

The background of the entire page is a photograph of several high-voltage electrical transmission towers and power lines stretching across a landscape under a twilight sky with soft purple and blue hues. The Aggreko logo is positioned in the top left corner.

aggreko

OUR SECTORS

The best-in-class utility power solutions available today.

Energy starts here.

We have experience bringing plants and end users online, providing substantial back up power during maintenance and improvement works, and in providing rapid-response power options for grid support following emergencies and storms.

Turnkey doesn't mean off-the-shelf.

Our expertise in utility power solutions is industry leading.

We take the time to understand the complexities of the job in hand, we gather input from you and other project parties, before we work out the best approach, then deliver, install, and monitor the best kit for the job.

Our electrical engineers and industry experienced technicians provide custom-designed power systems designed to meet your exact needs and know intimately how vital it is to help reduce outages, avoid customer disruption, and always maintain the highest levels of worksite safety.

With us, you get a full end-to-end service that supports your business.





No two plants are the same. Neither are our power solutions.

Every type. Every time. Peace of mind.

We provide engineered power, cooling, heating, and compressed air solutions for every type of utility plant maintenance, commissioning, and emergency response.

- T&D
- Hydro Plants
- Coal Plants
- Natural Gas Plants
- Solar Plants
- Wind Farms
- Nuclear Plants
- Wastewater Facilities

Engineering and Design

We customize your power package to your exact needs and power requirements. Each one designed to give you the optimum operating efficiency for the on-site conditions.

Mobilization

We are masters of the rapid turnaround. Getting power to where you need it fast is just one of the areas we excel. We'll get you up and running in the shortest time possible.

Commissioning

Your power project comes ready to go. We deliver the complete turnkey solution so all aspects of the work including commissioning and testing, has already been handled by our expert technicians.

Generators

Our generators are built for continuous operations for every climate and sector. Each modular system features load-sharing and auto-synchronizing built in for easy operational ability between the power project and the grid.

Voltage and Fuel Options

All power is delivered to the exact voltage you need via transformers and switchgear, and with a choice of diesel, gas, heavy fuel oil, or solar thermal hybrid fuel to run the equipment – you can also choose the best fuel type to suit your needs.

Maintenance and Operations

Our Aggreko technicians remain on-site to operate and maintain the equipment, reducing the demands on your own staff.

Every generator is also monitored remotely through a SCADA system to guarantee uninterrupted power to your project.

High demand. Full supply.

Our multi-megawatt power stations can be operational within a matter of weeks, generating baseload power to **overcome capacity constraints and remove the gap between demand and supply.**

Peak load demands can cause huge disruption to grids. These interruptions to the power supply can easily be overcome with Aggreko's grid capacity support.

When power interruptions occur, it causes damage to customer confidence, businesses and supply chains, and the local economy as a whole. Outages can occur for a variety of reasons.

- Cyclical patterns of weather driven factors such as low winds or drought.
- Increased power demands due to expansive industrialisation of a region.
- Aging or failing permanent infrastructure.
- Remote industrial facility locations placing pressure on unreliable utility sources.

Whatever the reason for your shortage, our power plant solutions provide reliable, cost-effective power to supplement your grid, **whenever you need it, for as long as you need it.**



Grid on Demand improves capital productivity and safety

CUSTOMER
Major IOU

LOCATION
Western Canada

SECTOR
Utilities

KEY FACTS

6 months
Expedited project time

4,000
Reduced hours of live line work

30%
Reduced cost of project

THE CHALLENGE

Meeting capital targets and keeping the customer energized

A major IOU in Western Canada was looking to complete a reconductoring project on a main 25 kV radial feeder. This feeder was the only source of power for a sensitive customer and a small community. To ensure customer satisfaction the initial plan was to complete the work live. This was a viable option although the utility's live-line standard working

procedures (SWP) would require more time and more labor hours. This would not only drive up the cost of the project, but would also not meet their capital targets for their year. Instead of deferring capital the utility reached out to Aggreko to see if we could help.

THE SOLUTION

Grid on Demand safely isolates the system and keeps power flowing

The utility consulted with the Aggreko commercial team to see if Grid on Demand would be a viable option. Through mutual consultation it was found that using Grid on Demand would speed up the critical path of the reconductor project by 6 months and improve capital efficiency by approximately 30%.

Once the commercial assessment was completed the Utility needed to ensure the stability of the Grid on Demand system. Aggreko technical teams consulted with the utility to ensure that all protective devices were properly coordinated with the utility's distribution system.

OUR DIFFERENCE

Grid on Demand helped the utility work safer, while expediting grid resiliency and improving capital productivity

THE IMPACT

Protecting capital expenditure by improving capital efficiency

- The customer discovered that using Grid on Demand over live-line work:
- Improved capital productivity – completed the project 6 months sooner with 50% less crew hours
 - Improved capital efficiency – reduced the cost of the project by 30%
 - Reduced safety risks – removed 4,000 hours of live line work

Not down. Not out. **No** **exceptions.**

Every transmission line and substation requires ongoing maintenance, inspection, repair – and in many cases upgrading – to keep them performing optimally.

