

Energy Efficiency and Electric Infrastructure in the State of Kentucky

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In any given state, there are a range of stakeholders well-positioned to contribute to the design and delivery of effective energy efficiency programming. This factsheet provides an overview of relevant entities in the state of Kentucky, along with highlights of state policies and practices related to energy efficiency. The entity types described and highlighted below are typically involved in electricity and/or energy efficiency related matters in states. Other important stakeholders such as trade associations, industry, and local businesses are not included as they vary significantly from state to state.

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Electric Market Overview

Electric Utilities

Privately- and publicly-owned electric utilities generate, transmit, distribute, and/or sell electricity primarily for use by the public. These include investor-owned electric utilities, municipal and state utilities, Federal electric utilities, and rural electric cooperatives.¹ The following summarizes electric utilities in Kentucky by type:

- *Investor-Owned Electric Utilities:*
AEP Kentucky Power: <https://www.aep.com/community/commConnections/OperatingCompany/KentuckyPower.aspx>
PPL (Louisville Gas & Electric/ Kentucky Utilities): <https://lge-ku.com>
Duke Energy Kentucky: <https://www.duke-energy.com/kentucky.asp>
- *Member-Owned (Electric Cooperative):* Kentucky has 26 electric membership corporations (EMCs). For a complete list, visit: <http://www.kaec.org/>
- *Municipally-Owned/Publicly-Owned Utilities:* Kentucky has 20 municipally or publicly-owned systems in the state, which are included in the following list from the Kentucky Municipal Utilities Association: <http://www.kymua.org/#kmuakentucky>²
- Tennessee Valley Authority in Kentucky: <https://www.tva.gov/About-TVA/TVA-in-Kentucky>

Electric utility service areas (as available):

http://energy.ky.gov/generation/documents/electric_service_areas_legal_size_map.pdf

Status of Electric Industry Restructuring

Vertically integrated utilities are responsible for generation, transmission and distribution of power to customers. In the 1990's, many states began to unbundle the electricity supply and distribution functions of investor-owned utilities on the theory that only the wires (the fixed network system) constituted a natural monopoly, while the generation of power did not. In states that have undergone restructuring, individual retail customers can choose their supplier but still receive delivery over the power lines of the local utility.³

- Kentucky does not have a restructured electric industry; investor-owned utility is vertically integrated.
<http://www.eia.gov/electricity/policies/restructuring/kentucky.html>

¹ Source: EIA

² Sources: EIA 2013 Form EIA-861 Utility Data (<http://www.eia.gov/electricity/data/eia861/>) and Kentucky Public Service Commission (<http://psc.ky.gov/>)

³ Source: The Regulatory Assistance Project (RAP)

Regional Transmission Organization (RTO)/Independent System Operator(ISO)

About 60% of U.S. electric power supply is managed by RTOs or ISOs: independent, membership-based organizations that ensure reliability and usually manage the regional electric supply market for wholesale electric power. In the rest of the country, electricity systems are operated by individual utilities or utility holding companies. RTOs/ISOs engage in long-term planning that involves identifying effective, cost-efficient ways to ensure grid reliability and system-wide benefits. Coordination and cooperation between utilities, state PUCs and RTOs/ISOs is often required to advance energy efficiency goals.⁴

- Kentucky is part of the RTO Midcontinent Independent System Operator (MISO). <https://www.misoenergy.org>.
- Kentucky is also part of Pennsylvania Jersey Maryland (PJM). <http://www.pjm.com/>.
- A map of the areas of Kentucky served by each ISO is available on page 23 of the following report: http://energy.ky.gov/Kentucky_Energy_Profile/Kentucky%20Energy%20Profile%202015.pdf
Note that LG&E-KU acts as the system operator within its service territory, and TVA acts as the system operator within its distributors' service territories.

