

The Broadband Services Task Force

Final Report

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THE BROADBAND SERVICES TASK FORCE

FINAL REPORT

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I. EXECUTIVE SUMMARY

Since October 2005 the Broadband Services Task Force, established by Legislative Bill 645 (LB 645), has studied the requirements of LB 645, reviewed reports and presentations, and discussed issues related to broadband provision in Nebraska. The task force has identified positive trends regarding broadband deployment, changing consumer demands, evolving technologies that impact both wholesale and retail provision, and a recommendation to remain focused on the future broadband needs of Nebraskans.

Deployment of broadband services throughout Nebraska since the year 2000 has been significant. Current providers in the state, both wholesale and retail, are serving the needs of most consumers and allowing households and businesses to utilize broadband services. However, technology and consumer needs are changing every day indicating that broadband capabilities in Nebraska will require constant attention for years to come. While the task force was able to identify important components of success (broadband availability, affordability, investment in wholesale infrastructure, bandwidth/speed requirements, and technology innovation), it could not determine that wholesale provision of broadband services by public power suppliers would address current or future needs. The task force did determine that the state should give attention to continued broadband deployment, and that a process should be developed to regularly assess broadband requirements of consumers and the deployment of technologies which meet those requirements.

The conclusion of the task force is that private broadband providers are successfully deploying facilities to serve Nebraska's needs and that competition by public power suppliers in providing wholesale broadband services is unnecessary at this time. However, future technological developments require the state's attention to ensure citizens have access to changing broadband offerings. This report will also summarize differing task force member views on wholesale provision by public power suppliers.

LB 645 instructed the task force to evaluate the following:

- The implications on private sector competition of public power suppliers offering wholesale broadband transmission services.
- The implications on private sector investment in infrastructure of public power suppliers offering wholesale broadband services.
- The need and necessity for wholesale broadband services or transmission by public power suppliers.
- Issues regarding the establishment of fair and equitable regulation and taxation, and a determination of parity between competing interests, in the provision of broadband services by both private providers and public power suppliers.

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- An assessment of the public power infrastructure in the state, how such infrastructure could enhance the provision of broadband services, and the feasibility of current technology in the provision of broadband services.
- Statutory and regulatory frameworks of other states' publicly owned utilities related to the provision of broadband services.
- Geographic areas in which broadband services are currently being offered, the degree of regulation and competition in these areas, and the implications on future geography served and competition through wholesale provision by public power suppliers.

Based on the requirements and scope of LB 645, the approach of the task force was as follows:

- Conduct an assessment of existing public power infrastructure and broadband over power line (BPL) technology;
- Conduct an assessment of the geographic areas in which broadband services are being offered in the state;
- Determine the need and necessity for the provision of wholesale broadband services by public power suppliers;
- Evaluate the statutory and regulatory frameworks of other states publicly owned utilities as they relate to broadband services;
- Address issues and implications of permitting public power suppliers to provide wholesale services and the impact on geographic reach and competition;
- Identify issues regarding the establishment of fair and equitable requirements for regulation and taxation of wholesale provision of broadband services;
- Determine how parity could be established for competing interests in provision of broadband services; and,
- Determine policy recommendations.

The purpose of the task force was to study the issues, identify options, and make recommendations to the Legislature and the Governor relating to any policy changes the task force deemed advisable.

This Executive Summary provides an overview of the task force findings and recommendations.

Findings

The task force reviewed information and heard presentations regarding existing public power infrastructure, the geographic areas in which broadband services are being offered in the state, the statutory and regulatory frameworks in other

states, technologies currently being developed, and other issues related to LB 645 requirements.

In task force discussions there were differing views on the information and conclusions related to the LB 645 issues. The following findings were based on a majority view of these issues.

Implications upon Competition and Investment

- Competition at the wholesale level by public power suppliers will negatively affect the future investment and deployment of broadband infrastructure by the private sector.
- Public funding for competing infrastructure will place public power suppliers at a competitive advantage with private providers and may be redundant since private providers are currently providing multiple broadband options using a variety of technologies.
- A public/private partnership model, in which private providers lease publicly owned broadband facilities, will provide a disincentive for private providers to further invest in broadband infrastructure.

Need and Necessity

- There is no “need and necessity” for the provision of wholesale broadband services by public power suppliers. Items of debate included availability, speed/bandwidth requirements of consumers, and price or affordability of broadband services. Conclusions are as follows:
 - Currently, the task force found significant deployment of DSL, cable modem and wireless broadband coverage (in excess of 200 kbps) in Nebraska, although there were questions regarding accuracy of the deployment data. Additionally, two satellite broadband providers are available to virtually every resident of the state.
 - Today, there are certain consumers living in rural unincorporated areas who cannot access broadband services via DSL, cable modem or wireless.
 - LB 645 specified a speed in excess of 200 kbps, so the task force did not believe it should define a higher speed than stated in the legislation. All task force members acknowledge bandwidth requirements by consumers will increase over time.
 - The marketplace and private competition should establish the price of broadband services.

Issues Regarding Regulation, Taxation and Parity

- There must be fair and equitable requirements regarding regulation and taxation and parity among competing interests if wholesale provision of

broadband services by public power suppliers is allowed some time in the future.

