

May 5, 2022

The Honorable Jim Mortenson  
Office of Administrative Hearings  
600 North Robert Street  
P.O. Box 64620  
Saint Paul, MN 55164-0620

RE: EERA Reply Comments  
Hayward Solar Project  
OAH Docket Nos. 5-2500-37666, 37667  
PUC Docket Nos. IP-7053/CN-21-112, GS-21-113

Dear Judge Mortenson,

Department of Commerce, Energy Environmental Review and Analysis (EERA) staff submits these reply comments on the proposed Hayward Solar Project. These comments address the proposed findings of fact, conclusions of law, and recommendations provided by Hayward Solar, LLC (Hayward Solar).<sup>1</sup>

The comments consist of three parts. Part 1 discusses substantive comments regarding Hayward Solar's proposed findings. Part 2 details minor edits to the findings. Part 3, attached (Attachment A), is an edited version (underline and strikethrough) of Hayward Solar's proposed findings that reflects EERA staff's comments.<sup>2</sup>

## **Part 1. Substantive Comments**

- A. Summary of Public Comments.** Section VII of Hayward Solar's proposed findings summarizes public comments received regarding the project. Though EERA staff's comments are noted in the findings' Procedural Background and in the Application of Siting Criteria to the Proposed Project, staff's comments are not included in the Summary of Public Comments.

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<sup>1</sup> Hayward Solar LLC's Proposed Findings of Fact, Conclusions of Law, and Recommendations, April 25, 2022, eDockets Number [20224-185112-01](#) [hereinafter Hayward Solar Proposed FOF].

<sup>2</sup> EERA staff's edits are in black and white. Blue additions and red strikethroughs are part of Hayward Solar's proposed findings.

For clarity and consistency of the record, EERA staff recommends including EERA staff's comments in the Summary of Public Comments. EERA staff recommends the following additional findings:

84. On April 13, 2022, EERA staff filed comments on behalf of the interagency Vegetation Management Planning Working Group ("VMPWG") regarding the Project's Vegetation Management Plan ("VMP"). The VMPWG noted several concerns that remain unaddressed in the current VMP including appropriate seed mixes for hydric soils, plan objectives, and monitoring protocols. The VMPWG encouraged Hayward Solar to coordinate with the VMPWG to finalize a pre-construction VMP.

87. On April 15, 2022, EERA staff filed hearing comments on the Sample Site Permit, the EA, and the direct testimony of Hayward Solar. Staff recommended that Section 4.3.8 of the Sample Site Permit be amended to discuss solely beneficial habitat for the project. Staff also recommended several special permit conditions for the project: development and filing of a Vegetation Management Plan for the project, development and filing of an Agricultural Impact Mitigation Plan for the project, use of an independent third-party monitor for the project, coordination to reduce potential noise impacts of the project, coordination to reroute an existing snowmobile trail in the project area, and the use of visibility markers on project perimeter fencing. Additionally, EERA staff recommended that Section 9.1 of the Sample Site Permit be amended to require that the decommissioning plan for the project be filed prior to construction, rather than prior to operation, of the project. Staff provided Hayward Solar with several recommendations to finalize a pre-construction decommissioning plan.

**B. Visibility Markers on Perimeter Fencing.** In EERA's staff's hearing comments, staff recommended a special permit condition requiring visibility markers on the project's perimeter fencing to mitigate potential wildlife impacts.<sup>3</sup> In its response to hearing comments, Hayward Solar indicated its belief that the record did not support the use of visibility markers.<sup>4</sup> Hayward Solar did not include a special permit condition for visibility markers in its proposed findings.<sup>5</sup>

After conferring with Minnesota Department of Natural Resources (DNR) staff, EERA staff agrees with Hayward Solar that visibility markers on perimeter fencing are not necessary for the project. EERA staff recommends no edits to Hayward Solar's proposed findings on this point.

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<sup>3</sup> EERA Hearing Comments, April 15, 2022, eDockets Number [20224-184798-01](#).

<sup>4</sup> Hayward Solar Reply Comments, April 25, 2022, eDockets Number [20224-185109-02](#).

<sup>5</sup> Hayward Solar Proposed FOF, Finding 169.

### C. Final Permitting Decision

Per Minnesota Rule 7850.3900, at the time that the Commission makes a site permit decision, it must determine whether the environmental assessment (EA) prepared for the project and the record created at the public hearing address the issues identified in the EA scoping decision.<sup>6</sup> EERA staff believes that the EA and the hearing record address the issues identified in the scoping decision. EERA staff recommends adding this conclusion to those proposed by Hayward Solar:

8. The EA prepared for the project and the record created at the public hearing address the issues identified in the EA scoping decision.

## Part 2. Minor Edits

### A. Finding 19.

On June 15, 2021, EERA staff filed additional comments and recommendations on the completeness of the SP Application, agreeing with Hayward Solar that: the SP Application is substantially complete with the understanding that Hayward Solar will submit an amended decommissioning plan prior to the public hearing; an advisory task force is not warranted; the SP Application and CN Application are appropriately processed jointly; there are no contested issues of fact; preparation of a full ALJ report with recommendations is appropriate; and a schedule consistent with the draft schedule provided in EERA staff's initial comments and recommendations is appropriate.

### B. Finding 22.

On July 15, 2021, the Commission and EERA issued a Notice of Public Information and Environmental Assessment Scoping Meetings scheduling meetings on August 11, 2021 (in-person) and on August 12, 2021 (remote-access) and announcing that written comments would be accepted through August 26, 2021. The Notice requested comments on issues and facts that should be considered in the development of the environmental assessment. The Notice of Public Information and Environmental Assessment Scoping Meetings was mailed to landowners and local units of government located within and adjacent to the Project.

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<sup>6</sup> Minnesota Rule 7850.3900, Subp. 2.

EERA staff appreciates the opportunity to submit these reply comments.

Sincerely,

A handwritten signature in black ink, reading "Ray Kirsch". The signature is written in a cursive style with a large, looping initial "R".

Ray Kirsch  
Environmental Review Manager

**STATE OF MINNESOTA  
OFFICE OF ADMINISTRATIVE HEARINGS  
FOR THE PUBLIC UTILITIES COMMISSION**

**In the Matter of the Application of  
Hayward Solar LLC for a Site Permit for  
the up to 150 MW Hayward Solar Project  
in Freeborn County**

MPUC Docket No. IP-7053/CN-21-112;  
MPUC Docket No. IP-7053/GS-21-113;  
OAH Docket Nos. 5-2500-37666, 37667

**In the Matter of the Application of  
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Need for the up to 150 MW Hayward Solar  
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**HAYWARD SOLAR LLC'S  
PROPOSED FINDINGS OF FACT,  
CONCLUSIONS OF LAW, AND  
RECOMMENDATIONS**

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CONCLUSIONS OF LAW, AND  
RECOMMENDATIONS**

This matter was assigned to Administrative Law Judge (“ALJ”) James Mortenson to conduct a public hearing on the Certificate of Need (MPUC Docket No. CN-21-112) and Site Permit (MPUC Docket No. GS-21-113) Applications of Hayward Solar LLC (“Hayward Solar” or “Applicant”) for an up to 150 megawatt (“MW”) solar energy generating system and associated facilities in Freeborn County, Minnesota (the “Project”). The Minnesota Public Utilities Commission (“MPUC” or “Commission”) also requested that the ALJ prepare findings of fact, conclusions of law and recommendation of a preferred site and permit conditions.

Joint public hearings on the Site Permit and Certificate of Need Applications for the Project were held on March 28, 2022 (remote-access - telephone and internet) and March 29, 2022 (in-person). The factual record remained open until April 15, 2022, for the receipt of written public comments.

Jeremy P. Duehr and Bridget A. Duffus, Fredrikson & Byron, P.A., 200 South Sixth Street, Suite 4000, Minneapolis, Minnesota 55402, and Michael Roth, Director of Strategic Development and Acquisitions and Joseph Finocchiaro, Director of Environmental Programs, Tenaska, Inc. (“Tenaska”), 14302 FNB Parkway, Omaha, Nebraska, 688145, appeared on behalf of Hayward Solar.

Michael Kaluzniak, Minnesota Public Utilities Commission Staff, 121 Seventh Place East, Suite 350, St. Paul, MN 55101 appeared on behalf of the Commission.

Ray Kirsch, Environmental Review Manager, 85 Seventh Place East, Suite 280, St. Paul, MN 55101 appeared on behalf of the Department of Commerce, Energy Environmental Review and Analysis (“EERA”).

**STATEMENT OF ISSUES**

Has Hayward Solar satisfied the criteria set forth in Chapter 216E of the Minnesota Statutes and Chapter 7850 of the Minnesota Rules for a Site Permit for the proposed Project?

## **SUMMARY OF RECOMMENDATIONS**

The ALJ concludes that Hayward Solar has satisfied the applicable legal requirements and, accordingly, the Commission should GRANT a Site Permit for the Project, subject to the conditions discussed below.

Based on the evidence in the hearing record, the ALJ makes the following:

### **FINDINGS OF FACT**

#### **I. APPLICANT**

1. Hayward Solar LLC is a wholly owned indirect subsidiary of CD Clean Energy and Infrastructure VII JV, LLC (“CD Fund VII”), a clean energy infrastructure fund.<sup>1</sup>

2. Arevon Energy Management (“Arevon”) is an affiliate of CD Fund VII with the mandate to oversee the development and energy products marketing while Arevon Asset Management is another affiliate of CD Fund VII that oversees financial and operational asset management; both are focused on providing highly specialized services to ensure portfolio growth.<sup>2</sup>

3. Tenaska, an energy development company with headquarters in Omaha, Nebraska is providing development services to Arevon for the Project. Tenaska is one of the leading independent power producers in the United States and has developed approximately 10,000 MW of natural gas-fueled and renewable power generation with its affiliates. Tenaska, alongside Arevon, will be overseeing the Project. Tenaska most recently completed construction and commenced operation of the Nobles 2 Wind Project in Nobles County, Minnesota.<sup>3</sup>

#### **II. SITE PERMIT AND CERTIFICATE OF NEED APPLICATIONS AND RELATED PROCEDURAL BACKGROUND**

4. On February 5, 2021, Hayward Solar filed a Request for Exemption from Certain Certificate of Need Application Content Requirements with the Commission, requesting exemptions from certain Certificate of Need data requirements.<sup>4</sup>

5. On February 18, 2021, Staff of the Department of Commerce, Division of Energy Resources (“DER”) filed comments recommending that the Commission approve the data exemption requests, with modifications.<sup>5</sup>

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<sup>1</sup> Ex. HS-107 at 3 (Application for a Site Permit (Corrected)).

<sup>2</sup> Ex. HS-107 at 3 (Application for a Site Permit (Corrected)).

<sup>3</sup> Ex. HS-107 at 3-4 (Application for a Site Permit (Corrected)).

<sup>4</sup> Ex. HS-100 (Request for Exemption from Certain Certificate of Need Application Content Requirements).

<sup>5</sup> DER Comments (February 18, 2021) (eDocket No. [20212-171093-01](#)).

6. On March 5, 2021, the Commission issued a Notice of Commission Meeting scheduling a meeting for March 18, 2021 to consider whether to grant Hayward Solar's data exemption requests.<sup>6</sup>

7. On March 24, 2021, the Commission issued an Order approving Hayward Solar's data exemption requests with the modifications as provided in DER staff's February 18, 2021 comments.<sup>7</sup>

8. On April 13, 2021, Hayward Solar filed a notice of intent to submit a site permit application under the alternative permitting procedures of Minn. R. 7850.2800 to 7850.3900.<sup>8</sup>

9. On May 5, 2021, Hayward Solar filed a Certificate of Need Application ("CN Application") with the Commission for the Project.<sup>9</sup> On May 6, 2021, Hayward Solar filed corrected figures for the CN Application.<sup>10</sup>

10. On May 5 and 6, 2021, Hayward Solar filed an Application for a Site Permit ("SP Application") with the Commission for the Project.<sup>11</sup>

11. On May 7, 2021, the Commission filed a Notice of Comment Period on the SP Application and CN Application Completeness announcing it would accept written comments through March 28, 2021 and reply comments through June 11, 2021.<sup>12</sup>

12. On May 12, 2022, Hayward Solar filed the initial payment for the CN Application.<sup>13</sup>

13. On May 19, 2021, Hayward Solar filed confirmation that it had notified those persons on the Commission's general service list that Hayward Solar filed the CN Application and SP Application.<sup>14</sup> Hayward Solar also notified landowners and local government officials that Hayward Solar filed the CN Application and SP Application.<sup>15</sup>

14. Also on May 19, 2021, notice of Hayward Solar filing its CN Application and SP Application was published in the *Albert Lea Tribune*.<sup>16</sup>

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<sup>6</sup> Notice Of Commission Meeting--March 18, 2021 Agenda (March 5, 2021) (eDocket No. [20213-171592-01](#)).

<sup>7</sup> Order (March 24, 2021) (eDocket No. [20213-172146-01](#)).

<sup>8</sup> Ex. HS-101 (Notice of Intent to Submit a Site Permit Application under the Alternative Permitting Process).

<sup>9</sup> Exs. HS-102 through HS-106 (CN Application, Appendices, and Figures).

<sup>10</sup> Ex. HS-103 (CN Application Figures (Corrected)); *see also* Hayward Solar Filing Letter Replacing CN Application Figures (May 6, 2021) (eDocket No. [20215-173941-01](#)).

<sup>11</sup> Exs. HS-107 through HS-120 (SP Application, Appendices, and Figures).

<sup>12</sup> Notice Of Comment Period--On Application Completeness (May 7, 2021) (eDocket Nos. [20215-173985-01](#) (SP), [20215-173985-02](#) (CN)).

<sup>13</sup> Initial Payment (May 12, 2021) (eDocket No. [20215-174101-02](#)).

<sup>14</sup> Ex. HS-121 (Notice of Filing CN and SP Applications).

<sup>15</sup> Hayward Solar Compliance Filing - Notice (April 22, 2022) (eDocket No. [20224-185038-02](#)).

<sup>16</sup> Hayward Solar Compliance Filing - Notice (April 22, 2022) (eDocket No. [20224-185038-02](#)).

15. On May 27, 2021, the EERA staff filed comments and recommendations on the completeness of the SP Application, recommending that the Commission: accept the SP Application as substantially complete and require Hayward Solar to amend its decommissioning plan to include a method and schedule for updating decommissioning costs and file its amended plan prior to the public hearing for the Project; not appoint an advisory task force; process the SP Application and CN Application jointly, including environmental review; and request a full ALJ report with recommendations.<sup>17</sup>

16. On May 28, 2021, DER staff filed written comments recommending that the Commission find the CN Application to be substantially complete and that the Commission review the application using the Commission's informal comment process.<sup>18</sup>

17. On June 11, 2021, Hayward Solar filed Reply Comments on the SP Application to address EERA staff's comments.<sup>19</sup>

18. Also, on June 11, 2021, Hayward Solar filed Reply Comments on the CN Application to address DER staff's comments.<sup>20</sup>

19. On June 15, 2021, EERA staff filed additional comments and recommendations on the completeness of the SP Application, agreeing with Hayward Solar that: the SP Application is substantially complete with the understanding that Hayward Solar will submit an amended decommissioning plan prior to the public hearing; an advisory task force is not warranted; the SP Application and CN Application are appropriately processed jointly; there are no contested issues of fact; preparation of a full ALJ report with recommendations is appropriate; and a schedule consistent with the draft schedule provided in EERA staff's initial comments and recommendations is appropriate.<sup>21</sup>

20. On June 29, 2021, the Commission issued an Order which: accepted the SP Application as substantially complete with the understanding that Hayward Solar will submit an amended decommissioning plan prior to the public hearing; found that an advisory task force is not warranted; determined that the SP Application is appropriately processed jointly with the CN Application; determined there are no contested issues of fact; determined that preparation of a full ALJ report with recommendations is appropriate; and determined that a schedule consistent with the draft schedule provided in EERA staff's initial comments and recommendations is appropriate.<sup>22</sup>

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<sup>17</sup> EERA Comments on Application Completeness (May 27, 2021) (eDocket No. [20215-174542-01](#)).

<sup>18</sup> DER Comments (May 28, 2021) (eDocket No. [20215-174602-01](#)).

<sup>19</sup> Ex. HS-123 (SP Reply Comments re Application Completeness).

<sup>20</sup> Ex. HS-122 (CN Reply Comments re Application Completeness).

<sup>21</sup> Ex. EERA-1 (Comments and Recommendations Regarding Application Completeness).

<sup>22</sup> Order (June 29, 2021) (eDocket No. [20216-175529-01](#)).

