



## **GRIDCONNECT<sup>SM</sup> SUBSCRIPTION AGREEMENT FOR ACCESS TO PJM DEMAND RESPONSE PROGRAMS**

This Agreement entered into this \_\_\_\_ day, \_\_\_\_\_, 2011, is made by and between City of Columbus, Department of Public Utilities, ("Customer"), and EnergyConnect, Inc. ("ECI").

### **Section 1 – General**

ECI is a member of PJM Interconnection, Inc. ("PJM") and as a Curtailment Service Provider is authorized to represent Customer with PJM. Terms used and not otherwise defined shall have the meaning given them in the PJM tariff. The Customer is the owner and/or manager of the Properties identified in Appendix 1, attached hereto ("Property" or "Properties"). References to the Customer in this Agreement are limited to the Customer as owner/manager of the Property or Properties and do not extend to other Properties the Customer may own or manage.

### **Section 2 – Term**

The term of this Agreement shall commence on the date the Customer signs the Agreement and shall terminate one year thereafter. "This agreement can be extended for an additional one (1) year period upon mutual agreement of both parties and approval by the Columbus City Council."

### **Section 3 – GridConnect Platform Overview**

By subscribing to GridConnect, the Customer authorizes ECI to register, represent, and manage the Customer's participation in the following PJM demand response programs, listed by the ECI brand names (individually or collectively, the "Program" or "Programs"):

EventConnect<sup>SM</sup> - Emergency Capacity Resource  
 FlexConnect<sup>SM</sup> - Economic Load Resource  
 ReadyConnect<sup>SM</sup> - Synchronized Reserve

Earnings from GridConnect Programs result from the Customer's active curtailment of electricity use. The EventConnect program requires the registered Property to perform in a mandatory test or when an event is called by the grid operator. Compensation payments for participation vary depending on which Programs the Customer elects to participate and the level of electrical load reduction. ECI shall not be liable for the accuracy of any projection of future electricity prices or Program benefits. The Customer hereby grants ECI rights to obtain copies of meter data, billing records and any other relevant data from the Customer's energy services provider or utility as may be necessary to implement this agreement. The Customer shall notify ECI in writing no later than 30 days prior to the change of electricity rate or supplier to a facility, and provide a copy of the new supply agreement, and an invoice when available, to facilitate Program(s) continuity.

If required for Program participation and with the Customer's reasonable prior approval, the Customer shall permit ECI to set-up, install and monitor "meter data loggers" that measure kW consumption along with telemetry equipment for transmitting such data to ECI for the purpose of managing participation in the PJM programs. ECI shall recover, solely from available unpaid revenues due to the customer from ECI, a metering recovery fee per data logger for these meter services, as detailed in Appendix 2. In case of early termination of this agreement by the Customer, ECI has the right to recover any unpaid and remaining metering recovery fees for the remaining months of the initial term of this Agreement. The Customer may also install or secure, from their energy services provider, utility, or a third party, their own devices to provide the required interval data for Program participation, as defined by ECI.

### **Section 4 – Customer Payments**

For GridConnect programs excluding EventConnect, ECI shall pay the customer monthly, the month following receipt of the payment from PJM. In the event PJM adjusts payments for any previous customer related settlement or system wide assessments, ECI retains the right to ratably recover such charges and assessments from unpaid revenues due the Customer. For participation in the EventConnect program, for each year of the program which runs from June to May, ECI shall make all payments to the Customer at the end of October, for the three months June to August and then monthly in arrears for the remaining nine months.

### **Section 5 – GridConnect Platform Description**

#### **5.1 EventConnect – Emergency Capacity Resource**

This program requires the Customer to reduce demand for electricity up to 10 times each year when called for a reduction. In addition, the Customer is required to demonstrate the ability to reduce demand for electricity during a test to verify the reduction capability.

