

Draft

March 25, 2005

Ms. Christy L. Zehner, Secretary
Public Service Commission of Wisconsin
P.O. Box 7854
Madison, WI 53707-7854

Re: Docket No. 137-EI-100
Investigation on the Commission's Own Motion of American Transmission Company's
Access Initiative to Strengthen Electric Transmission Ties to Areas Beyond ATC's
System Footprint

Dear Ms. Zehner:

This letter and its attachments are the responses of the American Transmission Company ("ATC")¹ to the Notice of Investigation issued by the Commission on February 14, 2005. In this Notice the Commission directed ATC to file updated information regarding its Access Initiative.

This filing is organized into two main parts. The first part is this letter, which sets forth the policy goals established for this docket by the Commission, and explains why these policy goals are critically important for Wisconsin electric customers. This letter also describes ATC's public-utility duties and responsibilities for meeting these goals, and proposes a specific target for simultaneous import capability into Wisconsin. Finally, it suggests hearing procedures and proposed findings for this proceeding.

The second part of this filing is a Status Report and Update regarding the ATC Access Initiative, appended to this filing as Attachment A. The Status Report and Update describes the purposes of the ATC Access Initiative and the industry context in which it takes place. It also provides a detailed summary of the study methods and results of the Access Initiative to date. It concludes with a listing of the planned future activities of the Access Initiative, subject to the Commission's direction in this proceeding²

¹ ATC is the collective designation for the American Transmission Company LLC and its corporate manager, ATC Management, Inc.

² Table 1 of the Status Report is an index of all the meeting materials from the Access Initiative from the ATC web site. A CD containing these materials is also provided. Table 2 is a more detailed description of the most promising Access Initiative projects. Table 3 is a Decision Matrix that provides a high-level summary of the relevant study results.

I. The Policy Goals of this Proceeding Are to Ensure that ATC is Making Cost-Effective and Timely Transmission Investments, and to Set an Appropriate Level of Simultaneous Transmission Capability.

As stated in the Notice of Investigation, the general policy goal of this proceeding is to “ensure Wisconsin is making cost effective and timely transmission investments.”³ The specific policy goal of this proceeding is to determine the appropriate level of simultaneous transfer capability into the ATC footprint.⁴ The Commission noted in the Strategic Energy Assessment (SEA) that gave rise to this proceeding that:

...there appears to be growing concern that ATC should file as soon as practicable what it feels the appropriate simultaneous transmission transfer capability should be for Wisconsin.⁵

In its SEA recommendations the Commission concluded that determining the proper simultaneous transfer capacity for Wisconsin was a “key question” and opened the instant docket for this purpose.⁶

In this letter and the attached Status Report and Update, ATC responds to these regulatory directions, setting forth the policy grounds for increased transfer capability into Wisconsin, and the basis for its specific recommendation on the appropriate level of transfer capability.

II. In Taking Action to Achieve These Policy Goals, the Commission Should Take a Long-Term View.

A new transmission facility that increases transfer capacity (such as a 345 kV high-voltage line) is a long-term, major investment. It will take substantial capital to build and will have an estimated useful life of several decades. During this time the electric industry will change, and the reliability and economic functions of such a facility also will change. The current clear trend is toward regional electric markets, and this trend is likely to continue into the future. This makes the creation of a robust grid in Wisconsin a strategic imperative.

It is impossible to quantify or model all of these future developments. As shown in the Access Initiative Status Report, ATC is relying upon the PROMOD model to estimate short-term economic savings that may be achievable with increased transmission capability. This is only part of the picture. ATC’s Decision Matrix also contains many qualitative and strategic factors supporting increased access, and this filing letter sets forth additional factors.

The major justifications for such long-term investments necessarily involve the exercise of prudent foresight, and the anticipation of manifold uses of increased transfer capacity by both

³ Notice of Investigation, p. 2.

