

# **Embedded Linux for Web Monitoring of PV-Diesel Hybrid System for Remote Area Power Supply in Thailand**

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## **Presentation: Poster**

### **Abstract**

The Project aim is to implement of on-line monitoring and setting parameters of electrical energy production of PV-Diesel Hybrid System in remote area: Thailand.

PV-Diesel Hybrid systems have the capability to supply electricity to a productive rural activity or possibly a mini-grid in a remote village. These hybrid systems consist of a combination of solar, storage batteries and fuel-powered generator-sets. In order to obtain electricity from a hybrid system reliably and at an economical price, On-line monitoring and setting of the parameters for the system is important.

The work is to acquire the energy data from PV-Diesel Hybrid System. The data will be put online using a low power Linux embedded Web-Server system. The parameters of the system such as start-stop time of generator can be adjusted by internet.

The system will be located in Pitsanulok, Thailand. The monitoring station is in Kassel, Germany. The project is structured in the following phases:

- Data acquisition from PV-Diesel Hybrid System to the Embedded Low-power Module.
- The Embedded Module provides data that can be able to be accessed by internet via modem. The parameters can be adjusted by internet using interactive web-site.
- The system will be implemented in a rural village in Thailand to cover the electricity requirements.

As the hybrid system can deliver power to a target village in Thailand, the monitoring system can carry out the behaviour of consumers and can adjust the parameter to deliver the electricity efficiently.