Matrix Energy supplied and commissiioned a solar photovoltaic diesel hybrid system in the park des Grands Jardins, nort of Baie St-Paul

Montreal - January, 2014 - Matrix Energy Inc is proud to have supplied and commissioned a solar photovoltaic (PV) diesel hybrid system to SEPAQ (Société des établissements et parcs du Québec) located in the park des Grands Jardins north of Baie St Paul in collaboration with the Eng CIB groupe conseil and the installer Électricité des Laurentides.

This Solar/diesel hybrid system will supply clean and stable power to the main reception lodge which will be in operation from May to October.

The models show that the forecasted Energy production for the 21.6kW solar array should meet 100% of the load from May to September and the 25kW diesel genset will cycle charge the batteries approximately for 16h every 3 days from September to October.

According to Daniel Gagnon Eng and project Manager for SEPAQ «The combination of a solar PV with a diesel generator is a medium term cost effective means to lower maintenance, repair, and operations (MRO) of the generator. We estimate that return on investment will be around 10 years for a predicted system life cycle of 20 year. The reliability and proven technology of solar PV motivated SEPAQ to adopt this solution as a viable investment in green technology and to help reduce Green house gas (GHG) emissions. This system is to become a reference case study for future SEPAQ projects.

Equipment supplied by Matrix Energy Inc includes:

- Total of 21.6 kWp Eclipsall solar modules
- Six MPPT charge controllers from Outback Power
- Two Radian inverters from Outback Power for a total power capacity of 16 kW @ 120/240Vac
- A UNIGY II battery bank of 9468 Ah @ 20h, 48 nominal voltage sized for 3 days of autonomy
- Roof and ground mount Sunground from Opsun Systems

The electrical contractor, Électricité des Laurentides inc. was very satisfied by the superior technical expertise that Matrix offered during the installation and commissioning. According to Stéphane Soucy « The Matrix Energy team was able to guide us through the whole process, from delivery to installation of the project on time and on budget. We hope to be able to install other solar PV project with the help of Matrix Energy ».

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Project Objectives :

- Reduce annual MRO cost.
- Reduce generator operation hours, thus also reduce noise levels
- Reduction of GHG emissions
- Show SEPAQ's dedication to sustainable development

According to Patrick Savoie, Sales Manager for Matrix Energy Inc, «The PV system PV will produce 15 000kWh/year of clean solar electricity during the operational period and will displace between 55-60 tons of CO_2 emissions in the atmosphere. The internal rate of return is between 8-10% which is considered, from a purely financial point of view, a very good investment for any company ».

PV / Diesel hybrid power systems in Off-Grid applications are gaining in popularity in remote areas. The combination of lower cost for PV and increase cost of fossil fuel provide impressive IRR's resulting from significant MRO cost reductions, while other benefits include reduction of generator noise and GHG emission pollution, improved overall system reliability and redundancy.

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