21. Also, on June 29, 2021, the Commission issued an Order which accepted the CN Application as substantially complete and authorized review of the CN application using the Commission's informal comment process.<sup>23</sup>

22. On July 15, 2021, the Commission and EERA issued a Notice of Public Information and Environmental Assessment Scoping Meetings scheduling meetings on August 11, 2021 (in-person) and on August 12, 2021 (remote-access) and announcing that written comments would be accepted through August 26, 2021. The Notice requested comments on issues and facts that should be considered in the development of the environmental assessment. The Notice of Public Information and Environmental Assessment Scoping Meetings was mailed to landowners and local units of government located within and adjacent to the Project.<sup>24</sup>

23. On August 6, the ALJ issued a Scheduling Order scheduling a prehearing conference on September 29, 2021.<sup>25</sup>

24. On August 11 and 12, 2021, the Commission and EERA staff held public information and environmental assessment scoping meetings in-person and via remote means, respectively, to provide the public with information about the Project and to solicit comments on the scope of the environmental assessment.<sup>26</sup>

25. During the comment period ending August 26, 2021, written comments were filed by the Minnesota Department of Natural Resources ("MDNR"),<sup>27</sup> the International Union of Operating Engineers Local 49 ("IUOE Local 49"),<sup>28</sup> and the Minnesota Department of Transportation ("MnDOT").<sup>29</sup> On August 30, 2021, EERA filed additional written comments from the Minnesota Pollution Control Agency ("MPCA"), Freeborn County, and four members of the public.<sup>30</sup>

26. On September 8, 2021, EERA filed an additional written public comment on the scope of the environmental assessment.<sup>31</sup>

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<sup>23</sup> Order (June 29, 2021) (eDocket No. [20216-175528-01](#)).

<sup>24</sup> Ex. EERA-2 (Notice of Public Information and Environmental Assessment Scoping Meetings).

<sup>25</sup> OAH Scheduling Order - Prehearing Conference (August 6, 2021) (eDocket No. [20218-176904-02](#)).

<sup>26</sup> *See generally* August 11, 2021 Public Information and Environmental Assessment Scoping Meetings Transcript and August 12, 2021 Public Information and Environmental Assessment Scoping Meetings Transcript; *see also* Ex. EERA-3 (Oral Public Comments on Scope of Environmental Assessment); Handout - Commission--Public Meeting Presentation (August 12, 2021) (eDocket No. [20218-177083-01](#)); Handout - Commission--Public Meeting Handout (August 13, 2021) (eDocket No. [20218-177097-01](#)).

<sup>27</sup> MDNR Comments (August 18, 2021) (eDocket No. [20218-177247-01](#)).

<sup>28</sup> IUOE Local 49 Comments (August 26, 2021) (eDocket No. [20218-177483-01](#)).

<sup>29</sup> MnDOT Comments (August 26, 2021) (eDocket No. [20218-177461-01](#)).

<sup>30</sup> Ex. EERA-4 (Written Public Comments on Scope of Environmental Assessment).

<sup>31</sup> Ex. EERA-5 (Additional Written Public Comment On Scope Of Environmental Assessment).

27. On September 28, 2021, the ALJ filed a Continuance Order continuing the prehearing conference until October 20, 2021.<sup>32</sup>

28. On October 15, 2021, Hayward Solar filed a CN Application and SP Application Amendment (“Application Amendment”) and amended figures.<sup>33</sup>

29. On October 22, 2021, the ALJ issued the Second Scheduling Order.<sup>34</sup>

30. On October 26, 2021, EERA staff filed comments and recommendations on the scoping process and the environmental assessment that will be prepared for the Project, and Hayward Solar’s Application Amendment. EERA staff recommended that no alternative sites be studied in the environmental assessment.<sup>35</sup>

31. On November 5, 2021, the Commission issued a Notice of Commission Meeting scheduling a meeting for November 18, 2021 to address what action the Commission should take regarding site or system alternatives to be evaluated in the environmental assessment.<sup>36</sup> No action was taken at the November 18, 2021 meeting.<sup>37</sup>

32. On November 30, 2021, EERA staff issued the Environmental Assessment Scoping Decision (“EA Scoping Decision”), which set forth the matters proposed to be addressed in the environmental assessment and identified certain issues outside the scope of the environmental assessment. No site or system alternatives were recommended for study, accordingly, no site alternative other than the site location proposed by Hayward Solar would be considered in the environmental assessment.<sup>38</sup>

33. Also on November 30, 2021, EERA staff issued a Notice of EA Scoping Decision.<sup>39</sup>

34. On January 3, 2022, the Commission filed a Sample Site Permit.<sup>40</sup>

35. On February 15, 2022, the Commission issued a Notice of Comment Period on the Merits of the Certificate of Need Application announcing it would accept written comments through March 16, 2022 and reply comments through March 23, 2022. The Notice requested

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<sup>32</sup> OAH Continuance Order (September 28, 2021) (eDocket No. [20219-178306-01](#)).

<sup>33</sup> Ex. HS-124 (Cover Letter re CN and SP Application Amendment), Ex. HS-125 (CN and SP Application Amendment) and HS-126 (CN and SP Application Amendment – Amended Figures 1-16 and New 3A).

<sup>34</sup> OAH Second Scheduling Order (October 22, 2021) (eDocket No. [202110-179042-02](#)).

<sup>35</sup> Ex. EERA-6 (Comments and Recommendations on Scoping Process and Hayward Solar’s CN and Site Permit Amendment).

<sup>36</sup> Notice Of Commission Meeting--November 18, 2021 Agenda Meeting (November 5, 2021) (eDocket No. [202111-179532-04](#)).

<sup>37</sup> November 18, 2021 Commission Meeting Minutes (December 1, 2021) (eDocket No. [202112-180319-04](#)).

<sup>38</sup> EA Scoping Decision (November 30, 2021) (eDocket No. [202111-180225-02](#)); Ex. EERA-7 (Notice of EA Scoping Decision).

<sup>39</sup> Ex. EERA-7 (Notice of EA Scoping Decision).

<sup>40</sup> Sample Site Permit (January 3, 2022) (eDocket No. [20221-181162-01](#)).

comments on whether the Commission should issue a certificate of need for the Project, whether the proposed Project is needed and in the public interest, what are the costs and benefits of the proposed Project, whether there are any contested issues of fact with respect to the representations made in the CN Application, and whether there are any other issues or concerns related to the Project.<sup>41</sup>

36. On March 2, 2022, EERA staff issued the Environmental Assessment (“EA”) for the Project.<sup>42</sup> Notice of the availability of the EA was also published in the *EQB Monitor*. A copy of the EA was also available at the Albert Lea Public Library.<sup>43</sup>

37. On March 8, 2022, DER staff filed comments recommending that the Commission consider the impacts detailed in the environmental report, and, if the impacts are acceptable, grant the Certificate of Need.<sup>44</sup>

38. On March 11, 2022, EERA staff filed confirmation that the EA was provided to various agencies and Freeborn County.<sup>45</sup>

39. Also on March 11, 2022, the Commission issued a Notice of EA Availability, Public Hearings and Comment Period, notifying the public of the March 28, 2022 remote-access hearing and the March 29, 2022 in-person hearing, and initiating a public comment period ending April 15, 2022.<sup>46</sup>

40. On March 11, 2022, the Commission filed a memorandum noting that the date of the remote-access public hearing was changed to March 28, 2022 from the date previously contemplated in the scheduling order.<sup>47</sup>

41. On March 22, 2022, Hayward Solar filed the direct testimony of Michael Roth and Joseph Finocchiaro.<sup>48</sup>

42. On March 24, 2022, Hayward Solar filed reply comments in response to DER staff’s comments on the merits of the CN Application.<sup>49</sup>

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<sup>41</sup> Notice Of Comment Period On The Merits Of The Certificate Of Need Application (February 15, 2022) (eDocket No. [20222-182838-01](#)).

<sup>42</sup> Ex. EERA-8 (EA).

<sup>43</sup> Ex. EERA-11 (Notice of EA Availability, Public Hearings, and Comment Period in *EQB Monitor*).

<sup>44</sup> DER Comments (March 8, 2022) (eDocket No. [20223-183553-01](#)).

<sup>45</sup> Ex. EERA-9 (EA Provided To Permitting Agencies).

<sup>46</sup> Ex. EERA-10 (Notice of EA Availability, Public Hearings, and Comment Period).

<sup>47</sup> Commission Memo on Virtual Public Hearing Date Change (March 11, 2022) (eDocket No. [20223-183719-01](#)).

<sup>48</sup> Ex. HS-127 (Direct Testimony of Michael Roth) and Ex. HS-130 (Direct Testimony of Joseph Finocchiaro).

<sup>49</sup> Ex. HS-132 (Reply Comments regarding CN Merits).

43. On March 28 and 29, 2022, the ALJ presided over joint public hearings on the SP Application and the CN Application for the Project in-person and via remote means, respectively.<sup>50</sup> Commission Staff, EERA staff, and representatives from Hayward Solar were present. Twelve members of the public spoke during the March 29, 2022 public hearing (in-person), offering support for the Project and the positive economic impact it will have on the community.<sup>51</sup> No members of the public spoke during the remote-access public hearing held on March 28, 2022.<sup>52</sup>

44. On April 11, 2022, the ALJ issued an amended scheduling order.<sup>53</sup>

45. On April 13, 2022, EERA staff filed comments on behalf of the interagency Vegetation Management Planning Work Group (“VMPWG”) regarding the Project’s Vegetation Management Plan (“VMP”).<sup>54</sup>

46. During the public comment period ending April 15, 2022, written comments were filed by twenty-two members of the public, the Shell Rock River Watershed District,<sup>55</sup> MDNR,<sup>56</sup> IUOE Local 49,<sup>57</sup> LIUNA Minnesota & North Dakota,<sup>58</sup> and the North Central Regional Council of Carpenters.<sup>59</sup> On April 19, 2022, an additional written comment by a member of the public was filed.<sup>60</sup>

47. On April 15, 2022, EERA staff filed hearing comments on the Sample Site Permit, the EA, and the direct testimony of Hayward Solar.<sup>61</sup>

### III. DESCRIPTION OF THE PROJECT

48. The proposed Project is an up to 150 MW AC nameplate capacity solar energy conversion facility in Hayward Township, Freeborn County, Minnesota. The Project would also include associated facilities.<sup>62</sup>

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<sup>50</sup> See March 28, 2022 Public Hearing Transcript; March 29, 2022 Public Hearing Transcript; Public Hearing Presentation (March 28, 2022) (eDocket No. [20223-184184-01](#)); Public Hearing Presentation (March 29, 2022) (eDocket No. [20223-184192-01](#)).

<sup>51</sup> See March 29, 2022 Public Hearing Transcript.

<sup>52</sup> See March 28, 2022 Public Hearing Transcript.

<sup>53</sup> Amended Scheduling Order (April 11, 2022) (eDocket No. [20224-184607-01](#)).

<sup>54</sup> VMPWG Comments on the Revised Vegetation Management Plan (April 13, 2022) (eDocket No. [20224-184700-01](#)).

<sup>55</sup> See Public Comment - Batch 1 (March 31, 2022) (eDocket No. [20223-184305-01](#)) and Public Comments (April 14, 2022) (eDocket No. [20224-184789-02](#)).

<sup>56</sup> MDNR Comments (April 15, 2022) (eDocket No. [20224-184795-01](#)).

<sup>57</sup> IUOE Local 49 Comments (April 8, 2022) (eDocket No. [20224-184572-01](#)).

<sup>58</sup> LIUNA Minnesota & North Dakota Reply Comments (March 24, 2022) (eDocket No. [20223-184097-01](#)).

<sup>59</sup> North Central Regional Council of Carpenters Comments (April 15, 2022) (eDocket No. [20224-184825-01](#)).

<sup>60</sup> Public Comment -Todd Hinrichs (April 19, 2022) (eDocket No. [20224-184912-02](#)).

<sup>61</sup> EERA Hearing Comments (April 15, 2022) (eDocket No. [20224-184798-01](#)).

<sup>62</sup> Ex. HS-107 at 9 (Application for a Site Permit (Corrected)).

49. Hayward Solar is planning to use PV solar panels with a total equivalent PV generating capacity of 156.6 MW and a mixture of 18 3150 kilovolt-ampere (“kVA”) and 30 3600 kVA central inverters. The preliminary design and Project layout takes into account applicable energy loss (approximately 2% AC losses) and would allow for a maximum of 150 MW AC of solar energy generation and transmission onto the grid (which is capped at 150 MW AC as part of the interconnection request and generator interconnection agreement with MISO that will be signed prior to construction of the Project). Accordingly, Hayward Solar is requesting a site permit and certificate of need for the nameplate capacity of the Project as measured at the point of interconnection.<sup>63</sup>

50. The components of the Project include photovoltaic (“PV”) solar panels/arrays, tracking racks, inverters, collection lines, a Project Substation, transformers, electrical wiring, stormwater collection ponds, supervisory control and data acquisition (“SCADA”) systems, switchgear, metering equipment, overhead 161 kV Project Gen-Tie Line, operations and maintenance (“O&M”) building, security fencing and gates, access roads, up to ten weather stations, temporary laydown yards/staging areas, and ancillary equipment or buildings as necessary.<sup>64</sup>

51. The panels will be installed on a tracking rack system, generally aligned in rows oriented north and south with the PV modules facing east toward the rising sun in the morning, parallel to the ground during mid-day, and then west toward the setting sun in the afternoon. The modules are rotated by a small motor connected to the tracking rack system to slowly track with the sun throughout the day. When the sun is directly overhead, the PV panels will be at a zero degree angle (level to the ground) and four to six feet off the ground. The tracker rows will follow the sun from a maximum of 60 degrees east to 60 degrees west through the course of the day (the design tilt may vary). At the maximum 60 degrees (tilted to the highest position), the edge of the modules will be a maximum of 15 feet off the ground. The tracking rack system allows the Project to optimize the angle of the modules in relation to the sun throughout the day, thereby maximizing production of electricity and the capacity value of the Project. To the extent practical, the racking system foundations will be a driven pier and will not require concrete, although some concrete foundations may be required depending upon site specific soil conditions and pending geotechnical analysis.<sup>65</sup>

52. Electrical wiring will connect the PV panels to inverters which will convert solar energy generated power from DC to AC. A step-up transformer then converts the AC voltage to an intermediate voltage of 34.5 kV. Collection cables then carry the 34.5 kV power to the Project Substation. Step-up transformers are located with each of the inverters. The DC electrical collection cabling will be installed either below-ground, underhung beneath the PV panels and racking (i.e., CAB system), or suspended above ground via the CAB system. If suspended above the ground via the CAB system, some Project construction locations may install the CAB system on pile foundations (without racking on it) to connect the DC cables to the inverter/equipment pad. The CAB system is a cable management system that delivers a safe, strong and durable support

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<sup>63</sup> Ex. HS-107 at 10 (Application for a Site Permit (Corrected)); Ex. HS-127 at 6 (Direct Testimony of Michael Roth).

<sup>64</sup> Ex. HS-107 at 10, 14 (Application for a Site Permit (Corrected)).

<sup>65</sup> Ex. HS-107 at 14-15 (Application for a Site Permit (Corrected)).

for utility-scale wiring for ground-mount solar power generation facilities. CAB systems are quick and easy to install and provide potential labor and material cost benefits on solar projects. If buried, the underground trench will be approximately 2-5 feet deep below ground and one to two feet wide.<sup>66</sup>

53. Energy from the solar panels is directed through an electrical collection system to inverters where the power is converted from DC to AC power. After the inverter has converted the electricity it is stepped-up via a transformer from low-voltage to medium or intermediate voltage (stepped up to 34.5 kV).<sup>67</sup> The power is then transmitted via the underground AC electrical collection system from the inverters/step-up transformer to the Project Substation.<sup>68</sup>

54. The 34.5 kV collector system voltage will then be stepped up to the interconnection voltage of 161 kV by the transformer located at the Project Substation and transmitted to the new Southern Minnesota Municipal Power Agency (“SMMPA”) Switchyard via the overhead Project Gen-Tie Line in a single span between dead-end structures.<sup>69</sup> The proposed Project Gen-Tie Line will be approximately 650 feet in length.<sup>70</sup> The Project Gen-Tie Line will interconnect to the existing SMMPA Hayward-Murphy Creek 161 kV HVTL via the new SMMPA Switchyard.<sup>71</sup> The new SMMPA Switchyard will connect to the existing SMMPA Hayward-Murphy Creek 161 kV HVTL via in/out 161 kV transmission lines to the existing Hayward-Murphy Creek 161 kV HVTL (i.e., SMMPA Line Tap). The SMMPA Line Tap is comprised of two lines measuring approximately 281 feet (west line) and 222 feet (east line) in length.<sup>72</sup> The SMMPA Line Tap and SMMPA Switchyard will be permitted, constructed, owned, and operated by SMMPA.<sup>73</sup>

55. The Project will use a SCADA system to control and monitor the Project. The SCADA communications systems provides status views of electrical and mechanical data, operation and fault status, meteorological data, and grid station data.<sup>74</sup>

56. The Project will comply with Freeborn County’s setback requirements, where applicable. Hayward Solar sited and designed the Project taking into account Freeborn County’s setbacks, in addition to State requirements. The Project design setbacks meet or exceed requirements as provided in the Freeborn County Ordinance. However, land constraints such as existing gas pipeline and transmission line easements, wetlands, trees and others factors make it difficult for arrays to be sited further away from road rights-of-way, side/rear property lines of lands not included as part of the Project, and dwellings not owned by a participating landowner.

