

Summary of Testimony

In October 2001, the Public Service Commission of Wisconsin approved the Arrowhead-Weston transmission line project. In November 2002, American Transmission Company filed a revised cost estimate with the Commission and asked the Commission to approve the new project cost. The Commission has been reviewing the revised cost and is holding hearings September 16-24 on the issue. A final order is expected from the Commission by the end of 2003.

Following are excerpts of testimony that is being presented to and reviewed by the Commission.

Arrowhead-Weston - Why It's the Right Project for Wisconsin

"The Arrowhead line will significantly enhance the performance of the transmission system."
(Neumeyer testimony, ¹⁶ p. 4)

"Several studies ... document the continued need for additional transmission reinforcement. I find no reason to disagree with the results of those reports and the conclusions that the Arrowhead to Weston Project is still needed." (Neumeyer testimony, ¹⁵ p. 3)

"The Project [Arrowhead-Weston] is a critical component to the long-term stability and security of the regional electric system. Not only should the Project be built, it is imperative that it proceed in a timely fashion because further delay will reduce overall reliability." (Burmester testimony, ¹ p. 2)

"The Commission's conclusion remains valid, namely, the Arrowhead-Weston is the preferred alternative because no other applications are pending and 'further delay would not be in the public interest.' " (Burmester testimony, ¹ p. 16)

"While King-Weston performs better than Arrowhead-Weston in *some* technical areas, the difference in performance in those areas is not material. The WRAO considered the technical performance of the reinforcement options together with geographical diversity, planning and operational flexibility, increased local load-serving capability, and the Twin Cities transmission constraints. ATC agrees with the WRAO that Arrowhead-Weston is the superior choice when all of these factors are considered." (Burmester testimony, ² p. 10)

"Arrowhead-Weston is *both* cheaper *and* has more geographic diversity than King-Weston." (Burmester testimony, ² p. 11)

"The transmission system in Wisconsin has been studied in-depth since the events of June 1997. All studies consistently show that the transmission grid is in desperate need of reinforcement and show that the Arrowhead-Weston Project resolves many of the State's most critical security problems." (Terhune testimony, ¹³ p. 2)

"Wisconsin faces continued exposure to serious reliability events, which Arrowhead-Weston will solve. One of the ways in which it will solve those events is the capacity to import reserve generation to avoid blackouts." (Terhune testimony, ¹⁴ p. 8)



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Arrowhead-Weston Means Economic Growth

“Transmission provides the opportunity to access regional markets for input and support capability and allows the cost of reliability and security to be shared broadly in the region. It also is the critical link that connects generation to customers.” (Williamson testimony, ⁹ p. 11)

“Local benefits occur from stronger transmission support for existing loads and from access to reliable energy for future development that may bring jobs and support development.” (Williamson testimony, ⁹ p. 11)

“The Project [Arrowhead-Weston] provides increased access to generating resources with a diversity of fuel types including hydroelectric power, low-sulphur coal, and wind, among others. Better access to the regional power market will also allow Wisconsin to lower its electricity costs on an economic basis.” (Terhune testimony, ¹² p. 19)

Wisconsin Reliability Assessment Organization

Arrowhead-Weston vs. King-Weston

“The WRAO Report represents the most recent comprehensive transmission study of the transmission conditions in the State of Wisconsin. The WIREs Phase I study evaluated 12 alternatives and WIREs Phase II went on to conduct an in-depth evaluation of seven different alternatives involving stability, voltage and thermal analyses.” (Burmester testimony, ¹ p. 3)

“The WRAO Report concluded that the Project [Arrowhead-Weston] was a ‘superior performing plan because of its physical separation for the existing King-Eau Claire-Arpin 345 kV line.’ This has not changed.” (Terhune testimony, ¹² p. 16)

Diverse Energy Sources Equals Electric Security

“One of the basic tenets of transmission planning is to have a geographically diverse web of EHV [extra high voltage] lines interfacing with the regional grid. Wisconsin’s ability to have a geographically diverse transmission grid is already hampered by physical constraints, namely, Lake Michigan to the east and Lake Superior to the north.” (Terhune testimony, ¹² p. 16)

