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Photo by: Courtesy

## Israel Electric Corporation opens biological waste treatment plant in Ramat Hovav

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Senior vice president of engineering Ron Weiss: "The IEC is working to preserve the environment."

The Israel Electric Corporation (IEC) has completed construction on a biological wastewater treatment system on the grounds of the Ramat Hovav power plant.

The Ramat Hovav power complex produces about 100 cu.m. of wastewater a month, requiring evacuation through expensive tankers, the IEC said.

Now, however, the site will be making use of a natural, biological "constructed wetlands system," designed by Ayala Water and Ecology – a company that specializes in constructing such systems to process industrial sewage.

"The IEC is working to preserve the environment," said Ron Weiss, the company's senior vice president of engineering.

"This is part of its compliance with environmental demands, technological developments and global trends, while adapting to the unique conditions that exist within the vicinity of the company's facilities."

On the site of the power station, Ayala Water and Ecology has set up two

natural biological systems, the first of which is a smaller system that treats the sanitary waters of one specific area and the second system treats the rest of the sanitary waters of the complex.

The natural biological system process works by harnessing the ability of wetland plants that grow in a saturated environment to transfer oxygen to their root systems, creating an optimal habitat for microorganism growth, according to information from Ayala Water and Ecology.

In turn, the microorganisms are able to break down and consume various pollutants, including nutrients, heavy metals, hydrocarbons and pathogens.

The concept behind the natural biological system was developed by Ayala Water and Ecology's CEO Eli Cohen, whose organic farm in Israel's Galilee contains a living laboratory for research on the subject.

Cohen's systems are being used throughout Israel as well as around the world.

"This system requires little maintenance, it is efficient, saves on many costs and it significantly reduces the amount of evacuative pumping that is required," said Oz Dayan, a project engineer in the IEC's division of engineering projects. "Moreover, the system makes the expensive transport of pipes and pumping stations unnecessary and produces quality water for irrigation needs."

After undergoing treatment, the water is stored in a tank and pumped out in order to irrigate the plant life that inhabit the Ramat Hovav site, Dayan said.

All in all, there are now four wastewater treatment pools covered with aquatic plant life, ready to treat the enormous power facility's wastewater, the IEC said.

Visible to the passersby, the solution has allowed for the creation of what the IEC describes as a "green and aesthetic corner in the heart of the desert station."