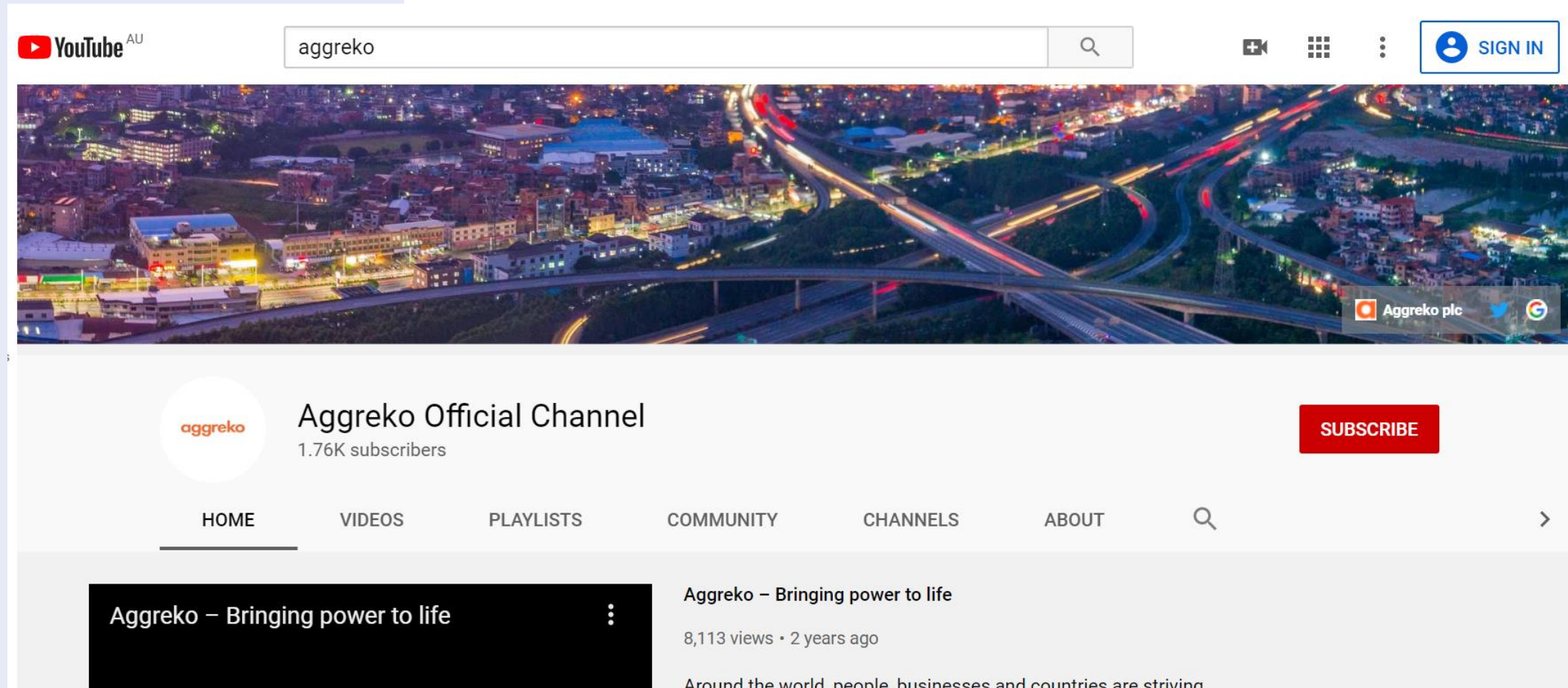


**aggreko**

**Power, cooling and heating  
for the Oil & Gas Industry**



**Aggreko** has an official YouTube channel where we present information, updates and short video captions on a range of solutions and case studies that have been delivered globally.



**Aggreko** is uniquely qualified to provide generator rental and industrial heating and cooling for the Oil and Gas industry in Australia. We deliver vast experience in on-shore and off-shore services and our generator rental equipment is tailor made to suit the requirements.

