![PcVue logo]

ELECTRIFYING REMOTE VILLAGES IN SARAWAK, MALAYSIA WITH PcVue SCADA

In 2021, Sarawak Energy Berhad initiated a project to electrify remote villages in Sarawak using renewable energy sources such as solar and mini-hydro turbines. The project faced significant challenges due to the remote locations, which made effective monitoring and control essential. The solution? PcVue SCADA software, seamlessly integrating various devices and equipment across multiple sites.

WHY PcVue?
Sarawak Energy and one of the system integrators selected PcVue for its interoperability and user-friendly interface and robustness. The integrator was already familiar with PcVue's capabilities and PcVue's support for multiple communication protocols (Modbus RTU and Modbus TCP) eliminating any learning curve and ensuring a quick start. This made it possible to easily interface with multiple devices such as solar inverters, energy meters, and battery management systems.

This familiarity meant that the team could immediately focus on configuring and optimizing the system rather than struggling with implementation issues. PcVue's proven ability to handle complex projects with multiple communication standards made it the most reliable choice.

THE NEED FOR A ROBUST SYSTEM
Given the remoteness of the villages, having a robust SCADA system was vital. If the system failed, no skilled personnel would be on-site to address issues immediately, potentially leaving the community without power for extended periods.

PcVue's fault tolerance and reliable data logging ensured that even if there were connectivity issues, data would be stored locally and transmitted once the connection was restored. This provided peace of mind to both engineers and stakeholders, knowing that the system could handle interruptions without data loss or failure.
Every month, a Sarawak Energy employee visits the sites to check the system's integrity and back up the data, but PcVue's reliability has minimized the need for frequent interventions.

IMPLEMENTATION HIGHLIGHTS

The project involved integrating 50-60 monitoring tags per site, covering everything from solar production to battery levels. The straightforward configuration process helped the system go live quickly, which was crucial given the logistical challenges of traveling to remote sites. PcVue's flexibility allowed the team to manage different devices with varying protocols, ensuring smooth data collection and visualization.

Looking ahead, there are plans to enhance the system by establishing internet connections at the sites. This will enable real-time data transmission and automated fault reporting, reducing the need for manual interventions and enabling quicker responses to any system malfunctions. With PcVue already in place, these upgrades can be easily implemented without significant changes to the existing system architecture.

CONCLUSION

PcVue's ability to integrate diverse equipment, its user-friendly interface, and its fault tolerance made it the ideal SCADA solution for this project. By choosing PcVue, the system integrator and Sarawak Energy were able to make a lasting social impact, helping bridge the gap between urban and rural areas.

Contact us to learn more about how PcVue can empower your next energy project!

RESULTS

Seamless integration: Over 60 monitoring points per site using PcVue SCADA

Community impact: Electrified more than 548 remote villages, improving the quality of life for over 15,006 families

Sustainability: Enabled access to solar energy and reduced reliance on diesel generators, cutting down environmental impact

Future-proofing: Plans for real-time monitoring and automated fault detection with the upcoming internet connection, enhancing long-term system performance and reliability

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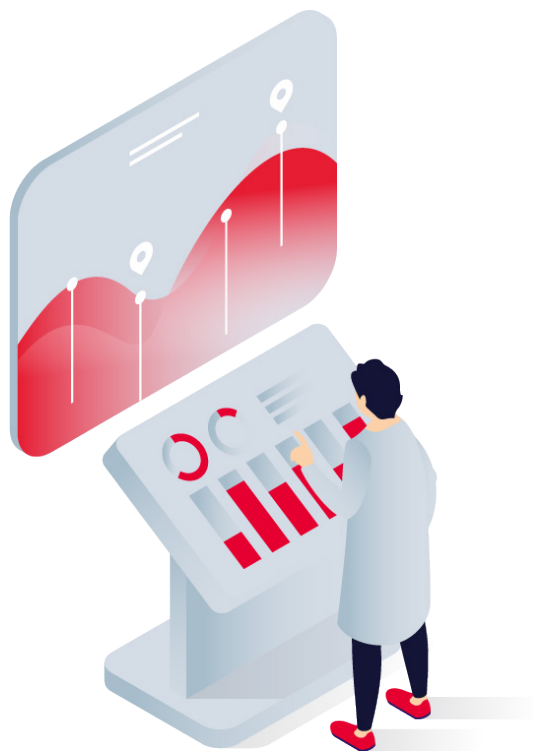
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