

POWERFUL LINEUP



Paralleling Generator Sets



Your operation. Your decision. Cat[®] dealer expertise.



Your power requirements are constantly changing.

The growing need for clean, reliable power for critical loads can quickly outpace a facility's system. Caterpillar is your one-source supplier for integrated engine-generator paralleling controls solutions.

You have to design flexibility into your electric systems to accommodate future growth. Trust your Cat[®] dealer for the support you'll need to handle any power challenge – from the simplest backup to the most complex integrated systems.



Powerful Options

Your Cat dealer can help you decide if you need a single generator set to integrate with an existing system, several sets with controls and switchgear, or something in between. We'll help you choose the paralleling controls solution to fit your operation and get you up and running quickly.

Looking Ahead

Expand your options by identifying and planning for potential growth on site. Installing a smaller unit now and adding an extra unit when it's needed gives you more flexibility.

If the variation in load demand between peak and off-peak is great, the ability to drop units off-line will help optimize your fuel consumption, giving you more available hours of operation for your tank size. With a parallel system, you'll have the choice between simple, advanced, and custom methods to integrate units that meet your expansion needs.

Getting Started

From the largest paralleled system to the smallest single generator set or control unit, your Cat® dealer is able and ready to deliver the best solution. They're always there to help you assess your needs, answer your questions, and lead you through the process.

Planning your solution:

- Basic site requirements
- Size of critical load and load fluctuation
- Reliability and maintenance considerations
- Owner operating costs
- Physical installation requirements
- Controls complexity

Parallel System Advantages

- Redundancy for critical loads
- Ease of expansion
- Lower cost of ownership

Single Generator Set Advantages

- Smaller footprint
- Higher starting skVA



WARNING 

CAT



ACR RESET EVENT LOG

RUN AUTO STOP

F1 F2 F3 F4

CONTROL AC ENGINE MAIN MENU

OK

EMCP 4.4

STOP Hz

~ V

AUTO



DANGER



WARNING







Keep Things Moving

Using paralleled multiple units gives you more flexibility in sourcing the size of standard generator sets, which may be more readily available than larger, custom systems. This means faster turnaround time so you get the power distribution portion of your project done sooner.

Paralleling Options

Option 1: On-package Paralleling

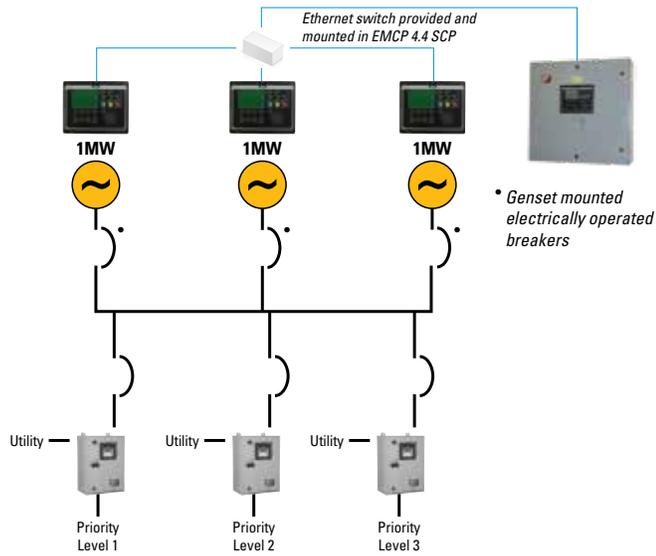
- Generator Set Package Controller (EMCP 4.4)
 - Auto/manual synchronizer
 - kW/kVAR sharing
 - Load sense demand
- Optional supervisory control panel for system HMI and communications redundancy
- Optional master control panel for touchscreen system HMI, communications redundancy, and basic utility paralleling

Option 2: Controls-Only Paralleling

- Off-package paralleling controls
 - Integration with on and off package breakers
 - Compatible with current and legacy generator set package controllers
- System level HMI
- Utility paralleling
- Enhanced load control with priority load shed/add ability
- Custom systems designs available
- Capability for controls to be added to existing generator sets for site expansion