Terms used herein are defined as follows:

- a. **Peak Load Contribution (PLC)** – The electrical peak demand as calculated by the Customer's energy supplier or utility.
- b. **Firm Service Level (FSL)** – The electric demand level to which the Property shall reduce if notified by ECI of an Event.
- c. **Guaranteed Load Drop (GLD)** – The electric demand level by which the Property shall reduce if notified by ECI of an Event.
- d. **Event** – A notice from ECI to Customer during the months of June through September, that, upon 2 hours notice, the Customer shall reduce electric demand to the Firm Service Level or by the Guaranteed Load Drop kW for up to a six (6) hour period between 12pm and 8pm Eastern Time, Monday to Friday, on the day of the Event.

The Customer is required to reduce electricity load during a test or an Event. Participation is mandatory when a test or Event is called. If the Customer performs less than their committed load drop, payments will be adjusted to be proportional to the actual amount of load reduced during the test or Event. Notice of a test or Event shall be delivered by email, pager and/or automated phone call. The Customer is then



obligated, upon 2 hours notice of an Event, to reduce electric load to the specified Firm Service Level or by the Guaranteed Load Drop for the shorter of

- a. six (6) hours from the commencement of the Event; or
- b. until 8 PM Eastern Time on the day of the Event; or
- c. until ECI notifies the Customer the Event is over

The Customer shall receive payments proportional to the committed kW reduction at the stated Capacity Prices per kW shown in Appendix 2 and 3. In case of a year in which no Event is called, kW reduction performed during the test event shall determine the Payment. For example, if a customer has committed to a 1,000 kW reduction and during the test or event delivers 750 kW, the payment to the customer will be will be adjusted to 75% of the Estimated Total Payment calculated and shown in Appendix 3. The Customer shall never be required to make a payment for under performance. Multiple Events shall be averaged together to calculate performance.

The Customer shall provide a Letter of Authorization to their energy supplier or utility authorizing them to provide the Customer's PLC to ECI. Each year, ECI shall work with the Customer to identify the appropriate FSL or GLD and calculate the Estimated Total Payment to be included in Appendix 3.

For multiple locations in the same PJM zone served by a common Load Serving Entity (LSE), Customer shall be allowed to aggregate each location's performance and receive payment for Capacity proportional to the committed kW reduction at the stated Capacity Prices per kW. For example, for an aggregate committed reduction of 2,500kW in the same PJM zone, the customer would fall into the over 2,000 kW price band and would receive payment corresponding to that price band, shown in Appendix 2.

### **5.2 FlexConnect – Voluntary Real Time Economic Load Response and Real Time Dispatch (RTD)**

The FlexConnect program provides Customers the option to voluntarily respond to changes in wholesale prices in the PJM region by reducing consumption and receiving a payment for the reduction. ECI shall collect Customer meter data and calculate a "Customer Base Line" ("CBL"). ECI shall post this data on a dedicated secure web page accessed through the GridConnect platform and train the Customer on how to submit load reductions to PJM. The Customer shall receive the FlexConnect price less applicable generation and transmission cost for each kW of electrical load reduced below the CBL. The payment details are shown in Appendix 2.

The Customer schedules any hours of reduction through the GridConnect web interface.

- a. Reductions can be updated up to five (5) minutes prior to the hour of reduction.
- b. Reductions can be planned and entered up to six (6) days in advance.
- c. Curtailment plans for various reductions must be registered in GridConnect prior to program participation.

ECI shall provide notification to the Customer of opportunities to reduce electrical load below the CBL based on predetermined forecast electricity pricing criteria. The Customer shall notify ECI with its intent to curtail usage and will confirm they have implemented a curtailment strategy through the GridConnect web interface. The PJM Economic Load Response Program is voluntary and the Customer may elect to participate or not in demand reduction without risk or penalty.

The Real-Time Dispatch (RTD) feature is available to all GridConnect™ subscribers participating in FlexConnect™ price-responsive demand. With RTD, Customer automatically enters into the voluntary demand response market when a predefined price threshold is reached. Payments are based on whichever is greater: the predefined threshold or the market clearing price.

