

Get full control of your energy costs

Through the State Contract E194-1378*
with the Division of Purchases & Supply (DPS)



Today's environmental and economic climate is driving electricity consumers to creatively rethink their energy use. The Department of Mines Minerals and Energy (DMME) has joined forces with the Johnson Controls Integrated Demand Resources team (formerly EnergyConnect) to bring enhanced Demand Response services to Virginia.

Join us and over 65 of the state's largest energy users who have all enjoyed significant earnings and savings while supporting grid reliability and sustainability since the program's inception in 2007. These include state and government buildings, universities, K-12 schools, hospitals, laboratories, water and wastewater treatment plants, airports, and prisons, to name a few.

How do you qualify?

Participation in Demand Response may not be for everybody. We are looking for sites that consume over 500 kW in a given hour or can curtail 1000 kW at a single location. Aggregated loads across several sites may be considered.

To see if you qualify, answer these 4 questions:

- 1) **Do you have generator backup?**
If yes, how low does your facilities' electric consumption drop when the generator/s are running? Down to 50% of peak? 20%? Lower?
- 2) **If you do not have generator backup, can you occasionally suspend or curtail operations for several hours during a summer afternoon?**
If yes, can operations be adjusted for up to 4 hours? 6 hours? Or more?
- 3) **With 2-hours' notice, could you reduce electric consumption by running a generator or adjusting operations during the hottest day of the summer?**
If yes, could you respond even faster? Within 1 hr? 30 min? 10 min? Or less?
- 4) **Does your facility consume over 500 kW of electricity in a given hour during the peaking summer months?**
If yes, is it greater than 750, 1000, 1500 kW? Or more?

ENROLL IN 4 EASY STEPS

1) Know your Utility Account Number

This can be found on your utility bill, which should be scanned and emailed to Leigh.A.Ratliff@jci.com or George.Barnes@jci.com.

2) Complete a Letter of Authorization (LOA)

We will send you a blank copy of the LOA, which enables us to contact your utility and request the prior summer's electric consumption at your facility.

3) Request Peak Load Contribution Value

Once we receive your signed LOA we will work with your local utility and request a value for your Peak Load Contribution.

4) Program Participation Assessment

If your facility meets the program requirements, you simply send an email to the DMME (to Walid.Daniel@dmme.virginia.gov) stating your desire to participate – and you are in! Qualified participants get secure 24/7 online access to the award-winning GridConnect platform.

Get full control of your energy savings

Today's environmental and economic climate is driving electricity consumers to creatively rethink their energy use. Energy often represents a significant corporate expenditure. Managing day-to-day energy consumption, including participation in demand response (DR) programs, can be overwhelmingly complex and resource-intensive. Johnson Controls provides integrated solutions that combine the power of building automation technology with easy to implement DR strategies.



Our GridConnect™ platform takes the complexity out of DR and ensures that you stay informed and in control of your energy savings and DR earnings. The award-winning web-based portal gives you easy access to price-responsive, ancillary services and capacity programs. You can now combine optimized DR strategies with industry-leading building automation expertise to best meet your energy management goals. As a result, you'll have more access to DR funds to further invest in energy saving initiatives.

- **Unified web-based platform** enables secure 24/7 access to energy information and markets, making it easier than ever to participate in DR
- **Informative dashboard** provides a comprehensive snapshot with actionable data about your energy use and DR opportunities
- **Displays facility-specific parameters** and load information; near real-time feedback helps you comply with mandatory events
- **Presents voluntary DR opportunities** in terms you can understand, allowing you to self-schedule based on your flexibility
- **Cumulative progressive intelligence** allows you to track historical participation and report on earnings and carbon footprint savings
- **End-to-end automated solutions** from Johnson Controls increase potential for savings and performance reliability

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GridConnect™ A unique, integrated product suite.



GridConnect is a unique, integrated product suite for optimized DR participation. You now have the visibility, flexibility and control to better manage your energy efficiency and maximize DR earnings across multiple facilities.

