SUMMARY

Southwest Zone Transmission Planning Meeting

October 5, 2004

The Southwest Zone Transmission Planning Meeting was held on October 5, 2004 at 7:00 p.m. at the Americian of Marshall, 1406 East Lyon Street, Room Whitney A in Marshall, Minnesota 56258. The transmission-owning utilities sponsoring the Southwest Zone meeting include East River Electric Power Cooperative, Great River Energy, Interstate Power and Light Company, L & O Power Cooperative, Marshall Municipal Utilities, Missouri River Energy Services, Otter Tail Power Company, and Xcel Energy. Approximately thirty (30) individuals attended the meeting including members of the public, representatives from area utilities, representatives from the Minnesota Department of Commerce, the Minnesota Public Utilities Commission, the Minnesota Environmental Quality Board, and the Minnesota House of Representatives. A copy of the attendance register is attached as Exhibit A.

Meeting attendees were greeted at the registration table and provided with the following materials: i) meeting agenda, ii) folder with handouts (including brochures covering the fundamentals of electric transmission, wind infrastructure project update, list of proposed projects in the area, utility contact information, glossary of terms and acronyms, State of Minnesota map showing the 100 kV and above transmission lines and 2004 state transmission planning zones, and additional brochures provided by utilities sponsoring the meeting), and iii) a comment form for completion after the meeting. Comment cards were also made available for use in asking questions during the meeting or providing written comments after the meeting. Each attendee was encouraged, but not required, to sign the attendance register.

A representative from Great River Energy opened the meeting with an introductory presentation covering the transmission planning process, the fundamentals of electricity and its transmission, the role of transmission in the distribution system, regional planning, challenges of an aging transmission system, increase in electricity demand and usage, the addition of new generation facilities, analytical tools used to forecast deficiencies in the electric transmission system, and right-of-way requirements based on the type and size of the proposed structure.

Representatives from Great River Energy, Missouri River Energy Services, Otter Tail Power Company, Xcel Energy, and Interstate Power and Light Company provided presentations covering current and projected transmission needs in the zone, proposed projects and alternative solutions, and studies conducted or in progress in the Southwest Zone.

The following is a list of the presentations provided by utility representatives at the Southwest Zone Transmission Planning Meeting:

Great River Energy Presentation.

Southwest Minnesota Load Serving Issues:

• St. James Area

- Jackson Area
- Dotson Springfield Area
- Fulda Lismore Magolia Area

Missouri River Energy Services Presentation.

Marshall Area - Load Serving Study

Otter Tail Power Company Presentation.

Appleton – Canby Area – Load Serving Issues

Xcel Energy Presentation.

Wind Generation Outlet Transmission Studies

Interstate Power and Light Company Presentation.

Fox Lake – Winnebago Reconductor

The final meeting presentation included an overview of CapX2020 transmission planning objectives and timeline, which emphasized the need for comprehensive long-term transmission planning to ensure future electric reliability for Minnesota customers.

Meeting attendees were encouraged to ask questions, provide comments and input and engage in the transmission planning process throughout the meeting. A public input segment was provided at the end of the meeting to solicit input and comments from the attendees in identifying transmission needs in the area, proposed solutions, and alternatives to address the transmission needs in this zone. The attendees were also asked to submit any further questions, comments and input they may have after the meeting directly to the utilities by using the Web site at www.minnelectrans.com. Click on "Zone Contact" or "Contact Us" and then use the e-mail link at generalinfo@minnelectrans.com. No questions, comments or public input have been submitted to this link since the meeting.

The slide presentations used for the Southwest Zone meeting (including a list of current and projected transmission needs, proposed projects and alternative solutions) are available at www.minnelectrans.com. Click on "Southwest Zone" listed under "Planning Zones" and download the following files:

- Part I: SW Zone Introduction.pdf (5MB PDF file)
- Part II: SW Zone Issues. pdf (2 MB PDF file)

Audience questions addressed at the meeting included: how to improve the power factor in the Marshall area and the tentative timeline to make a decision on the proposed options to complete the improvement; whether wind development studies include existing wind generation; whether transmission planners are looking at the use of coal plants as a source of generation

during analysis of the transmission system; concerns raised regarding short-term and long-term planning of routes for future transmission; feasibility of utilities constructing transmission lines/structures that are capable of expansion to higher voltages in the future; the type of transmission line needed for wind energy and its location in relation to an owner's farm; additional wind energy related questions pertaining to quantification of additional output capacity required to achieve a short-term fix, wind generation and connection to the transmission system, the nature of simulated conditions used to conduct wind energy studies, cost of building additional transmission lines; MISO's role in generation interconnection; does MISO take on any financial responsibilities in construction of transmission lines; the difference between local load and existing generation in the area; average cost of a MISO study; and how will the transmission system infrastructure additions be financed with the collaborative effort of CapX2020.

Public input and comments received at the Southwest Zone meeting focused on the following issues:

- Establishment of a comprehensive plan that encompasses both short-term and long-term plans for transmission line routing;
- Construction of transmission lines and structures capable of expansion to higher voltages in the future; and
- Route selection that is capable of accommodating future expansion of transmission lines

Comments and public input received at the Southwest Zone meeting are summarized below:

- <u>Public Comment</u>: Is it possible for planners to look at long-range transmission planning when routes are being selected? Is there a more effective way to route transmission lines today so that they are able to accommodate future transmission needs or is this a separate issue? Is it feasible for utilities to build structures that are capable of expansion to higher voltage in the future? <u>Utility Response</u>: These are not two separate studies. We are currently working on long-term plans that also incorporate short-term plans. In an effort to decrease the number of transmission lines that we must build, we are conceptually looking into construction of lines that will operate at a low voltage and then eventually operate at a higher voltage. The end result is to build one line on one right-of-way instead of building two lines on two separate right-of-ways.
- <u>Public Comment</u>: The studies conducted by Midwest Independent Transmission System Operator, Inc. (MISO) are public information and may be accessed by using their Web site at <u>www.midwestiso.org</u>.

The utilities prepared a comment form to gain feedback and comments from attendees with respect to the Transmission Planning Meeting. One written comment form was completed and provided to the utilities after the Southwest Zone meeting.

The comments submitted are outlined below:

<u>Comment Form Question</u>: Was the information regarding transmission operation and control groups (MAPP and MISO) useful? *Public Input*: More on MISO would be interesting.

<u>Comment Form Question</u>: Were we able to answer your questions about the role of transmission in the state's electrical system? *Public Input:* Yes

<u>Comment Form Question</u>: What can we do to improve the public transmission planning meeting in 2005? <u>Public Input</u>: I can't think of anything.

<u>Comment Form Question</u>: Please let us know your thoughts on the projects currently under consideration. <u>Public Input</u>: I believe efforts to think "big picture" are important. When the next level of commitment is necessary, I hope an expanded group of interested investors are solicited.

You may submit additional public input, comments or questions pertaining to the transmission planning process by using the "Contact Us" link at www.minnelectrans.com. The substance of all written comments submitted to the utilities will be summarized and included in the 2005 Minnesota Biennial Transmission Projects Report.