Assessment of Public Power Infrastructure

- The task force learned of Nebraska's public power assets and that the electric grid is pervasive in serving homes and businesses in the state. Broadband over Power Lines (BPL) is an emerging technology and currently limited to a distance of 13 miles from the substation. Therefore, it cannot currently serve certain rural residents.

Other States' Statutory and Regulatory Frameworks

- The task force evaluated other states' legislation related to the provision of broadband services or telecommunications services by public power suppliers. Because the state of Washington has many public power providers, it was the only state whose statutes were specifically considered.

Geographic Reach

- Wholesale provision of broadband services by public power suppliers would have minimal effect on the geographic reach of broadband services or the availability of broadband services throughout the state, especially to rural areas.
- Currently, the number of "underserved" Nebraska consumers is minimal and limited to mostly rural unincorporated areas. Due to the costs and distance limitations of current Broadband over Power Line (BPL) technology, it is impractical for public power suppliers to deploy broadband services to these consumers.

Recommendations

Task force members acknowledge the difficulty in establishing legislation regarding broadband services when technology is rapidly evolving, applications are requiring increasing bandwidth, and deployment by a wide variety of providers using different technologies is constantly changing. The following policy recommendations are therefore intended to reflect consensus, majority and minority opinions of the group.

Consensus View

All task force members agree the environment in which broadband capability is being deployed is rapidly changing. The task force therefore recommends the state continue monitoring and encouraging deployment of broadband capability to ensure Nebraskans who choose to subscribe to technologically advanced broadband services are able to do so.

Broadband access and affordability will be a critical issue as broadband becomes a necessity for businesses and consumers to compete in the global economy.

The task force recommends that an unbiased entity monitor broadband deployment in the state. Consumers, public power suppliers, municipalities, and broadband providers should be involved in providing information to best maximize broadband offerings for all Nebraskans.

Majority View

Twelve of eighteen (67%) task force members believe public power suppliers should be prohibited from offering wholesale infrastructure access or wholesale broadband services, Internet services, telecommunications services, and video services.

Twelve of eighteen (67%) task force members believe public power suppliers should not be allowed to provide wholesale infrastructure access or wholesale services independently or through partnerships with private providers.

Eleven of eighteen (61%) task force members support further study on how consumers who may not have access to broadband capability could be served.

Minority View

Nebraska's public power infrastructure is pervasive and is paid for by rate payers; therefore, it should be considered for the wholesale deployment of broadband services.

The task force tried to identify the potential for impacts upon competition at both a wholesale and retail level, but was not able to determine specific impacts, positive or negative, that could be predicted if public power suppliers were allowed to wholesale broadband services or access to infrastructure.

Three of eighteen (17%) task force members believe legislation should be enacted allowing public power suppliers to offer wholesale infrastructure access for broadband services.

Approximately one-third (33%) of task force members advocate consideration of the following:

- Allow public/private partnerships in which public power suppliers retain ownership of assets and lease bandwidth to private sector retailers.
- Develop a business case to improve broadband deployment where private providers cannot, or will not, provide service.
- Allow wholesale provision by public power suppliers if it could increase the geographic reach of broadband deployment in rural areas.
- Broadband over Power Line (BPL) is an emerging technology that could play a role in extending availability of broadband access.

- Determine requirements for a “level playing field” regarding regulation, taxation, and parity among competing interests.

Conclusion

A majority of task force members believe most Nebraska citizens are currently being well-served by private broadband providers and that allowing public entities to provide wholesale broadband services or infrastructure access will adversely affect the future investment and deployment of broadband infrastructure by private providers. The majority of task force members also believe that wholesale provision of broadband services by public power suppliers will not result in broadband deployment to the segment of rural Nebraskans currently unable to receive broadband services.

A minority of task force members believe it is beneficial to allow public entities a role in providing wholesale broadband services.

All task force members acknowledge that the broadband environment is continuously changing and it is important for Nebraska to remain competitive and ensure sufficient broadband is deployed to meet consumer needs. Broadband and future technological advances should be of keen interest to the state.

The task force believes its debate and discussions indicate both the complexity of the issues and the need for continued dialogue. The task force acknowledges that additional analysis and monitoring will be required to continue assessing broadband availability. The task force encourages an environment in which new technologies are rapidly deployed, consumer demands for greater broadband offerings are realized, and the technological role of Nebraska’s public power sector is clearly defined.

II. INTRODUCTION

Legislative Bill 645¹ (LB 645) established The Broadband Services Task Force. The members were appointed as follows:

- 1) Senators Philip Erdman, Mike Flood, and Mick Mines were appointed by the Executive Board of the Legislative Council.
- 2) Mark Graham, Edwin Koch, Richard Hahn, Jayne Mann, Richard Halbert, and Kathleen Thuman were appointed by Governor Heineman to represent consumers from each congressional district and on an at-large basis.
- 3) Commissioners Anne Boyle, Frank Landis, and Gerald Vap were designated as representatives of the Public Service Commission.
- 4) Robert Heinz, Robert Selzer, and Elliott Spilker were designated representatives of the Nebraska Power Review Board and the public power industry.
- 5) Lieutenant Governor Rick Sheehy, Chancellor Doug Kristensen, and Linda Aerni were designated as representatives of the Nebraska Information Technology Commission.

