



Blau
Gelbes
Kreuz
Deutsch
Ukrainischer
Verein e.V.



Overview

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| <i>Project Name</i> | Solar and Battery Backup for Chernihiv Hospital N ^o 2 (Ukraine) Rotary Global Grant #2567312 |
| <i>Project Managers</i> | Local Project Host: Rotary Club of Kyiv-Capital International Fundraising Host: Rotary Club of Babcock Ranch, FL Team includes Ukrainian solar industry leaders, a German NGO (BGK-verein.de), Canadian and US Rotary clubs, and former US Dept of Energy staffers and contractors. |
| <i>Project Dates</i> | Start Date: Jul 1, 2025 End Date: Apr 1, 2026 |
| <i>Background</i> | Due to the full-scale Russian invasion, continuing damage to the Ukraine power grid has been devastating for hospitals nationwide. Annual Electricity use is 1,462 (MWh) at this 600-bed hospital. The two Rotary Clubs are leading an effort to install a 284 kW-DC PV system with a 60 kW/300 kWh battery. Private investment is sought. Approximate cost: USD\$400,000. Simple payback period - 7.3 years. |
| <i>Objectives</i> | <ul style="list-style-type: none">● Support Ukraine government's goal to transition to 25% renewable energy by 2030● Give hospital the ability to operate as an "island" during power outages● Provide reliable hospital care to city of 250,000 and area veterans. |
| <i>Target Audience</i> | The hospital had 230,000 visitors in 2023. It is a regional hub for rehabilitation of wounded veterans. The ER sees 20,000 people/year. |

Project Specifics

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| <i>Project Scope</i> | 3 rd Rotary Global Grant for this team. A solar installation is now underway at Chernihiv Maternity Hospital, thanks to USD\$244,000 raised from a total of 14 Rotary Club partners in the U.S. and Canada. A Chernihiv solar installer was selected in a competitive bid using a USDOE-based Request for Proposals. Responses were scored by Ukrainian and U.S. solar experts. |
| <i>Project Constraints</i> | The Rotary Club of Babcock Ranch hopes to begin this project as soon as possible, to avoid the coldest months in Ukraine. |
| <i>Deliverables</i> | <ul style="list-style-type: none">• Rooftop engineering study• Electrical room modifications• Solar modules, battery, inverters, rack mounting system• Job training program at Lyceum of Railway Transport |
| <i>Explorations & Decisions</i> | Our partner, the German NGO Blau-Gelbes Kreuz, has pledged 40,000 Euros. Discussions with other nonprofits and many Rotary Clubs are continuing. |

Project Timeline

Fundraising completed 12/31/25

Engineering Study completed 2/28/26

Request for Proposals completed 3/31/26

Bid award and construction commences 4/30/26

Installation and commissioning 5/31/26

NREL Analysis

From U.S. National Renewable Energy Laboratory PreFeasibility Analysis 10/2024

During 2023-2024, the National Renewable Energy Laboratory (NREL) contributed a prefeasibility analysis to this project, funded by USAID. <https://www.nrel.gov/docs/fy25osti/91296.pdf>



| Item or Metric* | Hospital No. 2 |
|---|----------------|
| PV Capacity | 284 kW-DC |
| BESS Capacity | 60 kW 4-hour |
| Capital Cost (USD) | \$399,700 |
| First-Year Bill Savings (USD) | \$52,100 |
| Simple Payback (years) | 7.3 |
| Internal Rate of Return | 16% |
| Net Present Value (USD) | \$205,000 |
| Year 1 Renewable Generation | 270 MWh |
| PV Fraction of Annual Facility Electrical Use | 18% |

Conclusion

Project Outcomes

US\$52,000/year in annual energy savings

Improved peace of mind for medical staff and patients

Improved health outcomes. Inpatient care, emergencies, rehab and surgeries not subject to as much disruption due to power outages.

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