

# OIL SPILL UNDERSCORES URGENCY

By: June Glazer

The worst oil spill in Israel's history was the accidental backdrop for an international conference on green energy held in Eilat, the country's southernmost city.

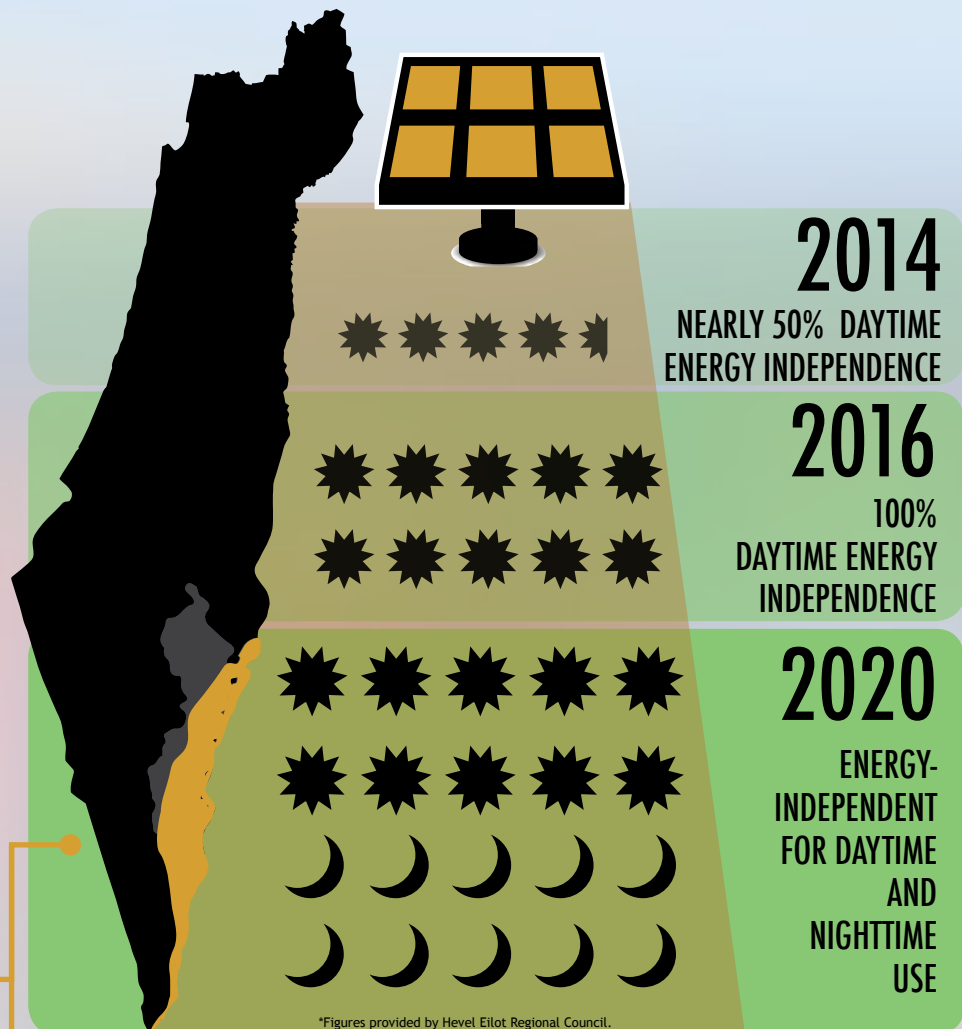
A busy port and popular resort located at the northern tip of the Red Sea, Eilat is at the epicenter of Israel's renewable energy industry. The recent Eilat-Eilat Green Energy 6<sup>th</sup> International Conference and Exhibition was the culmination of six events that comprised Israel Energy Week and which offered participants from around the globe a concentrated encounter with the emerging world of alternative energy in Israel. The conference focused on challenges facing the renewable energy industry today, including storage and supply of electricity, development of methods to manage electricity flow, and financing to advance projects.

It also focused on the key role renewable energy plays in the Southern Arava, a stretch of Negev Desert from the Dead Sea to the Gulf of Aqaba in which Eilat and the Hevel Eilat Regional Council are located. This arid, sun-drenched area is Israel's main locale for sustainable development and functions as an international showcase for Israeli innovation in the field of green energy.

"Renewable energy, with an emphasis on solar, is a major focus of our municipal activity and plays a key role in the region as a whole," said Meir Yitzhak Halevi, mayor of Eilat, in his greeting message to conference attendees. "The city of Eilat and the Hevel Eilat Regional Council, which together account for 13 percent of Israel's land area but less than one percent of the country's population, have recognized the potential offered by the sunlight and open space that exist here in such abundance and are concentrating on renewable energy as a catalyst for regional growth."

