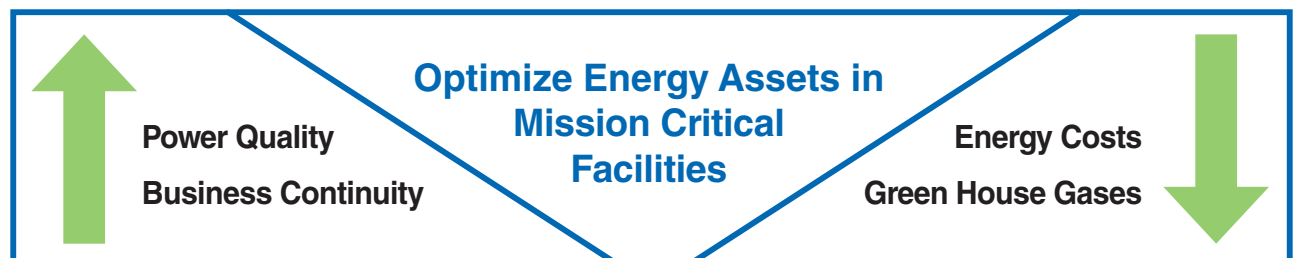
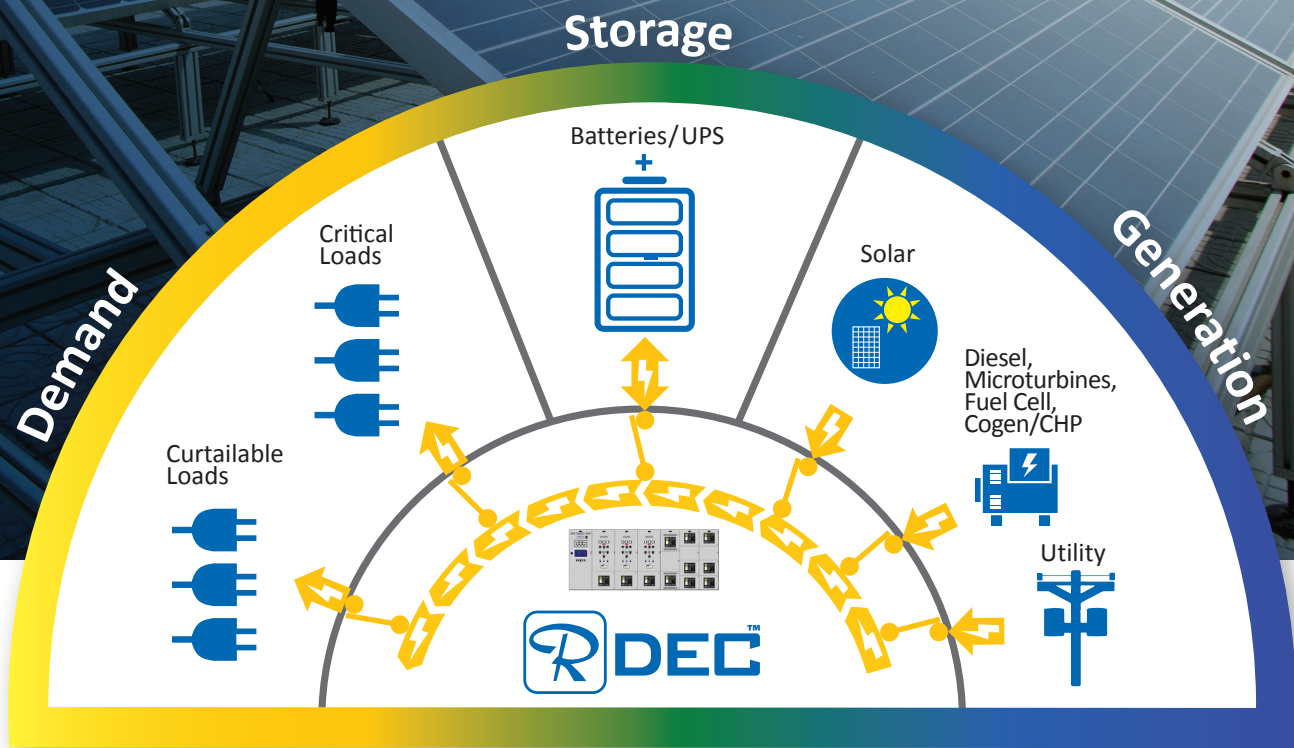




DECTM

Distributed Energy Controller

An Integrated Microgrid Control Solution by Russelectric®



Russelectric®

POWER CONTROL PEOPLE YOU CAN RELY ON

The Russelectric Distributed Energy Controller (RDEC)

A fully integrated controller for complex, mission critical distributed energy systems, ranging from partial back-up generation and demand management to fully functional

microgrids. Founded in 1955, Russelectric has thousands of operating systems from 100-50,000 kW—all proudly made in the USA and installed across the United States.



Business Continuity

RDEC's seamless control of your facility's electrical demand and generation assets provides least cost, least emission business continuity strategies for both short and long duration outages.

