

aggreko

How Can Mining Operators Drive **Decarbonization** and Fulfill **ESG Targets**?



KEY FACTS

9,700 MW

Power in our fleet

£1,613m

2019 revenue

190 locations

Sales and services centres

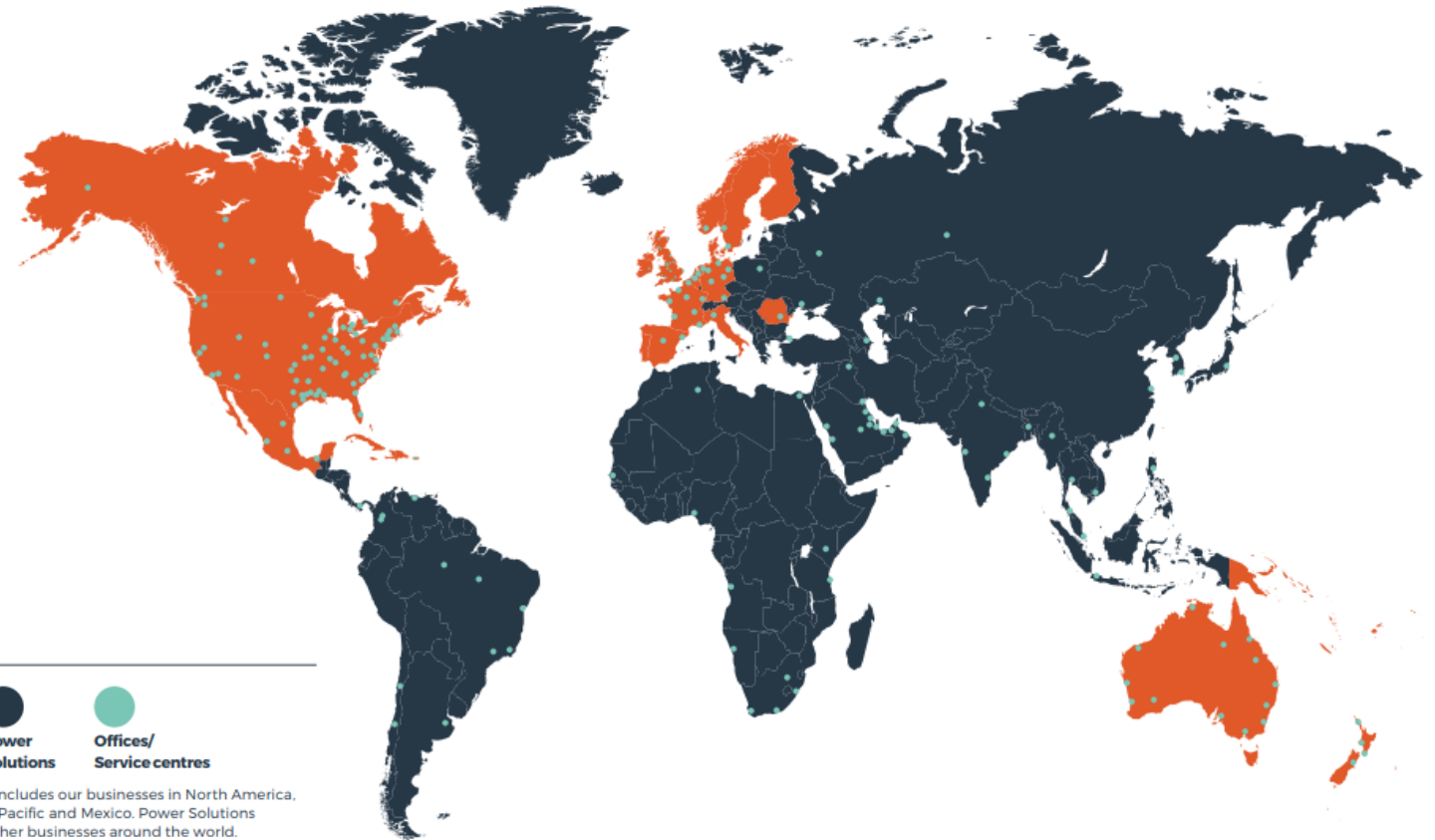
6,000+ employees

Permanent employees

79 countries

Where we operate

Local expertise to help
our customers make
their difference



Our energy transition commitment:

