Saguache Solar Energy Project

Supplemental Information to Final 1041 Permit Application Saguache County, Colorado

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Contents

Page

Introduction

This supplemental information is being submitted by Saguache Solar Energy, LLC (Project Applicant) in reference to the Applicant's 1041 Permit document, per the Guidelines and Regulations for Areas and Activities of State Interest of the County of Saguache, submitted in October 2011. It has been prepared in response to preliminary feedback from Russell Planning and Engineering (Russell), the consultant hired by Saguache County to review the Application. Russell has provided a number of points of feedback on the prior 1041 Permit submittal, and this document seeks to address many of those points in turn. It is the Applicant's intent to hereby contribute this information to the body of Permit documents.

Relationship of the Project to Other Existing and Planned Utility Facilities

In reference to Section 13-304(2)(a)(iii)(2), Russell requested more discussion about the existing transmission facilities in the valley and, specifically, the issue of available capacity on the system.

The existing 230 kilovolt (kV) transmission lines, which are the largest transmission lines serving the San Luis Valley, run through the Project site. The Project will interconnect to these transmission lines at a new switchyard which will be constructed on the Project site. The Applicant has learned from the transmission lines' two owners, Public Service Company of Colorado and Tri-State Generation and Transmission, that 100 megawatts (MW) of capacity remain on the system currently and that an additional 25 MW could be made available with minor upgrades.

It is not feasible for the Project to be financed or constructed without sufficient capacity available to it on the transmission system. Given that the Project is contemplated as two stand-alone 100 MW facilities, it would be possible for at least one of those phases to proceed with only the current transmission system in place. A second 100 MW phase would likely require additional transmission capacity. While the timing and nature of new transmission development in the San Luis Valley is unclear, the Applicant believes that this capacity may eventually be developed in order to serve growing electrical load and the reliability needs of the San Luis Valley.

Other than those facilities constructed to connect the Project to the grid, the construction of high voltage transmission lines in the San Luis Valley is outside of the Applicant's control, and the Applicant is unaware of where and how any new transmission capacity will be made available. At this time, the Applicant does not have a perspective on the likely outcome of dealings between Tri-State, PSCo, the Public Utilities Commission, or any other stakeholder groups associated with transmission development in the San Luis Valley.

The Applicant intends to seek a 1041 Permit despite any public announcements by other parties regarding development of new transmission. The Applicant believes that because energy infrastructure development is a slow-moving process prone to "chicken-or-the-egg" dilemmas, a proactive approach to the siting of solar generation facilities is appropriate. The Applicant notes that a permit is permission to proceed, which is an option, not an obligation.

Site Plan – Moving the Transmission Line

Russell requested additional clarity around how the existing 230 kV transmission line might be moved to accommodate the Project's heliostat field. Russell was concerned that the movement might impact nearby properties. As shown below, the movement will not have an impact on neighboring properties.

If required, the Applicant would work together with the owners of the transmission line to reroute it around the Project facilities, which would be required in order to maintain the transmission owners' rights to access and maintain their infrastructure. The Applicant would seek to minimize any such construction, and would likely be required to collaborate with the transmission owners. Exhibit A, attached, is a conceptual depiction of this potential change.

Site Plan – Setbacks

Russell requested greater clarity around proposed setbacks along the Project boundary, noting that while they are not developed homes, there are small parcels of private land adjacent to the Project boundary. Russell asked that the Applicant specify a proposed setback.

As a guiding principle, the Applicant intends to comply with any County regulations regarding setbacks from adjacent properties. Given the nature of the facilities planned to be constructed at the Project boundary, which would include a fence and an access road, and the fact that major equipment such as heliostats will be separated from the boundary by those facilities, the Applicant suggests a setback of 25 feet. In the event that a particular boundary is deemed sensitive despite the facts above, the Applicant suggests a setback of 50 feet.

Safety and Emergency Response

Russell pointed out that the Application includes a discussion of Safety and Emergency Response, including the components of an eventual Safety and Emergency Response Plan, but no such specific plan. The Applicant believes that a specific plan would be premature, since the timing of construction and

operations are uncertain and the nature of the full build-out (e.g., whether one 100 MW facility or two) is unclear. It is typically the role of the Engineering, Procurement, and Construction (EPC) contractor to develop specific safety and emergency response plans in compliance with the most up-to-date codes at the time of construction. Such a plan will be much better informed at a later date when specific construction timelines are known. SolarReserve has successfully permitted numerous facilities elsewhere without fully developing such a plan, but rather by specifying the components of the plan, as done here.

Russell also notes that a portion of the site is not located in a fire district, and that this may be mitigated either by annexation into a fire district and/or a separate agreement with the applicable district. The Applicant suggests that it is appropriate to require that either annexation or a separate agreement be completed prior to commencement of significant construction on any land that is not located in a fire district. No action should be required if development only occurs on the area inside the existing district boundaries.

Road and Highway Impact

Russell states that it would be helpful to review a proposed cross-section of the improvements to be made to County Road G (CR G), and that a discussion of increased maintenance needs was not included in the Application.

The Applicant intends to pave the relevant section of CR G to Saguache County standards and to ensure that, when construction is complete, the road is in good repair; the Applicant believes that these two commitments should be sufficient at this stage. According to the Applicant's consultant, a proper cross-section would require soil testing along the length of CR G to support the detailed engineering decisions made in road design.

As discussed in the Application, the limited traffic generated during the operations of the facilities would not place a significant burden on a paved road, and as such, should not result in increased maintenance needs subsequent to construction.

