



2011 Assessment Study Design Customer and Stakeholder Meeting

David Smith
May 10, 2010
Pewaukee



Purpose

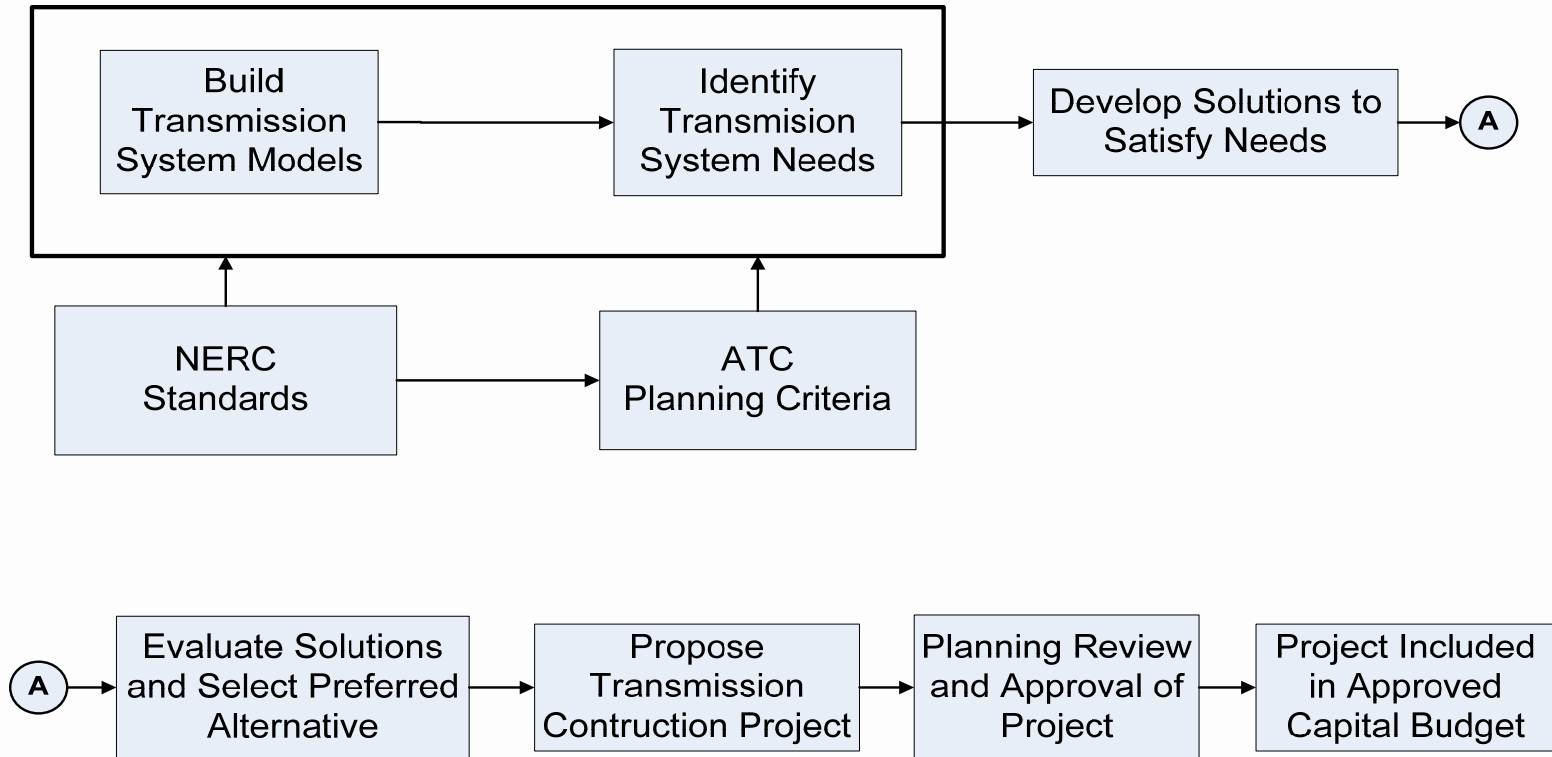
- FERC Order 890 Compliance
- Solicit pre-Study Comments
 - 2011 Assessment Process
 - Planning Criteria
 - 2011 Assessment Assumptions