⁴ The ATC region is effectively the Wisconsin Upper Michigan System (WUMS). The Wisconsin portion of WUMS has historically been called the Eastern Wisconsin Utilities (EWU) region. WUMS is part of the Midwest Area Interconnected Network (MAIN) reliability region.

⁵ Strategic Energy Assessment, 9/04, p. 134.

⁶ Id., at p. 146.

generators and load-serving entities. It is an analysis of these multiple benefits that should be the basis of the regulatory policymaking in this proceeding.

III. In Taking Action to Achieve These Policy Goals, the Commission Should Continue to Recognize that Increased Access Will Improve Both Economic Efficiency and Reliability.

Additional transmission infrastructure that improves Wisconsin's access to regional energy resources will not only increase competition, mitigate congestion charges, and reduce energy costs. It will also make a direct contribution to reliability. There is a direct correlation between access for "economic" reasons and reliability. As the Commission has noted, "throughout most of the history of the electric utility industry, increasing interconnections have increased reliability and decreased electricity prices."⁷ In other words, as the Commission has also stated, increasing transfer capability for economic reasons also solves operating problems in the transmission system, thereby enhancing reliability.⁸

Another example of this mutually reinforcing relationship between economics and reliability relates to the reserve margin. In response to concerns about reliability, caused by a combination of plant outages and lack of import capability,⁹ the Commission in 1997 increased the reserve margin to 18%.¹⁰ This increase in reserve margin imposes a substantial cost on ratepayers. If Wisconsin's ties to the regional grid are strengthened through an increase in transfer capability, access to regional capacity resources will improve, and greater reliance on regional reserves will be feasible. Increased access to the regional grid may allow a reduction in the current reserve margin, because Wisconsin load-serving entities could take advantage of the greater geographic diversity of demand and generation across the regional grid. This option is not currently available on a widespread basis, due to the severely constrained Wisconsin transmission system.¹¹

⁷ Report to the Wisconsin Legislature on the Regional Electric Transmission System, PSCW (9/1/98), p. vi.

⁸ See, for example, Final Decision, Joint Application of Minn. Power Co. And Wis. Public Service Corp., 10/30/01, p. 30-31 ("By increasing transfer capability, the Arrowhead-Weston project will allow more competition in wholesale electric markets and help prevent generators from selling at excessive prices. The project will address existing transmission-system operational problems..., and will improve both dynamic and voltage stability on the system. This in turn will permit the transmission system in Wisconsin to operate more securely at higher power transfer levels, thereby enhancing the reliability of the system.")

⁹ This occurred in the summer of 1997, when outages at nuclear plants inside and outside Wisconsin and a lack of import capability on the transmission system caused an extended contingency (resulting in interruptions of service and public appeals for reduced usage) and skyrocketing spot-market prices that peaked at \$7,000/Mwh.

¹⁰ Report to the Governor on Electric Reliability, PSC (9/30/97), p. 57. Presently, the MAIN Board recommends a short-term planning reserve margin of 14.12% for MAIN as a whole and a long-term planning reserve margin of 16-19% for MAIN as a whole.

¹¹ As noted in the Status Report (p. 10), ATC plans to evaluate the economic impact of lowering the Wisconsin reserve requirement to a level in line with the surrounding region.

IV. The Commission Has Frequently Noted the Growing Costs and Risks Imposed by Wisconsin's Lack of Adequate Transfer Capability.

In its 1998 Report to the Legislature the Commission noted that the high-voltage bulk power transmission system in the Midwest (and especially in Wisconsin) was designed and built in the 1970s and has not experienced any major additions since that time.¹² Focusing on reliability because of the events that occurred in the summers of 1997 and 1998, the Commission concluded that “increased transmission transfer capability into eastern Wisconsin is required to ensure that utilities can continue to meet customer demands in spite of power plant outages.”¹³