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<sup>66</sup> Ex. HS-107 at 18-19 (Application for a Site Permit (Corrected)).

<sup>67</sup> Ex. HS-107 at 19 (Application for a Site Permit (Corrected)).

<sup>68</sup> Ex. HS-107 at 16, 19 (Application for a Site Permit (Corrected)); *see also* Ex. HS-125 (CN and SP Application Amendment).

<sup>69</sup> Ex. HS-107 at 16, 19 (Application for a Site Permit (Corrected)).

<sup>70</sup> Ex. HS-125 at 5 (CN and SP Application Amendment).

<sup>71</sup> Ex. HS-125 at 3 (CN and SP Application Amendment).

<sup>72</sup> Ex. HS-125 at 4, 6 (CN and SP Application Amendment).

<sup>73</sup> Ex. HS-107 at 5 (Application for a Site Permit (Corrected)); Ex. HS-125 at 1 (CN and SP Application Amendment).

<sup>74</sup> Ex. HS-107 at 28 (Application for a Site Permit (Corrected)).

Hayward Solar is committed to working with Freeborn County to meet setback requirements where feasible. In addition, all MDNR buffer requirements under Minn. Stat. § 103F.48 have been met.<sup>75</sup>

57. Hayward Solar is working towards securing a Power Purchase Agreement (“PPA”) or other enforceable mechanism to sell the electricity generated by the Project. The power generated by the Project will be offered for sale to wholesale customers, including Minnesota utilities and cooperatives that have identified a need for additional renewable energy and capacity, and C&I customers that have set clean energy goals.<sup>76</sup>

58. The total installed capital costs for the Project are estimated to be approximately \$130 million, with Project cost depending on variables including, but not limited to, construction costs, Project equipment and materials, electrical and communication systems, taxes/tariffs, final design considerations (e.g., access roads, O&M building, etc.), as well as potential ongoing impacts from COVID-19.<sup>77</sup>

#### **IV. SITE LOCATION AND CHARACTERISTICS**

59. The Project is sited in Hayward Township in Freeborn County, Minnesota.<sup>78</sup>

60. Hayward Solar has 100 percent land control for the Project, which is approximately 1,971.8 acres of private land under either a lease option agreement or a purchase option agreement (the “Project Area”).<sup>79</sup> The final Project design is expected to occupy approximately 1,272.7 acres (the “Preliminary Development Area”) within the overall 1,971.8-acre Project Area. Hayward Solar estimates that approximately 1,272.7 acres of the 1,971.8 acres is necessary to accommodate the final design and engineering of the proposed up to 150 MW AC Project (i.e., the Preliminary Development Area). The Preliminary Development Area is generally defined as the area containing all Project facilities located within the Project security fencing (e.g., arrays, inverters, collection lines, etc.) and includes the access roads extending beyond the Project facility fenced

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<sup>75</sup> Ex. HS-107 at 22-23 (Application for a Site Permit (Corrected)); Ex. HS-125 at 2 (CN and SP Application Amendment).

<sup>76</sup> Ex. HS-107 at 2 (Application for a Site Permit (Corrected)).

<sup>77</sup> Ex. HS-107 at 13 (Application for a Site Permit (Corrected)).

<sup>78</sup> Ex. HS-107 at 9 (Application for a Site Permit (Corrected)).

<sup>79</sup> Note that the EA used different terms/definitions than the SP Application and Application Amendment when referring to the Project. Specifically, the EA used the term “land control area” (defined as “land for which the applicant maintains lease agreement options”) and “project area” (defined as “one mile from the land control area”). The SP Application and Application Amendment used the terms “Project Area” (privately-owned land for which Hayward Solar has either a lease option agreement or a purchase option agreement; revised in the Application Amendment to be approximately 1,971.8 acres) and “Preliminary Development Area” (the areas hosting solar equipment and supporting infrastructure located within the overall Project Area; revised in the Application Amendment to be approximately 1,272.7 acres). For purposes of these Findings of Fact, Conclusions of Law, and Recommendations, references from the EA to the “land control area” have been replaced with the term “Project Area” (with the meaning designated in the SP Application and Application Amendment).

area. It also includes the Project Substation, O&M building and the area on which the new SMMPA Switchyard will be constructed by SMMPA.<sup>80</sup>

61. The Project is located in a rural, agricultural area. Based on the 2010 U.S. Census, the population of Freeborn County is 31,255 persons, which represents less than 1 percent of the total population of Minnesota.<sup>81</sup>

## V. SOLAR RESOURCE CONSIDERATIONS

62. Hayward Solar selected the Project location based upon a good solar resource, willing landowner participants, consistency with local land use designations and zoning, the excellent proximity to existing electric transmission infrastructure, and minimal impact to natural and cultural resources.<sup>82</sup>

63. The Project is anticipated to have an average expected annual net capacity factor of between approximately 23 and 27 percent, with projected average output of approximately 168,000 megawatt hours (“MWh”) annually of reliable, deliverable on-peak energy.<sup>83</sup> The Project will provide electricity to approximately 28,000 homes annually and prevent emission of approximately 261,871,072 pounds (118,783 metric tons) of carbon dioxide equivalent annually.<sup>84</sup>

## VI. PROJECT SCHEDULE

64. Hayward Solar plans to start construction in the third quarter of 2024 and achieve commercial operation in the fourth quarter of 2025.<sup>85</sup>

## VII. SUMMARY OF PUBLIC COMMENTS

65. Two members of the public provided verbal comments during the Public Information and Environmental Assessment Scoping Meeting (in-person) held on August 11, 2021. The two commenters expressed support for the Project and the benefits to the local economy.<sup>86</sup>

66. Two members of the public spoke during the Public Information and Environmental Assessment Scoping Meeting (remote-access) held on August 12, 2021. One commenter expressed support for the Project because it would result in construction jobs in the region. The other

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<sup>80</sup> See Ex. HS-125 at 3 (CN and SP Application Amendment) and Ex. HS-127 at 3-4, 6 (Direct Testimony of Michael Roth), and Ex. HS-107 at 11 (Application for a Site Permit (Corrected)).

<sup>81</sup> Ex. HS-102 at 9 (Application for a Certificate of Need).

<sup>82</sup> Ex. HS-102 at 26 (Application for a Certificate of Need).

<sup>83</sup> Ex. HS-102 at 14 (Application for a Certificate of Need).

<sup>84</sup> Ex. HS-107 at 2 (Application for a Site Permit (Corrected)).

<sup>85</sup> Ex. HS-127 at 7 (Direct Testimony of Michael Roth).

<sup>86</sup> See generally August 11, 2021 Public Information and Environmental Assessment Scoping Meeting Transcript.

commenter discussed/asked questions regarding erosion and drainage. Hayward Solar addressed these comments at the public meeting.<sup>87</sup>

67. During the comment period ending August 26, 2021, written comments were filed by MDNR,<sup>88</sup> MnDOT,<sup>89</sup> and IUOE Local 49.<sup>90</sup> On August 30, 2021, EERA filed additional written comments from the MPCA, Freeborn County, and four members of the public.<sup>91</sup> On September 8, 2021, an additional written public comment was filed on the scope of the environmental assessment.<sup>92</sup> No site or system alternatives were recommended for study.

68. MDNR commented on site suitability and soil limitation, noting that previous solar projects had encountered numerous issues (e.g., rutting, soil compaction, flooding, and stuck equipment) during construction within farmed wetlands and/or historically wet areas, and that staff have observed that soils tend to get wetter over time after they have been removed from agricultural production and tillage ceases. MDNR recommended that the EA address the challenges associated with constructing a solar project on this site and discuss measures to minimize or mitigate soil impacts, such as ongoing maintenance of drainage tile systems.<sup>93</sup>

69. MDNR also recommended using wildlife friendly erosion control netting rather than synthetic netting. Additionally, MDNR commented on the fence signage contemplated for the Project. Finally, MDNR noted that it appreciates the revisions to the Project's VMP in response to multi-agency feedback and looks forward to further coordination with Hayward Solar to ensure that seed mixes are compatible with the soil and hydrologic conditions of the site.<sup>94</sup>

70. IUOE Local 49 submitted comments in support of the Project and the benefits it will bring to the local economy, including construction jobs and local spending.<sup>95</sup>

71. MnDOT commented that Hayward Solar has been in contact to clarify the proposed access for the Project. MnDOT also commented regarding any potential occupation by the Project of MnDOT land, and requested that Hayward Solar conduct early coordination with MnDOT staff for any applicable permitting, traffic control, and construction efforts.<sup>96</sup>

72. MPCA commented on permits that may be required for the Project. MPCA also noted that it does not anticipate any long-term impacts from noise from the operation of the Project and stated that it believes construction noise mitigation has been adequately addressed. MPCA commented that two county ditches are adjacent to the Project and flow into Peter Lund Creek, which has a nearly impaired macroinvertebrate community. MPCA also commented that Albert

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<sup>87</sup> See generally August 12, 2021 Public Information and Environmental Assessment Scoping Meeting Transcript.

<sup>88</sup> MDNR Comments (August 18, 2021) (eDocket No. [20218-177247-01](#)).

<sup>89</sup> MnDOT Comments (August 26, 2021) (eDocket No. [20218-177461-01](#)).

<sup>90</sup> IUOE Local 49 Comments (August 26, 2021) (eDocket No. [20218-177483-01](#)).

<sup>91</sup> Ex. EERA-4 (Written Public Comments on Scope of Environmental Assessment).

<sup>92</sup> Ex. EERA-5 (Additional Written Public Comment On Scope Of Environmental Assessment).

<sup>93</sup> MDNR Comments (August 18, 2021) (eDocket No. [20218-177247-01](#)).

<sup>94</sup> MDNR Comments (August 18, 2021) (eDocket No. [20218-177247-01](#)).

<sup>95</sup> IUOE Local 49 Comments (August 26, 2021) (eDocket No. [20218-177479-01](#)).

<sup>96</sup> MnDOT Comments (August 26, 2021) (eDocket No. [20218-177461-01](#)).

Lea Lake is impaired for eutrophication, and that the Project should aid in contributing to the reduction in total phosphorus load from Peter Lund Creek by taking agricultural land out of production. MPCA also noted that care should be taken during construction to ensure impacts to receiving waters are as minimal as possible.<sup>97</sup>

73. Freeborn County submitted comments in support of the Project, noting that the Project will result in long lasting environmental and economic benefits to Freeborn County and Hayward Township. Freeborn County also noted that the Project is responsibly sited as far as road use and environmental impacts are concerned.<sup>98</sup>

74. Kristi Swalve (Hantelman) commented on the benefits of the Project, including vegetative cover that will benefit topsoil and water quality, creation of beneficial habitat, creation of local job opportunities, and tax revenue.<sup>99</sup>

75. Seth Light commented in support of the Project, noting the environmental benefits of the Project.<sup>100</sup>

76. Tracy Skaar commented in support of the Project, noting that the area in which the Project will be constructed is well drained, that the vegetative cover may mitigate some of the existing wind erosion and runoff/flooding problems.<sup>101</sup>

77. Ian Wildeman commented in support of the Project, noting that the Project will have a positive environmental and economic impact on the area. Mr. Wildeman also commented on the beneficial land management practices that will be utilized by the Project.<sup>102</sup>

78. On March 28 and 29, 2022 the ALJ presided over joint public hearings on the SP Application and the CN Application for the Project via remote means and in-person, respectively.<sup>103</sup> Commission Staff, EERA staff, and representatives from Hayward Solar were present. Twelve members of the public spoke during the March 29, 2022 public hearing (in-person), offering support for the Project and the positive economic impact it will have on the community.<sup>104</sup> No members of the public spoke during the remote-access public hearing held on March 28, 2022.<sup>105</sup>

79. In addition, during the public comment period ending April 15, 2022, written comments were filed by twenty-two members of the public, the Shell Rock River Watershed

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<sup>97</sup> Ex. EERA-4 (Written Public Comments on Scope of Environmental Assessment).

<sup>98</sup> Ex. EERA-4 (Written Public Comments on Scope of Environmental Assessment).

<sup>99</sup> Ex. EERA-4 (Written Public Comments on Scope of Environmental Assessment).

<sup>100</sup> Ex. EERA-4 (Written Public Comments on Scope of Environmental Assessment).

<sup>101</sup> Ex. EERA-4 (Written Public Comments on Scope of Environmental Assessment).

<sup>102</sup> Ex. EERA-4 (Written Public Comments on Scope of Environmental Assessment).

<sup>103</sup> See Public Hearing Presentation (March 28, 2022) (eDocket No. [20223-184184-01](#)).

<sup>104</sup> See March 29, 2022 Public Hearing Transcript.

<sup>105</sup> See March 28, 2022 Public Hearing Transcript.

District,<sup>106</sup> MDNR,<sup>107</sup> IUOE Local 49,<sup>108</sup> LIUNA Minnesota & North Dakota,<sup>109</sup> and the North Central Regional Council of Carpenters.<sup>110</sup> On April 19, 2022, an additional written comment was filed on behalf of a member of the public.<sup>111</sup>

80. On March 31 and April 14 and 19, 2022, the Commission filed written comments that had been submitted by members of the public. The comments included a broad range of topics, including: economic benefits such as jobs, tax revenue, and providing a diverse source of income for landowners; positive impacts on the land through native pollinator plantings; improved drainage; benefits to agricultural land by allowing the land to rest during the life of the Project; and the benefits of renewable energy.<sup>112</sup>

81. Written comments were filed on March 31, 2022 on behalf of the Shell Rock River Watershed District in support of the Project, the vegetation and habitat management plans included in the application, and the early coordination initiated by Hayward Solar, including presenting its strategies to improve groundcover with native vegetation within the Project Area. The Shell Rock River Watershed District also stated that a project of this nature can be restorative to soil nutrient levels while providing stabilization to topsoil that can be lost when agricultural lands are tilled.<sup>113</sup>

82. On March 24, 2022, LIUNA Minnesota & North Dakota submitted written comments in support of the Project, stating that the Project meets applicable requirements with respect to the need for energy and positive socioeconomic impacts through generating millions of dollars in economic activity in the area and creating jobs for local workers.<sup>114</sup>

83. On April 8, 2022, IUOE Local 49 submitted written comments in support of the Project, stating that the Project would create construction jobs in the region and provide significant economic benefits to the area.<sup>115</sup>

84. On April 13, 2022, EERA staff filed comments on behalf of the interagency Vegetation Management Planning Working Group (“VMPWG”) regarding the Project’s Vegetation Management Plan (“VMP”).<sup>116</sup> The VMPWG noted several concerns that remain

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<sup>106</sup> See Public Comment - Batch 1 (March 31, 2022) (eDocket No. [20223-184305-01](#)) and Public Comments (April 14, 2022) (eDocket No. [20224-184789-02](#)).

<sup>107</sup> MDNR Comments (April 15, 2022) (eDocket No. [20224-184795-01](#)).

<sup>108</sup> IUOE Local 49 Comments (April 8, 2022) (eDocket No. [20224-184572-01](#)).

<sup>109</sup> LIUNA Minnesota & North Dakota Reply Comments (March 24, 2022) (eDocket No. [20223-184097-01](#)).

<sup>110</sup> North Central Regional Council of Carpenters Comments (April 15, 2022) (eDocket No. [20224-184825-01](#)).

<sup>111</sup> Public Comment -Todd Hinrichs (April 19, 2022) (eDocket No. [20224-184912-02](#)).

<sup>112</sup> See Public Comment - Batch 1 (March 31, 2022) (eDocket No. [20223-184305-01](#)), Public Comments (April 14, 2022) (eDocket No. [20224-184789-02](#)), and Public Comment -Todd Hinrichs (April 19, 2022) (eDocket No. [20224-184912-02](#)).

<sup>113</sup> See Public Comment - Batch 1 (March 31, 2022) (eDocket No. [20223-184305-01](#)).

<sup>114</sup> LIUNA Minnesota & North Dakota Reply Comments (March 24, 2022) (eDocket No. [20223-184097-01](#)).

<sup>115</sup> IUOE Local 49 Comments (April 8, 2022) (eDocket No. [20224-184572-01](#)).

<sup>116</sup> VMPWG Comments on the Revised Vegetation Management Plan (April 13, 2022) (eDocket No. [20224-184700-01](#)).

unaddressed in the current VMP including appropriate seed mixes for hydric soils, plan objectives, and monitoring protocols. The VMPWG encouraged Hayward Solar to coordinate with the VMPWG to finalize a pre-construction VMP.

