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**Broadband – The Economic Engine of the 21st Century
Issue Statement for the Wyoming Rural Resource Team
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Background: Technological change is not slowing down. If anything, it is accelerating. Huge companies, indeed, entire industries, have been formed from ideas that did not even exist even a few short years ago. A glaring example of this principal is the fact that broadband connectivity, deployment and use are quickly becoming critical elements for economic success and growth in the 21st Century. This is particularly true in rural America. Without sufficient broadband connectivity, Wyoming, like the rest of rural America, may be left on the sidelines with respect to business and economic growth.

Discussion: Broadband connectivity has been compared to the railroads of the 1800s and the Interstate Highway System in the 1950s. Towns and communities that were not on the railroad lines and highways were at a dramatic disadvantage regarding economic development. Indeed, if a community did not have direct access to the railroads and Interstate highways, they often literally dried up and became ghost towns. At the very least, their economic growth was very limited. Similarly, in the 21st Century, broadband connectivity is and will continue to be just as crucial for long-term sustainable economic development.

The lack of access to affordable and robust broadband connectivity will impact Wyoming communities in a very fundamental way. For example, without sufficient broadband connectivity, communities will have difficulty providing their citizens with sufficient medical/health care delivery, energy independence and efficiency, an infrastructure conducive to attracting new businesses (or even retain existing businesses), community development opportunities, public safety, education, and overall consumer welfare. Indeed, without sufficient broadband connectivity, Wyoming communities will simply become less desirable places to live!

There has been significant recent debate on how best to promote and encourage broadband connectivity, deployment and use in the United States; particularly in the rural areas of our nation. It is well known that the United States lags many other developed nations with respect to broadband deployment and usage. In fact, recent studies show that the United States ranks 15th in the World with respect to broadband usage. However,

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despite vigorous debate, discussion and aggressive regulatory and legislative lobbying at all levels, little has really changed in the past twenty (20) years with respect to core telecommunications policy. It can be argued that because policy change has not kept up with technological innovation, the ability of the United States to compete on a global scale has been negatively impacted.

This is particularly critical for states, like Wyoming, with rural communities spread over vast geographic distances. For Wyoming's communities to thrive and prosper they must be on the broadband network. Current policies, including the recently released National Broadband Plan (NBP), do not effectively address the concerns of many communities given the economic challenges of bringing advanced telecommunications facilities (typically fiber and IP based) to their communities. How this debate ultimately plays out will impact the economic vitality of many communities, as well as the very livelihoods of Wyoming's citizens.

Recommendations: It is imperative that the State of Wyoming, our communities, leaders and businesses all work together to address and solve this problem. One of the objectives within the NBP is to achieve virtually ubiquitous broadband connectivity to all businesses and households by the year 2020. This will be measured by the availability of 100MB speeds (upstream and downstream). Given the fact the Federal Communications Commission currently considers 4MB downstream and 1MB upstream speeds to be sufficient, it is evident that it will take a Herculean effort for our nation to accomplish this task. Furthermore, recent estimates are that it will cost, in current dollars, approximately \$750B (or more) to build out the infrastructure necessary to accomplish this goal. Like the railroads of the 1800s, an undertaking of this magnitude cannot be accomplished by only one entity. This will require a concerted effort by multiple parties, both public and private.

An additional concern for rural states, like Wyoming, is that many of the objectives of the NBP can be largely accomplished if the nation focuses on larger communities. Indeed, it has been estimated that 97-98% of the NBP's objectives regarding broadband deployment can be accomplished by simply focusing on communities over 150,000 in population. This type of focus will obviously leave Wyoming out in the cold!

Wyoming needs to become actively involved in the debate in order to protect our interests and to be prepared for the changes that are coming regarding broadband connectivity. One possible solution is to encourage Public-Private partnerships and other mechanisms for private entities to effectively work with the public sector. The very scope and size of many of our emerging challenges will make it difficult for private companies to take on all of the risk. On the other hand, most public organizations do not have the expertise or experience to launch or run successful technology-based operations. Only by working together can we effectively address this issue and position Wyoming for continued strong economic growth in the 21st Century.