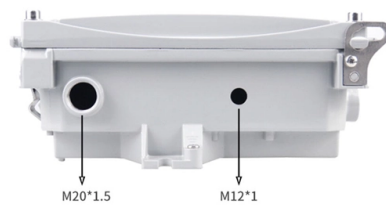


Oman Integrated Power System Installation



Overview

Electrical supply, contracting, and engineering solutions for industrial, utility, and infrastructure projects across Oman and the GCC.

Key Takeaways

Oman's integrated power system combines large-scale renewable energy projects, advanced transmission networks, and grid integration to enhance electricity generation, distribution, and sustainability. Key Renewable Energy Projects

Oman is actively expanding its renewable energy capacity, with projects like the Ibri III solar-plus-storage plant, which will feature a 500 MW solar PV system integrated with a 100 MWh battery storage. This project, led by a consortium including Masdar, Korea Midland Power, Al Khadra Partners, and OQ Alternative Energy, is scheduled for completion in early 2027 and will supply electricity to approximately 33,000 homes, contributing an additional 4% to Oman's renewable energy mix . By the end of 2024, Oman had deployed 672 MW of solar capacity, and with projects like Oman Manah I, the country is expected to surpass 1 GW of cumulative solar capacity . The Renewable Energy Systems Supply and Installation Project focuses on providing integrated solutions for electricity generation using solar and wind energy. It includes the supply and installation of high-efficiency solar panels and wind turbines, system design, and ongoing maintenance. This project supports Oman's national strategy to achieve 39% of electricity from renewable sources by 2040, aligning with global climate goals and the United Nations Sustainable Development Goals (SDGs), .

Power Transmission and Distribution Infrastructure

Oman's integrated power system relies on robust transmission and distribution networks. Companies like Integrated Engineering & Technology LLC (IET) and AL WEJHA GROUP have extensive experience in designing and implementing substations, high-voltage transmission lines, and grid integration of renewable energy. Key projects include:

- North-South 400 kV Interconnection Phase 2 with 3 substations and 600 km of overhead lines
- Rustaq 400 kV network with 260 km of overhead lines
- Power evacuation from Ibri IPP through a 400 kV grid station and 260 km of 400 kV overhead lines
- Sharqiyah Transmission System, one of Oman's first decarbonization projects, with 5 grid stations and 300 km of 132 kV network
- Consultancy and supervision for major thermal and renewable power plants, including the 2000 MW Sur IPP and 1000 MW Sohar Aluminum power plant. These networks ensure grid stability, load management, and integration of renewable energy sources, while adhering to Oman's Authority for Electricity Regulation (AER) standards and international IEC guidelines.

Technical and Strategic Highlights

- Integration of solar and wind energy with conventional power plants to create a flexible and sustainable grid
- Deployment of battery energy storage systems to enhance reliability and manage peak demand
- Use of high-efficiency imported equipment and advanced technologies for optimal performance
- Comprehensive services including system assessment, design, installation, and continuous monitoring to maximize energy utilization
- Alignment with Oman Vision 2040 to diversify energy sources and reduce carbon emissions

Conclusion

Oman's integrated power system installation represents a strategic combination of renewable energy projects, advanced transmission infrastructure, and grid modernization. By leveraging solar, wind, and storage technologies alongside robust transmission networks, Oman is enhancing energy security, supporting sustainable development, and positioning itself as a regional leader in clean energy innovation.

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List of Omani solar panel installers - showing companies in Oman that undertake solar panel installation, including rooftop and

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General Inquiries Landmark building 5th floor, office 53G P.O. Box 1019, PC 131
Muscat, Sultanate of Oman +968 24600105 /

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