Attendance Register SW Zone Meeting October 5, 2004

Name	Mailing Address Email 118 44 St. S. Mark III MN 7230 be 120 in 118 in 1	Email
Ken Booze	P.O. Box 227 Madison SD 57042 Kbooze @ eastriver. coop	Kbooze @ eastriver.c
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Angela Finer Toxed Rayalla Rand Rayalla Shard Lamote Par Demirh Don HARRY	
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SUMMARY

Southeast Zone Transmission Planning Meeting

October 6, 2004

The Southeast Zone Transmission Planning meeting was held on October 6, 2004 at 7:00p.m. at the Rochester Public Utilities Community Room, 4000 East River Road NE, in Rochester, Minnesota 55906. The transmission-owning utilities sponsoring the Southeast Zone meeting include Dairyland Power Cooperative, Great River Energy, Interstate Power and Light Company, Rochester Public Utilities, Southern Minnesota Municipal Power Agency (SMMPA), and Xcel Energy. Over thirty (30) individuals attended the meeting including members of the public, representatives from area utilities, representatives from the Minnesota Department of Commerce, the Minnesota Public Utilities Commission, the Minnesota Environmental Quality Board, Olmsted County, and the Minnesota Senate. A copy of the attendance register is attached as Exhibit A.

Meeting attendees were greeted at the registration table and provided with the following materials: i) meeting agenda, ii) folder with handouts (including brochures covering the fundamentals of electric transmission, utility contact information, glossary of terms and acronyms, State of Minnesota map showing the 100 kV and above transmission lines and 2004 state transmission planning zones, and additional brochures provided by utilities sponsoring the meeting), and iii) a comment form for completion after the meeting. Comment cards were also made available for use in asking questions during the meeting or providing written comments after the meeting. Each attendee was encouraged, but not required, to sign the attendance register.

A representative from Rochester Public Utilities opened the meeting with an introductory presentation covering the transmission planning process, the fundamentals of electricity and its transmission, the role of transmission in the distribution system, regional planning, challenges of an aging transmission system, increase in electricity demand and usage, the addition of new generation facilities, analytical tools used to forecast deficiencies in the electric transmission system, and right-of-way requirements based on the type and size of the proposed structure.

Representatives from Great River Energy, Rochester Public Utilities, and Xcel Energy provided presentations covering current and projected transmission needs in the zone, proposed projects and alternative solutions, and studies conducted or in progress in the Southeast Zone.

The following is a list of the presentations provided by utility representatives at the Southeast Zone Transmission Planning Meeting:

<u>Xcel Energy Presentations</u>.

- 1. Generation Interconnections Update
 - 300 MW Faribault Energy Park
 - 667 MW Mankato Energy Park

- 350 MW Goodhue County (near Cannon Falls) (MISO study in progress)
- 2. Mankato Area Load Serving Study
- 3. Prairie Island to Red Rock 345 kV circuit #2 uprate
- 4. Iowa Southern Minnesota Exploratory Study (update on current MISO study)

Rochester Public Utilities Presentation.

Southeast Minnesota – Southwest Wisconsin Transmission Planning Study

Great River Energy Presentation.

Fox Lake – Winnebago 161 kV Upgrade

The final meeting presentation included an overview of CapX2020 transmission planning objectives and timeline, which emphasized the need for comprehensive long-term transmission planning to ensure future electric reliability for Minnesota customers.

Meeting attendees were encouraged to ask questions, provide comments and input and engage in the transmission planning process throughout the meeting. A public input segment was provided at the end of the meeting to solicit input and comments from the attendees in identifying transmission needs in the area, proposed solutions, and alternatives to address the transmission needs in this zone. The attendees were also asked to submit any further questions, comments and input they may have after the meeting directly to the utilities by using the Web site at www.minnelectrans.com. Click on "Zone Contact" or "Contact Us" and then use the e-mail link at generalinfo@minnelectrans.com. No questions, comments or public input have been submitted to this link since the meeting.

The slide presentations used for the Southeast Zone meeting (including a list of current and projected transmission needs, proposed projects and alternative solutions) are available at www.minnelectrans.com. Click on "Southeast Zone" listed under "Planning Zones" and download the following files:

- Part I: SE Zone introduction and background (pdf)
- Part II: SE Zone projects and studies (pdf)

Audience questions addressed at the meeting included: who takes care of the focus on conservation and education in electricity usage; what is the area of focus in eliminating regulatory uncertainty and risk; what are Dairyland Power Cooperative's transmission plans for this area; at what point will the transmission plans for the southeast area be firm and presented to the public; was the Mesaba project addressed at a public transmission planning meeting; has the "planned new generation" coming online in the northern MAPP region been taken into account in the transmission plan; is there a way to view and integrate generation in a way that would then eliminate the need for transmission; what is meant by public input and how is it different from

questions or concerns; and who pays for the cost of adding transmission. Numerous questions were raised concerning the CapX2020 transmission planning initiative including: do you have a scenario in which there is some severe carbon emission restriction due to global warming in your modeling efforts and how do you assume the generation sources for these studies; with respect to delivering the load, what are the major load centers being looked at with the CapX2020 study; the focus of your design is not for thru flow but for load serving issues; and will the CapX2020 study officially be integrated into the biennial transmission plan.

This section includes a number of comments and public input received at the Southeast Zone Transmission Planning Meeting. The following is a summary of the comments and public input:

- <u>Public Comment</u>: I know that your focus is on transmission. Who takes care of the focus on conservation so there is not so much overload on transmission? Instead of saying that we must build more beneficial transmission lines to get transmission out, who is educating the public on conservation so that you would not need to keep installing new lines? <u>Utility Response</u>: The utilities have marketing departments with people to help counsel our customers on usage and ways to conserve energy. Each utility has a number of independent programs available to the public.
- <u>Public Comment</u>: (concern raised with respect to the Sioux Falls to Lakeville Junction line) I'm noticing that there is not much notice of the creep of the WRAO 9a/9b across southern Minnesota and it's happening in little pieces. It looks to me like the line is going to extend all the way thru Adams, Genoa and then Columbia. How is this going to get out so that the public knows what is going on? I would also say the same thing about the Prairie Island line coming south toward La Crosse. At what point are these plans going to get firmed up so the public really does know when and what is happening? <u>Utility Response</u>: This is one forum we have; this is a public required forum, which these lines will be brought forward in. The presentation slides will be available on our Web site so that people can download them and provide comments and concerns. Every three or four months, transmission planning engineers meet to discuss projects at the Sub-regional Planning Group (SPG) meetings. These ideas and concepts will be included in the biennial report.
- <u>Public Comment</u>: The transmission plan does not take into account what is planned for generation and how that may fit into the system and eliminate transmission needs if it is distributed. There is no overarching way to look at and integrate generation in a way that would then eliminate need for transmission. <u>Utility Response</u>: Correct. If you take a look at the generation currently in the MISO queue (the Midwest Independent Transmission System Operator, Inc.), there is a lot of generation that is still speculative. The individual generation interconnection requests are handled in the MISO queue study process, the interconnection process.

