Commonwealth Edison Company

Petition for Statutory Approval of a Smart Grid Advanced Metering Infrastructure Deployment Plan pursuant to Section 16-108.6 of the Public Utilities Act. (Reopen)

Illinois Commerce Commission
On Its Own Motion

Commonwealth Edison Company

Investigation regarding progress in implementing the Advanced Metering Infrastructure Deployment Plan. (Reopen)

Commonwealth Edison Company

Petition to Approve Acceleration of Meter Deployment under ComEd’s AMI Plan.

VERIFIED REPLY COMMENTS OF THE CITIZENS UTILITY BOARD AND THE ENVIRONMENTAL DEFENSE FUND

Now come the Citizens Utility Board (“CUB”) and the Environmental Defense Fund (“EDF”), pursuant to the Rules of Practice of the Illinois Commerce Commission (“ICC” of “the Commission”), 83 Ill. Admin. Code Part 200, and pursuant to the schedule established by the Administrative Law Judge (“ALJ”), to file these Verified Reply Comments in the above captioned proceeding. This proceeding is to review a proposal by the Commonwealth Edison Company (“ComEd” or “the Company”) to accelerate the deployment of Advanced Metering Infrastructure Deployment (“AMI”) beyond what was last approved by the Commission in Docket 13-0285,¹ the review of ComEd’s annual AMI Implementation

¹ The consolidated cases here consist of ICC Docket No. 12-0298, ComEd petition for statutory approval of a Smart Grid AMI Deployment Plan (“AMI Plan”) pursuant to Section 16-108.6 of the Public Utilities Act (“PUA”), and ICC Docket No. 13-0285, the Commission’s investigation into ComEd’s progress on its AMI Plan. Two orders were issued in ICC Docket No. 12-0297: a Final
Progress Report ("AIPR"). Under the Energy Infrastructure Modernization Act ("EIMA"),
Public Act 97-616, and modified by Public Act 97-646, ComEd is obligated to invest
$1,300,000,000 in transmission and distribution infrastructure and in “Smart Grid electric
system upgrades,” as a result of the Company’s election to recover its delivery services costs

When the Commission first reviewed ComEd’s Smart Grid AMI Deployment Plan
(“the Plan”) in 2012, several parties, including the City of Chicago and CUB, urged the
Commission to order the Company to deploy AMI over a period of five years instead of the
Company’s proposed ten years to increase the benefits to ComEd customers from those
investments. See generally ICC Docket No. 12-0298. Though the Commission expressed
concern that a longer deployment of ten years would delay investment benefits to
ratepayers, the Commission concluded that ComEd was in the best position to know how
long deployment of AMI could take and approved a ten-year schedule. 12-0298 Final Order
at 14-15.

Now ComEd has testified that not only is a shorter deployment schedule desirable
but also that it is possible. In line with the recommendations of EDF’s expert witness who
analyzed ComEd’s initial Plan, CUB and EDF support ComEd’s current proposal before the
Commission to accelerate its investment in AMI.

No party to this case contests that doing so will increase the total net present value
of those investments to ComEd customers. Only one party now asks the Commission to
overlook that increase and reject ComEd’s proposal. The People of the State of Illinois,
through the Attorney General’s Office ("the AG" or “the People”), believe that allowing
ComEd to accelerate its deployment of AMI will create “intergenerational inequities.”

Order was issued on June 22, 2012 in ICC Docket No. 12-0298 ("12-0298 Final Order"), an Order on
Rehearing was issued on Dec. 5, 2012 ("12-0298 Rehearing Order"). A Final Order was issued on
Verified Init. Comments of the People of the State of Ill., ICC Docket No. 14-0212 (Apr. 30, 2014) (“AG Comments”). In other words, the AG believes that since ComEd can’t guarantee that all current customers will remain ComEd customers, ComEd’s proposal to increase the value of its overall deployment should be rejected.

The Commission should reject the AG’s proposal. Mandating that ComEd maintain its current schedule will deny the benefits of AMI to those customers who would otherwise receive an AMI meter sooner. Only customers with an AMI meter may participate in the dynamic pricing programs the AG agrees should be offered by ComEd, and the longer customers wait for their AMI meters, the longer they are denied the reliability and operational benefits realized by full deployment. ICC Docket No. 12-0298, AG Init. Br. at 4.