## KEY FACTS

**6,659MW**

Average MW on hire excluding hybrids

**£1,760m**

2018 revenue

**195 locations**

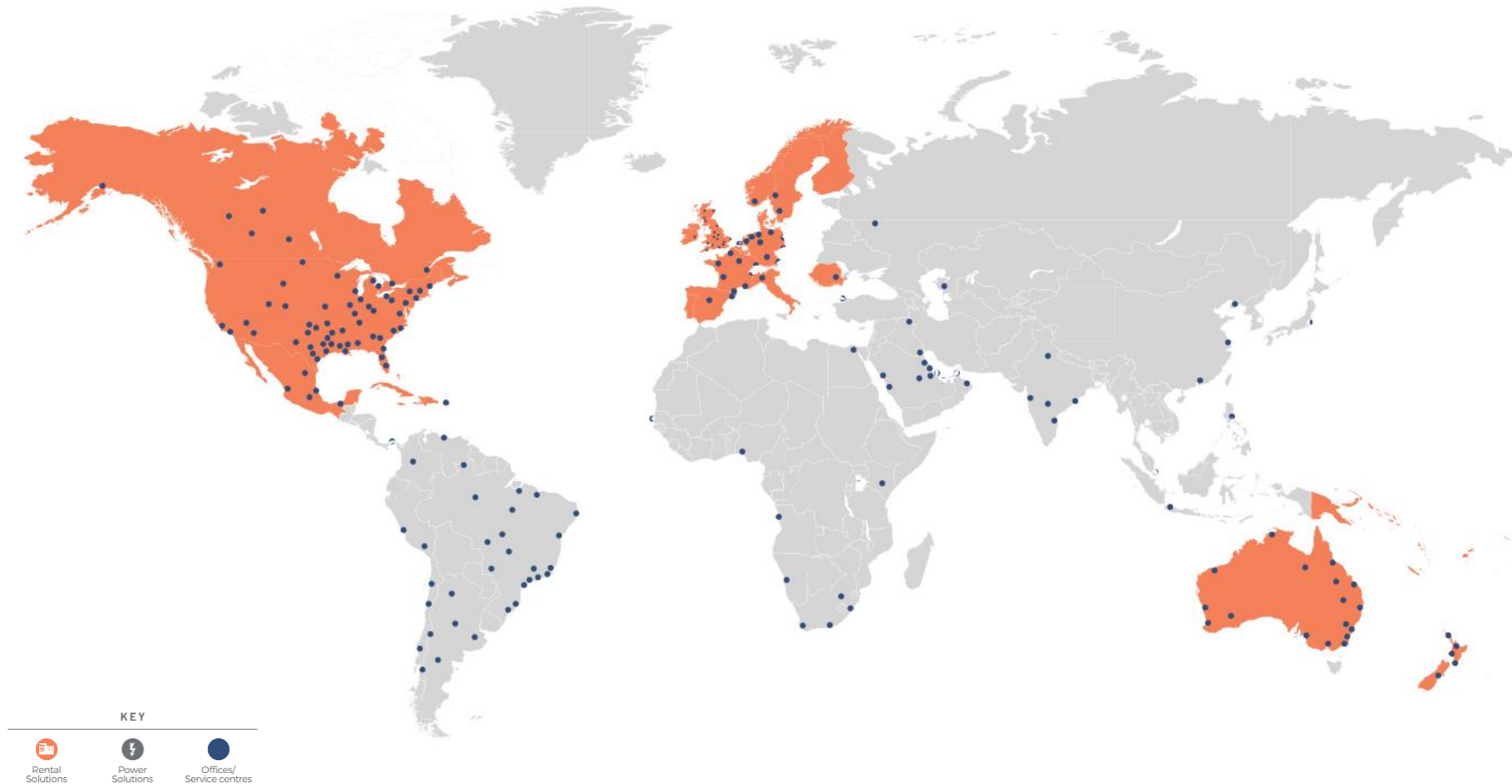
Sales and services centres

**6000+ employees**

Permanent and temporary employees

**80 countries**

Where we operate



A global company, listed on the London Stock Exchange

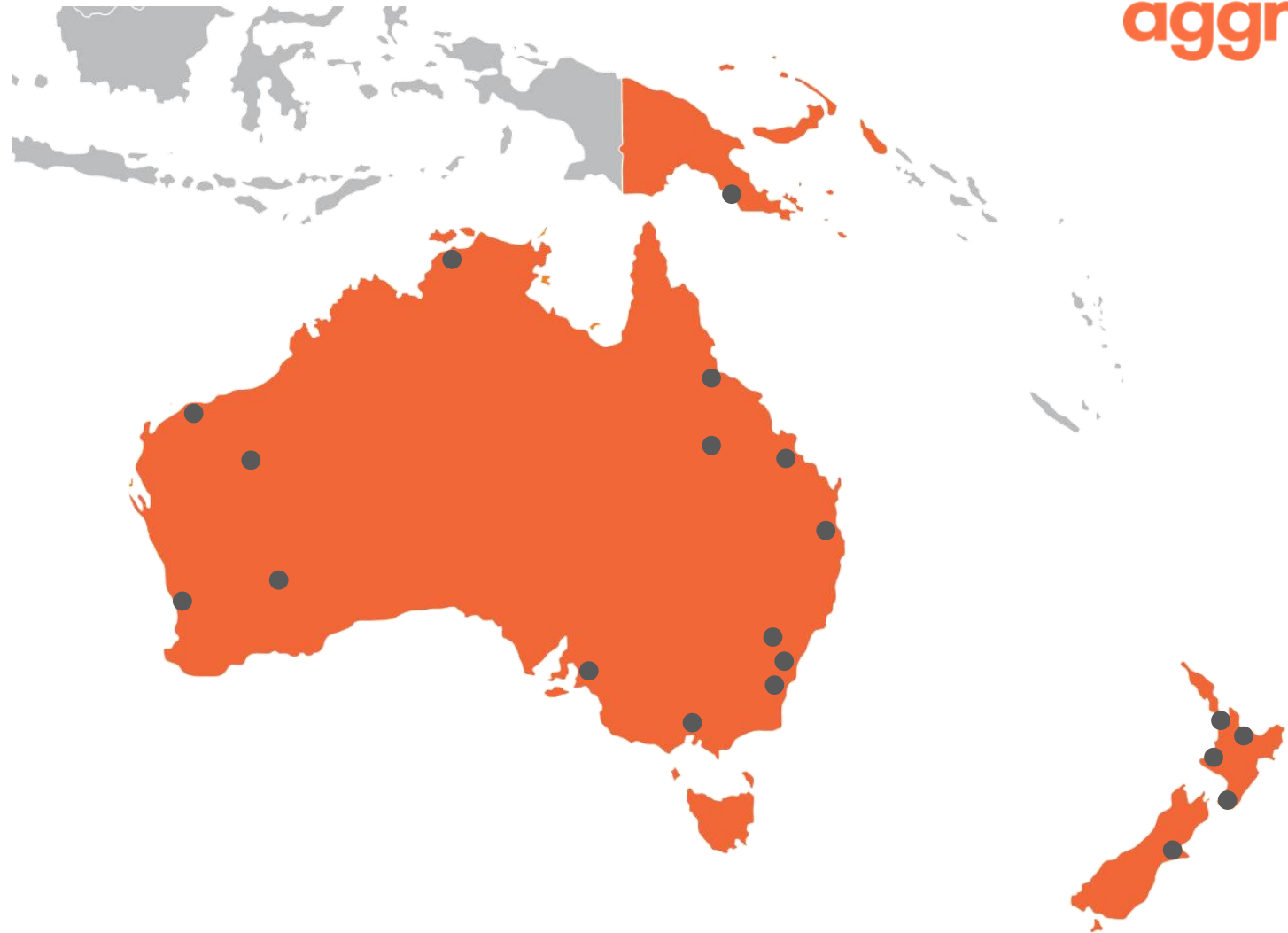
Local expertise to help our customers make their difference

## AUSPAC LOCATIONS

Adelaide  
Brisbane  
Darwin  
Emerald  
Gladstone  
Kalgoorlie  
Karratha  
Melbourne  
Muswellbrook  
Newcastle  
Newman  
Perth  
Sydney  
Townsville

Auckland  
Christchurch  
New Plymouth  
Tauranga  
Wellington

Fiji  
Papua New Guinea  
New Caledonia



Flexibility, reliability and availability

Our service centres are strategically positioned to respond to all your temporary power and temperature control needs

## WHAT WE DO

### Our products

The products we use are much more than big boxes – they power cities, they cool rockets and help communities thrive.

### Power

Whether a start-up mine is seeking a multi-megawatt power plant while a permanent grid is established, or an existing mine site is requiring power for a shovel walk, we have the experience and know-how to get the job done.