“It is important for the State to have diverse energy sources ... generation does not solve the problems solved by the Project.” (Burmester testimony, ¹ p. 40)

“There are two types of diversity that are advantageous - geographic diversity as well as diversity of power sources - both of which remain advantageous.” (Terhune testimony, ¹² p. 15)

“The King-Eau Claire-Arpin line currently is Wisconsin’s sole EHV line interfacing with the west. Therefore, for security reasons it is critically important for any future EHV ties to the west to be geographically distant from the existing tie.” (Terhune testimony, ¹² p. 16)

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Arrowhead-Weston Cost Found “Reasonable”

“R.W. Beck was retained by the Commission to assess the reasonableness of the revised cost estimate of the Arrowhead-Weston transmission line project and to review the cost estimate of the King-Weston alternative. The Final Report titled, ‘Independent Cost Review of the Arrowhead-Weston Project’ dated July 2003 stated that both cost estimates appear reasonable.” (Neumeyer testimony, ¹⁵ p. 2)

“The Arrowhead-Weston Project will actually be less expensive than the King-Weston alternative when taking into consideration the lost savings due to the delay.” (Burmester testimony, ² p. 11)

“Specifically, the Project will allow Wisconsin to save approximately \$56.9 million per year.” (Burmester testimony, ² p. 7)

Estimated savings for Wisconsin rate payers based on the ability of Arrowhead-Weston to import cheaper regional generation.

“The Arrowhead-Weston Project is the least-cost alternative. King-Weston is \$188 million more costly in PVRR [Present Value Revenue Requirement] terms than Arrowhead-Weston.” (Burmester testimony, ¹ p. 39)

“ATC has calculated the rate impact of the Project on retail electric rates to be approximately one (1) percent of a retail customer’s electric bill.” (Doyle testimony, ⁴ p. 3)

“I am confident the Cost Estimate projects the final cost of the Wisconsin portion of the Project within 10% of expected actual costs for the Project. The Cost Estimate will continue to mature and more accurately reflect the expected final cost as design and construction progresses.” (Nichols testimony, ⁷ p. 20)

King-Weston Is Not a Viable Alternative

“The King-Weston estimates have a higher risk of being inaccurate as that option is not as well developed as the Arrowhead-Weston Route option.” (Chartier testimony, ¹⁸ p. 3)

“The route [King-Weston] is planned to pass through the Eau Claire area and connect to the Eau Claire Substation ... While routing the line through the area is probably possible, it will be a slow, difficult and expensive proposition. It may take five years longer to build, too.” (Chartier testimony, ¹⁷ p. 4)

“The Commission has apparently already recognized the shortcomings of the King-Weston line. In its 1998 Report to the LEGISLATURE ON THE REGIONAL ELECTRIC TRANSMISSION SYSTEM, the Commission did not even include King-Weston on its ‘Short List of Options.’ ” (Burmester testimony, ² p. 11)

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“Because King-Weston has not been subject to such intensive scrutiny, there are many unknowns remaining about the King-Weston alternative ... In contrast, we know Arrowhead-Weston will resolve the security problems in the State of Wisconsin, we know someone is willing to build Arrowhead-Weston now, and we know approximately how much Arrowhead-Weston will cost.” (Burmester testimony, ¹ p. 16)

“There are significant uncertainties for King-Weston such as the availability of a St. Croix River crossing, a willing Minnesota utility as a partner, routes around the Eau Claire metropolitan area or other potential fatal flaws which would not be known until years of planning, engineering and permitting activity were undertaken.” (Williamson testimony, ⁹ p. 22)

“All of the other alternatives to Arrowhead-Weston have been studied to death, and the conclusions are that they are more costly, do not meet the security and adequacy needs, or both.” (Williamson testimony, ¹¹ p. 5)

“King-Weston line is ultimately more expensive taking into account inevitable delays in construction.” (Williamson testimony, ¹¹ p.3)

“The King-Weston line, which would parallel the King-Eau Claire-Arpin line, brings no advantages for geographical diversity.” (Terhune testimony, ¹² p. 16)

“There is a four-year delay between when the Arrowhead-Weston and King-Weston alternatives are anticipated to be in-service, 2008 versus 2012. In order for the King-Weston alternative to meet the 0.1 days/year LOLE [loss of load expectation] reliability criterion, diesel units would have to be leased for four years until the King-Weston line was operational.” (Burmester testimony, ¹ p. 37)

