



AGENDA ITEM EXECUTIVE SUMMARY

Title:	Recommendation to Approve an Electric Demand Response Program
Presenter:	Glynn Amburgey

Please check appropriate box:

<input type="checkbox"/>	Government Operations	<input checked="" type="checkbox"/>	Government Services 01.24.11
<input type="checkbox"/>	Planning & Development	<input type="checkbox"/>	City Council
<input type="checkbox"/>	Public Hearing	<input type="checkbox"/>	

Estimated Cost:	\$0	Budgeted:	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
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If NO, please explain how item will be funded:

Executive Summary:

Demand response programs are designed to reduce the need for future power plants by reducing the amount of electric load at peak times. We have received requests from industrial customers for them to be able to participate in the demand response program being offered by the Regional Transmission Organization (PJM) which provides electric transmission line management in our region. PJM will pay industrial customers to reduce load when called on during peak events. This voluntary program is available to customers who have the capability to shut down or reduce loads when called. Our contract with IMEA does not allow our customers to deal directly with PJM, but this action will allow them to participate in the PJM program through IMEA. The PJM compensation is split 50/50 between our customer and IMEA. This item incorporates the IMEA program by ordinance and allows our customers to participate in the PJM program and receive compensation for reducing demand during peak events. Any cost incurred by the city for the program are paid by the customer.

Attachments: (please list)

Demand Response Program Ordinance

Recommendation / Suggested Action (briefly explain):

Accept the IMEA Demand Response Program, approve the Ordinance with Respect to Aggregation of Demand Response on behalf of Retail Customers served by the St. Charles Municipal Electric Utility and authorize code addition 13.08.330 Bidding or Selling of System Demand Response.

<i>For office use only:</i>	<i>Agenda Item Number: 5.b</i>
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City of St. Charles, Illinois
ORDINANCE NO. 2011-M- _____

AN ORDINANCE AMENDING TITLE 13 “PUBLIC UTILITIES” OF THE CITY OF ST. CHARLES MUNICIPAL CODE – ADDING A NEW SECTION 13.08.330 “BIDDING OR SELLING OF SYSTEM DEMAND RESPONSE”

WHEREAS, the City of St. Charles has heretofore enacted Ordinance No. 2009-M-11 wherein the City Council restricted and precluded its electric customers from bidding or selling demand response into any organized electric or ancillary services markets operated or administered by the regional transmission organization, PJM Interconnection, L.L.C. (“PJM”), or otherwise participating in such markets with any demand response resources whether directly or through a third-party aggregator; and

WHEREAS, the recitals in the prefatory portion of Ordinance No. 2009-M-11 acknowledge the nature of the City’s electric utility, the City’s relationship with its power supplier, Illinois Municipal Electric Agency (“IMEA”), and the then ongoing activities by the Federal Energy Regulatory Commission (“FERC”) in connection with the enactment of rules and regulations intended to enhance the operation of the organized wholesale electric and ancillary services markets of Regional Transmission Organizations (“RTOs”) and Independent System Operators (“ISOs”), including rules governing the participation in such markets by end user customer demand response resources; and

WHEREAS, FERC Order 719 originally required RTOs and ISOs to permit demand response resources to be bid directly into their organized markets by retail customers and aggregators of retail customers unless the laws and regulations of the relevant electric retail regulatory authority expressly precluded such participation by retail customers, but FERC subsequently issued Order 719-A which modified the rule to prohibit RTOs and ISOs from accepting bids that include demand response from within small utilities that distributed up to 4 million MWh during the previous year unless the relevant electric retail regulatory authority expressly authorizes such participation; and

WHEREAS, PJM has revised its rules and regulations regarding demand response in response to FERC Order 719-A and since the City’s electric utility is a small utility that distributes less than 4 million MWh per year, the City Council (as the relevant electric retail regulatory authority) must grant express permission and authority before any demand response resources from within the City’s utility system may participate in any demand response program or market in PJM; and