While the AG’s argument of intergenerational inequity might have merit where utility rates are set according to traditional test year rules, the fact remains that the Commission in this case must evaluate ComEd’s proposal under the framework created by the EIMA. This mandates large, system-wide investments within ten years regardless of whether or not those investments have longer useful lives or longer timeframes before those investments yield their full benefits.

CUB and EDF believe the Commission is obliged to maximize the benefits of these investments to customers. The only way to do so is to deploy AMI system-wide as soon as practicable. The Commission should heed its own Staff’s conclusion that there is no reason ComEd cannot deploy these meters sooner. The Commission should approve ComEd’s request.

However, CUB and EDF do support the request of the AG that ComEd integrate accelerated customer education and outreach more directly into its new plan. The full benefits of AMI deployment include, for example, the opportunities for customers to
participate in new pricing programs. As a result, it is important that efforts be made to research and develop customer education strategies that can be employed as soon as meter deployment begins in earnest.

I. The EIMA Creates a Non-Traditional Test Year Scheme to Set Utility Rates

The AG maintains that the proposal to accelerate deployment of AMI should be rejected despite its projected increase of the net benefits received by ComEd customers. AG Comments at 3. The AG does admit that the existing AMI Plan approved in Docket No. 13-0285 is projected to yield positive net benefits (using ComEd’s discount rate of 3.53%) of approximately $795 million for ComEd’s aggregated customers over the twenty-year period from 2012-2031, and that the Commission has concluded that the AMI Plan will eventually provide net benefits to all of ComEd’s customers. Id. at 2-3. The People also acknowledge ComEd’s calculation that its proposed acceleration would increase the net discounted benefit of the AMI program by approximately $85 million, to approximately $879 million, over twenty years. Id.

However, the AG maintains that ComEd’s proposal should be rejected because a quicker deployment will exacerbate “intergenerational inequity” among ComEd customers because most of the investment costs will be incurred in the early years and most of the benefits accrue in later years. Id. In other words, not all current ComEd customers will have the opportunity to benefit from these investments because of the population mobility among some areas of ComEd’s service territory. Id. at 4 (noting Cook County census data on population mobility). The factual basis upon which the AG relies for this argument, that a certain number of ComEd customers move from Cook County to other states, is no longer accurate because it is outdated. Id. Three years have passed from the end of the Survey upon which the AG relies, and in those years of ComEd customers paying formula rates, the
U.S. Census Bureau estimates that 46,025 more residents live in Cook County than in 2010.\(^2\) Even if it were up-to-date, the AG’s reliance on population trends in only one county to dictate policy for the entire service territory is misplaced. The EIMA requires that the Commission consider the net benefits to customers in ComEd’s entire service territory, such a consideration clearly dictates that the Commission approve an acceleration plan that would increase net benefits to that group.

The sole case cited by the AG does not provide any useful guidance here. The question before the Commission in that case was the appropriate treatment of certain deferred costs in the context of a traditional test-year rate case for the Illinois American Water Company. Final Order, Illinois-American Water Company, *Proposed general increase in water and sewer rates*, ICC Docket No. 02-0690 (Aug. 12, 2003) at 2-3. Unlike a traditional rate case, where a test year is used to match investment cost recovery with the rates paid by customers, the EIMA mandates a specific time period by which investments must be completed although those investments might have lifetimes of twenty or thirty years.

The test under the EIMA is not whether or not ComEd’s proposal is cost-beneficial on an annual basis. It is whether or not the Commission can find that implementation of the AMI Plan will be cost-beneficial consistent with the principles established through the Illinois Smart Grid Collaborative (“ISGC”), giving weight to the results of any Commission-approved pilot designed to examine the benefits and costs of AMI deployment. 220 ILCS 5/16-108.6(c). An AMI Plan is cost-beneficial if the present value of the total benefits of the Plan exceeds the present value of the total costs of the Plan. Total benefits include avoided utility operational costs, avoided consumer power, capacity, and energy costs, avoided

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\(^2\) U.S. Census Bureau, State & County QuickFacts for Cook County, Ill., http://quickfacts.census.gov/qfd/states/17/17031.html.
societal costs associated with production and consumption of electricity, the greater integration of renewable and distributed power resources, reductions in the emissions of harmful pollutants, benefits associated with energy efficiency measures, and demand-response activities. 220 ILCS 5/16-108.6(a).