The first meeting of the task force was convened on October 7, 2005 and Lieutenant Governor Rick Sheehy was appointed as Chairperson. Over the next several months, Mark Graham was appointed Vice-Chairperson. Upon recommendation of a task force subcommittee, the Legislative Council selected Greg Ast of Grant Partners, LLC as facilitator of The Broadband Services Task Force. The task force met on April 26, 2006 and every month thereafter² to discuss the requirements of LB 645.

Based on the requirements and scope of LB 645, the approach of the task force was as follows:

- Conduct an assessment of existing public power infrastructure and broadband over power line (BPL) technology;
- Conduct an assessment of the geographic areas in which broadband services are being offered in the state;
- Determine the need and necessity for the provision of wholesale broadband services by public power suppliers;
- Evaluate the statutory and regulatory frameworks of other states publicly owned utilities as they relate to broadband services;
- Address issues and implications of permitting public power suppliers to provide wholesale services and the impact on geographic reach and competition;

¹ See attached Appendix A for the full language of LB 645.

² Meeting notes attached as Appendix B.

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- Identify issues regarding the establishment of fair and equitable requirements for regulation and taxation of wholesale provision of broadband services; and,
- Determine how parity could be established for competing interests in the provision of broadband services.

The purpose of the task force was to study the issues, identify options, and make recommendations to the Legislature and the Governor relating to any policy changes the task force deemed advisable.

The following sections identify the task force findings and provide specific policy recommendations.

In the interest of brevity, the term “public power supplier” is used to represent the broader definition provided by LB 645³ and the term “broadband services” is used to represent the full description in LB 645 of “broadband services, Internet services, telecommunications services, and video services.”⁴

References to “wholesale provision” are to either wholesale transmission capabilities or wholesale provision of broadband services. The task force offered a draft definition of “wholesale transmission services” that was “the sale or lease of a transmission path on an equal access basis that is not to the end-user or consumer.” This implies that all wholesale broadband transmission or wholesale broadband services would be to retailers for their provision of broadband services to the consumer.

Relevant materials and sources are provided as appendices, but they are not exhaustive of the resources considered during task force deliberations.

³ LB 645 Section 1. (3) “Public power supplier means a public power district, a public power and irrigation district, a municipal electric system, a joint entity formed under the Interlocal Cooperation Act, a joint public agency formed under the Joint Public Agency Act, an agency formed under the Municipal Cooperative Financing Act, or any other governmental entity providing electric service.”

⁴ LB 645 Section 1. (1) “Broadband services means the offering of a capability for high-speed broadband telecommunications capability at a speed or bandwidth in excess of two hundred kilobits per second that enables users to originate and receive high-quality voice, data, and video telecommunications using any technology; (2) Internet services means the offering of Internet service provider services, providing voice over Internet protocol services, or providing Internet protocol-based video services; (4) Telecommunications has the same meaning as telecommunications defined in section 86-117; (5) Telecommunications services has the same meaning as telecommunications service defined in section 86-121; and (6) Video services means the delivery of any subscription video service except those described in section 70-625.”

III. LEGISLATIVE BILL 645 and TASK FORCE FINDINGS

Section 7 of LB 645 identified the specific issues to be studied by the task force. The discussion and findings of the task force are as follows:

Section 7 (4): Issues to be studied by the task force shall include, but are not limited to:

(a) The implications upon competition of agencies or political subdivisions of the state or public power suppliers offering infrastructure access for broadband services, Internet services, telecommunications services, and video services and private sector investment in networks for the provision of such services;

The task force attempted to identify the impact on competition at both a wholesale and retail level, but was not able to determine specific impacts that could be predicted if public power suppliers were allowed to wholesale broadband services or access to infrastructure. A majority of members believe wholesale competition by public power suppliers will hinder private investment in wholesale or network infrastructure and provide an unfair competitive advantage to public providers of broadband services. They indicate private investment will diminish if public power suppliers are allowed to offer wholesale access. One member noted there may be an increase in retail competition for end-users, such as an increase in Internet Service Providers (ISPs) providing retail services.

Current regulatory requirements of certain telecommunications companies are to provide telephone services to all citizens of Nebraska. Most of these companies are also deploying broadband services and are assisted by public funds (Universal Service Fund and Nebraska Universal Service Fund) in ensuring there is a “carrier of last resort” for rural areas. There is a concern that public funding of additional infrastructure for any purpose beyond public power suppliers’ internal use (i.e. the development of a fiber or wireless network) would be redundant and an inefficient use of taxpayer monies. One task force member suggests financial or economics expertise should be sought regarding the impact on private business, the state economy, or consumers if public entities are allowed to provide wholesale access. This recognizes the task force uncertainty in identifying specific impacts, while seeking to determine whether benefits might outweigh the potential costs or risks of allowing public power supplier involvement.

In summary, the task force did not identify certain implications on competition or private network investment if public power suppliers were allowed to offer wholesale infrastructure access. A task force majority believe competition will likely be impacted at both the wholesale and retail level, but uncertainty exists on the specific impact to consumers. A majority of the task force believe that

private sector investment will be impacted, but were unable to specify or quantify what these impacts might be.

