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**Draft Environmental Impact Statement for Combined Licenses for South Texas Project Electric Generating Station Units 3 and 4, NUREG-1937**

The Lone Star Chapter of the Sierra Club appreciates the opportunity to comment on the draft Environmental Impact Statement for the Proposed expansion of the South Texas Nuclear Plant. While we have a variety of concerns about the proposed expansion of the plant and the draft environmental impact study, we are most concerned about the lack of analysis to alternatives to the proposed plant itself.

We believe that the demand analysis contained in the DEIS seriously underestimates the reduction in demands and additional resources that will be arriving from energy efficiency, demand response, advanced meters, onsite solar and large-scale renewables resources like wind and solar. In fact, we believe the need for a large 2700 MW baseload plant for hire is questionable at best. Instead, Texas is more likely to need flexible, smaller plants to meet energy needs at peak times, as well as a combination of energy storage and renewable energy and existing plants to meet baseload.

We would note first of all that the DEIS analysis finds that the expected growth in base-load demand is enough that the two new units at South Texas and Comanche Peak would fill a need (page 8-9) since ERCOT's growth is expected to rise by some 5978 to 7124 MWs. However, that same analysis admits that if we assume that the CREZ lines will be built and a total of 18,456 MWs will be built by 2018; the need for that additional baseload power would be reduced to some 2,000 MWs, calling into question the need for STP, unless it was used to retire natural gas and coal plants (8-18). Indeed, ERCOT's 2009 Summer Forecast shows both wind but also other resources with air permits coming

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on line between 2010 and 2013. Thus, there is more than enough supply through 2019, at which time the retirement of some plants could necessitate additional resources (8-20).

To their credit, the Review Team did project a much smaller need for additional baseload demand – 100 to 4400 MWs – than the applicant – 6500 to 16700 – but the Sierra Club believes that even that reduced “unmet need” seriously undercounts additional factors in energy efficiency that will reduce and indeed eliminate the need for the nuclear plant. We also find it curious that the Review Team found a need for 100 to 4,400 additional MWs of baseload power – meaning it could be all 2740 MWs are not even needed – but then concluded that “there is a justified need (8-26).

## **ENERGY EFFICIENCY – PEAK AND OVERALL DEMAND WILL SHRINK**

### **Energy Efficiency Portfolio Standard**

First of all, the demand forecast and review fail to take into account new programs within ERCOT designed to reduce both peak demand and overall energy use. Thus, the Texas Legislature passed HB 3693 in 2007, which mandated that the major investor-owned utilities both in ERCOT and outside of ERCOT reduce their peak demand by 20 percent of load growth in 2010, while achieving an energy savings target of 20 percent capacity of that peak demand reduction. While a relatively small amount on a yearly basis, reduction of approximately 20 MW of baseload power per year would lower the need for additional baseload resources.

In addition, this year, in 2010, the Public Utility Council has published a draft rule that would require the nine investor-owned utilities to meet much higher goals. Just this week, the PUC has released the latest version of the rule, and an open meeting to consider it is expected later this summer. Thus, under the latest version of the proposed rule, investor-owned utilities would need to meet 50 percent of load growth while also meeting a capacity factor of 25 percent for energy savings by 2014. Thus, these goals would triple the amount of energy efficiency that investor-owned utilities are required to meet, reducing both peak and baseload demand. While the DEIS makes the case in its Alternative Section that demand reduction and conservation is already incorporated in ERCOT forecasts, the Sierra Club believes that in fact it is not and in particular the impacts of this proposed rule – likely to be adopted soon – are definitely not. But it will be adopted by August or September of this year.

Thus, there has been no attempt to show how the new PUC requirements published as a draft rule would impact the projections of future demand. We estimate that the new requirements would reduce peak demand by 560 MWs in 2014, and baseload demand by some 150 MWs by 2014. Cumulatively, the impact would be much greater.

### **San Antonio Plan**

In addition, while the alternative section discusses CPS Energy laudatory plan to reduce peak demand by 771 MWs by 2020, there is no attempt to assess how this would impact

overall demand or the need for baseload power in the state as a whole. Thus, CPS Energy itself recently discovered that the combination of reduced demand, energy efficiency goals and increasing investments in renewable energy had made its initial plan to buy 1,200 MWs of power from nuclear plants unnecessary. Indeed, in the space of two years, CPS Energy found that there "need" for power was reduced from 1,200 MWs to 600 MWs to some 200 MWs simply by emphasizing other alternatives like efficiency, conservation and renewables.

