



# Session 4A: Planning and Interconnection of Large Loads

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# ESIG Large Load Task Force

ERCOT Contract and Offer Letter Growth Breakdown



- 1. Load forecasting – size, number, location, flexibility of different large load types (such as data centers, hydrogen, industrial heat electrification, EV fleet charging, manufacturing). Speculative requests vs actual needs.
- 2. Interconnection process – how to interconnect large loads; what kind of data do they need to provide; managing speculative requests; potential “flexible interconnections” in which load is not firm
- 3. Interconnection performance requirements – ride-through requirements for large loads; fast cycling of loads and impact on oscillations; how uninterruptible power supplies may increase load after load reconnects
- 4. Modeling requirements for interconnection – how to model large loads; models that need to be provided to transmission operators
- 5. Transmission planning – holistic planning of generation and load; proactive planning of transmission for both generation and load
- 6. Market participation models – allowing load to participate in ancillary services; exposing loads to wholesale market prices
- 7. Resource adequacy – flexible interconnections; price-sensitive loads
- 8. Regulatory and contractual aspects – tariffs, flexible interconnections and curtailment, contracts

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- **Large Loads: Interconnection, Planning and Reliability Considerations**
  - Julieta Giraldez, Director, Integrated Grid Planning, Electric Power Engineers
  - Ahmed Rashwan, Director – Transmission Planning and Operations, Utilities, Electric Power Engineers
- **Long-term Impact of Large Load Growth in ERCOT**
  - Pengwei Du, Supervisor, Economic Analysis & Long-Term Planning Studies, ERCOT
- **Interconnection and Grid Impacts of Large Loads**
  - Pooja Shah, Chief of Staff for Power Delivery and Grid Transformation, Georgia Power Company
  - Harish Sharma, Principal Engineer, Transmission Planning – Stability and Special Studies, Southern Company Services