Western Area Power Administration Transmission Infrastructure Program P.O. Box 281213 Lakewood, CO 80228-8213

RE: Comments of the **Wyoming Infrastructure Authority** pursuant to the proposed principles, policies and practices on section 402 of the American Recovery and Reinvestment Act of 2009

### To Whom It May Concern:

Pursuant to Western's "Notice of Availability of Request for Interest" posted in Vol. 74, No. 41, page 9391 of the Federal Register on March 4, 2009 (Notice), the Wyoming Infrastructure Authority (WIA's) hereby submits its comments relative to the proposed principles, policies and practices on section 402 of the American Recovery and Reinvestment Act of 2009 (ARRA) as outlined below. Our comments are largely directed to Western's activities and opportunities within the Western Interconnection.

The State of Wyoming's policy on needed transmission development shares many goals with Western. The ARRA places great emphasis on the development of transmission to support renewable energy. We anticipate that ARRA will position Western for an expanded role in regional transmission development to bring Wyoming's world-class wind resources to the western United States – provided that new transmission projects are "right-sized" from the start to allow the transfer of the maximum number of electrons with the least possible environmental impact.

Western is uniquely positioned to effectively coordinate the various transmission projects within its footprint and their developers to foster regional cooperation, mitigate environmental impacts and provide needed assistance in analyzing and identifying reliability issues in the Western Interconnection. Western's active participation can help to make such projects a reality, allowing them to be large enough to serve native load *and* to encourage wind resource development. Federal stimulus dollars are needed for adequate and timely transmission development; and Western is the only entity capable of solving this "chicken and egg" problem by investing in right-sized projects and having the resources to carry the costs of those investments while load develops and transmission revenues begin to flow.

This opportunity to invest in private-sector projects, as permitted by ARRA, gives Western the unique opportunity to leverage its borrowing authority for the good of the entire Western Interconnection.

Additionally, interstate cost allocation issues, long a barrier to cooperation among the states, would be resolved because developers would need to bring only their native load-related costs to state regulators because of Western's investment in "right-sized" transmission lines.

The WIA recognizes the complexity of the responsibility Western has been given and stands ready to assist as requested. We would be pleased to discuss our comments further at your convenience.

Respectfully submitted,

Steve Ellenberch

Steve Ellenbecker,

Director of Governmental & External Relations and Energy Policy Advisor to Governor Freudenthal Wyoming Infrastructure Authority



**Entity**: The Wyoming Infrastructure Authority (WIA) is a quasi-governmental instrumentality of State of Wyoming. Created in 2004 by the Wyoming Legislature, the WIA's mission is to diversify and expand the state's economy through improvements in Wyoming's electric transmission infrastructure to facilitate the consumption of Wyoming energy. The Authority can participate in planning, financing, constructing, developing, acquiring, maintaining and operating electric transmission facilities and their supporting infrastructure. The legislation gives the WIA bonding authority, and other powers to promote transmission development in the state and throughout the region. It also allows the State Treasurer, with the approval of the State Loan and Investment Board, to invest in WIA bonds.

### **Entity Contact Information**:

Steve Ellenbecker Wyoming Infrastructure Authority 200 East 17th Street, Suite B Cheyenne, WY 82001

Phone: (307) 635-3573 Fax: (307) 635-5336

E-mail: sellen@state.wy.us

# WIA's Comments

#### **Support for Western's Proposed Approach**

We are in support of the approach that Western is taking to implement its \$3.25 billion borrowing authority as defined in its recent Federal Register notices and in its March 23, 2009 stakeholder meeting in Lakewood, Colorado. We are of the view that Western is fully capable of implementing its plans in an open and transparent manner as required by the enabling ARRA legislation, and that efforts to impose any external management or control mechanisms on Western should be discouraged. We need to move forward and avoid any efforts to add red tape or unduly burdensome bureaucracy to the process.