Option 3: Paralleling with Switchgear

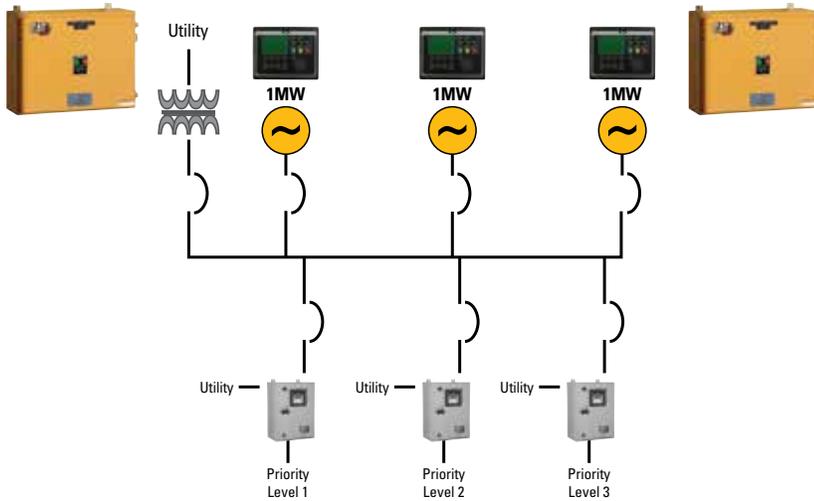
- Traditional paralleling switchgear
- Utility paralleling
- Advanced load management
- Isolated breakers
- Touchscreen controls on switchgear
- Fully flexible design, products customized to meet individual site conditions
- Multiple incoming utility feeds
- Site integration
- Site monitoring and communications



