

1.0 INTRODUCTION

Regal Solar, LLC (Regal, Regal Solar, or Applicant), a wholly owned subsidiary of Geronimo Energy, LLC (Geronimo), a National Grid Company, respectfully submits this Site Permit Application (Application) to the Minnesota Public Utilities Commission (Commission) for a Site Permit pursuant to the Minnesota Power Plant Siting Act (Minnesota Statutes Chapter 216E) and Minnesota Administrative Rules Chapter 7850.

Regal Solar proposes to construct the Regal Solar Project (Project), a solar energy conversion facility with a 100-megawatt (MW) alternating current (AC) nameplate capacity, in Langola Township, Benton County, Minnesota (Figure 1 – Project Location). The Project will generate up to 100 MW, enough energy to provide electricity for approximately 23,000 homes annually and avoid the emission of approximately 150,000 metric tons of carbon annually.¹ Regal Solar plans to construct the Project on a schedule that facilitates an in-service date by the end of 2021.

The Regal Solar Project falls within the definition of a Large Electric Power Generating Plant in the Power Plant Siting Act and, thus, requires a Site Permit from the Commission prior to construction. Regal Solar submitted a request to the Minnesota Department of Commerce for a size determination on March 13, 2019 in accordance with Minnesota Statutes Section 216E.021 (2014). In accordance with Minnesota Rules Pursuant to 2014 Session Laws, Chapter 254, Regal Solar seeks approval of its Application under the alternative review process provided for under Minnesota Statute 216E.04 and Minnesota Rules 7850.2800-7850.3900 and a notification letter was filed with the Commission on June 11, 2019. The Site Permit is the only site approval needed for construction of the Project (Minnesota Statutes 216E.10, subd. 1.). Other permits and licenses required for the Project are listed in Section 1.4.2.

Regal Solar is a wholly owned subsidiary of Geronimo, a National Grid Company. Geronimo is a utility-scale renewable energy development company headquartered in Edina, Minnesota that has developed multiple operating wind farms and solar projects throughout the United States. Over 2,400 MW of wind and solar projects developed by Geronimo are either under construction or operational. Geronimo has a multi-gigawatt development pipeline of wind and solar projects in various stages of development throughout the United States and over 250 MW of solar development completed. Geronimo provides custom renewable energy development solutions for utilities, independent power purchasers and corporations looking to harness renewable energy for business growth. Geronimo's founder has an agricultural background and the first Geronimo project is sited solely on his land. Geronimo prides itself on developing wind farms and solar facilities that are farmer-friendly, community-driven, and beneficial for rural communities.

1.1 Purpose and Need

Regal Solar does not currently have a signed Power Purchase Agreement (PPA), but is actively marketing the sale of electricity generated by the Project to third parties, including utilities and

¹ Based on EPA Greenhouse Gas Equivalencies Calculator and 210,000,000 kWh (210,000 MWhs) annual production PVSYST model.

large energy consumers. As an independent power producer, Regal Solar is not limited to the needs of one region and is able to bid into multiple wholesale markets across the country. Utilities and other customers seeking to diversify and build their energy generation portfolios are attracted to solar energy projects because of long-term, fixed, competitive pricing, ability of solar to reliably meet demand for electricity (i.e., high capacity value), environmental benefits, and existing and potential renewable energy policies.

The electric power sector is one of the largest consumers of energy in the United States and the U.S. Energy Information Administration estimates that U.S. electricity consumption will continue to grow from 2018 to 2050.² The Regal Solar Project is needed to meet the growing demand for additional renewable resources needed to meet the renewable energy standards and other clean energy requirements in Minnesota and neighboring states. Eleven of the Midcontinent Independent System Operator (MISO) states, including Minnesota, currently have either mandated or voluntary renewable portfolio standards or policies.³ Minnesota requires Xcel Energy to obtain 30 percent of its energy from renewable resources by 2020, and all other utilities to obtain 25 percent of their energy from renewable resources by 2025.⁴ In addition, Minnesota investor-owned utilities are required to obtain 1.5 percent of their energy from solar by 2020.⁵ Under current state standards, total United States renewable portfolio standard demand will increase from 290 terawatt hours (TWh) in 2018 to 540 TWh in 2030.⁶ Given existing renewable energy capacity, an additional 180 TWh increase in renewable resources will be required to meet demand through 2030.⁷ In addition, the regional transmission grid is being expanded to deliver renewable energy generation in a cost-effective manner.⁸ Although the current Production Tax Credit and Investment Tax Credit for renewables are set to begin a phasedown in upcoming years, many utilities in the MISO region are developing long-term resource plans, which include increased levels of renewable energy.⁹