Western has been an active participant in public policy and transmission planning venues throughout the West and is particularly cognizant of and responsive to stakeholder interests by virtue of such participation. These venues include WGA's WREZ Initiative, WGA's Wildlife Corridors Initiative, RMATS, CDEAC, CREPC, the activities of the various state transmission authorities, NREL's Western Wind & Solar Integration Study, Colorado Coordinated Planning Group and its Colorado Long-Range Transmission Plan, NTTG, SWAT, WestConnect, and WECC/TEPPC to name just a few. Consequently, we are of the view that limited or no additional stakeholder processes need to be imposed for Western to execute its responsibilities.

## **Comments on Proposed Principles and Program Elements**

The Federal Register notice contains a set of principles and an outline of the program elements proposed by Western. Without commenting on each item, we offer the following comments on the major elements of the proposed program.

#### **Funding**

The program contemplates direct investment and ownership by Western in new transmission projects. While this traditional approach certainly has merit, Western should consider additional ways in which it can provide economic support for meritorious projects. For example, loan guarantees or purchases of transmission capacity may be appropriate tools to assist a project that needs economic support, but not necessarily direct investment, to proceed.

As will be discussed later, there are a number of Wyoming transmission projects at various stages of development. A flexible approach to using Western's available funding will maximize the opportunities for Western to help these projects succeed. By looking for creative ways to assist multiple projects, Western can leverage the available funding to maximize the development of new transmission capacity to enable renewable resource development.

Western participation in projects that are already well advanced in the development process could provide the critical mass needed to justify their construction, to "right size" projects, and maximize the use of a limited number of transmission corridors. Without Western participation, these projects might have to proceed at lower voltages to match only the demand that is available at the time the projects are designed and financed.

### **Cost Recovery**

One of Western's proposed principles is that a project must "offer a reasonable expectation that the proceeds from the project shall be adequate to meet Western's financial repayment obligations". In applying this principle, we urge Western to take the long view. Transmission is a "lumpy" investment which may not be fully utilized initially. However as demand for electricity, especially from renewable sources, grows over time, transmission projects will become fully subscribed. As long as Western has a reasonable expectation that revenues will be sufficient to provide repayment over the life of the project, it should be willing to commit funds.

The proposed program contemplates separate rate treatment for each project that is selected for funding. We urge Western to reconsider this approach since it will lead to balkanized tariffs and pancaked rates. To the extent possible, we believe Western should include these projects in existing tariffs, provided that there is no cost impact on Western's preference customers. If a particular project would cause unacceptable upward pressure on existing transmission rates, the "higher of" or incremental pricing approach included in the FERC pro forma Open Access Transmission Tariff provides a means to protect existing transmission customers. The recent Bonneville Power Administration open season illustrates how significant transmission expansion for renewables can be successfully accomplished within existing tariff structures.

#### **Generation Mix**

A primary purpose of the program is to facilitate renewable energy development. We support Western using project selection criteria that favor projects that will deliver substantial quantities of renewable energy. However, we urge Western not to adopt rigid requirements for "green" content. Individual transmission lines are part of an interconnected grid making it impossible to limit flows on particular lines to only "green" electrons. And given the low capacity factors for solar and wind projects, more traditional forms of generation may be needed to complement the renewable resources and maximize the economic benefits of transmission lines built primarily for renewables.

#### **Ancillary Services and Shaping/Firming Products**

We appreciate the references to ancillary services throughout the proposed program. This is a critical area for facilitating renewable energy development, especially for wind and solar. Although it may be somewhat beyond the scope of the proposed program, we urge Western to thoroughly evaluate the capability of the federal hydroelectric projects under Western's operational control to provide ancillary services and shaping/firming products. To the extent such an effort results in changes to hydro project operations with negative economic consequences for Western's wholesale power customers, of course, ancillary services should be priced to fully compensate those customers.

We also encourage Western to participate in industry initiatives to de-balkanize the operation of the Western US grid, including control area consolidation and the ACE Diversity Interchange (ADI) program.

#### **Permitting**

Unfortunately, Western participation in projects may bring additional environmental and permitting requirements which may extend project development timetables. This can be especially problematic for renewable energy development since wind and solar projects can often be permitted and constructed faster than transmission lines. We urge Western to structure its

participation in Section 402 projects to avoid triggering additional permitting requirements, to the extent possible. And we also encourage Western to seek appropriate exemptions from environmental requirements if necessary to move ahead with projects that are otherwise "shovel ready". Also, we would encourage Western to explore opportunities for expediting the permitting process for transmission projects to bring them on-line in a timely manner.