- Public Comment: This question/comment was directed to the RPU representatives. This is not news to you that Rochester is in a little bit of a hot spot here. The plans you had a year ago are very different from the plans that you are proposing this year. I am curious about what happened to your thinking relating to a line going to Pleasant Valley and/or down to Adams to hook up with the Byron or the Adams Prairie Island line at that point. I am just curious how your thinking has now changed to lines going south and then east. Utility Response: You may recall, last year we were focused on local transmission needs in the Rochester area using the shortest-term, cheapest possible solution. This year we are working with other utilities on regional transmission studies, looking toward regional or larger solutions. Our thinking hasn't changed, we are simply taking a more far-reaching approach to transmission planning this year.
- <u>Public Comment</u>: One of the things that alarms me about our focus on regionalization that uses or builds on all these layers is that when you focus on an expansion agenda, focusing on large, large regions, and forget the foundation of the sub-regions of which the state is made and of which the communities are made and of which the natural resources are made there is a danger that you will actually create a less sustainable energy future because you are going to be pouring huge amounts of money into infrastructure that is serving regionally and not necessarily utilizing both the values and the resources that are here at home. And I think many of your customers are concerned about these values. They are concerned about renewable energy and about having some control over their future. <u>Utility Response</u>: The utility representative stated that utilities are encouraged to participate in the marketplace and look at regional solutions to transmission needs. The representative also provided some perspective on the nature of the Minnesota utilities and the "players" at the national level.
- <u>Public Comment</u>: I understand that the industry and the regulatory community has been overwhelmed with the changes at the national level in an effort to create a level playing field and a national grid marketplace. I think it's time to think creatively, maybe it is time to create some localized markets such as a farmers market for renewable energy type of concept and using state authority to make it happen. <u>Additional Comment</u>: Where is the transmission market? By requiring a market analysis upfront you won't have people who don't have a market demanding transmission. This is what I see happening. <u>Utility Representative</u>: The utilities must continue to educate the public in basic electrical physics, getting the power from point a to point b, and the cost associated with building transmission lines. With continued transmission and economic studies, we will have a better understanding of the most cost-effective approach to meet transmission needs on a regional level.

A representative from the Southeast/South Central Clean Energy Resource Team (SE CERTS) provided comments, suggestions and input pertaining to the transmission planning process. The following is a summary of these comments provided at the meeting:

- Comments, Suggestions and Public Input:
- 1. The SE CERTS representative explained that the Clean Energy Resource Teams (CERTS) are established to engage citizens and communities in planning and designing their own energy futures.
- 2. Regional energy assessment studies have been conducted in the state to determine the potential to develop local, renewable energy based generation sources. Based on the study, wind energy and biomass are the two major energy resources in the southeast region. The representative noted that their focus is on community-based projects using renewable energy resources, distributed in small-scale projects, and further noted the huge potential for renewable energy to be generated in this region.
- 3. CERTS is looking at the barriers in the implementation of these projects. One of the barriers cited by the group is a lack of understanding of the transmission system and how it is managed.
- 4. Citing the 2003 transmission report, the representative stated that the region is "bottlenecked" in that you can't get generation into it and you can't get generation out of it, and mentioned that based on that report we're running higher cost gas plants to meet load requirements at times in this region. The representative suggested that if we use some of the wind energy potential locally, we could reduce the cost of energy to supply the local load and get a lot more wind developed. The group suggests that there is a potential to match up local wind resources with conventional fuel sources like gas.
- 5. One of the problems noted by the group is that small-scale projects are disadvantaged in this planning process in comparison to large-scale projects. There are basic inequities in the system that must be addressed. CERTS indicated that we should be considering that the inability of the system to absorb a group of decentralized power plants should be recognized as a deficiency in the planning process system that needs to be corrected. It was further noted that this is not the kind of deficiency that has been reached yet in this planning process.
- 6. In an effort to create a standing for the small-distributed projects in the planning process, CERTS suggested that i) utilities reserve space in the future planning models for local generation sources, and ii) take a look at how we can incorporate decentralized generation plants into these regions (especially renewable resources) into the planning process.
- 7. <u>Recommendations</u>: i) recognize the presence of future local renewable generation in the development of future transmission system models; ii) add renewable generation required by the Renewable Energy Objectives (REO) in the long-range transmission models; iii) the transmission system needs to be able to absorb the group of decentralized power plants in a given geographic region and this may mean creating new ways to integrate these decentralized systems to minimize the transmission impact; and iv) meet the state REO requirements locally, which would lead to significant economic development for the region. <u>Utility Response</u>: Do you have a "typical" scenario that we can put into some of our models? Do you have some data that you

can provide to us at this point? <u>Comment</u>: The assessment for the southeast region will look at the type and location of resources available in the area. The assessment is in process at this time and should be available in 2005. The CERTS representative also suggested that while working with potential scenarios the transmission planners may consider substituting wind energy for gas resources in the transmission planning models. <u>Utility Response</u>: We work with actual data as shown in the MISO exploratory studies presented at this meeting. The scenarios used in the transmission planning models include the renewable energy obligations required of all utilities in the state. We are obligated to meet the requirements of anyone sending in a request for transmission. When someone puts a request in the MISO queue for transmission service, we do not have knowledge of the fuel source included in the request. That information is blacked out in the request. If you provide a generation scenario that you are comfortable with we can put that scenario in the model and see if it affects the number or location of lines that need to be built. <u>Comment</u>: A Southeast CERTS representative indicated that on behalf of SE CERTS assessment committee, he would provide the necessary data.

In addition to the above-referenced comments and suggestions, SE CERTS also provided materials for retention in the records including: i) written comments to the Minnesota Transmission Owners regarding "Southeast Transmission Planning Zone Issues", ii) a brochure titled "Helping Minnesota Communities Determine their Energy Future", and iii) a map of the CERTS team regions. The major points included in the written comments and materials submitted by CERTS coincide with the comments and suggestions provided by the SE CERTS representative at the meeting. Any further comments or suggestions, which are not included in the meeting summary may be sent to the utilities at www.minnelectrans.com.

Other materials provided to the utilities for retention in the records include "Regional Transmission System Reinforcement Options" with plan descriptions, marked "WRAO-selected" and "Transmission Schedule" with attachments, marked "Mesaba schedule & concepts". No written comments or cover letter were included with these materials.

The above-referenced written comments and materials will be retained by the utilities as part of the "record" or "retention documents" for a period of ten (10) years. You may request a complete copy of the comments and materials by sending an e-mail request to the utilities at www.minnelectrans.com.

The utilities prepared a comment form to gain feedback and comments from attendees with respect to the Transmission Planning Meeting. Two (2) comments forms were completed and provided to the utilities after the Southeast Zone meeting. The questions and comments are summarized below:

<u>Question</u>: Was the information regarding transmission operation and control groups useful? <u>Comment #1</u>: Ok for layperson.

<u>Comment #2</u>: Yes, but roles of MAPP & MISO seem overlapping and ill-defined. It is not clear who has authority, FERC, MAPP or MISO and over which areas.

<u>Question</u>: Did we answer your questions about the role of transmission in the state's electrical system?

Comment #1: No comment (left blank)

<u>Comment 2</u>: Many technical details on project planning were presented in PowerPoint overheads. It would be useful if citizens could get paper or electronic copies of all maps and overheads used in presentation if they desired.

Question: What can we do to improve the public transmission planning meeting in 2005?

<u>Comment #1</u>: The narrow focus of transmission was well done, but omitted responsibility of overall view to use electricity more efficiently and use less through vigorous educational and motivational projects for the public.