85. On April 15, 2022, the North Central States Regional Council of Carpenters submitted written comments in support of the Project, stating that the Project has the potential to provide significant local benefits to construction workers and their families in Freeborn County and the surrounding areas, and that the Project will help contribute towards Minnesota’s goal of reducing greenhouse gas emissions within the energy sector, along with ensuring that Minnesota’s energy system remains reliable and affordable for ratepayers.<sup>117</sup>

86. On April 15, 2022, MDNR submitted written comments on soil conditions and limitations, water appropriation, facility lighting, wildlife-friendly erosion control, and the VMP. MDNR commented that the Project is within an area that was historically a large wetland and most of the soils are in the poor and very poor drainage classes, so specific management practices are necessary to ensure that poorly drained soils are adequately addressed during construction, particularly during rain events. MDNR also stated that a MDNR water appropriation permit may be required for construction dewatering or dust control. MDNR also recommended a special permit condition to minimize visual impacts of the Project substation, as well as the O&M building, by using shielded and downward facing lighting and LED lighting that minimizes blue hue. Additionally, MDNR recommended a special condition requiring that erosion control blankets be limited to “bio-netting” or “natural netting” types and mulch products without synthetic (plastic) fiber additives. MDNR also recommended that Hayward Solar work with the VMPWG to modify the draft VMP, specifically as it related to seed mixes and herbicide use. MDNR also noted that it supports a restriction on mowing after vegetation has been established, which typically occurs after 3-5 years. MDNR suggested that restricting mowing from April 15 to August 15 would improve the potential for ground nesting habitat.<sup>118</sup>

87. On April 15, 2022, EERA staff filed hearing comments on the Sample Site Permit, the EA, and the direct testimony of Hayward Solar.<sup>119</sup> Staff recommended that Section 4.3.8 of the Sample Site Permit be amended to discuss solely beneficial habitat for the project. Staff also recommended several special permit conditions for the project: development and filing of a Vegetation Management Plan for the project, development and filing of an Agricultural Impact Mitigation Plan for the project, use of an independent third-party monitor for the project, coordination to reduce potential noise impacts of the project, coordination to reroute an existing snowmobile trail in the project area, and the use of visibility markers on project perimeter fencing. Additionally, EERA staff recommended that Section 9.1 of the Sample Site Permit be amended to require that the decommissioning plan for the project be filed prior to construction, rather than prior to operation, of the project. Staff provided Hayward Solar with several recommendations to finalize a pre-construction decommissioning plan.

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<sup>117</sup> North Central Regional Council of Carpenters Comments (April 15, 2022) (eDocket No. [20224-184825-01](#)).

<sup>118</sup> MDNR Comments (April 15, 2022) (eDocket No. [20224-184795-01](#)).

<sup>119</sup>

## **SITE PERMIT**

### **I. SITE PERMIT CRITERIA**

88. Large electric power generating plants (“LEPGP”) are governed by Minn. Stat. § 216E and Minn. R. part 7850. Minn. Stat. § 216E.01, subd. 5, defines a “large electric power generating plant” as “electric power generating equipment and associated facilities designed for or capable of operation at a capacity of 50,000 kilowatts or more.”

89. On December 7, 2020, Hayward Solar submitted information to the Minnesota Department of Commerce requesting a size determination for the Project. On December 29, 2020, EERA informed Hayward Solar that, based on the information provided, the Project is subject to the Commission’s siting authority under Minn. Stat. § 216E. Therefore, a site permit is required prior to construction of the Project.<sup>120</sup>

90. An LEPPG powered by solar energy is eligible for the alternative permitting process authorized by Minn. Stat. § 216E.04. Hayward Solar filed the SP Application under the process established by the Commission in Minn. R. parts 7850.2800-7850.3900.<sup>121</sup>

91. Under Minn. Stat. § 216E.04, for an LEPPG permitted under the alternative permitting process, EERA prepares for the Commission an environmental assessment containing information on the human and environmental impacts of the proposed project and addresses mitigating measures. The EA is the only state environmental review document required to be prepared on the Project.

92. EERA staff is responsible for evaluating the site permit application and administering the environmental review process.

### **II. APPLICATION OF SITING CRITERIA TO THE PROPOSED PROJECT**

#### **A. Human Settlement**

93. The Project is sited in rural Hayward Township, Freeborn County, Minnesota.<sup>122</sup> Based on the 2010 U.S. Census, the population of Freeborn County was 31,255 persons, which represents less than 1 percent of the total population of Minnesota.<sup>123</sup>

94. The construction of the Project will not displace residents or change the demographics of the Project Area.<sup>124</sup>

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<sup>120</sup> Ex. HS-107 at 1 (Application for a Site Permit (Corrected)); Ex. EERA-8 at 1 (EA).

<sup>121</sup> See Ex. HS-101 (Notice of Intent to Submit a Site Permit Application under the Alternative Permitting Process).

<sup>122</sup> Ex. HS-107 at 35 (Application for a Site Permit (Corrected)).

<sup>123</sup> Ex. HS-107 at 46-47 (Application for a Site Permit (Corrected)) and Ex. HS-102 at 9 (Application for a Certificate of Need).

<sup>124</sup> Ex. HS-107 at 39 (Application for a Site Permit (Corrected)).

1. Zoning and Land Use

95. The Project Area is zoned agricultural. The Freeborn County Code of Ordinances states that large solar energy systems are conditionally allowed in the Agricultural District. Per the Freeborn County Code of Ordinances, the Project uses are compatible with local land use regulations for solar energy systems. The County has determined that these types of land uses are acceptable in the Agricultural District upon issuance of a permit.<sup>125</sup> Additionally, after the Project's useful life, the affected parcels be restored to agricultural or other planned land uses. Accordingly, the Project is compatible with County zoning and its goal to preserve agricultural land.<sup>126</sup>

96. The Freeborn County Zoning Ordinance applies to solar energy systems that are not otherwise subject to siting and oversight by the State of Minnesota under the Minnesota Power Plant Siting Act (Minnesota Statutes 216E). Pursuant to Minnesota Statutes §216E.10, Subd. 1, the Site Permit is the only site approval required for construction of the proposed Project. A Site Permit supersedes and preempts all zoning, building, or land use rules, regulations, or ordinances put in place by regional, county, local and special purpose governments, although the review by the Commission will take local land use into consideration.<sup>127</sup> Hayward Solar has applied County standards to the Project where feasible. The Project design setbacks meet or exceed the County's setback requirements. In addition, Hayward Solar will work with Freeborn County in designing and constructing the Project to meet County standards when practicable.<sup>128</sup>

97. With the exception of a Freeborn County Snowmobile Trail Association ("Association") Trail 133 (a snowmobile trail), there are no designated public (federal, state, or local) recreational lands within the Project Area boundaries. Trail 133 crosses through the center of the Project Area and northern border. The amended access road to the Project Substation/O&M facility and the new location of the SMMPA Switchyard will impact the current route of the existing Association Trail 133. Hayward Solar has discussed trail re-route options with the Association and the Association has indicated it agrees with rerouting Trail 133 to allow this facility to be constructed and maintain Trail 133 use.<sup>129</sup>

98. There are no state forests, national forests, or national wildlife refuges within close proximity to the Project boundaries. Additionally, there are no state-owned Off-Highway Vehicle trails and no MDNR SNAs identified within a mile of the Project boundary. Also, no lakes with public access are located in the Project boundary.<sup>130</sup>

99. The Project will temporarily change the land use from agricultural to solar energy generation use for at least the life of the Project. The temporary conversion of agricultural land to the solar facility will have a relatively minimal impact on the rural character of the surrounding

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<sup>125</sup> Ex. HS-107 at 55, 22 (Application for a Site Permit (Corrected)); Ex. EERA-8 at 35-36 (EA).

<sup>126</sup> Ex. EERA-8 at 36 (EA).

<sup>127</sup> Ex. HS-107 at 55 (Application for a Site Permit (Corrected)); Ex. EERA-8 at 26 (EA).

<sup>128</sup> Ex. HS-107 at 22-23 (Application for a Site Permit (Corrected)).

<sup>129</sup> Ex. HS-125 at 8 (CN and SP Application Amendment); Ex. HS-107 at 51 (Application for a Site Permit (Corrected)).

<sup>130</sup> Ex. HS-107 at 51 (Application for a Site Permit (Corrected)).

area or Freeborn County.<sup>131</sup> Upon decommissioning and removal of the Project, the affected parcels may be returned to the existing agricultural use or transitioned to other planned land uses.<sup>132</sup>

100. Of the 462,416 acres in Freeborn County, the majority is classified as agricultural land. Impacts to 1,272.7 or less acres of agricultural land within the planned Project facility would reduce the amount of agricultural land in the County by less than one percent.<sup>133</sup>

101. The Project meets or exceeds all county setback requirements for renewable energy facilities.<sup>134</sup>

102. The Project has been designed in compliance with the Freeborn County Land Use Policy Plan. Agricultural activities will be resumed upon decommissioning of the Project. Components of the Project may be located in areas where there is a planned extension of water, sewer, or other services. Construction of the Project would not preclude the future orderly extension of these services across property under Hayward Solar's control as these extensions would likely be accomplished by utilizing existing public rights-of-way which will not be impacted by the Project. Since Project land will be temporarily leased from participating landowners and land will be returned to agricultural land uses upon decommissioning of the Project, the Project will further the County's goals of providing long term agricultural opportunities.<sup>135</sup>

103. Normal agricultural activities can continue within some portions of the Project Area not converted to solar modules, access roads, O&M building, transmission facilities, and fencing. After the useful life of the Project, the current agricultural land use would be restored by removing the solar facility. The Project is not anticipated to preclude current or planned land use on adjacent parcels.<sup>136</sup>

## 2. Property Values

104. Because property values are influenced by a complex interaction between factors specific to each individual piece of real estate as well as local and national market conditions, the effect of one particular project on the value of one particular property is difficult to determine.<sup>137</sup>

105. The installation of the Project would create a limited visual impact at ground level or from adjacent roadways and parcels and higher elevation points (e.g., the I-90 overpass located on the north end of the Project). The transmission facilities will be visible from a greater distance than the solar array, but the change is likely to be barely perceptible given the proximity to the POI and other existing transmission structures. Hayward Solar has not received any feedback indicating

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<sup>131</sup> Ex. HS-107 at 56 (Application for a Site Permit (Corrected)).

<sup>132</sup> Ex. HS-107 at 57 (Application for a Site Permit (Corrected)).

<sup>133</sup> Ex. HS-107 at 56 (Application for a Site Permit (Corrected)) and Ex. HS-125 at 3 (CN and SP Application Amendment); Ex. EERA-8 at 49 (EA).

<sup>134</sup> Ex. EERA-8 at 36 (EA).

<sup>135</sup> Ex. HS-107 at 56-57 (Application for a Site Permit (Corrected)); Ex. EERA-8 at 36 (EA).

<sup>136</sup> Ex. HS-107 at 57 (Application for a Site Permit (Corrected)).

<sup>137</sup> Ex. EERA-8 at 39-40 (EA).

aesthetic or visual concerns associated with the Project from the surrounding landowners or community.<sup>138</sup>

106. The Project is not expected to have emissions during operation of the facilities.<sup>139</sup> Noise levels during operation of the Project are anticipated to be negligible.<sup>140</sup>

107. Widespread negative impacts to property value as a result of the Project are not anticipated. While it is possible that specific, individual property values may be negatively impacted, such impacts can be mitigated by reducing aesthetic impacts and through individual agreements with landowners.<sup>141</sup>

### 3. Aesthetic Impacts

108. The existing landscape in the Project Area is rural and agricultural consisting of flat to gently rolling row crop fields of corn and soybeans.<sup>142</sup>

109. There is one farmstead within the Project Area along 840th Avenue; there are 11 residences on parcels and two observation points within the Albert Lea/Austin *Kampgrounds of America* (“KOA”) campground adjacent to the Project Area.<sup>143</sup> Most farms in the area have planted windbreaks consisting of trees and shrubs around them. Untilled lines of trees and shrubs can be seen along fence rows. I-90, an existing rail line, and an existing transmission line bound the northern edge of the Project Area.<sup>144</sup>

110. For residents outside the Project vicinity and for others with low viewer sensitivity, such as travelers on I-90, aesthetic impacts are anticipated to be minimal. For these viewers, the solar panels would be relatively difficult to see or would be visible for a very short period. For all residents and viewers, the aesthetic impacts of the Project Substation, Gen-Tie Line, and interconnection facilities are anticipated to be minimal given the relatively low profile of these features and the proximity to an existing rail line and I-90.<sup>145</sup> While the Project will create additional aesthetics compared to current predominately agricultural land use, the Project facilities will be similar to existing facilities associated with farming and utilities serving the area. Since the Project Area and vicinity are generally flat and due to existing trees along agricultural fields and vegetative cover along windbreak, the visual impact of the Project is expected to be limited to surrounding land and higher elevation points (e.g., the I-90 overpass located on the north end of the Project).<sup>146</sup> Hayward Solar has not received any feedback indicating aesthetic or visual concerns associated with the Project from the surrounding landowners or community.<sup>147</sup> Aesthetic

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<sup>138</sup> Ex. HS-107 at 45-46 (Application for a Site Permit (Corrected)); Ex. EERA-8 at 32-33 (EA).

<sup>139</sup> Ex. EERA-8 at 4 (EA); Ex. HS-107 at 66 (Application for a Site Permit (Corrected)).

<sup>140</sup> Ex. EERA-8 at 38-39 (EA).

<sup>141</sup> Ex. EERA-8 at 39-40 (EA).

<sup>142</sup> Ex. EERA-8 at 32 (EA).

<sup>143</sup> Ex. HS-107 at 43-44 (Application for a Site Permit (Corrected)); Ex. EERA-8 at 32 (EA).

<sup>144</sup> Ex. HS-107 at 43 (Application for a Site Permit (Corrected)); Ex. EERA-8 at 32 (EA).

<sup>145</sup> Ex. EERA-8 at 32 (EA); Ex. HS-107 at 45 (Application for a Site Permit (Corrected)).

<sup>146</sup> Ex. HS-107 at 45 (Application for a Site Permit (Corrected)); Ex. EERA-8 at 32 (EA).

<sup>147</sup> Ex. HS-107 at 45-46 (Application for a Site Permit (Corrected)); Ex. EERA-8 at 32-33 (EA).

impacts are unavoidable but can be mitigated by screening, preserving natural landscapes, and by using shielded lighting.<sup>148</sup>

111. Operational lighting at the Project will be minimal and will be used primarily for repair or maintenance work. The Project Substation and O&M building will have security lighting, and Project entrances will have motion activated down lit security lights.<sup>149</sup> Impacts to light-sensitive land uses are not anticipated given the rural Project location coupled with minimal required lighting for operation of the Project.<sup>150</sup>

112. In its April 15, 2022 written comments, MDNR recommended a special permit condition requiring the permittee to use shielded and downward facing lighting and LED lighting that minimizes blue hue at the Project substation and O&M building.<sup>151</sup> In its response to comments, Hayward Solar stated it has no objection to such a special condition, and proposed the following language based on the example provided by MDNR:

Permittee must use shielded and downward facing lighting and LED lighting that minimizes blue hue at the project substation and O&M building. Downward facing lighting must be clearly visible on the plan and profile submitted for the project.<sup>152</sup>

113. Section 5 of the Sample Site Permit contains an example special condition that requires a landscaping plan to be developed to mitigate, to the extent practicable, the visual impacts to all adjacent residences.<sup>153</sup> However, residences adjacent to the Project Area have existing buildings and/or vegetative screening around them and Hayward Solar has incorporated spatial buffers around each residence. Additionally, Hayward Solar has stated that no owner of any adjacent residence has requested any additional screening or buffers beyond that which may already screen the Project from the residence. The record demonstrates that additional screening is not necessary for these residences.<sup>154</sup>

114. The record demonstrates that Hayward Solar has taken steps to avoid and minimize impacts to aesthetics. Further, the Sample Site Permit contains adequate general conditions to

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<sup>148</sup> Ex. EERA-8 at 31 (EA).

<sup>149</sup> Ex. EERA-8 at 33 (EA).

<sup>150</sup> Ex. HS-107 at 46 (Application for a Site Permit (Corrected)); Ex. EERA-8 at 33 (EA).

<sup>151</sup> MDNR Comments (April 15, 2022) (eDocket No. [20224-184795-01](#)).

<sup>152</sup> Hayward Solar Response to Comments (April 25, 2022) (eDocket No. \_\_\_\_\_).

<sup>153</sup> See Sample Site Permit (January 3, 2022) (eDocket No. [20221-181162-01](#)) [hereinafter, "Sample Site Permit"]. Note that Section 4.3 of the Sample Site Permit is improperly numbered. After reaching Section 4.3.7 (Aesthetics), the section begins numbering again; thus, instead of being Section 4.3.8, the Topsoil Protection text is noted as Section 4.3.1. For purposes of these Findings of Fact, Conclusions of Law, and Recommendations, references to the Sample Site Permit will be to the current numbering.

