

# 10-Year Assessment An annual report summarizing proposed additions and expansions to ensure electric system reliability.

2011

# September 2011 10-Year Assessment www.atc10yearplan.com

## Seven Categories of Planning Network Adequacy planning

The planning process that encompasses the largest share of our projects is <u>Network Adequacy Planning</u>. It's an overall assessment of our system and its ability to handle growth, changes in electricity consumption, and power delivery power for changing system conditions. We simulate future conditions, examine weaknesses and model a variety of potential solutions using our publicly posted <u>planning criteria</u>.

#### Economic Project planning

Economic Project planning refers to studies that look for transmission system congestion that has a significant adverse impact on the delivered cost of energy to consumers. We use historical data and future flow forecasts in our models to help identify potential ways to mitigate or relieve those effects. ATC has developed a process to identify projects with the greatest opportunity to provide economic benefits. We have been engaged with statewide stakeholders for the past several years through our Access Initiative, and have developed economic planning processes to continue to perform studies in consultation with our stakeholders.

### Distribution to Transmission Interconnection planning

<u>D-T Interconnections Planning</u> examines ways the transmission system may need to be enhanced or expanded to interconnect new electric substations that are proposed to support local growth. When business or housing developments are built in areas that previously were rural, the electric system must be expanded to supply new power needs. When local utilities' expansion plans require new interconnections with the transmission system, utilities must submit a <u>load interconnection request form</u>. The load interconnection <u>business practice</u> outlines how we work with utilities to devise the most cost-effective solution and we maintain an <u>interconnection queue</u> to help facilitate communication with utilities about these requests.

### Transmission to Transmission Interconnection planning

<u>T-T Interconnection Planning</u> examines the impact on our system of transmission expansions to, from and adjacent to our service area. We <u>coordinate our assessments</u> of the need for new facilities with the plans for adjacent transmission systems to identify a wider variety of options on a cooperative basis.

### Generator to Transmission Interconnection planning

<u>G-T Interconnection Planning</u> studies the impacts that additions or changes in electricity generation output have on the transmission system. These impacts often require modifications or expansions of transmission facilities. Requests for interconnection studies of the transmission system must be sent to the <u>Midwest Independent System Operator</u>. We work collaboratively with the Midwest ISO on these studies and also offer supplemental



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<u>interconnection guidelines</u> for generators wishing to connect new facilities to our transmission system.

#### Transmission Service planning

<u>Transmission Service Planning</u> refers to transmission system studies that are required to resolve future delivery issues. A utility's purchase of power request is made to the Midwest ISO. The Midwest ISO and ATC determine if there is adequate "available transmission capacity" to accommodate the power purchase. If not, then the studies recommend solutions to deliver the power as requested.

#### Regional planning

Regional planning refers to ATC's planning coordination activities at a regional level. ATC provides its transmission plans to MISO for inclusion in the regional plan or MTEP. ATC and MISO collaborate on the projects to facilitate MISO's review of the projects. MISO reviews the transmission projects submitted by ATC to ensure they do not provide an adverse effect on transfer capability, do not adversely affect the availability over the transmission facilities which MISO has control and to determine if they could be combined with transmission projects from other transmission owners to develop less costly or more cost-effective alternatives.

ATC also meets with adjacent transmission owners to coordinate planning on a singlesystem basis in an effort to develop transmission solutions that resolve multiple system reliability and capacity requirements at the lowest reasonable cost.