<u>Comment #2</u>: Ensure that knowledgeable and experienced planners are present and leading the presentation for utilities.

Question: Please let us know your thoughts on the projects currently under consideration.

<u>Comment #1</u>: I think there is too much routine reliance on nonrenewable energy generation and far too little development of renewable energy sources.

<u>Comment #2</u>: One of the slides included an incorrect reference, which should be revised to show that Bob Cupit is a representative from the Minnesota Department of Commerce. Many of the speakers were knowledgeable and experienced presenters. Future CapX2020 presentations must state that Certificates of Need are submitted to the PUC.

<u>Question</u>: Any other comments about the transmission system operation, inadequacies, or system planning you wish to share?

Comment #1: No response (left blank).

<u>Comment #2</u>: We need to speed up the process and improve compensation to landowners along transmission line easements. Transmission planning must accommodate the need to transmit more wind power more quickly into the grid. Mike Michaud was a great speaker. He gave some very exciting but fact based input to process.

An additional public comment was noted in a letter to the editor published in the Rochester Post-Bulletin on October 21, 2004. The text of the letter is as follows:

"I read on the editorial page on October 11 that Rochester Public Utilities is contemplating construction of some expensive power lines to import electricity generated at the nuclear power plant at Prairie Island near Red Wing. I hope RPU is equally as committed to paying for the construction of new power lines to connect alternative energy generation sources located here in southeastern Minnesota. Are the citizens of Rochester (whose municipal utility is so eager to import electricity generated by nuclear fission) also prepared to find a home for the spent nuclear fuel rods piling up at the Prairie Island plant? Who would like to volunteer a spot in their back yard to provide for perpetual burial of these radioactive wastes?"

You may submit additional public input, comments or questions pertaining to the transmission planning process by using the "Contact Us" link at www.minnelectrans.com. The substance of all written comments submitted to the utilities will be summarized and included in the 2005 Minnesota Biennial Transmission Projects Report.

Electric Transmission Planning Meeting Southeast Minnesota Zone Held in Rochester, MN At 7:00 PM on October 6, 2004



Persons placing their name with a mailing or email address on the attendance register will receive a synopsis of the meeting and information about future transmission planning meetings.

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Electric Transmission Planning Meeting Southeast Minnesota Zone Held in Rochester, MN At 7:00 PM on October 6, 2004

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Electric Transmission Planning Meeting Southeast Minnesota Zone Held in Rochester, MN At 7:00 PM on October 6, 2004

Persons placing their name with a mailing or email address on the attendance register will receive a synopsis of the meeting and information about future transmission planning meetings.

							Print Name Unlie Moence
							Mailing address 400 E. Rivey Rd NE 55906
							machcle Orpu. org
							Business or Group Affiliation (if applicable)

SUMMARY

Northwest Zone Transmission Planning Meeting

October 12, 2004

The Northwest Zone Transmission Planning Meeting was held on October 12, 2004 at 7:00 p.m. at the Days Inn and Conference Center, $600 - 30^{th}$ Avenue South in Moorhead, Minnesota 56560. The transmission-owning utilities sponsoring the Northwest Zone meeting include Great River Energy, Minnkota Power Cooperative, Missouri River Energy Services, Moorhead Public Service, Otter Tail Power Company, and Xcel Energy. Approximately fifteen (15) individuals attended the meeting including members of the public, representatives from area utilities, representatives from the Minnesota Department of Commerce, the Minnesota Public Utilities Commission, and the Minnesota Association of Townships. A copy of the attendance register is attached as Exhibit A.

Meeting attendees were greeted at the registration table and provided with the following materials: i) meeting agenda, ii) folder with handouts (including brochures covering the fundamentals of electric transmission, utility contact information, glossary of terms and acronyms, State of Minnesota map showing the 100 kV and above transmission lines and 2004 state transmission planning zones, and additional brochures provided by utilities sponsoring the meeting), and iii) a comment form for completion after the meeting. Comment cards were also made available for use in asking questions during the meeting or providing written comments after the meeting. Each attendee was encouraged, but not required, to sign the attendance register.

A representative from Otter Tail Power Company opened the meeting with a brief explanation of the purpose of the meeting, which was followed by an introductory presentation covering the transmission planning process, the fundamentals of electricity and its transmission, the role of transmission in the distribution system, regional planning, challenges of an aging transmission system, increase in electricity demand and usage, the addition of new generation facilities, analytical tools used to forecast deficiencies in the electric transmission system, and right-of-way requirements based on the type and size of the proposed structure. It was also noted that Hubbard County has moved to the Northeast Zone effective with the 2004 transmission planning process since the majority of this counties facilities are owned by Minnesota Power.

Representatives from Minnkota Power Cooperative, Missouri River Energy Services, and Otter Tail Power Company provided presentations covering current and projected transmission needs in the zone, proposed projects and alternative solutions, and studies conducted or in progress in the Northwest Zone.

The following is a list of the presentations provided by utility representatives at the Northwest Zone Transmission Planning Meeting:

Otter Tail Power Company Presentation.

- 1. Northern Valley Study
- 2. Otter Tail County Load Serving Study
- 3. Wilton Transformer Project
- 4. Northwest MAPP Exploratory Study
- 5. Transmission Improvement Planning Study (RRV/WMN TIPS)

Minnkota Power Cooperative Presentation.

Lund 230/69 kV Substation Project

Missouri River Energy Services Presentation.

Audubon to Frazee 115 kV Transmission Line Project

A representative from Otter Tail Power Company provided an overview of CapX2020 transmission planning objectives and timeline, which emphasized the need for comprehensive long-term transmission planning to ensure future electric reliability for Minnesota customers.

Meeting attendees were encouraged to ask questions, provide comments and input and engage in the transmission planning process throughout the meeting. A public input segment was provided at the end of the meeting to solicit input and comments from the attendees in identifying transmission needs in the area, proposed solutions, and alternatives to address the transmission needs in this zone. The attendees were also asked to submit any further questions, comments and input they may have after the meeting directly to the utilities by using the Web site at www.minnelectrans.com. Click on "Zone Contact" or "Contact Us" and then use the email link at generalinfo@minnelectrans.com. No questions, comments or public input have been submitted to this link since the meeting.

The slide presentations used for the Northwest Zone meeting (including a list of current and projected transmission needs, proposed projects and alternative solutions) are available at www.minnelectrans.com. Click on "Northwest Zone" listed under "Planning Zones" and download the following files:

- Part I: General information (pdf)
- Part II: Projects and studies (pdf)
- Part III: TIPS and CapX studies (pdf)

Audience questions addressed at the meeting included: whether the Otter Tail Service area has ever experienced a "black out"; what type of transmission approval process is used in the State of North Dakota; who determines if a 500MW coal plant or wind farm(s) or a mix of these resources will be built in North Dakota, and when is this decision expected; with respect to the right-of-way requirement slides, does the measurement for the structure's height include both the portion of the structure above and below ground; do you know of any utility that is affiliated with the coal plant project in western North Dakota as a buyer or a partner; who is leading the Northwest MAPP Exploratory Study; what is the typical size of an MVA substation or distribution substation that you would site on a 41.6 kV system, a 41 kV transmission line; with

respect to the TIPS Study, what is the timeline for Phase 3 (Generation Alternative Study); what is the timing on the Lund 230/69 kV substation project, and are there any big utility customers in the Baudette area.