### Heating & Cooling

When it comes to temperature control we're the ones you want on your team, because we're also experts in providing stable, ambient temperatures for all types of circumstances – essential for health and working conditions – and to enable operations to run safely.



### Our technology

Diesel Generators

Gas Generators

HFO Generators

Solar Diesel Hybrid

Heat Exchangers

Load Banks

Chillers

Dehumidifiers

Air Conditioners

Cooling Towers

Distribution Boards

Transformers

Air Handling Units

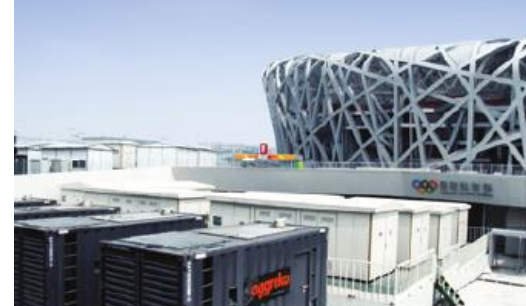
Heaters

## WE OFFER EXPERT SUPPORT

No matter where you are in the world or how remote or challenging your location.

Our services are designed to help things go exactly to plan. From making sure you've got peace of mind with detailed contingency planning should your needs change, to remote monitoring so you can be sure our equipment will always work just the way it should.

We've got everything covered.



## **Our tailored services**

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Contingency planning

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Emergency response

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Fuel management

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HCFC phase out

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High-voltage power

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Power plants

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Remote monitoring

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## OUR 24/7 SUPPORT

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The data we collect from the monitoring and GPS software installed on our equipment helps us **monitor, assess and resolve alerts** – so you avoid any downtime.

# Remote monitoring: We've got you covered

Although emergencies are rare, **safety is our top concern**. We're ready to step in if anything critical happens.

We use our **remote monitoring service** to anticipate problems and help you stay ahead of the game – meaning you get the best from both our people and our equipment.

We're alerted if you run low on fuel, if our equipment needs a routine service, or if there's an emergency.

Then we get to work – fast.

We diagnose the problem and work out the best way to fix it. And we do it all with a personal touch.

## Why Aggreko?

- **Round the clock monitoring** – every day of the year
- **Rapid response** to emergencies
- **Proactive** equipment maintenance and fuel service



## WHAT WE CAN DO FOR YOU

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We have the solution to your project needs. From individual generators, to completely engineered power, heating and cooling packages, we can do it all.

From individual generators to micro-grids which can provide power to an entire project site. We can also customise a unique solution for your project which will reduce costs and improve efficiency.

Whether you need a few chillers to cool camp accommodation or you're looking for an engineered cooling package to reduce humidity of gas before transport, we're able to support you.

When you need to know if your power package is ready for operation, call us. We provide load testing services through our team of experienced technicians who can help you ensure that your power supply is robust and reliable.

In 2013 Aggreko provided over 880 MW of power to the oil and gas industry worldwide.

## APPLICATIONS

We are uniquely qualified to provide generator rental and industrial heating and cooling for the Oil and Gas industry in Australia. Aggreko delivers vast experience in on-shore and off-shore services and our generator rental equipment is tailored made to suit the requirements.



## Our Oil & Gas industry applications include:

- Immediately available multi-megawatt turnkey rental generator packages to support production during planned and unplanned outages
- DNV Crash Frames for offshore lifting standard DNV2.7-1
- Offshore certified personnel to operate and maintain equipment throughout the duration of the project
- Rental generator packages complete with integral Fire & Gas detection and suppression systems
- Specialist Resistive and Reactive load banks for commissioning and testing of black start and main turbine generation packages within onshore facilities and on-board offshore installations
- Emergency power back up
- Heating, cooling and ventilation for accommodation facilities

## ONSHORE APPLICATIONS



### Drilling

- Power for drilling equipment



### Artificial lifts

- Micro-grids for powering several lifts in one area
- Distributed power for remote lifts



### Pumping stations

- Power for remote pumps



### Separation and compression facilities

- Short-term rental power for remote facilities during scheduled maintenance
- Power provision while awaiting grid connection
- Load testing of power packages



### Worker camps

- Power for accommodations and outbuildings
- Comfort cooling

## Construction and commissioning

### Power

- Temporary power during construction of platforms or other facilities
- Power for hook-up and commissioning
- Load testing services for main power generation