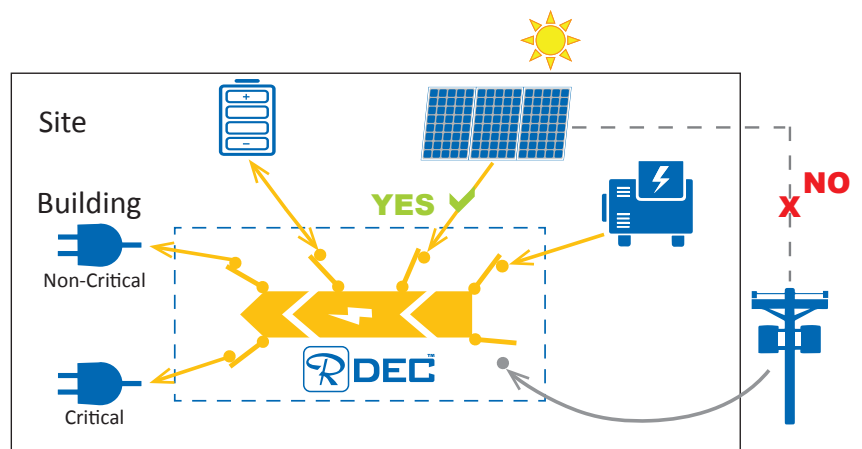
Facility Integrated Solar

Most existing PV systems are connected to the grid and designed to shutdown during grid outages. RDEC integrates your PV system to power your facility during outages.

Priority-Based Load Shedding

Permitted Emissions Optimization

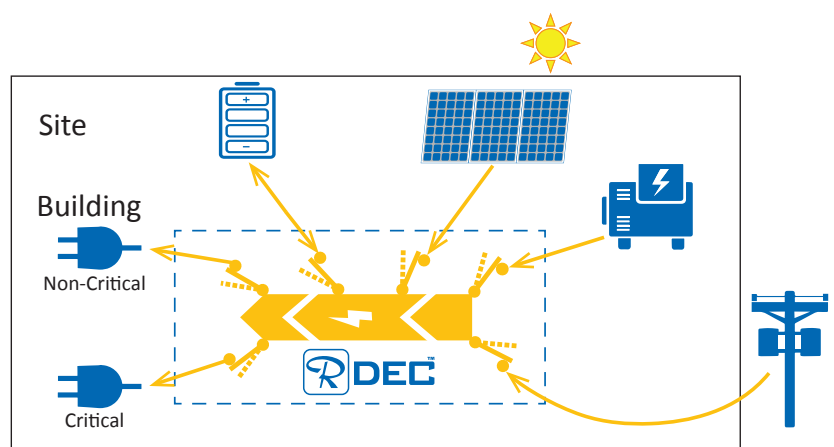
Reduce demand and deploy clean, least cost generation and storage options to maintain critical loads during short outages while reserving permit-limited emissions generation for long outages.



Power Quality

RDEC improves facility power quality, benefiting internal equipment and reducing utility power quality charges.

- Dynamic islanding capability with blackout detection
- Fast, reliable decoupling
- Automatic black start of backup generators
- Seamless grid resynchronization after outage
- Real-time measurements for improved control
- Generation offsetting and balancing
- Electrical fault and short circuit protection
- Stable grid operation via spinning reserves
- Voltage and frequency control:
 - Stabilize system
 - Maintain voltage under all scenarios
 - Balance reactive power
 - Adjust generation and demand
- Offset renewable generation intermittency





Energy Costs

RDEC optimizes your facility's controllable demands, onsite storage and power generation to reduce energy costs and cost volatility.

Demand Reduction

Reduce utility metered demand or participate in demand response and ancillary service markets.

Demand Collars

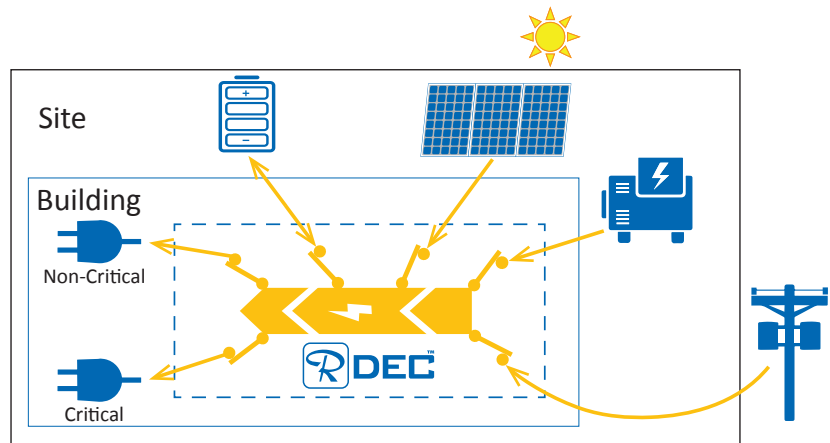
Secure low-cost grid power by maintaining demand within defined boundaries or "collars".

Time of Use Asset Optimization

Leverage batteries to store low-cost off-peak energy and release it on peak.

