ENVIRONMENTAL DEFENSE FUND’S RESPONSE TO ICC’S QUESTIONS FOLLOWING DG WORKSHOP 2

Environmental Defense Fund (“EDF”), provides the following comments in response to the Illinois Commerce Commission’s (“ICC”) request for comments following the ICC’s Second Distributed Generation Valuation and Compensation Stakeholder Workshop of June 28, 2018. EDF is a national nonprofit organization whose mission is to preserve the natural systems on which all life depends. Guided by science and economics, EDF finds practical and lasting solutions to the most serious environmental problems. EDF has a strong interest in minimizing the electric industry’s significant contribution to climate change and other environmental problems.

Illinois’s electric grid is evolving. Advanced Metering Infrastructure enables, among many things, two-way communication between meters, devices, and the utility’s distribution system. Through the Future Energy Jobs Act (“FEJA”), the General Assembly set ambitious targets for procurement of long-term, preferably in-state, distributed generation (“DG”), and described a number of incentives for development of distributed generation. As noted by the General Assembly, smart inverters allow this DG to not only serve customer/owners’ load but also to communicate with and respond to signals from the grid to provide 1) support during distribution system reliability events, and 2) other services, such as dynamic reactive and real power support, voltage and frequency ride-through, and ramp rate controls. 220 ILCS 5/16-107.6(a).

FEJA requires a one-time rebate for installation of distributed generation beyond a 5% threshold of total peak demand supplied by each ComEd and Ameren. Up until that threshold, customers may elect net metering for both the delivery and supply portion of their bill. Beyond that threshold, customers installing new distributed generation may net meter only the supply portion of their bill, but may apply for a one-time rebate for installation of distributed generation.
The Commission must determine the value of those rebates. When the total generating capacity of the utilities’ net metering customers is equal to 3%, the Commission must open an investigation into an annual process and formula for calculating the value of distributed energy resource rebates. Among the factors to be considered in calculating the value are the location at which the generation is interconnected, technological capabilities, and future grid needs.

In preparation for that investigation, the ICC organized two workshops and commissioned a white paper from the Pacific Northwest National Laboratory (“PNNL”). EDF participated in both workshops and is an active participant in the current 16-107.6(a) proceedings for both ComEd and Ameren. EDF appreciates the opportunity to provide comments here. Following Workshop 2, the ICC requested stakeholder responses to a number of questions. EDF responds below to some of these questions. We have provided relevant expertise and considerations where possible at this preliminary phase of the statutorily-required investigation. It should be further understood that EDF’s lack of comment on any issue should not be construed as agreement with the position in the white paper or with any other stakeholder. EDF expects to modify, refine, and further develop the below in the 107.6(e) proceeding.

3. Regarding the different benefits of distributed energy resources, please provide input on the following:
   a. Which value streams should be included in the Section 16-107.6 DG rebate?
   b. Which value streams should be separately compensated pursuant to Section 16-107.6?

EDF, jointly with Citizens Utility Board, and other stakeholders have provided extensive testimony in ICC Docket Nos. 18-0537 and 18-0753 which is relevant to these questions. EDF maintains that FEJA provides clear guidance for the utilities in implementing this rebate. Any use of a customer’s distributed generation and smart inverter that is 1) outside of a distribution system

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1 EDF understands that issues with determining the 3% and 5% thresholds discussed at 220 ILCS 16-107.6(e) will not be addressed in this process.
reliability event, and 2) goes beyond the specific requirements outlined in the statute must be separately compensated. EDF/CUB submitted “checklist” for determining whether a service provided by a smart inverter must be separately compensated pursuant to Section 16-107.6:

I. Qualifying Smart Inverter Capability
   To be listed as a required capability, the function of the Smart Inverter must meet ONE of the following criteria:
   ○ The capability is included in the definition of “smart inverter” in 220 ILCS 5/16-107.6
   OR
   ○ The capability is required in the IEEE 1547 – 2018 standard

II. Default Rebate Operation and Control
   To be activated and used by Ameren before separate compensation is required, the function or Mode of Operation must meet ALL of the following criteria:
   ○ Must be for the purpose of preserving reliability
   AND
   ○ Must only function during distribution system reliability events / abnormal operating conditions
   AND
   ○ Must not operate during normal operating conditions
   AND
   ○ Must fall within allowable ranges under the IEEE 1547 -2018 standard for the DER penetration Category

III. Operation Where Separate Compensation is Required
   If the function or Mode of Operation of the Smart Inverter is used outside of a distribution reliability event and/or functions during normal operating conditions, and if the Commission determines that the function or Mode of Operation would be beneficial (including, but not limited to, voltage and VAR support, regulation, and other grid
services), separate compensation over and above the basic $250 per kilowatt of nameplate generating capacity is required.

FEJA limits utility operation and control of smart inverters to distribution system reliability events for the purpose of preserving reliability without additional compensation. This statutory restriction ensures that utilities cannot control and operate smart inverters to achieve other objectives, such as economic curtailment, that could harm distributed generation. The General Assembly recognized that a general goal of “preserving reliability” could be too broad, and manipulated by a utility to claim any control or operation of a smart inverter is justified under their self-selected role as the arbiter of what preserves reliability. The General Assembly therefore further restricted utility operation and control of the smart inverters to the condition of “during distribution system reliability events.” 220 ILCS 5/16-107.6. The whitepaper references many potential values DG and smart inverters can provide to the system. EDF concurs, and emphasizes that all of these values must be separately compensated if used by the utilities.

When considering which value streams should be included in the “basic” rebate as opposed to which should be compensated separately, the Commission should also bear in mind the difference between the value of “being” versus the value of “doing.” That is, the statute clearly defines the basic requirements of smart inverters, and by simply meeting those basic requirements, customers are eligible for the basic rebate (currently $250/kW). Use of those functions – with the exception of for reliability purposes during reliability events – and use of other functions (“doing”) requires separate compensation.
4. Regarding the calculations of the various value streams, if not included in your general response, please provide input on the following:
   a. How should each value stream that is included in the Section 16-017.6 DG rebate be calculated?

   FEJA notes a number of considerations that values should reflect, including geographic, time-based and performance-based benefits, as well as technological capabilities and present and future grid needs. 220 ILCS 5/16-107.6(e). This is a non-specific and non-exhaustive list, given the broad nature of each. For example, “future grid needs” may vary based upon the extent of potential increased electrification. As the ICC has acknowledged through recent policy sessions and in the NextGrid process, advances in technologies such as electric vehicles may lead to increased load. DG could be used to, among other things, offset EV charging loads and future infrastructure investments. Each statutorily-noted value consideration is likely to be similarly-evolving based on technological innovations, a changing grid profile, etc. Additionally, the values should take into consideration the value of assets over their life – 25 years or more, in some cases – as opposed to, for example, their one-year capacity replacement value (and their value in the future may be different than their current value, as there will be many changes to the grid in the coming 25 years). As noted in the whitepaper, there are a number of existing examples from other jurisdictions for calculating these values, but EDF stresses that Illinois is in a unique position and should develop methodologies that take into account Illinois’s unique characteristics.
7. In terms of the next procedural steps prior to the initiation of the investigation pursuant to Section 16-107.6, we welcome your comments on the following:

b. Should the Commission use a designated working group process? If so, how should the working groups be structured, governed, and otherwise implemented?

EDF is not opposed to a working group process to the extent that it provides an opportunity for Commission and stakeholder education and for reaching consensus where possible in advance of the 107.6(e) proceeding. However, it should be understood that such a process would not preclude parties from participating in the docketed proceeding, and should not be a substitute for that proceeding.