

Origin Energy



Central monitoring and dispatch
for improved reliability and efficiency

42 million

people with energy

more than

6.000 MW

across the fleet of

9 power plants

provide **13%** of

Australia's energy

demands

The Fleet

Origin Energy, a leading Australian energy provider, supplies more than 4.2 million people with energy. Origin Energy, a leading Australian energy provider, supplies approximately 4.2 million people with energy. They generate more than 6,000 MW across their fleet of 9 power plants and provide approximately 13% of Australia's energy demand. The plants are spread across Australia and are comprised of gas-fired power plants, a coal-fired plant and a pump hydro plant.

The Task

Australia's energy demand is characterized by high volatility and extreme weather conditions and can have a significant impact on energy production, therefore power generation needs to be dynamically adaptable to meet the actual needs. The joint challenge was to find a solution, which enabled centralized monitoring of the entire fleet and

operational dispatch of peaking plants in order to manage the decentralized energy production remotely, mitigate risks and guarantee a reliable supply of electricity.

The Solution

To meet these requirements, Origin implemented a Monitoring and Support Centre (MSC) in Brisbane. The Fleet Center Solution enabled Origin to support their fleet operators in continuously monitoring the individual plants as well as the entire fleet from a central location.

By gaining the additional transparency across the fleet, Origin has been able to identify and solve potential issues faster than before. Some plants can be controlled directly by Origin's Monitoring and Support Center by sending defined set points directly to the units, thus enabling re-dispatch decisions. Additionally, the Monitoring and Support Center is able to centrally manage fleet-wide shift planning, reporting and event-logging.



All information is embedded into its context and role-specific tasks can be assigned easily within the organization.

The transmission of information over the communication network takes place in milliseconds and information across the entire fleet is readily available. All of this information in a central location enables more informed decisions which can result in higher efficiency and reliability. By automating the processes Origin has also experienced an 80% reduction of manual operator actions. Additionally, through central operations, Origin has been able to achieve a 98% start-up reliability.

The Result

- **Improved transparency across the fleet:** Centralized monitoring, dispatch and operations management of single assets, plants and entire fleet
- **Increased efficiency:** Ability to quickly react to volatile demand, thereby reducing risks of energy production
- **Improved workflows:** Uniform shift planning, reporting and automated event logging
- Global leading performance and reliability levels across the entire fleet

“The Fleet Center is an investment that has already started to pay for itself.

It is surpassing all the requirements we set. Our performance now is substantially better than we previously experienced.”

Jim Cooley, Generation Systems Manager, Origin Energy

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