

**REPORT ON THE ENERGY INFRASTRUCTURE MODERNIZATION ACT'S
INFRASTRUCTURE PROGRAM AND PERFORMANCE-BASED FORMULA RATE**



ILLINOIS COMMERCE COMMISSION

December 2017

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STATE OF ILLINOIS



ILLINOIS COMMERCE COMMISSION

December 13, 2017

The Honorable Members of the General
Assembly State Capitol
Springfield, Illinois

Dear Members of the General Assembly,

Enclosed is the Illinois Commerce Commission's "Report on the Energy Infrastructure Modernization Act's Infrastructure Program and Performance-Based Formula Rate."

This report is submitted in compliance with Section 16-108.5(h) of the Illinois Public Utilities Act, which directs the Illinois Commerce Commission to prepare and file with the General Assembly by December 31, 2017, this report on the infrastructure investment program and performance-based formula rate.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Sheahan".

Brian J.
Sheahan
Chairman

527 East Capitol Avenue, Springfield, Illinois 62701 [TDD ("v/TTY") 888-261-4188

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I. Introduction

The 97th General Assembly passed The Energy Infrastructure Modernization Act (“EIMA”), which consisted of the changes and additions made to the Public Utilities Act (“Act”) in Public Act (“PA”) 97-616. EIMA became effective October 26, 2011. EIMA was subsequently amended by PA 97-646, effective December 30, 2011; PA 98-15, effective May 22, 2013; PA 98-1175, effective June 1, 2015; PA 99-143, effective July 27, 2015; PA 99-642, effective July 28, 2016; and PA 99-906, effective June 1, 2017.

EIMA provided a framework whereby a participating utility could elect to recover its delivery services costs through a performance-based formula rate if it also committed to undertake specified infrastructure investment¹ and customer assistance² programs. Two electric utilities elected to participate: Commonwealth Edison Company (“ComEd”) and Ameren Illinois Company (Ameren Illinois”).

EIMA directs the Illinois Commerce Commission (“Commission”) to prepare and file with the General Assembly by December 31, 2017 this report on the infrastructure investment program and performance-based formula rate.³ This report is to include the change in the average amount per kilowatt-hour paid by residential customers between June 1, 2011 and May 31, 2017.⁴ If the change in the total average rate paid exceeds 2.5% compounded annually, the Commission is to include in this report an analysis that shows the portion of the change due to the delivery services component and the portion of the change due to the supply component of the rate.⁵

Regarding the infrastructure investment program, ComEd and Ameren Illinois are obligated to make certain reliability-related and Advanced Metering Infrastructure-related (“AMI”) investments in order to remain a participating utility. As of May 31, 2017, both ComEd and Ameren Illinois were on track to meet this obligation.

Regarding the performance-based formula rate, the residential customers of both ComEd and Ameren Illinois experienced changes in the total average rate paid that were *less than* 2.5% compounded annually.

II. ComEd

A. ComEd’s Infrastructure Investment Program

¹ 220 ILCS 5/16-108.5(b).

² 220 ILCS 5/16-108.5(b-10).

³ 220 ILCS 5/16-108.5(h).

⁴ Id.

⁵ Id.

As of May 31, 2017, ComEd is on track to meet its obligation to make reliability-related and AMI-related investments. These investments are to be incremental to ComEd's normal annual capital investment program.⁶ The infrastructure investment requirement applicable to ComEd is set forth in Section 16-108.5(b)(1) of the Act. ComEd is to:

(A) over a 5-year period, invest an estimated \$1,300,000,000 in electric system upgrades, modernization projects, and training facilities, including, but not limited to:

(i) distribution infrastructure improvements totaling an estimated \$1,000,000,000, including underground residential distribution cable injection and replacement and mainline cable system refurbishment and replacement projects;

