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PUBLIC UTILITY COMMISSION
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PUC PROJECT NO. 40000

PUC PROCEEDING TO ENSURE §
RESOURCE ADEQUACY IN § BEFORE THE
TEXAS § PUBLIC UTILITY COMMISSION
§ OF TEXAS

COMMENTS OF
LONE STAR CHAPTER OF SIERRA CLUB

October 23, 2012

The Lone Star Chapter of the Sierra Club appreciates the opportunity to provide brief comments in PUC Project No. 40000. We share and recognize the real issue of assuring that Texas has a reliable and adequate electrical system that can provide power when needed by customers. Sierra Club is a member of ERCOT and participant in various working groups and committees, as well as a participant in multiple rulemaking projects and other efforts at the PUC. As such, we recognize the hard work by stakeholders, ERCOT and PUC staff in trying to come up with solutions to assure adequate and reliable electric service, while creating jobs and economic development and keeping overall prices low.

Most recently, the Sierra Club joined several other organizations in filing a rulemaking petition with the Commission that would implement the 500 MW by 2015 for non-wind renewable resources, and set a further goal of 2,500 MW by 2025. Thousands of individuals and many stakeholders filed supportive comments, with a few comments opposed to the proposal, largely on the basis of cost. We would point out our proposal has a backstop alternative compliance payment option of \$100 per MWh, meaning many of the cost estimates provided by those opposed to the proposal are not relevant to our filing. We again reiterate

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our believe that this rulemaking would help ensure resource adequacy in the Texas market, without needing to create any new capacity or ancillary services.

We read with interest the two options presented by the Brattle Group in their filing on October 19th, and agree that these two options present two distinct paths on how to help assure adequacy in Texas. At this time, however, we would offer a “hybrid” approach, with an emphasis on both creating new markets and mechanisms to grow demand response – as exemplified in Option 1 – but also assuring some new generation resources through a new quality enhanced market mechanism, but without the need for a full forward capacity market, which in our mind is not needed to assure adequate generation to meet peak capacity needs.

Capacity, Demand and Reserves Report

As indicated in ERCOT’s recent filing (Item 319), the CDR – which is currently filed twice a year and estimates peak demand, resources and reserves over the next 10 years – is subject to assumptions and refinements. As an example, the most recent version of the CDR (May 2012) is based on a “base” case scenario for demand from Moody’s, when more recent indications are that the “low” growth scenario may be closer to reality. Thus, filing 319 indicates that ERCOT is likely to adopt the low-growth scenario in its December 2012 CDR and may make additional adjustments because of the likely construction of three new large gas plants in 2014 and other changes in the market over the last six months.

While these and other changes still indicate challenges in 2014 and particularly in 2015 with maintaining adequate reserves, they do indicate there may be a bit more “breathing room” than previously indicated, particularly if the three new gas plants are available by the summer of 2014.

In addition, Sierra Club is involved in two working groups at ERCOT – the Demand Side Working Group and the Generation Adequacy Task Force – that have been also providing input into some of the assumptions contained in the CDR. In particular, Sierra Club believes that some slight adjustment is needed in the demand forecast to take into account more accurately load management and energy efficiency programs run by the TDUs, electric cooperatives and municipal utilities which would decrease demand projections slightly. Moreover, the impact of the implementation of more advanced new energy codes for new construction and municipal and county energy efficiency efforts on existing buildings could also lead to slightly lower demands.

Finally, as recognized by ERCOT, the current assumption that wind only delivers 8.75 percent at peak times, is not borne out by the wind data itself, particularly for newer turbines and for the coastal locations, and thus, the “capacity” of the wind units should be adjusted slightly. This could add 100s of MWs to the “supply”

side of the equation, again making our reserves more robust than indicated in the May 2012 CDR.

These slight changes should indicate that Texas has more reserves than were indicated in the May 2012 CDR. Sierra Club is supportive of making these changes, but recognizes that the process at ERCOT to assure adequate stakeholder involvement will mean that further changes are not likely until May of 2013.

This is not to indicate there are not issues with our reserves, but to suggest they may not be as severe as previously thought. In addition, we must remember that our reserves are based not on total energy use or capacity, but capacity and energy use at the peak time.

For the vast majority of hours in a year, Texas has no adequacy or reliability issue so Texas should avoid major changes in its energy only market based on the potential for reliability or adequacy issues a few times a year.

Solutions: Neither Option 1 nor Option 2, but a hybrid approach

Sierra Club believes that to make the market work to achieve a reliable and adequate market in Texas, several market changes are needed which will help new resources like demand response, energy efficiency, solar and other non-wind renewables, energy storage and fast-acting peak resources compete and participate.

Demand Response

Sierra Club agrees that the expansion of demand response resources is a necessity for a healthy energy market to exist in Texas, and we also agree the use of demand response in a way that does not undercut price formation and generation investment is also important.

Sierra Club is supportive of several discussions currently occurring at ERCOT through the Market Enhancement Task Force. First, we are supportive of the creation of a new energy market, known as the Hour-Ahead Market. This market would allow many loads and generators to participate in bidding into the market without all of the performance requirements of the real-time market, but with a more firm sense of what prices the market was supporting than in the day-ahead market.

In addition, we are equally supportive of full implementation of look-Ahead SCED and Loads in SCED, where loads that qualify could participate in the real-time market.