### Temperature

- Temperature control for work in confined spaces
- Space heating of structures or process heating
- Comfort cooling for increased operational time
- Heating and cooling for accommodation



## Production and decommissioning

### Power

- Rapid mobilisation and help with recovery following a main power generation failure
- Planned maintenance support
- Assistance with contingency planning
- Temporary power during decommissioning of platforms or other facilities

### Temperature

- Environmentally friendly water and air-cooled chillers for ambient temperature control or heating, ventilating and air conditioning applications
- Low-temperature process chilling
- Cooling towers with capacities sized to operational needs
- Air conditioning, including low-noise options
- Space heating of structures or process heating

## INDEPENDENT POWER PRODUCER

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- **Ensuring 100% power production**
- **Built-in redundancy**
- **Load management**
- **24/7 Operations personnel**
- **On-going supply chain for O&M parts**
- **On-site storage of critical parts**
- **Local expertise with team in Australia pacific**
- **Integrated Power Management System**
- **Accredited operational procedures**





## GOLD FIELDS, AUSTRALIA

### Situation

The Granny Smith gold mine issued a tender for the provision of a 24 MW gas power station for the next 10 years.

At the same time a gas line was being built close to the mine presenting the opportunity to spur off high pressure gas.

### Solution

Aggreko provided 24 MW gas power station package.

A heat recovery system was also implemented which takes heat from the engines and uses heat exchangers to heat the gas.

### 24 MW

Power generation

### 20-foot

Containers used

### 10 year +renewals

Contract



[Watch video](#)

[Virtual tour of power station](#)

## AURELIA METALS, AUSTRALIA

### Situation

Due to the isolated location of the mine site, the decision was made to install a standalone power station to supply the mine camp and operations. There was no facility to connect to mains power as the mine was so remote, and mains gas was off-limits too.

### Solution

Working closely with the customer, we created a custom-built power station using our efficient gas driven generators, combined with the first ever mining power station using a virtual pipeline of LNG.

**5 MW**

Of gas power

**100**

Room camp

**Crusher & conveyor belt**

Power supplied



[Watch video](#)





## RIO TINTO, AUSTRALIA

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### Situation

Rio Tinto's A\$2.6 billion Amrun bauxite project on Cape York Peninsula in Far North Queensland required a reliable and cost effective power plant for the life-cycle of the mine.

### Solution

The 20 MW Power Station includes 22 diesel generators and four transformers. Using the company's mining sector expertise, Aggreko created a solution which includes engine efficiency upgrades and a heat-recovery system to lower the cost of energy, which will optimise all aspects of the power station.

**20 MW**

Of power

**15**

Year contract with 5 year option to extend

Aggreko Process Services is about working with our clients to produce a viable solution for unique problems. Our solutions are:

- Not a specific product offering but apply to a specific process application.
- A combination of our equipment, engineering, and software.
- A collaboration with our clients needs and expectations.

Our Aim is to engineer a temporary process solution that would add value by:

- Resolving process temperature and pressure related bottlenecks.
- Defining turn-key temporary engineered solutions.
- Bringing immediate value and economical benefits.
- Building a history of 'Proven Solutions' with measurable results

## WET GAS COMPRESSOR COOLING

- Reduce cooling fluid temperatures.
- Bypass scaled / fouled processes.
- Improve heat removal processes.
- Increase capacity during summer months.

Case History: The Cat cracker unit could not maintain higher rates in the summertime due to insufficient cooling water to the water jackets on their production wet gas compressor.

Cooling tower water normally flows through these water jackets. The refinery experienced a significant drop in production and a shutdown was still five months away. Aggreko brought in a 600kW air cooled fluid chiller and the plant provided a slipstream from the water tower going to the compressor. Aggreko was able to remove an additional 9°C of heat from the tower water before entering the compressor. The plant resumed normal operations until the scheduled shutdown, where the necessary repairs were made to the wet gas compressor.



