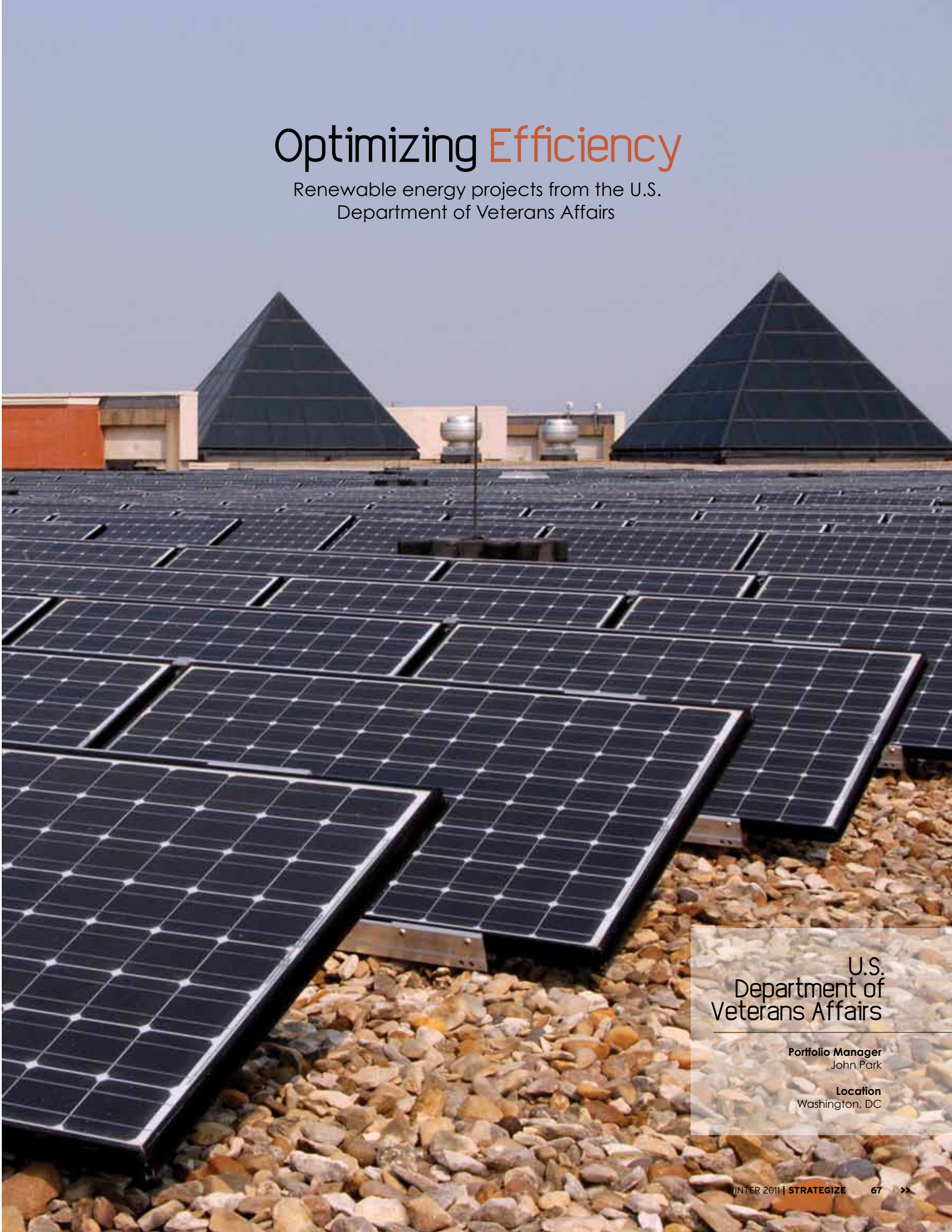
Optimizing Efficiency

Renewable energy projects from the U.S. Department of Veterans Affairs



U.S. Department of Veterans Affairs

Portfolio Manager
John Park

Location
Washington, DC

With a goal of lowering its operational costs while continuing to provide much-needed services to veterans, the U.S. Department of Veterans Affairs (VA) has embarked on a number of renewable energy projects.

"With these renewable components, the VA wants to save utility costs by reducing energy consumption, including renewable energy components, and use those saved dollars for veterans," says John Park, Portfolio Manager for the VA.