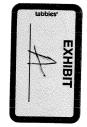
During the Red River Valley and West Central Minnesota Transmission Improvement Planning Study (RRV/WMN TIPS) presentation a member of the public had the following comments:

• Public Comment: Some of these lines appear to have connections with some of the other studies. Who looks at the broad picture? Does anyone take a look at what happens to lines from one study if you incorporate them into another study? If you focus on one particular study without taking into account some of these other studies, it seems that you may get the wrong results. Utility Response: The utility representatives responded with a few ways that they are currently working to meet this challenge. A new study is underway to address these types of issues. The study seeks to coordinate all of the transmission needs and roll them into one plan. Also, one of the roles of the Midwest Independent Transmission System Operator, Inc. (MISO) is to look at the transmission needs on a regional basis and look for efficiencies on how plans can work together and come up with the most economic cost plan to meet reliability objectives. It was also mentioned that the planners meet quarterly at the Sub-regional Planning Group meetings to discuss various studies, benefits or common needs of a particular line, and to discuss any conflicting study results.

The utilities prepared a comment form to gain feedback and comments from attendees with respect to the Transmission Planning Meeting. No written comment forms have been received by the utilities for the Northwest Zone.

You may submit additional public input, comments or questions pertaining to the transmission planning process by using the "Contact Us" link at www.minnelectrans.com. The substance of all written comments submitted to the utilities will be summarized and included in the 2005 Minnesota Biennial Transmission Projects Report.

Attendance register Northwest zone meeting October 12, 2004



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SUMMARY

Northeast Zone Transmission Planning Meeting

October 13, 2004

The Northeast Zone Transmission Planning meeting was held on October 13, 2004 at 7:00p.m. at the Blackwoods Banquet and Conference Center, 195 U.S. Hwy 2 in Proctor, Minnesota 55810. The transmission-owning utilities sponsoring the Northeast Zone meeting include Great River Energy, Minnesota Power, and Xcel Energy. Over thirty (30) individuals attended the meeting including members of the public, representatives from area utilities, representatives from the Minnesota Department of Commerce, the Minnesota Public Utilities Commission, the Minnesota House of Representatives and a St. Louis County Commissioner. A copy of the attendance register is attached as Exhibit A.

Meeting attendees were greeted at the registration table and provided with the following materials: i) meeting agenda, ii) folder with handouts (including brochures covering the fundamentals of electric transmission, utility contact information, glossary of terms and acronyms, State of Minnesota map showing the 100 kV and above transmission lines and 2004 state transmission planning zones, and additional brochures provided by utilities sponsoring the meeting), and iii) a comment form for completion after the meeting. Comment cards were available for use in asking questions during the meeting or providing written comments after the meeting. In addition, copies of the meeting slide presentations were also available at the meeting. Each attendee was encouraged, but not required, to sign the attendance register.

Representatives from Minnesota Power and Great River Energy opened the meeting with introductions of the meeting presenters and a brief overview of the handouts contained within the meeting folders. A representative from Minnesota Power provided an introductory presentation covering the transmission planning process, the fundamentals of electricity and its transmission, the role of transmission in the distribution system, regional planning, challenges of an aging transmission system, increase in electricity demand and usage, the addition of new generation facilities, analytical tools used to forecast deficiencies in the electric transmission system, and right-of-way requirements based on the type and size of the proposed structure.

Representatives from Great River Energy and Minnesota Power provided presentations covering current and projected transmission needs in the zone, proposed projects and alternative solutions, and studies conducted or in progress in the Northeast Zone.

The following is a list of the presentations provided by utility representatives at the Northeast Zone Transmission Planning Meeting:

Minnesota Power Presentations.

- 1. Northeast Zone Load Serving Issues
 - Pequot Lakes-Birch Lake Area
 - Tower-Ely-Babbitt Area

- Wrenshall-Mahtowa Area
- Pillsbury-Bertram-Upsala-Swanville Area
- 5. Northeast Zone Project Updates
 - Eagle Valley Substation
 - Grand Rapids Substation
 - Akeley Substation

Great River Energy Presentations.

- 6. Northeast Zone Load Serving Issues
 - Park Rapids Area
 - Long Lake-Badoura 115 kV line
 - Central Lakes 115 kV line
 - Nashwauk Area
 - Mille Lacs Area
 - Little Falls Area
 - Arrowhead Region

Minnesota Power Presentations.

- 7. Regional Studies
 - RRV/WMN TIPS Study
 - CapX2020 Transmission Plan

The final meeting presentation, which included an overview of CapX2020 transmission planning objectives and timeline, emphasized the need for comprehensive long-term transmission planning to ensure future electric reliability for Minnesota customers.

Meeting attendees were encouraged to ask questions, provide comments and input and engage in the transmission planning process throughout the meeting. A public input segment was provided at the end of the meeting to solicit input and comments from the attendees in identifying transmission needs in the area, proposed solutions, and alternatives to address the transmission needs in this zone. The attendees were also asked to submit any further questions, comments and input they may have after the meeting directly to the utilities by using the Web site at www.minnelectrans.com. Click on "Zone Contact" or "Contact Us" and then use the e-mail link at generalinfo@minnelectrans.com. No questions, comments or public input have been submitted to this link since the meeting.

The slide presentations used for the Northeast Zone meeting (including a list of current and projected transmission needs, proposed projects and alternative solutions) are available at www.minnelectrans.com. Click on "Northeast Zone" listed under "Planning Zones" and download the following files:

- Part I: General information
- Part II: Projects and studies

• Part III: TIPS and CapX studies

Audience questions addressed at the meeting included: when utilities buy bulk power from other companies, how does this benefit consumers and do electric rates vary daily; with respect to the Pequot Lakes and Birch Lake area, what type of distributed generation options have you considered, and are there biomass options in this area; what is the distance a 230 kV line can run before power is lost along the transmission line; would an upgrade to an existing power plant result in less pollution than two separate power plants located in the same vicinity; is Bear Creek a generator; where are we at in regard to supply and demand with our energy in the area; with respect to transmitting power to different areas, define the timeline for the transmission needs; is it cheaper for utilities to buy power or build a power plant where it is needed and generate their own power; why is a dc line vs. an ac line being used for transmission from North Dakota; why aren't the utilities building more dc lines; do you have a contract on the land in the Walker area; what is the frequency of a "brownout" situation and is it weather related; how are utilities held accountable for the reactive power expended thru bulk power transfers; are there plans to take power from or tap into the Arrowhead-Weston line; why are utilities shipping bulk power to Chicago if Northern Minnesota is in such dire need of electricity; and will the public input and comments from this meeting be captured in a written summary.

The audience raised numerous questions concerning a proposed new generator in the Hoyt Lakes area, including location of the generator plant, the anticipated service area, and whether the utilities intend to buy power from the producer. A Minnesota Power representative stated that this is not a Minnesota Power project and further clarified that Excelsior Energy, an independent power producer, is proposing new generation in Northern Minnesota, with Aurora named as one of the possible sites. As of the meeting date, Excelsior Energy had not placed a request to the Midwest Independent Transmission System Operator, Inc. (MISO) for interconnection to the transmission system. It was explained that the transmission-owning utilities do not get involved until the project has been formally submitted to MISO.