(b) The need and necessity for the provision of wholesale broadband services, Internet services, telecommunications services, or video services by agencies or political subdivisions of the state and public power suppliers;

In discussing “need and necessity” for the provision of wholesale broadband services, task force members agreed basic availability of broadband services was the clearest measure of need and necessity. Members discussed other measures, including speed or bandwidth, price, and competition, and some task force members believe greater weight should be given to these measures to determine the need and necessity for broadband services.

Availability

Task force members reviewed presentations by the Public Service Commission (PSC) and Nebraska Telecommunications Association (NTA) to assess the availability of broadband services in the state. Members agreed that the data presented by the PSC was incomplete since all eligible telecommunications carriers and participating broadband service providers⁵ did not respond to a PSC survey.⁶

The PSC survey reported that broadband is available in 100% of Nebraska counties and 91.2% of incorporated places in the state, representing over 99% of the population. The NTA presentation⁷ reported that all but 40 communities (representing approximately 2000 people) have at least 1 terrestrial broadband provider and 2 satellite broadband providers, with some communities represented by up to 14 total broadband providers. A task force minority believes the data reported by the PSC and NTA may overestimate broadband availability in rural areas.

The Public Service Commission (PSC) acknowledged that although their July 2006 survey data was incomplete, they will provide an updated report on broadband availability by the end of 2006. They also intend to continue surveying providers in the state and periodically reporting their findings in the future.

⁵ All eligible telecommunications carriers regulated by the PSC are required to complete the survey. All other broadband service providers, including cable, wireless, satellite or other broadband provider companies, were encouraged but not required to respond to the survey.

⁶ Nebraska Public Service Commission - Broadband Survey, Released July 2006 (see website link: http://www.psc.state.ne.us/home/NPSC/communication/Broadband_Survey_Report.pdf).

⁷ Presentation by Eric Carstenson, Nebraska Telecommunications Association. See Appendix C.

Both citizens and task force members noted to the task force that there are households not able to access broadband services based on varied factors. These limitations include copper lines not equipped to support DSL, or other interference issues that prohibit a household from receiving broadband-classified service.

Task force members acknowledge that data gathered on broadband coverage may never be 100% complete since all providers are not required to report their broadband coverage and offerings, and since the environment will continue to be dynamic in terms of broadband offerings, technology, coverage area, and provider deployment. The task force also acknowledges it would be difficult to specifically identify every household and the exact number and quality of broadband options available to and accessed by all citizens.

Speed/Bandwidth

LB 645 defined broadband services “at a speed in excess of two hundred kilobits per second (200 kbps) that enables users to originate and receive high-quality voice, data, and video telecommunications using any technology.” A few task force members noted that in the rapidly evolving technology environment 200 kbps was becoming “too slow” for receiving the full complement of high-quality voice, data, and video. Additional comments regarding bandwidth included: a view that technology improvements and deployment are causing available speeds to increase; indications that most broadband providers are currently providing well in excess of 200 kbps; concerns that consumer requirements may be increasing more rapidly than can be tracked; and a belief that the 200 kbps definition for broadband service is a limiting factor in addressing future needs.

Task force members were told by a PSC representative that data requested by the FCC and the Nebraska Public Service Commission used 200 kbps as the defined “floor” of broadband measured speed. There was debate on the language of LB 645 and whether “in excess of 200 kbps” indicated a minimum requirement of 200 kbps or suggested that higher speeds should be considered. In discussing speed/bandwidth requirements it was difficult to define a specific speed that ensures “high quality voice, data, and video telecommunications using any technology.” One member suggested 700 kbps, or even fifteen megabits per second (15 mbps), was the minimum speed required for quality video service over broadband, but the group did not try to reach a consensus on any bandwidth or range. It was noted that in the rapidly evolving technology environment adequate speed would likely remain a “moving target.”

The majority of the task force concluded that, based on the legislative intent, 200 kbps was the minimum speed to determine current availability for citizens. Reporting by the Public Service Commission and the FCC were both consistent with 200 kbps as the measure of broadband capability.

One task force member suggested 200 kbps be the focus of the task force, but future consideration of broadband needs should acknowledge increasing speed requirements. He suggested establishing processes or governance structures to assess broadband deployment considering the increasing speed requirements and evolving technologies. The Nebraska Information Technology Commission (NITC) was suggested as an entity that could help evaluate and measure broadband availability or requests.

Price

Members also discussed price as a component of need and necessity. A representative of the Nebraska Public Service Commission noted in a presentation⁸ that the price of broadband services in Nebraska ranged from \$23.90/month to \$249.99/month for broadband services depending on type of technology and speed provided (the more expensive rates were for business-use dedicated bandwidth in excess of 1.5 mbps). It was noted the required equipment for satellite service was typically more expensive than other DSL and cable options and the monthly fees for satellite service ranged from \$50 to \$80 per month. Based on the pricing variances, four task force members indicated affordability had to be considered for determining need and necessity.

