

**Background:** The Integrated Resource Plan (IRP) identifies the amount, timing, and type of resources required to supply capacity and energy as part of Kentucky Power’s obligation to ensure a reliable and economical power supply to customers. The plan integrates both supply-side and demand-side resources and verifies that reasonable options for supplying future energy needs have been considered.

Although Kentucky electric utilities are only required to file an IRP with the Kentucky Public Service Commission (PSC) every three years, resource planning is a continuous process that is updated as conditions change. For example, if a large industrial customer wants to locate in a utility’s service area, the utility must determine if either owned or procured generation resources are available to meet the needs of that customer and ensure that transmission resources are also available and sufficient.

**The IRP Process in Kentucky:** The IRP provides a utility-specific plan that balances customer electricity demand with the required generation resources at the lowest reasonable cost over a 15-year planning period. The IRP provides a framework for identifying cost-effective resource options while leaving final selection and approval to future PSC proceedings.

**Example: if a utility determines that a gas combined cycle unit is the best fit for future generation needs, the utility must file for a certificate of public convenience and necessity (CPCN). The PSC would then review the facts presented in the case to determine whether the combined cycle unit is the best and least-cost generation option for that utility.**

**Kentucky Power filed its IRP Preferred Plan in March 2023:** Kentucky Power’s current (“going-in”) capacity position reveals a need for new capacity in 2028, reflecting the divestiture of Kentucky Power’s 50% undivided ownership interest in the Mitchell Plant. In addition, part of the current plan is to extend the life of the Big Sandy Plant from 2031 to 2041. Based on a comprehensive study and stakeholder discussions, Kentucky Power’s 2022 IRP recommends the following:

- Extend the life of the Big Sandy Plant gas unit for an additional 10 years through mid-2041.
- Add new gas combustion turbine (CT) units in 2029 following the divestiture of Kentucky Power’s 50% undivided ownership interest in the Mitchell Plant.
- Add solar and wind generation resources.
- Purchase short-term capacity through 2028 to bridge between the divestiture of the Mitchell Plant and the addition of gas CT units.
- Implement approximately 48 MW of additional demand-side resources between 2023 and 2037.
- Add 50 MW of 4-hour lithium-ion battery storage in 2035 to bolster the Kentucky Power portfolio in later years.

**Kentucky Power selected this plan because it provides the best combination of supply-side and demand-side resources to meet Kentucky Power’s future customer needs over the next 15 years.**

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