



In the Matter of the Application of Byron Solar, LLC for a Certificate of Need, Site Permit, and Route Permit for the up to 200 MW Byron Solar Project and 345 kV Transmission Line in Olmsted and Dodge Counties, Minnesota

ENVIRONMENTAL ASSESSMENT
SCOPING DECISION

DOCKET NOS. IP7041/GS-20-763
IP7041/CN-20-764
IP7041/TL-20-765

The above matters have come before the Commissioner of the Department of Commerce (Department) for a decision on the scope of the environmental assessment (EA) to be prepared for Byron Solar LLC's (Byron Solar) proposed 200 megawatt (MW) solar farm in Dodge County, Minnesota and the associated 345 kV transmission line in Dodge and Olmsted counties.

Project Description

Byron Solar proposes to construct an up to 200 MW solar farm in Mantorville and Canisteo townships in Dodge County, Minnesota. As proposed, the solar farm would connect to the electric grid at the existing Byron Substation (west of the city of Byron, in Kalmar Township in Olmsted County) via approximately three miles of 345 kilovolt (kV) transmission line.

The solar farm is located on approximately 1,800 acres south of US Highway 14 and between the cities of Kasson and Byron. Within the 1,800-acre site, Byron Solar anticipates a developed area of approximately 1,550 acres. The solar farm will use photovoltaic solar panels mounted on linear tracking systems to generate electric power. Underground collection lines will gather the electric power to a project substation.

Byron Solar has filed applications for two generator interconnection agreements (GIAs) for the project with the Midcontinent Independent System Operator (MISO). Byron Solar anticipates executing the Generator Interconnection Agreement (GIA) for J1124 (100 MWs) on November 24, 2021 and anticipates finalizing the GIA for J1534 (100 MWs) in late December 2022.¹ Byron Solar anticipates that construction on the project will begin in early 2023 and be completed in time to begin operating at the end of 2024.

Project Purpose

Byron Solar indicates that the project will meet growing demand from commercial and industrial customers for renewable energy resources and to help reach Minnesota's Solar Energy Standard and other clean energy requirements in Minnesota and neighboring states. Byron Solar is working to secure a power purchase agreement with wholesale customers (e.g., Minnesota utilities and cooperatives) or commercial and industrial customers to sell the electric power produced by the project.

¹ Byron Solar, *Byron Solar MISO Update*, January 5, 2022 eDocket ID: [20221-181266-02](#)

Regulatory Background

Byron Solar's proposed project requires three separate approvals from the Minnesota Public Utilities Commission (Commission) – a certificate of need (CN), a site permit, and a route permit. Byron Solar submitted applications for these approvals on August 30, 2021.²

Department of Commerce, Energy Environmental Review and Analysis (EERA) staff is responsible for conducting environmental review for CN, site, and route permit applications submitted to the Commission.³ As three concurrent environmental reviews are required, the Commission has authorized EERA staff to combine the environmental review for the three applications.⁴ An environmental assessment (EA) will be prepared to meet the environmental review requirements for all three review processes.

Scoping Process

Scoping is the first step in the development of the EA for the project. The scoping process has two primary purposes: (1) to gather public input as to the impacts and mitigation measures to study in the EA and (2) to focus the EA on those impacts and mitigation measures that will aid in the Commission's decisions on the CN, site, and route permit applications.

EERA staff gathered input on the scope of the EA through public meetings and an associated comment period. This scoping decision identifies the impacts and mitigation measures that will be analyzed in the EA; additionally, it identifies alternatives to the project itself that will be analyzed in the EA.

