of the Project~~ to human settlement, aesthetics, public health and safety, land based economics, archeological and historic properties, the natural environment and unique resources~~ are ~~expected~~ anticipated to be minimal.[4]

~~The Expansion Project would increase air emissions, including greenhouse gas emissions, would but would be within all applicable state and federal guidelines.[5] The EA concluded that relative to the siting factors listed under Minnesota Rules Chapter 7850.4100 potential impacts of the Expansion Project are minimal and would be mitigated by the project location, conditions listed within the site permit, and requirements of additional downstream permits.[6]~~The Commission concludes that the Applicant has satisfied the criteria set forth in Minnesota law for a Site Permit.

Based on information in the Application, the EA, testimony at the public hearing, written comments, and exhibits received in this proceeding, the Commission makes the following:

FINDINGS OF FACT

I. Applicant

[1] See Exhibit 2 (Site Permit Application) at 1-1. See Relevant Document and Exhibit List (Mar. 17, 2016) (eDockets No. 20163-119205-01).

[2] Exhibit 2.

[3] Exhibit 12 (Environmental Assessment, (EA))

[4] *Id.* at 52.

~~[5] *Id.* at 53.~~

~~[6] *Id.* at 53.~~

1. Mankato Energy Center II, LLC (MEC II) is the Applicant requesting the Site Permit for the Expansion Project.[7] The existing facility, including the associated land, is owned by Mankato Energy Center I, LLC (MEC I) and is operated by Calpine Operating Services Company, Inc. (COSCI).[8]

2. All entities are wholly owned indirect subsidiaries of Calpine Corporation (Calpine).[9, 10]

3. Calpine owns and operates ~~the largest and most modern~~a fleet of ~~clean, reliable and fuel-efficient~~ gas-fired and geothermal power plants in North America, with a portfolio of 84 power plants located throughout the U.S. and Canada with a combined total of more than 27,000 MW of electric generating capacity.[11]

II. Description of the Proposed Project

4. MEC II proposes to expand the existing Mankato Energy Center, which is a 375 Megawatt (MW) dual fuel combined-cycle generating facility[12] located in the City of Mankato in Blue Earth County, Minnesota (Existing Facility).

5. The expansion involves the planned completion of the Existing Facility, through the addition of one natural gas-fired combustion turbine generator (CTG), an additional heat recovery steam generator (HRSG)[13], and related ancillary equipment (the Expansion Project).

6. The Expansion Project would result in an additional 345 MW[14] of integrated combined-cycle and peaking capacity, as measured under winter conditions.

7. The Expansion Project will ~~receive~~ be fueled by natural gas from an existing local ~~area~~ pipeline.[15]~~, non-bulk chemicals by truck, and electricity for backup power supply from Xcel Energy.~~ The Expansion Project will continue to receive service water from the Mankato municipal water supply system, and cooling water from the Mankato Waste Water Treatment Plant (WWTP).[16]

8. The Combined Facility is anticipated to be complete and operational by June 1, 2019.[17]

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[7] Exhibit 2 at 2-1.

[8] ~~Exhibit 2 at 2-1.~~*Id.*

[9] *Id.*

[10] MEC I is the permit holder for the Existing Facility. MEC II will be the permit holder for the proposed Expansion Project.

[11] Exhibit 2 at 2-1.

[12] *Id.*

[13] *Id.*

[14] *Id.*

[15] Exhibit 12 at 16.

[16] *Id.*

[17] Summary of Public Testimony at 5 (April 13, 2016) (eDockets No. 20164-120013-01).

9. The current construction costs for the Expansion Project are estimated to be between $220 and $300 million.[18] This range will continue to fluctuate until the project's commercial operation date has been determined and definitive documentation has been executed.[19]

10. The Expansion Project is anticipated to have a useful life of at least 30 years.[20] Annual operating costs during the life of the Expansion Project are expected to be below those of a new combined cycle plant because of the operating synergies with the Existing Facility.[21]

11. Annual project operating costs are expected to be between $3.5 and $5 million.[22]~~.~~ This range will continue to fluctuate until the project's commercial operation date has been determined and definitive documentation has been executed.[23] Operating costs include labor, materials, management, and all applicable taxes paid to the appropriate jurisdictions.[24]

12. Minn. Stat. § 216B.243 generally requires a Certificate of Need (CON) to construct a generation facility with a total capacity of 50 MW or more; a CON is not required if the facility is selected in a bidding process established by the Commission (Minnesota Statute § 216B.2422, Subd. 5(b)).[25] The Expansion Project was selected in such a process by the Commission.[26] ~~On February 5, 2015, the Commission issued its Order Approving Power Purchase Agreement with Calpine, Approving Power Purchase Agreement with Geronimo, and Approving Price Terms with Xcel, selecting the Expansion Project and approving the terms of the PPA between Northern States Power Company and MEC II. The PPA was subsequently executed by the Parties and submitted as a compliance filing on May 6, 2015.~~ Accordingly, the Expansion Project is exempt from the CON process.[27]

13. The Existing Facility is located in Blue Earth County within the municipal limits of the City of Mankato, with the address 1 Fazio Lane.[28] The Existing Facility is located east of U.S. Highway 169, north of U.S. Highway 14, and west of County Road 5 (3rd Avenue).[29]

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[18] ~~Id.~~ Exhibit 12 at 19.

[19] *Id.*

[20] Exhibit 2 at 2-11.

[21] *Id.*

[22] *Id.*

[23] *Id.*

[24] *Id.*

[25] ~~Id.~~ Exhibit 2 at 1-1.

[26] Commission Order Approving Power Purchase Agreement with Calpine, Approving Power Purchase Agreement with Geronimo, and Approving Price Terms with Xcel, Docket No. E-002/CN-12-1240 (February 5, 2015) (eDockets No. 20152-107070-01) [hereinafter Commission PPA Order].

[27] Exhibit 12 at 5.

[28] Exhibit 2 at 2-3.

[29] *Id.*

14. The Existing Facility site is approximately 25 acres in size and within an area zoned Class 3A – Commercial/Industrial/Public Use.[30]

15. The Expansion Project will be located, constructed, and operated within the Existing Facility site.[31]

III. Procedural Background

16. On September 16, 2004, the Mankato Energy Center received a Site Permit to construct a primarily natural gas fired, combined cycle electric generating facility in Blue Earth County, Minnesota.[32] The facility was permitted to consist of two combined-cycle power trains, one steam generator and other ancillary equipment. Each combined cycle power train includes one combustion turbine generator and one heat recovery steam generator.[33]

17. ~~In 2006, t~~The Mankato Energy Center was constructed and commenced operations with only one combined cycle power train.[34]

18. On February 5, 2015, the Minnesota Public Utilities Commission ("Commission") issued an Order in Docket No. E002/CN-12-1240 approving a draft power purchase agreement ("PPA") between MEC II and Northern States Power Company, dba, Xcel Energy ("NSP") pursuant to which NSP would purchase energy and capacity from a planned expansion of the Mankato Energy Center.[35]

19. On May 6, 2015, the PPA was subsequently executed by MEC II and NSP and submitted as part of a compliance filing with the Commission.[36]

20. On June 29, 2015, notification of the Applicant's intent to submit the Site Permit Application under the alternative site permitting process was provided to the Commission.[37]

21. On August 8, 2015, the Application for a Site Permit was submitted to the Commission by the Applicant.[38]

22. On August 10, 2015, the Commission ~~issued the docket for~~provided notice of a ~~the~~ public comment period regarding ~~the~~ Site Permit Application completeness.[39]

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[30] ~~*Id.*~~Exhibit 2 at 4-1.

[31] ~~*Id.*~~ Exhibit 2 at 2-3.

[32] ~~*Id.*~~Exhibit 2 at 2-1.

[33] *Id.*

[34] *Id.*

[35] Exhibit 2 at 1-1~~X. (Site Permit Application, Project Summary).~~; see also Commission PPA Order.

[36] ~~*Id.*~~Exhibit 2 at 1-1; see also Power Purchase Agreement Between Northern States Power Company and Mankato Energy Center II, LLC (May 6, 2015) (eDockets No. 20155-110185-04).

[37] Exhibit 1.

[38] Exhibit 2.

[39] Exhibit 3.

23. On August 24, 2015 the Commission received comments on ~~the~~ Site Permit Application completeness from the Department of Commerce, Energy Environmental Review and Analysis ("DOC EERA") unit.[40] The DOC EERA recommended that the Commission accept the application for the Project as complete. Additionally, DOC EERA staff recommended that the Commission take no action on an advisory task force.[41]

24. On September 18, 2015, the Commission issued a Public Information and Scoping Meeting notice.~~On October 5, 2015 the Applicant submitted an Affidavit of Publication~~[42] ~~from Blue Earth County showing that the meeting notice for the October Public Information and Scoping Meeting had been adequately published in the newspaper titled "The Free Press and the Land".~~

25. On October 5, 2015, the Applicant submitted an Affidavit of Publication from Blue Earth County showing that the meeting notice for the October Public Information and Scoping Meeting had been published in the newspaper titled "The Free Press and the Land".~~On October 6, 2015 the Commission issued a Public Information and Scoping Meeting notice.~~[43]

26. On October 13, 2015, a Public Information and Scoping meeting was held at the County Inn & Suites in Mankato, Minnesota. Commission and DOC EERA staff were present to answer questions and gather comments from the public regarding the Expansion Project.[44] The Applicant was also present at the meeting.[45] Three members of the public attended the meeting but had only informal comments.[46] There were no formal comments presented by the public at the meeting.[47]

27. On October 14, 2015, the Commission issued an order finding the Site Permit Application complete, requesting a summary report and granting a variance to extend the time period of Minn. R. 7850.3700, subp. 3, to extend the 10-day time limit for the Department of Commerce to issue its scoping decision.[48]

28. On October 27, 2015, the Minnesota Department of Transportation ("MnDOT") submitted comments to the DOC EERA regarding the project noting that the current design would not impact the state trunk highway system~~design~~ and requesting notification if design changes occur that ~~would~~ could impact ~~the state highway trunk system~~MnDOT right-of-way in the area.[49] ~~In the current configuration the project~~

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[40] Exhibit 4.

[41] ~~Exhibit 4.~~*Id.*

[42] Exhibit ~~7~~6.

[43] Exhibit ~~6~~7.

[44] Exhibit 6.

[45] Exhibit 8.

[46] *Id.*

[47] ~~Exhibit 8.~~*Id.*

[48] Exhibit 5~~ at 3.~~.

[49] MnDOT Comment Letter (Oct. 27, 2015) (eDockets No. 201510-115129-01).

