RAP Celebrating 20

October 23, 2012

Public Utility Commission
1701 North Congress St.
Austin, TX 78711

RE: Project Code 40000

Dear Chairman Nelson and Commissioners,

These comments are offered in response to the Notice of Workshop regarding Project No. 40000, Commission Proceeding to Ensure Resource Adequacy in Texas.

The Regulatory Assistance Project ("RAP") is a global non-profit company based in Montpelier, Vermont providing policy development and technical assistance services to governments involved in power sector regulation. Senior RAP personnel are former government energy regulators. RAP is supported by grants from foundations and government and represents no private interests.

RAP is offering these comments in reaction to the Composite Policy Options described in the slides provided by The Brattle Group for the October 25th Workshop. These comments are an extension of the comments we provided (Item #276) to the Commission for the September 6th Workshop on this docket.

RAP wishes to commend The Brattle Group for a thoughtful rendering of their June 2012 paper into a set of specific recommendations for the PUCT's consideration. The presentation goes a long way toward clarifying the options before the PUCT in addressing widespread concerns about reliability in the very near term.

That having been said, Brattle's characterization of the Texas market context fails to account for one of the most important factors weighing on the Commission's decision – the fact that Texas gets a significant share of its electricity supply from variable sources like wind and (very possibly to an increasing extent) solar PV. While the continued growth of that type of generation resource is not certain (as is the case with any other form of generation), there is no doubt that the existing resources installed in Texas to date will continue to serve the state for some years. Our brief comments highlight the shortcomings in Brattle's recommendations as a result of that omission and offer some additional or alternative perspectives on the options available to the PUCT.

- As highlighted in our previous submission, markets that derive a significant share of electricity supply from variable resources exhibit characteristics for

which traditional system planning is not well suited. ERCOT is now or soon will be at the point where this is the case. The challenge is best illustrated by considering a forecast of system net demand (total demand minus that demand that is effectively served by low-marginal-cost variable production).[1] We will not rehash the points laid out in our previous submission, but suffice it to say that the operational implications are eminently manageable but require system planners to become far more discriminating about the operational capabilities of the firm resources upon which the system relies for resource adequacy. Such power systems will see a dramatic increase in the value of resource flexibility. While reliability standards can be met via more traditional approaches to resource planning, the costs and risks can be significantly reduced by ensuring that market designs properly value investment in the added operational flexibility that some resource options can provide.

- Reliability is not simply a peak-day issue, it is a challenge that must be met 24 hours a day, 365 days a year – a fact that is best illustrated by the fact that over 70% of the load resource deployments by ERCOT between spring 2006 and fall 2011 were during non-summer periods and nearly 40% were during non-business hours. Quantity of resources still matters, of course, but the operational capabilities of resources are increasingly at least as important. A considerable amount of recent expert analysis has demonstrated that a more flexible resource portfolio leads to better utilization of wind generation, lowers the need for reserves, reduces capacity required to deliver the same standard of reliability, and supports a more stable operating regime. A resource adequacy strategy that fails to incorporate the value of long-term investment in resource flexibility is thus likely to lead to a higher-cost reliability solution that may, in the end, be less reliable than intended.

- The options laid out by Brattle ignore this dimension of the reliability challenge altogether. That said, there is the possibility of convergence between one of the options presented in our previous submission (the enhanced forward services markets option) and the set of recommendations put forward by Brattle to support expansion of DR in the residential and small commercial sectors. Brattle focuses on the resource adequacy value of DR, which is of course a critical benefit, but DR also can be one of the most flexible classes of resources on the system (particularly given the option identified by Brattle of accessing "unlimited" DR options, as is already being done in PJM). Again without rehashing the points laid out in our previous submission, by refining and expanding the existing ancillary services markets

[1] RAP has commissioned an independent analysis of the current and forecasted 2022 ERCOT net demand curve to provide a more quantitative basis for discussion. The analysis should be available by the end of October.

and purchasing them far enough forward to impact resource investment decisions, all new investment decisions can be optimized to address Texas' future reliability needs. More specifically, a more robust investment case can be created for cost-effective residential and small commercial DR. Unlike a capacity market (of any type), this would not require the creation of an entirely new market mechanism but simply would expand upon market mechanisms already employed by ERCOT.

- It is difficult to comprehend the wisdom of a DR-only capacity market, or a DR-only market mechanism of any type. A DR-only capacity market is just as problematic as a capacity market that accepts only supply-side resources, a point to which Brattle actually alludes, if only briefly. A solution that seems to us to be the best fit for Texas is one that focuses on the resource attributes likely to represent best value for consumers and enables any and all resources capable of delivering those resource attributes to compete for the opportunity to do so.