Alternatives Don't Match Up to Arrowhead-Weston

“The security and adequacy problems facing Wisconsin are severe. The alternatives for solving these problems were few to begin with. They have been thoroughly studied since the original WIREs analysis, the WRAO Report and previous proceedings before this Commission.” (Williamson testimony, ¹¹ p. 6)

“No other alternatives are both technically feasible and cost-effective when compared with the Project.” (Burmester testimony, ¹ p. 3)

“Generation is still not a technically feasible or cost-effective alternative to the construction of an EHV line to resolve the State of Wisconsin's security and adequacy problems.” (Burmester testimony, ¹ p. 2)

“Increased generation is not a substitute for the reliability and security benefits provided by another EHV line strengthening the Western interface ... new generation in Wisconsin creates significant transmission needs. Virtually any major generation improvement inside Wisconsin requires significant major transmission infrastructure improvements.” (Williamson testimony, ⁹ p. 17)

Summary of Testimony CONTINUED

"Though the cost of all the WRAO Alternatives has increased, the relative cost comparison between Arrowhead-Weston and the other alternatives remains about the same." (Burmester testimony, ¹ p. 12)

Treating Landowners Fairly and with Respect

"In places where there are already existing electric transmission easements or rights-of-way, it is ATC's intent to purchase rights-of-way for the entire 120 feet." (Finco direct testimony, ⁵ p. 2)

"It is important to respect the business needs of producers, and address the impacts of construction on their businesses, just as we do the interests of other businesses along a transmission line route." (Hayen testimony, ⁶ p. 10)

"ATC agrees that the ratepayers must be adequately protected but is also prepared to simultaneously protect the property owners bearing the burden for those ratepayers." (Williamson testimony, ¹⁰ p. 2)

Taking Care of Farms and the Environment

"[Agricultural Biosecurity] measures will be incorporated into an Agricultural Protection Plan which will establish the general template of available measures. From that we will develop Specific Protection plans which will identify the measures to be implemented on either a specific agricultural property or a specific construction spread." (Hayen testimony, ⁶ p. 3)

"We plan to invite various stakeholders to assist with development of the Agricultural Protection Plan. These stakeholders include DATCP, Project team members, construction contractors, UW-Extension agents, county representatives, agricultural producers and local interest groups." (Hayen testimony, ⁶ p. 8)

"Our approach is to be proactive in dealing with producers and environmental and agricultural protection issues ... Agriculture is a primary land use throughout Wisconsin ... Agriculture is important to Wisconsin's economy and protecting it is important to the quality and safety of our food supply." (Hayen testimony, ⁶ p. 9)

"The approach and techniques described in Ms. Hayen's testimony are reasonable and appropriate ways to provide agricultural biosecurity protection for the producers who will be impacted by the construction of the project. ATC's emphasis on working with the producers and learning more about what can be done to protect agricultural operations and incorporating those findings into the project is appropriate, given the emerging nature of agricultural biosecurity." (DATCP testimony, ¹⁶ p. 11)

"What we develop and learn on this Project can be applied to other projects with the potential to impact agricultural operations along transmission rights-of-way." (Hayen testimony, ⁶ p. 10)
"ATC also believes it is necessary for the Farm Disease Mitigation Plan to be both flexible and

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site-specific." (Williamson testimony, ¹⁰ p. 3)

Fiber Optics for Utility Communications

"The dual-purpose OPGW [optical ground wire] will be used to ground the Project's transmission structures and as an electronic communications path to monitor, operate and protect the Project and its associated facilities. ATC will only use the OPGW for electric utility purposes." (Ovokaitys testimony, ⁸ p. 3)

"OPGW is a common ground wire standard for utilities around the world. OPGW is also a widely used, state-of-the-art medium that provides utilities with a reliable and secure path to monitor, operate and protect their transmission lines and associated facilities." (Ovokaitys testimony, ⁸ p. 5)

"ATC is currently in the process of installing OPGW on the majority of its new and rebuilt transmission lines and associated facilities." (Ovokaitys testimony, ⁸ p. 6)