~~design would not impact state highways.~~ MnDOT also requested that the Applicant coordinate with MnDOT when planning hauling routes for oversized loads.[50]

29. On October 29, 2015, the DOC EERA published a summary of comments on the scope of the Environmental Assessment (EA) for the Expansion Project.[51] Comments were received from the Minnesota State Historic Preservation Office ("SHPO"), noting that no archaeological or historic resources would be impacted by the project; comments were also received from MnDOT, as described above.[52] In addition, comments were also received from one citizen expressing support for the Expansion Project and its location.[53]

30. On November 4, 2015, the DOC EERA issued an environmental assessment scoping decision for the Expansion Project.[54] ~~The decision outlined items to be discussed in the EA document. Under Minn. Stat. § 216E.04, Subd. 3, applicants requesting review of a site permit application under the alternative review process are not required to propose a second site for the project.~~ No alternative sites were ~~evaluated~~ included in the scope of the EA.[55]

31. On November 5, 2015, the DOC EERA issued ~~a~~ notice of the environmental assessment scoping decision for the Expansion Project~~regarding the Site Permit Application. The notice stated that the environmental assessment would be prepared by the DOC EERA staff~~.[56]

32. On January 27, 2016, the DOC EERA ~~published~~ filed their Requests to Applicant for Additional Project Information and Applicant Responses.[57]

33. On February 8, 2016, ~~the Commission issued a notice of the Remaining Process Schedule for the Site Permit Application. Additionally,~~ the Commission issued a Notice of Public Hearing for the Site Permit Application[58] and provided the generic template for large electric power generating plant site permits.[59]

34. On February 9, 2016, the Commission submitted a request for state agency participation in Record Development and Public hearings regarding the Expansion Project.[60]

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[50] *Id.* ~~MnDOT Comment Letter (Oct. 27, 2015) (eDockets No. 201510-115129-01).~~

[51] Exhibit 8.

[52] *Id.*

[53] ~~Exhibit 8.~~*Id.*

[54] Exhibit 9.

[55] ~~Exhibit 9.~~*Id.*

[56] Exhibit 10.

[57] Exhibit 11.

[58] Exhibit 17.

[59] ~~Notice for Remaining Process Schedule (Feb. 8, 2016) (eDockets No. 20162-118074-01); Notice of Public Hearing for Site Permit Application (Feb. 8, 2016) (eDockets No. 20162-118060-01); Site Permit Template (Feb. 8, 2016) (eDockets No. 20162-118074-02)~~Exhibit 16.

[60] Request for State Agency Participation (Feb. 9, 2016) (eDockets No. 20162-118097-01).

35. On February 16, 2016, the Applicant submitted an Affidavit of Publication from Blue Earth County showing that the February public hearing notice had been ~~adequately~~ published in the newspaper titled "The Free Press and the Land".[61]

36. On February 18, 2016, the DOC EERA issued the EA for the Expansion Project.[62] DOC EERA subsequently issued a Notice of Availability for the EA, stating that the DOC EERA had issued the EA for the Expansion Project, making it available for public review and comment. ~~The EA document was provided with this Notice.~~[63]

37. On ~~March 2, 2016~~February 29, 2016, Notice of Availability of the EA was published in the ~~the DOC EERA published the~~ Environmental Quality Board~~'s~~ (EQB) Monitor ~~notice of availability for the EA~~.[64]

~~37.~~38. Copies of the EA were distributed to public agencies with authority to permit or approve the Expansion Project.[65]

~~38.~~39. On March 7th, 2016, a Public Hearing was held at the County Inn and Suites in Mankato, Minnesota and was held before Administrative Law Judge James LaFave.[66] Staff from the Commission and the DOC EERA were present as well as the Applicant. Information related to the Site Permit process, the EA and the Expansion Project were briefly provided by Mr. Ray Kirsch of the DOC EERA, Mrs. Tricia DeBleeckere of the Commission and by Mr. John Flumerfelt on behalf of the Applicant.[67] There were three members of the public that provided verbal comments and questions at the hearing. Responses to the verbal questions and comments from the public were provided during the hearing from a combination of the Applicant as well as the Commission and DOC EERA staff[68].

~~39.~~40. On March 17, 2016, the Office of Administrative Hearings published the March 7 public hearing sign in sheets and transcripts.[69]

~~40.~~41. On March 18, 2016, the Applicant submitted a comment letter on the Environmental Assessment prepared for the Project. ~~The comments provided clarification on project content.~~[70]

~~41.~~42. On March 21, 2016, the Commission issued a summary of the comments received regarding the EA. The summary stated that there were no public or agency comments received regarding the EA or the Site Permit.[71]

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[61] Affidavit of Publication (Feb. 16, 2016) (eDockets No. 20162-118323-01).

[62] Exhibit 12.

[63] Exhibit 13.

[64] Exhibit 15.

[65] Exhibit 14.

[66] Summary of Public Testimony (April 13, 2016) (eDockets No. 20164-120013-01).

[67] *Id.*

[68] *Id.*~~Summary of Public Testimony (April 13, 2016) (eDockets No. 20164-120013-01).~~

[69] March 7 Public Hearing Sign-in Sheets (Mar. 17, 2016) (eDockets No. 20163-119205-02); March 7 Public Hearing Transcript (Mar. 17, 2016) (eDockets No. 20163-119204-01).

[70] Calpine Comments (Mar. 18, 2016) (eDockets No. 20163-119274-01).

~~42.~~43. On March 31, 2016, the Minnesota Pollution Control Agency ("MPCA") ~~presented~~ filed a letter ~~to~~ with the Commission regarding comments on the Environmental Assessment prepared for the Project. The MPCA indicated that they had no comments on the EA or the Expansion Project at that time.[72]

IV. ~~Environmental Assessment~~Public and Agency Participation

~~43.~~44. For projects seeking ~~permitting~~ a Site Permit under the alternative permitting process, the DOC EERA prepares an EA for the Commission containing information on the human and environmental impacts of the proposed project.[73] The EA is the only State environmental review document required to be prepared for the Project ~~pursuant to Minn. R. 7850.3700~~.[74]

~~44.~~45. The scoping process is the first step in developing an EA. The DOC EERA is required to "provide the public with an opportunity to participate in the development of the scope of the environmental assessment by holding a public meeting and by soliciting public comments." ~~pursuant to Minn. R. 7850.3700, subp. 2A.~~[75]

~~45.~~46. The Commission published a notice of a Public Information and Scoping Meeting for the preparation of the EA ~~for the Site Permit Application~~ for the Expansion Project on September 18th, 2015.[76] The Public Information and Scoping Meeting was held on October 13, 2015.[77] There were no oral comments submitted during the public meeting.[78] There was one written comment letter provided by the public related to the scoping of the EA.[79] The letter expressed support of the Expansion Project, stating the Existing Facility was sited in a good location within an industrial area and the facility is a good clean source of reliable energy.[80]

~~46.~~47. There were two agency comment letters related to the Scoping of the EA submitted to the DOC EERA. One letter was submitted by the State Historic Preservation Office (SHPO)[81] and the other letter was submitted by the Minnesota Department of Transportation (MnDOT).[82] The letter from SHPO stated that there are no historic properties listed on the State or Federal Register that would be impacted by the Expansion Project and that there are no known archeological properties in the area

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[71] Summary of Comments (Mar. 21, 2016) (eDockets No. 20163-119292-01).

[72] MPCA Comments (Mar. 31, 2016) (eDocket No. 20163-119582-01).

[73] Minn. Stat. § 216E.04, Subd. 5.

[74] ~~See Minnesota Rules 7850.7300.~~*Id.*

[75] ~~See~~ Minnesota Rules 7850.3700, subp. 2A.

[76] Exhibit 6.

[77] Exhibit 8.

[78] *Id.*

[79] *Id.*

[80] ~~Notice of Public Hearing (February 8, 2016) (eDockets Number 20162-118060-01).~~*Id.*

[81] ~~Exhibit 8.~~Id.

[82] MnDOT Comment Letter (October 27, 2015) (eDockets Number 201510-115129-01).

that would be impacted.[83] The letter from MnDOT stated that the Applicant will need to coordinate with MnDOT as necessary for transportation and delivery of large, oversized loads and equipment during the construction of the Expansion Project to ensure impacts to roadways and transportation construction projects do not occur.[84] The MnDOT letter further stated that in the event that the construction of the Expansion Project impacts MnDOT right-of-way, the Applicant should notify MnDOT and coordinate with them in the planning of such activities that could impact road right-of-way.[85]

~~47.~~48. The Commission published a notice of a Public Hearing and the opportunity for comment on the EA for the Expansion Project on February 8th, 2016.[86] The DOC EERA staff published the EA and made it available for review and comment on February 18th, 2016.[87, 88] The Public Hearing was held before Administrative Law Judge James LaFave on March 7th, 2016.[89] At the hearing there were verbal comments submitted by three members of the public.[90]

~~48.~~49. Mr. Drew Campbell, a commissioner for Blue Earth County, asked several questions related to the need for the Expansion Project and how it would fit into the existing mandates in Minnesota for renewable energy.[91] Comments and questions from Mr. Campbell were addressed by a combination of the Applicant, DOC EERA staff and Commission staff.[92] Mr. Campbell also asked about the increased water need for the Expansion Project.[93] This question was answered by DOC EERA staff who indicated that the water would continue to come from the Mankato Wastewater Treatment Plant and that this item is addressed within the EA.[94] Mr. Campbell also asked if there would be prevailing wages paid to workers for the construction of the Expansion Project.[95] The Applicant indicated that ~~typically this would be the case but that they would follow up to confirm.~~it had not conducted outreach for construction jobs but that it was sure that the answer would be "yes." ~~The Applicant later confirmed that they intend to build the Expansion Project using union labor.~~[96]

~~49.~~50. Mr. Cameron Rather asked questions related to the pipeline and gas usage for the Existing Facility and the Expansion Project, wanting to know if sufficient gas supply is

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[83] Exhibit 8.

[84] *Id.*

[85] *Id.*

[86] ~~Notice of Public Hearing (February 8, 2016) (eDockets Number 20162-118060-01).~~Exhibit 17.

[87] Exhibit 12.

[88] Exhibit 13.

[89] Summary of Public Testimony (April 13, 2016) (eDockets Number 20164-120013-01).

[90] *Id.*

[91] *Id.* at 4.

[92] *Id.*

[93] *Id.*

[94] *Id.*

[95] *Id.*

[96] *Id.*

available and who is responsible for providing the natural gas to operate the facility.[97] These questions were addressed by Mr. John Flumerfelt from the Applicant who explained the infrastructure needed to deliver the natural gas required for the Expansion Project is already in place and that Xcel Energy is responsible for ensuring there is sufficient gas quantity available and Xcel is further responsible for delivering the natural gas to the lateral pipeline that serves the facility.[98]

~~50.~~51. Mr. Randy Westman asked a question related to the timing for start of construction for the Expansion Project.[99] This question was answered by Mrs. Heidi Whidden from the Applicant who stated that the current schedule is for construction of the Expansion Project to begin in the fourth quarter of 2016.[100]

~~51.~~52. There were no letters submitted by the public commenting on the EA.[101] There was one letter submitted by a state agency, the Minnesota Pollution Control Agency (MPCA).[102]~~, [103]~~ The MPCA letter stated that they had no comments on the EA for the Expansion Project.[104]

~~52.~~53. The Applicant submitted a comment letter on the EA for the Expansion Project.[105] The letter from the Applicant stated agreement with the analysis and conclusions in the EA and provided clarifying information related to the topics of impervious surface, wetlands, and construction practices related to stormwater control.[106] The Applicant stated that construction of the project ~~will~~ should not be limited to daytime hours by Minnesota noise standards, ~~and~~but instead should be allowed to proceed ~~24 hours~~during daytime and nighttime hours while meeting ~~the~~ Minnesota noise standards.[107]

V. Factors for Site Permit

~~53.~~54. Minnesota Statutes Chapter 216E (2015) requires a site permit for the proposed Project.[108]

~~54.~~55. Minn. Stat. § 216E.09[109] provides that site permits issued by the Commission "shall supersede and preempt all zoning, building, or land use rules, regulations, or ordinances promulgated by regional, county, local and special purpose government."

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[97] *Id.* at 5.

