- Regional CPP—5,400 MW wind and 20,700 MW solar; and
- High Demand—8,700 MW wind and 1,700 MW solar;
- Sub-Regional CPP—25,800 MW wind and 23,100 MW solar.

Fourth, the data on new generation, along with load forecasts and other data is input to another model to analyze the transmission system. Data from three simulation years (2020, 2025 and 2030) was used as the basis for evaluating projects in the project area. A 20-year benefit was calculated by linearly interpolating and extrapolating from the three years.

Q. Please summarize the results of MISO's process in terms of the claimed need.

A. Based upon the modeling results, MISO determined that "the area with the most congestion, and therefore highest potential benefit, is on the border of Iowa and Minnesota."[4] The element of the transmission system that experiences significant congestion is the Huntley–Blue Earth 161 kV line.[5] More specifically, when the Lakefield–Wilmarth 345 kV path is lost the lower-voltage parallel path, the Huntley–Blue Earth 161 kV line, becomes congested.

MISO's MTEP16 report at page 110 summarized the cause of the congestion in the project area with a list of three main factors:

- the existing wind capacity and coal generation in northern Iowa;
- the increase in wind capacity in Iowa forecast for the next 15 years; and

[4] See Appendix ~~G~~ F at page 105.

[5] The Huntley – Blue Earth line is in the proposed Project's study area.

C. MINNESOTA STATUTES §216B.243, SUBD. 3 (9)

Q. What consideration is established by Minnesota Statutes §216B.243, Subd. 3 (9)?

A. Minnesota Statutes §216B.243, Subd. 3 (9) requires the Commission to evaluate "with respect to a high-voltage transmission line, the benefits of enhanced regional reliability, access, or deliverability to the extent these factors improve the robustness of the transmission system or lower costs for electric consumers in Minnesota."

Q. Please provide your analysis related to Minnesota Statutes §216B.243, Subd. 3 (9).

A. According to the Petition, the adjusted production cost (APC) "is the total production costs of a generation fleet including fuel, variable operations and maintenance, startup cost, and emissions, adjusted for import costs and export revenue." According to the Petition, APC Savings are calculated as "the difference in total production costs of a generation fleet adjusted for import costs and export revenues with and without the proposed transmission project." Department Ex. __ SRR-3 (Rakow Direct) at page 15 provides MISO's preliminary cost allocation. The distribution of benefits (the APC Savings) shows that:

- 65.0 percent of APC Savings were in local resource zone (LRZ) 3;
- 34.5 percent of APC Savings were in LRZ 1; and
- 0.5 percent of APC Savings were in LRZ ~~5~~4.

Pages 14 to 15 of Department Ex. __ SRR-3 (Rakow Direct) shows that most utilities serving Minnesota (NSP, MP, GRE, OTP, DPC, and SMMPA) are in LRZ 1 and the