

REFERENCE CASE PHOTOVOLTAIC



PV power plants inspection services by TÜV Rheinland in Hokkaido, Japan

TÜV Rheinland Japan Ltd. carried out a technical inspection to determine the bankability of the construction of five large-scale solar power plants in the Kushiro and Tokachi districts (in the eastern part of Hokkaido), a project conceived by JAG Energy Co., Ltd. Based on the results of the inspection, Shinsei Bank, Limited approved project financing for the project. It was the first time that TÜV Rheinland Japan performed technical inspection for a mega solar power plant project in Japan to establish eligibility for project financing.

Basic Facts	
Client	JAG Energy Co., Ltd
Timeframe	Project under construction since October 2012
Project location	Five locations in the Kushiro and Tokachi districts, Hokkaido, Japan
Output	5.5 megawatts (5 plants)
Main services	<p>Inspection according to JIS standards and JEMA guidelines</p> <p>Planning and pre-installation</p> <ul style="list-style-type: none">▪ Energy yield prediction calculation including an on-site shadow evaluation▪ Assessment of plant design and specification <p>Post-installation</p> <ul style="list-style-type: none">▪ On-site inspection with on-site testing for quality and safety▪ IV string performance measurement▪ Thermographic inspection of strings and components

Initial situation and requirements

The Kushiro and Tokachi districts in Hokkaido, where JAG Energy Co., Ltd is completing the power plants construction phase, have a relatively large number of sunshine hours making up one of the lowest snowfall areas in Hokkaido. Based on its extensive experience and technical expertise in the inspection of PV power plants both globally and in Japan, TÜV Rheinland was selected by Shinsei Bank to carry out an independent technical evaluation of the project as a third-party certification and inspection organization.

Solutions, results

Based on the results of the technical inspections performed by TÜV Rheinland Japan, Shinsei Bank was convinced that good returns could be expected and therefore decided to finance the project. Until now, PV power plant projects in Japan have been financed primarily through corporate loans. As the scale of these projects has dramatically increased, so has the risk and complexity of standard financing practices. In this case, project financing became possible only because TÜV Rheinland Japan was able to independently verify the bankability of the project.

About Shinsei Bank, Limited

Shinsei Bank established its Project Finance Department in June 2012 to strengthen its business framework, primarily focusing on the Clean Energy industry to include solar power generation as one of its strategic areas for new business opportunities. In order to alleviate the stress placed on the electricity supply caused by the Great East Japan Earthquake, Shinsei is actively engaged in financing projects within this industry.

Benefits for the client

- More than 25 years of experience in the quality assurance field of PV power generation systems.
- Know-how from having inspected over 2 GW of projects globally.
- Testing and inspection services for PV power plants throughout the whole life cycle.
- Enhanced reliability of PV power plant project through professional assessment.
- Significantly increased project bankability thanks to accredited third-party inspectors.



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About JAG Energy Co., Ltd.

JAG Energy Co., Ltd., a company under the umbrella of the Japan Asia Group Limited, has erected solar power plants on vacant land across Japan. The Group's portfolio of 24 solar power plants in four European countries demonstrates its history of completing successful PV power plant business projects. In Japan, JAG Energy has built a number of PV power plants, including the Sakaide Solar Way in Sakaide City, Kagawa Prefecture, and the Miyazaki Solar Way in Tsuno-cho, Miyazaki Prefecture.

About TÜV Rheinland:

TÜV Rheinland is a global leader in independent inspection services, founded more than 140 years ago. The group maintains a presence in 65 countries with 17,200 employees. Independent TÜV Rheinland experts stand for quality, efficiency and safety for people, technology and the environment in nearly all aspects of life.

Since 2006, TÜV Rheinland has been a member of the United Nations Global Compact to promote sustainability and combat corruption.