Water Use / Rights

Russell requested additional detail on the breakdown of water use, by type of use. Each 100 MW facility is expected to consume approximately 150 acre-feet of water per year. Specific water uses will depend upon a number of factors including water quality, dust management and mirror washing strategies, and the weather. However, an approximation of the breakdown can be made, which is as follows:

- **Steam Cycle – 40%.** As water is repeatedly boiled and condensed in the steam cycle, some dissolved minerals will accumulate. Periodically, the water containing these minerals will be

purged from the steam cycle. That water is then replaced with the “steam cycle makeup” water. In addition, when the steam cycle is purged, the hot steam is cooled with “quench” water, which is mixed into the purged water and sent to the evaporation pond.

- **Mirror Washing – 27%.** The heliostats will be washed in order to maintain their reflectivity. Mirror washing uses pure demineralized water under high pressure.

- **Water Treatment Reject – 27%.** Even though the groundwater in Saguache County is of very high quality, it must be treated before use. The water treatment process will periodically discharge some water, which will contain the impurities filtered from the groundwater, to the evaporation ponds.

- **Other – 6%.** Other water uses include dust suppression, sanitary uses, and station maintenance needs.

Heat

Russell requested some discussion of any heat that might be generated and the effect in the immediate area, both above and below the surface of the ground.

The Project will not affect the local environment by generating heat. It should be noted that the solar technology in question is designed to capture energy from the sun that would otherwise have been absorbed by the earth, and convert a portion of that energy into electricity. Some pieces of equipment and materials in the power block at the center of each CSP facility will operate at high temperatures (for instance, the molten salt and steam turbine generator,) but in general, that equipment is insulated in order to improve efficiency, and will not have any significant effect on the surrounding area.

EXHIBIT A
CONCEPTUAL PATH OF REROUTED TRANSMISSION LINE

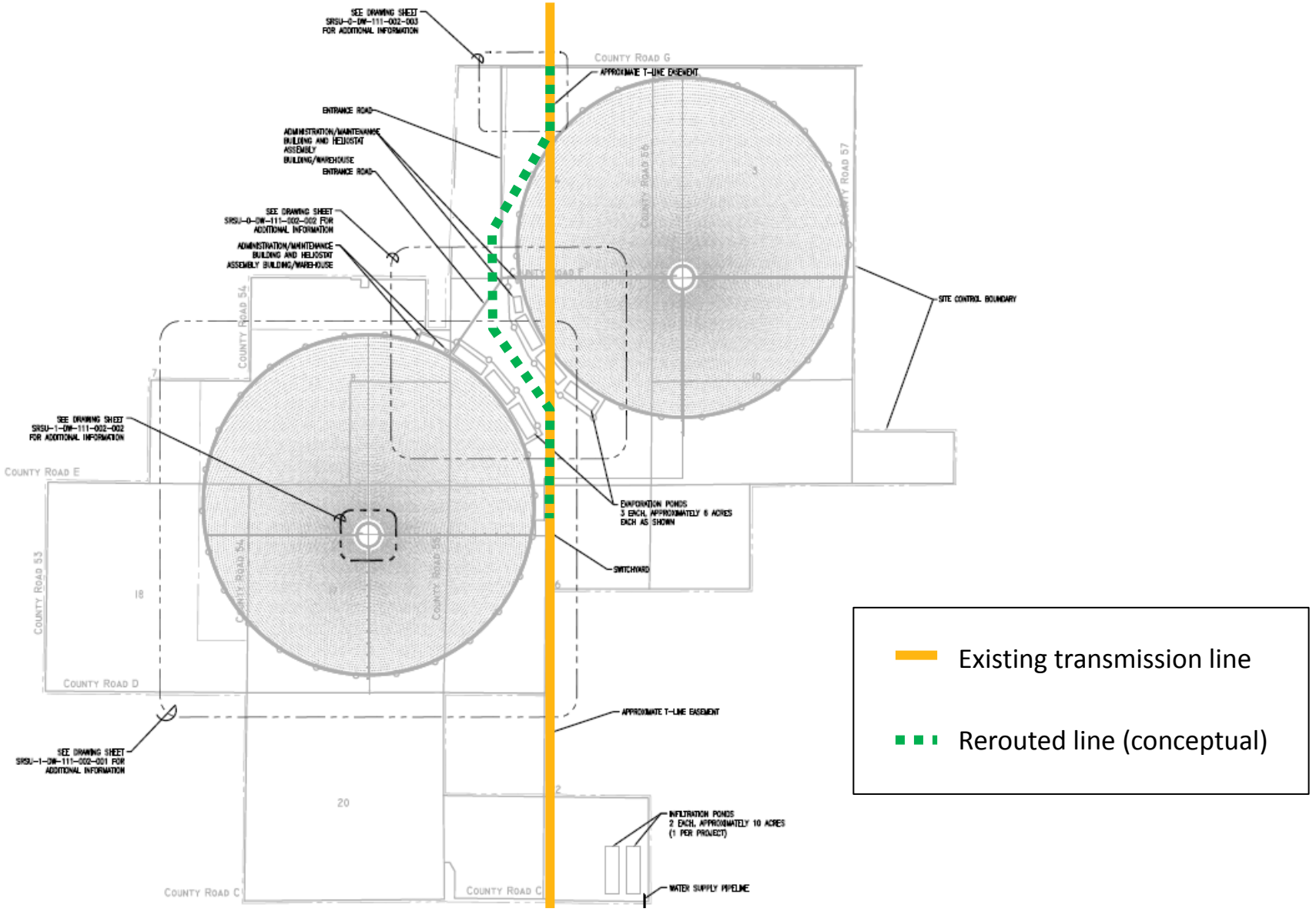

Image adopted from Figure 4, Preliminary Site Layout, Saguache Solar Energy Project 1041 Application