## OVERHEAD CONDENSER COOLING

- Reduce system pressure
- Increase efficiency
- Increase throughput

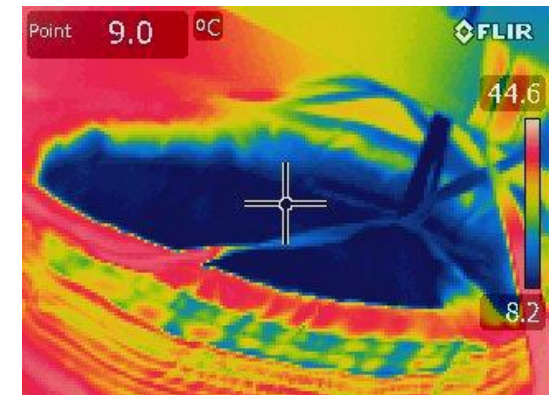
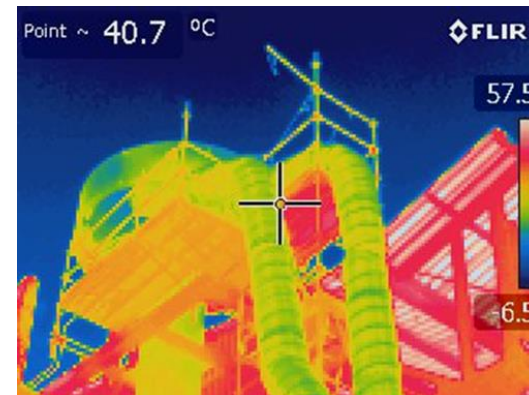
Case History: A refinery was experiencing cooling problems on their FCCU overhead condensers which resulted in high temperature and pressure problems throughout their system. Initially, Aggreko provided a cooling tower on the overhead condensers eliminating the temperature and pressure problems. A more permanent solution was achieved by cooling the hydrocarbons directly with Aggreko equipment rather than supplementing the cooling water. The plant provided Aggreko with 20 l/s which was cooled to 50°C and delivered back into the top of the receiver. The result was a temperature well below 38°C and this was accomplished with half the equipment than the previous year.



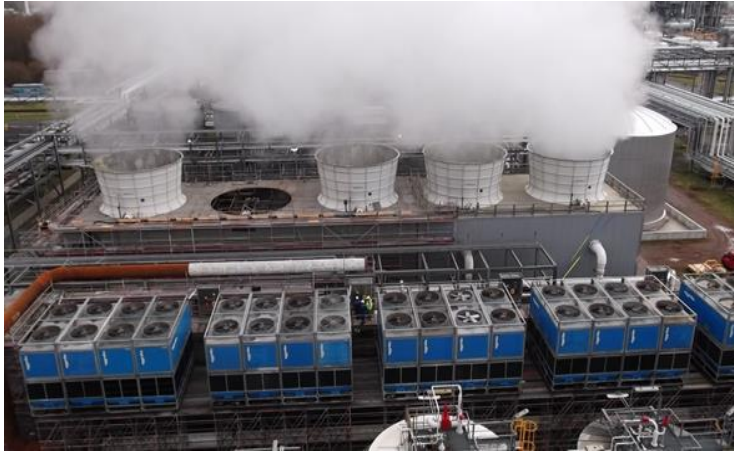
## DENSE AIR INJECTION

Dense Air Injection is a term for cooling the intake air for a main blower or the suction of an air compressor to maintain original performance parameters and enhance production, particularly in the warmer months.

Case Study: A customer was looking for a way to maintain production during warmer weather. As ambient temperature kept on rising, the production decreased which resulted in derating across the process. By pre-cooling the air before sending it through the intake, the customer was able to input more TJ's of gas into the process increasing production.



OTHER APPLICATIONS



**Cooling Tower Takeover**



**Temporary Heat Exchanger**



**Air Conditioning Support**



**Back-up Chiller**

## WHY CHOOSE AGGREKO?



### High quality reliable equipment

Aggreko equipment is designed for offshore operations and assembled in our world-class, ISO 9001 : 2008 accredited facility in the UK. Our turn-key services solutions offer the highest maintenance standards and a focus on health, safety and environment practices that help to ensure equipment reliability for your mission-critical operations.

### Expert engineering support

Aggreko has capable, experienced staff who work with you on-site to deliver planned maintenance support, assist with contingency planning, deal with emergency situation or help with recovery after downtime. When you choose our rental power and backup equipment, you benefit from expert support and exceptional service standards.



