

# A Proposed Renewable Energy Project at the County's Big Bear Sanitary Landfill

2MW PV SOLAR DEVELOPMENT, BIG BEAR, CALIFORNIA



For illustration purposes only. Exact design to be determined.

Image shows Big Bear Landfill top deck, while undergoing final capping during closure activities in September 2010. Landfill-specific racked, PV panel systems are manufactured by Sunpods, Inc.

See inside for information on a proposed local solar power facility.

FOR MORE INFORMATION, CONTACT:  
Robert Potter  
Project Navigator, Ltd.  
rpotter@projectnavigator.com  
714.388.1809

**LOS ANGELES, CA**  
One Pointe Drive, Suite 320  
Brea, CA 92821  
tel 714.388.1800  
fax 714.388.1839  
Contact: Ian Webster  
iwebster@projectnavigator.com

**SAN FRANCISCO, CA**  
1255 Treat Blvd., Suite 300  
Walnut Creek, CA 94597  
tel 925.472.6847  
fax 925.407.2911  
Contact: Josh Teves  
jteves@projectnavigator.com

**ALSO AT:**  
▪ Philadelphia, PA  
▪ Houston, TX  
▪ Westchester, NY  
▪ Raleigh, NC

# The Proposed Big Bear Sanitary Landfill Solar Power Installation

## 2MW PV Solar Development Project

Project Navigator, Ltd. (PNL), in partnership with Chevron Energy Solutions, has a lease option agreement with the County of San Bernardino to evaluate and explore the development of a 2MW photovoltaic (PV) solar project at the Big Bear Sanitary Landfill in Big Bear, California. 2MW is equivalent to the energy needed to power approximately 2000 homes. Since Big Bear imports almost all of its energy from outside non-renewable sources, a local renewable, cost-effective source of energy will help reduce this dependence.

Currently, PNL is in the process of bidding on a power purchase agreement (PPA) with Bear Valley Electric Service (BVES), completing a comprehensive feasibility evaluation and formulating a 20% design.

Engineering and design of the entire solar system would include the solar field, inverters and interconnect system. Once the solar field has been determined, a system of rack-mounted, fixed-tilt, solar panel arrays, developed by SunPods, would be linked together and brought on line to harness energy from the sun, and generate electricity which would be delivered to BVES.

PNL would finance, construct and manage the long-term operation and maintenance of the solar facility.

## About Us

Project Navigator, Ltd. is a Brea, California-based, leading, privately held engineering firm that has specialty expertise in managing landfill closures, and then subsequently developing solar projects on the closed waste prisms. Since 1997, PNL has developed an extensive track record of designing and implementing innovative solutions for clients at complex landfill closures, nationwide.

Chevron Energy Solutions designs, constructs and operates facility projects, including infrastructure and renewable power systems that increase energy efficiency and lower water consumption, reduce energy costs, and ensure reliable power for public institutions and businesses.