Currently the VA operates more than 150 medical center campuses and approximately 1,000 small clinics, with 150 million square feet of indoor space over nearly 34,000 acres of land. While the agency has an extensive array of facilities, the average age of its buildings is 60 years old. Healthcare spaces operating 24 hours a day make up 98 percent of VA facilities and rely on the use of energy-intense medical equipment, and since 2009, the agency has invested over $300 million in renewable energy projects to make its facilities more efficient.

"These renewable energy projects will reduce greenhouse gas emissions," Park said. "We are treating veterans, but if we are emitting all the bad materials from medical centers outside the VA medical centers, the result could be counter-productive. We want to take care of people on both sides, including the veterans who we are treating, but at the same time we need to reduce greenhouse gas emissions so that we can help the environment."

RENEWABLE COMMITMENT

Veterans Affairs has set a goal to increase renewable energy consumption to 15 percent of its annual electricity usage by 2013. To help reach this goal, it has recently awarded $56.7 million in contracts to build solar photovoltaic (PV) systems. By the summer of 2012, the VA will have solar PV systems running at five medical campuses in Oklahoma City, Oklahoma; Temple, Texas; Amarillo, Texas; Loma Linda, California; and West Los Angeles, California.

In 2007, the VA conducted a renewable energy screening with the Department of Energy's National Renewable Energy Laboratory to determine the best locations for its new projects. The team collected rough data and discovered which locations would benefit most from wind and solar power.

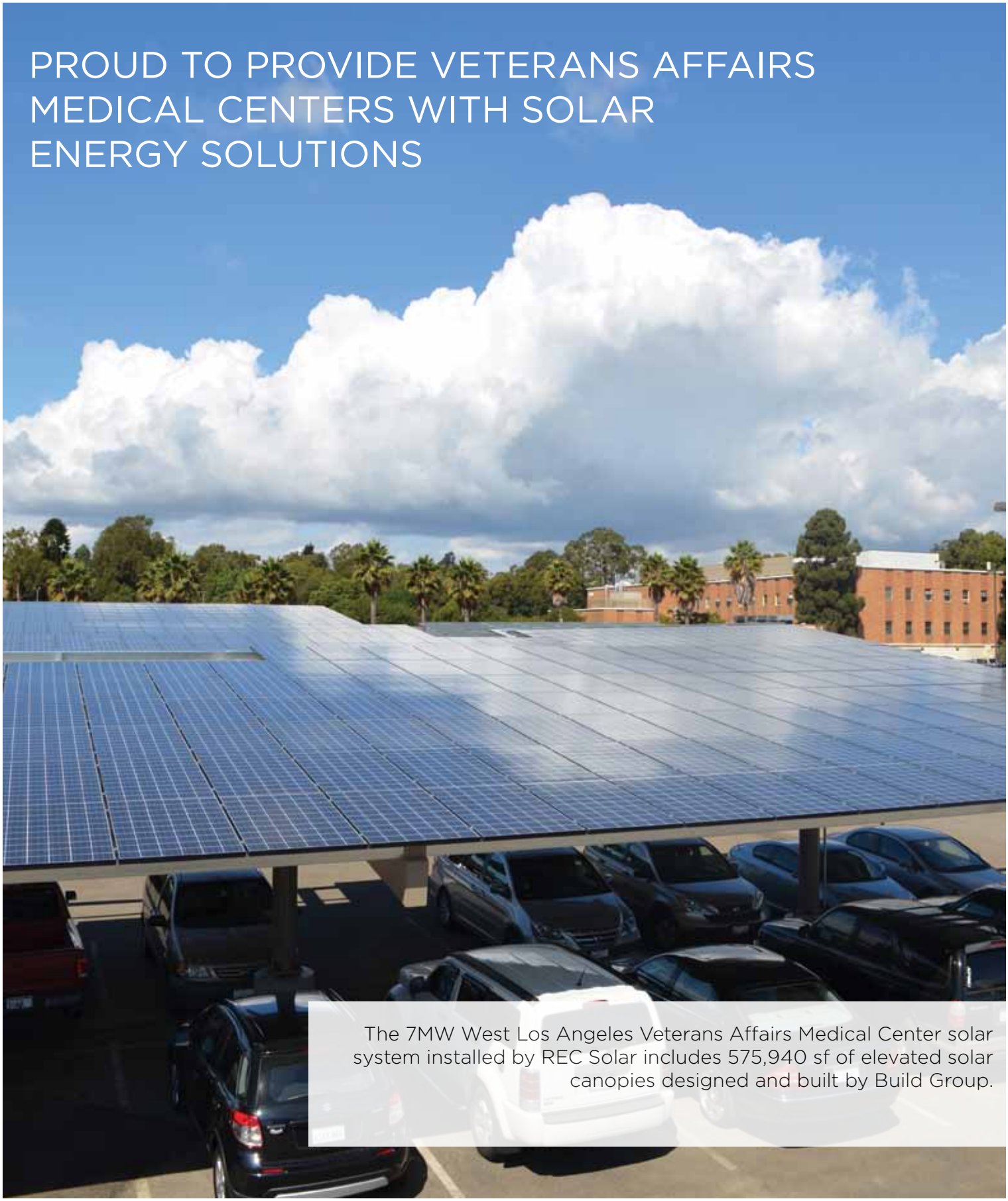
"We then collected highly rated solar sites and conducted detailed feasibility studies. With the outcome of those studies, we prioritized sites for 2008 PV installations, as well as 2009, 2010 and 2011," Park says. "So far, we have awarded contracts for solar projects for over 50 sites and are planning to continue project awards in 2012."

