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# **United Nations High Commissioner for Refugees Awards Polar Power Initial Contract to Assure Uninterrupted Quality Electric Power for African Offices**

*Pilot program designed to showcase the provision of reliable, easily maintained, and cost-effective electric power in bad or no grid locations*

GARDENA, CA, Dec. 20, 2023 (GLOBE NEWSWIRE) -- Polar Power, Inc. ("Polar Power" or the "Company") (NASDAQ: POLA), a global provider of prime, backup, and solar hybrid power solutions, announces a contract award from the United Nations High Commissioner for Refugees ("UNHCR") to provide a nano grid for one of its offices in Africa. The pilot project is designed to demonstrate the reliability, durability, and low operating costs of Polar Power's nano grid technology to provide uninterrupted, quality electric power in bad-grid locations throughout the world. It is anticipated that Polar's efficient power technology will enable as much as a 70% reduction in diesel fuel consumption, lower operating and maintenance costs, and simultaneously reduced greenhouse gas emissions. UNHCR operates in over 130 countries, worldwide.

Arthur Sams, CEO of Polar Power commented, "This initial contract provides us with a unique opportunity to demonstrate the reliability and efficiency of our technology, and to show its benefits in regions where the grid is bad or non-existent. The difficulties that current backup systems incur are the momentary loss power and high operating costs. Consider the moment that grid power is lost, the AC backup generator starts, warms up and then switches online to power the loads. Even power interruptions for milliseconds can cause servers and computers to fail, resulting in reduced office productivity with data loss and downtime as computers reboot. Our technology solves these problems by eliminating the switch-over from grid to backup generator. Polar's solution has the inverter on 100% of the time, the battery feeding the energy to the inverter, and the utility grid and DC generator charging the battery as needed."

Polar Power's compact, lightweight, mobile nano grid systems will first use energy from the solar PV array (when available), secondly from the electric grid when additional energy is needed, and when the grid is down Polar's DC generator provides the additional energy required. The battery collects the energy from the solar, grid, and DC generator, and through the inverter powers the AC loads. This is also referred to as an online uninterrupted power source (UPS); the difference between Polar Power and other systems is its DC generator.

The AC backup generator is not typically referred to as a UPS as there is a power interruption as the generator comes online. The AC generator runs continuously during the power outage consuming fuel even when electrical loads are at their minimum. The Polar

nano grid is engineered for fuel efficiency by turning off the DC generator during light loads and using smaller generators allowing the battery and inverter to supply the peak loads (load leveling). Allowing the generator to operate at peak efficiency saving fuel while reducing the DC generator's run time also reducing the maintenance cost.

AC backup generators are sized to meet the peak load demand plus an additional margin to prevent the circuit breakers from tripping. The DC generator in the nano grid is sized to deliver the kilowatt hour usage over a 24-hour period and the inverter with the battery supplies the peak load demand. In bad-grids, AC generators are running longer than they are designed for creating significant additional costs from equipment breakdowns and lower fuel efficiencies.

"While this initial contract will power an office providing important humanitarian aid to the region, and there are over 100 other locations within UNHCR that can benefit from our unique power solutions, other applicable markets could include FEMA and other relief agencies, construction sites, military bases, financial institutions, small data centers, and even healthcare facilities. We look forward to collaborating with UNHCR, and to creating new opportunities in the region," concluded Mr. Sams.

Polar Power expects to deliver this mobile nano grid solution to UNHCR in the second quarter of 2024.

### **About UNHCR**

UNHCR, the UN Refugee Agency, is a global organization dedicated to saving lives, protecting rights, and building a better future for people forced to flee their homes because of conflict and persecution. The organization leads international action to protect refugees, forcibly displaced communities, and stateless people. Its vision is a world where every person forced to flee can build a better future.

Formally known as the Office of the High Commissioner for Refugees, UNHCR was established by the General Assembly of the United Nations in 1950 in the aftermath of the Second World War to help the millions of people who had lost their homes. Today, UNHCR works in 137 countries. We provide life-saving assistance, including shelter, food, water and medical care for people forced to flee conflict and persecution, many of whom have nobody left to turn to. It defends their right to reach safety and help them find a place to call home so they can rebuild their lives. Long term, it works with countries to improve and monitor refugee and asylum laws and policies, ensuring human rights are upheld. In everything it does, UNHCR considers refugees and those forced to flee as partners, putting those most affected at the center of planning and decision-making.

### **About Polar Power, Inc.**

Gardena, California-based Polar Power, Inc. (NASDAQ: POLA), designs, manufactures and sells direct current, or DC, power systems, lithium battery powered hybrid solar systems for applications in the telecommunications market and, in other markets, including military, electric vehicle charging, cogeneration, distributed power and uninterruptable power supply. Within the telecommunications market, Polar Power's systems provide reliable and low-cost energy for applications for off-grid and bad-grid applications with critical power needs that cannot be without power in the event of utility grid failure. For more information, please visit

[www.polarpower.com](http://www.polarpower.com). or follow us on [www.linkedin.com/company/polar-power-inc/](http://www.linkedin.com/company/polar-power-inc/).

**Investor Relations Contact:**

**At CORE IR**

Peter Seltzberg, SVP Investor Relations and Corporate Advisory  
516-419-9915  
[peters@coreir.com](mailto:peters@coreir.com)

**At Polar Power Inc.**

[IR@PolarPowerinc.com](mailto:IR@PolarPowerinc.com)



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