In addition to traditional utility demand for solar energy, a growing number of corporations are turning to renewable energy to save money on energy and meet sustainability goals. Over 6,530 MW of renewable energy was purchased by non-utilities by the end of 2018.¹⁰ That compares to

² U.S. Energy Information Administration, *Annual Energy Outlook 2019* (January 2019), at 28, 90. Accessed online May 29, 2019. Retrieved from <https://www.eia.gov/outlooks/aeo/pdf/aeo2019.pdf>.

³ *MTEP18 MISO Transmission Enhancement Plan*, at 182. Accessed online May 29, 2019. Retrieved from <https://cdn.misoenergy.org/MTEP18%20Full%20Report264900.pdf>.

⁴ Minn. Stat. § 216B.1691.

⁵ Minn. Stat. § 216B.1691.

⁶ Lawrence Berkeley National Laboratory, *U.S. Renewable Portfolio Standards 2018 Annual Status Report* (November 2018), at 20. Accessed online May 20, 2019. Retrieved from http://eta-publications.lbl.gov/sites/default/files/2018_annual_rps_summary_report.pdf.

⁷ *Id.* at 21.

⁸ *MTEP18 MISO Transmission Enhancement Plan*, at 42.

⁹ *MTEP18 MISO Transmission Enhancement Plan*, at 144.

¹⁰ Business Renewables Center. (2018). Corporate Renewable Deals 2013-2018 YTD Chart. Accessed online May 20, 2019. Retrieved from <http://businessrenewables.org/corporate-transactions>.

2,780 MW procured by non-utilities in 2017 and approximately 1,730 MW in 2016. Further, corporations such as Apple, Google, and Facebook along with many others, have set goals to obtain 100 percent of their energy from renewables.¹¹

The proposed Regal Solar Project would install up to 100 MW of solar generating capacity in Minnesota that can contribute to satisfying utilities' and consumers' demands for renewable energy, and potentially meet utility renewable requirements or individual sustainability goals, depending on the ultimate power purchaser.

1.2 Applicant Information

1.2.1 Permittee and Contact Information

The permittee for the Site Permit will be:

Regal Solar, LLC
7650 Edinborough Way, Suite 725
Edina, MN 55435

The contact persons regarding this Application are:

Melissa Schmit
Geronimo Energy
7650 Edinborough Way, Suite 725
Edina, MN 55435
Direct: 612.259.3095
melissa@geronimoenergy.com

Jeremy P. Duehr
Fredrikson & Byron, P.A.
200 South Sixth Street, Suite 4000
Minneapolis, MN 55402
Direct: 612.492.7413
jduehr@fredlaw.com

1.2.2 Statement of Ownership

Regal Solar has a purchase option with the landowners for the Project site. The Project will be constructed, owned, and operated by Regal Solar, a wholly owned subsidiary of Geronimo. Geronimo is a privately held renewable energy developer with headquarters in Edina, Minnesota. The land is currently owned by Walter and Bonnie Parkins.

¹¹ See <http://there100.org/companies>.