#### **Austin Energy Clean Energy Plan**

Similarly, the DEIS fails to consider the impacts of the Austin Energy 2020 Plan, recently approved on April 22, 2010 by the Austin City Council. Under the plan, Austin Energy will attempt to reduce energy demand by at least 800 MWs by 2020, while purchasing close to 1,000 MWs of additional resources, including solar (200 MWs), wind (700 MWs) and natural gas (200 MWs). Thus, the DEIS fails to examine how these new resources – which will help the growing City of Austin meet its power needs – will impact the need for STP.

It should be noted that when the City of Austin and Austin Energy examined the option to contract for additional power from a proposed expansion of STP they specifically declined to do so, refusing to enter into contract with NRG and the other promoters of the project. Instead, they will reduce energy demand and look to natural gas and renewables to fill their energy needs.

#### **Other Utilities**

Several electric cooperatives – who in theory might be interested in contracting for power from a new nuclear plant – have also adopted long-term goals to reduce energy demand. These include the State's largest electric cooperatives, such as Bluebonnet and Pedernales. Again, the DEIS makes no attempt to incorporate these additional demand savings which would reduce the need for the proposed power plants.

#### **Building Codes**

On June 4, 2010, the State Energy Conservation Office approved rules that will require all areas of Texas to meet or adopt new energy codes for new construction. Thus, all commercial, industrial and multi-family homes must meet IECC 2009 Energy Codes by April 1, 2011, while single-family homes must meet 2009 IRC energy codes (Chapter 11) by January 1, 2012. What this means is that new commercial and residential homes will use less energy – about 15 percent less according to the Energy Systems Laboratory.

In fact, several major metropolitan areas have already acted before SECO even passed the new rules. Thus, the City of Austin adopted 2009 IECC codes for all new construction in April of 2010 with local amendments meaning buildings in Austin will be even more energy efficient. San Antonio adopted the 2009 IECC codes on May 1, 2009, while the City of Waco did in early 2010. Thus, within the next few years, all new construction in

Texas will help reduce the growth in energy demand. This is not reflected in the DEIS discussion of energy demand and alternatives.

We believe this could reduce baseload and peak energy demand in Texas by hundreds and perhaps thousands of megawatts over the next five years.

### **HB 1937**

During the 2009 Legislative Session, the Legislature passed and the Governor signed legislation that allows municipalities to begin loan programs for retrofits of existing buildings to make them more energy efficient and add onsite renewable energy devices to save and produce electricity. While no city has yet adopted a program under the terms of HB 1937, several major cities – including El Paso, Austin and San Antonio – are seeking or have obtained funding to begin pilot programs aimed at reducing energy use. We expect that in 2011 there will be an attempt to clarify some of the issues surrounding HB 1937 and that by 2012 Texas will have a robust “Property Assessed Clean Energy” Financing Districts loaning out money to individual homeowners and businesses. This new program is not reflected in the DEIS, even though both Austin and San Antonio have received some \$10 million a piece in ARRA funds to implement pilot programs.

### **ARRA monies**

There appears to be no attempt to consider the impact of the spending of some \$1 billion on energy efficiency and solar programs in Texas as a result of ARRA monies. The majority of these monies will be implemented within the ERCOT market where South Texas is planning to sell its power. Thus, the \$326 million being spent on low-income weatherization – some 40,000 to 50,000 homes – is not considered, nor is the expansion of SECO’s LoneSTAR program for municipal buildings by some \$150 million. Large cities in Texas also received hundreds of millions of dollars in direct and competitive Energy Efficiency and Conservation Block Grants. We would suggest that the DEIS obtain information from the State Energy Conservation Office, Texas Department of Housing and Community Affairs and the individual cities that obtained monies from the federal stimulus about how this will impact local demand.

## **RENEWABLES – RENEWABLE ENERGY WILL INCREASE IN TEXAS**

### **500 MW Rule**

During the 2009 Legislative Session, there were several attempts to create a non-wind Renewable Portfolio Standard, with proposals ranging from 1,000 to 4,000 MWs of solar, geothermal and biomass requirements by 2020. While none of these legislative attempts were ultimately successful and it would be very difficult to predict what will happen in the 2011 Legislative Session, the PUC has now published a “strawman” which would implement a provision of existing law which says the state should set a target of at least 500 MWs of non-wind renewables by 2015. More recently, the PUC Commissioners discussed the potential to hold an open meeting on the non-wind renewable proposed rule

this summer, with an aim of publishing a final rule for comment in early Fall and implementing the rule by the end of the year. In practice, such a rule would require Retail Electric Providers within ERCOT to either contract with non-wind renewables, purchase RECs from other entities or pay a fine. Thus, we would assume this would increase renewable energy sources within ERCOT in the competitive market, again offering a direct competition for power compared to the proposed nuclear plant. The impact of this proposed rule is not covered in the DEIS.