Utility Oversight and Planning

Utility Oversight

Public utility commissions (PUCs) oversee goals, investments, and ratemaking for investor-owned electric utilities. Most of this oversight is conducted via specific regulatory proceedings. Municipally-owned utilities are governed by a local city council or an elected commission, and member-owned/cooperative utilities are governed by a board elected by members. In a few states, PUCs have oversight over some aspects of municipally and member-owned utility performance such as energy efficiency resource standards.⁵

- The Kentucky Public Service Commission (PSC) regulates the intrastate rates and services of investor-owned electric, natural gas, telephone, water and sewage utilities, customer-owned electric and telephone cooperatives, water districts and associations, and certain aspects of gas pipelines. The PSC does not regulate TVA or municipal utilities. <http://www.psc.state.ky.us/agencies/psc/general/pscinfo.htm>

Integrated Resource/Procurement Planning

Integrated resource plans (IRPs) are utility plans for meeting forecasted annual peak and energy demand through a portfolio of supply-side and demand-side resources over a specified future period. As of early 2015, integrated resource planning is required or present in more than 30 states, including most vertically integrated/non restructured states. In states that are restructured, regulated distribution only utilities may be required to develop procurement plans to service customers that do not choose a competitive retail supplier. Energy efficiency is considered as a demand-side resource but the degree to which it is included in resource/procurement planning is influenced by other factors including policies such as energy efficiency resource standards or requirements that all cost effective energy efficiency be considered.⁶

- AEP Kentucky Power most recent IRP 2014: http://psc.ky.gov/PSC_WebNet/ViewCaseFilings.aspx?case=2013-00475
- PPL (Louisville Gas & Electric/ Kentucky Utilities) most recent IRP 2014: To access the 2014 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Company Case No. 2014-00131 visit: http://psc.ky.gov/PSC_WebNet/ViewCaseFilings.aspx?Case=2014-0013. Scroll to the bottom of the page, the filings are in the 4/21/2014 date.
- Duke Energy Kentucky's most recent IRP 2014: http://psc.ky.gov/PSC_WebNet/ViewCaseFilings.aspx?case=2014-00273
- East Kentucky Power Cooperative and Big Rivers Electric Corporation also file IRPs with the PSC.
EKPC: http://psc.ky.gov/PSC_WebNet/ViewCaseFilings.aspx?case=2012-00149
Big Rivers: http://psc.ky.gov/PSC_WebNet/ViewCaseFilings.aspx?case=2010-00443

⁴ Source: [EPA Energy and Environment Guide to Action](#)

⁵ Source: [EPA Energy and Environment Guide to Action](#) and RAP

⁶ Source: [EPA Energy and Environment Guide to Action](#)

Statewide Planning Process

States sometimes undertake executive or legislatively driven statewide energy planning processes. These plans may be completely independent of utilities or may explicitly engage utilities.

- Kentucky's Action Plan for Energy Efficiency "Stimulating Energy Efficiency in Kentucky (SEE Kentucky)": <http://energy.ky.gov/Programs/Documents/Action%20Plan%205-15-2013.pdf>
- Governor's State Energy Plan (ongoing): <http://www.naseo.org/Data/Sites/1/documents/stateenergyplans/KY.pdf>

Energy Efficiency Potential Studies

Energy efficiency potential studies determine the amount of technical, economic, and achievable potential for energy efficiency in a region, state, or utility service territory. Energy efficiency potential studies may be undertaken by state agencies or energy efficiency advocacy organizations, or by utilities as part of or to inform compliance with a regulatory requirement. The following are recent energy efficiency potential studies:

- Technical Assistance Program: Energy Efficiency Cost-Effective Resources Assessment for Kentucky 2012: <http://energy.ky.gov/Programs/Documents/KY%20Econ%20Potential%20Analysis%20-%20FINAL%20-%202013-15-12.docx>
- Kentucky Market Potential Study for Demand Side Management Programs Final Report 2009: http://psc.ky.gov/PSCSCF/2008%20cases%5C2008-00495%5C20090330_Dukes_Response_to_Staffs_Initial_Requests_for_Info.pdf
- LG&E KU Energy Efficiency Potential Study 2013: http://www.psc.state.ky.us/PSCSCF/Post%20Case%20Referenced%20Correspondence/2011%20cases/2011-00375/20131206_LG%26E%20KU_Energy%20Efficiency%20Potential%20Study%20Volume%201.pdf

Energy Efficiency Policies/Activities

Statewide Clean Energy Policy/Energy Efficiency Energy Resource Standard(s)

Energy efficiency resource standards (EERSs) require obligated parties—usually regulated retail distributors of electricity—to meet a specific portion of their electricity demand through energy efficiency. As of March 2015, 27 states have some type of energy efficiency requirement or goal.⁷

- Kentucky does not have a mandatory energy efficiency resource standard, but the state has voluntary goals that can be found at <http://database.aceee.org/state/kentucky>.