According to Udi Gat, head of the Hevel Eilat Regional Council, the area has already reached nearly 50 percent daytime energy independence, and in eight months there will be enough solar fields in Hevel Eilat to produce 100 percent of the energy consumed during the daytime in the Southern Arava. That's during the day hours. Because one cannot harness the sun's energy at night, in order for the region to gain energy independence at night, there is a need to find a different solution. "These days we are checking out and promoting different alternatives that will allow producing energy in the night," said Gat.

One idea is pumped energy, wherein water is brought up from the reservoir at the bottom of the hill to one situated on the top of the hill, which is an altitude difference of 1,476 feet. At night, the water



will flow down the hill, turning a turbine that will produce electricity, a method that is used for dams all over the world. Another option is gathering gas emissions that result from waste materials and using the gas as the source of energy to produce electricity at night. Finally, researchers at the Eilat-Eilat Renewable Energy Institute are dealing with the question of how to gather the excess energy produced during the sun hours in order to use it at night. Until now, there is no large-scale solution to this problem.

By 2020, the municipality and regional council anticipate that one of these solutions will become practical and with the production of green

# AT ISRAELI CONFERENCE ON GREEN ENERGY

electricity for daytime and nighttime use, the area will be completely energy-independent and free of fossil fuel and carbon emissions.

“We want to generate more electricity, even beyond the needs of Eilat and of the regional council. We want to help the country produce electricity from an inexpensive source—the sun—and to be Israel’s electricity storehouse or ‘bank,’” Gat said.

The importance of achieving energy independence was brought home to the conference in a dramatic way when, four days prior to its start, an oil pipeline ruptured during maintenance work 20 kilometers north of Eilat at a construction site for a future international airport that will serve the southern Arava. Five million liters of crude oil spilled out and fouled an estimated 1,000 dunams (nearly 250 acres) of scenic desert including a nature reserve. Delicate coral reefs beyond the nearby shoreline were also threatened.

The accident underscored the potentially destructive nature of oil dependency and the need to shift to sustainable sources.

“Renewable energy can make a difference in smaller areas, like neighborhoods and communities,” said JNF CEO Russell F. Robinson, a speaker at the conference. “I don’t know if a total shift is feasible, if we’re ever going to see crude oil and fossil fuel completely replaced by renewable energy. We can’t convert large cities overnight, but we need to strike a balance. And we need to come up with better safeguards to protect against these kinds of accidents in the future.”

Over the past several years, JNF has invested a million dollars in developing renewable energy in Israel as part of its *Blueprint Negev* initiative. To that end, JNF, which underwrote part of the Eilat-Eilat conference, supports various projects to enhance the quality of life in the southern Arava, including those related to renewable energy. One of these projects is the new Regional Collaboration Center for Research and Development and Renewable Energy, an office hub and testing lab specifically designed for startup companies located at Kibbutz Yotvata outside Eilat.

“The area is perfect for us,” said conference exhibitor Or Yoged, who attended the Center’s ribbon-cutting inauguration. Founder and CEO of Augwind, a three-year-old startup that synergizes wind and solar energy, he plans to relocate his company there from its current base in central Israel. “This facility will help young entrepreneurs like me to implement our dreams. The environment will encourage collaboration that will help incubate all of our projects,” he said.

Ilan Ben-David, CEO of Chakratec, a producer of electricity storage batteries and another conference exhibitor, said he intends to maintain his company headquarters near Tel Aviv but plans to make the center his testing lab. “When we first started out, there were only three companies investing in energy. Energy is a very difficult

field in which to raise money. Now, because of this center and the focus of the municipality on clean energy, we plan to have a long-term relationship with the region.

“This facility will help Israel develop technologies that will not only benefit Israelis, but can be exported especially to China, India, and Africa, where the interest in green energy is great. There is a huge future for us in these markets,” he said.

“Renewable energy is about how to get people to move to different places,” Robinson noted. “If we want them to move to the Negev, we need to develop technologies that will lower the cost of energy, especially as it relates to water recycling. If we can produce enough energy cheaply, we can settle people anywhere in the desert.”

How close is this reality?

“I think if you look at the Eilat and Eilat region and see what they have accomplished, you’ll realize that it can be done,” Robinson said. “Since the first of these Eilat-Eilat conferences was held, solar sources have come to supply 50 percent of the Eilat region’s daytime energy consumption. That means that every day they turn on a grid that provides them with enough electricity to meet all of their daytime needs. Just a few years ago, who would have guessed that could happen?” ■

