



Selling an Interruptible Load Resource in ERCOT's Restructured Market

Jay Zarnikau
Frontier Associates

April 2002



Review of the ERCOT Market Structure

- ❖ Generation and ancillary services may be self-arranged. Most markets are for “odds and ends.”
- ❖ At present, there are no planning reserve margin requirements placed on Retail Electric Providers (REPs).
- ❖ There are no “set aside” markets or demand response programs for demand-side resources. Demand side resources (e.g., interruptible or curtailable loads) can participate in markets, but are expected to compete head-to-head with generation resources.
- ❖ A load cannot directly participate in an ERCOT market. It must work through a scheduling entity (QSE).
- ❖ Resource plans and offers are submitted on a day-ahead basis.



Market Realities

- ❖ Excess generating capacity. Consequently, the value of additional capacity is low.
- ❖ Many of the requirements for participation in the new market were designed with generators (or cogenerators) in mind.
- ❖ Yesterday's interruptible tariffs, group load curtailment programs, and special tariffs are gone. These tariffs and programs once contributed about 4,000 MW of resource capacity.
- ❖ The standard contracts offered by REPs do not accommodate payments or bill credits to customers for interruptions or curtailments.
- ❖ This is still an immature market.
- ❖ Concerns about over-scheduling of generation may restrict opportunities to promote customer response to wholesale price changes.



The Transition

- ❖ Of the roughly 3,000 MW of interruptible load under yesterday's tariffs, about 500 MW is making the transition to tomorrow's ancillary services markets. Much (or most) of the load making the transition is backed up by cogeneration.
- ❖ Existing direct load control programs have a good chance of eventually making the transition.
- ❖ The outlook for curtailment programs is poor in the near term.
- ❖ We've made some progress in developing a registration process and getting metering and telemetry issues sorted out.



Impediments for Industrial Interruptible Loads

- ❖ Impediments remain for industrial customers with load levels that exhibit unexpected fluctuations:
 - ◆ Loads acting as Resources (LaaRs) must exhibit a high degree of predictability in order to provide an ancillary service, and most loads cannot predict their next-day hourly load levels with the precision required by ERCOT's operators.
 - ◆ System operators are concerned about both the under-provision and the over-provision of any ancillary service.
 - ◆ Market opportunities are limited. At present, interruptible loads with under-frequency relays can contribute no more than 25% of the responsive (spinning) reserve needs of any QSE.



Other General Impediments

- ❖ Notice periods (10 to 45 minutes) may be too short to facilitate customer response to wholesale price changes.
- ❖ Everyone seems to have a different interpretation of ERCOT's Protocols and their requirements for demand-side resources.
- ❖ Very little information has been made available by ERCOT regarding load participation. (A plain-English guide is under development by a group of volunteers.)
- ❖ Participating in a market is a lot more complicated than just signing up for a tariff!