Advisory Task Force

As authorized by the Commission, the Department established an advisory task force (task force) to assist in identifying impacts and mitigation measures to be evaluated in the EA. The Department solicited task force members from local governments surrounding the project as well as the Minnesota Department of Transportation (MnDOT). The appointed task force members represented Dodge and Olmsted counties, the cities of Byron and Kasson, and Canisteo and Mantorville townships (Dodge County), and MnDOT.⁵

The Department charged the task force members to assist in identifying impacts and issues of local concern that should be analyzed in the EA and mitigation measures, including site or route alternatives, which should be analyzed in the EA. The task force met three times to discuss impacts associated with the proposed project and potential mitigation measures. Task force members ranked the impacts in order of importance:

² Byron Solar Project, *Joint Application to the Minnesota Public Utilities Commission for a Site Permit and a Route Permit*, August 27, 2021, eDockets Numbers [20216-174818-02, -04](#); [20218-177521-02, -04](#); [20218-177523-01, -03](#); [20218-177524-01, -03](#); [20218-177524-05, -07](#); [20218-177527-02, -04](#); [20218-177540-02, -04, -06, -08, -10, -12, -14, -16](#); [20218-177541-02, -04, -06, -08, -10, -14, -16, -18, -20](#) [hereinafter *Joint Application*].

³ Minnesota Rule 7849.1200; Minnesota Rule 7850.3700.

⁴ Commission Order, November 17, 2021, eDockets Number [202111-179920-03](#).

⁵ Department of Commerce, *Advisory Task Force Report for Byron Solar Project*, March 4, 2022, eDocket ID: [20223-183423-01](#) (herein after *Advisory Task Force Report*)

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|---|--|
| 1. Agriculture | 8. Decommissioning and Project End-of-Life |
| 2. Zoning and Land Use Compatibility | 9. Visual / Aesthetics |
| 3. Water Resources | 10. Jobs / Employment |
| 4. Natural Resources | 11. Tax Revenue |
| 5. Economics | 12. Transportation |
| 6. Public Infrastructure (non-transportation) | 13. Energy |
| 7. Property Values | |

Task force members also discussed a variety of potential permit conditions and other mitigation measures. The task force did not identify any site or route alternatives.

Public Scoping Comments

Commission and EERA staff held a public meeting regarding the Byron Solar Project on January 25, 2022, in Kasson, Minnesota. Approximately 50 persons attended these meetings and 13 attendees provided public comments.⁶ The following evening, January 26, 2022, three attendees provided comments at the remote-access public information and scoping meeting held by Commission and EERA staff.⁷

Public Comments

In addition to the public meetings, a written comment period, ending on February 15, 2022, provided the public an opportunity to submit comments to EERA staff on potential impacts and mitigation measures for consideration in the scope of the EA. Written comments were received from 11 commenters during the comment period.⁸ In addition to the public meeting and associated comment period, seven comments were received from people responded to the survey on EERA's website.⁹ Byron Solar's scoping comments and response to proposed site and route alternatives are addressed in the Applicant's Comments section below.

In addition to general statements of support for or opposition to the proposed Byron Solar Project, commenters identified a range of potential impacts, potential benefits, and potential mitigation strategies related to the proposed project. Comments addressed whether valuable farmland should be used for power generation, the project's inconsistency with local land use regulations, impact from stormwater runoff and flooding both during construction and operation, impact to existing drain tile and drainage, potential job creation from the project, potential employment losses from the replacement of agricultural land, visual impacts, the availability and suitability of other site or transmission alternatives, impacts to property values, the impacts to wildlife, potential impacts to groundwater from construction activity near karst features, and decommissioning requirements.

⁶ Oral Comments, Public Information and Environmental Scoping Meeting, January 25, 2022 eDocket ID: [20221-181191-02](#); Oral Comments, Public Information and Environmental Scoping Meeting, January 26, 2022 Remote Access Meeting eDocket ID: [20222-182558-06](#)

⁷ Oral Comments, Public Information and Environmental Scoping Meeting, January 26, 2022 Remote Access Meeting eDocket ID: [20222-182558-06](#)

⁸ International Union of Operating Engineers eDocket ID: [20222-182737-01](#); Minnesota Department of Transportation [20222-182835-01](#); Minnesota Department of Natural Resources [20222-182832-01](#); Minnesota Pollution Control Agency [20222-182944-03](#), Written Public Comments provided to EERA [20222-182943-02](#), [20222-182957-03](#), [20223-183637-02](#)

⁹ EERA, *Byron Solar Project Scoping Survey Report*, March 18, 2022, eDocket ID: [20223-183943-02](#)

Agency Comments

The Minnesota Department of Transportation (MnDOT) noted that the agency does not view solar generating projects to be a public utility for transportation purposes and that Byron Solar should continue consultation with MnDOT to evaluate the project and obtain any necessary permits and leases.

