



TURNKEY CAISO RIG/DPG AND REVENUE METERING SOLUTIONS

The DC Systems **RT^{RIG}**™ family of RIG and DPG solutions is the easy answer for power generators seeking to provide energy through the California Independent System Operator (CAISO) market.

Our turnkey RIG/DPG and revenue metering systems include design, installation, testing, and CAISO certification. We provide a full range of services: technical support, maintenance, certificate management, and training for your staff.

	Turnkey Solution	RIG	DPG	Metering	Full CAISO Certification	Installation
DC Systems RT^{RIG} Solution	✓	✓	✓	✓	✓	✓

...A FULLY CERTIFIED
RIG/DPG AND
METERING SOLUTION
FOR POWER
GENERATORS

RT^{RIG} SYSTEMS ARE DESIGNED FOR

- » **All types of power sources**
 - Turbine (gas, peaker, other)
 - Wind
 - Solar
 - Hydro
 - Geothermal
 - Cogeneration
- » **All types of projects**
 - New power generation sites
 - Upgrades to existing Hathaway or other legacy RIG/DPG systems
 - Qualifying facility (QF) cogeneration site conversions
 - Proxy Demand Response (PDR)
 - Participating Intermittent Resource Program (PIRP)



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WHAT IS CAISO?

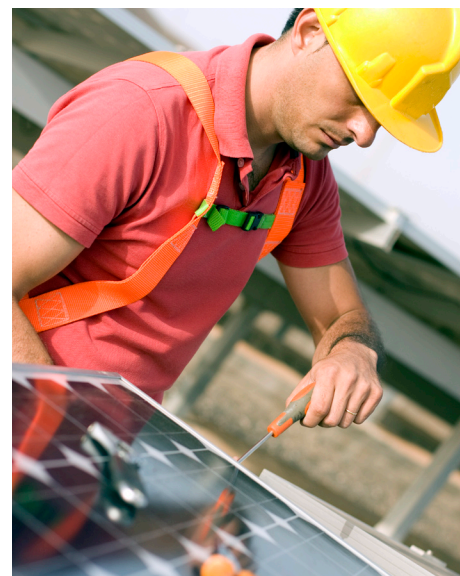
CAISO is a nonprofit corporation charged with operating the majority of California's high-voltage wholesale power grid. The organization is the impartial link between power plants and the utilities that serve millions of California customers. Renewable and traditional power generators wishing to participate in California's wholesale energy market must communicate with CAISO using a fully certified system—such as the RT*RIG* solution from DC Systems—that conforms with all CAISO requirements for data processing, communication, and security.

What is a RIG? What is a DPG?

RIGs and DPGs enable power generation sites to communicate with CAISO. With both RIGs and DPGs, power generators can securely pass telemetry data—such as circuit breaker status, bus voltage, weather conditions, and power-delivery data—from meters at the generation site to CAISO in real-time. A RIG—as opposed to a DPG—also enables CAISO to use automated generation control (AGC) to manage output from the generating unit. CAISO works to develop the specific DPG or RIG requirements for each generation site. DC Systems' RT*RIG* solution is fully certified by CAISO for both RIG and DPG functions.

CHOOSE YOUR OPTIONS

- » In addition to our complete, turnkey RIG/DPG and metering solutions, we offer a wide range of service and product options:
 - Revenue meters, including programming, testing, and certification
 - Advanced, on-site training
 - System redundancy
 - Certificate management
 - Installation
 - Configuration
 - Testing
 - E-mail/pager alerting system
 - Secure 24/7 RIG/DPG system monitoring, diagnosis, and response
 - Remote administration
 - Maintenance
 - Technical support



DC SYSTEMS RIG/DPG PRODUCT FEATURES

- » **Telemetry data acquisition and concentration**
The RT*RIG* system can acquire data from multiple sources, such as remote terminal units, PLCs, meters, generation controllers, and plant control systems. The system can communicate directly with intelligent relays and controllers, using many different protocols. As a data concentrator, the RT*RIG* solution supports both serial and TCP/IP connections and industry-standard protocols such as Distributed Network Protocol (DNP) and Modbus. Real-time data and commands can pass between the power generator, CAISO, or other external system using the secure DNP connection.
- » **Metering**
DC Systems can provide full metering solutions that meet all CAISO requirements. Our metering services include:
 - Full-scale deployment
 - Meter programming
 - Meter calibration and testing
 - CAISO certification and plant inspection
 - Maintenance



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- » **Constant monitoring**
Extensive self-monitoring features enable the **RT*RIG*** system to send alerts via e-mail or pager if a problem occurs. With the optional monitoring service, you will be notified of communication problems so they can be resolved quickly to keep your CAISO connection up and running.
- » **Automatic generation control (AGC) and security**
RT*RIG* software includes advanced functions for AGC, such as bumpless transfer for smooth transitioning between a generation site and CAISO.
- » **CAISO security certificates**
DC Systems can provide security certificate management for your RIG or DPG system per CAISO specifications. Our annual certificate renewal service eliminates worry over expired certificates. This optional service provides automatic scheduling of updates and includes coordination between your site and CAISO.