### **5.3 ReadyConnect – Synchronized Reserve**

Synchronized reserve service supplies electricity if the grid has an unexpected need for more power on short notice. The Customer can offer to supply synchronized reserve by *reducing* energy use on short notice to balance supply and demand. The Customer that choose to participate in the Synchronized Reserve Market must be capable of dependably providing a response within ten (10) minutes and must have the appropriate metering infrastructure in place to verify their response and compliance with reliability requirements and market rules. The Customer can specify the hours and days available for this service. Participation and performance measurement is as follows:

- a. The event begins the minute PJM makes the call for notification. ECI passes this notification through directly to the Customer device or call center.
- b. The committed kW reduction is expected to be reached within ten (10) minutes of PJM notification.
- c. A separate notification is used to release the reduction requirement. If no release is received, the reduction requirement is no longer than thirty (30) minutes (beginning at the 10 minute mark after notification).
- d. Performance is measured by subtracting the average load during the event from the load at the time Customer is notified. The event window is defined as the period 10 minutes after notification to the end of the event.

ECI shall collect the Customer's one (1) minute meter data and submit to PJM for settlement. Payments are the result of an hourly auction for standby reserves which is managed by ECI given Customer's registered hourly participation profile. Any Customer payments are for performance. Zero performance in an event shall reduce the standby reserve payments for the month by approximately 25%. Partial performance incurs a pro rata reduction of 25% of the standby reserve payments for the month. The Customer shall never be required to make a payment for under performance. The payment details are shown in Appendix 2.



#### **5.4 Energy Efficiency (EE)**

"Customer" hereby authorizes EnergyConnect to represent them as their Energy Efficiency Conservation Service Provider in submitting EE projects to PJM. EnergyConnect will represent Customer in PJM with the goal of obtaining capacity payments for any EE measures taken. To the best of Customer's knowledge, the equipment that is being replaced as part of the EE project meets current building code standards and the new equipment provide additional efficiencies. This Authorization shall be in effect for 4 years for each EE project submitted.

#### **Section 6 – Modifications and Waiver**

This Agreement shall not be modified in any manner unless in writing and signed by both Parties. No waiver of any breach of any provision of this Agreement will constitute a waiver of any prior, concurrent or subsequent breach of the same or any other provisions hereof, and no waiver will be effective unless made in a non-electronic writing signed by an authorized representative of the waiving party. Parties shall use their commercially reasonable efforts to keep non-public proprietary information that is marked confidential and that is exchanged under this Agreement confidential to the extent legally permitted.

#### **Section 7 – Notices**

All notices given under this Agreement must be in writing and except as otherwise expressly provided in this Agreement, must be in a non-electronic form. Notices shall be deemed given as of the day received by the addressee party via messenger or courier delivery service and addressed as follows or to such other address as a party may give notice of:

##### **To ECI:**

EnergyConnect, Inc.  
901 Campisi Way, Suite 260  
Campbell, CA 95008  
Fax: 866.858.0478  
Attention: VP of Grid Operations

##### **To Customer:**

City of Columbus, Department of Public Utilities  
Utilities Complex  
910 Dublin Road, 4<sup>th</sup> Floor  
Fax: 614-645-8019  
Attention: Joe A. Lombardi

#### **Section 8 – Severability**

If any provision of this Agreement is determined by a court of competent jurisdiction to be invalid or unenforceable under any applicable law, then such provision will be deemed modified to the extent necessary in order to render such provision valid and enforceable; if such provision may not be so saved, it will be severed and the remainder of this Agreement will remain in full force and effect.

#### **Section 9 – Governing Law; Venue; Attorneys' Fees**

This Agreement will be governed by the laws of the State of Ohio, U.S.A. All claims, counterclaims, disputes and other matters arising out of or relating to this Agreement or its breach will be decided in a court of competent jurisdiction in Franklin County, Ohio.

#### **Section 10 – Rights and Remedies Cumulative**

All rights and remedies under this Agreement are cumulative and not exclusive, and any reference in this Agreement to, and/or the exercise of, a particular right or remedy will not exclude or constitute a waiver of any other rights or remedies available under this Agreement, at law or in equity.

#### **Section 11 – Assignment**

This Agreement may not be assigned by Customer in whole or in part, by contract or operation of law, without the written consent of ECI. ECI may assign this Agreement to any affiliate or subsidiary (direct or indirect) or in connection with a sale or assignment of its business without the written consent of Customer.