[98] *Id.*

[99] *Id.*

[100] *Id.*

[101] Summary of Comments (Mar. 21, 2016) (eDockets No. 20163-119292-01).

[102] MPCA Comments (March 31, 2016) (eDockets Number 20163-119582-01).~~*Id.*~~

~~[103] MPCA Comments (March 31, 2016) (eDockets Number 20163-119582-01).*Id.*~~

[104] *Id.*

[105] Calpine Comments (March 18, 2016) (eDockets Number 20163-119274-01)

[106] *Id.*

[107] ~~Calpine Comments (March 18, 2016) (eDockets Number 20163-119274-01) at 2.~~*Id.*

[108] ~~*See*~~ Minn. Stat. § 216~~(~~E~~)~~.

[109] ~~*Id.*~~Minn. Stat. § 216~~(~~E~~)~~.09.

~~55.~~56. The Power Plant Siting Act ("PPSA"), Minnesota Statutes Chapter 216E, requires that "it to be the policy of the state to locate large electric power facilities in an orderly manner compatible with environmental preservation and the efficient use of resources. In accordance with this policy the commission shall choose locations that minimize adverse human and environmental impact while insuring continuing electric power system reliability and integrity and insuring that electric energy needs are met and fulfilled in an orderly and timely fashion."[110] ~~(216E.02, Subd. 1)~~

~~56.~~57. Under the Minn. Stat. § 216E.03, Subd. 7[111], the Commission must be guided by the following responsibilities, procedures, and considerations:

(1) evaluation of research and investigations relating to the effects on land, water and air resources of large electric power generating plants and high-voltage transmission lines and the effects of water and air discharges and electric and magnetic fields resulting from such facilities on public health and welfare, vegetation, animals, materials and aesthetic values, including baseline studies, predictive modeling, and evaluation of new or improved methods for minimizing adverse impacts of water and air discharges and other matters pertaining to the effects of power plants on the water and air environment;

(2) environmental evaluation of sites and routes proposed for future development and expansion and their relationship to the land, water, air and human resources of the state;

(3) evaluation of the effects of new electric power generation and transmission technologies and systems related to power plants designed to minimize adverse environmental effects;

(4) evaluation of the potential for beneficial uses of waste energy from proposed large electric power generating plants;

(5) analysis of the direct and indirect economic impact of proposed sites and routes including, but not limited to, productive agricultural land lost or impaired;

(6) evaluation of adverse direct and indirect environmental effects that cannot be avoided should the proposed site and route be accepted;

(7) evaluation of alternatives to the applicant's proposed site or route proposed pursuant to subdivision 1 and 2;

8) evaluation of potential routes that would use or parallel existing railroad and highway rights-of-way;

(9) evaluation of governmental survey lines and other natural division lines of agricultural land so as to minimize interference with agricultural operations;

(10) evaluation of future needs for additional high-voltage transmission lines in the same general area as any proposed route, and the advisability of ordering the

[110] ~~*Id.*~~Minn. Stat. § 216~~(~~E~~)~~.02, Subd. 1.

[111] ~~*Id.*~~Minn. Stat. § 216~~(~~E~~)~~.03, Subd. 7.

construction of structures capable of expansion in transmission capacity through multiple circuiting or design modifications;

(11) evaluation of irreversible and irretrievable commitments of resources should the proposed site or route be approved; and

(12) when appropriate, consideration of problems raised by other state and federal agencies and local entities.

~~57.~~58. In addition, the Commission is governed by Minnesota Rules 7850.4100[112], which mandates consideration of the following factors when determining whether to issue a site permit for a large electric power generating plant:

A. effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values, recreation, and public services;
B. effects on public health and safety;
C. effects on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;
D. effects on archaeological and historic resources;
E. effects on the natural environment, including effects on air and water quality resources and flora and fauna;
F. effects on rare and unique natural resources;
G. application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity;
H. use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries;
I. use of existing large electric power generating plant sites;
J. use of existing transportation, pipeline, and electrical transmission systems or rights-of-way;
K. electrical system reliability;
L. costs of constructing, operating, and maintaining the facility which are dependent on design and route;
M. adverse human and natural environmental effects which cannot be avoided; and
N. irreversible and irretrievable commitments of resources.

VI. Application of Siting Factors

A. Environmental Setting

~~58.~~59. The Combined Facility, which is the Existing Facility plus the Expansion Project, is located within an industrial area in the City of Mankato.[113] Adjacent properties consist of numerous industrial and manufacturing facilities including Xcel Energy's Wilmarth Generating Plant and electrical substation, a waste processing company, auto salvage yards, scrap metal operations, a construction company, a U.S. Postal Service mail processing facility, and a household hazardous waste collection site.[114] There are numerous railroad tracks and spur lines in the area as well as overhead

[112] ~~*See*~~ Minnesota Rules, part 7850.4100.

[113] Exhibit 2 at 4-1.

[114] *Id.*

electrical transmission lines.[115] Previously there was a single residential dwelling located approximately 2,000 feet north of the fence line of the Existing Facility, however this property is now vacant.[116] The nearest residential areas of Mankato lie more than one-half mile to the south on the other side of U.S. Highway 14.[117]

~~59.~~60. The Minnesota River is located approximately 1,800 feet west of the Existing Facility.[118] The river and adjacent wooded river bottoms provide wildlife habitat as well as recreational opportunities in the form of boating, fishing, and hunting.[119] There are also trails, parks, and other recreational facilities in the general area.[120] A large drainage ditch is located along the east side of the site, which flows in a north/northwesterly direction to the Minnesota River.[121] The Minnesota River valley extends approximately one mile to the east of the site at which point steep bluffs rising 150 feet dominate the landscape.[122] Outlying rural areas to the north and east of the site in Lime Township consist predominately of agricultural and conservation lands.[123]

B. Required Permits and Approvals

The table below lists the permits identified as needed for the Expansion Project.[124]

Table 1: List of Expansion Project Permits

Unit of Government~~*~~	Type of Approval	Regulated Activity	Status
Federal			
FAA	Notice of Proposed Stack Construction	Stack height greater than 200 feet above ground level	To be provided, if needed. Stack anticipated to be less than 200 feet.
U.S. EPA	Acid Rain Permit	Title IV Acid Rain Certificate of Representation for the discharge of sulfur oxides	To be obtained
	Risk Management Plan/Process Safety Management (RMP/PSM)	Risk management plan is required for facilities possessing more than threshold quantities of regulated chemicals (e.g., anhydrous ammonia)	To be updated

[115] ~~Exhibit 2 at 4-1.~~*Id.*

[116] *Id.*

[117] *Id.*

[118] *Id.*

[119] *Id.*

[120] *Id.*

[121] *Id.*

[122] *Id.*

[123] *Id.*

[124] Exhibit 2 at 11-1; see also Exhibit 12 at 8-10.~~.~~

Unit of Government~~*~~	Type of Approval	Regulated Activity	Status
	Conditionally Exempt Small Quantity Generator	Hazardous waste generation	The facility has an existing Hazardous Waste Generation license and will amend as necessary.
Federal Energy Regulatory Commission (FERC)	Exempt Wholesale Generator Self-Certification;	Provide documentation to FERC that entity is operating a power generating facility and selling electric energy at wholesale;	To be obtained
	Market-based Rate Authorization	Authorization to sell electric power at Market Based rates; granted to Exempt Wholesale Generators.	To be obtained
U.S. Fish and Wildlife Service	EPA Consultation with U.S. Fish and Wildlife Service for Threatened and Endangered Species	Demonstrate that project development does not have the potential to disturb a listed species and/or provide mitigation for impacts	Consultation pending – submitted to U.S. EPA on June-15-2015
State of Minnesota			
MISO	Approval as a Network Resource for Xcel	Generator interconnection and transmission access	To be amended
PUC	Power Plant Siting Permit	Review of potential human and environmental impacts associated with the siting of a large electric power generating plant. Qualifies for alternative review process for facilities fueled by natural gas	Pending – Permit application submitted Aug-5-2015 ~~(this document)~~
SHPO	Cultural Resources Review	Review of agency records for the presence of archeological, historical, or architectural resources at or near the site that may be affected by the project	Completed - Received comment letter dated Apr-2-2015
MDNR	Minnesota Natural Heritage Database Review	Review of the Minnesota Natural Heritage Information System database for the presence of any rare plant communities or animal species, unique resources, or other significant natural features at or near the site that may be affected by the project	Completed - Received comment letter dated May-19-2015
MPCA	NPDES/SDS General Stormwater Discharge Permit (MN R100001) for Construction Activities	Stormwater discharges associated with construction activities disturbing one or more acres of land	To be submitted

Unit of Government	Type of Approval	Regulated Activity	Status
	NPDES/SDS General Stormwater Discharge Permit (MNR0534NJ) for Industrial Activities	Stormwater discharges associated with industrial activities at the Facility. Coverage under the permit requires preparation of a Stormwater Pollution Prevention Plan	Will be revised as necessary
	Air Emission Facility Permit (Combined Construction and Title V Operating)	Air emissions - permitting requirements associated with federal PSD new source review and NSPS requirements, and other applicable state/federal requirements	Amendment Pending – Permit application Submitted Nov-3-2015
	Hazardous Waste Generator License	Hazardous waste generation	The facility has an existing EPA notice of Hazardous Waste Generation and will amend as necessary.
	Spill Prevention, Control and Countermeasure Plan	Aboveground storage of greater than 1,320 gallons of fuel oil; no changes as a result of Expansion Project	Update as needed
	Storage Tank Registration and Permitting	Anyone wishing to operate a new or existing regulated storage tank must register that tank with MPCA. Regulated storage tanks are those that are not otherwise exempt and that contain a regulated substance	To be obtained if needed for new tanks
	Facility Response Plan	Applicable for facilities that have oil storage greater than or equal to 42,000 gallons that transfers oil over water to/from vessels or has total oil storage greater than or equal to 1 million gallons and meets selected conditions	The facility has an existing plan that meets FRP requirements. To be amended as needed
MnDOT	Special Hauling Permit (Oversize/ Overweight)	For delivery of oversize and/or super loads of construction equipment and others to the property	To be obtained if needed
	Highway Occupancy Permits	MnDOT regulates and/or gives approval for the use and occupancy of highway right of way by utility facilities or private lines	To be obtained if needed
Local			
City of Mankato	Conditional Use Permit	Electric generating facility within areas zoned M-2, Heavy Industrial District	To be amended
	Building Permit	Site grading, development, construction, and occupancy approval	To be obtained
	Connections to municipal sewer and water as well	Obtain approvals from City	To be amended

Unit of Government~~*~~	Type of Approval	Regulated Activity	Status
	as gray water from Waste Water Treatment Plant		
	Wetland No-Loss Application	Submit to City	Submitted as part of original construction, will update if needed.
Other			
Utilities	Utility Connection Permits and Approvals	Connections of Expansion Project related equipment to necessary utilities (e.g., water, wastewater, gas pipelines, transmission lines, telecommunications)	To be obtained as needed

C. Displacement

~~60.~~61. The project site is ~~appropriately~~ zoned for industrial use.[125] The Expansion Project will take place within the fence line of the Existing Facility.[126] The Expansion Project will secure additional lands for temporary construction laydown space, which will be leased from a nearby property owner and may be located on either vacant industrial lands or agricultural lands.[127] There will be no physical displacement of ~~adjacent~~ land owners or residents as a result of the Expansion Project~~ nor will the project alter the use of adjacent properties~~.[128]

D. Noise

~~61.~~62. The City of Mankato does not have a noise ordinance but relies on the State's noise ~~level restrictions~~standards for local control of noise problems.[129]

~~62.~~63. Noise will be generated during construction of the Expansion Project as well as during normal operation of the Combined Facility.[130] ~~The largest potential noise impacts are generated during the construction and commissioning of the Expansion Project.~~The Applicant indicated that construction noise impacts will be mitigated by controlling the extent and duration of noise generating activities and limiting the duration of the overall construction period.[131] Noise impacts due to construction of the project are anticipated to be minimal.[132]

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[125] Exhibit 2 at 4-1.