### Queuing

We are encouraged to see that Western is proposing to "consider projects .... under Section 402 .... separately from procedures and requirements for arranging for transmission service or interconnection under its OATT". We believe this approach is necessary and appropriate to avoid the possibility of worthy projects getting bogged down in the OATT queues and study process.

#### **Project Selection Process**

We anticipate that Western will receive statements of interest for projects in varying stages of development. We recommend that projects be separated into categories based on their stage of development so that the timing of Western's participation can be prioritized. Projects that are well advanced for short-term in-service dates should be selected for Western participation in a timely manner, while it may be appropriate to defer decisions on less well developed projects to later in the selection process. Wyoming transmission projects currently under development include the Energy Gateway, Wyoming-Colorado Intertie, TransWest Express, Zephyr, High Plains Express and Overland Intertie Projects.

We urge Western to proceed expeditiously to select projects and move ahead quickly with implementation. The West has benefited from a number of recent regional transmission studies and stakeholder processes (further described below), all of which have concluded that substantial transmission investment is needed to move remote renewable energy resources to load centers. The West does not need another study or an extended stakeholder process; we need to take action. The comments received through this process will provide sufficient guidance for Western to move forward with confidence. To the extent possible and appropriate, Western should follow precedents established by BPA to position it to move expeditiously, rather than "reinventing the wheel" or pushing the "reset button" on those projects already having made significant progress in the development stage.

#### **Project Criteria**

We are supportive of the five criteria established by Western for the evaluation of projects, as follows:

- 1. Delivery of Renewable Energy: The delivery of renewable energy should be a cornerstone of Western's 402 program encompassing storage, but deliveries should not be exclusively restricted to renewable energy.
- 2. In the Public Interest: Projects need to be in the public interest, provided that they are cost-effective and consistent with public policy.
- 3. System Reliability & Impacts: Given the interconnected nature of the nation's transmission grid, reliability and impacts to connecting systems should be addressed in the evaluation of projects. We also encourage Western to participate only in transmission projects that are interconnected to the existing grid to support reliability, and not to participate in radial generation tie lines. Development of generation ties is best left to

- generation developers while Western focuses its attention on projects that strengthen the interconnected transmission grid.
- 4. Proceeds to Meet Western's Financial Obligations: Western should be focused on projects that enable cost-effective renewable resources for delivery to customers and which promote geographic diversity to optimize transmission utilization.
- 5. One Terminus within Western's Service Territory: We support Western's proposal that at least one terminus of a project be located in Western's service territory.

### **National Grid Overlay**

Western is poised to be an enabler of what has been termed as a "national grid overlay" concept. While Wyoming is supportive of such a concept, it is of the view that such overlay should be designed and configured to meet the unique needs of each region as defined by the transmission system owners and operators within each region that would be affected. In the case of the West, a combination of voltages and transmission configurations are likely to be considered, including both AC and DC solutions, and we recommend that WECC/TEPPC be charged with identifying appropriate designs in consultation with Western. We support consideration of both double-circuit and "right-sized" transmission systems to conserve land and optimize land use.

Given the challenges of developing multi-state transmission lines, we anticipate that Western will play an integral role in such projects that might otherwise be difficult for state utility regulatory commissions to authorize and provide cost recovery. In such instances, Western is positioned to be the "glue" that would consolidate a number of in-state transmission segments into a more cohesive whole, with the High Plains Express Initiative as an example.

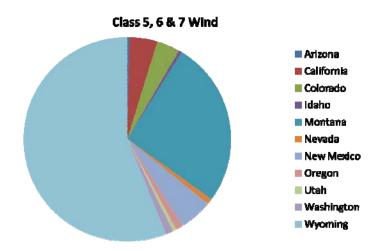
#### **Wyoming's Energy Resources**

The WIA recommends that Western concentrate on those transmission projects currently under development in Wyoming relative to its mandate pursuant to section 402 of the ARRA. For every Wyoming-based project in which Western can participate to enhance the viability of a given project, significant volumes of renewable energy can flow to the marketplace at competitive prices with an excellent likelihood of Western being able to recover the public funds utilized for future use.