The Minnesota Department of Natural Resources (DNR) recommended the EA discuss a number of mitigation strategies to minimize potential impacts to wildlife, recreation resources, and groundwater. Specifically the DNR recommends the EA clarify whether there would be changes to the drainage system within the solar site, discuss the use of avian flight diverters to avoid avian collisions with the transmission line, coordination with DNR on changes to snowmobile trails, the timing of tree clearing to avoid impacts to the Loggerhead Shrike, erosion and sediment control measures, the use of wildlife-friendly erosion control mesh, and avoidance of impacts to groundwater from construction in areas with karst features.

The Minnesota Pollution Control Agency (MPCA) stated the agency had no comments at this time.

Local Governments

During the comment period on application completeness in fall of 2021, the Dodge County Board provided detailed comment on the information contained in the application. The Dodge County Board's comments identify several concerns with the proposed project, areas of impact that merit further evaluation, and potential conflicts between the proposed project and county land plans and zoning.¹⁰ The Dodge County Board's comments recommend evaluation of the use of prime farmland for the project, impacts on existing roads and planned transmission improvements, stormwater impacts and drainage of the site and adjacent areas, economic impacts, visual impacts (specifically recommending a glint and glare analysis) decommissioning, and consistency with local zoning and land use requirements.

Applicant Comments

On February 15, 2022, Byron Solar filed scoping comments addressing the use of prime farmland for the site, soil and water quality, potential transportation impacts, visual impacts, and decommissioning.¹¹ In response to public comment, the comments also corrected the electric collection system shown in the project maps. The applicant's response to the proposed alternatives is included in the discussion of site and route alternatives.

Proposed Site and Route Alternatives

Several commenters made general comments that the proposed project would be better suited to another place without specifying an alternate location. At least one commenter indicated that easement options or agreements between area landowners and Dodge County Wind, LLC (DCW) for a now withdrawn transmission proposal have expired.¹²

In addition to the general comments about site or route alternatives, two site alternatives and one route alternative were proposed for evaluation in the EA.

¹⁰ Dodge County Board, Comments on Application of Byron Solar, LLC for a Certificate of Need, Site and Route Permit for the up to 200 MW Byron Solar Project and 345 kV Transmission Line, eDocket ID: [20219-178239-02](#)

¹¹ Byron Solar, Scoping Comments, February 15, 2022, eDocket ID: [20222-182826-03](#) [20222-182826-06](#), [20222-182826-09](#), [20222-182826-12](#)

¹² Oral Comments, Public Information and Environmental Scoping Meeting, January 25, 2022 eDocket ID: [20221-181191-02](#), at pp. 59-60.

One citizen proposed either relocating the entire site to areas of Kalmar and Salem townships on Olmsted County that have a lower Crop Productivity Index (CPI) than the site identified in the location, or by adjusting the site boundary proposed in the application by removing one parcel on the western edge of the site and adding a similarly sized parcel near the southwestern portion of the proposed site. The CPI represents a relative ranking of a soil's potential for intensive commodity crop production. CPI is not defined in either Minnesota or federal law, but it is a tool developed by the Natural Resources Conservation Service to compare the potential yield of one soil against another.

The same commenter requested that a route alternative along 670th Street be evaluated. The alternate route is the same as the northern portion of Route 1 proposed by Dodge County Wind, LLC (DCW) in Docket IP-6981/TL-17-308. The proposed route alternative would move the project substation from its proposed location just south of US Highway 14 in Section 35 of Mantorville Township to a location in Section 13 of Canisteo Township, in the southeastern portion of the proposed site to allow the project transmission line to parallel existing 345 kV and 161 kV transmission lines north towards the Byron Substation.