The Commission also has emphasized the costs and risks imposed by Wisconsin's highly constrained transmission system in all three of the Strategic Energy Assessments it has issued to date. In the first SEA, the Commission described the increasing use of the state's “scarce transfer capability” and concluded that the large numbers of calls for line-loading relief meant that the transmission system was “handicapped by constraints and congestion, both of which increase inadequacy, uncertainty and reliability risks in the bulk power market.”¹⁴ In its second SEA, the Commission noted that recent events had highlighted “constraints on the movement of power” from the west and the south. These constraints limited the ability to import power reliably, and reduced supply options for some providers.¹⁵ In the most recent SEA the Commission posed the question, “What is the appropriate simultaneous transfer capability for the transmission system?”¹⁶ It set forth its history of regulatory initiatives on the issue of power transfer, and noted:

Nearly every utility and business-oriented commenter indicated that the transmission system in Wisconsin is under stress, oftentimes constrained, and potentially underbuilt for both supply adequacy and reliability reasons.¹⁷

V. The Imminence of the MISO Energy Market Tariff Justifies Prompt, Systematic Action by the Commission to Increase Transmission Capability.

Many of these costs and risks will become more visible on April 1, 2005, when the MISO Energy Market Tariff takes effect.¹⁸ As described more fully in the attached Status Report, this is the date when MISO will begin to operate a security-constrained wholesale energy market for parts of the upper Midwest. After a brief start-up period, energy prices in this market will be determined by bids placed by generators. These bids are not required to be tied to the underlying

¹² Report to the Legislature on the Regional Electric Transmission System, PSCW (9/1/99), p. v.

¹³ Id., p. vi.

¹⁴ Strategic Energy Assessment Final Report, PSCW (12/00), p. 71.

¹⁵ Strategic Energy Assessment Final Report, PSCW (12/02), p. 30, 68-69. In May, 2002 the USDOE also issued its National Transmission Grid Study, noting that there was a national interest in relieving transmission bottlenecks, and listing the MAPP-MAIN Interface in western Wisconsin as the fourth most congested transmission path in the country (Table 2.1, p. 13).

¹⁶ Wisconsin's Strategic Energy Assessment - Energy 2010, Final Report, PSCW (9/02), p. 132.

¹⁷ Id., p. 133.

¹⁸ *Midwest Independent System Operator*, 108 FERC par. 61,163 (8/6/04).

costs of energy production. There is an initial bid cap of \$1000/MWh. The energy prices in the market will use Locational Marginal Pricing (LMP), which includes the bid price for energy plus an additional congestion charge imposed upon transactions into constrained areas.

The WUMS and the Northern WUMS areas are the only two Narrowly Constrained Areas (NCAs) in the MISO region. NCAs are regions that FERC and the MISO Independent Market Monitor have determined are “potentially more subject to the exercise of market-power abuse” than other areas. Because “well-defined structural barriers to competitive performance” exist in such areas they are subject to more stringent thresholds for the imposition of mitigation measures.¹⁹

The MISO EMT allocates a certain number of Financial Transmission Rights (FTRs) that are intended to act as hedges against congestion charges. Also, the FERC approved an expanded congestion-cost hedge for load-serving entities within WUMS and Northern WUMS. FERC concluded that entities in “highly congested load pockets” like WUMS and Northern WUMS are “potentially subject to high congestion charges,” and needed additional protection from such charges for existing firm network resources.²⁰ However, this protection will not apply to new transactions during the transition period, nor to any transactions after the transition period.

Thus, a new, mandatory transactional system has been established that is likely to translate Wisconsin’s lack of strong interconnections into higher costs and risks for customers. One of the purposes of an LMP market is to reflect actual local energy prices in order to send a price signal that additional generation and transmission need to be built. Sound public policy requires that the Commission anticipate these effects and not wait until Wisconsin’s lack of adequate transfer capability creates persistently higher energy prices. The Commission should act decisively now to increase the level of transmission import capability for the state in the long-term. It is prudent for Wisconsin to develop and maintain a higher level of transfer capability for economic transactions, as a hedge against LMP pricing impacts.