GridConnect is designed to optimize your DR participation. It provides the visibility, flexibility and control to better manage your energy efficiency while maximizing DR earnings across multiple facilities. The powerful dashboard graphically displays a clear, customizable snapshot of key components, including:

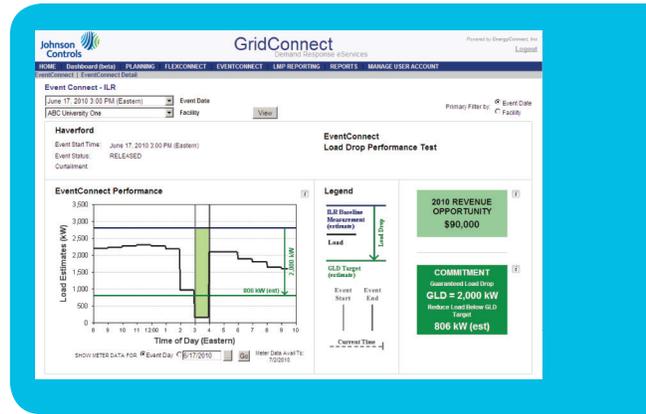
- Current DR opportunity including forecasted energy prices and your PJM baseline
- Peak load and historical DR pricing in your zone
- Event performance monitoring and history
- 3-day weather forecast
- Virtual "energy orb" visually alerts you to act on real-time opportunities
- Net summary of year-to-date earnings and savings
- DR activity in the last 30 days, including savings and earnings for each day
- Carbon emissions over the last 30 days, overlaid with your carbon footprint reduction

Grid Dispatched Emergency Response

These standby programs offer an easy way to offset energy costs, earn revenues, and improve grid reliability. In 2012, participants committed to reduce about 6500 MW with total compensation exceeding \$330 million.

How it Works:

You decide how much electrical load to reduce in the event of an emergency situation with your local electricity supply. You receive standby payments in proportion to the amount you are willing to reduce if called. If an "event" occurs, temporarily reduce load to the committed level. In addition to standby payments, you also receive payments for the actual energy curtailed during events.



GridConnect interface gives you single-screen access to facility-specific parameters and the ability to monitor your Emergency DR performance against commitment in near real time.

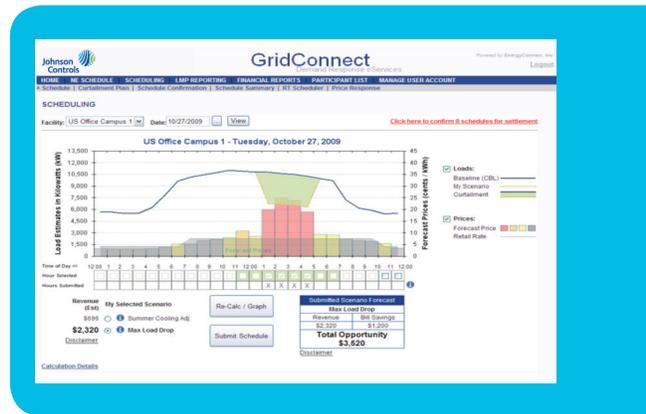
Voluntary Price-based Response

GridConnect allows you to augment Emergency DR earnings via intelligent day-ahead alerts. These inform and motivate you with opportunities to temporarily reduce energy consumption when wholesale electricity rates are high, enabling you to generate significant earnings for shifting load.

How it Works:

You decide when the time and price is right for your facility to shift load based on pre-defined criteria related to your expected energy use, curtailment capabilities and business constraints.

We notify you via e-mail when opportunities meet your criteria. If the opportunity is attractive, click the web link embedded in the e-mail to confirm the suggested curtailment schedule or to make adjustments.



Intuitive user interface allows you to evaluate voluntary price-based opportunities within the context of your up-to-the-minute energy use. Participate in blocks as small as one hour at a time.

Synchronized Reserve Fast Response

GridConnect enables you to receive payments for being on standby to temporarily reduce power on short notice for a short duration. You may opt in/out on an hourly basis up to two hours prior to desired hours of participation.

How it Works:

Simply select the days and hours you want to be on standby, and we pay you for your commitment. We work with you on automated control strategies and manage enrollment with your grid operator. When dispatched (typically 2-3 times per month for less than 15 minutes), you are required to reduce load to the committed level of participation.

The screenshot shows the 'Demand Synchronized Reserve' interface. It features a table with the following columns: Available (checked/yes), Bid Price, Bid Qty (MW), Hourly Starting, SR Cleanup Price, SR Award Qty (MW), SR Event this Hour (Y/N), and RT LMP Est. The table lists multiple hourly opportunities for participation.