Key to avoiding power blackouts, brown outs, and the subsequent customer dissatisfaction, is careful review and planning of your maintenance schedules to ensure they are compatible with peak demand.

During maintenance, our power plant solutions come into their own.

We supply high-voltage switchgear and transformers that sync with the grid to augment or replace the power, resulting in less downtime, less cost, and less time to completion of your project.

These can also be used to power remote areas that are not yet connected to the grid network.

**Every solution is tailored to
your exact project needs
with custom-designed
power plants that are built
for continuous operation.**



Helping T&D Companies realize capital and expedite grid improvements

CUSTOMER
National Grid

SECTOR
Energy/Utilities

KEY FACTS

Capital

Deferred for 5 years

0

Spills and human recordable events

0 SAIDI

& SAIFI impact

THE CHALLENGE

Transmission lines pole replacement without impacting the customers

A radial sub-transmission systems poles were at the end of life and at risk of failure. New poles had been in place for over 5 years although they could not be re-conducted without an 8 hour outage.

The utility was looking for a way to complete their capital project while not impacting their customers or their

SAIDI & SAIFI metrics. When the field operations team heard what Aggreko was providing for the one system they identified, another location with asimilar load & voltage.

By bundling the jobs back to back, the utility was able to dramatically improve their productivity.

THE SOLUTION

Providing temporary power generation to avoid unnecessary grid outages

With proven experience providing temporary power generation with no negative impact to reliability metrics, choosing Aggreko was a no-brainer for the utility.

We were able to safely provide temporary generation at 4,800V for both feeders. During the project, our engineering team ensured the system was running flawlessly.

We maintained communication with National Grid while mobilizing, testing, running, and demobilizing the equipment. The biggest task was providing clear and concise directions with their workers, the majority who had never worked on similar temporary power generation projects.

OUR DIFFERENCE

Enabled capital deployment for the utility customer's project

THE IMPACT

Finally closing out a capital project that had been going on for years

By using Grid on Demand maintaining consistent communication with our engineers and National Grid, Aggreko was able to synchronize on and return power back to the grid with 0 negative impact to SAIDI &/or SAIFI.

Our quick solution enabled the utility to complete their planned project with 0 Customer Minutes of Interruption and no negative impact to their customer satisfaction.

In fact, Aggreko helped the customer deploy capital for their project most efficiently while staying under budget.

