

Demand-Side Resource Analysis
2019 IRP Variance Request

4 CSR 240-20.094(3)(A), subparts 2 and 3: The market potential study shall . . .

2. Be updated with primary data and analysis no less frequently than every three (3) years. To the extent that primary data for each utility service territory is unavailable or insufficient, the market potential study may also rely on or be supplemented by data from secondary sources and relevant data from other geographic regions;

3. Be prepared by an independent third party. The utility shall provide oversight and guidance to the independent market potential contractor, but shall not influence the independent market potential study contractor's reports;

Empire requests relief from the obligation to collect primary data in support of the 2019 market potential study because: (1) the prior study data is still applicable and relevant to the Empire service territory and can be supplemented with information from secondary sources to account for changes in particular technologies, (2) new primary data collection is costly, and (3) no significant market transformation or standard changes have occurred that would significantly impact the validity of the 2016 study.

Primary data in the form of a Residential Appliance Saturation Survey ("RASS"), was conducted in 2015/2016 in support of the 2016 market potential study and IRP filing. Opinion Research Specialists used a multi-modal approach that utilized a combination of mail and online data collection that captured data on customer demographics, equipment counts and equipment characteristics that is still relevant to the 2019 market potential study for a variety of reasons. The mail/online approach adheres to market research best practices that provides reliable and statistically significant results.

The data collected in late 2015 is still applicable to the current analysis because primary drivers in the Empire service territory and technology markets have not changed enough to warrant new data collection. The only areas where an update could be necessary is in the lighting and thermostat markets. To account for changes in the lighting and thermostat markets, Empire and its independent contractor will adjust and/or supplement the previous market potential study with reputable secondary data sources as needed, based upon data availability and the time and cost constraints identified.

More specifically, the lighting and thermostat markets have evolved over the last several years and have been closely monitored by regional and national organizations. Empire and its independent contractor will examine the wealth of regional and national data collected and adjust the data from the Empire 2016 RASS accordingly, following industry practice. The following resources are examples of possible data sources that will be utilized to adjust the lighting and

thermostat markets: EIA Annual Energy Outlook, National Electrical Manufacturers Association (NEMA) research, KCP&L 2016 residential market research¹, Ameren Missouri 2017 potential study secondary research², Entergy Arkansas 2015 Residential Survey³, Focus on Energy 2016 primary market research⁴, and Black Hills Colorado 2017 market research⁵.

¹ Filed within the KCP&L 2017 IRP Annual Update, Case Number EO-2017-0230 and EO-2017-0229, Appendix 5b.

² Included in Ameren Missouri 2017 IRP update, Chapter 8 Appendix A (<https://www.ameren.com/missouri/environment/integrated-resource-plan>).

³ Filed as the APSC 2015 Arkansas Energy Efficiency Potential Study, Docket 12-002-U, Appendix B.

⁴ Included in Focus on Energy 2016 Energy Efficiency Potential Study (https://www.focusonenergy.com/sites/default/files/WI%20Focus%20on%20Energy%20Potential%20Study%20Final%20Report-30JUNE2017_0.pdf).

⁵ Filed as the Black Hills Colorado Electric 2017 Energy Efficiency Baseline and Potential Study within Docket 18A-0279E Attachment AWC-1.