Minnesota Power is submitting the following comments to the questions posed to Transmission stakeholders by the Upper Midwest Transmission Development Initiative (UMTDI) Executive Committee. Please note that Minnesota Power is one of 11 utilities participating in the CapX2020 joint transmission planning effort. CapX2020, with input from the participating utilities, including Minnesota Power, will be submitting comments to the UMTDI Executive Committee questions. The comments below reflect additional view points by Minnesota Power on the questions posed to the Transmission stakeholders.

1. How much renewable energy should the upper Midwest states plan for, over what time-frame, and in what increments? The most recent Integrated Resource Plan submitted by electric utility companies in each state should be used to determine what renewable energy projects are in the planning/implementation process, the time-frame for these projects, and the estimated generation loads to determine the appropriate increments.

2. What voltages, how many miles of new or upgraded transmission and how much related infrastructure is needed in the upper Midwest region to meet our states' renewable electricity goals, ensure regional reliability and promote economic dispatch? This information is best determined through regional planning studies such as those being conducted through MISO and other related entities.

3. Where are the greatest potential renewable resources located in the upper Midwest? Where are the most accessible potential renewable resources located in the upper Midwest? Where are the markets for that energy? What are the likely and most appropriate means to deliver renewable generation to load? The comments to these questions are affected by many variables that are not within the control of any one entity. A broad regional planning analysis where all the stakeholders provide input on the variables is the best way to answer these questions.

4. Once potential generation sites are determined along with development timeframes what are the estimated costs of constructing an economically and operationally optimal network of needed transmission additions or upgrades? Over what timeframe? No comment.

5. What options exist to control or mitigate the cost of transmission construction? The key to controlling costs is the development of a thorough integrated plan for transmission construction.

6. How should the costs of needed transmission construction be apportioned across the region? For example, should producers and/or sellers of the energy interconnected to a particular transmission line be apportioned a certain percentage for delivering their product over that line? Should energy buyers/users of energy delivered by a specific powerline bear a cost allocation

percentage for that line? Should States through which a transmission line crosses but does not necessarily provide energy pay a portion of the cost of the transmission line? The beneficiary of the increased transmission capacity should bear their appropriate portion of the cost. The buyers, users, and other beneficiaries should be allocated a portion of the transmission construction cost. Ancillary service costs cannot be overlooked when analyzing the cost for new transmission, especially if the transmission is being built to add renewables that are not dispatchable.

7. What benefits from transmission additions can be demonstrated, how are they measured, and what is the business case for investments in these facilities? The regional transmission planning analysis would answer these questions.