[126] *Id.*

[127] ~~*Exhibit 2 at 4-1.*~~*Id.*

[128] Exhibit 12 at 29.

[129] Exhibit 2 at 4-2.

[130] Exhibit 12 at 28.

[131] *Id.*

[132] *Id.*

~~63.~~64. The major components of the Expansion Project that will contribute to noise generated during the operation of the Combined Facility include the cooling tower cells, the CTGs, electrical transformers and HRSGs.[133] Modeling conducted by the Applicant indicates that the noise levels with the Expansion Project will be within state noise standards for industrial properties.[134] ~~MEC II will utilize noise mitigation and control methods and equipment in the final design of the Expansion Project as necessary to mitigate noise to ensure MPCA standards are not exceeded during operation.~~

~~64.~~65. Noise impacts from operation of t~~T~~he Expansion Project ~~is designed to ensure that the Combined Facility operates within the State of Minnesota Noise Standards (Minnesota Rules 7030.0040)~~are anticipated to be minimal and within state noise standards.[135]~~.~~ Operation of the Combined Facility will increase noise levels in the project area.[136] Even ~~if~~ though noise levels are within state standards, persons near the plant – e.g., persons in or near the industrial near in which the Combined Facility is located – would likely notice an increase in noise level.[137] Operational noise impacts will be mitigated, to a great extent, by the location of the Combined Facility (away from persons and residential receptors) and by the fact that impacts will be incremental.[138]

E. Aesthetics

~~65.~~66. The Combined Facility ~~will blend~~is located ~~into the~~in an industrial area on the north edge of Mankato.[139] The Existing Facility site is already established and the Expansion Project will occur within the Existing Facility's footprint.[140] ~~All roads at the Existing Facility are paved and efficiently and safely move traffic onto, around and off of the property.~~

~~66.~~67. The tallest structure at the Existing Facility is the CTG stack, which is just under 200 feet tall.[141] All other structures at the Existing Facility are shorter than the CTG stacks, and range from 30 to 120 feet in height.[142] The building that will contain the new CTG and HRSG units will be similar in appearance and height compared to the existing buildings.[143] ~~and will be located immediately north of the existing CTG building.~~ The tallest structure installed as a result of the Expansion Project will be a second CTG stack, approximately 200 feet in height.[144]

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[133] Exhibit 2 at 4-2.

[134] Exhibit 12 at 29.

[135] *Id.*

[136] *Id.*

[137] *Id.*

[138] ~~Exhibit 12 at 29.~~*Id.*

[139] Exhibit 2 at 4-4.

[140] ~~Exhibit 2 at 4-4.~~*Id.*

[141] Exhibit 12 at 26.

[142] ~~Exhibit 12 at 26.~~*Id.*

[143] *Id.*

[144] *Id.*

~~67.~~68. The CTG stacks are most visible from the west end of Summit Avenue and possibly visible from the Minnesota River.[145] Due to the existing topography, finished grades at the landfill, a dense grove of mature trees located around the perimeter of the site, and the distance away from adjacent roadways, most of the other structures at the Combined Facility will not be visible to the general public.[146]

~~68.~~69. Visible water vapor plumes from the CTG stacks and from the cooling tower may occur at ~~various times given the proper~~under certain meteorological conditions.[147] The length and persistence of these visible plumes are influenced by prevailing weather conditions such as temperature, relative humidity, and wind speed. On most days of the year, however, visible steam or vapor plumes, if present, disperse and evaporate after traveling only a moderate distance aloft.[148]

~~69.~~70. The Combined Facility must apply Best Available Control Technology (BACT) for visibility-related pollutants.[149] Nitrogen oxides emissions are and will continue to be continuously monitored to ensure compliance with BACT-related emission limits.[150] Accordingly, emissions from the Combined Facility are not expected to have a significant impact on local visibility.[151]

71. Lighting at the Combined Facility will be provided for security and plant operational purposes.[152] Lighting will be expanded in the same manner for the newly installed equipment.[153] No additional aesthetic impacts from lighting are anticipated from the Expansion Project.[154]

~~70.~~72. Aesthetic impacts due to the Expansion Project are anticipated to be incremental and minimal.[155]

F. Socioeconomic Impacts

~~71. The Expansion Project will benefit the local and regional communities as well as the State of Minnesota. The Combined Facility will support efforts by Xcel Energy to enhance and diversify their power supply portfolio in meeting the utility's growing demand for electricity.[156] The Combined Facility will primarily utilize natural gas, a clean-burning fossil fuel, and highly efficient combustion technology to generate~~

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[145] Exhibit 2 at 4-4.

[146] Exhibit 2 at 4-4 to 4-5; Exhibit 12 at 26.

[147] Exhibit 12 at 26.

[148] Exhibit 12 at 26 and 38.

[149] Exhibit 2 at 4-5.

[150] *Id.*

[151] ~~Exhibit 2 at 4-5.~~*Id.*

[152] *Id.*

[153] *Id.*

[154] *Id.*

[155] Exhibit 12 at 25-27.

~~[156] *Id.*~~

~~reliable electricity while minimizing environmental impacts. The Existing Facility is sited close to a major natural gas pipeline and high-voltage electric transmission system, minimizing impacts associated with infrastructure connections.~~

~~72.~~73. The construction of the Expansion Project and the operation of the Combined Facility will provide ~~many~~ economic benefits to the local community ~~including economic benefits~~ resulting from the construction and continued operation of the facility and through the purchase of local goods and services.[157] Some of the economic benefits include the following:

a. Construction of the Expansion Project is estimated to exceed $200 million and will employ as many as 250 construction workers at peak construction periods.[158] These jobs (include welders, pipefitters, iron workers, millwrights, carpenters, electricians, and other trades) will benefit the local economy during the construction phase.[159] Construction is estimated to take 24 to 27 months to complete.[160]
b. Once in operation, the Combined Facility anticipates hiring two additional employees, for a total of approximately 19 full time employees and indirect jobs to the area in the form of local support services.[161]
c. The state of Minnesota and Blue Earth County will receive tax revenue from the construction of the project as well as continue to receive income taxes from permanent full-time employees operating the Combined Facility.[162]
d. MEC I and MEC II will remain an active member of the local community, participating in charitable events, community service organizations, and outreach programs.[163]

74. Adverse economic impacts are anticipated to be minimal.[164] Disruptions to local businesses due to construction of the Project are anticipated to be minimal.[165]

G. Cultural Values

75. ~~The Existing Facility is located within an area zoned for industrial use. The Existing Facility was permitted in 2004 and has been in operation since 2005. The Minnesota State Historic Preservation Office (SHPO) was contacted prior to construction of the Existing Facility about possible archeological, historical or architectural resources located on or near the site. A review of SHPO records was again completed in 2015 as part of this Site Permit Application.[166] Upon review of their records, SHPO concluded that there are no known or suspected resources present on or near the site that would be affected by construction of the Expansion Project or operation of~~

[157] Exhibit 12 at 29.

[158] ~~Exhibit 12 at 29.~~*Id.*

[159] *Id.*

[160] *Id.*

[161] *Id.*

[162] Exhibit 2 at 4-6.

[163] *Id.*

[164] Exhibit 12 at 30.

[165] *Id.*

~~[166] *Id.* at 7-1.~~

~~the Combined Facility and should have no impact on cultural resources in the area~~Cultural values in the project area are informed by history and heritage, by the work and recreation of residents, and by geographical features.[167] The cities of Mankato and North Mankato have become a regional center for commerce, education, health care, and industry.[168] The City of Mankato, and the project area generally, host multiple cultural events each year.[169]

~~73.~~76. No impacts to cultural values are anticipated as a result of the Project.[170] The project will not adversely impact the heritage, work, or recreation of residents in the project that underlie the area's cultural values.[171]

H. Recreation

~~74.~~77. There are no designated recreational facilities located on or immediately adjacent to the Existing Facility site.[172]

~~75.~~78. Although there are recreational facilities in the vicinity of the Project, construction and operation of the Combined Facility will not directly impact existing public land, trails, parks, or other areas used for recreation.[173] Neither the Expansion Project nor the Combined Facility would result in impacts to recreation.[174]

I. Public Services

~~76.~~79. The existing public roadway network and site access road are adequate to serve the Combined Facility.[175] ~~At this point, access to the Combined Facility will be off of Fazio Lane from Summit Avenue. The most likely route for vehicles will access Summit Avenue via 3rd Avenue from US Highway 14.~~ No public transportation improvements will be required for construction or operation of the Project.[176]

~~77.~~80. The Mankato Municipal Airport, located approximately 3.7 miles to the northeast in Lime Township, is the closest active airport to the site; impacts to this airport are not anticipated as a result of the Project ~~and the Combined Facility will not affect airport operations in any way~~.[177]

~~78.~~81. Water and sewer services are provided to the Existing Facility by the City of Mankato.[178] The City supplies both domestic water and service water and receives

[167] Exhibit 12 at 30.~~8.~~

[168] *Id.*

[169] *Id.*

[170] *Id.*

[171] *Id.*

[172] Exhibit 12 at 41-42.

[173] *Id.*

[174] ~~Exhibit 2 at 4-7.~~*Id.*

[175] Exhibit 12 at 30-32.

[176] ~~Exhibit 12 at 31.~~*Id.*

[177] *Id.*

[178] *Id.*

domestic wastewater discharges. The Combined Facility will continue to operate and utilize gray water for cooling water in the same manner as current conditions after the Expansion Project is constructed with the exception of the increased volume of water required at the Combined Facility.[179]

~~79.~~82. Service and domestic water is supplied to the Existing Facility by the City of Mankato through a lateral service line connection to the municipal water supply system. The City of Mankato municipal water supply system will continue to provide service water to the Combined Facility.[180]

~~80.~~83. The City of Mankato Wastewater Treatment Plant (WWTP) provides grey water that is used as cooling water ~~to~~at the Existing Facility.[181] The Expansion Project will increase the use of grey water from the City of Mankato.[182] ~~Blow down discharge back to the WWTP will also increase.~~ The Applicant will work with the Mankato WWTP to upgrade existing pumps or install new pumps to supply the additional grey water needed for the Expansion Project.[183]

~~81.~~84. There are water storage facilities on site that serve the Existing Facility, such as serviced and demineralized water storage tanks and there are additions that are being explored as part of the Expansion Project.[184] No additional improvements to water utilities are anticipated for the construction of the Expansion Project or operation of the Combined Facility.[185]

85. Local waste haulers are privately contracted with to properly collect and dispose of all liquid and solid wastes generated at the Existing Facility.[186] No additional municipal services would be required with the Expansion Project.[187]

86. Electrical service in the project area is provided by Xcel Energy and reginal electric cooperatives.[188] Electrical power produced by the Expansion Project may be used in the project area or distributed to other areas through the electric transmission system.[189] No adverse impacts to electrical service are anticipated as a result of the Project.[190]

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[179] Exhibit 2 at 3-2.

