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November 21, 2008

To: Upper Midwest Transmission Development Initiative

Re: October 28, 2008, Executive Committee Questions

American Transmission Company (ATC) appreciates the opportunity to provide answers to the specific questions posed by the UMTDI (the Initiative) Executive Committee and looks forward to being an active and supportive participant in this effort. We invite any questions and/or requests for clarification regarding our answers to the following questions:

1. How much renewable energy should the upper Midwest states plan for, over what time-frame, and in what increments?

ATC believes that the upper Midwest states should focus on studying a reasonable range of renewable energy development over a near to mid-term time period (i.e. what will be needed under current RPS' and/or over the course of the next 8-10 years). Focus should be on the pragmatic, cost-effective, and timely solutions needed for renewable generation and transmission infrastructure in order to provide some certainty to near-term decisions that need to be made by utilities and/or developers.

Since time is of the essence, the focus of this Initiative should remain primarily on the needs of the 5-state region which will allow for a base to be developed from which projects may be added or subtracted based on the evolution of renewable standards and other developments within the Midwest and elsewhere.

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?

All transmission voltages should be a part of the discussion regarding transmission infrastructure needed to meet the states' renewable energy goals. In addition, the transmission needs of the whole system, not just those of a particular energy source (i.e. wind), need to be taken into account since single purpose transmission lines (unless DC) are not practical for an integrated grid. Any consideration of higher voltage transmission plans (i.e. above 345 kV) needs to include a discussion of the lower voltage underlying grid and the additional impacts and costs that might arise from use of these voltages.

With respect to how many miles of new or upgraded transmission is needed, this is a difficult question to answer at the current time, but ATC suggests that a holistic approach be taken when weighing how much renewables are needed, where generation should be sited and how much transmission is needed to accommodate the generation based on likely locations. Due to the intermittent nature of many renewable resources, operational considerations should and must be taken into account as a part of this decision making process.

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?

Current conventional thinking dictates that the greatest potential renewable resources in the Midwest are located in the states with the greatest wind regimes (i.e. North Dakota and South Dakota). There also is interest in exploring the possibility of siting wind turbines on the Great Lakes due to the presence of a better wind regime than most of the land bordering the lakes.

In addition to these points, consideration of the tradeoffs in wind locations must also be considered in the Initiative's analysis and the identification of renewable energy zones, including areas that may be viewed as having less economic wind potential, should be included as part of the discussion. As explained in our answer to Question 2, all costs and other factors (i.e. capacity factors, operating issues, etc.) need to be a part of the discussion since optimal sites might be a combination of wind potential and accessibility to wires to deliver this power. Finally, non-wind renewable sources, such as hydroelectric power in Manitoba, or smaller scale technologies such as biomass, solar and other technologies need to be considered.

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?

Determining ultimate costs of an "optimal network" is difficult in the absence of data which will help determine what transmission is needed and where the generation will be sited. One of the primary purposes of the MISO Regional Generator Outlet Study is to determine the best-value combination of generation outlets and transmission infrastructure so this study should serve as a valuable resource to the Initiative. ATC has some additional thoughts on the components of any technical studies needed to support the Initiative and further details can be found in our answer to Question 6.

ATC also offers that it has completed a significant amount of transmission line projects (345 kV and below) over the course of the last several years and cost information is and can be made available on the costs of these projects.

5. What options exist to control or mitigate the costs of transmission construction?

One option to control the cost of transmission construction is to leverage existing transfer capability by siting the generation closer to existing transmission infrastructure despite the fact that these specific locations may not have the greatest wind potential. It also is factual that lower transmission line voltages result in lower costs but other factors (i.e. losses) must be factored in as part of the equation. A reasonable planning horizon should be used when developing and justifying transfer capability and/or voltage proposals.

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 costs of the transmission line?

One of the most serious challenges confronting wind integration is gaining agreement among diverse parties on cost allocation in the absence of knowledge of how benefits of transmission projects will be defined and measured. Projects that would be proposed as a result of this Initiative may or may not qualify under the current MISO cost allocation methodologies (despite the fact that they will produce some reliability and economic benefits). As a result, there may be a need to develop a new cost allocation approach for these projects; more specifically one that includes careful consideration of various benefits and beneficiaries (which can include both suppliers and buyers) from transmission projects and equitable allocation of the costs based on those benefits.

ATC suggests that specific economic studies and analyses need to be performed which will help inform the discussion on how to allocate costs. One type of study that could assist in this effort is one that identifies various benefits based on a variety of future scenarios, since there is no one certain future upon which we can base the measurement of benefits. These future scenarios will include variables related to renewable energy, as well as several other variables that impact the integrated electric system including, but not limited to, fuel cost and availability, hydroelectric imports from Canada, environmental policies and controls, energy efficiency and demand response. This type of approach should produce a variety of identifiable benefits and beneficiaries and, more importantly, can allow the development of a robust and flexible transmission system that can meet the needs of the uncertain future. ATC stands ready and willing to lend its assistance and expertise on these studies in any manner the Executive Committee requests or deems appropriate.

7. What benefits from transmission additions can be demonstrated, how are they measured, and what is the business case for investments in these facilities?

It is worth noting that numerous additional and measurable benefits can result from additional transmission infrastructure. For instance, it is a fact that any transmission projects completed that become a part of the existing transmission network will bring about reliability and economic benefits (i.e. access to more competitively prices within energy markets). In addition, new transmission lines often result in the reduction of losses on the system which can result in numerous benefits including generation offsets. These benefits, as well as others, can and should be factored into the overall discussion and decisions.

Thank you, again, for the opportunity to answer these questions. Please direct any questions to the following:

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