Aligning with the Paris Agreement, limiting global warming to 1,5°C

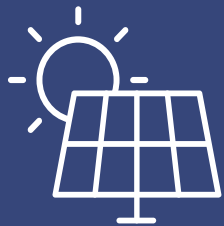
- By 2030
- Reduce diesel fuel used in customer solutions by at least 50%
 - Reduce local air quality emissions of those solutions by 50%
 - Achieve net-zero emissions across our business operations



Reducing cost



Reliability



Decarbonisation



ESG targets

Increasing awareness on ESG targets and carbon performance by down-stream commodity users, insurers and investors

Electrification of equipment important trend resulting in higher power demand

Hybrid solutions offer multiple benefits

- Lower Cost of Energy
- Lower Carbon Emissions
- Increased Reliability
- Fuel Hedging
- Lower Running Hours of Thermal Equipment

RENEWABLES ARE PICKING UP PACE

Use of renewables is widespread and growing, enabled by

- falling costs
- availability of PPAs
- emergence of hybrid models

We see huge potential in on-site hybrid power systems, combining thermal generation with renewables and storage

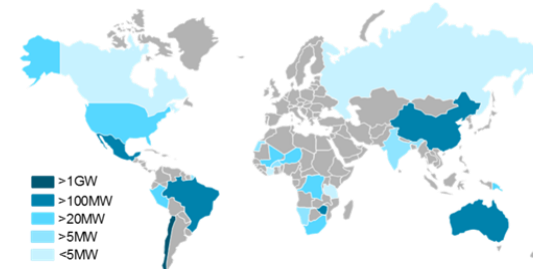
Double risk on technology integration can be seen as major challenge

Aggreko has an answer for all of that



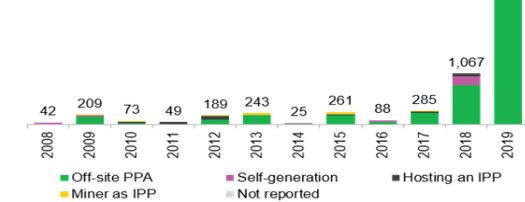
5.9 GW of renewable capacity now serves the mining sector*

Installed capacity of renewables serving mining sector (2019)



Growth in activity has been largely achieved through off-site PPAs, along with some self-generation

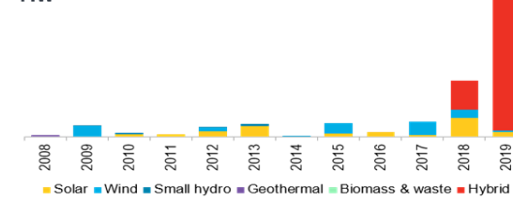
Global RE procurement in mining by mechanism (2008-19) MW



Large jump in 2019 due to 2 major PPAs in Chile for AA (3 TWh, 1 PPA) and BHP (6 TWh, 4 PPAs)

Hybrid models involving more than one renewable technology (e.g., solar + wind + hydro) have emerged in the past 2 years

Global RE procurement in mining by technology (2008-19) MW



Hybrid PPAs in 2019 combine wind, solar and hydro assets owned by the contracting PPA provider



Case Study: Bisha Mine



KEY FACTS

7.5 MWp

Solar power capacity

22 MW

Produced by generators

12-13 %

Fuel savings

THE CHALLENGE

Our customer needed to lower their power costs to profitably convert their gold mining operations in copper and zinc

THE SOLUTION

We offered our customer an integrated solar / thermal hybrid solution to keep it simple and wrapped everything into a single contract

THE IMPACT

Our customer did not have to find CAPEX to invest in the solar plant. Cheaper, reliable power - with lower emissions



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Case Study: Granny Smith Mine

KEY FACTS

27 MW

Gas power

8 MW

Solar power

2 MW/1 MWh

Battery storage

THE CHALLENGE

Help our customer introduce renewables into their energy mix without compromising power reliability

THE SOLUTION

Leverage the benefits of hybrid energy and minimise capital outlay.