In its application, Byron Solar considered and rejected this alternative (described as "Rejected Route Segment 1" on p. 25 of the joint application) as unfeasible due to existing lease agreements in this area held by DCW as part of a withdrawn route proposal to connect its proposed 170 MW wind project to the Byron substation.¹³

Pursuant to Minnesota Rule 7850.3700, subpart 2(B), applicants have the right to review proposed alternatives. On March 9, 2022, Byron Solar filed reply comments to those comments received during the scoping public comment period.¹⁴ Byron Solar's response addressed the site and route alternatives proposed during scoping and responded on the feasibility of certain mitigation options identified in the task force report and in scoping comments.

Byron Solar rejected the site and route alternatives as unviable for a variety of reasons:

- Byron Solar does not have voluntary site control over the alternative locations.
- The alternatives shift human and environmental impacts to different landowners and resources.
- Alternative substation and transmission alternative increase the length of the transmission line by approximately one mile and require over three additional miles of collection lines to connect to the substation, resulting in increased environmental and human resources, higher electrical losses, and higher capital costs.

¹³ In 2018, DCW submitted site and route permit applications to the Commission to construct, own, and operate a 170 MW wind farm in Dodge and Steele counties (Docket IP-6981/WS-17-307) and connect that wind farm to the electrical grid at the Byron Substation via a 21-mile to 26-mile long 345-kilovolt (kV) transmission line through Dodge and Olmsted Counties (Docket IP-6981/TL-17-308). DCW withdrew its original proposal in late 2019 due to greater than expected interconnection costs. Revised applications for a 259 MW wind farm in Dodge and Steele counties (Docket IP-6981/WS-20-866) and approximately 27 miles of new 161 kV transmission line in Dodge and Mower counties (Docket IP-6981/WS-20-867) to connect the wind farm to the Pleasant Valley Substation are currently under review by the Commission.

¹⁴ Byron Solar, *Reply Comments*, March 9, 2022, eDocket ID: [20223-183634-01](#)

EERA staff found that, on balance, the proposed site alternatives shift the impacts to other areas with a different group of landowners and neighbors and did not recommend including the proposed site alternatives in the analysis in the EA.

With respect to route alternatives, EERA recommended studying the route alternative proposed during scoping to develop a more robust record for the Commission's decision. Comparing the route alternatives will help establish whether there is potential mitigation value by following an existing transmission corridor (scoping alternative) compared to following existing section lines and roadways (applicant's route proposal).

Commission Review

After close of the public comment period, EERA staff provided the Commission with a summary of the EA scoping process. The summary discussed the scoping comments received and EERA staff's recommendation not to study any additional site alternatives or boundary adjustments but to study the additional route alternative.

On May 5, 2022, the Commission met to consider the alternative sites and routes to be studied in the EA and took no action on EERA staff recommendations.

System Alternatives

Minnesota Rule 7849.1500 lists system alternatives that should be examined during environmental review.¹⁵ These alternatives include, among others, the no-build alternative, purchased power, and transmission in lieu of generation.¹⁶

In its order of January 15, 2021, the Commission approved exemptions requested by Byron Solar for certain CN alternatives.¹⁷ Consistent with the Commission's order, the EA will analyze system alternatives that are the same size as the project that use a renewable energy source.

Having reviewed the matter, consulted with EERA staff, and in accordance with Minnesota Rule 7850.3700, I hereby make the following scoping decision:

MATTERS TO BE ADDRESSED

The issues outlined below will be analyzed in the EA for the proposed Byron Solar Project and associated 345 kV transmission line. The EA will describe the project and the human and environmental resources of the project area. It will provide information on the potential impacts of the project as they relate to the topics outlined in this scoping decision and possible mitigation measures. It will identify impacts that cannot be avoided and irretrievable commitments of resources, as well as permits from other

¹⁵ Minnesota Rule 7840.1500.