(ii) training facility construction or upgrade projects totaling an estimated \$10,000,000, provided that, at a minimum, one such facility shall be located in a municipality having a population of more than 2 million residents and one such facility shall be located in a municipality having a population of more than 150,000 residents but fewer than 170,000 residents; any such new facility located in a municipality having a population of more than 2 million residents must be designed for the purpose of obtaining, and the owner of the facility shall apply for, certification under the United States Green Building Council's Leadership in Energy Efficiency Design Green Building Rating System;

(iii) wood pole inspection, treatment, and replacement programs;

(iv) an estimated \$200,000,000 for reducing the susceptibility of certain circuits to storm-related damage, including, but not limited to, high winds, thunderstorms, and ice storms; improvements may include, but are not limited to, overhead to underground conversion and other engineered outcomes for circuits; the participating utility shall prioritize the selection of circuits based on each circuit's historical susceptibility to storm-related damage and the ability to provide the greatest customer benefit upon completion of the improvements; to be eligible for improvement, the participating utility's ability to maintain proper tree clearances surrounding the overhead circuit must not have been impeded by third parties; and

(B) over a 10-year period, invest an estimated \$1,300,000,000 to upgrade and modernize its transmission and distribution infrastructure and in Smart Grid electric system upgrades, including, but not limited to:

⁶ The annual capital investment program is defined as ComEd's average capital spend for 2008, 2009, and 2010 as reported in ComEd's Federal Energy Regulatory Commission ("FERC") Form 1. (220 ILCS 5/16-108.5(b)(2)(B))

- (i) additional smart meters;
- (ii) distribution automation;
- (iii) associated cyber secure data communication network; and
- (iv) substation micro-processor relay upgrades.

220 ILCS 5/16-108.5(b)(1).

For each of these construction projects, ComEd is permitted to add reasonable construction ramp-up and ramp-down time to these specified investment periods.

In summary, ComEd is to make \$1.3 billion of incremental reliability-related investments over a five-year period and \$1.3 billion of incremental AMI-related investments over a ten-year period. As of May 31, 2017, ComEd is on track to meet its obligation to make these reliability-related and AMI-related investments. The following table presents the status of ComEd's required investments under Section 16-108.5(b)(1):

Commonwealth Edison Company
Reliability-Related and AMI-Related Investments
Under Section 16-108.5(b)(1) of the Public Utilities Act (EIMA)⁷
(In Millions)

16-108.5(b)(1) Section	Investment Category	Investment As of 12/31/2016	Projected Investment As of 12/31/2017
(A) (i)	Distribution Infrastructure Improvements	\$943.7	\$1,059.0
(A) (ii)	Training Facility Construction or Upgrade Projects	8.8	8.8
(A) (iii)	Wood Pole Inspection, Treatment, and Replacement	101.3	101.5
(A) (iv)	Reducing the Susceptibility of certain circuits to storm-Related damage	203.7	233.5
Total (A)	Total Electric System Upgrades Modernization Projects, and Training Facilities (Reliability-Related)	1,257.4	1,402.8
(B) (i)	Additional Smart Meters	615.5	772.1
(B) (ii)	Distribution Automation	248.7	251.7
(B) (iii)	Associated Cyber Secure Data Communications Network	0	0
(B) (iv)	Substation Micro-Processor Relay Upgrades	79.8	92.4
Total (B)	Total Upgrade and Modernization of Transmission and Distribution Infrastructure and Smart Grid Electric System Upgrades. (AMI-Related)	944.0	1,116.3
Total 16-108.5(b)(1)	Total Plant Additions in Compliance with Section 16-108.5(b)(1) of the Act	\$2,201.5	\$2,519.1

⁷ From ComEd Exhibit 3.01, Docket No. 17-0196.

For incremental reliability-related investments, ComEd shows cumulative investment of approximately \$1.3 billion through the end of 2016 and projects a total investment of approximately \$1.4 billion through the end of 2017. This is consistent with the requirements of Section 16-108.5(b)(1)(A) of the Act which requires an investment of \$1.3 billion during a 5-year period (2012-2016) with the addition of a reasonable construction ramp-up and ramp-down time.