The ISGC, with whose report any Commission decision must be consistent, noted that any cost-benefit assessment of smart grid investments, including AMI, should include discussion of the potential change in benefits and costs that may occur over time assuming various implementation schedules. 12-0298 CUB-ELPC Init. Brief at 14, citing the ISGC Collaborative Report at 231-232 (Sept. 30, 2010); see also ComEd Ex. 6.02 REV on Rehearing, ICC Docket No. 12-0298, at D3. Indeed, the ISGC Collaborative Report notes that consensus was achieved regarding the requirement for a cost-benefit filing to discuss “the potential change in benefits and costs that may occur over time assuming various implementation schedules.” Id.

Even in 2012, ComEd’s own consultants, Black & Veatch, concluded that implementation of AMI throughout the ComEd service territory over a five-year deployment scenario as opposed to a ten-year deployment scenario would increase the Net Present Value to ComEd’s customers by $144 million and would reduce the customer perspective payback period from nine years to eight years. 12-0298 CUB-ELPC Init. Br. at 15. Importantly, the evaluation notes that “the costs to implement and operate the AMI system vary only minimally between five-year and ten-year deployment scenarios. There is relatively more difference in the estimated benefits with the switch between a five-year or ten-year deployment.” Id.

It is true that there may always be customers who move out of a utility’s service territory and fail to realize the full benefits of any utility system improvements. For example, customers in one area of ComEd’s service territory may not receive any benefits
from reliability improvements, such as the undergrounding of cables, required by the EIMA. The Commission must consider system improvements like AMI in the context of the EIMA, which requires that the overall investment cost-beneficial.

The evidence in the record is that deployment of AMI sooner rather than later increases the benefits for ComEd customers. Given that the EIMA requires that ComEd complete deployment by 2021 at the latest, regardless of how long it would take all customers to receive a meter, the Commission should maximize cost savings in the deployment of AMI. 220 ILCS 5/16-108.6. Delaying investment over the course of the full ten years will increase costs overall to customers and decrease the net present value realized by the investment. The relevant inquiry for the Commission to make in reviewing a proposed modification to an AMI Plan is whether that modification “enhances and enables customers’ ability to take advantage of Smart Grid functions.” 12-0298 Final Order at 64. ComEd’s proposal will enable more customers to take advantage more quickly of Smart Grid functions, and should be approved.

II. Delaying AMI Deployment Delays Customer Realization of Benefits

Delaying investment means that more customers will not benefit from these first years of investment because, without an AMI meter, they will not be able to take advantage of pricing programs or benefit from the enhanced outage management enabled by AMI meters. ComEd stated in 2012 that its initial proposed deployment schedule resulted from “a desire to balance achievement of operational efficiencies, minimize costs to customers, and maximize participation of customers in and the peak-time rebate program.” 12-0298 ComEd AMI Plan at 21-22. ComEd implicitly acknowledged the desire to maximize consumer benefits (as opposed to only simply exceeding costs) with proposals to ensure that “the technology is optimized” and to ensure that “[p]articipation in residential real time pricing and direct load control programs tends to be highest.” Id.
In the initial proceeding reviewing ComEd’s original 10-year deployment schedule, CUB and EDF noted the schedule raised questions of customer equity since the performance-based formula rate process imposes the shared cost of AMI investments on all of ComEd’s customers without allowing all customers the benefit of smart grid functionality until the decade-long investment is complete. 12-0298 CUB/ELPC Ex. 1.0 REV. at 13. While some benefits of AMI deployment do accrue even to those customers who do not receive an AMI meter until year 10 of ComEd’s proposed deployment schedule, others “accrue primarily to those customers who actually have the new meters.” Id.

The Smart Grid Advisory Council has also recommended that Smart Grid should be deployed in the fastest timeframe possible that maximized its value while meeting the statutory cost test. 12-0298 ComEd Ex. 7.02 at 7. 220 ILCS 5/16-108.6. In the Council’s opinion, expedited deployment increases AMI benefits relative to costs and saves money while also providing benefits more equitably and sooner to all customers. Id. The Council noted that a decade-long implementation schedule would delay benefits and “exacerbate concerns about the fairness of the rollout schedule and the overall value of Smart Grid investment.” Id. In addition, the Council observed that, until full deployment, marketing of AMI-enabled products and education of consumers through mass media risks customer confusion and negative responses. Id. Thus, the Council concluded that it is “imperative that full deployment be accomplished in the shortest reasonable period.” Id.

