



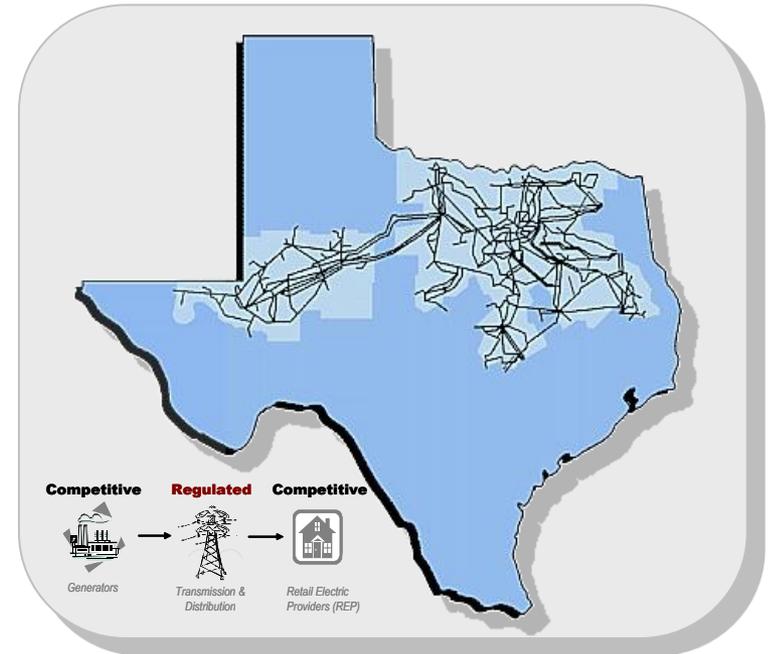
***Public Utility Commission of Texas
Electric/Gas Workshop
April 2012***

Oncor at a Glance



➤ Texas' largest transmission and distribution utility - 6th largest in the U.S.

- **Deliver** electricity - *no generation; no retail service*
- **Serve 7.5M people**
- **400 Cities and 91 counties**
- **Employ 3,800 Texans**
- **Independent Board**
- **Pay over \$400 M in state taxes and franchise fees annually**

