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POWER IN PLACE




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POWER **IN** PLACE

*The world leader in temporary power solutions,
Aggreko helps governments in meeting the
needs of entire populations and keeps industries
growing through all contingencies*

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Aggreko was founded in the Netherlands in the early 1960s to provide temporary power generation to local companies. In 1973 it moved to the UK, establishing its headquarters at Dumbarton in Scotland, the first step in an expansion programme that has brought it to where it is today, present in 47 countries and employing around 6,000 people. The London Stock Exchange-listed company, a member of the FTSE-100 index, provides power and temperature control solutions to customers who need them either very quickly, or for a short or indeterminate length of time. Examples would be the supply of power to a mining or industrial site which needs to service its permanent power supply, supplying a whole city in times of power shortage, or providing a major sporting event with power and cooling systems. The key being that power can be delivered anywhere, anytime.

Now we should make it clear from the outset that we are not just talking about providing gensets for pumps, traffic management, individual manufacturing units or the many other uses in general construction. That is an important business, and is comprehensively covered by local service centres around the globe. Larger projects calling for much more complex solutions, are also delivered globally through Aggreko's Power Projects business.

When it comes to large scale power needed in remote parts of the world, whether the need is short or long term, Aggreko is the company to go to. It supplies multi-megawatt temporary power solutions to companies in the electric utilities sectors, oil & gas (O&G) and mining

amongst other key sectors. With more than 117 locations across North, Central, South America and The Caribbean, and 194 globally, it boasts the world's largest generator rental fleet. "Aggreko's power solutions are rapid, flexible, and highly reliable," asserts Asterios Satrazemis, President of the Americas Region, where Aggreko lists among its customers every major mining and exploration company as well as most governments and national power grids.

In this region the Power Projects division handles large scale projects, defined as anything from 10 MW to over 200 MW. Its client base is primarily utilities, mining and O&G companies. In many South American countries, he explains, hydro power accounts for up to 60 percent of the matrix. "During periods of drought or an El Niño event these sources drop off and we often get asked to provide an interim power solution for anywhere from a few months to several years on a large scale basis to meet the shortfall." Until hydro-generated levels recover, the national power company needs to put in an interim solution to keep the lights on, and the only way to do that is to call in a specialist who can deploy equipment quickly.

"We can effectively deliver a complete power solution within weeks," says



Aggreko power plant, Ressano Garcia, Mozambique



Asterios Satrazemis

Satrazemis. "The Power Projects business is conceived around a modular design, where all the equipment is packed in 20-foot ISO containers. It is a plug and play approach so we can deliver assets very quickly with minimal civil works required. We can connect into virtually any voltage they need on the grid, and supplement power to major cities as well as in hard to reach remote areas." Aggreko has implemented single projects in

Latin America in excess of 100 MW, he adds.

These are not always in the easiest locations. In Peru Aggreko was recently able to supply a total of 30 MW of power 3,423 metres above sea level to two separate electricity generating companies. This equipment, comprising both generator units and transformers, provides partial cover for the power which the Machupicchu Hydroelectric Power Station will be unable to supply during construction of the Santa Teresa Hydroelectric Power Station. This is a turnkey solution for these clients, adding to the supply of equipment the preparation of ground and civil engineering

117

The number of locations Aggreko operates from in the Americas

works, installation of the fuel system including the storage tanks, and maintenance and operation of the power plant. In this industry, for every thousand metres of altitude, a generator loses on average ten percent of its power. However thanks to the advanced technology of

Aggreko's generators the total loss above sea level will not be 35 percent, but just ten percent over the entire 3,423 metres.

As we frequently note in this magazine, many large scale mining projects are in the high Andes. Others are in remote parts of the Amazon Basin where the grid will perhaps never reach. In these places localised power

"THE POWER PROJECTS BUSINESS IS CONCEIVED AROUND A MODULAR DESIGN ... A PLUG AND PLAY APPROACH SO WE CAN DELIVER ASSETS VERY QUICKLY"

generation is the only solution either for communities or for mines, where reliable, cost-effective power has to be secured to make them viable. “We do a lot of work in Colombia, for their onshore O&G projects. Aggreko can come in and provide turnkey power, including all the manpower they need as well as the equipment and its maintenance. Many mining projects in more accessible regions, where power lines can be built, get delayed through civil unrest or simply because the local power utility does not have the funds,” says Asterios Satrazemis. “We can go ahead and provide interim

power until that line arrives and not affect the schedule of production at a multi-billion dollar mining complex. It is an excellent long or short term solution to maintaining schedules. Our modular system allows us to increase or decrease capacity very quickly.”

If any single factor has played into Aggreko’s success it is the ease with which its equipment can be moved to the site. A 20-foot container can be shifted by train, truck, boat or aeroplane. Each unit can be kept below 40 tons, which means it is unlikely to be affected by weight restrictions or snaking roads. However, as some of the examples

6,000

 People employed
 by Aggreko

“WE CAN EFFECTIVELY DELIVER A COMPLETE POWER SOLUTION WITHIN WEEKS”

given above show, a site does not have to be inaccessible to benefit from the flexible power generation available from Aggreko. “We are working on heavy fuel oil (HFO) solutions as well to get lower fuel cost for our clients.” HFO is the fuel of choice in many island countries says Asterios Satrazemis, and Aggreko’s modular HFO packages are making a big impact on the market.

In other situations liquefied or compressed natural gas (LNG or CNG) stand out as

solutions that allow companies in the hydrocarbons industry to reduce their power generating costs and guarantee seamless operations. In Colombia Aggreko’s economical CNG-based solutions don’t demand high investment in energy supply services like equipment purchase. Aggreko’s affordable rental services include the installation, operation and maintenance so helping push forward production and boost the oil industry with less capital expenditure. For example a Colombian oil company turned to Aggreko to generate power in three of its exploration blocks in the country and improve its production and operating costs. The most widespread fuel source there is diesel, but Aggreko was able to provide this client with a gas solution resulting in considerable savings and an improved carbon footprint.

In March of last year the company announced an ultra-efficient 1 MW engine that will provide its customers with 14 per cent more power at 12 per cent lower cost. The G3+ is the product of a three-year, £6 million development programme and it is the first time Aggreko has moved into developing its own engine technology. The G3+HFO variant of the new engine is also the first of its kind that can run on HFO, producing power at around half the cost of traditional diesel alternatives.



CP Mining, Australia



Ressano Garcia,
Mozambique

Unlike many businesses, the recession has not been hard on Aggreko which recorded revenues of approximately \$2.5 billion in 2012 and an operating profit of \$612 million. Delays have dogged power schemes and projects that depend on them have depended increasingly on temporary power. “In those cases, where power has to be delivered reliably we are often the first to meet that gap.” It’s a trend seen all over the world, he observes, and a strong driver for the Power Projects business which is growing rapidly in every part of the world, from Africa to the Americas region that he leads. The company has offices serving all of Latin America, the United States and Canada: from these any and every problem relating to temporary power can be solved quickly and reliably.

Satrazemis, who has been in his present post since 1 January 2013 was formerly Aggreko’s Managing Director responsible for the Australia-Pacific Region. In his current role as President of The Americas he is enthusiastic about the flexibility of the service available across the region. “On any given day we will be running base load power for a number of mines, large or small, around the country, where if the power goes down they could potentially start losing millions of dollars in revenue. While the emergency and high profile projects get the headlines, providing businesses with power security on a day to day basis is just as important.” **BE**

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