Even the City of Chicago, whose borders are within but not coterminous to Cook County, reinforced the equity concern expressed by EDF since “many anticipated benefits of AMI meters will not be available to most customers for years, as the deployment plays out over a decade.” 12-0298 City Ex. 1.0 at 5-6. The City urged faster deployment noting that “a shorter deployment schedule would reduce the total cost to ratepayers for the AMI meter installations.” Id. “The sooner customers can use the AMI technology, the sooner they can
begin to capture the savings that will offset the AMI deployment costs that will be included in the rates they are paying.” Id. Conversely, the Chief Sustainability Officer for the City of Chicago testified that “the longer the deployment schedule, the more likely it becomes that a customer might pay for AMI meters without ever receiving one due to moving outside the ComEd service territory.” Id.

The Commission agreed with CUB, ELPC and the City that a shorter deployment could bring the benefits of AMI meters to customers sooner, concluding that while it would accept a ten year deployment the “longer deployment delays benefits to ratepayers.” 12-0298 Final Order at 14. The Commission accepted this deployment schedule in part because it concluded ComEd is in the best position for understanding the operational complexities of such a deployment. Id. As a result, the Commission asked ComEd to work with stakeholders to address their concerns regarding the deployment scheduling. Id.

Now that ComEd believes that it can accelerate deployment, and now that the Staff of the ICC agrees with ComEd that it should accelerate, the Commission should approve ComEd’s request. The cost saving operational improvements can only be realized as quickly as the meters are installed and, as discussed below, certain modifications are necessary to protect consumers, modifications necessary to sooner bring the environmental/societal benefits of reduced usage at peak times to all ratepayers.

One of those benefits identified by the AG in 2012 was the opportunity for customers to participate in dynamic pricing programs. The AG urged the Commission to require ComEd to offer a new optional (opt-in) Time-of-Use (“TOU”) rate in addition to its proposed new Peak Time Rebate, noting that a TOU rate would increase the value of the AMI plan to customers who have the flexibility to shift some portion of their use from peak periods to off-peak periods. ICC Docket 12-0298, AG Init. Br. at 4-5. The Commission has noted that dynamic rate structures will allow ratepayers to reduce their bills as soon as their AMI
meter is installed. 12-0298 Final Order at 14. Customers must have an AMI meter to participate in either ComEd's Peak Time Rebate or any new TOU rate.

As the Commission has noted before, it is important that all stakeholders should “work together to find ways to ensure that customers receive the maximum benefits of the proposed investments.” ICC Docket 11-0772, Final Order at 29 (Apr. 4, 2012). Delaying the opportunity for customers to participate in these programs would run counter to the AG’s own recommendations, the guidance of the SGAC, and the Commission’s own conclusions. The AG’s proposal should be rejected and ComEd’s acceleration approved.

III. Customer Education and Outreach Must Keep Pace with Meter Deployment

The AG notes that ComEd states in direct testimony in this proceeding that it will accelerate its spending on customer outreach and education programs to accompany the accelerated AMI meter deployment. AG Comments at 7, citing ComEd Ex. 5.0 at 5:101-111. However, ComEd’s revised AMI Plan included with its direct testimony does not seem to contemplate such a change. See ComEd Ex. 1.01 at 88-132 (the only modification to the customer outreach plan is a change from “10” to “7” years related to research, on page 106, and installation, on page 109).

CUB and EDF agree with the AG that ComEd should more fully integrate the acceleration of its customer outreach into its AMI Plan. The EIMA contemplates that participating utilities match their AMI deployment with investments in customer education. Any approved AMI Plan must include a description of how the utility evaluates and prioritizes technology choices to create customer value, including a plan to enhance and enable customers' ability to take advantage of Smart Grid functions beginning at the time an account has billed successfully on the AMI network as well as a customer education
plan. 220 ILCS 5/16-108.6(c). Unless customers understand how they can take advantage of “Smart Grid functions,” the full benefit of those functions will not be realized.

CUB and EDF believe it is ComEd’s intention to match its outreach and education efforts to the pace of its AMI deployment. However, an explicit recognition that ComEd must accelerate customer education investment commensurate with its accelerated deployment investment would help assure the Commission and stakeholders that any acceleration of AMI deployment will be based upon a strategy to maximize customer value. The Commission should ask ComEd to verify that any net cost reductions from the acceleration do not include a reduction in the statutory requirement of its share of contributions to the $50 million in funding for the Illinois Science and Energy Innovation Foundation."

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