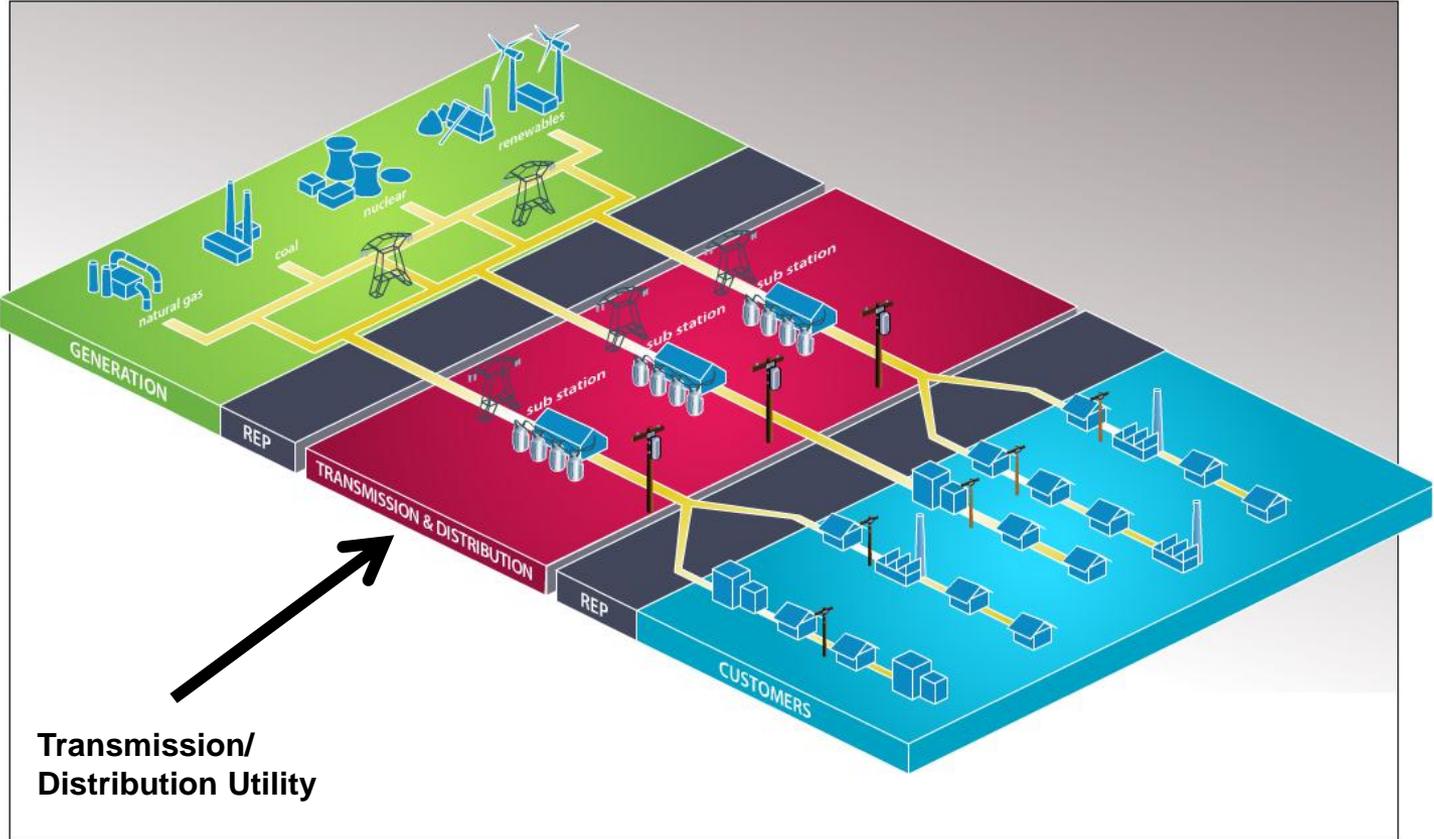


Regulated T&D Utility – Roles in the Market



- **Provide reliable delivery of electricity on a 24 x 7 basis**
- **Manage operation and planning of their networks under the direction of ERCOT**
- **Provide regulated transmission and distribution service to facilitate operations of the wholesale and retail entities**
- **Provide metering services to facilitate operation of the ERCOT market**
- **Invest in and build infrastructure to support a growing economy**
- **Quickly respond to outages (e.g., storms, natural disasters) and restore service**