¹⁶ *Id.*

¹⁷ Commission Order (Approving Requested Exemptions with Modifications), January 15, 2021, eDocket ID: [20211-169865-01](#).

government entities that may be required for the project. The EA will discuss the relative merits of the proposed project site and route with respect to the siting factors in Minnesota Rule 7850.4100.

The EA will include a description and analysis of the human and environmental impacts of the proposed project and alternatives to the project that would have otherwise been required by Minnesota Rule 7849.1500 in an environmental report.

General Description of the Project

- Project Purpose
- General Project Description and Location
 - Description of proposed solar facility
 - Description of route alternatives
 - Applicant proposed route (Red)
 - Alternative route (Blue)
- Project Costs
- Project Schedule

Regulatory Framework

- Certificate of Need
- Site Permit
- High Voltage Transmission Line (HVTL) Route Permit
- Environmental Review Process
- Other Permits and Approvals

Proposed Solar Facility and Alternatives

The EA, in accordance with Minnesota Rule 7849.1500, will describe and analyze the availability and feasibility of the following project alternatives, and the human and environmental impacts and potential mitigation measures associated with each:

Proposed Solar Facility

- Project description (solar arrays, electrical collector system, project substation, roads, fencing, operation and maintenance facility)
- Site acquisition
- Construction
- Restoration
- Operation and maintenance
- Vegetation management
- Decommissioning
- Required permits

Solar Facility Alternatives

- No-Build Alternative
- Generic 200 MW solar facility

- Generic 200 MW wind facility
- Alternatives not evaluated

Proposed 345 kV Transmission Line and System Alternatives

The EA, in accordance with Minnesota Rule 7849.1500, will describe and analyze the availability and feasibility of the following system alternatives, and the human and environmental impacts and potential mitigation measures associated with each:

Proposed 345 kV HVTL Transmission Line

- Engineering and design (structures, conductors, Byron interconnect)
- Route width, right-of-way, anticipated alignment
- Right-of-way acquisition
- Construction
- Restoration
- Operation and maintenance
- Vegetation management
- Decommissioning

HVTL Project Alternatives

- No-build alternative
- Transmission alternative of a different size
- Alternative endpoints
- Alternatives not evaluated (demand-side management, purchased power, upgrading existing facilities)

Project - Affected Environment, Potential Impacts, and Mitigative Measures

The EA will include a discussion of the human and environmental resources potentially impacted by the proposed project (both the solar facility and the 345 kV transmission line) and the route alternatives described herein. Potential impacts, both positive and negative, of the project and each route alternative will be described. Based on the impacts identified, the EA will describe mitigation measures that could reasonably be implemented to reduce or eliminate the identified impacts. The EA will describe any unavoidable impacts resulting from implementation of the proposed project.

Environmental Setting

Socioeconomics

- Environmental justice
- Local economies (local revenues, taxes, employment)

Human Settlement

- Noise
- Aesthetics (lighting, appearance of project components, fencing)
- Displacement
- Property values
- Zoning and land use compatibility
- Electronic interference
- Cultural values

Transportation and Public Services

- Roadways and railways
- Public utilities
- Emergency services
- Airports

Public Health and Safety

- Construction safety
- Electric and magnetic fields
- Implantable medical devices
- Stray voltage
- Induced voltage
- Aviation hazards

Land Based Economies

- Agriculture (cropland, livestock, compaction, tile systems, aerial spraying, GPS)
- Forestry
- Mining
- Recreation and tourism

Archaeological and Historic Resources

Natural Environment

- Air quality
- Greenhouse gases
- Water resources (water appropriations, surface water, groundwater, wetlands)
- Geology and soils
- Vegetation
- Wildlife
- Threatened / Endangered / Rare and Unique Natural Resources

Identification of permits

Electric system reliability

Use or paralleling of existing rights-of-way

Costs that are dependent on design and route

Adverse impacts that cannot be avoided

Irreversible and irretrievable commitments of resources

Cumulative potential effects

Application of siting factors and routing factors (including relative merits of route alternatives)