FERC 890 Principles

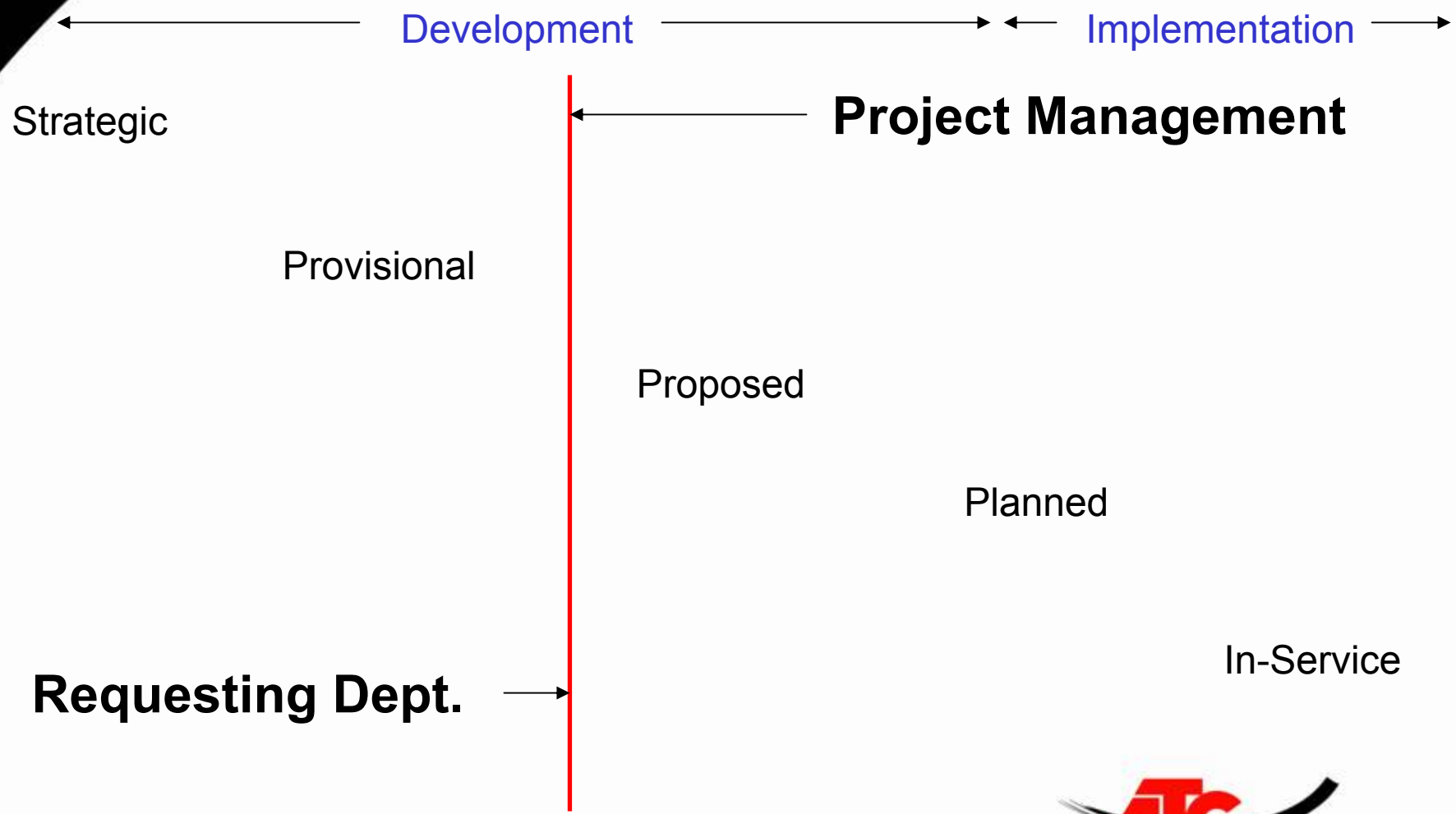
- Coordination
- Openness
- Transparency
- Information Exchange
- Comparability
- Economic Studies