Current Utility-Administered Energy Efficiency Programs

Energy efficiency is regarded as an important utility resource with co-benefits that include reducing air pollution, saving customers on utility bills, and creating local jobs. While the majority of large-scale energy efficiency programs are funded by utility ratepayers, program administration may be by the utility, the state, an independently awarded program administrator or a combination of entities. Below are available links related to ratepayer-funded energy efficiency programs offered in the state⁸:

- *Program Administrator:* AEP Kentucky Power: <https://www.kentuckypower.com/save/programs/>
Most recent program filing: http://www.psc.state.ky.us/order_vault/Orders_2014/201300487_06302014.pdf
Not an ENERGY STAR Partner
- *Program Administrator:* PPL (Louisville Gas & Electric/ Kentucky Utilities): <https://lge-ku.com/saving-energy-money/energy-efficiency-rebate-programs>
Most recent program filing: https://lge-ku.com/sites/default/files/documents/lge_ku_dsm_ee_app_011714.pdf
ENERGY STAR Partner since 2009

⁷ Ibid.

⁸ For other energy efficiency program offerings in the state, visit: <http://programs.dsireusa.org/system/program?state=KY>

- *Program Administrator:* Duke Energy Kentucky: <https://www.duke-energy.com/kentucky/savings.asp>
Most recent program filing: <http://psc.ky.gov/psccef/2015-00277/adele.frisch%40duke-energy.com/08172015122445/2015-00277 - Application of Duke Energy Kentucky to amend its Demand Side Management Programs.pdf>
ENERGY STAR Partner since 2007
- *Program Administrator:* TVA: <https://www.energyright.com/>
N/A. Only submits Integrated Resource Plan:
https://www.tva.gov/file_source/TVA/Site%20Content/Environment/Environmental%20Stewardship/IRP/Documents/2015_irp.pdf
ENERGY STAR Partner since 2004

Other Key Stakeholders

State Air Office:

- State Air Office – Division of Air Quality: <http://air.ky.gov/Pages/default.aspx>

State Energy Office:

- Kentucky Energy Office: Energy and Environment Cabinet Department for Energy Development and Independence
<http://energy.ky.gov/Pages/default.aspx>

Consumer Advocate(s)

Most states also have one or more consumer advocacy organizations. Consumer Advocates are often concerned with maintaining low rates and ensuring equitable treatment of all customer classes.⁹

- Kentucky Office of Rate Intervention: <http://ag.ky.gov/civil/rate/pages/default.aspx>

Others Public Interest Groups

Groups representing environmental and other public interests are often involved in providing public input or technical expertise during regulatory proceedings or stakeholder processes. The following energy efficiency organizations/nonprofits are active in the state or region:

- Midwest Energy Efficiency Alliance (MEEA): <http://www.mwalliance.org/>
- Southeast Energy Efficiency Alliance (SEEA): <http://seeaalliance.org>
- Kentucky Conservation Committee: <http://www.kyconservation.org/links.htm>
- Kentuckians for the Commonwealth: <http://www.kftc.org/about-us>
- Sierra Club: <http://kentucky.sierraclub.org/>
- Kentucky Environmental Foundation: <http://www.kyenvironmentalfoundation.org/>
- Kentucky Resources Council: <http://www.kyrc.org/>

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* Revised December 21, 2015. To alert the U.S. EPA of substantial policy changes or program updates, please contact eeaccountmanager@icfi.com

⁹ Source: [EPA Energy and Environment Guide to Action](#)