[180] ~~Id.~~Exhibit 2 at 3-3.

[181] Exhibit 12 at 31-32.

[182] ~~Exhibit 12 at 31.~~*Id.*

[183] *Id.*

[184] Exhibit 2 at 4-8.

[185] ~~Exhibit 2 at 4-8.~~*Id.*

[186] *Id.*

[187] *Id.*

[188] Exhibit 12 at 32.

[189] *Id.*

[190] *Id.*

~~82.~~87. Natural gas service in the project is provided by CenterPoint Energy.[191] The Project will utilize an existing natural gas pipeline that is sized to support the Project.[192] No new gas pipeline will be required for the Project.[193] No adverse impacts to natural gas service are anticipated as a result of the Project.[194]

~~83.~~88. The City of Mankato provides fire and police protection and rescue services.[195] The Existing Facility is equipped with a security system and fire suppression system.[196] The Combined Facility is not anticipated to affect the existing capabilities of the City's fire and police departments.[197]

J. Effects on Human Health

i. Air Emissions

~~84.~~89. The Existing Facility (MEC I) is currently subject to state and federal Prevention of Significant Deterioration (PSD) requirements because the facility qualifies as a major stationary source under ~~the~~ PSD rules~~, defined in 40 CFR 52.21(b)(1)(i)~~.[198]~~.~~ The Existing Facility potential emissions of particulate matter (PM), PM less than 10 microns (PM_{10}), PM less than 2.5 microns ($PM_{2.5}$), sulfur dioxide (SO_2), nitrogen oxides (NO_x), volatile organic compounds (VOC), and carbon monoxide (CO) are greater than the PSD major source threshold of 100 tons/yr.[199] The Existing Facility potential greenhouse gas (GHG) emissions are greater than the PSD major source threshold of 100,000 tons/yr.[200]

~~85. The Expansion Project will install selective catalytic reduction (SCR) and dry low NO_x (DLN) burners to reduce NO_x emissions and a catalyst oxidation system to control CO and VOC emissions from the proposed combustion turbine and HRSG duct burner exhaust.[201] In order to provide additional cooling due to the increased steam flow to the steam turbine, four new cells will be added to the existing cooling tower. A new anhydrous ammonia tank will be installed to provide the reagent to the new HRSG SCR.[202] The Expansion Project is also proposing to install a new emergency generator.~~

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[191] *Id.*

[192] *Id.*

[193] *Id.*

[194] *Id.*

[195] ~~Exhibit 12 at 41.~~Exhibit 2 at 4-8.

[196] *Id.*

[197] *Id.*

[198] ~~*See* CFR Title 40, Chapter I, Subpart C, Part 52, Subpart A~~Exhibit 2 at 5-1; Exhibit 12 at 33-35.

[199] Exhibit 2 at 5-1.

[200] ~~Exhibit 2 at 5-1.~~*Id.*

[201] ~~*Id.*~~

[202] ~~*Id.*~~

~~86.~~90. The ~~Expansion Project~~Applicant must obtain a PSD permit from the MPCA to ~~authorize construction of~~operate the Expansion Project.[203] This permit requires the application of Best Available Control Technology (BACT) to control emissions from the Combined Facility.[204] The Expansion Project will satisfy BACT requirements by ~~applying the most effective of available options to control NO_x, CO, VOC, PM, organic, and GHG emissions from the Expansion Project's combustion turbine. The Expansion Project will~~ utilize~~e~~ing the following emissions control strategies[205]:

a. Firing primarily natural gas in the turbines to minimize NO_x, sulfur dioxide and particulate emissions.
b. Using dry low NO_x (DLN) combustors ~~are used~~ while firing natural gas to minimize the formation of oxides of nitrogen in the combustion turbine.
c. Using selective catalytic reduction (SCR) to reduce oxides of nitrogen emissions in the combustion turbine exhaust gas.
d. Using ~~C~~catalytic oxidation to reduce CO, VOC, and organic air pollutant emissions from the combined cycle system exhaust gas.
~~d.~~e. Limiting operation of the emergency generator and fire pump, as practicable, to less than 100 hours per year.
~~e.~~f. Using ~~H~~high efficiency mist eliminators to reduce cooling tower drift to minimize particulate emissions.

91. An air permit (PSD permit) application for the Expansion Project was submitted to the MPCA ~~on~~ in November ~~3,~~ 2015.[206] Combustion-related emissions from the Expansion Project of PM, CO, NOx, VOC and GHG are of primary interest because these pollutants are emitted in quantities that exceed the threshold triggering PSD review.[207]

~~87.~~92. Air modeling conducted by the Applicant indicated that emissions from the Project will not cause a violation of national ambient air quality standards and will not increase pollutants in the project area beyond the allowable PSD increment.[208] Impacts to public health resulting from the Project's impact on ambient air quality are anticipated to be minimal and within all state and federal standards.[209]

~~88.~~93. Compliance by the Combined Facility with emissions permit limits will be monitored by means of a Continuous Emission Monitoring Systems (CEMS) and demonstrated by periodic stack emissions tests or by monitoring fuel specifications.[210] The Expansion Project will be installing CEMS to measure CO and NO_x emissions in the Expansion Project's exhaust.[211] Stack testing or fuel monitoring will be required for

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[203] Exhibit 12 at 33-35; Exhibit 2 at 11-1 to 11-2.

[204] Exhibit 12 at 38.

[205] *Id.*

[206] Exhibit 12, Appendix E.

[207] ~~Exhibit 2 at 5-2.~~Exhibit 12 at 34-35 (Table 5).

[208] Exhibit 12 at 34.

[209] *Id.*

[210] Exhibit 2 at 5-4.

[211] ~~Id. at 5-4.~~*Id.*

the other pollutants as specified by the MPCA in the Expansion Project's air permit.[212] The Existing Facility is equipped with CEMS and has completed required testing.[213]

94. The ~~Existing Facility~~Applicant submitted an Air Emissions Risk Analysis (AERA) in accordance with MPCA technical guidance (*Facility Air Emissions Risk Analysis Guidance;* Version 1.0; September 2003) as part of its November ~~3,~~ 2015 air permit application.[214] The results of the ~~analysis~~ AREA indicated that potential health risks to residents in the project area due to potential air emissions are within state guidelines and minimal~~demonstrated compliance with all applicable standards~~.[215]

95. The accumulation of greenhouse gases in the atmosphere and associated warming of the planet is leading to a variety of adverse human and environmental impacts, including more severe droughts and floods, more heat related illnesses, and a decrease in food security.[216] Though a variety of gases contribute to the greenhouse effect, the most prominent greenhouse gas is carbon dioxide.[217]

96. The Expansion Project has the potential to increase emissions of greenhouse gases (carbon dioxide equivalents, CO_2e) by approximately 1.5 million tons annually.[218] The Combined Facility would have the potential to emit approximately 3 million ton CO_2e annually.[219]

97. Between 2005 and 2012 Minnesota greenhouse gas emissions declined by 11 million tons CO2e, or approximately seven percent.[220] During this period, emissions from the electric utility sector declined by approximately 17 percent.[221] This decline was due to utilities switching to less greenhouse gas intensive fuels, such as natural gas, and the increased use of renewable energy sources.[222]

~~89.~~98. Though the Expansion Project will increase greenhouse gas emissions at the facility itself, the Project will displace more greenhouse gas intensive fuels and facilitate additional wind and solar generation, resulting in reduced greenhouse gas emissions in Minnesota.[223] Though the displacement of more greenhouse gas intensive fuels and the addition of wind and solar power generation depend on a variety of actions by multiple actors, trends in electric utility emissions from 2005 to 2012 indicate that these activities will occur.[224] Thus, the Project is anticipated to reduce greenhouse

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[212] *Id.*

[213] *Id.*

[214] Exhibit 12 at 35-36.

[215] ~~Exhibit 12 at 35.~~*Id.*

[216] Exhibit 12 at 36-37.

[217] *Id.*

[218] *Id.*

[219] *Id.*

[220] *Id.*

[221] *Id.*

[222] *Id.*

[223] *Id.*

[224] *Id.*

gas emissions in Minnesota overall and may reduce potential human and environmental impacts associated with global warming.[225]

ii. Water Emissions

~~90.~~99. ~~No groundwater wells have been or will be installed on site to serve the Combined Facility. Cooling water is supplied from effluent taken from the City of Mankato municipal WWTP and piped through a dedicated line to the Existing Facility.[226] Service water for domestic uses such as drinking water, showers, toilets, sinks, and other incidental water needs is supplied by the municipal water supply system through a lateral service line. Additionally, the Existing Facility uses service water for fire protection and other operational uses. Service water also supplies demineralized water process equipment for boiler makeup. There is a demineralized water tank at the Existing Facility which stores water onsite so it can be utilized when needed for process makeup water. The tank allows operational flexibility to ensure that demineralized water is available when needed for operations while also allowing it to be filled at times without impacting the water supply for the City.~~Wastewater from power systems at the Combined Facility will be collected and treated and then discharged to the Mankato WWTP.[227] The Mankato WTTP, after further treatment of the wastewater, will discharge it into the Minnesota River in accordance with the WTTP's permits.[228] Discharges of wastewater are not anticipated to change as a result of the Expansion Project and are not anticipated to adversely impact public health.[229]

~~91.~~100. ~~The Cities of Mankato and North Mankato maintain separate municipal water supply systems. Both municipalities have indicated that the Existing Facility is outside of the boundaries of the wellhead protection area. Therefore there will be no potential impacts to existing groundwater resources or water supplies that could affect public health and safety as a result of construction of the Expansion Project and operation of the Combined Facility~~Domestic wastewater form the Combined Facility will be discharged to the Mankato sanitary sewer system.[230] This discharge will be monitored by the city and is subject to pollutant discharge limits.[231] No changes are anticipated in the handling of domestic wastewater as a result of the Expansion Project and no impacts to the Mankato sanitary sewer system or public health are anticipated.[232]

~~92.~~101. ~~Given the location of the Combined Facility in an industrial area on the edge of town and the capacity of existing highways and local roads serving the facility and surrounding area, vehicular traffic during construction and operation of the Combined Facility should not adversely affect existing traffic flows~~Stormwater from the power production areas at the Combined Facility will be treated to separate oil

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[225] *Id.*

~~[226] *Id.* at 46.~~

[227] Exhibit 12 at ~~5-7.~~39-40.

