**BEFORE THE PUBLIC SERVICE COMMISSION**
**OF THE STATE OF MISSOURI**

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| In the Matter of a Working Case to Explore | ) | |
| Emerging Issues in Utility Regulation | ) | **Case No. EW-2017-0245** |

**Comments of the Natural Resources Defense Council on Third Draft Rule**

The Natural Resources Defense Council (NRDC) submits these comments in response to the Third Draft Rule on Electric Utility Resource Planning (3rd Draft). The development of these rules as modifications to Chapter 22 Electric Utility Resource Planning rules is to require utilities to include Distributed Energy Resources (DER) Analysis into their resource planning process. Staff has held four workshops over the course of this proceeding and issued two prior drafts of these rules. NRDC participated in several of those workshops and submitted comments on prior drafts. NRDC's prior comments are incorporated by reference into these comments.

NRDC thanks the Staff and the Commission for its continued work on developing rules for electric utilities to plan for DER in their electric resource planning activities. NRDC believes that by including DER in utility planning activities, the electric utilities will be able to better plan their systems and increase the efficiency of their systems by utilizing these resources, which will lead to a more optimized, reliable, resilient, and lower cost electricity system. NRDC largely supports the 3rd Draft but does have a few comments on the 3rd Draft that address the availability of utility data and planning for electric growth to better achieve the intentions and goals of this rule.

**Section 2- Distributed Generation and Distributed Energy Storage Database**

NRDC recommends that this database be available to the public upon request. NRDC envisions that this database can act as a pre-Hosting Capacity Analysis report that can provide valuable assistance and transparency to the utilities, customers, and developers in identification of locations better suited for DER development.

In addition to the information identified in 2(A), NRDC recommends that Daytime Minimum Load by circuit be included as a datapoint utilities should collect, to the extent the utility is capable of collecting that information. Daytime Minimum Load is a valuable metric to identify the capabilities of a location to interconnect, or host, additional solar.

In Section 2(A)(1), NRDC suggests the Commission define low, medium, and high. As a starting point, NRDC suggests the following as definitions: Low is less than 5% of system peak, Medium is 5–10% of system peak, and High is greater than 10% of system peak. These levels roughly follow the technology adoption curve utilized by the Department of Energy in its DSPx documentation and referenced in the NARUC DER Rate Design and Compensation Manual.

**Section 3- DER Adoption Potential**

NRDC supports the inclusion of this study. NRDC recommends that the electric utility utilize the information contained in this study to develop multiple forecasts as part of its resource plan. It is important that utility forecasts evolve from a deterministic, historical model to one that is more stochastic and probabilistic. The potential study, along with the information collected under Section 4, can assist the utility in better load forecasting modeling as customer load profiles evolve with the adoption of DER. For example, greater amounts of solar and other DER will likely shift consumption patterns away from historical norms. Looking at net load, which is the total electric demand in the system minus wind and solar generation, may show the system or class peak shifting. Similarly, use of heat pumps or greater energy efficiency and demand response may flatten customer demand, or change customer consumption patterns.

**Section 4- Evaluating DERs as part of Chapter 22 electric utility resource planning**

NRDC supports the inclusion of this section but makes several recommendations. First, NRDC recommends that this section include requiring the utilities to develop criteria for sourcing non-wires alternatives (NWA). This section includes requirements that the utilities identify locations across their systems where DER may enhance or constrain parts of the utility distribution system. NRDC recommends that this section also include a more specific requirement focused on NWA. For example, if the utility identifies a certain circuit or substation that is being impacted by DER that enhances a constraint, then the utility should also be required to investigate potential NWA solutions to mitigate the constraint. Since this rule is included in the utility electric resource planning process, and is to look out over two decades, the utility should be able to analyze when certain circuits or substations may be over its rating and capabilities, which, in certain circumstances, may be a candidate for NWA.

Second, NRDC believes that keeping the requirement for a line-by-line circuit analysis may be beneficial in the development of NWA location and sourcing criteria and may be a valuable exercise in the development of hosting capacity analyses. NRDC recognizes that including this requirement in the ERP section may not be the most appropriate place, but, nevertheless, notes that the process to conduct such an assessment may be beneficial when considering integration of DER more broadly.

Lastly, NRDC notes that this section, and the 3rd Draft in its entirety, neglects to note the potential for strategic electric load growth due to customer behavior changes and adoption of certain other types of DER. For example, electric heat pumps, greater adoption of electric water heating, and electric vehicles will likely increase electricity consumption. Consistent with Section 4(D), these types of technologies may be ripe for programs that "beneficially modify customer energy consumption." Essentially, NRDC notes that DER may contain a wide variety of customer-sited resources and the Commission and utilities should not lose sight of that. Therefore, NRDC recommends that this draft rule include a requirement that utilities include in

their analyses the impacts of load growth due to adoption and utilization of other types of technologies.

**Conclusion**

NRDC congratulates the Commission and Staff for opening this proceeding and the foresight for addressing these topics now while DER levels are low. NRDC appreciates the time and thoughtfulness put into the workshops and these drafts by Commission Staff and looks forward to continuing to work with Staff and other stakeholders on these matters.