



Long-Term Planning Study (DOE)

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Deliverables

- **Assessment of fundamental drivers of system needs and specification of potential future scenarios**
- **Evaluation of likely resource development by the market under each scenario**
 - Identification of resources that are beneficial across scenarios
 - Identification of new technologies/products that could be encouraged in order to allow lower overall resource “costs”
 - Evaluation of aggregate impact of scenario on existing resources
- **Development of technology-neutral ancillary services (A/S) framework**
- **Development of long-term (20-year) transmission framework for ERCOT grid**
 - Assessment of long-term plan strategy: Flexible or Robust
 - Development of long-term transmission framework
 - If Flexible, then identification of long-lead time elements that are likely across scenarios; or,
 - If Robust, then development of a long-term plan

Stakeholder/Policy Input

- **Long-Term Planning Group (LTPG) - “Sub-group” of RPG**
 - Continued participation by traditional planning stakeholders
 - Enhanced participation by representatives of state government (Governor’s office, PUCT, TCEQ, SECO, RRC, TWDB, ...)
 - Facilitated participation by NGOs (environmental, landowner, consumer, etc. groups)
- **LTPG will serve two purposes:**
 - Provide input INTO planning process on scenarios, assumptions, etc.
 - Provide insight on policymakers’ need for information FROM planning process

Scenario Analysis

- **Identify internally consistent scenarios**
 - Based on key uncertainties: fuel prices, environmental regulations, financial markets...
- **Evaluate resource sets that would likely result from market forces in each scenario**
- **Scenarios will include highly likely outcomes, and also unlikely outcomes that effectively bound potential future uncertainty**

Resources/Load

- **New resources considered will include traditional thermal generation, renewable generation, storage and demand resources, R&D technologies**
- **Impacts of energy efficiency, potential PHEV, smart meters, distributed generation, etc. on system load will be considered**
- **Secondary resource requirements/limitations and impacts may be considered (emissions, water needs ...)**
- **Impacts of new resources/requirements on existing unit economics and potential for resulting retirements will be considered; reported only on aggregated basis by generation technology and fuel**

Operational Requirements

- **Evaluation of A/S requirements at renewable generation levels beyond GE Study (>15,000 MW)**
- **Development of technology-neutral A/S framework**
 - Potential additions/modifications to existing A/S
 - Evaluate potential contributions of new technologies
 - Develop comparative cost/benefit analyses of alternative reliability solutions – considering overall market efficiency impacts
- **Determination of requirements for each future scenario with feedback as to what resources would be developed**
 - To ensure that scenarios include adequate resources to maintain system reliability

Transmission

- **Development of methodology to allow longer-timeframe studies (20 year) of potential transmission needs**
- **Evaluation of appropriate long-term transmission strategy (flexible vs. robust)**
- **Identification of specific long-lead-time transmission elements (if flexible strategy) or general plan concept (if robust strategy)**

Status

- **Revised proposal has been submitted back to DOE (3/1/2010)**
- **Some additional modifications may occur through negotiations**
- **Positions funded by DOE grant are posted**
- **LTPG will be formed soon after contract with DOE has been finalized**

Questions?