<sup>154</sup> See Ex. HS-127 at 8 (Direct Testimony of Michael Roth); Ex. HS-125 at 10-11 (CN and SP Application Amendment); Ex. HS-107 at 44-46 (Application for a Site Permit (Corrected)).

address aesthetic impacts. Section 4.3.7 (Aesthetics) of the Sample Site Permit requires the Applicant to consider visual impacts from landowners and land management agencies.<sup>155</sup>

#### 4. Public Service and Infrastructure

115. The Project is located in a rural, agricultural area. Access to the Project will be via existing County and Township roads. The major roadway in the area is I-90 located immediately north of the proposed Project. Other roads that surround the Project Area are local County or Township roads. The Project Area is bordered by County Road 46 in the northern portion and bound by County Road 30 to the east.<sup>156</sup>

116. Electricity in the Project Area is provided by the Freeborn Mower Electric Cooperative. There are two high voltage transmission lines in the Project Area, one along the northern edge of the Project Area and the other through the southern part of the Project Area. Water in the Project Area is provided by private wells, and wastewater is managed by septic systems. Telephone and internet service is provided by many companies. There are two pipelines that run through the Project Area.<sup>157</sup> The Project is located in an area where private wells and septic systems are used at rural and farmstead residences. There are three irrigation wells within the Project Area.<sup>158</sup>

117. During construction, temporary impacts are anticipated on some public roads. Construction activities will increase the amount of traffic using local roadways, and such use might result in congestion which would be noticeable to neighboring landowners. Operation of the Project after construction will not noticeably increase traffic. No impacts to roads are anticipated during the operation; negligible traffic increases would occur for maintenance. The impact intensity level will be minimal. Potential impacts associated with construction are anticipated to be short-term, intermittent, and localized.<sup>159</sup>

118. There will be several access points to the Project. The northern portion of the Project will be accessed from County Road 46 (East Main Street), 200th Street (T-121) and T-236. The southern portion of the Project will be accessed from County Road 30 (850th Avenue), 200th Street, and T236.<sup>160</sup> Hayward Solar is working with Freeborn County staff on a road use agreement to address road use and related concerns.<sup>161</sup>

119. Hayward Solar will coordinate with Gopher State One Call before and during construction to fully understand infrastructure, utility locations and safety concerns and to avoid possible structural conflicts. Hayward Solar will also conduct an American Land Title Association survey to identify the locations of underground utilities. Final design will minimize and avoid impacts to underground utilities; if conflicts are unavoidable Hayward Solar will coordinate with

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<sup>155</sup> See Sample Site Permit (January 3, 2022) (eDocket No. [20221-181162-01](#)).

<sup>156</sup> Ex. HS-107 at 53 (Application for a Site Permit (Corrected)); Ex. EERA-8 at 41 (EA).

<sup>157</sup> Ex. EERA-8 at 40-41 (EA).

<sup>158</sup> Ex. HS-107 at 72 (Application for a Site Permit (Corrected)).

<sup>159</sup> Ex. EERA-8 at 41 (EA); Ex. HS-107 at 54 (Application for a Site Permit (Corrected)).

<sup>160</sup> Ex. HS-125 at 6, 14, 15-16 (CN and SP Application Amendment); Ex. HS-107 at 53 (Application for a Site Permit (Corrected)).

<sup>161</sup> Ex. EERA-8 at 41 (EA); Ex. HS-107 at 54 (Application for a Site Permit (Corrected)).

the utility to develop an approach to reroute or otherwise protect the utility. Underground utilities will be marked prior to construction start.<sup>162</sup>

120. Limited, temporary impacts to service may occur during interconnection construction work associated with the new SMMPA Switchyard when the Hayward-Murphy Creek 161 kV HVTL is shut down and temporary service is being established. These outages are anticipated to be of short duration and closely coordinated with utilities and landowners.<sup>163</sup>

121. As part of the Project design, underground electric collection lines are planned to cross underneath the existing oil and natural gas pipelines and electrical infrastructure that cross the Project. Hayward Solar will enter into agreements that ensure the safety of the pipelines.<sup>164</sup>

122. There are no Federal Aviation Administration-registered airports located within three nautical miles of the Project Area; therefore, no mitigation is needed or planned concerning airports.<sup>165</sup>

123. The record demonstrates that construction and operation of the Project is expected to have a minimal effect on existing public services and infrastructure in the area.<sup>166</sup>

124. Section 4.3.12 (Roads) of the Sample Site Permit addresses roads. Section 4.3.12 of the Sample Site Permit requires the Applicant to inform road authorities of roads that will be used during construction and acquire necessary permits and approvals for oversize and overweight loads. Additionally, Section 4.3.4 (Public Services and Public Utilities) of the Sample Site Permit requires the Applicant to minimize disruption to public services and public utilities and to restore service promptly if disrupted by the Applicant.<sup>167</sup>

## 5. Recreational Resources

125. Recreational opportunities in Freeborn County primarily include snowmobiling, swimming, hiking, camping, bicycling, nature walking, picnicking, and fishing, and opportunities to explore museums, parks, nature centers, and Albert Lea Lake.<sup>168</sup>

126. There are limited recreational resources in the Project Area. The two closest resources are a snowmobile trail (Trail 133) that passes through the Project Area, and the KOA campground on the extreme northeast side of the Project, and to the north of I-90. Other resources nearby but outside of the Project Area include Albert Lea Lake, the Blazing Star Trail, Juglan Woods Aquatic Management Area, and Myre-Big Island State Park. With the exception of Trail 133 (snowmobile trail), there are no designated public (federal, state, or local) recreational lands within the Project Area boundaries. There are no state forests, national forests, or national wildlife

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<sup>162</sup> Ex. HS-107 at 52 (Application for a Site Permit (Corrected)).

<sup>163</sup> Ex. EERA-8 at 41 (EA); Ex. HS-107 at 53 (Application for a Site Permit (Corrected)).

<sup>164</sup> Ex. EERA-8 at 41 (EA); Ex. HS-107 at 53 (Application for a Site Permit (Corrected)).

<sup>165</sup> Ex. HS-107 at 54-55 (Application for a Site Permit (Corrected)).

<sup>166</sup> See Ex. EERA-8 at 40-41 (EA); Ex. HS-107 at 52-53 (Application for a Site Permit (Corrected)).

<sup>167</sup> See Sample Site Permit (January 3, 2022) (eDocket No. [20221-181162-01](#)).

<sup>168</sup> Ex. HS-107 at 51 (Application for a Site Permit (Corrected)).

refuges within close proximity to the Project boundary. There are no city or county parks in the Project Area. Also, no lakes with public access are located in the Project boundary.<sup>169</sup>

127. Construction of the Project may impact Trail 133 (snowmobile trail). Specifically, the amended access road to the Project Substation/O&M facility and the new location of the SMMPA Switchyard will impact the current route of the existing Trail 133. Hayward Solar has discussed trail re-route options with the Association and the Association has indicated it agrees with rerouting Trail 133 to allow this facility to be constructed and maintain Trail 133 use.<sup>170</sup>

128. EERA staff recommended a special condition requiring the permittee to coordinate with local snowmobile trail associations to reroute Trail 133 (snowmobile trail) “and any associated snowmobile trails impacted by the [Project].”<sup>171</sup> As noted above, Hayward Solar has begun discussions with the Association regarding rerouting Trail 133.<sup>172</sup> In its response to comments, Hayward Solar stated it has no objection to this special condition.<sup>173</sup>

129. Construction noise from the Project will also temporarily impact the KOA campground. However, potential impacts are anticipated to be minimal and temporary given the location of the campground on the extreme northeast side of the Project and to the north of I-90.<sup>174</sup>

130. EERA staff proposed a special condition requiring the permittee to coordinate with local residents, including the KOA campground, regarding potential noise impacts prior to the installation of any foundation posts.<sup>175</sup> In its response to comments, Hayward Solar stated it has no objection to this special condition.<sup>176</sup>

131. No significant impacts to recreational opportunities are anticipated.<sup>177</sup>

## **B. Public Health and Safety**

132. The term EMF refers to electric and magnetic fields that are present around any electrical device. Electric fields arise from the voltage or electrical charges and magnetic fields arise from the flow of electricity or current that travels along transmission lines, power collection lines, substation transformers, house wiring, and electrical appliances. Electrical lines in the United States have a frequency of 60 cycles per second or 60 hertz, which is extremely low frequency EMF (“ELF-EMF”).<sup>178</sup>

133. No health impacts from EMF are anticipated. Potential impacts are anticipated to be negligible and are not expected to negatively affect human health. The maximum electric field

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<sup>169</sup> Ex. EERA-8 at 42 (EA); Ex. HS-107 at 51 (Application for a Site Permit (Corrected)).

<sup>170</sup> Ex. HS-125 at 8, 11 (CN and SP Application Amendment); Ex. EERA-8 at 43 (EA).

<sup>171</sup> EERA Hearing Comments (April 15, 2022) (eDocket No. [20224-184798-01](#)).

<sup>172</sup> Ex. HS-125 at 8, 11 (CN and SP Application Amendment); Ex. EERA-8 at 43 (EA).

<sup>173</sup> Hayward Solar Response to Comments (April 25, 2022) (eDocket No. \_\_\_\_\_).

<sup>174</sup> Ex. EERA-8 at 43 (EA).

<sup>175</sup> EERA Hearing Comments (April 15, 2022) (eDocket No. [20224-184798-01](#)).

<sup>176</sup> Hayward Solar Response to Comments (April 25, 2022) (eDocket No. \_\_\_\_\_).

<sup>177</sup> Ex. EERA-8 at 43 (EA).

<sup>178</sup> See Ex. EERA-8 at 44-45 (EA).

levels for the Project Gen-Tie Line and the SMMPA Line Tap are estimated to be consistent with the Commission's electric field limit (less than 8.0 kV/m). The EMF levels generated by the proposed Project are anticipated to be well below the internationally accepted guideline for general public exposure. Based on the most current research on EMF, and the distance between the Project and residences, the Project will have no impact to public health and safety due to EMF.<sup>179</sup>

134. The Project will be designed and constructed in compliance with applicable electric codes. Electrical inspections will ensure proper installation of all components, and the Project will undergo routine inspection. Electrical work will be completed by trained technicians.<sup>180</sup>

135. The Project will not result in the construction of large transmission lines; interconnect to businesses, farms, or residences; or change local electrical service. Therefore, impacts from stray voltage are not expected.<sup>181</sup>

136. No significant impacts to public health and safety are expected to result from construction and operation of the Project. Further, the Sample Site Permit contains conditions to address public health and safety. Section 4.3.19 (Public Safety) of the Sample Site Permit addresses public safety, including landowner educational materials, appropriate signs and gates, etc. Section 8.10 (Emergency Response) requires permittees file an emergency response plan with the Commission prior to operation. Section 8.11 (Extraordinary Events) requires disclosure of extraordinary events, such as fires, etc.<sup>182</sup>

### **C. Land-based Economies**

#### **1. Local Economy**

137. The Project will result in both short- and long-term benefits to the local economy.<sup>183</sup>

138. Landowner compensation is established by voluntary option leases or purchase agreements between the landowners and Hayward Solar for lease or purchase of the land for the Project.<sup>184</sup>

139. The Project is expected to generate annual property tax revenue of \$305,000 for Freeborn County and approximately \$76,000 for Hayward Township. The Project will also support 204 jobs during the construction and installation phases, and four permanent jobs during the 35-year operational life of the Project. The Project will also contribute to the local economy through land lease payments to participating landowners and direct/indirect purchases of goods and services. Construction of the Project will increase local demand for food, lodging, fuel, and other

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<sup>179</sup> See Ex. EERA-8 at 46-47 (EA) and Ex. HS-107 at 44 (Application for a Site Permit (Corrected)).

<sup>180</sup> Ex. EERA-8 at 47 (EA).

<sup>181</sup> Ex. EERA-8 at 66 (EA).

<sup>182</sup> See Sample Site Permit (January 3, 2022) (eDocket No. [20221-181162-01](#)).

<sup>183</sup> See Ex. EERA-8 at 43 (EA).

<sup>184</sup> Ex. HS-107 at 49 (Application for a Site Permit (Corrected)).

supplies. Adverse impacts associated with the loss of agricultural land and agricultural production will be mitigated through lease options and purchase payments to landowners.<sup>185</sup>

140. Wages will be paid, and expenditures will be made to local businesses and landowners during the Project's construction and operation. Construction of the Project would provide temporary increases to the revenue of the area through increased demand for lodging, food services, fuel, transportation, and general supplies. The Project will also create new local job opportunities for various trade professionals that live and work in the area, and it is typical to advertise locally to fill required construction positions. Opportunity exists for sub-contracting to local contractors for gravel, fill, and civil work. Additional personal income will also be generated by circulation and recirculation of dollars paid out by the Project as business expenditures and state and local taxes.<sup>186</sup>

141. The record demonstrates that the Project will result in both short- and long-term benefits to the local economy.<sup>187</sup> Additionally, Section 8.5 (Labor Statistic Reporting) of the Sample Site Permit requires quarterly reports concerning efforts to hire Minnesota workers. Section 9 (Decommissioning and Restoration) addresses Project decommissioning, specifically requiring the permittee to file a decommissioning plan with the Commission prior to operation; establishing the permittee as the responsible party for carrying out decommissioning tasks, and sets out minimum standards for restoration and timelines; and addresses abandoned solar installations.<sup>188</sup>

## 2. Agriculture

142. The majority of the Project Area is in agricultural use, with cultivated crops covering approximately 96 percent of the Project Area. The remainder of the Project Area consists of developed land (3.2 percent) and a small amount of herbaceous or hay/pasture land (0.1 percent). The remaining identified land use is a minor area (less than 0.1 percent) of mixed forest.<sup>189</sup>

143. The Project will result in approximately 1,272.7 acres of agricultural land being removed from agricultural production for at least the life of the Project. Impacts to 1,272.7 or less acres of agricultural land within the planned Project facility would reduce the amount of agricultural land in Freeborn County by less than one percent. This change in land use would take productive farmland out of production but would result in a negligible loss of farmland in Freeborn County.<sup>190</sup>

144. Normal agricultural activities can continue within some portions of the Project Area not converted to solar modules, access roads, O&M building, transmission facilities, and fencing. After the useful life of the Project, the land could be returned to agricultural production after the Project is decommissioned. Hayward Solar has prepared a Decommissioning Plan which will be

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<sup>185</sup> Ex. EERA-8 at 43-44 (EA); Ex. HS-107 at 49-50 (Application for a Site Permit (Corrected)).

<sup>186</sup> Ex. EERA-8 at 43-44 (EA); Ex. HS-107 at 49-50 (Application for a Site Permit (Corrected)).

<sup>187</sup> Ex. EERA-8 at 43-44 (EA); Ex. HS-107 at 49-50 (Application for a Site Permit (Corrected)).

<sup>188</sup> See Sample Site Permit (January 3, 2022) (eDocket No. [20221-181162-01](#)).

<sup>189</sup> Ex. HS-107 at 55-56 (Application for a Site Permit (Corrected)); Ex. EERA-8 at 31, 60 (EA).

<sup>190</sup> See Ex. HS-125 at 3 (CN and SP Application Amendment), Ex. HS-107 at 56 (Application for a Site Permit (Corrected)), and Ex. EERA-8 at 49 (EA).

implemented upon completion of the Project.<sup>191</sup> Additionally, Hayward Solar has developed and is committed to an Agricultural Impact Mitigation Plan (“AIMP”) that details methods to minimize soil compaction, preserve topsoil, and establish and maintain appropriate vegetation to ensure the Project is designed, constructed, operated and ultimately restored in a manner that would allow the land to be returned to agricultural use.<sup>192</sup>

145. The revenue lost or reduced from removing land from agricultural production will be offset by lease options and purchase payments to landowners.<sup>193</sup>

146. EERA staff proposed a special condition requiring that the permittee develop an AIMP in coordination with the Minnesota Department of Agriculture (“MDA”) and file the AIMP with the Commission 14 days prior to the pre-construction meeting.<sup>194</sup> In its response to comments, Hayward Solar stated it has no objection to this special condition.<sup>195</sup>

147. The presence of the Project will not result in a significant impact to land-based economies in the Project vicinity, as impacts to 1,272.7 or less acres of agricultural land within the planned Project facility would reduce the amount of agricultural land in Freeborn County by less than one percent.<sup>196</sup>

### 3. Prime Farmland

148. Prime Farmland as defined by Federal regulation at 7 C.F.R. 657.5(a)(1) “is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses.”<sup>197</sup>

149. Subject to certain exceptions, Minnesota Rules 7850.4400, subp. 4 prohibits large energy power generating plants from being sited on more than 0.5-acre of prime farmland per MW of net generating capacity unless there is no feasible and prudent alternative.<sup>198</sup>

150. Given the generating capacity of up to 150 MW, Minn. R. part 7850.4400, subp. 4 would allow up to 75 acres of prime farmland for the Project unless there is no feasible and prudent alternative.<sup>199</sup>

151. Approximately 107.67 acres of prime farmland and 1,107.57 acres of prime farmland if drained are located within the Project Area. The Project is anticipated to impact approximately 648 acres of prime farmland.<sup>200</sup>

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<sup>191</sup> Ex. EERA-8 at 49 (EA); Ex. HS-107 at 57 (Application for a Site Permit (Corrected)).