Available (checked/yes)	Bid Price	Bid Qty (MW)	Hourly Starting	SR Cleanup Price	SR Award Qty (MW)	SR Event this Hour (Y/N)	RT LMP Est.
<input checked="" type="checkbox"/>	\$0.00	1	07/03/2010 01:00 EDT			N	
<input checked="" type="checkbox"/>	\$0.00	1	07/03/2010 01:00 EDT			N	
<input checked="" type="checkbox"/>	\$0.00	1	07/03/2010 02:00 EDT			N	
<input checked="" type="checkbox"/>	\$0.00	1	07/03/2010 03:00 EDT			N	
<input checked="" type="checkbox"/>	\$0.00	1	07/03/2010 04:00 EDT			N	
<input checked="" type="checkbox"/>	\$0.00	1	07/03/2010 05:00 EDT			N	
<input checked="" type="checkbox"/>	\$0.00	1	07/03/2010 06:00 EDT			N	
<input checked="" type="checkbox"/>	\$0.00	1	07/03/2010 07:00 EDT			N	
<input checked="" type="checkbox"/>	\$0.00	1	07/03/2010 08:00 EDT			N	
<input checked="" type="checkbox"/>	\$0.00	1	07/03/2010 09:00 EDT			N	

Using GridConnect allows you to earn significant incentive payments just for being on standby to reduce power during short-term grid imbalances.

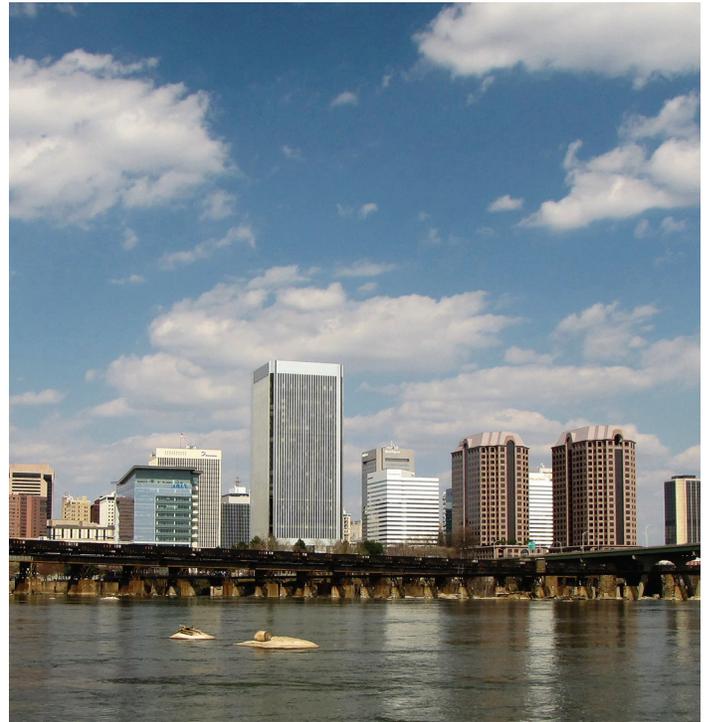
Everyone Wins

You win by saving and earning money through smart energy management. The power grid wins for not having to start up temporary power plants during peak periods. The community wins with less threat of rolling blackouts. And the planet wins because of less greenhouse gas emissions.

See What Other Customers are Earning*

Customer	Peak Load	Annual Earnings
University Campus	70 MW	\$275,000
Water Plant	5 MW	\$195,000
High School	1 MW	\$36,000
Admin Building	750 kW	\$27,000

*Earnings may vary depending on energy use patterns, zonal prices and participation levels. Some customers earn even more by participating in multiple DR programs.



Which areas are covered by PJM?

To participate in DR and earn payments, participants must be located in the PJM coverage area, including all or in parts of:

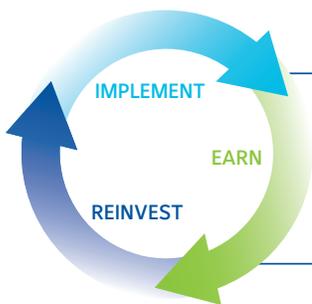
- Delaware
- Illinois (northern)
- Indiana
- Kentucky
- Maryland
- Michigan
- New Jersey
- North Carolina
- Ohio
- Pennsylvania
- Virginia
- West Virginia
- Washington, D.C.

Contract Terms and Pricing*

- This contract was signed in 2012 and is extended each year at the discretion of the DMME through 2018
- 85% of each year's capacity price is paid to the participant
- No out of pocket costs: nominal monthly fee of \$200/site is taken from program earnings to support software provisioning and data measurement & verification (M&V)

Getting Started is Easy

- 1 Contact George Barnes at 804.221.2800 or Leigh Anne Ratliff at 262.720.1144
- 2 Schedule a consultation to discuss strategies and how much you can save in costs and earn in revenue
- 3 Complete the simple enrollment steps and start earning!



Whether you want to invest in larger energy efficiency projects, enhance your building automation capabilities, or fund deferred maintenance, we can help maximize the value of your yearly DR earnings.

For more information, call **804.221.2800** or visit www.johnsoncontrols.com/demandresponse