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Put That Brownfield To Work

Based on a partnership with Chevron, a California-based firm helps companies and communities turn mountains of garbage into fields of wattage.

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Hikari-no-Mori, or "Forest of Light," is a mega-solar project of 36,000 solar panels built on top of a landfill on the man-made island of Yumeshima near Osaka and managed by Sumitomo Corp. Photo courtesy of Nissan.

Projects are technically straightforward but administratively complex."

Some corporate real estate directors might read that sentence and laugh, thinking it applies to everything that comes across their desks these days.

But the statement, taken from a presentation earlier this year given by Robert Potter, project scientist at Project Navigator, is referring to a very specific idea and potentially elegant solution for many of those frazzled corporate real estate leaders: solar power on top of contaminated property.

If there's one challenge nearly universal in global corporate real estate, it's asset disposition and reuse. There's nothing more challenging to reuse than a remediated brownfield or landfill site -

sometimes because of conflicts with company environmental leaders, who simply want it cleaned up and left alone.

Those same companies, however, are also on the hunt for on-site power generation opportunities, especially if fired by renewables. Enter Project Navigator, a California-based firm known for working with major industrial multinationals at sites around the world on property remediation, and the administrator of, among other things, the water quality monitoring in Hinkley, Calif., famously depicted in the film "Erin Brockovich."

Based on a successful partnership with Chevron that examined solar power potential at some 600 Chevron sites around the world, the firm's PVNavigator (PVN) subsidiary is just beginning to tackle the enormous opportunity for solar power development on public and private landfills and brownfields otherwise deemed unusable.

In July, Project Navigator entered into a Power Purchase Agreement (PPA) with Southern California Edison for a 3-MW solar photovoltaic (PV) facility to be located on the County of San Bernardino's closed Milliken Sanitary Landfill located in Ontario, Calif. The power generated from the facility will be sold under the terms of the PPA for a period of 20 years.

PVN currently has about 50 MW of site capacity under option, and more than 300 MW in the overall pipeline.



In the first year of operation, a 792-kW solar system installed on a block of fallow, unusable land at fruit and vegetable grower Uesugi Farms in California generated over \$100,000 in savings and has offset the farm's electric bill by more than 90 percent. Photo courtesy of Vista Solar.

Optimizing the Sub-Optimal

Among PVN's strengths are detailed knowledge of sites, PV permitting expertise at closed landfills, strong regulatory relationships and "knowledge of Fortune 500 boneyard acreage."

The main strength of the strategy is this: While large-scale solar power farms face permitting, financing and interconnect challenges at greenfield sites, that is not the case for urban landfill or brownfield sites, which usually are near existing power distribution infrastructure as well as nearby load, thus saving major costs involved with installing new transmission lines. Not only do such projects face minimal permitting requirements by virtue of their location on brownfield or federal Superfund sites, they also help states meet renewable power goals.

The EPA reports there are more than 400,000 officially identified brownfield sites in the United States, comprising 16 million acres available for renewable energy development. PVN says that's enough land to generate nearly 3.2 million MW of power (Hoover Dam generates about 2,000 MW).

Project Navigator President Ian Webster says the solar PV idea came about in 2007, as the firm looked to diversify its business. Several projects moved forward in California, as did one at an Owens Corning landfill site in New Jersey.

About Project Navigator, Ltd.'s PVNavigator, LLC.

Project Navigator, Ltd. (PNL), and its solar power development operating entity, PVNavigator, LLC (PVN), is a Southern California-based developer of distributed, utility scale, solar photovoltaic projects located on landfills and brownfield sites. PVN has a pipeline of PV solar facilities under development throughout the United States. For more information, visit www.PVNavigator.com or www.ProjectNavigator.com.

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