<sup>192</sup> Ex. EERA-8 at 50 (EA).

<sup>193</sup> Ex. EERA-8 at 50 (EA); Ex. HS-107 at 50 (Application for a Site Permit (Corrected)).

<sup>194</sup> EERA Hearing Comments (April 15, 2022) (eDocket No. [20224-184798-01](#)).

<sup>195</sup> Hayward Solar Response to Comments (April 25, 2022) (eDocket No. \_\_\_\_\_).

<sup>196</sup> See Ex. EERA-8 at 48-49 (EA), Ex. HS-125 at 3 (CN and SP Application Amendment), and Ex. HS-107 at 55-56 (Application for a Site Permit (Corrected)).

<sup>197</sup> Ex. EERA-8 at 48 (EA).

<sup>198</sup> Ex. EERA-8 at 49 (EA).

<sup>199</sup> Ex. EERA-8 at 49 (EA).

<sup>200</sup> Ex. EERA-8 at 49 (EA).

152. Hayward Solar conducted a prime farmland assessment to review the feasibility and prudence of potential sites as well as the prime farmland impacts. Hayward Solar identified and assessed two other potential sites for the Project in an attempt to find a site that would otherwise be compliant with the prime farmland exclusion rule in Minnesota Rule 7850.4400, subp. 4. Hayward Solar ruled out the two potential sites during its review of possible sites and does not have any leases or purchase options that would allow it to use the optional sites for the Project. Moreover, Hayward Solar does not have condemnation rights and therefore is unable to force any landowner to grant Hayward Solar any lease, easement or purchase option. Hayward Solar's detailed assessment concluded that these two other potential sites were not feasible or prudent areas for siting the Project.<sup>201</sup>

153. Hayward Solar chose the Project site due to the capacity of and proximity to the SMMPA Hayward-Murphy Creek 161 kV transmission line, (thus minimizing the need for extensive new transmission facilities), the presence of one of the largest concentrations of non-prime farmland soils in Freeborn County, willing landowners and community interest in the Project, the lack of farmsteads and rural residences and human settlement impacts, the lack of other environmental constraints, adequate roads for access, flat terrain, and overall need for renewable energy generation.<sup>202</sup>

154. No alternatives to Hayward Solar's proposed site were presented at the public meeting or during the public comment period.<sup>203</sup>

155. There is no feasible and prudent alternative available to Hayward Solar to construct the Project and not impact prime farmland. A finding that there is no feasible and prudent alternative to avoidance of prime farmland for the Project is consistent with past Commission decisions for large solar generating systems sited in prime farmland due to the fact that other areas in southern Minnesota also contain similar amounts of prime farmland as the proposed site.<sup>204</sup>

156. Hayward Solar has developed its VMP in consultation with MDNR and other state agencies to guide site preparation, installation of prescribed seed mixes, and management of invasive species and noxious weeds. Hayward Solar revised its VMP to reflect changes made following Hayward Solar's review of the Vegetation and Establishment Management Plan Guidance document, as well as comments received from and consultation with the state VMPWG,

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<sup>201</sup> Ex. HS-107 at 60 (Application for a Site Permit (Corrected)); *see also* Ex. HS-110 (SP Application Appendix C – Prime Farmland Assessment).

<sup>202</sup> Ex. HS-107 at 61 (Application for a Site Permit (Corrected)).

<sup>203</sup> *See* EA Scoping Decision (November 30, 2021) (eDocket No. [202111-180225-02](#)); Ex. EERA-7 (Notice of EA Scoping Decision).

<sup>204</sup> Ex. HS-107 at 60-61 (Application for a Site Permit (Corrected)); *see also* *In the Matter of the Site Permit Application for the 100 MW Aurora Distributed Solar Energy Project at Multiple Facilities in Minnesota*, PUC Docket No. E-6928/GS-14-515, Order Issuing Site Permit, As Amended (June 30, 2015); *In the Matter of the Application of Marshall Solar, LLC for a Site Permit for the Marshall Solar Energy Project and Associated Facilities in Lyon County*, PUC Docket No. IP-6964/GS-14-1052, Order Issuing Site Permit (May 5, 2016); *In the Matter of the Application of Elk Creek Solar, LLC for a Site Permit for the up to 80-Megawatt Elk Creek Solar Project in Rock County, Minnesota*, PUC Docket No. IP-7009/GS-19-495, Order Adopting Findings of Fact, Conclusions of Law, and Recommendations, Granting Certificate of Need, and Issuing Site Permit (December 31, 2020).

which is comprised of representatives of EERA staff, MDNR, the Minnesota Department of Agriculture and the Minnesota Board of Water and Soil Resources (“BWSR”). Additionally, Hayward Solar has indicated that it will take several steps during the 2022 growing season to ensure proper seed mixes for the site, including re-evaluating the VMP to determine if any changes are needed and continuing to coordinate with MDNR staff. Further, Hayward Solar has stated that it plans to file the final VMP prior to initiation of construction.<sup>205</sup>

157. EERA staff proposed a special condition requiring that the permittee develop a VMP in coordination with the Department of Commerce, MDNR, BWSR, and MPCA; requiring that the VMP and documentation of the coordination efforts between the permittee and the coordinating agencies be filed at least 14 days prior to the pre-construction meeting; requiring that the permittee provide all affected landowners with a copy of the VMP; and specifying information that the VMP must include.<sup>206</sup> Hayward Solar stated it has no objection to this special condition.<sup>207</sup>

158. EERA staff also proposed changes to Section 4.3.8 of the Sample Site Permit (Beneficial Habitat), so that the section addresses only beneficial habitat.<sup>208</sup> Hayward Solar stated it has no objection to this special condition.<sup>209</sup>

159. The Sample Site Permit contains multiple sections addressing soil and agricultural related issues associated with the Project.<sup>210</sup>

#### **D. Archaeological and Historic Resources**

160. A Phase I Cultural Resource Survey Report was completed in September 2020 for the Project Area and a one-mile buffer. A review of archaeological data indicated that no previously recorded archaeological sites had been identified in the study area. Four architectural resources were previously recorded in the study area.<sup>211</sup>

161. Because a significant portion of the Project Area was historically within a large wetland, most of the Project Area was determined to be of low potential for unrecorded prehistoric cultural resources. An archaeological survey model was developed to ascertain the areas of highest potential for unrecorded cultural resources. Field surveys were conducted in May 2020 on the approximately 287 acres of the Project Area determined to have potential for unrecorded

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<sup>205</sup> See Ex. EERA-8 at 60-61 (EA), Ex. HS-127 at 9 (Direct Testimony of Michael Roth), and Ex. HS-130 at 4-5 (Direct Testimony of Joseph Finocchiaro); see also Ex. HS-112 (SP Application Appendix E – Vegetation Management Plan) and Ex. HS-111 (SP Application Appendix D – Agricultural Impact Mitigation Plan).

<sup>206</sup> EERA Hearing Comments (April 15, 2022) (eDocket No. [20224-184798-01](#)).

<sup>207</sup> Hayward Solar Response to Comments (April 25, 2022) (eDocket No. \_\_\_\_\_).

<sup>208</sup> EERA Hearing Comments (April 15, 2022) (eDocket No. [20224-184798-01](#)).

<sup>209</sup> Hayward Solar Response to Comments (April 25, 2022) (eDocket No. \_\_\_\_\_).

<sup>210</sup> See Sample Site Permit at Sections 4.3.1 (Field Representative), 4.3.2 (Site Manager), 4.3.1 (Topsoil Protection), 4.3.2 (Soil Compaction), 4.3.3 (Soil Erosion and Sediment Control), 4.3.6 (Native Prairie), 4.3.7 (Vegetation Removal), 4.3.8 (Beneficial Habitat), 4.3.9 (Application of Pesticides), 4.3.10 (Invasive Species), 4.3.11 (Noxious Weeds), and 4.3.15 (Restoration) (January 3, 2022) (eDocket No. [20221-181162-01](#)).

<sup>211</sup> Ex. HS-107 at 63-64 (Application for a Site Permit (Corrected)).

archaeological resources (“Survey Corridor”). No archaeological resources were identified within the reviewed Project Area Survey Corridor.<sup>212</sup> No archaeological or historic resources are known to occur in the new portions of the Project Area based on results of the Phase Ia Cultural Resources Literature Review which covered the Project Area updated in Hayward Solar’s Application Amendment. Field review for cultural resources of a limited additional area within the Project Area is planned to be completed in spring 2022. Given that the area is predominately used for agricultural uses and is disturbed, it is not anticipated that cultural resources will be identified in the area during the field review.<sup>213</sup>

162. Hayward Solar also reached out to the eleven recognized Minnesota Tribal Nations and the Minnesota Indian Affairs Council for comment on the Project.<sup>214</sup> Hayward Solar prepared an Unanticipated Discoveries Plan that outlines steps to be taken if previously unrecorded cultural resources or human remains are encountered during construction.<sup>215</sup>

163. No previously recorded archaeological or historic sites will be directly impacted by the proposed Project.<sup>216</sup> Impacts to archaeological and historic resources are not expected.<sup>217</sup>

164. The record demonstrates that the Project will not cause adverse impacts to archaeological and historic resources. Further, Section 4.3.13 (Archaeological and Historic Resources) of the Sample Site Permit addresses archeological and historic resources. If previously unidentified archaeological sites are found during construction, the Applicant would be required to stop construction and contact SHPO and the state archaeologist to determine how best to proceed. Ground disturbing activity will stop and local law enforcement will be notified should human remains be discovered. Because impacts to archeological and historic resources are not anticipated, additional mitigation is not proposed.<sup>218</sup>

## **E. Natural Environmental**

### **1. Wildlife**

165. Wildlife utilizing the Project Area are common species associated with disturbed habitats and are accustomed to human activities occurring in the area, for example, agricultural activities and road traffic. Mammals, reptiles, amphibians, and insects are present.<sup>219</sup> These species include white-tailed deer, raccoon, striped skunk, woodchuck, ring-necked pheasant, red-winged blackbird, red-tailed hawks, garter snake, and insects.<sup>220</sup>

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<sup>212</sup> Ex. HS-107 at 63-64 (Application for a Site Permit (Corrected)); Ex. EERA-8 at 51-52 (EA).

<sup>213</sup> Ex. HS-125 at 11 (CN and SP Application Amendment); Ex. EERA-8 at 51-52 (EA).

<sup>214</sup> Ex. HS-107 at 63, 89 (Application for a Site Permit (Corrected)).

<sup>215</sup> Ex. HS-107 at 64 (Application for a Site Permit (Corrected)).

<sup>216</sup> Ex. HS-107 at 64 (Application for a Site Permit (Corrected)).

<sup>217</sup> Ex. EERA-8 at 51 (EA).

<sup>218</sup> See Sample Site Permit (January 3, 2022) (eDocket No. [20221-181162-01](#)); see also Ex. EERA-8 at 52 (EA).

<sup>219</sup> Ex. EERA-8 at 61 (EA).

<sup>220</sup> Ex. HS-107 at 81 (Application for a Site Permit (Corrected)).

166. Given the agricultural nature of the Project Area, impacts to the current wildlife inhabiting the area are expected to be minimal. Population level impacts are not anticipated.<sup>221</sup>

167. There are very few trees located within the Project Area. While a limited amount of tree clearing may be necessary to prevent shading of some panels, Hayward Solar designed the Project to avoid and minimize the need for tree removal. According to MDNR and the U.S. Fish and Wildlife Service, there are no known northern long-eared bat (“NLEB”) maternity roost trees or hibernaculum in Freeborn County. There are very few trees and water sources within the Project Area, so impacts to NLEB and their habitat is not expected. Similarly, the Project is not expected to impact migratory birds.<sup>222</sup>

168. The largest impact to wildlife associated with the Project would be fencing. Studies estimate that one ungulate per year becomes entangled for every two and one-half miles of fence. Deer can jump many fences, “but smooth or barbed-wire can snag animals and tangle legs, especially if wires are loose and spaced too closely together.” Predators can use fences to corner and kill prey species. Bird injuries or mortality occurs from fencing “due to lack of visibility” and low flying birds such as grouse and owls are also vulnerable to fence collisions.<sup>223</sup>

169. Movement of large mammals, such as white-tailed deer, will not be impeded within the Project Area. Hayward Solar plans to use lightweight agricultural woven wire fencing extending approximately 8 feet above grade around the Project arrays/construction units for safety and security purposes to prevent larger wildlife and the public from access Project electrical equipment. This fencing will be topped by 3-4 strands of smooth wire (and not barbed wire). “High Voltage Keep Out” signs will be placed in accordance with National Electric Code (“NEC”) requirements along the fence line. There will be wide corridors between fenced areas throughout the Project Area. The arrangement of the fenced areas of the Project array relative to existing roads and utilities provide various pathways through the Project Area which would allow wildlife to cross. These corridors will allow larger wildlife various options to cross unimpeded through the Project Area. The fencing proposed by Hayward Solar is appropriately protective of wildlife and supported by the record.<sup>224</sup>

170. To comply with the NEC, security fencing around the Project Substation will consist of 6-foot high chain-link fence with one foot of barbed wire at the top for security and safety purposes. High voltage warning signs will also be installed on the Project Substation fence. The record demonstrates that 6-foot high chain-link fence with one foot of barbed wire at the top is appropriate for the Project Substation.<sup>225</sup>

171. EERA staff noted that potential impacts to wildlife, particularly deer, could be mitigated by placing visibility markers at appropriate locations along the Project’s perimeter

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<sup>221</sup> See Ex. EERA-8 at 62 (EA).

<sup>222</sup> See Ex. HS-107 at 80, 82 (Application for a Site Permit (Corrected)) and Ex. HS-127 at 10 (Direct Testimony of Michael Roth).

<sup>223</sup> Ex. EERA-8 at 62 (EA).

<sup>224</sup> Ex. HS-107 at 20-21, 81-82 (Application for a Site Permit (Corrected)); Ex. HS-127 at 9 (Direct Testimony of Michael Roth).

<sup>225</sup> See Ex. HS-127 at 9 (Direct Testimony of Michael Roth) and Ex. HS-107 at 20-21 (Application for a Site Permit (Corrected)).

fencing. EERA staff proposed a special condition requiring the permittee to place visibility markers at appropriate locations along the Project's perimeter fencing to mitigate impacts to wildlife, and requiring the permittee to coordinate with the MDNR regarding to locations of visibility markers.<sup>226</sup> EERA staff did not provide any data or other evidence indicating visibility markers are warranted for the Project. Further, MDNR has not requested visibility markers be placed along the perimeter fencing. The fencing proposed by Hayward Solar is appropriately protective of wildlife, including deer, and supported by the record.

172. In its April 15, 2022 comments, MDNR recommended that, due to entanglement issues with small animals, the site permit include a special condition requiring erosion control blankets to be limited to "bio-netting" or "natural netting" types and mulch products without synthetic (plastic) fiber additives.<sup>227</sup> In its response to comments, Hayward Solar stated it has no objection to this special condition.<sup>228</sup>

173. The record demonstrates that Hayward has taken steps to avoid and minimize impacts to wildlife. Further, the Sample Site Permit contains general conditions that adequately protect wildlife. Section 8.12 (Wildlife Injuries and Fatalities) of the Sample Site Permit requires permittees to report any wildlife injuries and fatalities to the Commission on a quarterly basis.

## 2. Vegetation

174. The majority of the Project Area is cultivated agricultural land. Few areas with trees exist in the land control area, although one windbreak remnant exists.<sup>229</sup>

175. There is no MDNR-mapped native prairie in the Project Area. There are no records of native prairie or native plant communities within the Project Area.<sup>230</sup>

176. A limited amount of tree clearing may be necessary to prevent shading of some panels; however, the Project was designed to avoid and minimize the need for tree removal and relatively few trees are located within the Project Area.<sup>231</sup> A majority of the Project infrastructure and facilities are located within areas currently in row-crop agriculture. Hayward Solar will avoid and minimize impacts to vegetation to the extent practicable within the context of the Project and applying applicable buffers and setbacks. Construction of the Project will eliminate vegetative cover at access roads, Project Substation, O&M building, and parking lot.<sup>232</sup>

177. The record demonstrates that overall, the Project will result in a net improvement to vegetative cover in the Project Area because of revegetation efforts in former agricultural areas and the significant decrease in the use of herbicides and pesticides typical of agricultural practices

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<sup>226</sup> EERA Hearing Comments (April 15, 2022) (eDocket No. [20224-184798-01](#)).

<sup>227</sup> MDNR Comments (April 15, 2022) (eDocket No. [20224-184795-01](#)).

<sup>228</sup> Hayward Solar Response to Comments (April 25, 2022) (eDocket No. \_\_\_\_\_).

<sup>229</sup> See Ex. EERA-8 at 59-60 (EA); Ex. HS-107 at 79 (Application for a Site Permit (Corrected)).