### Rapid response for minimising downtime

Operating from more than 200 services centres worldwide, we offer round-the-clock accessibility, excellent response times and the world's largest containerised fleet. Our standardised, modular equipment is easily transported by land, sea and air. For more complex project requirements, we can design and build bespoke systems at our UK manufacturing facility. This unrivalled in-house capability helps to ensure that customers get the best possible solution in the shortest possible time.

### Seamless, turn-key services

Our industry-proven products and experienced people can help you to maintain safe and efficient operations, even when deadlines are tight. For example, by calling on the skill at our UK manufacturing facility, we recently delivered a high-specification, bespoke system designed to meet stringent safety requirements in a matter of weeks.



### Flexibility and unrivalled fleet capacity

Having the world's largest fleet of offshore certified generators means that we can provide the equipment you need anywhere in the world. Vessels involved in towing operations can collect equipment when they reach their working port rather than paying for the hire of unused equipment during travel. And, as we operate globally, we offer one-way rentals so that generators can be collected and dropped off in different locations.

### Global reach

Fast, flexible solutions keep your operations on track and help to ensure project profitability wherever you are based. Aggreko operates from more than 200 locations worldwide and has a significant presence in all the world's major oil and gas hubs. This helps to eliminate the delays caused by the long distance delivery of equipment and the travel time required to bring trained personnel from other regions.

## WHAT WE CARE ABOUT

### Making a difference

From the people we hire, to our training, our can-do attitude and attention to detail – we do things with a passion that sets us apart

#### People

Our people are more dedicated, experienced and pioneering. That's no coincidence. It starts with who we hire.

##### Unique spirit and values

We're a global company, but like a family. We all share the same passion – working together to create a difference for each other, those we serve and the communities that rely on us to get the job done.

##### And a unique approach

Every job is different, so we listen first to what you need. If it's a large project, we'll visit your site and talk in depth with your team to map out the details. Then we get to work – fast. Our experience means we plan ahead, putting systems in place that save money and benefit your business overall.



#### Innovation

The world faces an estimated power gap of 100 GW by 2020, so quick, scalable power is set to be even more crucial.

##### Looking ahead

We continually innovate to meet the future with confidence – supplying power on demand, anywhere in the world. And we do it all while developing ways to be as kind as possible to the environment – we know what our responsibilities are.

##### New tech, new products

From small beginnings, we've become the global leader in what we do – not just in size, but in the range and efficiency of products we offer. We are constantly developing new products and exploring new technologies. We also work with researchers and students at leading universities to find answers to the energy challenges of the future.



#### Technology

With every year that passes, we look to cement our status as the standard-bearer for next-generation power development.

##### Quiet, clean, efficient

We're working to make our rental equipment cleaner, quieter and more efficient. Our generators run at market-leading levels of efficiency, have a reduced impact on the environment and produce 14 per cent more power at 12 per cent lower cost per MW than standard generators.

##### Flexibility with fuels

Diesel need not be your first choice. In fact, in many parts of the world it's not even an option. We've helped customers switch to natural gas while still offering HFO, solar-diesel hybrid and more. We've also adapted generators to run on biodiesel and non-standard gases, so we can use the best and lowest cost fuel available.



#### Responsibility

We understand that what we do comes with the responsibility to take care of the people and places where we do business.

##### Caring about what we do

What we do – and the way we do it – has an effect. We take that responsibility seriously. That's why we focus on ensuring we have a positive impact – conducting ourselves ethically, giving thought to the environment and supporting our customers and the communities we operate in.

##### Working responsibly

Health and safety is always our top priority. That's why, wherever we operate we fully comply with regulations and follow strict standards. We contribute to the communities we partner with – from hiring and training local people, to investing in children's welfare, education and health.

## SAFETY FOR LIFE

### **Safety** for life

**Safety for Life**, our all-encompassing health, safety and environmental programme, is an **integral part of all of our operations** in all parts of the world.



Occupational health and safety are critical issues for mining customers worldwide, which is why we adhere to the highest standards around the globe.

We have a risk management framework designed to eliminate or manage risks, delivering continuous improvement.

We are clear on HSE rules, standards and processes, with clarity on accountabilities and responsibilities.

We are committed to drive best practice and as a minimum comply with legal requirements, lead the game to deliver results we can be proud of.

We drive accountability through communication, setting targets, delivering on plans and actions, measuring performance, and providing assurance that whatever we report is what happened.

**We ensure working with Aggreko is always a Safe Experience**

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aggreko