ATC suggests that a Wisconsin Transmission Plan to respond to the MISO EMT could have three stages or phases. First, ATC and the Commission should closely monitor the market as it evolves, and make whatever short-term transmission fixes and upgrades are feasible to respond to market developments. Secondly, ATC and the Commission need to look to the end of the five-year transitional period, and begin evaluating now which measures and projects will help relieve customers of higher energy prices and congestion charges when this transition period is over. Thirdly, ATC and the Commission need to develop a long-term expansion strategy, in conjunction with the MISO planning process, that will provide benefits to both Wisconsin and the surrounding region, and will support effective competition in wholesale energy markets.

¹⁹ Id., p. 77, 85.

²⁰ Id., p. 30.

VI. Many Other Benefits Will Accrue To Customers From An Increase In Transmission Import Capability.

While the MISO EMT certainly qualifies as a wake-up call to improve transmission capability in Wisconsin, it is not the only basis for doing so. Increasing the level of simultaneous transfer capability also would have several other benefits.

First of all, it would allow the state to take advantage of regional energy resources. Such access would tend to decrease wholesale energy prices to regional competitive levels. Competition is “the fundamental economic policy” of the state, and the legislature has specifically directed state regulatory agencies like the PSC to “regard the public interest as requiring the preservation and promotion of the maximum level of competition in any regulated industry consistent with the other public interest goals established by the legislature.”²¹

Secondly, as noted above, it would allow the state to rely more upon regional capacity resources. This would have the effect of minimizing planning-reserve requirements, with no loss of reliability, and of reducing end-use electric rates as a result. As an example, a substantial amount of excess capacity is currently available in Illinois at very reasonable prices. But there is insufficient long-term transfer capability into Wisconsin to allow Wisconsin users to take advantage of this situation.²²

Improved access to regional energy and capacity resources would add up to much greater power-supply optionality for ATC’s customers. Optionality is not easy to quantify, because it involves a host of future options that are difficult to predict and define. But ATC believes it has high value for its customers, basically because it provides a safety margin by expanding the universe of available resources usable by Wisconsin providers and thereby reducing their risks due to unexpected contingencies such as an outage.²³

Thirdly, an increase in transfer capability also brings with it increased reliability and operational benefits. As described more completely in the Status Report,²⁴ Access alternatives will, in varying degrees, strengthen the grid and cause positive effects in terms of reliability and performance. Loss-of-load expectation and expected unserved energy will be reduced. Losses will be reduced. System performance (such as improvements in voltage support and phase angles) will be improved. Operating flexibility (in the form of increased ability to schedule outages and reducing operating guides) will be increased.

²¹ Sec. 133.01, Wis. Stats.

²² This situation also is a good example of how circumstances change in the marketplace unpredictably. Previously, inexpensive capacity resources were available to the north and west of Wisconsin in the MAPP region, including Canada. This change supports the view that there is value in a robust grid that is integrated with contiguous areas, even though it may not be possible to calculate with certainty the precise sources of that value.

²³ Power-purchase optionality is not the only aspect that is relevant. While increased import capability does not translate directly into increased export capability, it is nevertheless true that a more robust grid in Wisconsin will, generally speaking, allow Wisconsin generators greater access to regional markets.

²⁴ *Status Report and Update*, p. 4-5; Table 3, Decision Matrix.

There also are considerable environmental benefits to prudent transmission expansion. For example, improved transfer capability could provide access to new sources of renewable energy. There are excellent wind resources to the west of Wisconsin, in Iowa, Minnesota and the Dakotas. These resources could be tapped for renewable power, and imported into Wisconsin.²⁵

Finally, there is a direct connection between improving economic development in the state and improving our transmission grid. Governor Doyle noted in his *Grow Wisconsin* plan that a “sound energy policy is the cornerstone of economic growth and job creation in Wisconsin,” and called for new investments in energy infrastructure.²⁶ An area of the state that lacks adequate transmission capability is at as much of an economic disadvantage as an area of the state that lacks adequate transportation or communications capability.

