

Marketing Geothermal Generated Power in The Deregulated Texas Retail Electric Market

SMU Geothermal Energy Lab Conference

Geothermal Energy Utilization Associated with Oil and Gas Development

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Benefits of Geothermal to Retail End-Users

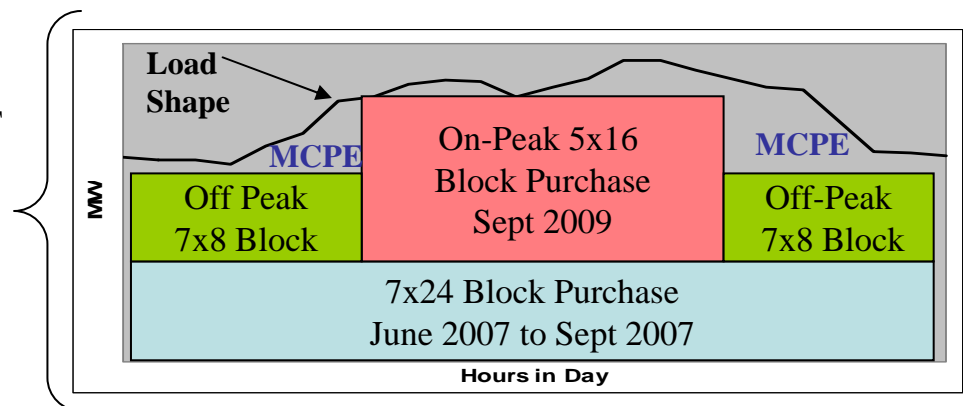
- 7x24 base load
- Reliable and predictable power supply over the long-term
- Renewable energy source and environmental attributes
- Budget certainty (assuming fixed price over long-term)
- Manageable down-time for planned maintenance and outages.
- Scalable by adding more wells should end-user load grow
- Available resource in multiple regions within Texas
- Potential for oil and gas producers (as an end-user of electric) to have captive supply of electric for their own use.

Marketing Geothermal to Retail End-User's

- Texas Senate Bill 7 (deregulation of retail electric) rules prohibit wholesale generation of power being sold directly to end-use customers.
- Sleeve long term (e.g. 10+ yr) wholesale power purchase agreement (PPA) through retail electric provider (REP) and simultaneously retail electric agreement between REP and end-use customer.
- Purchase fixed-price shaped block volume (with or without price escalators) that meet base load requirements of end-use customer.

“Shaped Block-Purchase”

- Usage above or below color-coded blocks at ERCOT Marginal Clearing Price of Energy (“MCPE”)
- All charges “passed-through” without mark-up
- Transparency – block pricing provides “open-book” transparency into wholesale prices.



Marketing Geothermal to End-User in ERCOT

- Actual customer consumption above or below the fixed shaped block will be exposed to ERCOT Market Clearing Price of Energy (“MCPE”) or Locational Marginal Pricing (“LMP”) when ERCOT transitions to the new Nodal market design.
- Renewable energy credits (REC’s) can either be bundled with the electric or un-bundled (as required by customer)
- Attractive wholesale price points to end-user for long-term (10+ yr) in the \$68 to \$78/MWh range (without REC’s) given current forward market conditions.
- Delivery would be at the busbar grid interconnection point. Customer would accept pass-through charges from delivery point to meter.
- Prefer generator and end-user load be in the same ERCOT congestion zone to mitigate risk of zonal basis differential charges.

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We are energy consulting experts on retail electric supply, renewable energy sourcing, and demand response services in deregulated electric markets.