Task force members observed monthly service fees around the country might range from free (e.g. a Wi-Fi hotzone in a coffee shop) to \$9.99/month (publicized rate for certain city-wide Wi-Fi deployments) to more traditional DSL and cable rates (e.g. \$30 - \$60 per month) like those existing in Nebraska and other states. There was no determination of what an affordable monthly service price for broadband services might be. Several members indicated prices were decreasing as technology and competition improved nationwide. It was also identified that prices will vary depending on speed and other factors, and price comparisons are difficult to make since a number of factors influence pricing models. The task force did not determine whether affordability should be considered as a measure of availability. While a majority of task force members believe competition among private providers will establish pricing levels, a task force minority believe that affordability should be given greater consideration in determining broadband availability.

Competition

The number of competitors providing broadband services was also discussed as a component of need and necessity. Two presenters indicated the entire state of Nebraska has two satellite broadband options: WildBlue and HughesNet. Certain Nebraska communities have in excess of 5 competitive options for broadband services. One presenter stated that 40 communities (approximately 2000 people) have only the satellite option. Since part of the data reviewed by

⁸ Presentation by Gene Hand, Director Communications, Nebraska Public Service Commission. See Appendix D.

the task force referred to “communities” or “population centers,” one task force member believes that it overstates availability and competition, especially when considering rural areas. A task force majority believes the number of competitive providers should not be a measure for broadband availability, since one or two providers may sufficiently serve the needs of certain areas.

Defining Need and Necessity

Two task force meetings included discussion on whether there may be certain “underserved” areas in the state where broadband availability is limited to satellite service, reflects comparatively higher prices, or where available bandwidth or service quality is poor. Several members indicated, if such underserved areas could be defined and identified, there would be merit in considering how to improve availability to these areas. Although members did not indicate wholesale provision by public power suppliers would specifically be the solution to this need, they did discuss whether policy recommendations should consider the possibility of “underserved” areas.

Two members suggested a public/private partnership might be encouraged to provide additional broadband services to the state. One example given of a public/private partnership is a public power supplier offering a Request for Proposal (RFP) for a private company to assist in the development and deployment of technology infrastructure. This infrastructure would be intended to meet needs of the public power supplier (such as wireless meter reading) while creating excess broadband capacity that could be offered wholesale to internet service providers or other companies interested in offering broadband services to the end-user. The technologies suggested included Wi-Fi, Wi-Max, and Broadband over Power lines (BPL). Task force members were presented ideas regarding a public/private partnership model utilizing Wi-Max technology⁹.

A task force member observed that under current law public power suppliers could already request a private company provide broadband technology to enable wireless meter reading.

A majority of task force members determined the public/private partnership model should not be considered as an option to increase availability of broadband services to households.

A task force minority believe public/private partnerships, using the public power infrastructure, should be evaluated to determine the potential value to consumers, while considering any precedence of private companies utilizing public power assets to provide services. Proponents agree a business plan would need to be developed addressing specific strategy, revenue requirements, costs, and other factors to ensure success. They also agree fair and equitable treatment regarding taxation and regulation would need to be considered.

⁹ Presentation by Robert Heinz, Dawson County Public Power District. See Appendix E.

At the conclusion of the discussion regarding “need and necessity”, the majority of task force members could not find a compelling need and necessity for wholesale provision of broadband services by public power suppliers. When polled in a task force meeting, the majority of members indicated current private providers are meeting broadband needs for a large percentage of citizens in the state. They refer to increasing availability of broadband in the state and a belief that current regulations and telecommunication requirements have established an environment in which there is no need for public power suppliers to offer competition (even at a wholesale level) to private providers. A minority of the task force believe the state of Nebraska would benefit if public power suppliers were able to make available the public power infrastructure for the provision of broadband services to consumers by retail providers.

A task force majority concluded that wholesale provision of broadband services by public power suppliers cannot be determined to increase availability or competition or reduce costs to rural areas, especially those currently served only by satellite providers.

(c) Issues regarding the establishment of fair and equitable requirements for the regulation and taxation of the provision of wholesale broadband services, Internet services, telecommunications services, and video services by agencies or political subdivisions of the state and public power suppliers;

Task force members agreed there are important considerations in ensuring fair and equitable requirements if wholesale provision by public power suppliers were allowed. Included in these considerations are requirements of equal and complete access by any provider to the wholesale infrastructure or wholesale services if they were provided by public power suppliers. In addition, members recommended pricing or rates be based on all capital, cost of service, and maintenance costs; public power suppliers have responsibility to pay all appropriate fees and taxes (whether paid as a private provider would (i.e. sales tax) or in lieu of taxes); and, effective governance or oversight be established through an existing body, such as the Public Service Commission, Power Review Board, or a new governing entity (e.g. an Advisory Council).

Members reviewed guidelines established in other states’ legislation related to equity issues in which states established various requirements to ensure parity or fair and equitable treatment between private providers and public power suppliers. These guidelines included: separate accounting of costs and revenues associated with broadband services, including audits of such records; subjecting public power suppliers to the same requirements as other private providers in areas related to providing broadband services; requesting cost/benefit analysis or business plans to substantiate investment intentions;

and, ensuring there is no cross-subsidization between broadband activities and other public utility activities.

Members also reviewed existing Nebraska legislation (Statute 86-577) regarding the sale or leasing of dark fiber by agencies or political subdivisions of the state.¹⁰ In the referenced legislation, lease price and profit distribution is approved by the Public Service Commission. One member indicated this could also be considered if public power suppliers had unused capacity of a wireless network (or other asset) they wanted to offer private providers.