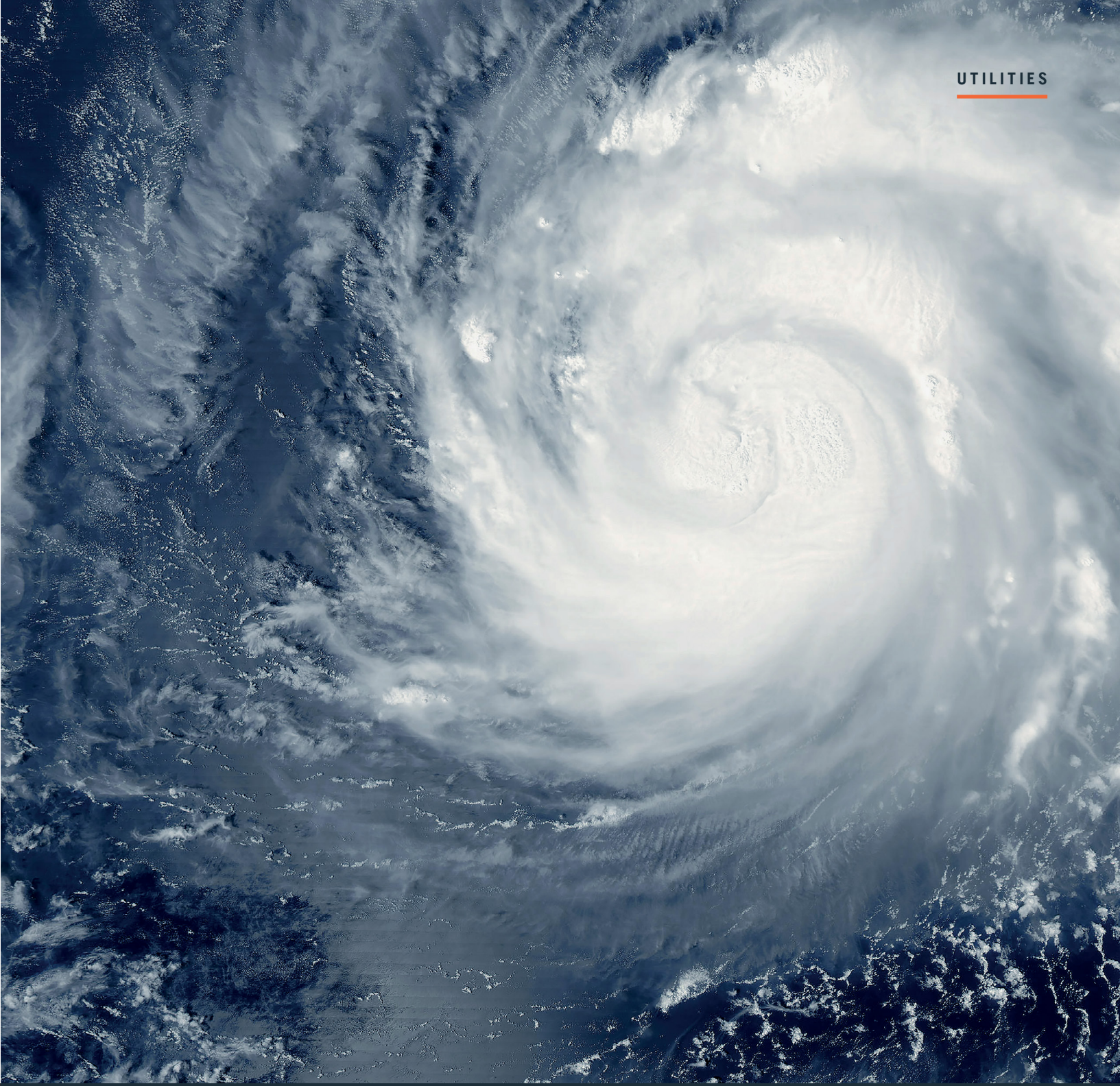


Preparing for the known unknown

Every year, thousands of homes, and businesses experience power outages for hours or days because of emergencies and natural disasters.

Many utility power suppliers and distributors reactively call for support during time of an issue, resulting in increased costs, increased time to fully-restore power, and a reduction in cost-efficiency due to over specification for the emergency response.

With our Grid on Demand, you can increase your emergency preparedness measures and see significant improvement in your Estimated Time to Restoration, reliability metrics, cost savings, and customer satisfaction.



We use historical data to review the **high-risk areas** where we can align the right resources in the most vulnerable areas.

Energizing customers after hurricane Laura

CUSTOMER

JDEC (T&D)

LOCATION

Southern Louisiana, USA

SECTOR

Utilities

KEY FACTS

44.5 MW

Of natural gas generation

2.5 MW

Of diesel generation

5 sites

For distributed generation

THE CHALLENGE

Improving grid resiliency without taking outages

A small T&D Cooperative in Southern Louisiana's transmission feed was decimated after hurricane Laura and the transmissions lines would need to be completely rebuilt. This provided the opportunity to harden and modernize the transmission systems which would improve reliability for future storm events. So instead of rushing to rebuild, the utility looked at alternatives to

keep their customers energized for approximately 6 months while they developed a more resilient grid system than before.

Due to the scope and scale of the transmission project, the small cooperative would not have the ability to pay for such an undertaking, so they would require federal government assistance.

THE SOLUTION

47 MW of reliable energy powered by multiple fuels and technologies, reducing costs and emissions

Since Aggreko had the availability of multiple fuels and multiple technologies we were able to provide a complete analysis and a solution that would provide the best outcome for the utility, helping them reduce fuel costs and emissions.

Aggreko determined that setting up 5 distributed generation sites would be the best solution:

- 44.5 MW of natural gas generation
- 2.5 MW of diesel generation
- Installed at distribution substations
- 13.2 kV of continuous power
- Protective devices to operate like the utility
- Ensured the protection of the distribution system
- Aggreko's partners provided virtual pipeline gas (VPG) in a liquefied state (LNG) at these sites

By using LNG we were able to reduce NOX emissions by 85%, CO emissions by 50% and CO₂ emissions by 40%.

OUR DIFFERENCE

We're by your side at every step of a complex project

THE IMPACT

Providing the same protection as transmission power

It was evident to the utility that the other competitors on the bid understood their own technologies although; Aggreko's experience, in running grid quality power projects would prove to be the most beneficial to ensure reliability of the system while lowering total operating costs of the project.

The intent of the project was to provide power at the same reliability or better than the grid. Aggreko's Technical Services and Engineering (TSE) team was able to design a system that would provide the same protection as transmission power, by providing calibrated protective devices to keep the system up and running during transient

faults or to protect the supply and distribution system during a real event.

Using LNG-driven reciprocating engines showed a significant advantage compared to turbines, by improving specific energy close to 75% in times of low loads, lowering the total fuel costs and reducing emissions.

LNG provided advantages for fuel security and lower total costs when compared to other VPG solutions.

LNG reduced the fuel cost by close to 10% and reduced the refueling rate by 44% during regular load profiles.

For energy... **start here.**

We're always looking for new ways to be progressive with our power solutions, to ensure that your project needs are met, and your expectations exceeded.

We deliver power how you need it, when you need it, wherever you need it.

**Get in touch with us to discuss
your utility power options.**

833 269 5714

#ENERGYSTARTSHERE





Power **how** you need it,
when you need it, **where** you need it.