Routes and Route Alternatives to be Evaluated in the Environmental Assessment

The EA will evaluate two routes (Alternatives Evaluated Map):

- **Blue Route:** This is the route proposed by the applicant in its joint application and follows section lines and existing roadways for most of its length. The route travels north from the

project substation located in Section 35 of Mantorville Township for about 0.6 miles, crosses U.S. Highway 14 and then turns west for approximately 2.5 miles, the last 0.25 of which are shared with the red route. The applicants have requested a route width of 150 feet, the same as the proposed right-of-way.

- **Red Route:** This alternative was proposed by a citizen to follow an existing transmission corridor to the Byron Substation. This route relocates the project substation from the applicant's proposed site in the northern portion of the site to Section 13 of Canisteo Township in the southeastern portion of the site. From the new substation location, the route travels west cross-country for approximately 0.5 miles before turning north to parallel the existing 161 kV and 345 kV transmission lines into the Byron Substation for approximately 3 miles. The red route turns to the northwest, away from the existing 161 kV and 345 kV lines, for approximately 0.25 miles to avoid the congestion of transmission infrastructure in the area south of the Byron Substation. Just south of U.S. Highway 14, the red route turns north for approximately 0.5 miles, crossing U.S. Highway 14 and following property lines until meeting the blue route. The red and blue routes share the same route for the last 0.25 miles, entering the Byron Substation from the north. The width of the red route is 450 feet, 225 feet either side of an anticipated alignment, to allow for minor adjustments of the anticipated 150-foot right-of-way.

ISSUES OUTSIDE THE SCOPE OF THE EA

The EA will not address the following topics:

- A. Route alternatives not specifically identified for study in this scoping decision.
- B. Site alternatives not specifically identified for study in this scoping decision. Of the alternatives proposed during the scoping process to mitigate potential impacts of the project, the following will not be evaluated in the EA:
 1. **Relocating the site to Kalmar and Salem townships in Olmsted County.** This alternative was proposed to move the site to an area presumed to have a lower Crop Productivity Index (CPI) than the site identified in the application. Although Kalmar and Salem townships do have a somewhat lower CPI than the applicant's proposed site, the CPI is not a site-limiting factor in Minnesota Law. With respect to prime farmland, which is a siting factor the Commission must consider, relocating the site appears just as likely to exceed the 0.5 acres per MW restriction as the applicant's proposed site. Additionally, the ability to reach voluntary agreements with landowners in Kalmar or Salem townships is unknown. This alternative shifts the impacts to other areas with a different group of landowners and neighbors and will not be evaluated.
 2. **Adjusting the site boundary proposed in the application.** This alternative was proposed to remove an area in the western portion of the site with a similarly sized area on the western edge of the project with a lower CPI. The site boundary adjustment would not reduce the amount of prime farmland used and would shift the impacts to different landowners and neighbors and will not be evaluated.
- C. Any system alternative (an alternative to the proposed solar facility or 345 kV transmission line) not specifically identified for study in this scoping decision.

Environmental Assessment Scoping Decision
Byron Solar Project
Docket Nos. IP7041/CN-20-764, GS-20-763, TL-20-765