Industry Structure in ERCOT



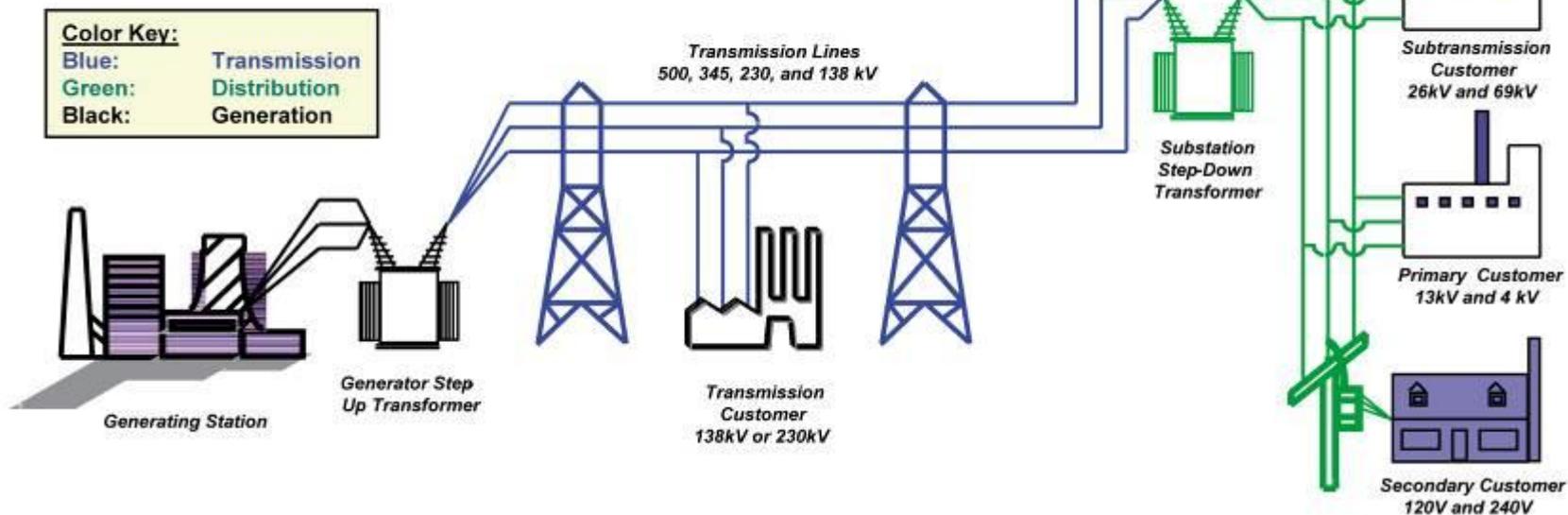
Transmission/
Distribution Utility

The Electric Grid



- The “grid” can be broken down into four main components: **Generation**, **Transmission**, **Distribution**, and **Customers**.