The mandate given the Western Area Power Administration (Western) relative to section 402 of the American Recovery and Reinvestment Act of 2009 (ARRA) is somewhat similar to that of the Wyoming Infrastructure Authority (WIA) - to promote transmission infrastructure for export of Wyoming Resources to the marketplace. Some attributes for Wyoming Wind and the relationship to section 402 are as follows:

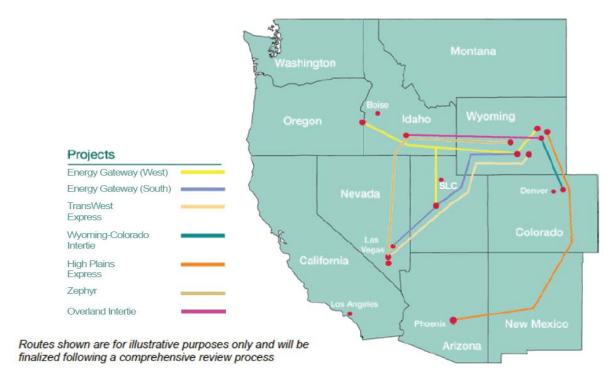
- Wyoming has over 2/3 of the developable Class 7 Wind onshore U.S.; and over 1/2 of the developable Class 6 Wind onshore U.S. according to NREL
- Wyoming has more Class 5, 6 & 7 developable wind than all of the other western states combined as shown on the graph on the following page:

# A Review of Wyoming's Developable Wind Potential Relative to the Western States



Source: NREL data prior to additional state exclusions

- ARRA specifically directs WAPA to support <u>remote</u> solar and wind generation projects. Since the transmission grid in the west is primarily at capacity, new transmission would pave the way for remote abundant, quality wind generation from Wyoming to satisfy the renewable energy demand relative to load centers in the Desert Southwest and California.
- Wyoming currently has seven (7) transmission projects under development in Wyoming which are designed to deliver significant volumes of renewable energy to such load centers. A map depicting the projects is:



A brief overview of each project is contained in the WIA's Statement of Interest relative to section 402 of the ARRA (SOI), which is incorporated by reference and separately submitted on April 3, 2009.

A number of recent and ongoing public studies have confirmed the high-quality of Wyoming's wind resources and of the economic viability of their delivery via expansions in the region's transmission systems. These include the 2004 RMATS study, CDEAC, NREL's Western Wind & Solar Integration Study, Western Governors Association's WREZ Initiative, E3's studies for the Western Electricity Industry Leaders group (WEIL), the Frontier Line transmission study, and studies by sub-regional transmission planning groups (NTTG and CCPG).

In addition to the aforementioned studies, the WIA solicits Western's consideration of a comprehensive study by National Grid, the former lead developer in the TransWest Express Transmission Project which addresses Wyoming's wind resource and the economic advantage which can be accomplished by the sourcing of such wind to satisfy both renewable demand and load growth in the West. The study was published in July, 2008 and is available at: <a href="http://governor.wy.gov/Media.aspx?MediaId=582">http://governor.wy.gov/Media.aspx?MediaId=582</a>. A chart from the study comparing the cost of renewable energy delivered to California is as follows:

Comparable Cost for Wind Energy (\$/MWh)

#### (wind only projects) California Renewable Energy Supply Stack Based on Technical Feasibility in 2015 2015 Renewable Demand Deficit for evelized Cost (2008\$) 200 150 100 50 50,000 100,000 125,000 150,000 25,000 75,000 175,000 Cumulative Generation (GWh) California Offshore Wind Wyoming Wind Class 5 Wyoming Wind Class 7

California Geothermal

California Wind Class 4

British Columbia Wind

California Biomass

Wyoming Wind Class 6

California Wind Class 5

Source: National Grid

California Concentrating Solar