WHEREAS, IMEA is registered with PJM as a Curtailment Service Provider with respect to demand response resources and has enacted a Demand Response Program pursuant to which the City may work with its end user customers who have demand response resources and IMEA to offer and sell such resources into the PJM markets; and

WHEREAS, the City Council of the City of St. Charles, having considered the foregoing, hereby determines that it is in the best interests of the City to authorize the City of St. Charles Municipal Electric Utility ("SCMEU") to act through IMEA to offer, sell and otherwise participate in the PJM programs and markets with demand response resources from within the City's electric utility system, including any generation or other demand response resources owned by the City.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ST. CHARLES, KANE AND DUPAGE COUNTIES, ILLINOIS, AS FOLLOWS:

SECTION ONE: The findings and determinations set forth in the preamble to this Ordinance are hereby made findings and determinations of the City Council of the City of St. Charles and incorporated into the text of this Ordinance by this reference.

SECTION TWO: The City Council of the City of St. Charles hereby authorizes the St. Charles Municipal Electric Utility acting with and through its power supplier, Illinois Municipal Electric Agency, to operate as a Curtailment Service Provider with respect to demand response resources within the City's municipal electric utility system, including any generation owned by the City, and to offer and sell such demand response resources into programs and markets of PJM Interconnection, L.L.C. or its duly authorized successor.

SECTION THREE: Chapter 13.08, "Electricity," of Title 13, "Public Utilities," of the St. Charles City Code is hereby amended by adding Section 13.08.330 as follows:

Section 13.08.330 Bidding or selling of system demand response.

- A. General prohibition against bidding or selling system demand response. Except as provided in subsection B of this section, the customers of the SCMEU are hereby restricted and precluded from bidding or selling demand response into any organized electric or ancillary services markets operated or administered by PJM (or any successor independent system operator or regional transmission organization) or otherwise participating in such markets with any demand response resources whether directly or through a third-party aggregator.
- B. Exception to general prohibition. Notwithstanding the general prohibition stated in subsection A, above, the SCMEU, acting with and through its power supplier, Illinois Municipal Electric Agency (IMEA), is hereby approved, authorized and permitted to operate as a Curtailment Service Provider with respect to demand response resources within the City's municipal electric utility system, including any generation owned by the City, and to offer and sell such demand response resources into programs and markets of PJM Interconnection, L.L.C. or its duly authorized successor. Participation shall be subject to the terms and conditions of the IMEA's Demand Response Program, a copy of which is attached as Appendix A, as such program is amended by the IMEA from time to time.

- C. All costs incurred by the SCMEU for implementation and continued operation of the Demand Response Program will be the direct responsibility of the customer. Costs will be billed to the customer at the time the expense is incurred. These costs include the cost of metering equipment, monitoring equipment, communication devices, communication services, extra meter reading (if required), maintenance of equipment, equipment replacement, billing expense and any other additional costs directly or indirectly related to this program. Charges include cost for equipment, labor or both.

APPENDIX A

**ILLINOIS MUNICIPAL ELECTRIC AGENCY
DEMAND RESPONSE PROGRAM**

1. Policy Statement. The Illinois Municipal Electric Agency ("IMEA" or Agency") hereby declares its intention to cooperate with Participating Members to further the State of Illinois and National policies in favor of utilizing demand response resources.
2. Purpose. The purpose of the Agency's Demand Response Program is to provide appropriate incentives for end user customers who have demand response resources on the distribution systems of IMEA Participating Members and other purchasers from IMEA (hereinafter and for purposes of this Program the term "Participating Member(s)" shall be deemed to include non-member entities purchasing their full requirements from IMEA) to use those resources to help reduce the need for capacity and energy during times when it would be economical or beneficial to the national/regional transmission grid to reduce load. A demand response resource is broadly defined as the ability to reduce load when directed (either through the running of end user customer owned/controlled generation or through interruption of electric supply to specific equipment and/or processes that consume electricity). The incentive provided under this Program is the ability to participate indirectly through IMEA in certain of the demand response programs offered by the Regional Transmission Organization ("RTO") and share revenues realized from such participation. Such participation by the end user customer would be through the Participating Member serving the end user customer with electricity and through the Agency. The Agency is not at this time able to offer indirect participation in all of the demand response programs offered by the RTOs. In addition, the demand response program offerings of the two RTOs available to IMEA alternatively by geographic location are not the same, and their rules, regulations and business practices differ even for similar programs.
3. Availability. Subject to the qualifications set forth herein, this Program is available to Participating Members who have a Power Sales Contract with the Agency in full force and effect and whose service areas are geographically located within the footprint of a Regional Transmission Organization ("RTO") that has one or more programs that allow for participation by end user customer demand response resources.