D. The manner in which landowners are compensated for the project.

SCHEDULE

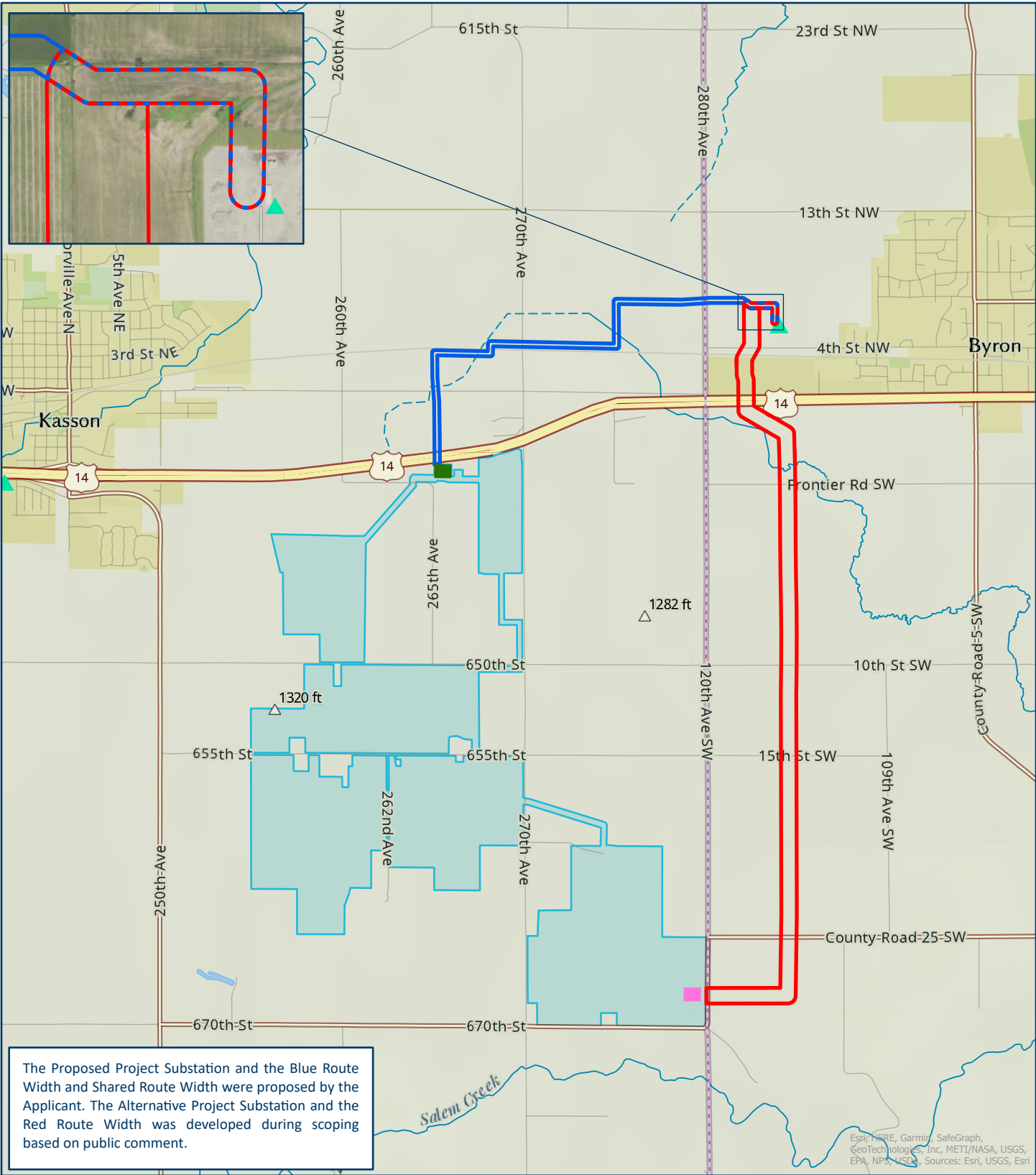
The EA is anticipated to be completed and available in September 2022. Upon completion, it will be noticed and made available for review. A public hearing will be held in the project area after the EA has been issued. Comments on the EA may be submitted into the hearing record.

Signed this 23rd day of May, 2022








STATE OF MINNESOTA
DEPARTMENT OF COMMERCE

A handwritten signature in black ink, appearing to read "Katherine Blauvelt", written in a cursive style.

Katherine Blauvelt, Assistant Commissioner



Byron Solar Project Alternatives Evaluated

-  Site Boundary
-  Proposed Project Substation
-  Alternative Project Substation
-  Blue Route Width
-  Red Route Width
-  Shared Route Width
-  Existing Byron Substation