The majority of task force members opposed the wholesale provision of broadband services by public power suppliers, believed fair and equitable treatment was therefore a non-issue, and determined not to define specific taxation and regulation requirements as referenced by LB 645. However, all members agreed, if wholesale provision were allowed, there must be fair and equitable treatment regarding regulation and taxation, and this could be defined in a similar fashion as existing Nebraska legislation or as other states have defined. As noted in LB 645, it would need to consider regulatory issues, as well as property taxes paid, income taxes, in lieu of tax payments, gross receipts taxes, sales taxes, tax credits and funds provided under current federal and state laws, and financing capabilities (including shareholder equity).

(d) An assessment of the extent and availability of public power infrastructure in the state and an evaluation of how such infrastructure could be utilized to enhance the provision of broadband services, Internet services, telecommunications services, and video services to consumers and businesses and the feasibility of using such technology in all regions of the state;

In order to assess the extent and availability of public power infrastructure in the state, a representative of the Omaha Public Power District¹¹ provided an overview of Nebraska's public power structure which included the number of municipal utilities, public power districts and cooperatives. He also described the service territories and general requirements for electricity production and delivery in the state. It was noted certain public power assets (i.e. utility poles) are already utilized by private companies to attach their telecommunications and cable television cables. Existing legislation also allows public power suppliers to own, sell, or lease dark fiber, subject to certain provisions.

¹⁰ Statutes 86-575, 86-576, 86-577 relate to dark fiber sale or lease. See following website link for statute 86-577: <http://uniweb.legislature.ne.gov/legaldocs/view.php?page=s8605077000> .

¹¹ Presentation by Deeno Boosalis, Manager of Business Strategy & Analysis with the Omaha Public Power District. See Appendix F.

A task force representative from Omaha Public Power District presented the current status of Broadband over Power Lines (BPL)¹². BPL technology is another mode of broadband access, much like DSL, cable, wireless, fiber and satellite. The task force reviewed how BPL technically works, the purported advantages and disadvantages, and current deployment in several U.S. cities. Task force members discussed whether BPL is a viable technology for providing quality broadband services. They referenced distance limitations and arguments regarding interference issues. Advocates of BPL referred to ongoing testing of this technology by communities and a belief it would improve in speed and capabilities over time, as occurs with most technologies. However, the task force did not consider it their scope to designate which technologies have future viability or not. The task force did not determine the extent of current public power suppliers' wireless, fiber, or other broadband capable facilities.

In summary, the task force found public power assets are prevalent throughout the state and that poles are currently being leased by private entities (telecommunications and cable television providers) for various purposes, including provision of broadband services. A task force majority determined BPL technology is not commercially viable for serving the needs of rural Nebraskans. Technology is constantly evolving and task force members agreed it was not the scope of the group to determine which technologies are viable in the future. Some members believe public power infrastructure should be better utilized in the wholesale provision of broadband, and public power suppliers therefore be allowed to offer wholesale broadband services. The majority of task force members believe public power suppliers should focus on providing electric power to the state and not be allowed to provide wholesale infrastructure access or wholesale broadband services.

(e) A determination of how parity could be established for competing interests in the provision of broadband services, Internet services, telecommunications services, and video services, including, but not limited to, the amount of property taxes paid, income taxes, in lieu of tax payments paid, gross receipts taxes, sales taxes paid, tax credits and funds provided under current federal and state laws, and financing capabilities, including shareholder equity;

As indicated under section (c) above, members agreed parity should be established if wholesale provision of broadband services were allowed by public power suppliers. This parity could be ensured by requiring all appropriate taxes and credits be paid by/to public power suppliers, including in lieu of taxes for revenue in excess of expenses. It was recommended, if wholesale provision were allowed, the legislative language regarding these areas be based on Nebraska statute precedents or requirements currently advocated in other

¹² Presentation by Elliott Spilker, Manager of Program Management, Omaha Public Power District. See Appendix G.

states. A majority of task force members opposed the wholesale provision of broadband services by public power suppliers, believed parity among competing interests was therefore a non-issue, and determined not to define specific parity requirements as referenced by LB 645.

(f) An evaluation of the statutory and regulatory frameworks of other states' publicly owned utilities as they relate to providing broadband services, Internet services, telecommunications services, and video services; and

The task force reviewed a number of resources to better understand what other states have enacted regarding the broadband issue. The most brief and straightforward legislation regarding wholesale provision of broadband services was enacted by Washington state¹³. While the state of Washington is not served exclusively by public power providers like Nebraska, public power suppliers do serve over 50% of Washington's land area through twenty eight (28) public utility districts.

The group referenced various state legislative texts in a report titled, "Municipal Broadband: Digging Beneath the Surface", by the firm Balhoff & Rowe, LLC.¹⁴ This report and other resources indicated at least 14 states have addressed legislation regarding municipalities, public utilities, or other government agencies establishing broadband systems. One task force member noted that of those 14 states, Nebraska has established one of the most restrictive statutes regarding public entities providing broadband or other Internet services.

