



# 21 MWE MICROGRID CONTROLLER REMOTE GAS PROCESSING PLANT ARC RESOURCES, LTD.

OWNER  
**ARC Resources, Ltd.**

LOCATION  
**Dawson Creek, British Columbia, Canada**

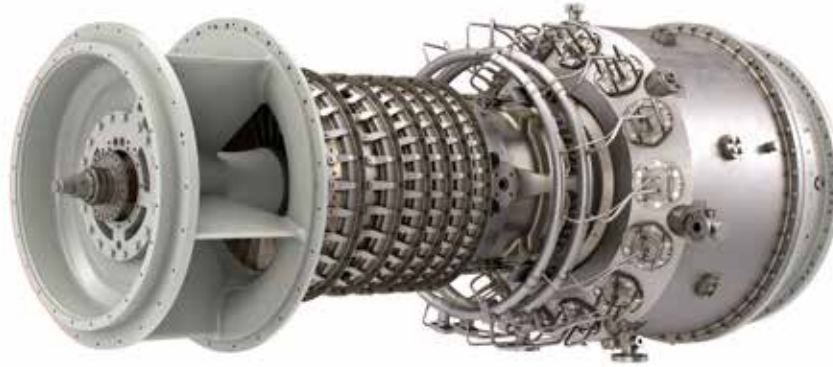
PRODUCT  
**Microgrid Controller**

CUSTOMER VALUE  
**Grid Independence in Remote Areas**

ARC Resources needed a new natural gas processing plant in British Columbia, but utility power was not available in this remote area. The solution was to install a microgrid consisting of a microgrid controller and two Mars® 100 gas turbine generator sets. The turbines and microgrid powered plant operations for over a year until a new utility line reached the site.

Today the gas plant enjoys utility power plus backup turbine power automatically managed by the microgrid controller. The microgrid system was so successful that it has been duplicated at two other ARC gas processing plants.

## 21 MWe Microgrid Controller - Remote Gas Processing Plant



### PLANT DATA

Microgrid with Turbines and Controller  
Exclusive Reliance on Microgrid Prior to Utility Service  
Management of Spinning Reserves  
Import/Export Control of Utility Power  
Automatic Load Shedding for 20 Loads

### OUR PRODUCTS & SERVICES

Microgrid Controller  
Two Mars 100 Gas Turbine Generator Sets  
Microgrid Control Programming  
Installation and Startup Assistance  
System Testing

### ENABLED FIRST YEAR OF PLANT OPERATION

### AUTOMATIC LOAD SHEDDING

### IMPORT/EXPORT CONTROL

### COST EFFICIENT SOLUTION

Normally the gas processing plant operates in parallel with the utility while the microgrid controller maintains import/export control for lowest power costs. The system also provides automatic or manual synchronization and automatic disconnect in case of utility disturbance.

When in island mode, the turbines supply all power while the microgrid controller manages load following, spinning reserves, frequency control, and load shedding. The system is pre-designed for two additional turbines and can also accommodate future additions of photovoltaic or energy storage systems.

Solar Turbines Incorporated  
Tel: +1 619 544 5352  
Mail: [infocorp@solarturbines.com](mailto:infocorp@solarturbines.com) Web: [www.solarturbines.com](http://www.solarturbines.com)

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