VII. The Commission And ATC Under Its Direction Have The Legal Authority To Develop And Implement A Target Figure For Increased Import Capability.

The Commission has broad authority “to do all things necessary and convenient to its jurisdiction” over Wisconsin public utilities (including ATC).²⁷ As it has done here, it may initiate and, after hearing, take binding action if it believes that “any service is inadequate or cannot be obtained or that an investigation of any matter relating to any public utility should for any reason be made.”²⁸

ATC, as a Wisconsin public utility, has a duty to “furnish reasonably adequate service and facilities.”²⁹ In fact, ATC is in the unique position of being a “transmission company” whose sole purpose has been specifically defined by the legislature. ATC’s sole purpose is as follows:

...the planning, constructing, operating, maintaining, and expanding of transmission facilities that it owns to provide for an adequate and reliable transmission system that meets the needs of all users that are dependent on the transmission system and that supports effective competition in energy markets without favoring any market participant.³⁰

Thus, ATC has a public-utility responsibility to go forward with its Access Initiative – planning to expand its facilities in order to provide an adequate, reliable system for its TDU customers and in order to support effective competition in energy markets.³¹

²⁵ The Governor’s Task Force on Energy Efficiency and Renewables recently recommended an increase in the percentage of retail electric sales from renewables. This recommendation specifically permits counting renewable generation located outside Wisconsin if owned by or under contract to a Wisconsin provider. *Report of the Governor’s Task Force on Energy Efficiency and Renewables*, (10/04), p. 35.

²⁶ *Grow Wisconsin*, Office of the Governor (9/10/03), p. 15

²⁷ Sec. 196.02(1), Wis. Stats.

²⁸ Sec. 196.28, Wis. Stats.

²⁹ Sec. 196.03(1), Wis. Stats.

³⁰ Sec. 196.485(1)(ge), Wis. Stats.

³¹ See also Section 2.7 – Adequacy, ATC LLC Operating Agreement, approved by the Commission in *In the Matter of the Organization of ATC LLC*, Docket No. 137-NC-100 (12/22/00), p. 29.

In the same omnibus legislation that encouraged the creation of ATC,³² the legislature amended Chapter 196 in several ways that make it clear that increasing transmission import capability is a valid and proper subject for Commission action. As the Commission noted in the most recent SEA, it has the authority after promulgation of appropriate rules to require electric utilities to file regulatory reports regarding available transmission capacity.³³ Also, the legislature added two new standards to the CPCN statute that are relevant to this issue. The first standard authorizes proposals for high-voltage transmission lines that “increase the transmission import capability into this state,” and subjects such proposals to certain environmentally-related considerations.³⁴ The second standard requires the Commission to determine that any proposed facility “will not have a material adverse impact on competition in the relevant wholesale electric service market.”³⁵ Obviously, as the Commission has noted, increased transfer capacity into the state will promote, and not adversely affect, wholesale electric competition in the state.³⁶

In light of these factors, it is clear that reliability and local load-serving are not the only appropriate purposes of transmission facilities proposed under the CPCN statute. Increasing import capability is another important and independent reason for such facilities.

VIII. ATC Recommends that the Commission Adopt a Nominal 5000 MW as the Appropriate Level of Simultaneous Summer-Peak Transfer Capability into its Region.

ATC submits that the above policy factors make a strong case in support of setting a policy target for import capability that is considerably higher than the current level. Long-term policy factors favor such action. Wisconsin’s isolation from the regional grid, due in part to geography and in part due to not building major transmission lines in the last three decades, has created unacceptable levels of risk for Wisconsin customers. The imminence of the MISO Energy Market, and Wisconsin’s unique exposure to high energy prices and congestion charges as a result of its status as a Narrowly Constrained Area, bring into clear focus the need to act now. The five-year transition period granted by the FERC will terminate in 2010, and it is critically important to begin working on increasing access now. The long-term policy goal should be an environment in which Wisconsin customers are able to act as full and equal participants in the regional energy markets that are rapidly developing in the upper Midwest.