#### **Section 12 – Independent Contractors**

The parties are independent contractors and nothing in this Agreement will be construed as creating an employer-employee relationship, a partnership, or a joint venture between the parties. Neither party has any authority to assume or create obligations or liability of any kind on behalf of the other.

#### **Section 13 – Entire Agreement**

This Agreement constitutes the entire agreement between the parties regarding the subject matter hereof and supersedes any and all prior and contemporaneous agreements or communications with respect to such subject matter.

The Parties hereby approve and accept these terms.

**EnergyConnect, Inc.**

**Customer:** City of Columbus, Department of Public Utilities

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Printed Name)



## Appendix 2 - Program Pricing and Payments

### GridConnect Subscription Fee

Customer shall pay ECI a monthly subscription fee of \$125 per registered facility that will be deducted from available unpaid revenues due to the Customer from ECI. In the event that there are insufficient earned revenues from participation to cover these fees during the term of the contract, the customer will not be liable for any accrued payments. In the event of early termination of this contract and insufficient unpaid revenues are available to cover these subscription fees, payment of any outstanding subscription fees shall be immediately due and payable by Customer.

### EventConnect – Capacity Program

Customer Share of PJM Capacity Payment per kW		
Committed Load Drop	Customer Share	2011 Customer Payment @ \$40.275/kW
2000 kW or greater	85%	\$34.233

$$\text{Customer's Capacity Payment (\$/kW)} = \text{PJM Capacity Payment} \times \text{Customer Share of PJM Capacity Payment \%}$$

2011 is the last year for PJM's Interruptible Load for Reliability (ILR) program which can be quoted with a known price. Hereafter, PJM requires that EnergyConnect secure in advance a Capacity obligation on your behalf. Capacity for future years is available in future auctions, with the next auction scheduled for April, 2011 for the delivery year of 2012. Capacity payments will be determined from the auctions. EnergyConnect will agree to bid your obligation in these future auctions, depending on your needs and direction.

If applicable, the Customer shall be eligible for additional compensation for curtailed energy during PJM emergency events based on the prevailing energy price per MW as set by PJM. The Customer payment will be calculated using the same percentage share as the Customer share of PJM capacity payments in Appendix 3. This energy payment is not earned for participation in the annual PJM ILR test.

### FlexConnect – Economic Real Time Load Response and Real Time Dispatch

EnergyConnect will present a net forecasted FlexConnect price to the customer at approximately 4 PM (Eastern) the day before the Demand Response is to be scheduled. The final net payment to the Customer shall be calculated as follows:

$$\text{Actual Load Drop} * ((\text{RTLMP} * \text{Discount Rate}) - \text{Customer Retail Energy Rate}) = \text{Net FlexConnect Payment}$$

Where; Actual Load Drop equals each kW of electrical load reduced below the Customer's CBL in accordance with PJM definitions  
RTLMP equals the PJM Real Time Locational Marginal Price for that hour of curtailment. Discount Rate equals:

Discount Rate	Registered Load Drop
85%	2,000 kW or greater
80%	1,000 kW – 1,999 kW
75%	500 kW – 999 kW
70%	Less than 499 kW

Should PJM or other regulatory authority change rules to eliminate the retail rate subtraction, then the Customer's net payment will be:

$$\text{Actual Load Drop} * (\text{RTLMP} * \text{Discount Rate}) = \text{Net FlexConnect Payment}$$

### ReadyConnect – Synchronized Reserve

The Customer shall receive 70% of the ReadyConnect price as shown in the reports section of the GridConnect platform. Zero performance in an event shall reduce the stand by reserve payments for the month by 25%. Partial performance incurs a pro rata reduction of 25% of the standby reserve payments for the month.

### Metering Solution

☐ \$450 per month per data logger  
Number of data loggers \_\_\_\_\_  
the end of the contract.

Total monthly payment for the metering solution \$ \_\_\_\_\_. The Customer will own the unit(s) at

OR

☒ Not Applicable

CUSTOMER INITIALS \_\_\_\_\_ Date: \_\_\_\_\_