4. **Applicability.** This Program is applicable in connection with electric service provided by the Agency to Participating Members for meeting the requirements of certain of the Participating Member's retail end user customers that meet the qualifications and approval requirements set forth herein. Power Sales Rate Schedule B remains applicable to electric service for all requirements for municipal use and redistribution to retail customers purchased in accordance with the provisions of the Power Sales Contract, other than those requirements purchased under Schedules B-2, B-4, and B-6.

Applicability to Participating Member Retail Load. Participating Members have an obligation under their Power Sales Contracts to purchase all of their electric requirements from IMEA. However, Participating Members also have municipally-owned and operated structures and facilities (such as municipal buildings and sewer and water facilities) that use electricity provided through the Power Sales Contract at retail, and for such a retail electric load the Participating Member is its own retail end user customer. The following exception is designed to balance those competing interests. To the extent that an individual Participating Member can demonstrate that it has demand response resources directly connected to retail electric load and not designed or used as part of the Participating Member's electric utility, it may be considered for inclusion under this Program under the same terms as conditions as other demand response resources; provided however, no single generating unit of a Participating Member with a nameplate kilowatt (kW) rating larger than 500 kW shall be eligible for inclusion under this Program. The Agency may contract separately with a Participating Member that has such a unit or that has non-dedicated generating units as part of its utility operation on different terms and conditions acceptable to the President & CEO.

5. **Application and Approval Process.** The Participating Member must apply to the Agency for approval of each end user customer demand response resource that it wishes to place in the program for each applicable delivery year. Such application must contain all required information for the Agency to determine if the end user customer demand response resource meets the qualifications to be registered through the Agency in the RTO program and must be submitted no later than 10 business days prior to any applicable deadlines (whether imposed by the RTO or the owner of the transmission system) for submission of the registration application for any delivery year. The Agency will advise interested Participating Members of such deadlines upon request. No end user customer shall have its demand response resources included in the program unless participation is approved by the Agency and by the RTO. Preliminary approval by the Agency shall be based on a determination by the Agency that the demand response resources meet the qualifications of this Program and to be registered through the Agency in the RTO program. If the Agency preliminarily approves the application, the demand response resource will be offered for registration with the RTO. If the RTO approves the demand response resource for participation in its program, the Agency's preliminary approval will become a final approval.
6. **End User Customer Qualifications.**