- Investments already made in DR, where measurable incremental reliability benefit can be demonstrated, should be treated equally with new investments as reliability resources, just as existing supply-side investments should be treated equally with new supply-side investments as reliability resources.

- The Brattle slides usefully reference the market barriers preventing greater demand participation in the wholesale market and rightly endorse the value of "aggressive support for DR." Inexplicably, however, Brattle goes on to say that DR resources have less reliability value than supply resources. This statement, if we understand it correctly, stands in direct contradiction to the experience with DR resources in markets like PJM and ISO New England, where the average availability when called upon of DR resources cleared in their forward capacity markets has consistently outperformed the average availability of the supply-side resource cleared in the forward capacity market. That seems to us to be a very good, objective measure of the reliability value of a resource and one that calls into question the statement made in the Brattle slides.

- The description of the relationship between the strike price of DR and DR's contribution to reliability seems counterintuitive – voluntary curtailment of load at a given price is not a reliability problem – it's a reliability solution, and demand responses at lower prices suggests that arbitrarily setting a mandatory reserve margin would lead to some Texans paying more for a certain level of reliability than it's actually worth to them. Arbitrarily setting a 13.75% reserve margin essentially dismisses the great majority of Texas consumers as passive price takers, implying that peak demand will be what it

will be regardless of the price effect of complying with that mandatory reserve margin. Brattle's description here seems to ignore the underlying principle that operates in most healthy marketplaces, one that Brattle themselves seemed to acknowledge in their June report: How much productive capacity is necessary or desirable depends on how much it costs to build it and operate it, and different consumers will have different views of just how high a cost is worth paying.

- Brattle's description of the hazards of accepting a temporary level of discrimination and administrative tinkering when introducing a capacity market "under duress" actually understates the likelihood that it will not, in fact, be temporary. It is precisely that ever-present threat of market manipulation that leads to the complexity and contentiousness that comes with all forward capacity markets. Our previous submission outlines an option for a forward investment market that values all relevant resource capabilities, one that we strongly endorse whenever forward capacity markets are being considered alongside a large and growing share of variable production. But we agree with the concerns raised by Brattle about the administrative complexity involved in responding to the current situation in Texas with any type of capacity market and feel that Brattle actually understates the risks involved.

- Brattle proposes a one-year delivery period for the Texas capacity market option, a feature that mirrors the design currently in place in PJM. A one-year delivery period has not been tested under conditions such as those facing the Texas market. Based on actual and emerging design decisions taken in other markets (including developments known to be under consideration in PJM), a large quantum of investment in new resources in a relatively short period of time – if, in fact, that is what Texas needs – would require a delivery period of at least five years and perhaps longer. We agree with Brattle's admonition that long delivery periods erode some of the key benefits competitive wholesale markets are supposed to deliver to consumers (and for that reason have recommended against much longer delivery periods under consideration in markets like Germany), but there is equally little point in setting the delivery period too short in an attempt to avoid the unavoidable. A capacity market is a major administrative intervention in the competitive wholesale market – there is no point in taking such a step unless one is prepared to bite the bullet and do what is necessary for it to be effective.

- This and other points raised herein suggest that the "scorecard" included in slide 38 of the Brattle material presents a picture that is both incomplete in its description of the options and not fully representative of the risks and requirements associated with the "Texas capacity market" option. We respectfully suggest that an enhanced forward services market approach is

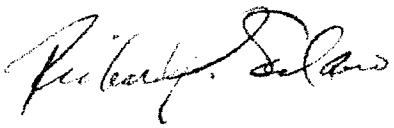
more consistent with the Texas preference for a competitive energy market; is a good fit with the option of aggressively supporting cost-effective demand response; is an incremental extension of existing ERCOT market mechanisms and would therefore likely be easier to implement; and addresses in a technology-neutral market fashion the increasing value of resource flexibility that Texas is nearly certain to experience.

It is fair to say that all of the better options available to the PUCT involve complex design and administrative challenges. Issues that are or should be high priorities may add complexity. It is only right that the PUCT would seek to eliminate unnecessary complexity and thereby reduce implementation risk. That said, having recourse to a world-class organization like ERCOT means that critical priorities do not have to be compromised in the interest of expediency, at least not at the outset. We would encourage the PUCT to set and stand by a set of priorities appropriate to the preferences and specific circumstances in the Texas market and, where necessary, direct ERCOT to work through the details of a plan that would deliver on those priorities.

RAP is interested in supporting and assisting the Public Utility Commission of Texas on the challenging issues in this docket, as it is interested in assisting the PUCs around the nation, and submits these comments in that context to stimulate discussion. We look forward to participating in the Workshop on the 25th.

Thank you for your consideration.

Your, respectfully,



Richard Sedano
Principal, Director US Programs
Regulatory Assistance Project

Michael Hogan
Senior Advisor
Regulatory Assistance Project