THE IMPACT

Lower energy costs and minimised environmental impact



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Case Study: Syama Mine

KEY FACTS

40 MW

Wartsilla Powerblock

10 MW

Batteries

20 MW

Solar

THE CHALLENGE

World leading technology to deliver cost effective power that ultimately lowers gold production costs

THE SOLUTION

A 16-year contract to build, operate and maintain a hybrid power plant (thermal, solar, batteries)

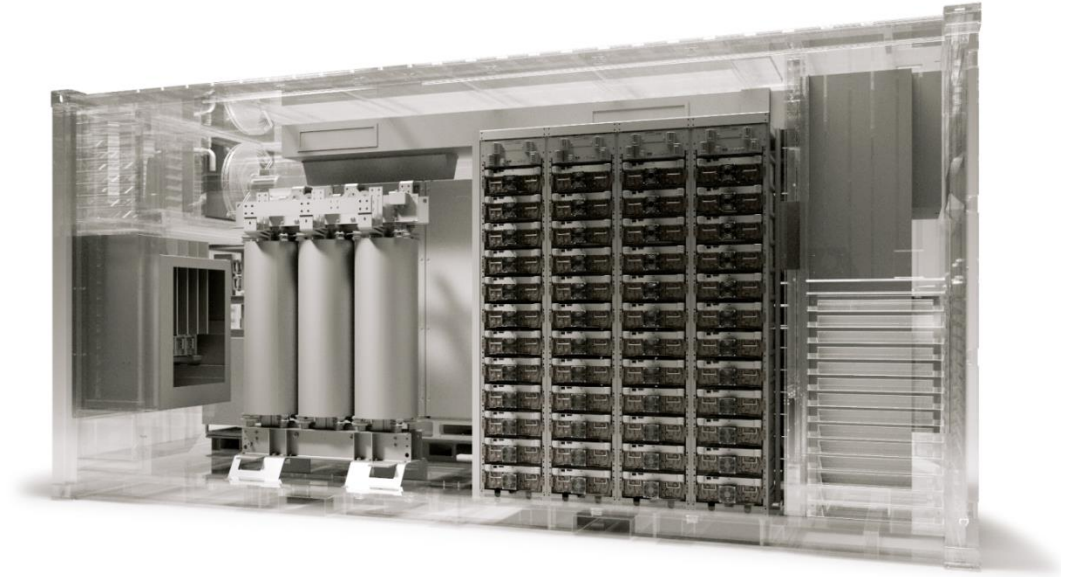
THE IMPACT

\$10 million cost savings in the first full year of operation and reduced environmental impact ensuring long term mine sustainability



Benefits

of working with **Aggreko**



Turn-key service
Our specialist services include everything from initial assessment of needs to service back-up site.



No CAPEX
Working with us eliminates the need for capital expenditure when purchasing equipment. It incurs no large down payments or interest costs and preserves your borrowing capacity.



Guaranteed reliability
Built-in redundancy and on-site technicians mean that you can rest assured that the power supplied by our power plant is reliable and will run 24/7 if needed.



Reduced risk
We're fully accountable for the equipment, the people and the operation of the power plant, reducing your exposure to any associated risks.



Fuel Flexible
We are fuel flexible, and have power generators that can run on diesel, natural gas including CNG, LNG, APG, LPG, heavy fuel oil (HFO) and solar thermal hybrid.



Commercial Flexibility
Need to increase or decrease how much equipment is required during the contract? No problem. Need flexible commercial terms? No problem.
We can work with you to agree flexible terms that make us both happy.

SINGLE AGGREKO HYBRID PLANT



Solar Power Pack



Energy Storage



Aggreko Gen Sets/Gas

One single
hybrid
contract

We offer a technically and commercially fully integrated customer hybrid solution


- **Single PPA captures all costs**
- **Easy to contract and fast commissioning**
- **Turn-key solution**
- **No hidden costs**
- **Highly scalable power:** ability to add, switch or remove modular blocks of renewable or thermal power
- **From 5-10+ years:** shorter contract duration than offered by solar IPPs
- **Hybrid performance:** High performance guarantees

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How can we help you?

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