

Energy Efficiency and Energy Storage System Policy in Illinois

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Illinois Energy Efficiency Policy

- ▶ **Electric EEPS** - The Energy Efficiency Portfolio Standard was passed in 2007 by the Illinois General Assembly, requiring the electric utilities Ameren Illinois (Ameren) and Commonwealth Edison (ComEd) to offer energy efficiency programs. Electric energy efficiency programs began in June 2008.
 - ▶ Energy efficiency Plans -
 - ▶ Now run on four-year, calendar year cycles with the current plans for 2022-2025.
 - ▶ Require approval by the ICC.
 - ▶ The Stakeholder Advisory Group (SAG) was created in 2008, at the direction of the Commission.
 - ▶ Cumulative Persistent Annual Savings (CPAS) - The goal is met through expected legacy savings in the current year, replacement of expired legacy savings, and new savings.
 - ▶ Other Fuel Savings -- No more than 10% of the annual goal can be met through savings of fuels other than electricity.

Illinois Energy Efficiency Policy

▶ Electric EEPS (Continued)

- ▶ Electrification - Permitted, but no more than 5% of savings must come from electrification during the current plan program years (increasing to 10% in the next plan program years and 15% in all subsequent plan program years).
 - ▶ 25% of electrification savings counted towards goals must come from electrification of end uses in low-income housing.
- ▶ Budget -- The budget is based upon 4% of the rate paid per kwh by residential fixed rate customers in 2015 (that is about 0.025 cents per kwh). It goes up to 4.25% in 2026.
 - ▶ 80% or more of the budget for low-income households can be spent on weatherization.
 - ▶ Budgets are amortized and recovered through an energy efficiency formula rate.
 - ▶ ComEd and Ameren must spend \$40 million and \$13 million, respectively, per year on low-income measures and programs.
- ▶ Incentives – Electric utilities are eligible to earn or lose 200 basis points for exceeding or falling short of its goals (applicable annual incremental goal). The maximum increase is reached at 125-134% of the goal (depending on the plan) and the maximum decrease is reached at 75-66% of the goal (depending on the plan year).

Illinois Energy Efficiency Policy

▶ Electric EEPS (Continued)

▶ Ameren Illinois

- 1.2 million customers
- 2023 CPAS Goal = 3,045,376 MWh = 10.35% of 2014-2016 Sales from Non-Exempt Customers.
 - Ameren needs 189 thousand MWhs of new savings to meet its 2023 CPAS Goal.
 - The goal is to get to 16.0% by 2030 and then the Commission is to establish further goals after that (targeting at least a .6 percentage point increase per year).
- 2023 Budget = \$119 million

▶ ComEd

- 4.1 million customers
- 2023 CPAS Goal = 11,952,076 MWh = 14.40 % of 2014-2016 Sales from Non-Exempt Customers
 - ComEd needs 1.5 million MWhs of new savings to meet its 2023 CPAS Goal.
 - The goal is to get to 21.5% by 2030 and then the Commission is to establish further goals after that (targeting at least a .9 percentage point increase per year).
- 2023 Budget = \$440 million

Illinois Energy Efficiency Policy

- ▶ **Gas EEPS** - The Gas Energy Efficiency Portfolio Standard passed in Illinois in 2009, for Ameren Illinois (Gas), Nicor Gas, Peoples Gas & North Shore Gas. Gas energy efficiency programs began in June 2011.
 - Energy efficiency Plans -- Are on a four-year cycle with the current plans for 2022-2025. Require approval by the ICC.
 - The budget is based upon limiting any increase to natural gas service to no more than 2% in the planning period.
 - Budgets are expensed.
 - Savings -- The goal is to get to 1.5% of additional savings each year.