[228] *Id.*

[229] *Id.*

[230] *Id.*

[231] *Id.*

[232] *Id.*

and water – oil will be shipped off-site for disposal; water will be recycled as cooling water makeup.[233] Stormwater from non-power production areas will be routed to an existing stormwater basin.[234] Stormwater flows from this basin flow through a drainage ditch to the Minnesota River; discharges are regulated by a national pollutant discharge elimination system / sanitary disposal system (NPDES/SDS) permit.[235] No changes in stormwater handling are anticipated as a result of the project; no public health impacts are anticipated as a result of stormwater from the project.[236]

iii. Water Vapor Plumes

~~The tallest building structure at the Existing Facility is currently the CTG stack, which is just less than 200 feet tall. The new CTG stack is anticipated to be the same height and therefore, no structures associated with the Expansion Project exceed the 200-foot threshold triggering FAA notification.[237]~~

~~93.~~102. ~~The visible~~Water vapor plumes from the stacks and from the cooling towers ~~at~~ of the ~~Existing~~ Combined Facility will have the potential to impair visibility and/or create icy areas on nearby roadways.[238] ~~are not expected to impair visibility or safety on adjacent roadways.~~ The plumes rising from the HRSG stacks should dissipate well before reaching ground level.[239] The cooling towers ~~is~~ are designed to incorporate ~~"~~high efficiency drift eliminators to minimize fogging and icing potential from the plant.[240] Summit Avenue and 3rd Avenue, the nearest adjacent roadways, are at least 800 feet away from the cooling towers.[241] The Existing Facility has not received any complaints concerning plumes from the facility and additional plumage is anticipated to be minimal.[242] Because plumes are anticipated to dissipate before reaching roadways, potential impacts to public health and safety due to water vapor plumes are anticipated to be minimal.[243]

iv. Fire and Electrocution

103. Power generation equipment at the Combined Facility will have the potential to adversely impact public health by means of fire or electrocution.[244] Because of systems and controls in place at the Existing Facility, because access to the Existing Facility is controlled, and because the facility is relatively distant from populated

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[233] ~~Exhibit 12 at 31.~~*Id.*

[234] *Id.*

[235] *Id.*

[236] *Id.*

[237] *Id.*

[238] Exhibit 12 at 38-39.

[239] ~~Exhibit 12 at 38.~~*Id.*

[240] *Id.*

[241] *Id.*

[242] ~~*Id.* at 39.~~*Id.*

[243] *Id.*

[244] Exhibit 12 at 40.

areas (approximately one-half mile), the risk to public health and safety from fire and electrocution is anticipated to be minimal.[245]

K. Effects on Land Based Economics

i. Agriculture

~~94.~~104. The Expansion Project will be located within the fence line of the Existing Facility.[246] Additional land outside the fence line of the Existing Facility will be secured to serve as temporary construction laydown space and parking areas.[247] The estimated construction time frame for the Expansion Project is approximately 24 to 27 months, which means the temporary construction laydown space, if located on agricultural land, would be used for two growing seasons.[248] The amount of land needed for temporary construction space is less than 15 acres.[249] This temporary use of agricultural lands for construction laydown space would only result in a very minor decrease in agricultural production for a limited time.[250] The Combined Facility would not result in permanent impacts to agricultural lands or crop production.[251]

ii. Forestry

~~95.~~105. The Expansion Project will be located within the fence line of the Existing Facility which is a developed site and will not result in the loss of trees or clearing of forest lands.[252] There will be no adverse effects to the forestry economy as a result of the Combined Facility.[253]

iii. Tourism

~~96.~~106. The Combined Facility site is located in an existing industrial area and is not located on or near local tourist attractions.[254] Construction of the Expansion Project will take place within the fence line of the Existing Facility.[255] There will be no adverse effects to the tourism economy from the Combined Facility.[256]

iv. Mining

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[245] *Id.*

[246] Exhibit 2 at 6-1; Exhibit 12 at 41.

[247] *Id.*

[248] ~~Exhibit 2 at 6-1.~~*Id.*

[249] *Id.*

[250] ~~Exhibit 12 at 41.~~*Id.*

[251] *Id.*

[252] *Id.*

[253] *Id.*

[254] Exhibit 2 at 6-2; Exhibit 12 at 41-42.

[255] *Id.*

[256] *Id.*

97.107. There will be no adverse effects to the mining economy from the Expansion Project.[257] The Existing Facility site is a former limestone quarry that has been mined to completion and the Expansion Project will be located within the Existing Facility boundaries.[258]

v.i. Archeological and Historic Resources

98.1. Information was requested from the State Historic Preservation Office (SHPO) about possible archeological, historical, or architectural resources located on or near the Expansion Project site. A response letter dated April 2, 2015 was received from SHPO indicating that no known or suspected archeological resources are present in the area that would be affected by the Expansion Project.[259] Based on these findings and due to the disturbed nature of the site from the previous construction activity for the Existing Facility, construction of the Expansion Project and operation of the Combined Facility will have no impact on archeological, historical, or architectural resources.[260]

L. Effects on Archaeological and Historic Resources
Archeological and Historic Resources

108. Information was requested from the State Historic Preservation Office (SHPO) about possible archeological, historical, or architectural resources located on or near the Expansion Project site.[261] A response letter dated April 2, 2015 was received from SHPO indicating that no known or suspected archeological resources are present in the area that would be affected by the Expansion Project.[262] Further, SHPO indicated in its scoping comments that are no archaeological or historic resources in the project area that would be affected by the Expansion Project.[263] Based on these findingsAccordingly, and due to the disturbed nature of the site from the previous construction activity for the Existing Facility, construction of the Expansion Project and operation of the Combined Facility will have no impact on archeological, historical, or architectural resources.[264]

L.**M. Effects on the Natural Environment**

i. Air Quality

99.109. The construction of the Expansion Project and operation of the Combined Facility are not anticipated to result in changes to air quality that would impact plants, animals or soils.[265] The projected impacts from the Combined Facility will must comply with

[257] *Id.*

[258] *Id.*

[259] Exhibit 8.

[260] Exhibit 12 at 42.

[261] Exhibit 2, Appendix B.

[262] *Id.*

[263] Exhibit 8.

[264] Exhibit 12 at 42.

[265] *Id.*

applicable ~~the primary and secondary NAAQS and PSD increment~~air emission standards in order to obtain an air permit from the MPCA.[266] These standards are protective of public health and welfare, including the welfare of plants and animals.[267]

ii. Land

~~100.~~110. The Existing Facility site is approximately 25 acres in size and is located within an area currently zoned as Class 3A – Commercial/Industrial/Public Utility.[268] The construction of the Expansion Project will take place within the fence line of the Existing Facility on property fully owned by MEC I.[269]

~~101.~~111. The Existing Facility currently contains one CTG, one HRSG with natural gas-fired duct burners, one steam turbine generator with an associated heat rejection system, and various associated machinery and equipment required for operation of the power plant.[270] An outside storage area containing sanitary and storm sewer pipe and miscellaneous construction material is located on the east side of the site.[271] The Expansion Project will add one natural gas-fired CTG, an additional HRSG, and related ancillary equipment (e.g., four additional cooling tower cells and one emergency generator).[272]

~~102.~~112. The Existing Facility site has been previously disturbed during facility construction and prior to that, by activities associated with past gravel and limestone mining activities and the demolition landfill.[273] The disturbance for the construction of the Expansion Project will take place entirely within the boundaries of the Existing Facility site.[274] The construction of the Expansion Project or operation of the Combined Facility will not result in significant changes in land cover or land use at the facility.[275]

~~103.~~113. ~~MEC II is considering securing~~The Applicant may secure land to use as temporary construction laydown space or parking areas.[276] The execution of the options to utilize these parcels would ultimately be decided by the contractor selected for the Expansion Project.[277] Utilization of these adjacent properties as temporary

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[266] *Id.*

[267] *Id.*

[268] Exhibit 2 at 8-1.

[269] *Id.*

[270] *Id.*

[271] *Id.*

[272] *Id.*

[273] *Id.*

[274] *Id.*

[275] *Id.*

[276] *Id.*

[277] *Id.*

construction space would not alter their use classification.[278] The existing wooded areas located along the east and south sides of the site will remain in place with only minimal potential disturbance by the Expansion Project.[279] These wooded areas will continue to serve as a buffer and visual barrier between the site and adjacent properties.[280]

~~104.~~114. MEC I conducted a Phase I Environmental Site Assessment (ESA) and a limited Phase II investigation as part of the original construction to determine the potential for environmental liabilities associated with the site and adjacent properties.[281] The Phase II study included a subsurface investigation that involved soil and groundwater sampling at five locations.[282] Based on the results presented in the Phase II report, it was determined that no environmental hazards were evident at the site due to past land use that would require further action.[283] The Expansion Project will be constructed within the areas originally investigated by the Phase I and Phase II ESA reports and no further ESA investigations are needed to support this construction.[284]

~~105.~~115. ~~Based on LiDAR data of the Existing Facility, g~~Ground elevation at the ~~site~~ Existing Facility is relatively constant with a base elevation of 800 feet mean sea level (MSL).[285] The main area that differs from the base elevation is the existing stormwater pond in the northeast corner of the site with a bottom elevation of 784 feet MSL.[286] The site previously had more variation in elevation prior to construction of the Existing Facility, which included significant earth moving as part of the cut and fill balance to bring the site to a level grade.[287] Now that the site is flat and level, significant earth moving activities will not be needed for the construction the Expansion Project.[288]

1. Subsurface Investigations

~~106.~~116. Soil borings were collected as part of the ~~initial~~ construction ~~effort~~of the Existing Facility.[289] The information from the soil borings was used to aid in the design of the building and equipment foundations of the Existing Facility and also identified the depth to ground water which was approximately 20 feet below surface.[290] There were recent soil borings conducted in 2015 to investigate and confirm the soil conditions

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[278] *Id.*

[279] *Id.*

[280] *Id.*

[281] Exhibit 2 at 8-2.

[282] *Id.*

[283] ~~Exhibit 2 at 8-2.~~*Id.*

[284] *Id.*

[285] *Id.*

[286] *Id.*

[287] *Id.*

[288] *Id.*

[289] *Id.*

[290] *Id.*

at the site.[291] The soil boring information will be used to aide in the design of the new features of the Expansion Project and to determine construction conditions and methods.[292]

iii. Water Resources

1. Floodplains

~~107.~~117. ~~A review of the~~ Federal Emergency Management Agency (FEMA) mapping done for Blue Earth County and the City of Mankato indicates that the Combined Facility is not located within ~~a regulated~~the 100-year floodplain ~~area~~.[293] The Expansion Project will be constructed at existing grade and will not result in undue risk of flooding or impacts to the 100-year floodplain.[294]

2. Shoreland Protection Areas

~~108.~~118. The Existing Facility meets the Blue Earth County Shoreland Ordinance setback requirements for the stream east of the facility fence line.[295] The Expansion Project occurs within the fence line boundary, and will not encroach on the setbacks for the creek shoreland zone.[296] There are no anticipated impacts to shoreland protection areas.[297]

3. Wetlands

~~109.~~119. There are no wetlands ~~where the Expansion Project will be constructed~~within the fence line of Existing Facility; ~~, as a result there are~~ no ~~anticipated~~ impacts to wetlands are anticipated as a result of the Project.[298]

4. Groundwater

~~110.~~120. The Expansion Project does not require groundwater wells to be installed on site to serve the Combined Facility.[299] ~~; therefore,~~ Groundwater at the site is hydrologically connected to surface waters; thus, pollutants in surface waters could affect groundwater.[300] Impacts to surface waters due to emissions of potential pollutants are anticipated to be minimal; thus, no adverse impacts to groundwater ~~resources~~ are anticipated as a result of the Project.[301] ~~Both the cities of Mankato and North~~

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[291] *Id.*

[292] *Id.*

[293] Exhibit 12 at 46.

[294] ~~Exhibit 12 at 46.~~ *Id.*

[295] Exhibit 2 at 8-3.

[296] ~~Exhibit 2 at 8-3.~~ *Id.*

[297] *Id.*

[298] Exhibit 12 at 48.

[299] Exhibit 12 at 46-48.