1.3 Project Schedule

The anticipated schedule for the Site Permit, construction, testing, and commercial operation is outlined below:

- **Land acquisition:** Complete. Regal Solar has a purchase option for the Project site. After issuance of the Site Permit and prior to construction of the Project, Regal Solar will purchase the Project site from the underlying landowner.
- **Site Permit:** Regal Solar anticipates the Site Permit will be issued in the Summer of 2020.
- **Other Permits:** Regal Solar will acquire all other permits necessary for construction of the Project prior to conducting the work for which the permit is required. Refer to Table 1.4-1 Potential Permits/Approvals.
- **Equipment Acquisition:** Regal Solar is in the process of evaluating and procuring solar equipment for the Project facilities. The equipment will be allocated to the Project after meteorological and economic studies are completed to achieve the best match of technology and facility location.
- **Construction:** Regal Solar anticipates that construction will begin as early as fall of 2020 and will be completed by the end of 2021. Section 3.4 of this Application provides additional information on the construction timeline and process.
- **Commercial Testing:** Testing for the Project is expected to begin as early as the third quarter 2021, following the completion of construction.
- **Commercial Operations:** Commercial operation for the Project is scheduled to begin by the end of 2021, following the completion of construction and testing.

1.4 Required Project Permits

1.4.1 Certificate of Need

A Certificate of Need (CON) is required for all “large energy facilities,” as defined in Minnesota Statutes Section 216B.2421, subd. 2(1), unless the facility falls within a statutory exemption from the CON requirements. Because the Project is a generating plant larger than 50 MW, it meets the definition of a large energy facility and would require a CON prior to issuance of a Site Permit and construction. The Project does not currently fall within a statutory exemption from the CON requirements.

1.4.2 Other Permits

Regal Solar will obtain all permits and licenses that are required for the Project, following issuance of the Site Permit. The permits or approvals that Regal Solar has identified as potentially being required for the construction and operation of the Project are shown in Table 1.4 1. Copies of agency correspondence are included in Appendix A.

Table 1.4-1 Potential Permits/Approvals			
Agency	Permit	Applicability	Permit Status and Timing
Federal			
U.S. Army Corps of Engineers (USACE)	Section 404 Permit for wetland impacts.	Dredging or filling jurisdictional waters of the United States	To be obtained prior to construction, if necessary
U.S. Environmental Protection Agency	Spill Prevention, Control, and Countermeasures Plan	Required if any facility associated with the Project (O&M building or substation) has oil storage of more than 1,320 gallons	To be obtained prior to construction, if necessary
State			
Minnesota Public Utilities Commission	Site Permit	Construction of energy conversion facility	To be obtained prior to construction
	Certificate of Need	Required for generating plants larger than 50 MW	Filed concurrent with the Site Permit
Minnesota Pollution Control Agency	Section 401 Certification	Required for filling in jurisdictional waters of the United States and if a Section 404 permit is required from the USACE	To be obtained prior to construction, if necessary
	National Pollutant Discharge Elimination System General Permit (includes Stormwater Pollution Prevention Plan)	For stormwater discharges from construction activities with disturbances greater than one acre	To be obtained prior to construction
Minnesota Department of Health	Well construction permit	Required for installation of a well	To be obtained prior to construction of low-volume well at O&M building
Minnesota Department of Labor and Industry	Request for Electrical Inspection	Required to comply with the state electrical code	To be obtained during construction.
Minnesota Department of Natural Resources	Water Appropriation Permit	Required if trench dewatering is needed	To be obtained prior to construction, if necessary
State Historic Preservation Office	Review and Coordination	Provide concurrence on Phase I inventory	Completed (Appendix A)
County/Local			
Benton County	Subsurface Sewage Treatment System Permit	Required prior to installation of any septic system in Benton County	To be obtained prior to construction for the O&M building

Table 1.4-1 Potential Permits/Approvals

Agency	Permit	Applicability	Permit Status and Timing
	Floodplain Development Permit	Required for development within a floodplain	Not applicable. There are no Federal Emergency Management Agency mapped floodplains in the Land Control Area
	Building Permit	Required for construction within Benton County	To be obtained prior to construction for the O&M Facility, if required
	Local Government Unit for Minnesota Wetland Conservation Act	Required for wetland impacts	To be obtained prior to construction
	County Entrance Permit	Required for access from county roads	To be obtained prior to construction