REC Solar was competitively awarded 16 of the 50 solar projects over the last two years and will also install the West Los Angeles and Temple solar PV

BUILD GROUP INC. AND REC SOLAR

In order to achieve their on-site renewable energy generation objectives, the Department of Veterans Affairs (VA) conducted nationwide feasibility studies to determine the best locations to invest in solar PV projects. At over a dozen locations, REC Solar met the VA's best value criteria for competitive award by providing superior technical solutions that deliver the most favorable economic returns for the VA facilities. In order to develop several site-specific technical solutions, REC Solar teamed with structural experts Build Group, Inc. The company's innovative adaptable product, Solumbria, will be utilized for solar canopies at VA Medical Centers in multiple locations, including Bay Pines, FL and Martinez, CA. In the past, canopy structures had to be customized to fit each manufacturer's individual photovoltaic panel type. Solumbria provides dramatically improved design flexibility, expedited installation and ease in upgrading to next generation photovoltaic panels in the future, thereby saving the VA time and money.

PROUD TO PROVIDE VETERANS AFFAIRS MEDICAL CENTERS WITH SOLAR ENERGY SOLUTIONS



The 7MW West Los Angeles Veterans Affairs Medical Center solar system installed by REC Solar includes 575,940 sf of elevated solar canopies designed and built by Build Group.

BUILDGROUP INC

buildgc.com

SOLUMBRIA adaptable arrays

REC SOLAR

recsolar.com

installer of REC solar panels

systems. The 16 REC Solar sites use a variety of rooftop mounted, carport-mounted and ground-mounted systems. Determining the proper mounting system depends on the site specifics.

"The West Los Angeles VA Medical Center is in the middle of downtown LA," says Burke Kascha-Hare of REC Solar. "It is a very urban area, and there's not a lot of open space nor are there many large rooftops. The application of carport-mounted solar projects is really the best fit for the urban campuses."

According to Kascha-Hare, the Temple, Texas location did not have to overcome the challenges of a crowded urban area and instead relied on open space adjacent to the VA medical campus.

"At the Temple campus, there is a landfill that's right next to the clinic that VA owns," Kascha-Hare says. "This land is not usable for any future construction so we're putting three megawatts of solar out there, which I think many people would agree gives the best use of otherwise unusable land."

Build Group, one of REC's subcontractors on the West Los Angeles project, and at their VA project in Bay Pines, Florida, understands the job sites are located at functioning medical centers. Understanding that medical operations are very sensitive to any disruption, the firm minimizes disruptions at the facilities by extensive pre-planning and focusing on construction efficiencies.

"We have designed the canopy structures for optimum efficiency in the field. This expedites construction so we spend a minimal amount of time in the parking lots," says Eric Horn , Chief Operating Officer at Build Group. "Our patent pending product, Solumbria, provides the VA with ultimate flexibility and the ability to easily upgrade to higher efficiency panels in the future.

While the Department of Veterans Affairs aims to continue solar and other renewable energy projects, funding remains a concern.

"The VA wants to install more solar panels and other renewable energy systems, to continue making progress towards sustainability, energy security, and lower utility costs," Park says. These days, however, budget conditions are rather uncertain. If we can continue to fund the capital investment that is necessary, we'll install alternative energy such as PV panels or geothermal energy systems." STR

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