The language in the referenced legislation was quite varied. Washington state determined that public power utilities may establish telecommunications facilities for internal telecommunications needs or for the provision of wholesale telecommunications services. Some states established restrictions on broadband provision by public entities such as: a citizen vote requirement; no competition with existing providers; an election by incumbent telecommunication providers to not provide broadband in their territory; or, various administrative, process and notice requirements. Certain states also enacted provisions requiring business plans, separate revenue and cost accounting, separation of telecommunication activities from public utility activities and subsequent rate calculations, and other requirements to ensure parity between public entity deployment and private broadband investments. Additional states are currently considering, or have defeated, legislation that would either allow or restrict public entities to provide broadband services.

¹³ Washington state legislation website: <http://apps.leg.wa.gov/RCW/default.aspx?cite=54.16.330>

¹⁴ "Municipal Broadband: Digging Beneath the Surface", by the firm Balhoff & Rowe, LLC.

Website link: <http://www.balhoffrowe.com/pdf/Municipal%20Broadband--Digging%20Beneath%20the%20Surface.pdf>.

The group also reviewed language in federal legislation proposed by Senator Ted Stevens (R-Alaska) in his “Communications, Consumer’s Choice, and Broadband Deployment Act of 2006”¹⁵. This particular legislation currently indicates no state may prohibit municipalities from offering broadband services, but does require certain notices and bid solicitations. There has also been federal legislation proposed that would forbid municipalities from offering broadband or place certain restrictions on such. Although this review of federal legislation raised awareness among task force members, it was acknowledged that regardless of any pending federal legislation, the task force is still required to examine the issues under LB 645 and prepare a report.

g) An analysis of the geographic areas in which broadband services, Internet services, telecommunications services, and video services are being offered in the state, the degree of regulation and competition with respect to each such service within such geographic areas, and the implications of permitting agencies, political subdivisions, and public power suppliers to provide such services on the geographic reach of such services and the degree of competition in such geographic areas.

In order to assess the geographic areas in which broadband services are being offered in the state, the task force reviewed the presentations and Public Service Commission survey results already noted. The full content of these presentations and survey results can be found in the appendix or referenced website links.

Task force members also reviewed a Government Accountability Office (GAO) report¹⁶ describing availability of broadband from a national perspective. This report indicated that just because broadband is available does not mean it is adopted by the consumer. Various factors may influence adoption, including access to computers, availability of applications and services, and pricing. It is generally agreed adoption rates continue to increase at a steady rate among households that have broadband available. Some consumers also choose not to subscribe to broadband services despite its availability.

The Task Force also considered a report submitted by the Brennan Center for Justice at NYU School of Law¹⁷. This white paper included information from a survey of Nebraska members of the Center for Rural Affairs and Common Cause

¹⁵ “Communications, Consumer’s Choice, and Broadband Deployment Act of 2006” – Staff Working Draft. Website link: <http://commerce.senate.gov/pdf/06telcom.pdf>

¹⁶ “Broadband Deployment is Extensive throughout the United States, but It Is Difficult to Assess the Extent of Deployment Gaps in Rural Areas” by the Government Accountability Office. See website link: <http://www.gao.gov/cgi-bin/getrpt?GAO-06-426>

¹⁷ White Paper: “The Need to Permit Broadband from Public Entities,” submitted by the Brennan Center for Justice at NYU School of Law. See website link: <http://www.brennancenter.org/programs/fepp/broadbandwhitepaper.pdf>

(conducted by the Brennan Center) summarizing their perspectives on internet access.

As already described, the task force gained a general understanding of broadband deployment within the state and recognized it is difficult to identify the specific number of providers, speed and quality of service, and pricing available to consumers. Since data from non-regulated telecommunications providers is only voluntarily provided, it will likely remain incomplete. Currently the Public Service Commission can only require reporting from certain telecommunication providers, which means the products, services, and investments of all other cable providers, internet service providers, satellite companies, or wireless companies remain somewhat unknown.

It was also noted the Nebraska Public Service Commission regulates current telecommunications providers, and the Federal Communications Commission (FCC) provides regulatory oversight to telecommunications and cable providers on a national level. There is little to no regulatory oversight of internet services providers at either a state or federal level.

In summary, there was no determination of the impact public power suppliers would have on geographic reach or competition if allowed to provide wholesale access. Given the difficulty in identifying all available options to consumers, and due to the rapidly evolving state of technology development, broadband deployment via DSL, cable, satellite or wireless, and increasing penetration/adoption rates, it is difficult to assess the implications of permitting public power suppliers to provide wholesale access or broadband services. A task force majority believe that the wholesale provision of broadband services by public power suppliers will have minimal impact on geographic reach of broadband services or availability of broadband services to rural areas.

IV. POLICY RECOMMENDATIONS

In order to identify potential policy recommendations, the task force considered a number of ideas offered by members during general discussion. These policy recommendations are based on consideration of LB 645 requirements, review of information related to the issues, and debate occurring during task force meetings.

Task force members acknowledge the difficulty in developing recommendations to the Legislature regarding broadband services when technology is rapidly evolving, applications are requiring increasing bandwidth, and deployment by a wide variety of providers using different technologies is constantly changing. The task force believes continued study and analysis should be conducted to ensure broadband needs are met in the future.

