

Facility Study Summary for Request #1022910 and 1000545

Models used in this study correlated with the years 2002, 2004 and 2007. The results for the years 2003, 2005, 2006 and 2008 to 2013 were estimated from results of existing models. The results of the Facility Study for request #1022910 for 300 MW from June 1, 2003 to June 1, 2004 and request #1000545 for 453 MW from June 1, 2004 to June 1, 2013 from the Riverside Generation Station to ALTE are as follows:

The following construction projects need to be completed in order to grant the 300 MW request:

1. Reconductor the existing 138 kV line from Whitewater to Mukwonago using 477 ACSS conductor. The cost of this construction project will be approximately \$4.4 million.
2. Construct new 138 kV line from Sunrise to McCue using 795 ACSR (Or equivalent conductor). The cost of this construction project will be approximately \$4.1 million.
3. Uprate terminal equipment at Russell Switching Station and McCue for a 1200 amps rating. The cost of this construction project will be approximately \$0.05 million.
4. Rebuild the Rock River to Venture to Janesville 138 kV line with a double circuit 138 kV line with 795 ACSR (Or equivalent conductor). One line will be from Rock River to Venture to Janesville and the other new circuit will be from Rock River to Sunrise. The cost of this construction project will be approximately \$4.3 million.
5. Rebuild the existing double circuit 138 kV lines from the New Rock River Generation to the existing Rock River Substation with 2156 ACSR (Or equivalent conductor). The cost of this construction project will be approximately \$0.35 million.
6. Uprate the 138 kV line from Kansas to Norwich from a 200F temperature rating to a 230F temperature rating. The cost of this construction project will be approximately \$0.15 million.

The following construction projects also need to be completed in order to grant the 453 MW request:

1. Rebuild the Christiana to Kegonsa 138 kV line with 2156 ACSR (Or equivalent conductor). The cost of this construction project will be approximately \$5 million.
2. Rebuild the existing 138 kV line from Russell Switching Station to Rockdale with 2156 ACSR (Or equivalent conductor)The cost of this construction project will be approximately \$4.5 million.
3. Uprate the existing 69 kV line from McCue to Sheepskin. The cost of this construction project will be approximately \$0.2 million.
4. Rebuild the existing Janesville to Russell Switching Station 138 kV line with 795 ACSR (Or equivalent conductor). The cost of this construction project is unknown at the current time.

The total approximate cost of the estimated construction projects will be \$23.05 million.

Timeline for Projects and associated Service Amounts

June 1, 2003: Whitewater to Mukwonago, Sunrise to McCue, Russell Switching Station to McCue, Kansas to Norwich, New Rock River Generation to Rock River and Rock River to Venture to Janesville and Rock River to Sunrise. It is anticipated that these construction projects

will be completed by June 1, 2003, and with these projects in place at this time there will be 300 MW of service available.

June 1, 2004: Janesville to Russell Switching Station. It is anticipated that this construction project will be completed by June 1, 2004, and with this projects in place by this time the full 453 MW of service can be granted.

June 1, 2005: Christiana to Kegonsa, Russell Switching Station to Rockdale, and McCue to Sheepskin 69 kV upgrade. It is anticipated that these construction projects will be completed by June 1, 2005, and these projects are needed in order for the full 453 MW of service to continue.