- (a) **Maximum Capacity Resources.** IMEA's ability to receive credit for demand response resources with respect to an individual Participating Member's distribution system(s) is limited by the peak load of the distribution system or physical subparts of the distribution system that have load restrictions. A number of Participating Members own and operate generation that is connected to their distribution systems behind the meter, and most of this generation is dedicated to the Agency for its dispatch and use to satisfy capacity obligations. To participate in the program, the demand response resource must be located in and connected to a Participating Member distribution system that has sufficient available capacity obligation such that the Agency can receive credit from the RTO for the resources. Generation dedicated to the Agency shall be counted first to determine if the cap for maximum capacity resources has been met or exceeded. Other applications for participation by demand response resources shall be considered on a first come first serve basis, provided all other qualifications are met.
- (b) **Minimum Resource Requirement.** To participate in the program, the demand response resource must be capable of reducing at least 100 kW of load.
- (c) **Uncommitted Resource.** To participate in the program, the demand response resource must not be committed by contract or otherwise to any other program that would be in conflict with IMEA's use of the resources when called upon.
- (d) **RERRA Authorization.** Federal Energy Regulatory Commission ("FERC") Order 719-A prohibits RTOs from accepting bids of demand response resources from within small utilities unless the Relevant Electric Retail Regulatory Authority ("RERRA") expressly authorizes such participation. The cut off for a small utility is that it distributed 4 million MWh or less during the previous year. All of IMEA's Participating Members currently fall within the 4 million MWh or less category. To participate in the program, the demand response resource must be located in and connected to a Participating Member distribution system where the RERRA has specifically authorized by appropriate action the participation of demand response resources under its jurisdiction in such a program. The individual Participating Member that is a purchaser from the Agency is the RERRA for its customers. IMEA can provide a sample Ordinance or Resolution upon request for any Participating Member to satisfy this requirement.
- (e) Any end user customer intending to run generating units in support of local load for the purpose of participating in the program must represent in writing to the Participating Member and the Agency that the end user customer holds all applicable environmental and use permits for running those generators. Participation in the program (including any continuation thereof throughout the Delivery Year or in future periods) will be deemed as a continuing representation by the owner of the generating units that each time its generating units are run in accordance with the program it is being run in compliance with all applicable permits, including any emissions, run-time limits or other constraint on plant operations that may be imposed by such permits. The end user customer shall be

and remain responsible for all its costs associated with environmental and other laws and its compliance with the foregoing permits, including but not limited to all fines and penalties.

- (f) The Participating Member or the end user customer shall be required to have appropriate metering equipment installed at the end user customer generation or otherwise for non-generation demand response resources such that the Agency will be able to measure the load reduction on an integrated hourly basis. The metering equipment must meet the RTO's metering requirements. The cost of the metering equipment shall be paid by the end user customer or the Participating Member and will not be reimbursed the Agency.
 - (g) The end user customer shall be required to have installed and/or to grant IMEA all required license, access and permission to come on its premises during all necessary times to maintain appropriate communications equipment and communications service so that IMEA may monitor the generation or load reduction in real time, and the end user customer shall be required to have at all relevant times under the program the ability to be capable of receiving notification from IMEA (upon IMEA's receipt of notification from the RTO) to participate during emergency conditions.
 - (h) The end user customer shall commit in writing to the Agency to provide IMEA with all information reasonably requested by IMEA or necessary for IMEA to comply with the rules, regulations, business practices and any other requirements of the RTO in connection with the RTO programs.
 - (i) The end user customer must commit in writing to the Agency to comply in a timely manner with any and all testing or other verification requirements imposed by the RTO with respect to the demand response resources.
 - (j) The end user customer must commit in writing to the Agency to run its generation or otherwise reduce load (for non-generation demand response resources) up to the level placed into the program upon notification to do so under the program, and the Participating Member or the end user customer shall be required to make a commitment in writing to the Agency to pay any penalties imposed by the RTO for failure to comply with directions for load reduction.
7. Program Operations. The requirements of the program for each demand response resource shall be determined by the appropriate tariff, contract, business manual or other appropriate controlling document of the RTO for the RTO program within which the resource is placed.

For example, under the PJM ILR Program, the demand response resource would need to be available to be called upon for up to ten events throughout the program delivery year (June 1 of the appropriate calendar year through May 31 of the following calendar year) and would need to be able to respond and come up to full capacity commitment within

one hour of notification. Each event would be limited to six consecutive hours between 12:00 PM and 8:00 PM (Eastern Prevailing Time) for the months of May through September and between 2:00 PM and 10:00 PM for the months of October through April on weekdays other than PJM holidays. IMEA would be paid a fixed capacity payment by PJM for the demand response resources placed into the PJM program based on the auction price. If a demand response resource participating in the PJM program is unable to respond to an event that occurs during the summer months, there would be a penalty from PJM and a corresponding reduction or reimbursement of the capacity payment associated with such resource under this IMEA program.

If IMEA Staff determines in the discretion of the President & CEO that it can put demand response resources into a particular program of an RTO, IMEA will take necessary steps to offer that opportunity to Participating Members and the demand response resources of their end user customers. The operating requirements would be based on the operating requirements of the RTO for such program or parts thereof, which may differ from the operating procedures of other RTO programs.