Least Cost Gen Source Deployment

Deploy least cost generation assets to meet your electrical loads.



Green House Gases

RDEC fully integrates onsite renewable generation resources into your facility's distributed energy system, reducing your facility's GHGs and helping your company meet sustainability goals.

Achieve Sustainability Goals

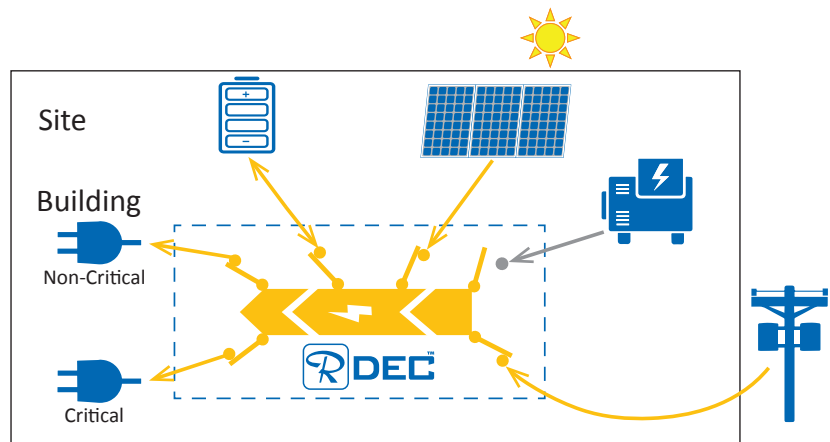
Maximize Renewable Generation

Reduce deployment of nonrenewable onsite generation and grid power purchases

- Solar PV
- Wind
- Biomass
- CHP
- Fuel Cells

Reliable Solar & Wind

Coupled with energy storage, intermittent renewable power is converted into continuous, dispatchable power.



Trusted by Critical Facilities





The core of each RDEC is Russelectric's transfer switches, switchgear, and power controller to provide seamless physical, data, and control integration of your facility's onsite demand and generation assets.

Depending upon your power control needs, an optional SCADA and Electric Power Management System can be added.

Russelectric can provide storage systems or work with your selected storage supplier.

- Single supervisory controller optimizes all facility energy assets
- Intelligent integrated energy management:
 - Monitor, Forecast, and Dispatch; generation, demand, and storage
 - Charge and discharge schedules
 - State of charge management
- Integrates into existing utility, emergency and distribution switchgear
- Seamless islanding and grid re-synchronization
- Automatic and manual control, accessible either in local or remote control stations
- Single SCADA system integrates all measurement and monitoring devices
 - Dynamic, drill down one-line display
 - Changing color codes indicate real-time device status
 - Event and alarm logging and management
 - Configure system setpoints.
 - Real time and historic data visualization
 - Optional realistic simulator to train system operators

RDEC Equipment & Components

Facility Generation & Demand Resources

Base System

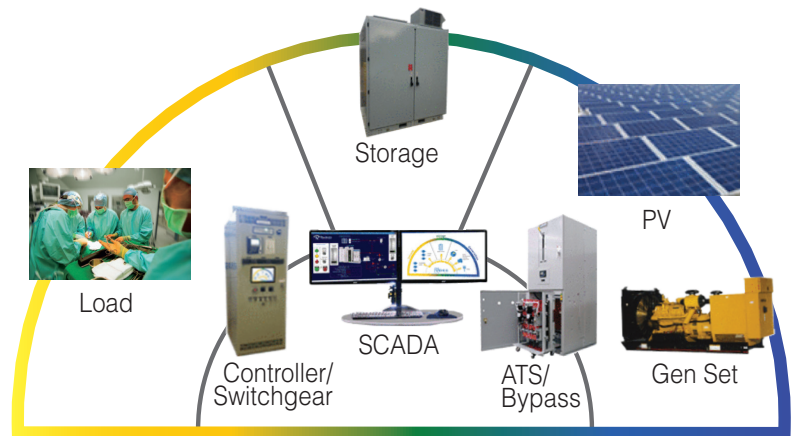
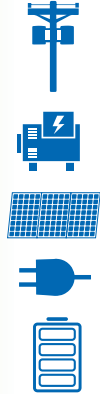
Automatic Transfer Switches
Switchgear
Power Control Cabinet

Seamless Integration

- Physical
- Data
- Control

Optional Components

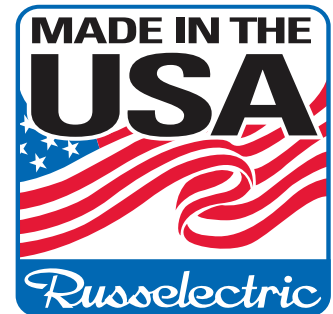
SCADA
Electric Power Management System



For more information and/or a live demo of an onsite operating microgrid at the Russelectric Innovation Center (RIC), contact us:

info@russelectric.com or **800 225-5250**

Manufacturing Plants in Massachusetts and Oklahoma
A National Network of Factory-Direct Field Service Engineers



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