Illinois Energy Efficiency Policy

▶ Gas EEPS (Continued)

▶ Ameren Illinois Gas

- ▶ 804 thousand customers
- ▶ 2023 Goal = 3.2 million therms
- ▶ 2023 Budget = \$16 million

▶ Nicor Gas

- ▶ 2.0 million customers
- ▶ 2023 Goal = 14.1 million therms
- ▶ 2023 Budget = \$46 million

▶ North Shore Gas

- ▶ 151 thousand customers
- ▶ 2023 Goal = 1.6 million therms
- ▶ 2023 Budget = \$4.1 million

▶ Peoples Gas

- ▶ 826 thousand customers
- ▶ 2023 Goal = 8.5 million therms
- ▶ 2023 Budget = \$29.0 million

Illinois Storage Policy

- ▶ **Distributed Generation Rebates** - CEJA (Illinois PA 102-0662) extended distributed generation credits (of \$250 - \$300 per kW) to energy storage systems paired with renewables, however these rebates have only recently been made available and it is not yet clear how much energy storage deployment they will incent.
 - ▶ Additionally, the Commission recently opened a proceeding to determine if these rebate values should be set at higher rates based upon their value to the distribution system and, potentially, other values.
- ▶ **Storage Study** - CEJA also required the ICC to perform an energy storage study, which it submitted to the Illinois legislature in May 2022.
 - ▶ The study explored energy storage technologies and identified potential pilot programs. It stopped short of recommending energy storage targets. The report cites to the relative nascence of many energy storage technologies; the lack of direct operational experience with most of the burgeoning energy storage technologies by Illinois public utilities; and the lack of detailed cost and benefit information resulting from actual Illinois energy storage system deployment and operation experience to conclude that “...it does not appear that setting specific energy storage deployment targets for Illinois’ larger electric utilities is realistic at this time.” The report went on to identify pilot projects that could be undertaken to fill the informational shortcomings.

Illinois Storage Policy

- ▶ **Coal to Solar Program** - CEJA provided for two energy storage programs to incent the deployment of energy storage at former coal plant sites.
 - ▶ **Coal to Solar REC Program** - The Illinois Power Agency procured renewable energy credits from solar facilities located from new utility-scale solar facilities and co-located energy storage facilities installed at or adjacent to sites of existing or former coal-fired electric generating facilities. This resulted in the selection of 6 projects with a total solar capacity of nearly 229 MWs and energy storage capacity of around 13.5 MW.
 - ▶ **Coal to Solar Storage Grants** - Under this program, the Illinois Department of Commerce and Economic Opportunity provided grants to energy storage systems at five closed or closing coal plant sites. This program funded 5 projects with a capacity of 255 MW.
- ▶ **Illinois House Bill 3445** - Earlier this year, the Illinois General Assembly passed and sent to the Illinois Governor J.B. Pritzker a bill that would require the Illinois Power Agency to conduct an energy storage study in consultation with the ICC and other agencies in Illinois. The study is to examine:
 - ▶ Proposals for deployment of energy storage systems supported by the State through the development of energy storage credit targets for the Illinois Power Agency to procure on behalf of Illinois electric utilities from privately owned, large scale energy storage providers, and
 - ▶ Proposals for the creation of distributed level energy storage programs through utility tariffs as approved by the ICC.

Sandia National Labs Storage Study

- ▶ Sandia National Laboratories, supported by the Energy Storage Program at the U.S. Department of Energy Office of Electricity Delivery and Energy Reliability managed by Dr. Gyuk, is currently working to model Illinois' energy storage needs.
 - ▶ Early modeling looks at Illinois energy storage needs within the south-central portion of Illinois, which is part of a different regional market than the northern portion of Illinois. The south-central portion of Illinois has less available generation (e.g., only one of Illinois' eleven nuclear units is in the south-central area and the area has seen many recent coal plant retirements) and could face capacity shortfalls absent additional generation deployment.
 - ▶ Sandia is examining how much energy storage Illinois will need given fossil-fuel retirements to meet peak needs under average operating conditions in the south-central area. This establishes one potential floor for energy storage needs, with actual needs being above the floor given variability in actual operating conditions. The results of these studies may provide Illinois policy makers some Illinois specific energy storage information that could serve as the basis to establish Illinois energy storage goals or targets.

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