## Landfill Site Aerial with Solar Panels

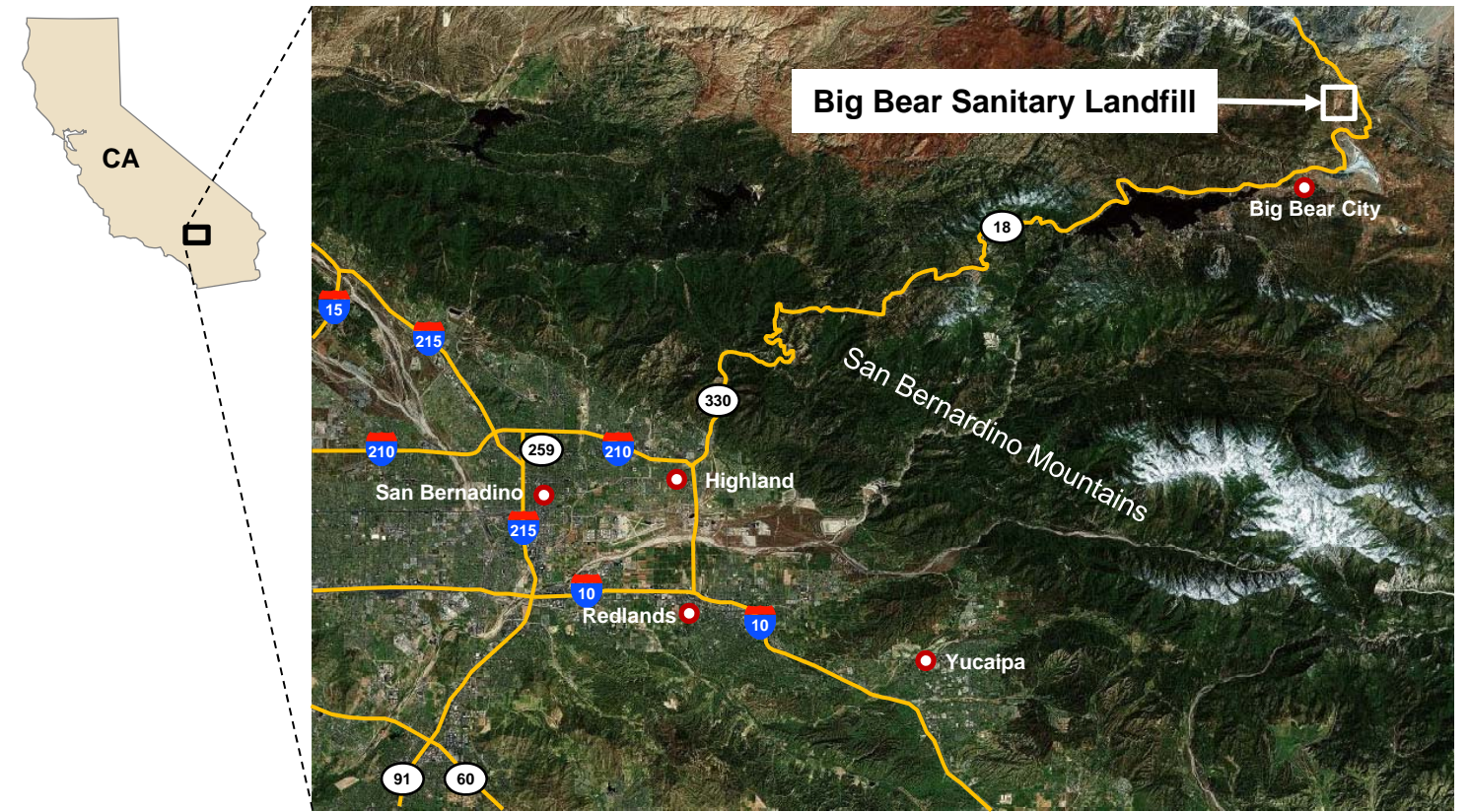


Solar panels would be located on the top deck of the Big Bear Sanitary Landfill and on selected flat areas near the base of the waste prism.

### ADVANTAGES OF THE SOLAR DEVELOPMENT

- A local, green power generation system
- Reuse of a closed landfill
- Power delivery and "risk reduction" for BVES
- Local jobs during construction phase

## Proposed Project Location

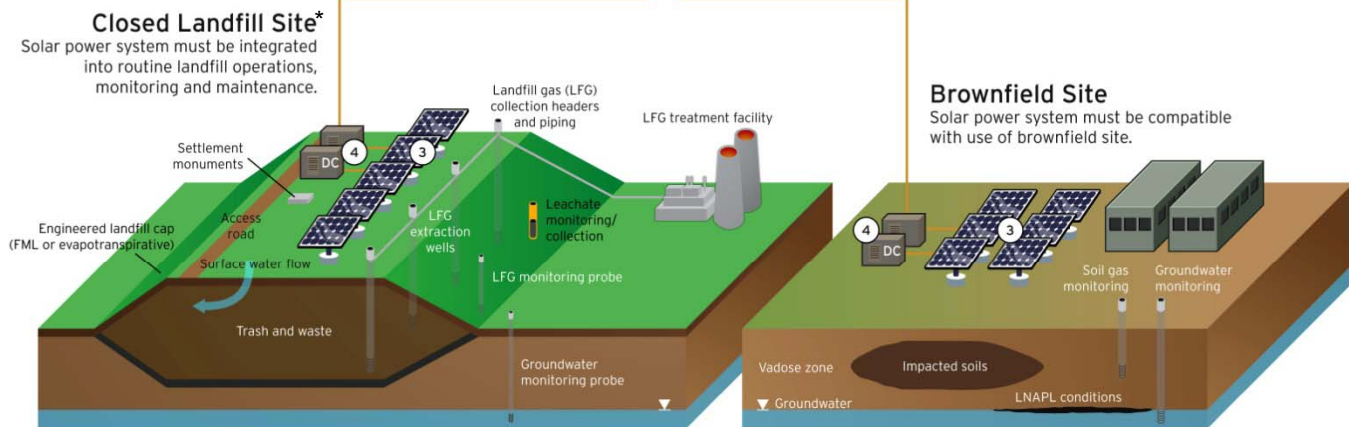
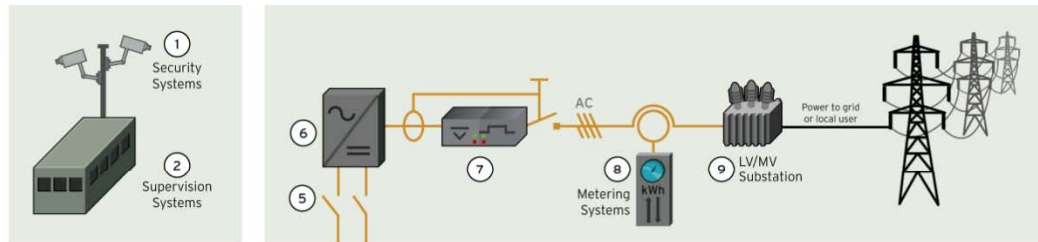


## Solar System Wiring Diagram

PNL's solar facilities' components are designed to be compatible and integrated with the landfill's gas, leachate and stormwater management systems.

### LEGEND KEY

- |                        |                     |
|------------------------|---------------------|
| 1. Security Systems    | 6. DC/AC Inverter   |
| 2. Supervision Systems | 7. LV AC Protection |
| 3. Solar Panels        | 8. Metering Systems |
| 4. DC Junction Boxes   | 9. LV/MV Substation |
| 5. LV DC Protection    |                     |



\* Not all of the depicted landfill management systems may be present at the Big Bear Landfill.

## Solar Installation Development Schedule

No.	Activity	Q1 2011	Q2 2011	Q3 2011	Q4 2011
1	Lease Option Agreement w/S.B. County	✗			
2	Business Structure				
3	Legal				
4	Power Purchase Agreement and Project Financing				
5	Final Design				
6	Permits (CEQA)				
7	Other Approvals (Interconnection)				
8	Site Preparation				
9	Equipment Delivery				
10	Installation				
11	Commissioning				
12	System Inspection				

Note: Actual construction time window will depend on weather conditions and condition of the cap, and could be pushed into 2012.