American Transmission Company - Planning and Building Transmission Facilities

"ATC's objectives are to operate well, provide exemplary customer service, plan and construct new facilities to meet customer needs, to honor the social compact for constructing utility facilities by treating affected landowners fairly and provide investors with a fair return." (Williamson testimony, ⁹ p. 5)

"ATC has a duty to its customers, the citizens of the State and to the Commission to propose and construct the transmission infrastructure required for the State of Wisconsin and the region." (Williamson testimony, ¹¹ p. 4)

"The Commission is not the entity responsible for system reliability - ATC is. The Commission doesn't operate, plan, construct, or fix the system; ATC does under the supervision of MISO. If grid problems manifest themselves it is ATC's responsibility - not the Commission's." (Williamson testimony, ¹¹ p. 7)

"A robust transmission system makes it possible for the State to import a significant amount of renewable energy such as wind power or, for example, to move wind power from parts of the State where it may become economical to other parts of the State where the load is located." (Williamson testimony, ⁹ p. 25)

"Wisconsin has maximized the use of its existing transmission system to the point that it is sufficient only for existing generators. When either a new generation facility or load is proposed - like Weston 4 or a major manufacturer up in northwest Wisconsin - ATC is not positioned to address either the new generation or the new load without having to complete significant transmission studies and upgrades." (Terhune testimony, ¹² p. 7)

"For a robust, flexible and reliable power system, Wisconsin needs to both build new power

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plants and strengthen its transmission system to keep up with the growing demand for electricity." (Terhune testimony, ¹² p. 17)

"The Applicants, the Commission, MISO, FERC, NERC, DOE and other utilities in this Docket have all concluded that transmission security in the Midwest and especially Wisconsin are in critical need of improvement." (Terhune testimony, ¹³ p. 2)

The Northeast Blackout - It Could Happen Here

"The Commission staff promptly requested information from Wisconsin utilities about the August 14th event, how it impacted the Wisconsin system and 'the general operation of the transmission system with respect to its ability to withstand a major cascading outage if it progressed to the boundary of the transmission system in Wisconsin.' " (Terhune testimony, ¹³ p. 5)

ATC's response reiterates the insecurity of Wisconsin's transmission grid and the importance of constructing the Arrowhead-Weston Project to diminish the likelihood of widespread outages in this State." (Terhune testimony, ¹³ p. 5)

¹ Dale W. Burmester, Manager of Transmission Service for ATC. Direct Testimony.

² Dale W. Burmester. Rebuttal Direct Testimony.

³ Dale W. Burmester. Surrebuttal Direct Testimony

⁴ Daniel A. Doyle, Vice President, Chief Financial Officer and Treasurer for ATC. Direct Testimony.

⁵ Thomas M. Finco, Manager, Real Estate for ATC. Direct Testimony.

⁶ Rita L. Hayen, Manager of the Environmental Department for ATC. Direct Testimony.

⁷ Ronald C. Nichols, Consulting Engineer in the Engineering, Maintenance and Construction Department of ATC. Direct Testimony.

⁸ Daniel S. Ovokaitys, Manager, Information Technology for ATC. Direct Testimony.

⁹ Mark C. Williamson, Vice President, Major Projects for ATC. Direct Testimony.

¹⁰ Mark C. Williamson. Rebuttal Testimony.

¹¹ Mark C. Williamson. Surrebuttal Testimony.

¹² Harry L. Terhune, Vice President, Operations for ATC. Direct Testimony.

¹³ Harry L. Terhune. Rebuttal Testimony.

¹⁴ Harry L. Terhune. Surrebuttal Testimony.

¹⁵ Donald G. Neumeyer, Engineer, Public Service Commission of Wisconsin. Direct Testimony.

¹⁶ Donald G. Neumeyer. Rebuttal Testimony.

¹⁷ Dr. Robert G. Ehlenfeldt, Acting State Veterinarian, Director of the Bureau of Animal Disease Control and Robert A. Dahl, Section Chief of the Plant Protection Section, both of the Department of Agriculture, Trade and Consumer Protection. Joint rebuttal testimony.

¹⁸ Everette Chartier, R.W. Beck's National Director for Technical Energy Services. Direct Testimony.