For the summer of 2004, the simultaneous transfer capability into the ATC region was approximately 2,600 MW and is projected to be 3,000 MW for the summer of 2005.³⁷ If the

³² 2000 Wisconsin Act 9. The portions of this budget bill that amended Chapter 196 are known as Reliability 2000.

³³ *Strategic Energy Assessment-Energy 2010 Final Report*, PSC (12/04), p. xxi, citing Sec. 196.025(3), Wis. Stats.

³⁴ Sec. 196.491(3)(d)3r., Wis. Stats.

³⁵ Sec. 196.491(3)(d)7., Wis. Stats.

³⁶ *Final Decision*, p. 29-30.

³⁷ The increase is due to the addition of a second 345kV circuit between the Wempleton Substation in northern Illinois and the Paddock Substation in southern Wisconsin.

Arrowhead-Weston project is placed in operation by 2008, as planned, simultaneous transfer capability in the ATC region will be approximately 3,500 MW in 2012.³⁸

ATC submits that it is prudent and reasonable to establish a firm goal of 5,000 MW in simultaneous summer-peak transmission capability into its region. As the Decision Matrix shows, such a goal is practical, in that all of the preferred EHV alternatives (South or Southwest) approach that goal.

IX. ATC Requests the Commission to Hold a Public Hearing in this Matter and to Make Findings that Will Apply to Future Proceedings.

The Commission indicated in its Notice that it might seek public comment in this matter and that it might also set public and technical hearings in this proceeding. ATC submits that, as provided by Sec. 196.28(2), “sufficient grounds exist to warrant a hearing” on the subject matter of this investigation. A “public hearing” also would appear to be a prerequisite to issuing a binding order in this proceeding.³⁹

ATC stands ready to participate fully in whatever type of public hearings the Commission deems appropriate in this proceeding. Following those hearings, ATC requests that the Commission issue an order containing findings that will be applicable in subsequent proceedings, including subsequent CPCN proceedings. For example, if the Commission establishes a transfer capability target as a policy matter in this proceeding following public hearing, it will not be necessary or appropriate for applicants and other parties in subsequent CPCN proceedings to relitigate this policy decision. Of course, applicants in such proceedings would have to show that the proposed project in fact contributes to meeting the transfer-capacity target. They also would have to meet the other CPCN standards, including costs that are reasonable in relation to benefits.

ATC thus requests the Commission to make the following findings in this proceeding:

- 1) achieving 5,000 MW in simultaneous transmission capability into the ATC region will not provide facilities unreasonably in excess of the probable future requirements of ATC and its customers;
- 2) achieving this target will contribute to satisfying the reasonable needs of the public for an adequate supply of electricity;
- 3) achieving this target will provide provided substantial usage, service, and increased reliability benefits to the customers of this state;

³⁸ Simultaneous transfer capability is not a static number, but varies with a host of factors. Barring any other network changes, transfer capacity erodes over time due to load growth.

³⁹ Sec. 196.28(2) provides that a hearing in an investigation “shall be conducted as a hearing under s. 196.26.” Sec. 196.28(3) provides that “the same order or orders may be made” following the hearing as are made in complaint proceedings under sec. 196.26. Section 196.26(1m) states that the Commission “may not issue an order based on an investigation (in a complaint proceeding) without a public hearing.”

- 4) achieving this target will promote effective competition in the wholesale electric supply market in the ATC region.

With respect to the Access Initiative, ATC respectfully requests the Commission to make the following findings:

- 5) it is in the public interest for ATC to continue to engage with its customers and other stakeholders regarding the Access alternatives, and to study and evaluate such alternatives;
- 6) it is in the public interest for ATC to complete its Access Initiative as soon as practicable, to select its preferred Access alternative or alternatives, and to file a Final Report regarding its Access Initiative no later than _____.

Respectfully submitted,

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