

# Draft MPFCA for MH TSRs - MP TSR Study

01/09/2013

## **Draft Facility Construction Agreement**

- Explanation
- Basis
- Who are the customers

## **Eastern Line Proposal**

- Reasons for performing studies
- Will this proposal help in getting the existing TSR's approved
- Work done so far
- Work to be done

## **Moving from Western to Eastern Line proposal**

- Comparison based on Cost
- Comparison based on system stability
- Other applicable factors

## **Decision by TO'S and customers**

- Who is willing to pay?

## **Next Steps**

# Draft Facility Construction Agreement

- **This agreement is based on MISO's Facility study completed in May of 2010**
- **Manitoba Hydro TSR 500kV Option 1**
  - Adding 1100 MW of hydro generation from Manitoba, Canada to the upper Midwest, US
  - Dorsey Substation Canada to the Bison, ND and Helena, MN Substations
  - Estimated cost \$1,463,690,000 (US facilities only included)
- **TSR Customers included in study and FCA**
  - Manitoba Hydro – F088, WPPI Energy – F091, Minnesota Power – F089, Wisconsin Public Service – F090 , Great River Energy – F092

# Eastern Line Proposal

- **The purpose of this study was to perform sensitivity analysis on alternative transmission options for the MH, US south bound TSRs.**
  - MP has entered into a 250MW MH PPA beginning in June 2020
  - Other TSR customers are more towards a 2025 time frame
- **Scenario studied**
  - Reil- Shannon 230kV (250MW)
    - Additional mitigation cost : \$0 (G519 online \$0)
  - Dorsey-Iron Range 500kV (750MW)
    - Additional mitigation cost : \$0 (G519 online \$5.52 mil.)
  - Dorsey-Iron Range 500kV (1100MW)
    - Additional mitigation cost : \$0 (G519 online \$9.66 mil.)

NOTE: MISO project G519 (600 MW) is currently in suspension

# Eastern Line Proposal

- **Work done so far**

- DC sensitivity analysis
- AC Sensitivity analysis
- Affected systems TOs contacted
- Cost estimates
- Draft report

- **Work to be done**

- Send report to area TOs for review
- Finalize report
- Manitoba Hydro will be preparing its own studies and FCA for facilities north of the US boarder

# Eastern and Western Proposals



# Moving from Western to Eastern plan Proposal

- **The MP Eastern 1100MW plan is presently in draft form**
  - Estimated new facilities cost (US facilities only included)
    - 500kV Dorsey to Blackberry \$566,911,729
    - 345kV Dbl Cir Blackberry to Arrowhead \$220,637,542
    - Total \$796,549,721 (2012 dollars)
    - Additional \$9,660,000 mitigations costs (G519 online)
- **The Western 1100MW plan Option 1**
  - May 2010 Facility study cost (US facilities only included)
    - \$1,463,690,000
- **A preliminary Stability Analysis comparing the two proposals has also been conducted.**

## **Decision by TO's and customers**

- **Need final plans determined by TO's and MISO**
- **Need commitment from TSR Customers to fund upgrades**

### **Because**

- **Upgrades are required for the TSR's to be approved**
  - Finalizing which upgrade plan is preferred
- **Funding plan required**
- **Once (Multi-Party) Facility Construction Agreement executed, TSRs confirmed subject to upgrades in service**



# How Does the Upgrade Get into MTEP Appendix A?

- **Two paths: TSR or “Other” project**
- **Both paths require funding commitment and peer review**
- **TSR Path**
  - Funding comes from customers/sponsors
  - Peer review in ad hoc process
  - Board approval implicit with confirmed TSR
    - MISO would inform the Board at the next meeting after the confirmation
- **“Other” Path**
  - Funding must be determined
  - Peer review comes from FERC 890 process
  - Earliest possible Board approval is June

# Next Steps

- **MISO Next Steps:**

- Work MP and area TOs to finalize Eastern studies (1/18/13)
- *Follow up on any unanswered questions (1/18/13)*
- *Receive Customer comments on final proposals (1/31/13)*
- *Work with Customers and TOs to finalize plan (2/15/13)*
- *Finalize FCA (2/28/13)*

- **TO Next Steps:**

- Follow up on TO related questions (1/18/13)
- Review Eastern studies (1/25/13)
- *Work with MISO on final plan (2/15/13)*
- *Finalize FCA (2/28/13)*

*All dates are tentative based on meeting discussions*

# Next Steps

- **Manitoba Hydro Next Steps:**

- Manitoba Hydro will be preparing its own studies and FCA for facilities north of the US boarder (1/31/13)

- **Customer Next Steps:**

- Additional proposals and questions (1/18/13)
- Need commitment to fund upgrades (1/25/13)
- *Work with MISO on final plan (2/15/13)*
- *Finalize FCA (2/28/13)*

*All dates are tentative based on meeting discussions*