Transmission Planning Process

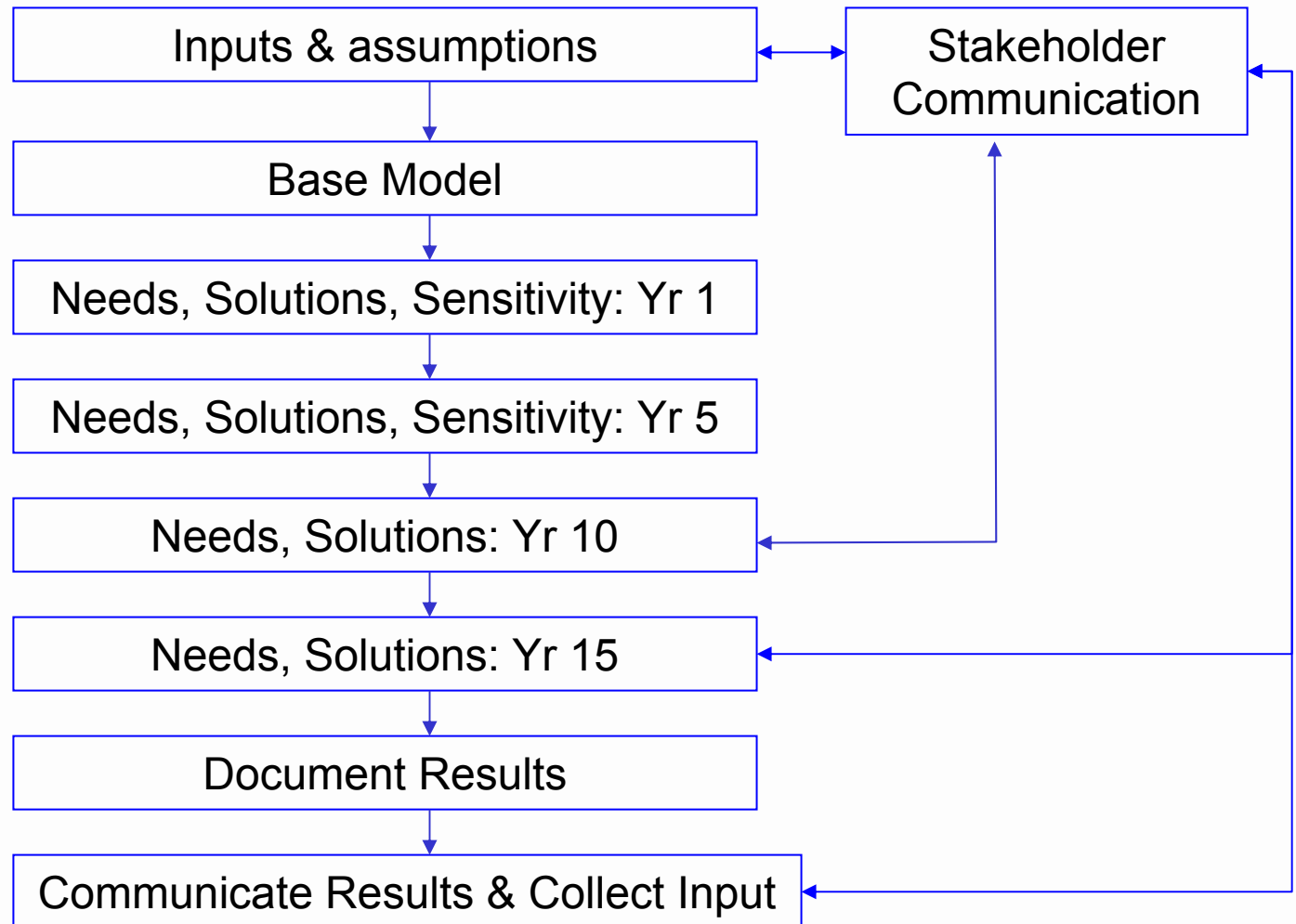




Public Planning and Asset Delivery



Assessment Process





Planning Criteria

- NERC Standards
- ATC Planning Criteria
<http://www.atc10yearplan.com>
Planning Factors
- Solicit Improvement Ideas



Model Years

- 2011 (As-Planned)
- 2012
- 2016
- 2021
- 2026



Load - Historical

- Request by October 1
 - summer peak
 - winter peak
 - light load
 - shoulder load
- Due by December 1
- Add to Databases