For incremental AMI-related investments, ComEd shows cumulative investment of approximately \$0.944 billion through the end of 2016 and projects a total investment of approximately \$1.163 billion through the end of 2017. This is consistent with the requirements of Section 16-108.5(b)(1)(B) of the Act which requires an investment of \$1.3 billion during a ten-year period (2012-2021) with the addition of a reasonable construction ramp-up and ramp-down time.

B. Change in the Average Rate Paid by ComEd's Residential Customers

Between June 1, 2011 and May 31, 2017, ComEd's residential customers have experienced changes in the total average rate paid that were *less than 2.5%* compounded annually under the performance based formula rate. For ComEd, the change in average amount per kWh paid by residential customers between June 1, 2011 and May 31, 2017 is a *decrease* of \$0.006 per kWh, from \$0.13268 per kWh for the twelve months ended May 31, 2012 to \$0.12668 per kWh for the twelve months ended May 31, 2017. This reflects a -0.922% compounded annual growth rate for the period June 1, 2011 through May 31, 2017.

ComEd filed its initial performance-based formula rate on November 8, 2011 and began charging its customers under the performance-based formula rate on June 20, 2012.

III. Ameren Illinois

A. Ameren Illinois' Infrastructure Investment Program

As of May 31, 2017, Ameren Illinois is on track to meet its obligation to make reliability-related and AMI-related investments. These investments are to be incremental to Ameren Illinois' normal annual capital investment program.⁸ The infrastructure investment requirement applicable to Ameren Illinois is set forth in Section 16-108.5(b)(2) of the Act. Ameren Illinois is to:

(A) over a 10-year period, invest an estimated \$265,000,000 in electric system upgrades, modernization projects, and training facilities, including, but not limited to:

(i) distribution infrastructure improvements totaling an estimated \$245,000,000, which may include bulk supply substations,

⁸ The annual capital investment program is defined as Ameren Illinois' average capital spend for 2008, 2009, and 2010 as reported in Ameren Illinois' FERC Form 1. (220 ILCS 5/16-108.5(b)(2)(B))

transformers, reconductoring, and rebuilding overhead distribution and sub-transmission lines, underground residential distribution cable injection and replacement and mainline cable system refurbishment and replacement projects;

(ii) training facility construction or upgrade projects totaling an estimated \$1,000,000; any such new facility must be designed for the purpose of obtaining, and the owner of the facility shall apply for, certification under the United States Green Building Council's Leadership in Energy Efficiency Design Green Building Rating System; and

(iii) wood pole inspection, treatment, and replacement programs; and

(B) over a 10-year period, invest an estimated \$360,000,000 to upgrade and modernize its transmission and distribution infrastructure and in Smart Grid electric system upgrades, including, but not limited to:

(i) additional smart meters;

(ii) distribution automation;

(iii) associated cyber secure data communication network; and

(iv) substation micro-processor relay upgrades.

220 ILCS 5/16-108.5(b)(2).⁹

For each of these construction projects, Ameren Illinois is permitted to add reasonable construction ramp-up and ramp-down time to these specified investment periods.

In summary, Ameren Illinois is to make \$265 million of incremental reliability-related investments over a ten-year period and \$360 million of incremental AMI-related investments over a ten-year period. As of May 31, 2017, Ameren Illinois is on track to meet its obligation to make these reliability-related and AMI-related investments. The following table presents the status of Ameren Illinois's required investments under Section 16-108.5(b)(2):

⁹ Under Section 16-108.6(c)(3), Ameren is required to deploy advanced metering infrastructure (AMI) technology to 62% of its customers. 220 ILCS 5/16-108.6(c)(3). However, the Commission determined that Ameren should be permitted to deploy such technology to 100% of its customers. See Order on Reopening, Ameren Illinois Company d/b/a Ameren Illinois: Verified Petition for Approval of Smart Grid Advanced Metering Infrastructure Deployment Plan, ICC Docket No 12-0244 (September 22, 2016). Accordingly, Ameren's projected investment in AMI technology significantly exceeds the statutorily-required amount.

