



Enhanced Renewable Energy and Storage on the Distribution Network

**DACS - a smart system delivering energy when
and where it is needed most**

Distributed Dispatchable Renewables

LGI is supporting the shift to cleaner, faster energy by rolling out more renewable power and battery energy storage system (BESS) projects across the distribution network.

Our renewable power projects already produce and supply responsive, resilient energy locally, when and where it is needed. These distribution scale projects are being delivered and relieving pressure on the grid today – smoothing the transition to a lower emission grid, while larger-scale transmission projects, which take longer to develop are built.

Integrating Battery Storage

By integrating a grid-connected battery energy storage system (BESS) with our power generation—excess renewables not required during the day, including ours and roof top solar, can be put to good use by storing and supplying it during times when it is needed during times of high demand. The BESS also provides the frequency control ancillary services (aka FCAS), increasingly needed for grid stability, as we transition to more more renewables.

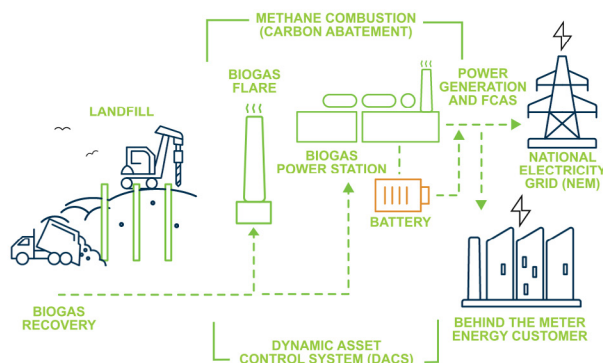
A new standard in performance and control

To unlock the full value of our renewable energy, landfill gas and BESS assets, LGI has developed its in-house Dynamic Asset Control System (DACs). This smart, proprietary control platform automates and optimises our participation in the National Electricity Market (NEM).

DACS continuously analyses live market data, AEMO forecasts, weather inputs, local demand and our landfill gas power generation to determine when to charge or dispatch power and/or FCAS. While the system runs automatically, LGI's team maintains full oversight, with the ability to view and override bids or dispatch commands if needed.

What DACs Does

- **Simultaneously optimises using our assets** (power generation, landfill gas and batteries) in the electricity markets including Spot, FCAS and portfolio effects (Caps, Hedges and PPAs).
- **Predicts prices with machine learning (ML)**, trained with data including AEMO pre-dispatch (5min & 30min), regional power demand forecasts, weather, local event triggers for fully automated bidding and dispatch into the NEM.
- **Improved access to data and automated decision making**, can respond in milliseconds, faster than we can! Operators can still intervene if necessary with purpose built operator interfaces.
- **Integrates OEM data and control acquisition** with API based control for remote monitoring and access, plus AEMO FTP and API integration for seamless bidding for all generators and batteries.



What DACS Allows Us to Do

Question

Make Better Decisions

Perform the functions we've previously done, faster and better by processing large quantities of data and making decisions automatically with pre-defined rules.

Fastforward

Respond Faster

Respond rapidly to market needs which enhances our ability to create value from:

- “arbitrage” in the AEMO Spot market to buy low and sell high so we are “time shifting” energy to when it is most needed. Achieves higher than average prices in the NEM for every MWh we supply and cubic meter of gas we capture.
- Frequency control services or FCAS help maintain the electricity grid frequency, essential for reliable, smooth operations.
- Meeting contractual obligations under power supply agreements and financial contracts, e.g. Caps or Swaps.

THUMB UP

Use Assets Better

Optimise asset utilisation, e.g. by still generating electricity in low price periods by storing it in the battery, instead of turning the engines off as frequently. This extends engine life and reduces operations and maintenance costs.

How DACS Along With More Distributed Dispatchable Renewables and Storage Benefits Electricity Users

- **Higher network utilisation** which will result in lower costs for customers.
- **A more reliable grid** with FCAS maintaining frequency needed for grid stability.
- **Increased use of renewables** as batteries time shift renewables to peak times.
- **Faster and smoother transition to renewables** and a two way grid as distributed generation and storage can be deployed faster than larger, transmission scale assets.

Multiple Revenue Streams, One Smart System

With DACS in place, LGI batteries contribute across multiple markets:

- **Arbitrage** – charge when prices are low, discharge when high
- **FCAS** – respond rapidly to grid stability events
- **Caps and hedges** – manage peak price risk
- **Operational savings** – reduce generator wear and fuel use

This approach turns a landfill site into a flexible, high-performance energy asset capable of responding to changing grid conditions in real time.

A scalable model with proven results

Battery integration and optimisation with DACS improves more than revenue—it extends the life of the power generating assets and improves long-term efficiency. The model has already been proven at LGI's Renewable Hybrid Project at Bunya in Queensland, is being integrated into our Renewable Power Project at Canberra and is being prepared for broader deployment across our national portfolio.

These systems are scalable, future-ready solutions for responsive, reliable, clean energy delivery at the local level.



**CLEAN ENERGY &
CARBON ABATEMENT**

**LGI is proudly
engineering a
clean energy,
zero carbon
future —one
landfill, one
solar panel
and one grid-
scale battery
at a time.**

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