BIRD Israel-U.S. Binational Industrial Research and Development Foundation

December 31, 2023

BIRD Energy to Invest $9.75 Million in Cooperative Israel-U.S. Clean Energy Projects

The total investment in the awarded projects will amount to $27 million including private sector contribution

The U.S. Department of Energy (DOE), Israel's Ministry of Energy and Infrastructure (MoE), and the Israel Innovation Authority held an Executive Committee meeting on November 21, 2023, resulting in the selection of nine clean energy projects that were approved to receive $9.75 million under the Binational Industrial Research and Development (BIRD) Energy program. The selected projects address topics including agrivoltaics, battery technology, CO2 reduction, energy efficiency, solar energy, and energy storage.

BIRD Energy was launched in 2009 under the Energy Independence and Security Act of 2007 to foster collaborative research and development projects between the United States and Israel. This program is dedicated to advancing sustainable energy technologies aimed at enhancing economic competitiveness, job creation, and energy security.

Projects that qualify for BIRD Energy funding must include one U.S. and one Israeli company or a company from one of the countries paired with a university or research institution from the other. The partners must present a project involving energy innovation that is of mutual interest to both countries. BIRD Energy has a rigorous review process and selects the most technologically meritorious projects and those most likely to commercialize and bring about significant impact. Qualified projects must contribute at least 50% to project costs and commit to repayments if the project leads to commercial success.

The total value of the approved projects is $27 million, including $9.75 million in cost-share funding. The approved projects are:

- **Bar Ilan R&D Company (Ramat Gan, Israel),** the technology transfer office of Bar Ilan University, and **Forge Nano (Thornton, CO)** to develop advanced flexible thin film coatings by molecular layer deposition for improved high-capacity anodes.
- **SolarPaint (Yokneam Illit, Israel)** and **Lippert Components (Elkhart, IN)** to develop a unique solar awning – a fully flexible and rollable solar panel, suitable for RVs, residential balconies, and more.
- **Groundwork BioAg** (**Mazor, Israel)** and **Verdesian Life Sciences U.S. (Cary, NC**) to collaborate on developing innovative solutions to enhance soil carbon sequestration and provide agricultural benefits by integrating mycorrhiza species, strains, and nitrogen-fixing bacteria targeting corn and soybean crops.
- **CarbonBlue (Haifa, Israel)** and **Energy & Environmental Research Center (Grand Forks, ND)** to scale up and commercialize ocean-based carbon dioxide removal technology for the desalination industry.
- **Boson Energy Ltd. (Modi'in, Israel)** and **Drexel University's (Camden, NJ) C. & J. Nyheim Plasma Institute** to develop a next-generation tar cracking system for gasification projects.
- **PowerPlug (Tel Aviv, Israel)** and **Cirrus Nexus (New York, NY)** to develop an AI-driven SaaS-based platform for monitoring, analyzing, and reducing the IT carbon footprint across the entire IT landscape: on-premise IT devices, on-premise data centers, and cloud resources.
- **AIR EV (Pardes Hanna, Israel)** and **Nidec Motor Corporation (St. Louis, MO)** to develop an electric motor tailored for mid-size eVTOL aircraft.
- **Trigo Solar (Sde Hemed, Israel)** and **Texas A&M AgriLife Extension Sponsored Research Services (College Station, TX)** to demonstrate a water-energy agrivoltaic mounting system able to collect, divert, and store rainwater and irrigate cultivated rows of rainfed row crops.
- **Windstore (Tel Mond, Israel)** and **NPS Solutions (Darien, CT**) to develop a compressed air energy storage solution incorporating wind turbine towers.

Dr. Gideon Friedmann, Chief Scientist at Israel Ministry of Energy and Infrastructure, said: "The BIRD Energy program stands as a testament to the successful collaboration between the US government and the Israeli government in the realm of industrial R&D. The energy transition requires tangible, tailored solutions across diverse sectors. This program helps companies to team up and handle the long, tough process of developing and commercializing innovative technologies. This year, we approved funding for a record number of projects, covering solar power, heat engines, and energy storage. Wishing all the new projects much success in their endeavors."

Mr. Dror Bin, CEO, Israel Innovation Authority, said: "BIRD Energy's collaborative platform linking Israeli and US tech companies engaged in creating solutions for globally important climate challenges has gained greater significance today as Israel is facing one of the most challenging times since its inception. We see this significant collaborative effort as a continued vote of confidence in the resilience of the Israeli tech ecosystem. We are certain that this collaboration between Israeli and U.S. companies will yield groundbreaking technological innovations that will address the global challenges humanity is currently confronting".

Mr. Jaron Lotan, Executive Director, BIRD Foundation said: "We celebrate the 15th year milestone of this pivotal program, a testament to the collaborative efforts of our U.S. and Israeli stakeholders fostering groundbreaking Clean Energy technologies. This unique platform has played a significant role in advancing the energy ecosystems, particularly in enhancing collaborations between corporations and research institutions across the U.S. and Israel. I am proud to have been able to approve this great group of projects in these challenging times when strengthening technology cooperation between US and Israel is more important than ever.

About the BIRD Foundation (www.birdf.com)

The BIRD (Binational Industrial Research and Development) Foundation encourages and facilitates cooperation between U.S. and Israeli companies in a wide range of technology sectors and offers funding to selected projects. The BIRD Foundation supports projects without receiving any equity or intellectual property rights in the participating companies or the projects themselves. BIRD funding is repaid as royalties from sales of products that were commercialized as a result of BIRD support. The Foundation provides funding of up to 50% of a project's budget, beginning with R&D and ending with the initial stages of sales and marketing. The Foundation shares the risk and does not require repayment if the project fails to reach the sales stage.

For more information about the program, see: https://www.youtube.com/watch?v=di_14c-ef8g