[300] *Id.*

[301] ~~*Id.*~~ *Id.* ~~at 46.~~

~~Mankato have indicated that the Combined Facility is outside of the boundaries of the wellhead protection area for each city.[302] Proper management of chemicals at the Combined Facility will ensure no potential impacts to existing groundwater resources or water supplies that could affect public health and safety as a result. There are no anticipated impacts to groundwater supply or quality.~~

5. Stormwater Runoff and Management

~~111.~~121. The Expansion Project will be constructed entirely within the fence line of the Existing Facility and as a result all disturbances associated with the construction will be on the current site.[303] A little less than four acres of the Existing Facility site is expected to be disturbed for construction of the Expansion Project.[304] After completion of construction, all stormwater runoff from the Combined Facility will be directed to the existing stormwater pond.[305] The Expansion Project will not result in an increase in impervious surface within the Existing Facility boundaries.[306]

~~112.~~122. The existing stormwater pond was originally designed and constructed to treat runoff from the entire Combined Facility and will provide settling capacity and discharge rate control prior to discharging into the nearby drainage ditch.[307] The stormwater pond and outlet have been designed to meet the City of Mankato's requirements for water retention areas for new development projects that create new impervious surfaces of one acre or greater.[308] Due to the nature of the existing permeable soils and underlying bedrock material, the stormwater pond functions similar to an infiltration basin, retaining water for short periods of time and thus providing additional stormwater treatment and further reducing runoff volumes and peak discharge rates.[309]

~~113.~~123. The Combined Facility will continue to be properly maintained and good site housekeeping practices will be utilized to keep all road surfaces clean, reducing solids loading in stormwater runoff.[310] Landscaped areas and natural vegetation buffer strips along the perimeter of the Combined Facility, which have low runoff potential, provide further treatment of stormwater runoff by filtering out nutrients and suspended solids and promoting infiltration into underlying permeable soils.[311] The eastern one-third of the Existing Facility site (approximately eight acres) that contains the stormwater pond and wooded areas will not be disturbed by the construction of the Expansion Project.[312]

~~[302] Exhibit 2 at 8-3.~~

[303] Exhibit 2 at 8-4.

[304] *Id.*

[305] *Id.* ~~at 8-4.~~

[306] *Id.*

[307] *Id.*

[308] *Id.*

[309] *Id.*

[310] ~~Id.~~Exhibit 2 at 8-5.

[311] *Id.*

[312] *Id.*

~~114.~~124. Stormwater runoff that comes into contact with the outdoor steam generator step-up transformer pad, combustion turbine pads, and other process areas where there is potential for pollutant contamination by oils and other chemicals from pumps and motors, will be confined within curbed areas and drain to two area sump pump systems.[313] The collected stormwater ~~is~~ will ~~then to~~ be routed to ~~the~~ an oil/water separator and water will be recycled into the cooling tower make-up water system.[314] Oil removed through the separation process and related ~~All~~ materials ~~removed from the structure are~~ will be properly managed and disposed of offsite in accordance with applicable local, state, and federal requirements.[315]

~~115.~~125. The proposed best management practices (BMPs) described above that will be implemented at the Combined Facility have proven to be effective methods of treating stormwater runoff and are management techniques typically recommended by the MPCA, watershed management organizations, and other water management and planning agencies.[316] As a result, stormwater runoff from the Combined Facility will not adversely affect the flow rates or water quality in downstream receiving waters.[317]

6. Storm Water Pollution Prevention Plan

~~116.~~126. The existing industrial Stormwater Pollution Prevention Plan (SWPPP) will be updated for the Combined Facility in compliance with coverage under Minnesota NPDES General Stormwater Discharge Permit MN R050000 for industrial activities.[318]

7. Erosion and Sediment Control

~~117.~~127. Since construction of the Expansion Project will disturb more than one acre of land (a little less than four acres of the site will be disturbed), a permit application for coverage under Minnesota NPDES General Stormwater Discharge Permit (MN R100001) for construction activities is required and will be submitted to the MPCA prior to construction.[319] The permit application will certify that temporary and permanent erosion and sediment control plans have been prepared and implemented to prevent soil particles from being transported offsite.[320] The existing stormwater pond is designed in accordance with the criteria set forth in the General Permit for sedimentation/infiltration basins.[321] The pond will be available to serve as a temporary sediment basin during construction.[322]

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[313] Exhibit 2 at 8-4 to 8-5.

[314] ~~Exhibit 12 at 45.~~*Id.*

[315] Exhibit 2 at 8-5; Exhibit 12 at 45.

[316] Exhibit 2 at 8-5.

[317] ~~Exhibit 2 at 8-5.~~*Id.*

[318] ~~Id.~~Exhibit 2 at 8-5.

[319] ~~Exhibit 12 at 43.~~*Id.*

[320] *Id.*

[321] *Id.*

[322] ~~Exhibit 2 at 8-5.~~*Id.*

128. ~~MEC II~~The Applicant will ensure that adequate measures are taken to minimize soil erosion and sedimentation on the site.[323] Temporary erosion and sediment control measures will be maintained during construction and will remain in place until the Expansion Project has been completed.[324] The site will be stabilized and vegetation will be reestablished as needed, which is expected to be limited based on the very small amount of vegetated areas that may be disturbed.[325] In addition to the stormwater pond, control measures such as silt fence, staked hay bales, sediment filters and traps, erosion control matting, mulching, and crushed rock pads will also be used where applicable, specifically between the construction areas and the wooded eastern one-third of the site that will not be disturbed by construction.[326] The total disturbed areas from construction will be minimal; however, as needed, all disturbed areas of the site will be seeded and mulched as soon as practical where applicable.[327]

8. Wastewater Discharges

129. The Combined Facility will continue to manage wastewater in the same manner as existing conditions and will not add or change wastewater flow pathways or discharge points.[328] The Expansion Project will increase the use of grey water from the City of Mankato WTTP; the Applicant will install upgrades as required at the WTTP to accommodate the Expansion Project.[329] The handling of additional process wastewater at the Combined Facility is not anticipated to impact surface waters.[330]

~~118.~~

~~8.1. Wastewater Discharges~~

~~The Combined Facility will continue to operate in the same manner as existing conditions and will not add or change wastewater flow pathways or discharge points.[331] The Expansion Project will increase the use of grey water from the City of Mankato. The Expansion Project will also increase the discharge of cooling water blowdown back to the City of Mankato. No changes in this process are anticipated as a result of the project. Accordingly, the handling of process wastewater at the MEC is not anticipated to impact surface waters.[332]~~

9. Evaporative Loss of Cooling Water

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[323] Exhibit 2 at 8-6.

[324] *Id.*

[325] *Id.*

[326] *Id.* ~~at 8-6.~~

[327] *Id.*

[328] *Id.*

[329] *Id.*

[330] *Id.*

~~[331] *Id.*~~

~~[332] Exhibit 12 at 45.~~*Id.*

130. When running at full power the Existing Facility has the potential to evaporate 3.48 million gallons per day (MGD) from the plant's cooling towers; with the Expansion Project, the plant will have the potential to evaporate 6.06 MGD.[333]

131. Because the plant does not run continuously, but rather only when needed by the electrical transmission grid, average daily water evaporation is approximately one-tenth that of maximum potential evaporation.[334] On average, the Existing Facility evaporates 0.34 MGD; with the Expansion Project, the plant will evaporate, on average, approximately 0.47 MGD.[335]

132. The wastewater used for cooling at the plant, were it not lost to evaporation, would be discharged by the Mankato WWTP to the Minnesota River.[336] The Mankato WWTP treats and discharges, on average, approximately 7.0 MGD.[337] Thus, evaporation from the plant, with the Expansion Project, will remove approximately 6.7 percent of the WWTP's average discharge to the Minnesota River.[338]

133. Potential impacts of evaporative loss of cooling water are anticipated to be minimal.[339] Cooling water used at the plant is wastewater that has already provided ecosystem services to plants and animals.[340] Further, the evaporative loss is not anticipated to impact the Minnesota River or the habitat it provides for plants and animals, as the evaporative loss is insignificant compared with the flow volume of the Minnesota River.[341]

iv. Biological Resources

1. Vegetation

~~119.~~134. The Expansion Project will include the construction of additional power generating equipment and buildings within the fence line of the Existing Facility.[342] There is no vegetation within the fence line and thus there will be no ~~significant~~ clearing of ~~vegetated~~ vegetation ~~areas~~for the Expansion Project within the fence line.[343] The materials for the construction of the Expansion Project will be transported to the site on existing roads and construction activity will occur on land that is currently disturbed.[344] ~~No additional property is required for operation of the Combined Facility.~~The Expansion Project will require the temporary use of approximately 15

[333] Exhibit 12 at 43-45.

[334] *Id.*

[335] *Id.*

[336] *Id.*

[337] *Id.*

[338] *Id.*

[339] *Id.*

[340] *Id.*

[341] *Id.*

[342] Exhibit 2 at 8-7.

[343] ~~Exhibit 2 at 8-7.~~*Id.*

[344] *Id.*

acres for construction laydown and parking.[345] This will be agricultural land or industrial land.[346] In sum, impacts to vegetation as a result of the Expansion Project are anticipated to be minimal. There are no anticipated impacts to vegetation.[347]

2. Wildlife and Wildlife Habitat

120. 135. The Existing Facility is a developed industrial property that does not provide habitat for wildlife and is located adjacent to other industrial properties.[348] There is wildlife habitat in the vicinity of the Expansion Project but this habitat will not be impacted.[349] There are no anticipated impacts to wildlife or wildlife habitat.[350]

3. Sensitive Species and Habitats

121. 136. There are some sensitive species and habitats in the vicinity of the Expansion Project, mainly associated with the areas along and within the Minnesota River.[351] The Minnesota River and adjacent habitats will not be impacts or disturbed by the Expansion Project.[352] There are no anticipated impacts to sensitive species and habitats.[353]

N. Rare and Unique Natural Resources
Rare and Unique Natural Resources

122. 137. A review of the state databases was completed during the evaluation of the Expansion Project. Thenatural resource databases review determined indicated that there are some several rare and unique natural resources in the vicinity of the Expansion Project but that these resources would not be impacted by its construction or the operation of the Combined Facility.[354] There are no anticipated impacts to rare and unique natural resources as a result of the Expansion Project.[355]

123. 138. The U.S. Fish and Wildlife Service listed the Northern Long-eared Bat (*Myotis septentrionalis)* as threatened under the Endangered Species Act and implemented an interim 4(d) rule effective May 4, 2015, which generally prohibits purposeful taking of northern long-eared bats throughout the species' range.[356] The bats hibernate in caves and mines during the winter and roost in trees during the

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[345] *Id.*

[346] *Id.*

[347] Exhibit 2 at 8-7; Exhibit 12 at 48.

[348] *Id.* Exhibit 2 at 8-7.

[349] *Id.*

[350] *Id.*

[351] Exhibit 2 at 8-8.

[352] *Id.*

[353] *Exhibit 2 at 8-8.* *Id.*

[354] *Id. at 9-3.* Exhibit 12 at 49-50.