Whatever option the PUC chooses in the present discussion on resource adequacy, we believe that the development of loads in SCED and the Day-Ahead Market will be important to the development of market-based demand response in Texas. We also reiterate our support for keeping the System Wide Offer Cap at \$4,500 until such time as loads are able to participate in SCED. Once this change occurs, then raising the SWOC would allow some customers to shed load rather than pay large scarcity energy prices.

We are not opposed to the idea of a capacity market for demand response only, and are supportive of the potential for TDUs to purchase the hardware and software needed by customers to make “smart meters” work for residential and commercial demand response, but believe more consideration should be given to the real needs for a capacity market for demand response. It may be that rather than a capacity market per se, Texas should consider additional ancillary services in which DR could compete such as a quality enhanced market service to provide power (or load reduction) at peak.

Thus, as explained later in these comments, Texas could consider a new ancillary service or market enhancement that would contract with resources like peaker gas plants, demand response, solar and energy storage (or some combination) to provide additional incentives to provide resources at peak times.

As an example, ERCOT is presently running a pilot project for fast-acting resources, to provide voltage support to assure reliability. This type of ancillary service being piloted by ERCOT will allow the grid operators to see if battery technology used for energy storage can also help stabilize the grid when there is movement up or down in energy use.

A new ancillary service that could be contracted for multiple years to provide resources the incentive to actually build new generation for the types of resources we actually need in our market would be a way to assure adequacy without creating a more complex forward capacity market that might pay existing resources that are no longer efficient to operate.

Energy Efficiency

In addition to allowing TDUs to purchase and provide software and hardware to make the smart meters smart to the average energy user – either under the existing energy efficiency programs or as part of a new initiative – the PUC should revisit its recent rule adoption on energy efficiency and consider relaxing the tight cost caps which may prevent some utilities from meeting their energy efficiency goals beyond 2013.

TDUs are expected to reach more than 400 MWs of demand reduction through energy efficiency in 2013 within ERCOT, but expanding this total may run against a cost cap of 0.0012 cents per kilowatt for residential consumers and 0.0011

cents per kilowatt for commercial consumers beyond 2013. Allowing an exception to go beyond Texas' modest goal of 0.4 percent of peak demand in 2014 and beyond by relaxing the cost cap would be helpful to assuring adequacy. Sierra Club believes setting a further goal of one percent of peak demand by 2016 (about 700 MWs) is achievable as long as cost caps are relaxed.

Energy Storage

The Commission took an important step in promoting the use of energy storage in Texas with two recent rulemakings establishing definitions and price settlement issues. As a first step toward better integration of energy storage in our market, ERCOT and its stakeholder should adopt a stakeholder-vetted version of NPPR 461, which would establish the basic market rules for storage technology bidding into the energy market.

In addition, during a recent workshop at ERCOT, it became very apparent that storage technologies are having a difficult time with the ERCOT interconnection process because it is designed for traditional fossil fuel generators and not new technologies like energy storage.

ERCOT and stakeholders should and must adopt additional changes, policies and protocols to allow storage technology to interconnect with ERCOT in a reasonable manner that matches these new technologies, while also developing the rules for how energy storage is settled in the day-ahead and real-time energy markets.

Solar

As previously mentioned, Sierra Club is supportive of implementation of the 500 MW 2015 target in state law, as well as adoption of a mandatory 2,500 MW target by 2025 of non-wind renewable resources which we believe would be largely met through solar technologies. Given the proper market, solar is affordable, scalable, and while intermittent, provides power at peak times of the day. When coupled with storage, it can also be dispatched.

In addition to implementation of Project No 40740, ERCOT and stakeholders must also fix the interconnection process for solar projects, as well as solar projects that are coupled with storage. Again, this process, forms and protocols have been designed for conventional fossil fuel projects and must be updated.

Moreover, for distributed generation, the PUC should consider a new rulemaking that clarifies the minimum payments required in the competitive market for excess generation from renewable DGs, a concept often referred to as "net-metering," although in Texas it might be more accurate to call it "energy payments for generation from distributed resources."

Sierra Club is also supportive of the most recent filing by SEIA – the Solar Energy Industry Association – which suggest changes needed to allow longer-term contracting in the energy-only market and the potential to add a “quality” value to solar energy to recognize its ability to provide peak power in zones of high congestion. One way to do this would be to create a new quality ancillary service for resources able to provide peak power into the future, particularly those located close to load.

Quality Market

Sierra Club thinks that as an alternative to either a DR-Capacity market or Forward Capacity Market, or even as an addition to the DR-Capacity market, the PUC and ERCOT should explore a more limited market enhancement known as a quality market mechanism. This quality market would operate very similarly to the way ERCOT currently contracts for ancillary services like the Emergency Response Service. However, rather than contracting on a seasonal or yearly basis to meet immediate needs, ERCOT could contract for a three-year forward basis for these quality services, and define the types of service needed. We believe that the types of quality services needed are essentially specific resources that can act quickly to meet peak demand, particularly in congested zone near load centers. Thus, quick-acting gas peakers, demand response services, solar and storage, or some combination, could all compete for ancillary services to provide these services. The amount of ancillary service would be determined by ERCOT based on the need for additional reserves, at least in part on the type of information contained in the CDR as well as more specific locational information.

This new ancillary service would preserve the energy-only market, and could be adjusted on a yearly-basis as new generation is built.

The Sierra Club appreciates the opportunity to make these comments on this project related to resource adequacy in Texas. We look forward to these continued discussions at ERCOT and the PUC,

Sincerely,



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