11/15/2010

County of San Diego
Department of Planning and Land Use
5201 Ruffin Rd, Suite B
San Diego, CA 92123

Attention: John Hardcastle- Fire Marshall

SUBJECT: FIRE PROTECTION PLAN SHORT FORM FOR BORREGO 1 SOLAR Project
CASE NUMBER 3992-10-009

Scope

This is the Fire Protection Plan for the Borrego 1 Solar Project located in San Diego County approximately 2 miles north of the community of Borrego Springs. This project will be an unmanned 26 MW (Phase 1) photovoltaic project located southwest of the intersection of Borrego Valley Road and Henderson Canyon Road. This plan demonstrates compliance with the requirements for the County of San Diego DPLU for fire protection plans.

Project Description

For a detailed description of the project, refer to the project description document included. The site plan details the layout, showing minimal grading due to the uniform elevation of the site. The project is bordered by Borrego Valley Road and Henderson Canyon Road with Palm Canyon Road to the south and Di Giorgio Road to the west. The closest fire station is the Borrego Springs Fire Protection District, located at 2324 Stirrup Rd, roughly 2 miles from the entrance to the site. There will be two proposed gated access points to the site, with the primary access on Borrego Valley Road and an emergency access on Henderson Canyon Road. All fire access roads on site will be constructed in accordance with Article 86, Section 8601 of the California Fire Code, as detailed below.

The project is located at the westernmost extent of the Sonoran Desert and the climate is very warm and dry, with only an average of 5.8 inches of rain spread over approximately 24 rain days per year. Average January high temperatures are 69.3 degrees F and average July high temperatures are 107 degrees F. Hot dry winds during certain times of year dramatically increase the risk of fire for sites with vegetation.

An unmanned photovoltaic project such as the Borrego 1 Solar Project presents very low fire risk. All of the equipment within the solar field (which makes up over 99 percent of the site) will be constructed with non-flammable materials—metal support structures and glass/metal PV panels. All site vegetation will be eradicated prior to construction and the site will be maintained free of vegetation for the duration of the operational phase of the project.

However, even with a low fire risk, the Borrego 1 Solar Project will meet all requirements set forth in Article 86, Section 8601 of the California Fire Code.

Water Supply

Because the site is located within the Borrego Springs Water District but is more than 1500 ft from water district supply lines, the project will have a water tank located on site. The size of this tank will be approximately 5000 gallons.

Fire Access Roads

1) Location - All fire access roads will be located so that the hose pull from each road never exceeds 150 ft in length.
2) Dead-end - There will be a minimum of 36-foot turning radius at each corner of the fire access roads on the project site.
3) Width - Both proposed emergency entrances to the site will have unobstructed improved driveway entrances with a width of not less than 24 feet. All fire access roads on site will be designed to support a fire apparatus of not less than 50,000 pounds and have a width of not less than 24 feet.
4) Grades - Grades or generally less than 1% and not greater than 2% at their steepest.
5) Surface - All access road surfaces will be improved to a minimum of 4" of decomposed granite (based on grades between 0% and 10%).
6) Gates - All gates to the site will meet San Diego County Fire Code Section 96.1.503.6 for automatic operation with battery backup. These gates will open upon emergency vehicle strobe light activation from either direction. These gates will open in the event of AC power failure, and will include Knox key operated switches.
7) Maintenance – NRG Solar Borrego 1 LLC will be responsible for maintenance of the site. It will not be dissolved or unfunded for the life of the project. The applicant understands that failure to remain in compliance with fire codes could subject it to potential fines and/or enforced abatement by the fire agency or county, with charges, including administrative costs and penalties, liened against the property.

Building Fire Resistance and Ignition

Both Basic and Enhanced construction requirements per County Building and Fire Codes will be employed for all exterior elements including roofs, eaves, exterior walls, doors, windows, decks, etc.

Fire Protection Systems

Site structures (inverters, substations, etc.) will be equipped with small personal safety fire extinguishers as per County Fire Code Section 1003.2.

Defensible Space

The only buildings on site will be the small control building in the substation and the very small security building at the main site entrance. Since the site will be maintained free of vegetation, all site structures

will have a minimum of 100-foot Fuel Management Zone per County Fire Code Appendix II-A Section 16 and 17. It is understood that the structures must be located such that the 100-foot clearance is achieved on the subject parcel, as clearing is not authorized beyond property lines.

Vegetation Management

Prior to construction, the site will be cleared and grubbed of all on site vegetation and will be maintained free of vegetation throughout the operational phase of the project, as previously described. The ongoing maintenance of the site free of vegetation will be the responsibility of the project owner and will be conducted as often as needed.

Fire Behavior Computer Modeling

The owner understands that Fire Behavior Computer Modeling is not needed for this site, but that if some code needs are unresolved or inadequately addressed, a full FPP may be required, which may include computer modeling.