This section includes a number of comments and public input received during the public input segment of the meeting. The following is a summary of these comments and public input:

• <u>Public Comment</u>: It has been mentioned during these presentations, especially with the Wrenshall-Mahtowa area, that the utilities must conduct studies to determine solutions to the transmission needs. Who conducts these studies? <u>Utility Response</u>: Studies are typically conducted in-house by the utilities. Minnesota Power and Great River Energy will work together on that specific line. Our staff will perform the modeling, run the analysis and provide a report of the results at a Sub-regional Planning Group (SPG) meeting, which is held every few months. <u>Public Comment</u>: At what point does the public get to participate in the process? <u>Utility Response</u>: Proposed projects are presented at transmission planning meetings, like this meeting tonight, and they are outlined in the transmission projects report, which will be published next fall, November 1, 2005. We encourage members of the public to provide input and comments during the early phase of the transmission planning process. Comments, questions and input from the public will be addressed at these meetings, and by

- using the utilities Web site or by contacting the utilities directly. The utility representative also noted that the SPG meetings are open to the public.
- <u>Public Comment</u>: During the in-house studies, how much consideration is given to alternative energy sources, alternative generation? <u>Utility Response</u>: There are a number of different cases where we have looked at generation options. We will take a look at those options and if they work great, otherwise we have to look at the transmission alternatives.
- <u>Public Comment</u>: How do individual landowners influence MISO and MAPP? <u>Utility Response</u>: It is a long series of events, it's meetings like this that feed into the plans that the utilities are working on and those plans in turn get sent to the Mid-Continent Area Power Pool (MAPP). MAPP is working jointly with MISO so the plans encompass a larger geographic area over time. It's not as though the lines are getting longer but there are more projects being considered in a broader scope as you move towards the MISO level.
- <u>Public Comment</u>: How are these meetings advertised to the public? <u>Utility</u>
 <u>Response</u>: Display ads were published in local newspapers, written notices were mailed. Extensive efforts were used by the utilities to provide notice of the transmission planning meetings to members of the public, local and tribal government officials, county officials and legislators. <u>Public Comment</u>: A member of the audience living in Midway Township indicated that she did not see a published notice for this meeting (the NE Zone Transmission Planning Meeting).
- <u>Public Comment</u>: Do you think a similar meeting was held to discuss the Arrowhead-Weston project? <u>Utility Response</u>: This process (the transmission planning process) started in 2001. <u>Public Comment</u>: Just prior to the Arrowhead-Weston project. <u>Additional Comment</u>: As a result of it; is this process a result of the lack of communication on the Arrowhead-Weston project? <u>Utility Response</u>: No comment.
- <u>Public Comment</u>: With respect to the Grand Marais presentation, what is the time frame for the RFP? Do people that are interested in solar and wind know about the RFP's? <u>Utility Representative</u>: That is handled by our resource development staff. We are hoping for a large response to our generation requests. <u>Public Comment</u>: Is this an ongoing effort? <u>Utility Representative</u>: Yes, we are looking for generation in this area, approximately 10 to 15 MW. As load grows in the area additional generation will be needed. We need more generation to cover the current need in the area. <u>Public Comment</u>: That really sounds exciting, it sounds like really getting input from people that do have ideas, making something work for communities.
- <u>Public Comment</u>: Based on your earlier comments with respect to the proposed Excelsior Energy project, can we assume that the present transmission lines cannot transmit power for Excelsior? <u>Utility Response</u>: No. Once Excelsior

submits its request to MISO, studies will be conducted to determine the effects of adding that generation into the system. The power will flow based on physics on some of these existing lines. They will use the existing facilities to some degree but based on the studies conducted, they will have to provide enough facilities for the power generated so that it does not degrade the rest of the system.

- <u>Public Comment</u>: Many landowners live in Northern Minnesota and Northern Wisconsin to enjoy the peace, tranquility and beauty of the area. Then along comes a transmission line, it is not part of our plan, every time you build these transmission lines you shatter many peoples dreams and lives. I don't think you take that into consideration as well as you should. Every time you build a transmission line it impacts a lot of people in a very negative way. I think you need to be thinking about this a little more often. <u>Utility Response</u>: Your point is noted. Utilities continually look at alternatives to provide solutions to transmission needs.
- <u>Public Comment</u>: When you come to these meetings bring in generation, bring in the conservation, bring in the alternative energy. Don't just say well we're only here to talk transmission and we can't address it because most of us can't come to four meetings. Bring it to us at one time and say okay here is the generation plan, here is the transmission plan and here is the conservation plan and put it all on the table at one time rather than piece meal plans and stating I cannot talk about that because I am a transmission person. That just frustrates us, the public even more. <u>Utility Response</u>: Your comments are noted and will be included in the records.
- <u>Public Comment</u>: With respect to the Excelsior plan, are you thinking that the power generated from their plan will use more than one 345 kV line? <u>Utility Response</u>: Again, there is nothing definitive on their plan. We have heard that they may generate approximately 600 to 1200MW. <u>Public Comment</u>: Is that at least two or three more lines? <u>Utility Response</u>: Again, we do not have definitive details of their plans. <u>Public Comment</u>: For the record, it looks like they have 1100 MW of generation. I have been talking about this for two years and I will continue to talk about it because they are building it, it is coming forward.

During the "Public Input" segment of the meeting Ken Wolf, Reliability Administrator with the Minnesota Department of Commerce provided remarks pertaining to the regulatory background, the purpose and ultimate goals of the transmission planning process.

Also, during this segment of the meeting, a landowner living in the Arrowhead-Weston area shared his personal experiences and frustrations with the transmission planning process as it relates to the Arrowhead-Weston line. Suggestions included: listen to the public, keep the landowners informed of projects, provide proof of transmission needs, provide safe and acceptable solutions to transportation of power, and consider the interests of landowners during the transmission planning process.

An attorney representing World Organization for Landowner Freedom provided written comments to the utilities to retain for the record regarding "Missing Projects in Transmission Plan". According to the memorandum, certain projects are not disclosed on the transmission plan, projects which are anticipated and which should be listed to provide notice to communities. The following projects are outlined in the memorandum: i) the Mesaba project associated transmission in the Proctor area, which will likely be two additional 345 kV transmission lines along the Arrowhead route already under construction; and ii) the ATC 10 year plan shows the Adams-Genoa-Columbia line, which is an extension of the WRAO 9a/9B, from Huron, to Sioux Falls-Lakefield Jct.-Adams-Genoa-Columbia. It is noted that the attachments to the memorandum submitted by the attorney representing World Organization for Landowner Freedom titled, "Transmission Schedule" and "Regional Transmission System Reinforcement Options" are illegible. These written comments will be retained by the utilities as part of the "record" or "retention documents" for a period of ten (10) years. You may request a complete copy of the written comments by sending an e-mail request to the utilities at www.minnelectrans.com.

The utilities duly note for the record that Hubbard County has moved to the Northeast Zone beginning with the 2004 transmission planning process.

The utilities prepared a comment form to gain feedback and comments from attendees with respect to the Transmission Planning Meeting. No written comment forms have been received by the utilities for this zone.