[355] *Id.*

[356] Exhibit 2 at 9-1.

summer.[357] There will ~~only~~ be very limited clearing of trees (less than one acre) during the construction of the Expansion Project.[358] Therefore no impacts to the northern long-eared bat are anticipated.[359]

~~M.~~O. Applicability of Design Options

~~124.~~139. The Expansion Project will take place within the existing MEC site and involves the planned completion of the facility through the addition of a new additional power train.[360] The additional power train will allow the ~~MEC~~ Combined Facility to operate in a 2 x 1 configuration with two combined cycle turbines providing steam to one steam turbine.[361] The Existing Facility was designed and constructed to accommodate the Expansion Project.[362]

~~125.~~140. ~~The EA~~Use of the existing MEC site for the Expansion Project is a design option that maximizes energy efficiencies and mitigates adverse environmental impacts. ~~concluded the application of design options is a siting factor that is well met as part of the Expansion Project.~~[363]

~~N.~~P. Use or~~f~~ Paralleling or~~f~~ Existing Rights-of-way

~~126.~~141. The Expansion Project will be constructed within the existing MEC site.[364] The Applicant will secure temporary construction and laydown space from local property owners.[365] No additional land or ~~-~~right-of-way will be needed for the construction or operation of the Expansion Project.[366]

~~127.~~142. The ~~EA concluded that the use of existing infrastructure~~use or paralleling of existing rights-of-way ~~is a siting factor that is not relevant to the~~is not required for the Expansion Project.[367]

~~O.~~Q. Use of Existing Large Electric Power Generating Plant Sites

~~128.~~143. The Expansion Project will be constructed within the existing MEC site which is a ~~permitted~~ large electric power generating plant site.[368]

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[357] *Id.*

[358] *Id.*

[359] ~~*Exhibit 12 at 49.*~~*Id.*

[360] Exhibit 2 at 2-1 to 2-2.

[361] ~~*Id. at 2-2.*~~*Id.*

[362] ~~*Id. at 2-1.*~~*Id.*

[363] Exhibit 12 at 53.

[364] Exhibit 2 at 2-1.

[365] Exhibit 2 at 2-3.

[366] *Id.*

[367] Exhibit 12 at 51.

[368] Exhibit 2 at 2-1.

~~129. The EA concluded the use of existing large electric power generating plant sites is a siting factor that is well met as part of the Expansion Project.[369]~~

~~P.~~R. Electrical System Reliability

~~130.~~144. The Expansion Project will ensure reliable electrical power for projected electrical needs within the state.~~Power Plant Siting Act requires the Commission locate electric power generating plants that ensures electrical power reliability.~~[370] The Expansion Project was selected by the Commission in a competitive resource acquisition process to meet these projected electrical needs.[371]

~~131. The EA concluded the electrical system reliability is a siting factor that is well met as part of the Expansion Project.[372]~~

~~Q.~~S. Adverse Human and Environmental Effects Which Cannot be Avoided

~~132.~~145. The Expansion Project will create unavoidable ~~EA concluded that the~~ human and environmental impacts ~~from the Expansion Project which cannot be avoided include~~including: the use of natural gas, a limited carbon feedstock; air emissions; greenhouse gas emissions; aesthetic impacts~~s~~; and temporary construction impacts.[373]

~~133. The EA concluded that though these impacts cannot be avoided they would be minimal and within state guidelines.[374]~~

~~R.~~T. Irreversible and Irretrievable Commitment of Resources

~~134.~~146. The ~~EA concluded that the~~ commitment of land ~~of resources~~ for the Expansion Project ~~that are~~is likely an irreversible ~~includes land for the MEC site~~commitment of resources.[375]

~~135.~~147. The ~~EA concluded that the commitment of resources~~ commitments of steel, carbon, and concrete for the Expansion Project, as well as labor and fiscal resources, are irretrievable, though it is possible that the steel used for the Project could be recycled at some point in the future.~~ that are irretrievable includes the commitments of steel, carbon and concrete to construct and operate the facility.~~[376]

VII. Notice

~~369 Exhibit 12 at 53.~~

370 ~~See Minnesota Stat. § 216E.~~Exhibit 12 at 53.

371 Exhibit 12 at 1 and 5.

~~372 Exhibit 12 at 53.~~

373 ~~*Id.*~~Exhibit 12 at 53-54.

~~374 *Id.*~~

375 *Id.* at 54.

376 *Id.*

~~136.~~148. Minnesota statues and rules require the Applicant to provide appropriate notice to the Commission, public, and local governments before and during the Site permit Application process.[377]

~~137.~~149. The Applicant provided notice to the Commission, public and local governments in satisfaction of Minnesota statutes and rules~~ and requirements~~.[378]

~~138.~~150. Minnesota statues and rules require the Commission and DOC EERA to provide notice to the public throughout the Site Permit p~~P~~rocess.[379]

~~139.~~151. The Commission and DOC EERA provided notice in satisfaction of Minnesota statutes and rules~~ and requirements~~.[380]

VIII. Completeness of the EA

~~140.~~152. The Commission is required to determine the completeness of the EA.[381] An EA is complete if it and the record address the issues and alternatives identified in the Scoping Decision.[382]

~~141.~~153. The evidence ~~compiled~~ on the record ~~including the items addressed during the public hearing and comment period~~ demonstrates that the EA prepared by the DOC EERA is ~~adequately evaluated and~~complete because the EA and the record ~~addressed~~ address the ~~items~~ issues identified in the Scoping Decision.[383]

IX. Site Permit Conditions

154. The EA prepared to evaluate the Expansion Project included ~~a~~ the Commission's Generic Site Permit Template~~ as an attachment~~.[384] The ~~permit conditions outlined within the Generic~~ Site Permit Template contains proposed permit conditions ~~are applicable to the proposed Expansion Project with the following exceptions and or clarifications:~~applicable to the construction and operation of the Expansion Project including proposed mitigation measures.[385]

155. The Applicant commented on the proposed permit conditions in the Site Permit Template.[386] The Applicant noted that permit condition 4.2.4 of the Site Permit Template requires that the Project be constructed only during daytime hours to

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[377] ~~*See*~~ Minnesota Statute 216E.04, Subd. 4; Minnesota Rules 7850.2100, Subp.2 and Subp.4; Minnesota Rules 7850.2800, ~~s~~Subp. 2.

[378] Exhibit 1; Exhibit 7.

[379] ~~*See*~~ Minnesota Statute 216E.04, Subd. 6; Minnesota Rules 7850.~~21~~3300; Minnesota Rules 7850.3500; Minnesota Rules 7850.3700.~~.~~

[380] Exhibit 3; Exhibit 6; Exhibit 10; Exhibit 13; Exhibit 14; Exhibit 15; Exhibits 17 ~~-~~and 18.

[381] Minnesota Rules 7850.3900, ~~s~~Subp. 2.

[382] ~~*See*~~ *Id.*~~Minnesota Rules 7850.3900, subp. 2.~~

[383] Exhibit 9; Exhibit 12.

[384] Exhibit 12 at Appendix B.

[385] *Id.*

[386] Calpine Comments (March 18, 2016) (eDockets Number 20163-119274-01)

ensure compliance with Minnesota noise standards.[387] The Applicant indicated that in order to meet the project's commercial operation date, continuous 24 hour activity may be required at the Project site to complete construction, system commissioning and operation preparation activities.[388] The Applicant requested that permit condition 4.2.4 be revised to allow for 24 hour activity at the Project site and indicated that all such activity would be in compliance with Minnesota noise standards.[389]

~~142.~~156. Minnesota state noise standards allow for and provide permissible noise levels for daytime and nighttime activities.[390]

~~a. Permit Condition 4.2.4 of the Generic Site Permit Template states that in order to ensure compliance with Minnesota Noise Statues project construction and routine maintenance will be limited to daytime hours.[391] The Applicant filed a comment letter as part of the EA and has indicated that in order to meet the project's commercial operation date and operational commitments, continuous 24 hour activity is required at the project site to complete construction, system commissioning and operation activities.[392] As such, a recommendation for a special permit condition related to construction and maintenance noise is appropriate to allow the Applicant to conduct construction and maintenance activities 24 hours a day, provided the activities comply with applicable Minnesota Noise standards. The Applicant suggests the following language:~~

> ~~*Construction and routine maintenance activities shall be conducted in a manner to ensure nighttime noise level standards, as defined in Minn R 7030.0020, will not be exceeded. This condition supersedes General Condition 4.2.4.*~~

~~b. Permit Condition 4.2.6 of the Generic Site Permit Template states all areas disturbed during construction of the facilities shall be returned to pre-construction conditions.[393] The Applicant clarifies all areas disturbed outside the project area and not stabilized as part of the project will be returned to pre-construction conditions.~~

~~c. Permit Condition 8.1 of the Generic Site Permit Template states the Applicant will notify the Commission of any significant changes at least five days before implementing the changes.[394] The Applicant defines significant changes as any change that would affect the conclusions of the Environmental Assessment or requirements of the Site Permit.~~

~~d. Permit Condition 8.3 of the Generic Site Permit Template states the Applicant will notify the Commission at least 10 days prior to the date on which the facility will~~

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[387] *Id.*

[388] *Id.*

[389] *Id.*

[390] Ex. 12 at 27-28; see Minnesota Rule 7030.0040.

~~[391] *Id.* at 3.~~

~~[392] Calpine Comments (Mar. 18, 2016) (eDockets No. 20164-120013-01).~~

~~[393] Exhibit 12 at Appendix B at 3.~~

~~[394] *Id.* at 10.~~

~~be placed into service and the date on which construction was complete.[395] The Applicant clarifies they will notify the Commission that (1) the facility is "placed into service" when the Expansion Project is declared commercially available and (2) "construction is complete" when the Engineering, Procurement and Construction Contractor turns over care, custody and control of the Expansion Project to the Applicant (note: additional punch list items may exist after transfer of care, custody and control).~~

Conclusions

1. The Commission has jurisdiction over the Site Permit Application submitted by MEC II for the Mankato Energy Center Expansion Project pursuant to Minn. Stat. § 216E.04.

2. The Project was selected by the Commission is a competitive resource acquisition process established by the Commission and is exempt from Certificate of Need requirements.

3. MEC II has substantially complied with the procedural requirements of Minn. Stat. § 216E and Minn. R. 7850.

4. The Commission has complied with all procedural requirements required by Minn. Stat. § 216E and Minn. R. 7850.

5. The DOC-EERA has complied with all procedural requirements and conducted an appropriate environmental analysis of the Project for purposes of this proceeding.

6. The EA satisfies Minn. R. 7850.3700. Specifically, the EA and the record address the issues and alternatives identified in the Scoping Decision to a reasonable extent considering the availability of information, including the items required by Minn. R. 7850.3700, ~~s~~Subp. 4, and was prepared in compliance with the procedures in Minn. R. 7850.3700.

7. A Public hearing~~s~~ w~~ere~~as conducted near the proposed site for the Project. Proper notice of the public hearing~~s~~ was provided, and members of the public were given the opportunity to speak at the hearing~~s~~ and also to submit written comments.

8. The evidence on the record demonstrates that the Site Permit Template contains mitigation measures and other reasonable conditions which should be incorporated into the final Site Permit for the Project.~~information provided as part of the record demonstrates that the conditions presented within the Generic Site Permit Template included with the EA are applicable for the Expansion Project, with the exception of the recommended conditions outlined under Item IX of this Findings of Fact.~~

9. It is appropriate for section 4.2.4 of the Site Permit Template to be revised to allow for daytime and nighttime construction activities at the Project site, provided that all activities are in compliance with Minnesota noise standards:

~~395 *Id.* at 11.~~

Noises created by construction and routine maintenance activities shall not exceed Minnesota noise levels standards, as these standards are defined in Minn. R. Chapter 7030.

~~8.~~10. The Project satisfies the site permit criteria for a large electric power generating ~~on~~ plant in Minn. Stat. § 216E.03 and Minn. R. 7850, and meets all other legal requirements.