

PART I. 2007 BIENNIAL REPORT

- 1.0 Executive Summary
- 2.0 Overview of Transmission Planning
 - 2.1 Biennial Report Requirements
 - 2.1.1 The Statute
 - 2.1.2 The PUC Rules
 - 2.1.3 The PUC Order
 - 2.2 Certification Requests
 - 2.3 Past Biennial Reports
 - 2.4 Minnesota Transmission Owners
 - 2.5 Renewable Energy Standards
 - 2.6 Distributed Generation
 - 2.6.1 White Paper on Distributed Generation
 - 2.6.2 Community Based Energy Development
 - 2.6.3 Dispersed Renewable Generation
 - 2.7 Transmission Planning
 - 2.8 Inadequacies in the Transmission System
- 3.0 Transmission Studies
 - 3.1 Generally
 - 3.2 MAPP Load and Capability Report
 - 3.3 Midwest ISO Transmission Expansion Plan
 - 3.4 Southwest Minnesota and Northwest Iowa Group 5 Study
 - 3.5 NERC 2007 Long Term Reliability Assessment
 - 3.6 Summary of Completed and Ongoing Studies
 - 3.7 Wind Integration Study
 - 3.8 West Central Transmission Planning Zone CBED Study
 - 3.9 Renewable Energy Standard Studies
- 4.0 Public Participation
 - 4.1 Requirements

- 4.2 2006 Public Meetings
- 4.3 2007 Public Meetings
- 4.4 Suggestions for Change
- 5.0 CapX 2020 Projects
 - 5.1 CapX 2020 Utilities
 - 5.2 Transmission Projects
 - 5.3 The 345kV Projects
 - 5.4 The 230 kV Bemidji – Grand Rapids Project
- 6.0 Transmission Planning Zones
 - 6.1 Introduction
 - 6.2 Northwest
 - 6.3 Northeast
 - 6.4 West Central
 - 6.5 Twin Cities
 - 6.6 Southwest
 - 6.7 Southeast
- 7.0 Needs
 - 7.1 Introduction
 - 7.2 Northwest
 - 7.3 Northeast
 - 7.4 West Central
 - 7.5 Twin Cities
 - 7.6 Southwest
 - 7.7 Southeast
- 8.0 Transmission – Owning Utilities
 - 8.1 Introduction
 - 8.2 American Transmission Company
 - 8.3 Dairyland Power Cooperative
 - 8.4 East River Electric Power Cooperative

- 8.5 Great River Energy
- 8.6 Hutchinson Utilities
- 8.7 Interstate Power & Light Company
- 8.8 L&O Power Cooperative
- 8.9 Marshall Municipal Utilities
- 8.10 Minnesota Power
- 8.11 Minnkota Power Cooperative
- 8.12 Missouri River Energy
- 8.13 Northern States Power Company d/b/a Xcel Energy
- 8.14 Otter Tail Power Company
- 8.15 Rochester Public Utilities
- 8.16 Southern Minnesota Municipal Power Agency
- 8.17 Willmar Municipal Utilities
- 9.0 Conclusion

PART II. RENEWABLE ENERGY STANDARDS REPORT

- 1.0 Introduction
- 2.0 Gap Analysis
 - 2.1 Introduction
 - 2.2 Minnesota Renewable Energy Standard Milestones
 - 2.3 Utility Sales Forecasts
 - 2.4 Renewable Retail Sales Requirements
 - 2.5 Existing Renewable Generation
 - 2.6 Megawatts of Renewable Generation Required
 - 2.7 Demand Side Management
 - 2.8 2007 RES Objective
 - 2.9 2010 Milestone
 - 2.10 2012 RES Milestone

- 2.11 2016 RES Milestone
- 2.12 2020 RES Milestone
- 2.13 2025 RES Milestone
- 2.14 Summary
- 3.0 Transmission Studies
 - 3.1 Introduction
 - 3.2 Transmission Planning
 - 3.3 Completed Studies
 - 3.4 Ongoing Studies
- 4.0 Conceptual Plans
 - 4.1 Introduction
 - 4.2 CapX 2020 Vision Plan
 - 4.3 Xcel Energy 4300 MW Study
 - 4.4 RES Conceptual Plan
 - 4.5 MISO 765 kV Overlay Vision
- 5.0 Specific Transmission Line Proposals
 - 5.1 Introduction
 - 5.2 Southwest Minnesota 345 kV Project
 - 5.3 BRIGO
 - 5.4 Storden – Dotson Project
 - 5.5 Fargo – Monticello 345 kV Project
 - 5.6 Brookings, SD to SE Twin Cities 345 kV Project
 - 5.7 Bemidji – Grand Rapids 230 kV Project
 - 5.8 Big Stone Transmission
- 6.0 Five Year Action Plan
 - 6.1 Introduction
 - 6.2 Near Term Studies
 - 6.3 Future Refinements
 - 6.4 Summary

- 7.0 Critical Issues
 - 7.1 Introduction
 - 7.2 Unknown Location of Renewable Energy Sources
 - 7.3 Renewable Energy Goals in Other States
 - 7.4 Transmission Additions in Other States
 - 7.5 The MISO Generation Interconnection Queue
 - 7.6 NERC Reliability Standards/MISO Ancillary Services Market
 - 7.7 MISO/MAPP Seams Issues
 - 7.8 Cost Allocation
 - 7.9 Landowner Concerns
 - 7.10 Human Resource Limitations
- 8.0 Public Involvement
 - 8.1 Introduction
 - 8.2 Sub-Regional Planning Group
 - 8.3 Transmission Planning Annual Meetings
 - 8.4 Department of Commerce Technical Review Committee
 - 8.5 Dispersed Renewable Generation Public Meetings
- 9.0 Summary

Contacts