You may submit additional public input, comments or questions pertaining to the transmission planning process by using the "Contact Us" link at www.minnelectrans.com. The substance of all written comments submitted to the utilities will be summarized and included in the 2005 Minnesota Biennial Transmission Projects Report.

Attendance Register NE Zone Meeting October 13, 2004



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SUMMARY

West Central Zone Transmission Planning Meeting

October 26, 2004

The West Central Zone Transmission Planning meeting was held on October 26, 2004 at 7:00p.m. at the Atwood Memorial Center located on the St. Cloud State University campus, 110 AMC-720 Fourth Avenue South in St. Cloud, Minnesota 56301. The transmission-owning utilities sponsoring the West Central Zone meeting include Great River Energy, Hutchinson Utilities Commission, Missouri River Energy Services, Otter Tail Power Company, Willmar Municipal Utilities, and Xcel Energy. Approximately twenty (20) individuals attended the meeting including members of the public, representatives from area utilities, representatives from the Minnesota Department of Commerce, and the Minnesota Public Utilities Commission. A copy of the attendance register is attached as Exhibit A.

Meeting attendees were greeted at the registration area and provided with the following materials: i) meeting agenda, ii) folder with handouts (including brochures covering the fundamentals of electric transmission, utility contact information, glossary of terms and acronyms, State of Minnesota map showing the 100 kV and above transmission lines and 2004 state transmission planning zones, and additional brochures provided by utilities sponsoring the meeting), and iii) a comment form for completion after the meeting. Comment cards were available for use in asking questions during the meeting or providing written comments after the meeting. Each attendee was encouraged, but not required, to sign the attendance register.

Representatives from Great River Energy opened the meeting with a brief explanation of the purpose of the meeting, which was followed by an introductory presentation covering the transmission planning process, the fundamentals of electricity and its transmission, the role of transmission in the distribution system, regional planning, challenges of an aging transmission system, increase in electricity demand and usage, the addition of new generation facilities, analytical tools used to forecast deficiencies in the electric transmission system, and right-of-way requirements based on the type and size of the proposed structure.

Utility representatives from Great River Energy, Missouri River Energy Services, Otter Tail Power Company, and Xcel Energy provided presentations covering current and projected transmission needs in the zone, proposed projects and alternative solutions, and studies conducted or in progress in the West Central Zone.

The following is a list of the presentations provided by utility representatives at the West Central Zone Transmission Planning Meeting:

Great River Energy Presentations.

- Elk River-Becker Area
- Willmar-Granite Falls Area
- Panther Area

- Alexandria-St. Cloud Area
 Missouri River Energy Services Presentations.
- Grant-Alexandria Reconductor Project
- Alexandria Capacitor Bank Addition

<u>Xcel Energy Presentations</u>.

- Update of Wind Generation Outlet Transmission Projects
- Hutchinson-Glencoe-Waconia Area
- Monticello-St. Cloud Corridor
- City of St. Cloud

Otter Tail Power Company Presentations.

- Appleton-Canby Rebuild Project
- Northwest Exploratory Study
- RRV/WMN TIPS Study

The final meeting presentation, which included an overview of CapX2020 transmission planning objectives and timeline, emphasized the need for comprehensive long-term transmission planning to ensure future electric reliability for Minnesota customers.

Meeting attendees were encouraged to ask questions, provide comments and input and engage in the transmission planning process throughout the meeting. A public input segment was provided at the end of the meeting to solicit input and comments from the attendees in identifying transmission needs in the area, proposed solutions, and alternatives to address the transmission needs in this zone. The attendees were also asked to submit any further questions, comments and input they may have after the meeting directly to the utilities by using the Web site at www.minnelectrans.com. Click on "Zone Contact" or "Contact Us" and then use the e-mail link at generalinfo@minnelectrans.com. No questions, comments or public input have been submitted to this link since the meeting.

The slide presentations used for the West Central Zone meeting (including a list of current and projected transmission needs, proposed projects and alternative solutions) are available at www.minnelectrans.com. Click on "West Central Zone" listed under "Planning Zones" and download the following files:

- Part I: WC Zone introduction and background (pdf)
- Part II: WC Zone projects and studies (pdf)

Audience questions addressed at the meeting included: what type of differences in study results do you find with the models used in your in-house studies versus the models used in the MISO studies; if you abandon an existing line, do you give up your right-of-way and give the land back to the adjacent landowners; can you give me an idea of the scale of your maps, are they all about the same scale and how long is a mile; how do you identify lines that cannot serve load, are you looking at the frequency of that happening or one occurrence; with respect to

performance and being unavailable to the system, how many component failures do you include in your designs or models and do your models allow for two outages to occur at the same time; isn't the Alexandria area fed primarily from the north; who determines the configuration of a line, is it based on cost; who is MISO; other than the wind generation you mentioned, where is the generation coming from for all of these transmission lines; who determines the location for generation sites; will the line from Alexandria to St. Cloud follow the I-94 corridor; is the 345 kV line an ac or dc line; with respect to the RRV/WMN TIPS Study, when did the voltage collapse issues begin to show up, an approximate timeframe; why does Otter Tail Power Company continue to use a 41.6 system and do they have a single conductor line; when was MAPP established; and who owns the transmission line, the power producer?

A few questions were raised by the audience pertaining to the CapX2020 Transmission Study including: will this study factor in on-site generation and conservation; will the price of electricity increase due to the projects identified in the study; and what is the timeframe for completion of the CapX2020 study.

A member of the audience raised a concern regarding the configuration of a specific transmission line in the area, which led to a brief discussion of the utilities analysis of the effects of the Electromagnetic Field (EMF) on the ground in relation to the transmission line profile.

The utilities prepared a comment form to gain feedback and comments from attendees with respect to the Transmission Planning Meeting. No written comment forms have been received by the utilities for this zone.

You may submit additional public input, comments or questions pertaining to the transmission planning process by using the "Contact Us" link at www.minnelectrans.com. The substance of all written comments submitted to the utilities will be summarized and included in the 2005 Minnesota Biennial Transmission Projects Report.

Attendance Register WC Zone Meeting October 26, 2004



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SUMMARY

Twin Cities Zone Transmission Planning Meeting

October 27, 2004

The Twin Cities Zone Transmission Planning meeting was held on October 27, 2004 at 7:00p.m. at the University of St. Thomas, John Roach Center Auditorium, 2115 Summit Avenue in St. Paul, Minnesota 55105. The transmission-owning utilities sponsoring the Twin Cities Zone meeting include Great River Energy and Xcel Energy. Over twenty (20) individuals attended the meeting including members of the public, representatives from area utilities, representatives from the Minnesota Department of Commerce, the Minnesota Public Utilities Commission, the Environmental Quality Board, the Midwest Independent Transmission System Operator, Inc. (MISO), the office of the Minnesota Attorney General, and the Mayor of the City of Lindstrom. A copy of the attendance register is attached as Exhibit A.

Meeting attendees were greeted at the registration table and provided with the following materials: i) meeting agenda, ii) folder with handouts (including brochures covering the fundamentals of electric transmission, utility contact information, glossary of terms and acronyms, State of Minnesota map showing the 100 kV and above transmission lines and 2004 state transmission planning zones, and additional brochures provided by utilities sponsoring the meeting), and iii) a comment form for completion after the meeting. Comment cards were available for use in asking questions during the meeting or providing written comments after the meeting. In addition, complete transcripts of the meeting slide presentations were also available at the meeting. Each attendee was encouraged, but not required, to sign the attendance register.