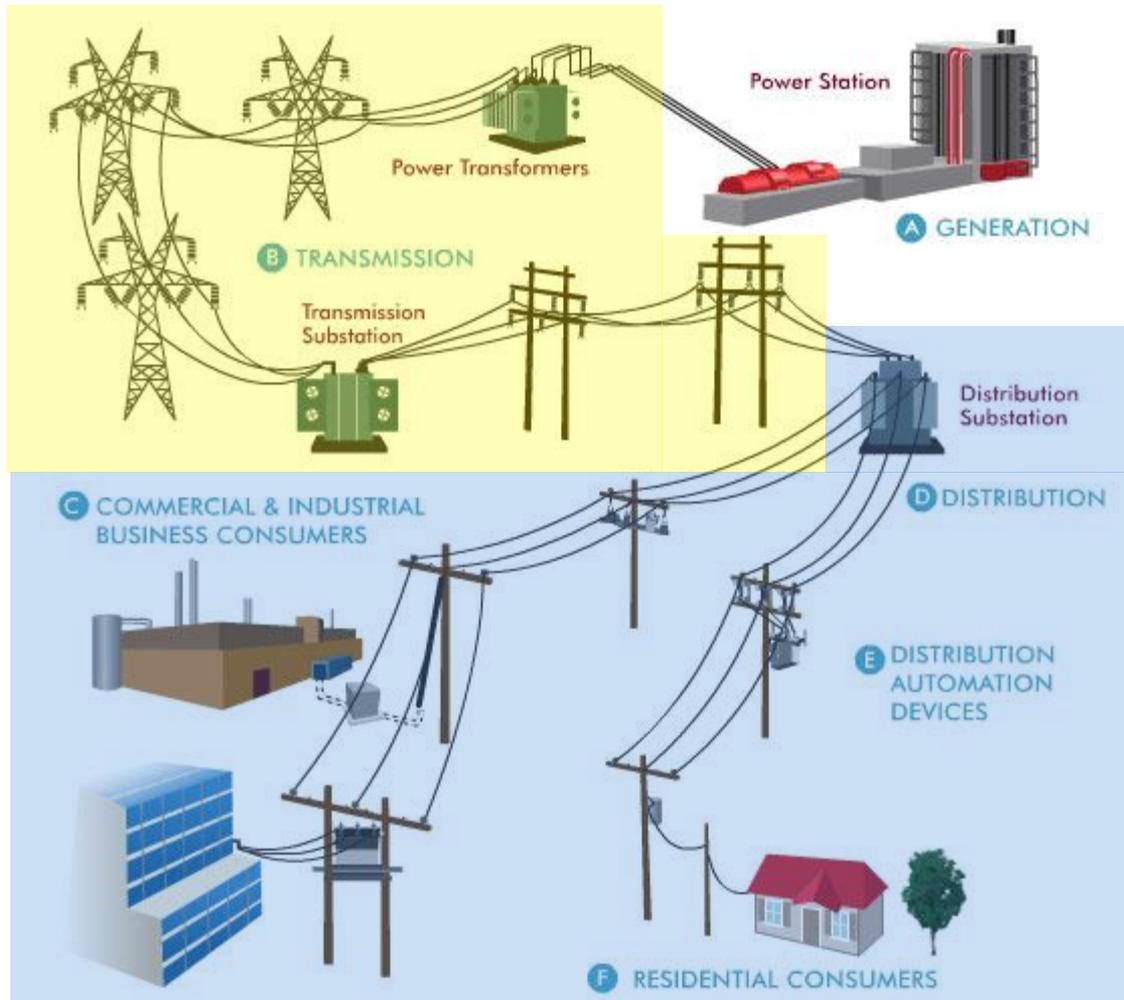
Basic Structure of the Electric System



Transmission and Distribution



Transmission

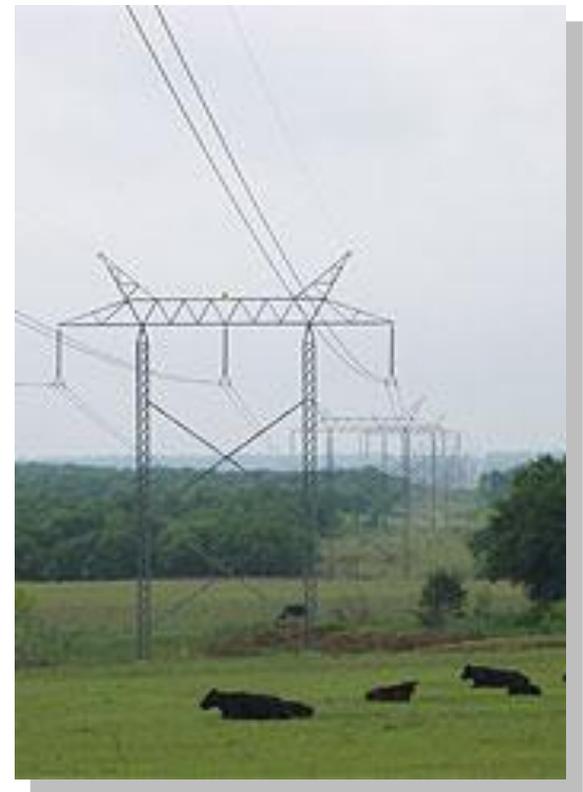


Distribution

Transmission



- **Serves as the “interstate highway system” for electricity**
- **Used to move power long distances from generator to load**
- **Strategically interconnected to enhance grid reliability**
- **High voltage: 345 kV, 138 kV, and 69 kV**
- **ERCOT has approximately 40,000 miles of transmission**



Transmission Line Structures



345 kV line on lattice steel towers

138 kV line on monopoles

Distribution



- **Substations are the conversion point between the transmission and distribution systems**
- **Voltage must be “stepped-down” from transmission level to ultimately be used by end-use customers**
- **Typical distribution voltage: 25 kV or lower**
- **As electricity leaves a substation, it can be transported in multiple directions along distribution feeders**





ONCOR