<sup>230</sup> See Ex. EERA-8 at 60 (EA) and Ex. HS-107 at 80 (Application for a Site Permit (Corrected)).

<sup>231</sup> See Ex. EERA-8 at 59-60 (EA) and Ex. HS-107 at 80-81 (Application for a Site Permit (Corrected)).

<sup>232</sup> See Ex. EERA-8 at 59-60 (EA) and Ex. HS-107 at 80-81 (Application for a Site Permit (Corrected)).

through implementation of the Project AIMP and VMP plans, as well as the Stormwater Pollution Prevention Plan (“SWPPP”). To mitigate potential impacts to vegetation, Hayward Solar anticipates site restoration, seeding, establishing, maintaining and monitoring disturbed areas and areas below the PV arrays in accordance with the AIMP and VMP plans. Native seed mixes developed in cooperation with MDNR will be used. Once established, vegetation would most likely be maintained by mowing. Control of invasive and noxious weeds will be ongoing during the operation of the Project.<sup>233</sup>

178. Hayward Solar has developed its VMP in consultation with MDNR and other state agencies to guide site preparation, installation of prescribed seed mixes, and management of invasive species and noxious weeds. Hayward Solar revised its VMP to reflect changes made following Hayward Solar’s review of the Vegetation and Establishment Management Plan Guidance document, as well as comments received from and consultation with the state VMPWG, which is comprised of representatives of EERA staff, MDNR, the Minnesota Department of Agriculture and the BWSR.<sup>234</sup> Additionally, Hayward Solar has stated that it intends to re-evaluate the VMP to determine if any changes are needed and continue coordinating with MDNR staff. Hayward Solar has stated that it plans to file the final VMP prior to initiation of construction.<sup>235</sup>

179. EERA staff proposed a special condition requiring that the permittee develop a VMP in coordination with the Department of Commerce, MDNR, BWSR, and MPCA; requiring that the VMP and documentation of the coordination efforts between the permittee and the coordinating agencies be filed at least 14 days prior to the pre-construction meeting; requiring that the permittee provide all affected landowners with a copy of the VMP; and specifying information that the VMP must include.<sup>236</sup> In its response to comments, Hayward Solar stated it has no objection to this special condition.<sup>237</sup>

180. EERA staff also proposed changes to Section 4.3.8 of the Sample Site Permit (Beneficial Habitat), so that the section addresses only beneficial habitat.<sup>238</sup> In its response to comments, Hayward Solar stated it has no objection to this special condition.<sup>239</sup>

181. Hayward Solar has also developed an AIMP that details methods to minimize soil compaction, preserve topsoil, and establish and maintain appropriate vegetation to ensure the Project is designed, constructed, operated and ultimately restored in a manner that would preserve soils to allow for the land to be returned to agricultural use. Hayward Solar will follow the best

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<sup>233</sup> Ex. EERA-8 at 59-60 (EA); Ex. HS-107 at 80-81 (Application for a Site Permit (Corrected)).

<sup>234</sup> See Ex. EERA-8 at 60-61 (EA), Ex. HS-127 at 9 (Direct Testimony of Michael Roth), and Ex. HS-130 at 4-5 (Direct Testimony of Joseph Finocchiaro); *see also* Ex. HS-112 (SP Application Appendix E – Vegetation Management Plan).

<sup>235</sup> See Ex. EERA-8 at 60-61 (EA), Ex. HS-127 at 9 (Direct Testimony of Michael Roth), and Ex. HS-130 at 4-5 (Direct Testimony of Joseph Finocchiaro); *see also* Ex. HS-112 (SP Application Appendix E – Vegetation Management Plan) and Ex. HS-111 (SP Application Appendix D – Agricultural Impact Mitigation Plan).

<sup>236</sup> EERA Hearing Comments (April 15, 2022) (eDocket No. [20224-184798-01](#)).

<sup>237</sup> Hayward Solar Response to Comments (April 25, 2022) (eDocket No. \_\_\_\_\_).

<sup>238</sup> EERA Hearing Comments (April 15, 2022) (eDocket No. [20224-184798-01](#)).

<sup>239</sup> Hayward Solar Response to Comments (April 25, 2022) (eDocket No. \_\_\_\_\_).

management practices (“BMPs”) set forth in the AIMP during construction and operation, including erosion and sediment control measures.<sup>240</sup>

182. In accordance with the Project’s VMP, AIMP, and SWPPP, during the operating life of the Project, erosion control will be further accomplished by establishment of a perennial, primarily native vegetative cover under the solar arrays and installation of gravel roads with culverts (as necessary) to redirect concentrated surface water. Additionally, as outlined in the EA, Hayward Solar will take several steps during the 2022 growing season to ensure proper seed mixes for the site, including: collecting and analyzing soil samples, interviewing landowners and farmers who are familiar with the Project Area, re-evaluating the VMP to determine if any changes are needed, reviewing the availability of seed mixes for the 2023 growing season (the anticipated construction timeframe), and coordinating with MDNR staff.<sup>241</sup>

183. The record demonstrates that Hayward Solar has taken steps to avoid and minimize impacts to vegetation. Further, the Sample Site Permit contains adequate conditions to monitor and mitigate the Project’s potential impacts on vegetation. Section 4.3.7 (Vegetation Removal) of the Sample Site Permit requires that vegetation clearing be limited to only the extent necessary for construction access and safe operation and maintenance of the Project. Section 4.3.9 (Application of Pesticides) discusses pesticide use. Section 4.3.10 (Invasive Species) requires permittees to employ BMPs to avoid the potential introduction and spread of invasive species on lands disturbed by Project construction. Section 4.3.11 (Noxious Weeds) requires permittees to take all reasonable precautions against the spread of noxious weeds during all phases of construction.<sup>242</sup>

### 3. Soils, Geologic, and Groundwater Resources

184. Construction of the Project will disturb approximately 1,272.7 acres within the Project Area. Of this, about 19 acres will be graded. As with any ground disturbance, the potential exists for soil compaction and erosion. Construction may require some amount of grading to provide a level surface for the foundations for the Project Substation, O&M building, access roads, and spot grading for the solar arrays, foundations and inverter skid locations. Because the Project is located on relatively level existing agricultural fields, a relatively small amount of grading will be necessary for the Project overall given its size. Additional soil impacts during construction will come from the installation of the direct-embedded piers for the solar arrays and inverter skids. Soil compaction will be mitigated by use of low-impact equipment and methods, regrading and tilling these areas following construction.<sup>243</sup>

185. The type of electrical collection system used would affect soils differently. In all systems, some trenching will be required to bury electrical cables. Impacts are most substantial

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<sup>240</sup> See Ex. EERA-8 at 60-61 (EA), Ex. HS-130 at 4-5 (Direct Testimony of Joseph Finocchiaro), and Ex. HS-111 (SP Application Appendix D – Agricultural Impact Mitigation Plan).

<sup>241</sup> See Ex. EERA-8 at 60-61 (EA), Ex. HS-127 at 9 (Direct Testimony of Michael Roth), Ex. HS-130 at 4-5 (Direct Testimony of Joseph Finocchiaro); *see also* Ex. HS-112 (SP Application Appendix E – Vegetation Management Plan), and Ex. HS-111 (SP Application Appendix D – Agricultural Impact Mitigation Plan).

<sup>242</sup> See Sample Site Permit (January 3, 2022) (eDocket No. [20221-181162-01](#)).

<sup>243</sup> See Ex. HS-125 at 3 (CN and SP Application Amendment), Ex. HS-107 at 68-69 (Application for a Site Permit (Corrected)), and Ex. EERA-8 at 55-57 (EA).

with the belowground system and decrease substantially with above-ground systems because trenching is not required.<sup>244</sup>

186. During operation of the Project, ongoing soil compaction could occur from the use of access roads. This impact is expected to be negligible, confined to the roadbed and mainly from relatively light duty maintenance vehicles. Overall, the Project is expected to reduce the potential for erosion by establishing permanent vegetation, in contrast to the current amount of exposed soils common to row cropping in the existing agriculture fields. Potential erosion will be further minimized by dressing access roads with gravel and installing culverts under access roads where necessary to redirect concentrated surface water runoff.<sup>245</sup> Additionally, Hayward Solar has preliminarily designed 10 drainage basins throughout the Preliminary Development Area that range in size from approximately 0.25 to 3.5 acre to manage stormwater runoff from the Project during operation. These basins are located in existing low areas that also contain hydric soils and for which the preliminary design for solar facilities has avoided. These areas will be vegetated with a wet seed mix that will help stabilize soils after rain events.<sup>246</sup>

187. The Project Area is well drained through existing drainage systems such as drain tile and judicial drainage ditch systems. There are areas in the Project Area where historic wetlands were likely present, but those areas have been drained (e.g., by installation of drain tiles and judicial drainage ditches). Hayward Solar will restore, replace, or repair the existing subsurface and surface drainage systems to the greatest extent practicable in the Project Area during Project construction and operation.<sup>247</sup>

188. Hayward Solar has developed an AIMP for the Project that details methods to minimize soil compaction, preserve topsoil, and establish and maintain appropriate vegetation to ensure the Project is designed, constructed, operated, and ultimately restored in a manner that would preserve soils to allow for the land to be returned to agricultural used. The Project's AIMP specifically addresses construction in the type of soil conditions present in the Project Area. Hayward Solar will follow the BMPs set forth in the AIMP during construction and operation, including erosion and sediment control measures. Additionally, Hayward Solar's VMP lists BMPs, that while directly related to vegetation, will stabilize soils.<sup>248</sup> Additionally, Hayward Solar will obtain a National Pollutant Discharge Elimination System ("NPDES") permit to discharge stormwater from construction facilities from MPCA. BMPs will be used during construction and operation to protect topsoil and adjacent resources and to minimize soil erosion. In addition, a SWPPP will be developed for the Project prior to construction that will include BMPs such as silt fencing (or other erosion control devices), revegetation plans, and management of exposed soils to prevent erosion.<sup>249</sup>

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<sup>244</sup> Ex. EERA-8 at 57 (EA).

<sup>245</sup> See Ex. HS-107 at 68-69 (Application for a Site Permit (Corrected)) and Ex. EERA-8 at 57 (EA).

<sup>246</sup> Ex. HS-130 at 5 (Direct Testimony of Joseph Finocchiaro).

<sup>247</sup> Ex. HS-130 at 2-4 (Direct Testimony of Joseph Finocchiaro); Ex. EERA-8 at 58 (EA).

<sup>248</sup> Ex. HS-130 at 3-4 (Direct Testimony of Joseph Finocchiaro); Ex. EERA-8 at 58 (EA),

<sup>249</sup> See Ex. HS-107 at 69 (Application for a Site Permit (Corrected)), and Ex. EERA-8 at 57-58 (EA).

189. Private wells exist throughout the Project vicinity; however, no verified drinking water wells are within the Project Area. Three irrigation wells are present in the Project Area. Project facilities are not likely to affect the use of existing water wells. The status of these three wells is unknown, but the wells will be identified and avoided if possible or properly decommissioned if avoidance is impossible and the underlying landowner consents. If an unknown well is discovered that was not mapped on available mapping resources, Hayward Solar will assess whether the well is open, coordinate with the underlying landowner and cap it, if necessary and approved by the underlying landowner, in accordance with Minnesota Department of Health requirements.<sup>250</sup>

190. Impacts to geologic and groundwater resources are not anticipated.<sup>251</sup>

191. The record demonstrates that Hayward Solar has taken steps to avoid and minimize impacts to soils, geologic, and groundwater resources. Further, the Sample Site Permit contains adequate conditions to monitor and mitigate the Project's potential impacts on soils, geologic, and groundwater resources. Sections 4.3.1 (Topsoil Protection), 4.3.2 (Soil Compaction), and 4.3.3 (Soil Erosion and Sediment Control) of the Sample Site Permit address soil related impacts: 4.3.1 requires protection and segregation of topsoil; 4.3.2 requires measures to minimize soil compaction; and 4.3.3 requires the permittee to implement erosion prevention and sediment control practices recommended by the MPCA and to obtain a NPDES Construction Stormwater Permit from the MPCA, which requires both temporary and permanent stormwater controls. Section 4.3.3 also requires implementation of reasonable erosion and sediment control measures, contours graded to provide for proper drainage, and all disturbed areas be returned to pre-construction conditions.<sup>252</sup>

#### 4. Surface Water and Wetlands

192. Hayward Solar identified surface water and floodplain resources for the Project Area.<sup>253</sup>

193. The Project is located within the Shell Rock River Watershed, which is part of the Upper Mississippi River Basin. No rivers, streams, lakes or MDNR Public Watercourses or Waterbodies are within the Project site. The nearest MDNR Public Waterbody is Lake Albert Lea, located approximately 3 miles west of the Project Area. The nearest MDNR Public Watercourse is a named stream (Peter Lund Creek) located approximately 0.5 miles west of the Project Area, flowing to the west into Lake Albert Lea. There are no National Hydrography Dataset ("NHD") mapped waterbodies within the Project Area. There are ten segments of two named NHD watercourses, comprised of public ditches, within the Project Area.<sup>254</sup> Few remaining surface

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<sup>250</sup> Ex. HS-107 at 72 (Application for a Site Permit (Corrected)).

<sup>251</sup> See Ex. EERA-8 at 55-56 (EA); Ex. HS-107 at 70, 72-73 (Application for a Site Permit (Corrected)).

<sup>252</sup> See Sample Site Permit (January 3, 2022) (eDocket No. [20221-181162-01](#)).

<sup>253</sup> Ex. HS-107 at 73-74 (Application for a Site Permit (Corrected)); see also Ex. HS-126 (CN and SP Application Amendment – Amended Figures 1-16 and New 3A).

<sup>254</sup> Ex. EERA-8 at 58-59 (EA); Ex. HS-107 at 73-74 (Application for a Site Permit (Corrected)).

water features exist as the area now has numerous drain tiles and judicial drainage ditches to remove water from agricultural fields.<sup>255</sup>

194. County Ditch No. 62 and County Ditch No. 47 are within the northern portion of the Project Area.<sup>256</sup> Existing Freeborn County agriculture field drain tile is located in the northernmost section of the Project Area and a network of ditches exists throughout the site. Additionally, judicial drainage ditches are located along 190th and 200th Streets, County Highway 102, and 840th Avenue. In addition to county drain tile information from Freeborn County, Hayward Solar has obtained maps of private drain tile within farm fields located within most of the Project Area from participating landowners. Review of these maps indicate a number of private drain tiles are located throughout the Project Area which appear to be connected to the surrounding County drain tile/judicial drainage ditch systems. Hayward Solar will further evaluate drain tile locations and take this into account as final design/engineering is completed for the Project. Hayward Solar will restore, replace, or repair the existing drain tile across the Project site and avoid impacts to judicial drainage ditches to the greatest extent practicable.<sup>257</sup>

195. The Project Area is within an area of minimal flood hazard as determined by the Federal Emergency Management Agency. It is not in a mapped floodplain; therefore, impacts to floodplains will not occur.<sup>258</sup>

196. The Project will not directly impact surface waters.<sup>259</sup>

197. Desktop and field delineations of wetlands have been conducted for the Project. A wetland area was delineated along the north and west boundaries of the Project Area. However, neither SMMPA nor Project facilities would impact or be constructed within the wetlands. The wetlands may be temporarily disturbed during the installation of the SMMPA Line Tap and, if so, will be restored to pre-construction conditions after construction. The planned Project facilities will not be installed within either of these wetlands. All field delineated wetlands have been identified and accounted for in the design through avoidance of placing Project infrastructure in the delineated wetlands to the greatest extent practicable.<sup>260</sup> The Project layout avoids wetlands to the greatest extent practicable, including all farmed wetlands. With proper sediment control measures, potential impacts are expected to be negligible. Impacts to undisturbed wetlands will not occur.<sup>261</sup>

198. Temporary dewatering may be required during construction. Any dewatering required during construction will be managed in accordance with the Project's SWPPP and discharged to the surrounding surface, thereby allowing it to infiltrate back into the ground to minimize potential impacts. If dewatering is necessary, Hayward Solar will obtain a Water

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<sup>255</sup> Ex. HS-130 at 2 (Direct Testimony of Joseph Finocchiaro).

<sup>256</sup> Ex. EERA-8 at 58 (EA); Ex. HS-107 at 73-74 (Application for a Site Permit (Corrected)).

<sup>257</sup> Ex. HS-130 at 3-4 (Direct Testimony of Joseph Finocchiaro).

<sup>258</sup> Ex. EERA-8 at 65 (EA).

<sup>259</sup> Ex. EERA-8 at 58 (EA).

<sup>260</sup> See Ex. HS-125 at 7, 12, 15 (CN and SP Application Amendment); Ex. HS-130 at 3 (Direct Testimony of Joseph Finocchiaro).

<sup>261</sup> Ex. EERA-8 at 66 (EA); Ex. HS-130 at 3-4 (Direct Testimony of Joseph Finocchiaro).