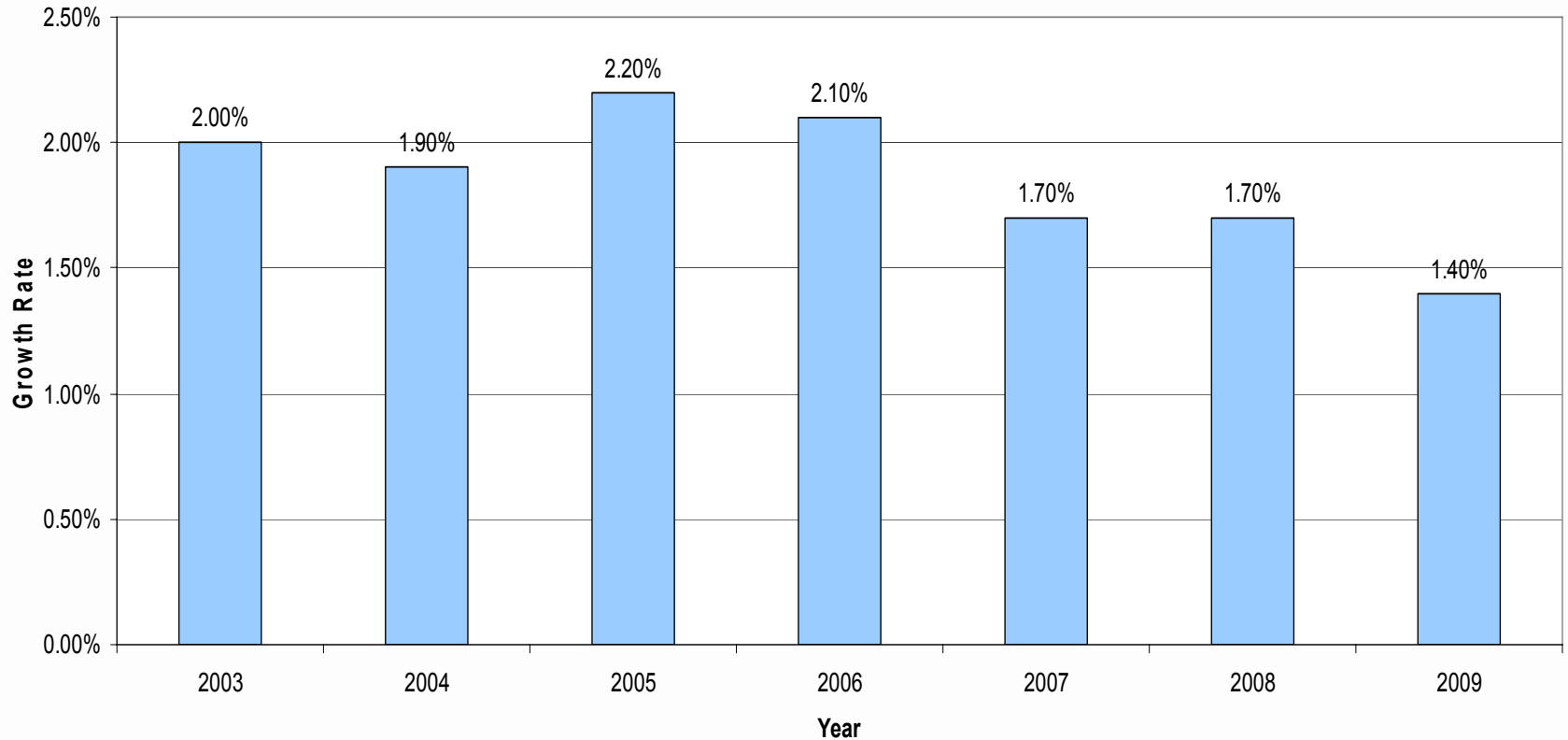


Load - Forecasted

- Requested LDC forecasts Feb 2010
 - 11 years
 - Consistent with Resource Planning forecast
- All received in April 2010
- ATC Compiles
 - Comparisons to previous forecasts
 - Differences confirmed with LDCs
 - Finalized copy to LDCs – 3rd Qtr 2010

Load – Forecasted

ATC 10-Year Assessment
Forecasted Load Growth Rates
Compounded Annually





Generation Model

Generation Additions:

- Only add generators with signed Interconnection Agreements
- Additions modeled at MISO Facility study location
- MISO queue Suspended Generators with signed IAs
 - included in after 18 months

Generation Retirements:

- generators with a completed MISO Attachment Y are modeled as retired.

Model Change Cut-off Date



Generation Dispatch

Balancing Authority Merit Order Dispatch:

- Used for Assessment Summer Peak models Balancing Authority Dispatch from merit order provided by Balancing

ATC-Wide Merit Order Dispatch:

- Shoulder and Minimum Load models
- ATC-Wide Merit Order Dispatch determined with ProMOD

General Dispatch Notes:

- signed IA
- but, no scheduled transactions
- then generation included in the host Balancing Authority.



Reactive Power Resources

Intact System

- 90% max VAr capability
- Meet intact voltage criteria.

Outage Conditions

- 95% max VAr capability
- Meet voltage criteria for outages



Sensitivities

- Load Forecast
 - 105% of expected
 - 5th and 10th years
- Generation Dispatch
 - 3000 MW import – 70% load
 - East-to-west – 90% load
- High Wind - shoulder load
- Minimum Load
- Other Ideas?




2011 Assessment Studies

- 1st contingency Needs – 4 years
- Multiple outage screening
- Generation -Transmission studies
- Distribution -Transmission studies
- Economic benefits studies
- Regional Reliability
- Public Policy Benefits



Schedule

- Expected Load Forecast – April, 2010
- **Stakeholder Meeting** – May 10, 2010
- **Stakeholder Comments** – May 31, 2010
- Initial Study Plan - July, 2010
- Criteria and Methodology Update – August, 2010
- Model Development – 3rd Qtr
- Preliminary Needs – 4th Qtr
- **Preliminary Results** – 1st Qtr 2011
- Final Solutions – 2nd Qtr 2011
- **Document and Publish** – 3rd Qtr 2011



To Provide Solicited Comments or for More Information

Contact David Smith at dsmith@atcllc.com
Or call at 920-338-6537



Thanks for Participating!