

## Modeling Required for Meeting the “Tarter” Criteria for Need and Economic Feasibility

### A. Modeling

1. Absent a Missouri RES, determine the least-cost generation mixes for meeting Ameren Missouri’ need for capacity and energy **with and without** the Kansas Wind + DC transmission alternative over the 11 year period from 2019 through 2029.
2. Including a Missouri RES, determine least-cost generation mixes for meeting Ameren Missouri’ need for capacity and energy that evaluates the Kansas Wind + DC transmission alternative against other renewable energy alternatives including RECs over the 11 year period from 2019 through 2029.
3. Include transmission upgrades required for integrating the both generation mixes (i.e., with and without Kansas Wind + DC transmission) into the Midwest ISO footprint.
4. Estimate amount of ramping and regulation capacity needed for both generation mixes – with and without Kansas Wind + DC transmission.
5. Using an hourly security constrained dispatch model, for both generation mixes determine the Adjusted Production Costs for Ameren Missouri for 2019, 2024 and 2029. Linearly interpolate Adjusted Production Costs between years.

### B. Evaluation: Modeling Sequencing

A red N (no) means KC Wind + DC transmission is not economically feasible at the step and no further steps are required.