These policy recommendations are intended to reflect consensus, majority, and minority opinions of the group.

Consensus View

Task force members agree the environment in which broadband capability is being deployed is rapidly changing. At both a federal and state level, regulators and lawmakers are grappling with complex issues. The task force therefore recommends the state continue monitoring and encouraging deployment of broadband capability to ensure Nebraskans, who choose to subscribe to technologically advanced broadband services, are able to do so. Broadband access and affordability will be a critical issue as broadband becomes a necessity for businesses and consumers to compete in the global economy.

The task force recommends an unbiased entity be identified to continue monitoring broadband deployment in the state. Consumers, public power suppliers, municipalities, and broadband providers should be involved to offer input on the complex and changing requirements and determine how to maximize broadband services for all Nebraskans. This entity may create procedural guidelines regarding resources and incentives currently available for broadband deployment, opportunities for meeting the needs of underserved geographic areas, matching private providers to communities or consumers and otherwise supporting continued broadband deployment in the state. Attention should be given to areas where broadband services are not available through terrestrial (DSL, cable modem, or wireless internet) means. It is also recommended this entity be given authority to require data from all private providers that provide broadband services in the state.

Majority View

Twelve of eighteen (67%) task force members believe agencies or political subdivisions of the state or public power suppliers should be prohibited from offering wholesale infrastructure access or wholesale broadband services, Internet services, telecommunications services, and video services.

Twelve of eighteen (67%) task force members believe agencies or political subdivisions of the state or public power suppliers should not be allowed to provide wholesale infrastructure access or wholesale services independently or through partnerships with private providers.

Eleven of eighteen (61%) task force members support further study on how consumers who may not have access to broadband capability could be served.

Minority View

Nebraska's public power infrastructure is pervasive and is paid for by rate payers; therefore, it should be considered for the wholesale deployment of broadband services.

Three of eighteen (17%) task force members believe legislation should be enacted allowing agencies or political subdivisions of the state or public power suppliers to offer wholesale infrastructure access for broadband services.

Approximately one-third (33%) of task force members advocate consideration of several alternatives, including:

- Allowing public/private partnerships in which agencies or political subdivisions of the state or public power suppliers retain ownership of assets and lease on an open access basis to the private sector.
- Allowing public/private partnerships in which agencies or political subdivisions of the state or public power suppliers and private providers work together to serve consumers when a business case is developed which sufficiently illustrates the potential for significantly improved broadband services that the competitive marketplace cannot, or is unwilling to, provide.
- Allowing public/private partnerships in which agencies or political subdivisions of the state or public power suppliers and private providers work together to serve consumers in geographic areas where broadband availability (via DSL, cable modem, wireless Internet or satellite) may not exist.

V. CONCLUSIONS

The majority of task force members believe most Nebraska citizens are currently being well-served by private broadband providers. They believe that allowing public entities to provide wholesale broadband services or infrastructure access will adversely affect the future investment in broadband infrastructure by private providers. The majority of task force members also believe that wholesale provision of broadband services by public power suppliers will not result in broadband deployment to the segment of rural Nebraskans currently unable to receive broadband services.

A minority of task force members believe it is beneficial to allow public entities a role in providing wholesale broadband services.

All task force members acknowledge that the environment continuously changes and it is important for the state to remain competitive and advanced in ensuring sufficient broadband is deployed to meet consumer needs. Today's broadband requirements will certainly not remain the same.

All task force members believe broadband is an essential technology for Nebraskans and that broadband deployment should be monitored and encouraged in order to ensure future needs are fulfilled. The task force recommends continued attention is given to new technologies, future consumer requirements, and the opportunities presented by collaboration between public entities and private providers. The task force encourages an inclusive look at all future technologies and recommends an unbiased entity monitor future broadband deployment.

The task force believes its debate and discussions indicate both the complexity of the issues and the need for continued dialogue. The task force acknowledges that additional analysis and monitoring will be required to continue assessing broadband availability. The task force encourages an environment in which new technologies are rapidly deployed, consumer demands for greater broadband offerings are realized, and the technological role of Nebraska's public power sector is clearly defined.

VI. APPENDICES

- A. LB 645
- B. Meeting Notes
- C. Presentation by Eric Carstenson, Nebraska Telecommunications Association
- D. Presentation by Gene Hand, Nebraska Public Service Commission
- E. Presentation by Robert Heinz, Dawson County Public Power District
- F. Presentation by Deeno Boosalis, Omaha Public Power District
- G. Presentation by Elliott Spilker, Omaha Public Power District

A website link is provided for:

- H. Broadband Survey Results, Nebraska Public Service Commission
- I. Nebraska Statute 86-577 regarding dark fiber leasing
- J. Text of Washington State legislation
- K. Balhoff & Rowe report, "Municipal Broadband: Digging Beneath the Surface"
- L. Federal legislation proposed by Senator Ted Stevens (R-Alaska) in his "Communications, Consumer's Choice, and Broadband Deployment Act of 2006"
- M. GAO report, "Broadband Deployment is Extensive throughout the United States, but it is Difficult to Assess the Extent of Deployment Gaps in Rural Areas"
- N. White paper by Brennan Center for Justice at NYU School of Law