Appropriation Permit from MDNR if the applicable permit thresholds are expected to be exceeded during construction.<sup>262</sup>

199. The record demonstrates that Hayward Solar has taken steps to avoid and minimize impacts to surface waters and wetlands. Further, the Sample Site Permit contains conditions that adequately address potential impacts. Section 4.3.5 (Wetlands and Water Resources) addresses impacts to wetlands and other water resources. Section 4.3.3 (Soil Erosion and Sediment Control) requires reasonable measures to minimize erosion and sedimentation during construction.<sup>263</sup>

## 5. Air and Water Emissions

200. Temporary short-term air quality impacts would occur during the construction phase of the Project as a result of exhaust emissions from construction equipment and other vehicles, and from fugitive dust from wind erosion of agricultural land that becomes airborne during dry periods of construction activity. Once operational, the Project will not generate criteria pollutants or carbon dioxide.<sup>264</sup>

201. BMPs will be used during construction and operation of the Project to minimize dust emissions.<sup>265</sup>

202. Overall, the Project is expected to have a positive impact on water quality.<sup>266</sup>

## 6. Solid and Hazardous Wastes

203. The Project is not expected to generate significant quantities of solid waste during operation. The Project will require use of certain petroleum products such as gear box oil, hydraulic fluid, and gear grease. These materials will be recycled or otherwise stored and disposed of in accordance with applicable State and Federal regulations. In addition, some waste streams will be generated at the O&M building. These materials will also be stored, recycled, and/or disposed of in accordance with applicable local, State, and Federal regulations.<sup>267</sup>

204. Project operation will not require the use or storage of large quantities of hazardous materials that might otherwise have the potential to spill or leak into area groundwater. Herbicides may be used for vegetation management which will follow applicable regulatory use and management requirements or as required by applicable permit(s). Pesticides may be used around inverters and other electrical cabinets to control insects and any use would also follow applicable requirements. A Spill Prevention, Control, and Countermeasure (“SPCC”) plan will be required for the Project Substation transformer. The transformer will be properly designed, constructed and operated per the SPCC plan and in accordance with EPA and MPCA requirements; it will be

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<sup>262</sup> Ex. HS-107 at 73 (Application for a Site Permit (Corrected)).

<sup>263</sup> See Sample Site Permit (January 3, 2022) (eDocket No. [20221-181162-01](#)).

<sup>264</sup> Ex. EERA-8 at 52-53 (EA); Ex. HS-107 at 66 (Application for a Site Permit (Corrected)).

<sup>265</sup> Ex. HS-107 at 66 (Application for a Site Permit (Corrected)).

<sup>266</sup> Ex. EERA-8 at 59 (EA).

<sup>267</sup> Ex. HS-102 at 50 (Application for a Certificate of Need).

equipped with required secondary containment to contain a potential spill or leak and to prevent impacting the ground from transformer oil.<sup>268</sup>

205. Section 4.3.16 (Cleanup) of the Sample Site Permit requires that all waste and scrap that is the product of construction shall be removed from the site and all premises on which construction activities were conducted and properly disposed of upon completion of each task. In addition, Section 4.3.17 (Pollution and Hazardous Wastes) of the Sample Site Permit requires the permittee to take all appropriate precautions against pollution of the environment and makes the permittee responsible for compliance with all laws applicable to the generation, storage, transportation, clean up, and disposal of all wastes generated during construction and restoration of the site.<sup>269</sup>

## **F. Rare and Unique Natural Resources**

206. Hayward Solar reviewed the U.S. Fish and Wildlife Service (“USFWS”) Information for Planning and Conservation (“IPaC”) database for the potential occurrence of federally-listed species, candidate species, or designated critical habitat that may occur within or near the Project Area. Hayward Solar also submitted a formal MDNR's Natural Heritage Information System (“NHIS”) request, and MDNR reviewed the Project for documented occurrences of federally- or state-listed species, state Species of Concern, and rare habitats.<sup>270</sup>

207. According to the USFWS IPaC, one federally-listed species may occur within or near the Project Area: the federally-threatened NLEB. There are no known NLEB maternity roost trees or hibernaculum in Freeborn County. There are very few trees and water sources within the Project Area, so impacts to NLEB and their habitat is not expected. Additionally, few trees are expected to be removed for construction of the Project.<sup>271</sup>

208. According to the USFWS habitat connectivity model for the federally endangered rusty-patched bumble bee (“RPBB”), there is approximately 352 acres of RPBB Low Potential Zone within the one-mile Project buffer. No negative impacts on rusty patched bumble bees are expected because the RPBB Low Potential Zone does not fall within the Project Area, and with the establishment of native perennials, negative impacts to RPBB is not expected.<sup>272</sup>

209. The MDNR formal response to the NHIS request for the Project did not identify species of concern and the MDNR stated the Project will not negatively affect any known occurrences of rare features. Therefore, impacts are not anticipated.<sup>273</sup>

## **III. SITE PERMIT CONDITIONS**

210. The Sample Site Permit includes a number of proposed permit conditions, many of which have been discussed above. The conditions apply to site preparation, construction, cleanup,

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<sup>268</sup> Ex. HS-107 at 73 (Application for a Site Permit (Corrected)).

<sup>269</sup> See Sample Site Permit (January 3, 2022) (eDocket No. [20221-181162-01](#)).

<sup>270</sup> Ex. HS-107 at 82 (Application for a Site Permit (Corrected)).

<sup>271</sup> Ex. HS-107 at 82 (Application for a Site Permit (Corrected)).

<sup>272</sup> Ex. HS-107 at 82 (Application for a Site Permit (Corrected)).

<sup>273</sup> Ex. EERA-8 at 66 (EA); Ex. HS-107 at 82 (Application for a Site Permit (Corrected)).

restoration, operation, maintenance, abandonment, decommissioning, and other aspects of the Project.

211. Many of the conditions contained in the Sample Site Permit were established as part of the site permit proceedings of other solar projects permitted by the Commission. Comments received by the Commission have been considered in development of the Sample Site Permit for this Project.

212. On April 15, 2022, EERA staff provided suggested changes to Section 4.3.8 of the Sample Site Permit related to Beneficial Habitat. The revisions are as follows:

#### **4.3.8 Beneficial Habitat**

The Permittee shall implement site restoration and management practices that provide for native perennial vegetation and foraging habitat beneficial to gamebirds, songbirds, and pollinators; and that enhances soil water retention and reduces storm water runoff and erosion. ~~The Permittee shall develop a vegetation management plan that incorporates, to the extent applicable and appropriate, the technical guidance and best management practices outlined in the DNR's Prairie Establishment and Maintenance Technical Guidance for Solar Projects<sup>1</sup>. The vegetation management plan shall be filed at least 30 days prior to the preconstruction meeting.~~ To ensure continued management and recognition of beneficial habitat, the Permittee is encouraged to meet the standards for Minnesota's Habitat Friendly Solar Program by submitting project plans, seed mixes, a completed project planning assessment form, and any other applicable documentation used to meet the standard to the Board of Water and Soil Resources (BWSR). ~~seek certification of the project by following guidance set forth by the Pollinator Plan provided by the Board of Water and Soil Resources.~~ All documents required by BWSR Board of Water and Soil Resources for meeting Habitat Friendly Solar Certification and maintenance of that Certification, if filed with BWSR, should also be filed with the Commission.

213. EERA staff provided suggested changes to Section 9.1 regarding the decommissioning plan. Hayward Solar proposed incorporating EERA staff's proposed changes into Section 9.1 of the Sample Site Permit, as follows:

#### **9.1 Decommissioning Plan**

The Permittee shall comply with the provisions of the most recently filed and accepted decommissioning plan. The initial version of the decommissioning plan was submitted for this project as part of the May 5, 2021, site permit application. The Permittee shall file submit an updated decommissioning plan, incorporating comments and information from the permit issuance process and any updates

associated with final construction plans, with ~~to~~ the Commission at least fourteen 14 days prior to the ~~pre-operation~~ pre-construction meeting ~~and provide updates to the plan every five years thereafter.~~ The decommissioning plan shall be updated every five years following the commercial operation date. The decommissioning plan shall provide information identifying all surety and financial securities established for decommissioning and site restoration. The decommissioning plan shall provide an itemized breakdown of costs of decommissioning all project components, which shall include labor and equipment. The plan shall identify cost estimates for the removal of solar panels, racks, underground collection cables, access roads, transformers, substations, and other project components. The plan may also include anticipated costs for the replacement of panels or repowering the project by upgrading equipment.

The Permittee shall also submit the decommissioning plan to the local unit of government having direct zoning authority over the area in which the project is located. The Permittee shall ensure that it carries out its obligations to provide for the resources necessary to fulfill its requirements to properly decommission the project at the appropriate time. The Commission may at any time request the Permittee to file a report with the Commission describing how the Permittee is fulfilling this obligation.

214. EERA staff also proposed a special permit condition on the VMP:

### **5.1 Vegetation Management Plan**

The Permittee shall develop a vegetation management plan using best management practices established by the DNR and BWSR. The vegetation management plan shall be prepared in coordination ~~consultation~~ with the Department of Commerce, DNR, BWSR, and MPCA ~~to the benefit of pollinators and other wildlife, and to enhance soil water retention and reduce storm water runoff and erosion.~~ The vegetation management plan and documentation of the coordination efforts between the Permittee and the coordinating agencies shall be filed at least 14 days prior to the pre-construction meeting. ~~Within 14 days of approval of the final Vegetation Management Plan, the~~ The Permittee shall provide all affected landowners with a copy ~~copies~~ of the plan.

The vegetation management plan must include the following:

- Management objectives addressing short term (Year 0-5, seeding and establishment) and long term (Year 5 through the life of the permit) goals.

- A description of planned restoration and vegetation management activities, including how the site will be prepared, timing of activities, how seeding will occur (broadcast, drilling, etc.), and the types of seed mixes to be used.
- A description of how the site will be monitored and evaluated to meet management goals.
- A description of the management tools used to maintain vegetation (e.g., mowing, spot spraying, hand removal, fire, grazing, etc.), including the timing and frequency of maintenance activities.
- Identification of the third-party (e.g., consultant, contractor, site manager, etc.) responsible for restoration, monitoring, and long-term vegetation management of the site.
- Identification of on-site noxious weeds and invasive species (native and non-native) and the monitoring and management practices to be utilized.
- A site plan showing how the site will be revegetated and that identifies the corresponding seed mixes. Best management practices should be followed concerning seed mixes, seeding rates, and cover crops.

215. EERA staff also recommended adding a special permit condition requiring the permittee to develop an AIMP in coordination with the MDA and file it with the Commission 14 days prior to the pre-construction meeting:

### **5.2 Agricultural Impact Management Plan**

The Permittee shall develop an agricultural impact mitigation plan (AIMP) in coordination with the MDA. The AIMP shall be filed at least 14 days prior to the pre-construction meeting. The Permittee shall provide all affected landowners with a copy of the plan.

216. EERA staff proposed adding a special permit condition requiring an independent monitor. Hayward Solar proposed revisions to EERA staff's proposed permit language to clarify the agencies to which the independent monitor would report:

### **5.3 Independent Monitor**

~~The Permittee shall employ an independent, third-party monitor to ensure compliance with this site permit.~~ Prior to construction, and in consultation with Department of Commerce, Energy Environmental Review and Analysis (EERA) staff and the Minnesota Department of Agriculture (MDA), the Permittee shall identify one independent, third party monitor for the construction

phase and develop a scope of work for the monitor. ~~If the monitor will report to several agencies (e.g., the Minnesota Department of Agriculture and Commerce) the~~ The scope of work must be developed in coordination with and approved by EERA staff and the MDA. ~~all agencies. The scope of work must be approved by EERA and all agencies receiving monitoring reports. This third-party monitor will report directly to and will be under the control of the EERA staff and MDA, in coordination with the Permittee.~~ All costs for the monitor will be borne by the Permittee.

The Permittee shall file an approved scope of work for the monitor with the Commission 30 days prior to commencing construction. The Permittee shall file the name, address, email, phone number, and emergency phone number of the third-party monitor 14 days prior to commencing construction.

217. EERA staff proposed adding a special permit condition requiring the permittee to coordinate with local residences and the KOA campground regarding potential noise impacts:

#### **5.4 Noise Coordination**

The Permittee shall coordinate with local residents, including the KOA campground north of I-90, regarding potential noise impacts prior to the installation of any foundation posts. The Permittee shall take reasonable measures to minimize the noise impacts associated with installation of the posts.

218. EERA staff proposed adding a special permit condition requiring the permittee to coordinate with local snowmobile trail associations to reroute Trail 133 (snowmobile trail):

#### **5.5 Snowmobile Trails**

The Permittee shall coordinate with local snowmobile trail associations to reroute Freeborn County Trail 133 and any associated snowmobile trails impacted by the project.

219. In its April 15, 2022 comments, MDNR recommended adding a special permit condition on lighting at the Project substation and O&M building. Hayward Solar proposed the following language based on the example provided by MDNR:

Permittee must use shielded and downward facing lighting and LED lighting that minimizes blue hue at the project substation and O&M building. Downward facing lighting must be clearly visible on the plan and profile submitted for the project.

220. MDNR also recommended adding a special permit condition requiring wildlife-friendly erosion control:

The Permittee shall use only “bio-netting” or “natural netting” types and mulch products without synthetic (plastic) fiber additives.

Based on the foregoing Findings of Fact and the record in this proceeding, the Commission makes the following:

### **CONCLUSIONS OF LAW**

1. Any of the foregoing Findings of Fact more properly designated as Conclusions of Law are hereby adopted as such.
2. The Commission and the Administrative Law Judge have jurisdiction over the Site Permit applied for by Hayward Solar for the up to 150 MW AC proposed Project pursuant to Minn. Stat. §§ 216E.02 and 216E.03.
3. The Commission accepted the SP Application as substantially complete on June 29, 2021.<sup>274</sup>
4. Hayward Solar has substantially complied with the procedural requirements of Minn. Stat. Ch. 216E and Minn. R. Ch. 7850.
5. The Commission has substantially complied with the procedural requirements of Minn. Stat. Ch. 216E and Minn. R. Ch. 7850.
6. EERA has conducted an appropriate environmental analysis of the Project for purposes of the Site Permit proceeding pursuant to Minn. R. 7850.3700.
7. Public hearings were held on March 28, 2022 (remote-access) and March 29, 2022 (in-person). Proper notice of the public hearings was provided, and the public was given an opportunity to speak at the hearings and to submit written comments.
8. The EA prepared for the project and the record created at the public hearing address the issued identified in the EA scoping decision.
9. The Commission has the authority under Minn. Stat. § 216E.03 to place conditions in a LEPGP site permit.
10. The Sample Site Permit contains a number of important mitigation measures and other reasonable conditions.
11. It is reasonable to amend the Sample Site Permit to include the changes to Section 4.3.8 of the Sample Site Permit as proposed by EERA staff.
12. It is reasonable to amend the Sample Site Permit to include the changes to Section 9.1 of the Sample Site Permit as proposed by EERA staff and as modified by Hayward Solar.

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<sup>274</sup> Order (June 29, 2021) (eDocket No. [20216-175529-01](#)).

13. It is reasonable to amend the Sample Site Permit to include the special permit condition regarding the vegetation management plan as proposed by EERA staff.

14. It is reasonable to amend the Sample Site Permit to include the special permit condition regarding the agricultural impact mitigation plan as proposed by EERA staff.

15. It is reasonable to amend the Sample Site Permit to include the special permit condition regarding the independent monitor as proposed by EERA staff and as modified by Hayward Solar.

16. It is reasonable to amend the Sample Site Permit to include the special permit condition regarding noise coordination as proposed by EERA staff.

17. It is reasonable to amend the Sample Site Permit to include the special permit condition regarding snowmobile trails as proposed by EERA staff.

18. It is reasonable to amend the Sample Site Permit to include the special permit condition regarding lighting at the Project substation and O&M building as proposed by MDNR and as modified by Hayward Solar.

19. It is reasonable to amend the Sample Site Permit to include the special permit condition regarding wild-life friendly erosion control as proposed by MDNR.

20. The record in this proceeding demonstrates that Hayward Solar has satisfied the criteria for a Site Permit as set forth in Minn. Stat. § 216E.03 and Minn. R. Ch. 7850 and all other applicable legal requirements.

21. The Project, with the permit conditions discussed above, satisfies the site permit criteria for an LEPGP in Minn. Stat. § 216E.03 and meets all other applicable legal requirements.

22. The Project, with the permit conditions discussed above, does not present a potential for significant adverse environmental effects pursuant to the Minnesota Environmental Rights Act and/or the Minnesota Environmental Policy Act.

23. Any of the foregoing Conclusions of Law which are more properly designated Findings of Fact are hereby adopted as such.

### **RECOMMENDATIONS**

Based upon these Conclusions, the ALJ recommends that the Commission issue a Site Permit to Hayward Solar LLC, to construct and operate the up to 150 MW Hayward Solar Project in Freeborn County, and that the permit include the sample site permit conditions amended as set forth in paragraphs 10 through 18 of the Conclusions above.