On-package Paralleling



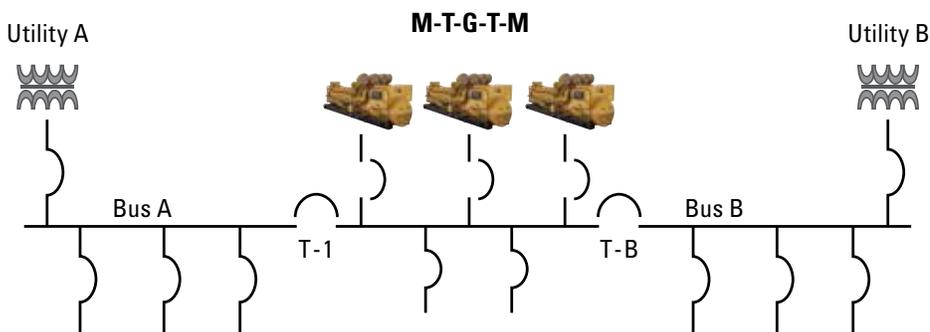
EPIC – with Single Utility



Controls-Only Paralleling

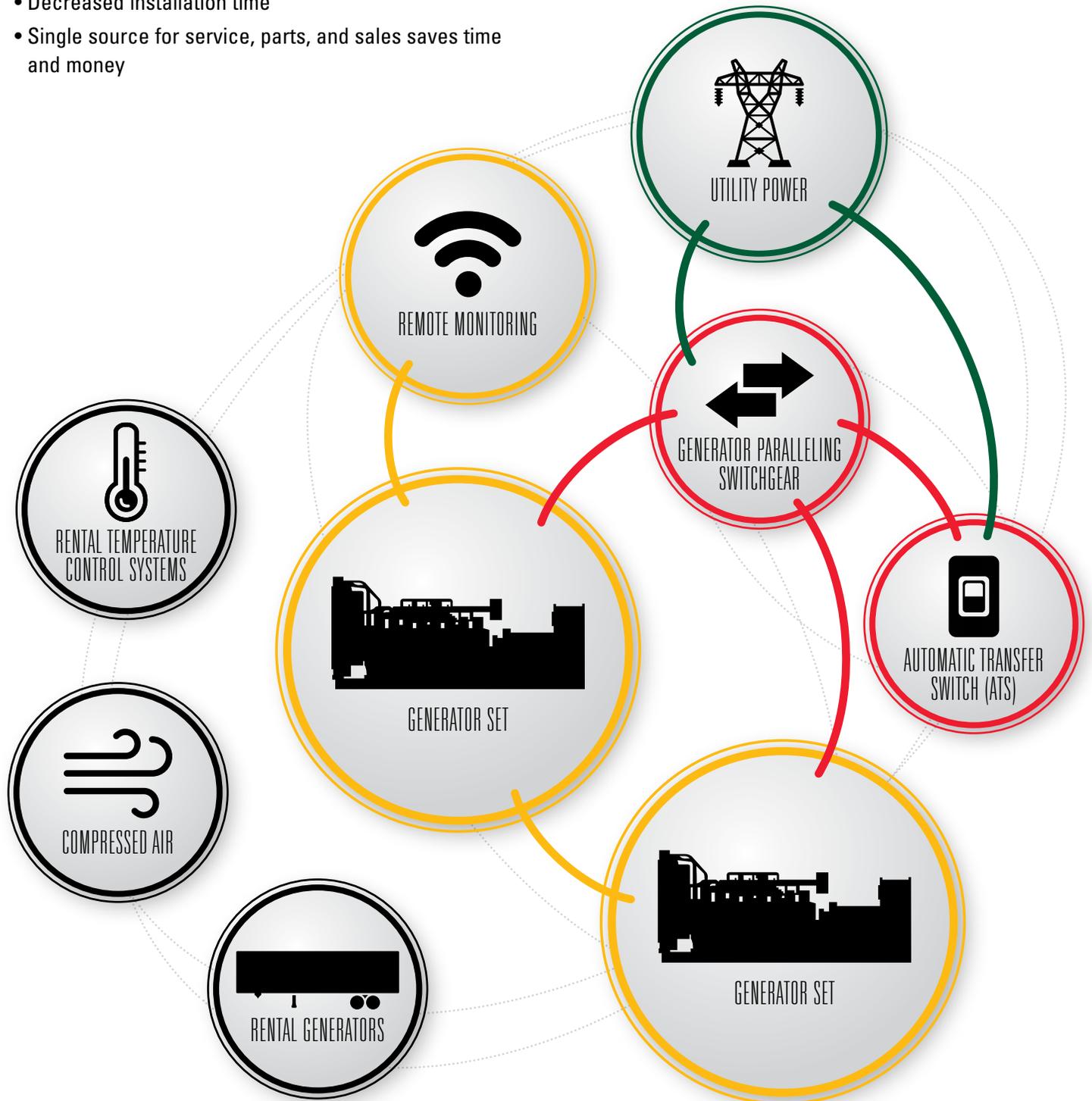


Paralleling with Switchgear



Power Systems Designed for Efficiency

- Tested interface compatibility
- Reliable, seamless, and harmonious componentry
- Decreased installation time
- Single source for service, parts, and sales saves time and money



Remote monitoring/communication

De-energized

Energized



GENERATOR PARALLELING SWITCHGEAR:

- Redundant (N + 1 Power)
- Load shed/buss optimized
- Parallels multiple generators to meet power requirements
- Touchscreen operator interface panel



AUTOMATIC TRANSFER SWITCH (ATS):

- Open and closed transition
- Delayed transition
- Bypass isolation



REMOTE MONITORING:

- Secure network – web based software
- Monitors and manages standby genset
- Alarm notification, fuel dispatch, system tests, and alarm/event history reports
- Data collecting for troubleshooting engine performance
- Remotely start and test equipment



GENERATOR SET:

- Diesel and natural gas
- Small footprint
- Cogeneration systems
- Sound attenuated packages



RENTAL TEMPERATURE CONTROL SYSTEMS:

- Heat/air conditioning units
- Air and water cooled chillers
- Cooling towers



COMPRESSED AIR:

- Oil free air
- Oil flooded air
- New and used sales
- Authorized Sullair service and parts center



RENTAL GENERATORS:

- Paralleling capable
- Sound attenuated
- Trailer mounted
- Turnkey services



Financial Services

Equipment Financing and Leasing:

- Capital and operating leases available
- Purchase option leases and rent-to-own
- Construction financing

Electric Power Service:

- Annual quarterly and monthly maintenance
- Load bank and insulation testing
- Emergency service 24/7
- Global network of certified technicians



Single Source Confidence

Your Cat dealer has all the equipment to help you design the best system to keep your operation running smoothly. With the complete integration of Caterpillar products and support, you can be sure your electric power needs are met. We're built to exceed your expectations.

To learn more, talk to your local Cat dealer or visit www.cat.com/powergeneration

LET'S DO THE WORK.™

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