The end-use customer shall abide by its commitment to provide IMEA with all information necessary for IMEA to comply with the rules, regulations, business practices and any other requirements of the RTO in connection with the RTO's programs. The end user customer shall abide by its commitment to run generation or otherwise reduce load (for non-generation demand response resources) up to the level placed into the program upon notification to do so under the program.

8. Verification and Testing. The Participating Member shall read the metering equipment associated with the demand response resources on its system promptly upon any program event where load reduction is required and shall provide all required information to IMEA in a timely manner so that IMEA may meet the verification requirements of the RTO. The end user customer shall abide by its commitment to have its demand response resources tested in accordance with the RTO's requirements.
9. Compensation. Compensation will be made by the Agency to the Participating Member for participation in the program if and only if and to the extent the Agency receives payment or credits from the RTO in connection with the individual demand response resource.

IMEA shall share the net revenues from the capacity payments under the RTO program with the Participating Member on a 50/50 basis. The amount which the Participating Member shares with the end user customer would be a matter to be determined by the Participating Member and the end user customer.

For example, under the currently existing PJM ILR Program, IMEA would be paid a fixed capacity payment by PJM for the demand response resources placed into the PJM program based on the auction price. If demand response resources participating in the PJM program are unable or the end user customer otherwise is unwilling or fails to respond to an event that occurs during the summer months, there would be a penalty from

PJM which would be subtracted out of any compensation associated with such resources, and if the monthly payment is not sufficient to cover the penalty the remainder of the penalty shall be billed to the Participating Member.

IMEA would not reimburse the Participating Member for the end user customer's cost of fuel for any generation runs required as a result of participation in the program and would not make any generation payment in connection with any generation runs required as a result of participation in the program, provided however any energy produced by the running of generation shall not be added back to the Participating Member's invoice for power purchased under the Power Sales Contract.

Compensation shall be in the form of either direct payment to the Participating Member or through credits on the Participating Member's invoice for power purchased under its Power Sales Contract. Such credits shall be paid as payments are received by IMEA from the RTO.

10. Penalties. IMEA shall not be responsible for any penalty imposed by the RTO for the failure to respond by the end user customer's demand response resources. The Participating Member or the end user customer shall be responsible to pay any penalties imposed by the RTO. If demand response resources participating in an RTO program are unable or the end user customer otherwise is unwilling or fails to respond to an event and a penalty is imposed on IMEA, the penalty shall be billed to the Participating Member by IMEA. The manner in which the Participating Member would recover the penalty from the end user customer would be a matter to be determined by the Participating Member."

SECTION FOUR: The City Council of the City of St. Charles hereby authorizes and empowers the Electric & Communications Manager to administer the participation of any demand response resources from within the City's electric utility system in the IMEA Demand Response Program and to develop necessary forms for participation in the program by end user customers and execute any and all documents reasonably necessary or required in connection with such administration.

SECTION FIVE: After the adoption and approval hereof, this Ordinance shall (i) be printed or published in book or pamphlet form, published by the authority of the Council, or (ii) within thirty days after the adoption and approval hereof, be published in a newspaper published in and with a general circulation within the City of St. Charles.

SECTION SIX: That all ordinances and resolutions, or parts thereof, in conflict with the provisions of this Ordinance are, to the extent of such conflict, expressly repealed.

SECTION SEVEN: That this Ordinance shall be in full force and effect ten (10) days from and after its passage, approval and publication as provided by law.

Ordinance No. _____

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PRESENTED to the City Council of the City of St. Charles, Illinois, this _____ day of _____, 2011.

PASSED by the City Council of the City of St. Charles, Illinois, this _____ day of _____, 2011.

APPROVED by the Mayor of the City of St. Charles, Illinois this _____ day of _____, 2011.

Donald P. DeWitte, Mayor

ATTEST:

City Clerk

COUNCIL VOTE:

Ayes:

Nays:

Absent:

Abstain:

APPROVED AS TO FORM:

City Attorney

DATE: _____, 2011