DC SYSTEMS RT*RIG* SOLUTION ADVANTAGES

	Turnkey Solution	RIG	DPG	Metering	Full CAISO Certification	Installation
DC Systems RT<i>RIG</i> Solution	✓	✓	✓	✓	✓	✓

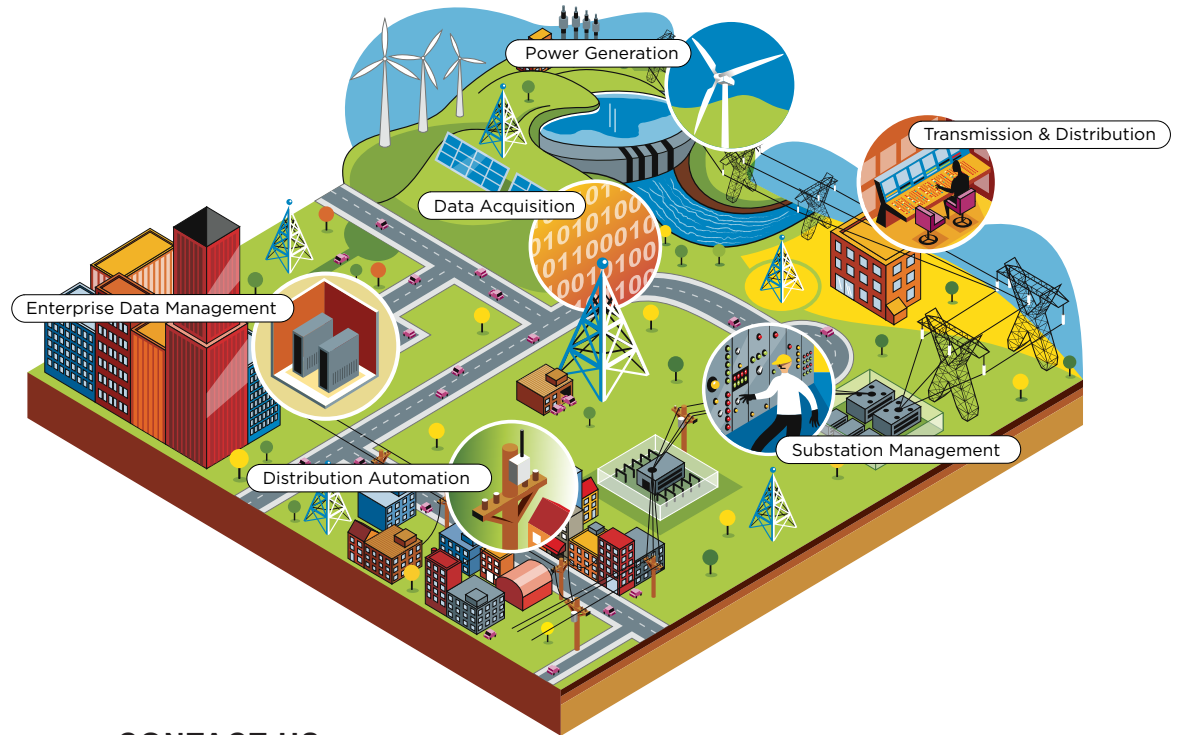
DC SYSTEMS: AN EXPERIENCED CALIFORNIA LEADER

DC Systems is the fastest growing RIG/DPG provider in California, and a leading developer of Smart Grid software for utilities and large energy users. Founded in 1990, the company has pioneered solutions that provide powerful architectural advantages by combining distributed intelligence SCADA computing with centralized data management. DC Systems has more SCADA/energy management systems in operation in California than all other suppliers combined. We provide personalized technical support through a telephone hotline and a team of installation and service professionals located throughout the state.

Some of the largest utility companies in the world use the DC Systems **RTscada**™ family of products to put intelligence where it is needed—in hundreds of locations such as substations, control centers, and power generation sites—while centralizing configuration, administration, and monitoring at the enterprise level. Our advanced solutions enable utility companies and energy providers to achieve better operational efficiencies, reduce operating costs, and provide higher levels of reliability and service to their customers.



DC Systems' complete family of **RTscada™** products power the Smart Grid, from field device to substation to control center, and integrate seamlessly with enterprise systems.



CONTACT US

Our experienced staff members are available to survey your site, assess your needs, and get you connected to CAISO quickly.

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LET US TURN YOUR DATA INTO SMART DATA.

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