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Testimony presented to the Senate Business and Commerce Committee

COMMITTEE: Business & Commerce
TIME & DATE: 10:00 AM, Tuesday, July 10, 2012
PLACE: E1.016 (Hearing Room)
CHAIR: Senator John Carona

Review current and pending ERCOT protocols as they apply to all generation technology, and identify those protocols that may provide operational, administrative, or competitive advantages to any specific generation by fuel type. Consider the impact any revisions to the protocols may have on grid reliability and electricity rates. Make recommendations for revisions or statutory changes to limit distortions in the Texas electrical market.

On June 7, 2012, the City Council of Austin adopted an ordinance that provides for a rate increase for electric utility bills rendered on or after in October 1, 2012. We are currently on a contract rate, as is the State of Texas for their facilities in Austin, but these contracts will expire in 2015 and will be replaced by a 15% increase for our business. Distributed or co-generation are options that we want to consider to reduce our overall cost of electricity.

Texas is producing an incredible amount of natural gas these days. At the same time, we are electric generation resource short in the ERCOT market, partly due to the reduced margins for the large central plant generators.

On April 4, 2011, the Gulf Coast Clean Energy Center released a report titled Impacts of Increasing Natural Gas Fueled Combined Heat and Power from 20 to 35 Percent of Total Electricity Production in Texas. This paper examined the implications and impacts of expanding the use of CHP in the state from 20 percent to 35 percent of electrical energy by 2025. To achieve the higher output, the amount of installed CHP capacity would need to increase from 17,000 MW to 31,000 MW, an increase of about 14,000 MW. Gas consumed by CHP facilities would more than double from 500 Bcf per year to about 1050 Bcf per year.

The report only dealt with combined heat and power generation that provides heat and electricity to the host. Distributed gas generation installed solely for the purpose of generating electricity would also add to the expansion of the natural gas market in Texas.

In its support of acquiring additional generation resources to meet growing demand in Texas, The Electric Reliability Council of Texas (ERCOT) recently commissioned the Brattle Group to



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help determine “whether the recent and proposed reforms (in the ERCOT market) will be adequate and what other measures might be necessary to attract sufficient investment.”

After reviewing the report presented on June 1, 2012, Chairman Nelson submitted a memo stating that

We have been working on the resource adequacy issue for more than a year now. During that time we have decided what we are trying to accomplish: the installation of new generating capacity and the expansion of demand response sufficient to keep our lights on and air conditioners running. We must always be mindful of the obligation we owe to Texans to ensure electric reliability at a reasonable cost. (June 12, 2012)

We agree with the Chair and it is our opinion that expansion of customer-provided distributed generation in the State of Texas would support both of these objectives – increased generation and demand response - while increasing the use of abundant supplies of natural gas in Texas. Additional side benefits included steep reduction in carbon emissions and the economic multiplier of sourcing Texas based fuels, rather than importing fuels from outside Texas.

Distributed or co-generation could make use of the abundance of natural gas that we have and these smaller plants can be built much faster than larger centralized plants and are also more efficient to operate. Since the plants are “behind the meter” and are distributed across multiple electric transmission “nodes”, these DG and CHP systems would not require expansions of the local distribution and transmission system. In fact, a significant growth of such systems would alleviate congestion at selected nodes, thereby driving down transmission and distribution pricing for electric consumers that do not have DG or CHP systems.

With a correction in protocols and policy that would enable all Texas consumers with distributed generation the flexibility to sell back into the grid, will help mitigate impacts of rolling blackouts or brownouts. Such CHP and DG energy systems could be over-sized based on the understanding the excess DG or CHP capacity could be sold competitively into the electric market managed by ERCOT

Austin Energy has concluded its recent rate review and failed to provide any mechanisms to interconnect customer provided energy in excess of 20 kW. The response to DF’s question concerning the mechanism to accommodate distributed generation during the rate review was that each customer’s request would be handled on a case by case basis. AE did not include a tariff in the adopted rate ordinance that addressed distributed generation except for those customers under 20kW and they also closed the existing tariff for standby power, which is often necessary for distributed generation for unplanned outages or maintenance of the unit. AE’s



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approved tariff will provide a guaranteed price for solar power put back into the system, but neglects to provide prices or formulas for sources of clean and dispatchable electricity capacity that could be made available without regard to weather or time of day.

Other electric utilities in the state are required to follow PUCT Substantive Rule §25.211 that proscribes the processes for the interconnection. Such PUCT rules also provide flexibility to DG and CHP participants in Texas's "CHOICE" areas to size their on-site energy systems to participate in Texas's competitive electricity market. We request the legislature to consider legislation that makes the rules related to interconnection and electric market participation also applicable to utilities regulated by their municipality.

Other Commission rules provide for prices that are either negotiated with their Retail Electric Providers or set by tariff. In El Paso Electric's recent rate case the Commission approved a tariff for "Non-Firm Purchased Power" that provides for some certainty that their customers will be able to recoup their investment. Other examples of a collaborative relationship with providers of on-site energy systems have determined that fair compensation for on-site power providers should be paid commensurate with the value of on-peak power as determined by the day-ahead market. We believe that legislation should address the compensation available to those distributed generators who choose to sell power into the ERCOT market in order to alleviate the generation resource scarcity.

The PUCT should conduct a formal rulemaking to provide the level of avoided costs to be paid for customer provided energy. Distributed Generation and Combined Heat and Power systems mitigate voltage sags, relieve substation congestion, and reduce carbon emissions. Typical on-site energy systems are funded by third parties thereby eliminating capital funding by the electric utility or municipal-owned electric company. Typical efficiency heat rates are 20% better than a state of the art combined cycle power plant, and nearly twice as efficient as ERCOT's fleet of power plants. On-site energy systems enable the utility or municipality access to the lowest possible levelized cost of energy. This would remove one of the major barriers for customer-provided generation being sold back into the grid in the restructured market. The legislation should also remove the distinction between distributed renewable generators and distributed gas generators. As you know, distributed gas generators are able to be scheduled while some renewable generation depends on the weather.

DF would like to explore the possibility of customer provided energy but cannot make business decisions without regulatory certainty. DF thinks incenting all types of distributed generation would help with the resource shortages in ERCOT, increase reliability of the ERCOT grid and provide expanding markets for the use of natural gas. We would request the Committee and the Legislature to take such legislative action that would provide market incentive and regulatory certainty for all customers in the State, including those of Austin Energy.