A representative from Xcel Energy opened the meeting with introductions of the meeting presenters, and the representatives in attendance from the Minnesota Department of Commerce. This was followed by a brief overview of the purpose of the meeting and an introductory presentation covering the transmission planning process, the fundamentals of electricity and its transmission, the role of transmission in the distribution system, regional planning, challenges of an aging transmission system, increase in electricity demand and usage, the addition of new generation facilities, analytical tools used to forecast deficiencies in the electric transmission system, and right-of-way requirements based on the type and size of the proposed structure.

Representatives from Great River Energy and Xcel Energy provided presentations covering current and projected transmission needs in the zone, proposed projects and alternative solutions, and studies conducted or in progress in the Twin Cities Zone.

The following is a list of the presentations provided by utility representatives at the Twin Cities Zone Transmission Planning Meeting:

Xcel Energy Presentations.

- Aldrich to St. Louis Park 115 kV line
- Eden Prairie to Edina 115 kV line

- Eden Prairie Minnetonka Area
- Carver County Waconia Area
- Chisago to Apple River Project
- High Bridge to Rogers Lake 115 kV line
- Blue Lake Generation Outlet
- Koch to Inver Hills 115 kV line
- Prairie Island to Red Rock 345 kV circuit #2
- Oakdale to Tanners Lake 115 kV line
- Champlin to Champlin Tap to Crooked Lake 115 kV line
- Twin Cities 345/115 kV transformer capacity

Great River Energy Presentations.

- Rush City Forest Lake Area
- Elk River Ramsey Bunker Lake Area
- Air Lake Empire Area

The final meeting presentation, which included an overview of CapX2020 transmission planning objectives and timeline, emphasized the need for comprehensive long-term transmission planning to ensure future electric reliability for Minnesota customers.

Meeting attendees were encouraged to ask questions, provide comments and input and engage in the transmission planning process throughout the meeting. A public input segment was provided at the end of the meeting to solicit input and comments from the attendees in identifying transmission needs in the area, proposed solutions, and alternatives to address the transmission needs in this zone. The attendees were also asked to submit any further questions, comments and input they may have after the meeting directly to the utilities by using the Web site at www.minnelectrans.com. Click on "Zone Contact" or "Contact Us" and then use the e-mail link at generalinfo@minnelectrans.com. No questions, comments or public input have been submitted to this link since the meeting.

The slide presentations used for the Twin Cities Zone meeting (including a list of current and projected transmission needs, proposed projects and alternative solutions) are available at www.minnelectrans.com. Click on "Twin Cities Zone" listed under "Planning Zones" and download the following files:

- Part I: TC Zone introduction and background (pdf)
- Part II: TC Zone projects and studies (pdf)

Audience questions addressed at the meeting included: what do you mean by combined queues, generation in combined queues; in the diagram used for "new generating facilities", what type of generation is included in the "other" category namely in Illinois, Ohio and Indiana, is this biomass; on the Xcel system, how much power is lost in the transmission, what percentage of the energy is lost; with respect to the High Bridge – Rogers Lake 115 kV line, what are the certain operating conditions that have the potential to overload lines; with respect to the diagram for the Koch to Inver Hills 115 kV project, what is the meaning of "N.O." referenced on the map; and will the proposed projects in the Rush City-Forest Lake area require new right-of-way.

Questions raised concerning the CapX2020 transmission planning initiate included: you mentioned that the study includes different generation scenarios, are you taking into account any specific generation proposals like the Mesaba project; what is the current demand used in this study; will the report be available to anyone; how will a person obtain a copy of the report; and how many MW were you considering for the Manitoba hydro scenarios.

Several questions were raised regarding the Chisago-Apple River Project including: what is meant by distributed generation is cost prohibitive, and what other options did you look at; which sizes were you looking at or did you analyze; and are there large users of power that may benefit from some type of combined new power system. In addition, comments received pertaining to this project are summarized below:

<u>Public Comment</u>: The controversy on this line is that the project was originally scheduled to be routed considerably north of the cities of Lindstrom and Shafer and end up in Taylors Falls - St. Croix Falls. An agreement was negotiated with Taylors Falls - St. Croix Falls and rural landowners in the area that the line would not be routed in rural areas but instead would stay within the existing power transmission line, which runs through the City of Lindstrom, located one block north of Highway 8, that travels over the church, which is next to the bank then over a middle school. If there is a concern about safety with respect to this line, it travels in the most heavily populated part of the area. That is the concern in our area, that it was shifted from a non-populated area, back to the existing corridor, which is a very populated area in the city. *Utility Response*: Yes, I am aware of a fair amount of the controversy. Under the newer certificate of need rule, the actual route that will be chosen, whether it actually will continue along the existing route or if it will be moved, is now part of a second process, which is under the Minnesota EQB (Minnesota Environmental Quality Board). This process is designed so that all of these types of issues are taken into account when determining the appropriate way to route the line. Public Comment: Just to confirm. As part of the certificate of need process all of the information in your distributed generation study will be available for public review. <u>Utility Response</u>: Yes, that is part of the process. <u>Public Comment</u>: Another argument is for those that oppose maintaining an export line rather than serving local need. *Utility* Response: Yes, I have heard that argument. You can't deliver a whole lot of power for a very long distance at 115 kV. Public Comment: It is just unfortunate that it hasn't appeared to be a project that would be routed in the most densely populated area; it is quite an eyesore along the Highway 8 corridor. *Utility Response*: These issues will be addressed in the certificate of need process along with the actual decision on the proposed routes, should they even choose to go with the higher 115 kV option.

The following is a summary of the comments and public input received during the general comment and public input segment of the meeting:

<u>Public Comment</u>: Will any of the projects that you presented tonight trigger a certificate of need? <u>Utility Response</u>: The projects that will trigger a certificate of need are the Chisago – Apple River Project, the Carver County to Glencoe line, and the Linwood substation.

• <u>Public Comment</u>: If you widen the right-of-way, do you need a certificate of need? <u>Utility</u> <u>Response</u>: It depends on the length of the line. <u>Public Comment</u>: Say the line is 10 miles long and will use an existing corridor, does that trigger a certificate of need? <u>Utility</u> <u>Response</u>: Is the line over or under 10 miles? <u>Public Comment</u>: It is over. <u>Utility</u> <u>Response</u>: If it is longer than 10 miles and you are converting the line, for example let's say a 69 kV line up to a 115 kV line, a certificate of need is required. Also, anything over 200 kV, substation or line, you have to file a certificate of need. Under 10 miles you have to go through a local process and the routing process.

The utilities prepared a comment form to gain feedback and comments from attendees with respect to the Transmission Planning Meeting. No written comment forms have been received by the utilities for this zone.

You may submit additional public input, comments or questions pertaining to the transmission planning process by using the "Contact Us" link at www.minnelectrans.com. The substance of all written comments submitted to the utilities will be summarized and included in the 2005 Minnesota Biennial Transmission Projects Report.

Attendance Register TC Zone Meeting October 27, 2004



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