### **Energy Storage announcements**

In the last several years, several large companies – such as Luminant, Shell and Chevron have announced plans to invest in large-scale energy storage technology in Texas. Those announcements are not incorporated or analyzed in the DEIS.

### **Solar announcements**

Much is made in the discussion of alternatives about the high cost, large land needs and water needs of utility-scale solar plants. The DEIS seems to suggest it is just not reasonable to talk about solar replacing the need for a nuclear plant. In fact, the main point seems to be that while Matagorda County is a great place to build an additional nuclear plant it would not be a good place to build a utility-scale solar plant. And we agree.

But there is no reason that NRG could not build a solar plant somewhere else. Indeed, NRG has been looking at building solar plants, such as the 10 MW project for the City of Houston. While that agreement appears to have broken down, the fact remains that NRG does have the desire and capability to explore meeting Texas's energy needs with utility-scale solar power.

Indeed, we now have three announced utility-scale solar plants announced in Texas, including Tesara in Presidio County and the Austin Energy Webberville project. While these projects are relatively small – 30 or 14 MWs as opposed to 2,740 MWs – they point to the potential to replace a large project with several smaller-scale flexible projects throughout Texas. As mentioned, both Austin Energy and CPS Energy have made long-term commitments to obtain hundreds of Megawatts of electricity from solar over the next 10 years.

In addition to the utility-scale announcements, Texas has begun to install onsite photovoltaic solar production. Thus, while still a tiny part of the market – perhaps 5 to 10 MWs currently – a series of announcements in San Antonio, Austin and especially the Oncor Service territory suggest that onsite solar will lead to further reduction in demand for power from the proposed plant. Thus, earlier this year, SolarCity, a California company, announced a partnership in the Oncor Service Territory. Under this partnership, SolarCity will build solar installations on homes in return for the ONCOR solar rebate and then charge homes only \$35 per month.

SolarCity is considering expanding their operations to other parts of the state, contingent upon the existence of solar rebates. AEP has begun a small solar rebate program as well.

In the meantime, CPS Energy has announced a new feed-in tariff for larger commercial systems, while Austin Energy is currently reviewing its solar rebate and incentive program.

The Sierra Club believes that while small in the short-term, these and similar programs could lead to large-scale deployment of solar PV in Texas, particularly if the Legislature takes action to get rid of some barriers.

### **More Wind – CREZ goes forward**

While we believe the DEIS does address the likely impact of some 18,000 MWs of total wind coming into ERCOT, an update on the successful resolution of several major CREZ lines would make the DEIS more complete. A review of recent hearings before the PUC Commissioners show that three major lines by ONCOR and LCRA have been approved, while one major LCRA line was rejected, but will be resubmitted in the coming months.

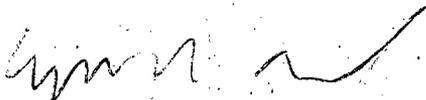
In addition, there is insufficient discussion of the potential for onshore and offshore wind in East Texas to provide power to Texans during the day. In fact, in addition to two existing wind projects in Kenedy County, several developers are looking all along the Texas coast for additional opportunities to provide power. We believe that this wind – more prevalent during the times when power is needed most – is likely to increase in coming years and is not analyzed in the DEIS.

### **Conclusion: DEIS undercounts alternatives to nuclear plant and overestimates energy demand**

Based upon our comments, it should be clear that the DEIS fails to consider a number of new developments in the Texas market, including building code adoptions, a new energy efficiency rule, federal stimulus monies, new solar investments, new wind investments, new clean energy plans from San Antonio and Austin municipal utilities, and PACE financing districts. All of these developments will lessen the need for additional power from the expansion of the South Texas Nuclear Power Plant. In fact, the Lone Star Chapter believes given its high cost, inflexibility and lengthy implementation schedule, Texas would be better served by developing smaller, more flexible, cheaper alternatives like on and off-site solar, additional natural gas plants, energy efficiency, coastal wind, energy storage and geothermal resources.

The Lone Star Chapter appreciates the opportunity to share these comments.

Sincerely



Cyrus Reed, PHD Conservation Director