Ameren Illinois Company
Reliability-Related and AMI-Related Investments
Under Section 16-108.5(b)(2) of the Public Utilities Act (EIMA)¹⁰
(In Millions)

16-108.5(b)(2) Section	Investment Category	Investment As of 12/31/2016	Projected Investment As of 12/31/2017
(A) (i)	Distribution Infrastructure Improvements	\$128.6	\$178.1
(A) (ii)	Training Facility Construction or Upgrade Projects	7.4	7.4
(A) (iii)	Wood Pole Inspection, Treatment, and Replacement	0	0
Total (A)	Total Electric System Upgrades Modernization Projects, and Training Facilities (Reliability-Related)	136.0	185.5
(B) (i)	Additional Smart Meters	137.6	205.4
(B) (ii)	Distribution Automation	76.7	87.4
(B) (iii)	Associated Cyber Secure Data Communications Network	8.6	0.4
(B) (iv)	Substation Micro-Processor Relay Upgrades	6.5	6.5
Total (B)	Total Upgrade and Modernization of Transmission and Distribution Infrastructure and Smart Grid Electric System Upgrades. (AMI-Related)	229.4	299.7
Total 16-108.5(b)(2)	Total Plant Additions in Compliance with Section 16-108.5(b)(2) of the Act	\$365.4	\$485.2

For incremental reliability-related investments, Ameren Illinois shows cumulative investment of approximately \$136.0 million through the end of 2016 and projects a total investment of approximately \$185.5 million through the end of 2017. This is consistent with the requirements of Section 16-108.5(b)(2)(A) of the Act which requires an investment of \$265 million during a ten-year period (2012-2021) with the addition of a reasonable construction ramp-up and ramp-down time.

For incremental AMI-related investments, Ameren Illinois shows cumulative investment of approximately \$229.4 million through the end of 2016 and projects a total investment of approximately \$299.7 million through the end of 2017. This is consistent with the requirements of Section 16-108.5(b)(2)(B) of the Act which requires an investment of \$360 million during a ten-year period (2012-2021) with the addition of a reasonable construction ramp-up and ramp-down time.

B. Change in the Average Rate Paid by Ameren Illinois' Residential Customers

Ameren Illinois' residential customers have experienced changes in the total average rate paid that were *less than* 2.5% compounded annually under the

¹⁰ From Ameren Exhibit 6.1, Docket No. 17-0197.

performance based formula rate. For Ameren Illinois, the change in average amount per kWh paid by residential customers between June 1, 2011 and May 31, 2017 is an *increase* of \$0.0920 per kWh, from \$0.10593 per kWh for the twelve months ended May 31, 2012 to \$0.11513 per kWh for the twelve months ended May 31, 2017. This reflects a 1.68% compounded annual growth rate for the period June 1, 2011 through May 31, 2017.

Ameren Illinois filed its initial performance-based formula rate on January 3, 2012 and began charging its customers under the performance-based formula rate on October 19, 2012.

IV. Conclusion

ComEd and Ameren Illinois both elected to become a participating utility under EIMA. Accordingly, they both elected to recover their delivery services cost through a performance-based formula rate and committed to make certain infrastructure investments. Regarding the formula rate, ComEd's residential customers saw a *decrease* between June 2, 2011 and May 31, 2017 reflecting a -0.922% compounded annual growth rate. Ameren Illinois' residential customers saw an *increase* between June 2, 2011 and May 31, 2017 reflecting a 1.68% compounded annual growth rate. Regarding the investment requirements under EIMA, both ComEd and Ameren Illinois are on track to meet these.