

June 14, 2010

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
)
STP NUCLEAR OPERATING COMPANY) Docket Nos. 52-012 & 52-013
)
)
(South Texas Project, Units 3 & 4))

NRC STAFF'S ANSWER TO INTERVENORS'
MOTION FOR LEAVE TO FILE NEW CONTENTIONS
BASED ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

INTRODUCTION

Pursuant to the Atomic Safety and Licensing Board's (Board's) Order dated October 20, 2009, the staff of the U.S. Nuclear Regulatory Commission (Staff) hereby answers the motion and the proposed new contentions in "Intervenors' Motion for Leave to File New Contentions Based on the Draft Environmental Impact Statement" (DEIS Contentions) filed on May 19, 2010, by Sustainable Energy and Economic Development (SEED) Coalition, Public Citizen, and South Texas Association for Responsible Energy (Intervenors). *South Texas Project Nuclear Operating Co.* (South Texas Project Units 3 & 4), at *8 (LBP Oct. 20, 2009) (unpublished order) (Initial Scheduling Order) (ML092930523). For the reasons set forth below, the six new proposed contentions should be dismissed for failure to comply with the contention admissibility requirements in 10 C.F.R. § 2.309(f)(1) and/or the requirements for new and amended contentions in 10 C.F.R. § 2.309(f)(2) and (c).¹

¹ In the Board's Initial Scheduling Order of October 20, 2009, the Board stated that parties seeking to submit additional contentions should file a "motion for leave and the substance of the proposed contention simultaneously." Initial Scheduling Order at 8. The Board referred to motions for leave to file under either 10 C.F.R. § 2.309(c) or § 2.309(f)(2) or both. The Board also stated that the other parties "may file an answer responding to all elements of the motion and contention." *Id.* Intervenors submitted their new contentions in a single pleading, titled "Motion for Leave to File New Contentions Based on the

BACKGROUND

On September 20, 2007, STP Nuclear Operating Company (Applicant), pursuant to the Atomic Energy Act of 1954, as amended (AEA), and the Commission's regulations, submitted an application for combined licenses (COL) for two Advanced Boiling Water Reactors (ABWRs) to be located adjacent to the existing South Texas Project, Units 1 and 2, near Bay City, Texas (Application). The proposed units are known as South Texas Project, Units 3 & 4.

On April 21, 2009, Intervenors filed a Petition for Intervention and Request for Hearing ("Petition to Intervene"). On August 27, 2009, and September 29, 2009, the Board ruled on Intervenors' proposed contentions, admitting contentions 8, 9, 14, 16, and 21. *South Texas Project Nuclear Operating Co. (South Texas Project Units 3 & 4)*, LBP-09-21, 70 NRC __ (Aug. 27, 2009) (slip op.); *South Texas Project Nuclear Operating Co. (South Texas Project Units 3 & 4)*, LBP-09-25, 70 NRC __ (Sept. 29, 2009) (slip op.).

The Environmental Protection Agency issued a notice of availability for NUREG-1937, "Draft Environmental Impact Statement for Combined Licenses (COLs) for South Texas Project Electric Generating Station Units 3 and 4," (DEIS)² on March 26, 2010. Environmental Impacts Statements; Notice of Availability, 75 Fed. Reg. 14,594, 14,595 (Mar. 26, 2010). On April 13, 2010, Intervenors filed an unopposed motion for an extension of time to file new contentions based on the Draft Environmental Impact Statement (DEIS), which the Board granted. *South Texas Project Nuclear Operating Co. (South Texas Project Units 3 & 4)*, (LBP Apr. 14, 2010) (unpublished order) (ML101040598) (granting Intervenors' Motion for Extension of Time to File New Contentions Based on DEIS). On May 19, 2010, Intervenors filed six new contentions regarding the DEIS. DEIS Contentions. The DEIS Contentions were accompanied by a

Draft Environmental Impact Statement." The Staff's Answer will address the § 2.309(f)(1) criteria, and, as relevant, the factors in § 2.309(c) and (f)(2).

² The DEIS is contained in two volumes. Volume 1 of the DEIS (ML100700327) provides coverage through Chapter 7. Volume 2 of the DEIS (ML100700333) provides coverage from Chapter 8 through Appendix J.

collection of attachments, including a report prepared by David Power (Power Report). On May 20, 2010, Intervenors filed additional attachments to the Power Report.

DISCUSSION

Intervenors assert that six new contentions based on the Draft Environmental Impact Statement should be admitted in this proceeding. For the reasons set forth below, Intervenors' new contentions should be dismissed.

I. LEGAL STANDARDS

The admissibility of new and amended contentions is governed by 10 C.F.R. § 2.309(f)(2), 2.309(c), and 2.309(f)(1).

First, new or amended contentions may be filed if there are data or conclusions in the NRC draft environmental impact statement that differ significantly from the data or conclusions in the applicant's documents. 10 C.F.R. § 2.309(f)(2). Otherwise, new or amended contentions filed after the initial filing period may be admitted only with leave of the presiding officer if, in accordance with 10 C.F.R. § 2.309(f)(2), the contention meets the following requirements:

- (i) The information upon which the amended or new contention is based was not previously available;
- (ii) The information upon which the amended or new contention is based is materially different than information previously available; and
- (iii) The amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.

10 C.F.R. § 2.309(f)(2)(i)-(iii). Specifically, in this proceeding, the Board has stated that a motion and proposed new contention will be considered timely under 10 C.F.R. § 2.309(f)(2)(iii) if it is filed "either within thirty (30) days of the date when the new and material information on which it is based first becomes available, or within forty (40) days of the issuance of the DEIS with respect to any new and material information contained therein." Initial Scheduling Order at 8.

The § 2.309(f)(2) standard for new or amended contentions addresses two situations. For the first situation, § 2.309(f)(2) states that contentions may be filed on the DEIS where the DEIS differs significantly from the applicant's documents, which in this case is the Environmental Report (ER). Such new or amended environmental contentions "must be submitted promptly after the NRC's environmental documents are issued." Changes to Adjudicatory Process (Final Rule), 69 Fed. Reg. 2182, 2221 (Jan. 14, 2004). The second situation provides criteria for filing "all other new or amended contentions," making clear that the criteria in § 2.309(f)(2)(i) through (iii) must be satisfied for admission of a contention based on new information *Id.* If new information arises related to the ER, then under the criteria of 2.309(f)(2)(i) through (iii), an intervenor must raise this new information in a timely fashion and not wait until the DEIS is issued.

A licensing board has recognized the two-fold application of the rule, but has pointed out that no significant difference exists between the standards for the two situations. *Exelon Generating Company, LLC* (Early Site Permit for Clinton ESP Site), LBP-05-19, 62 NRC 134, 160-64 (2005). In its Initial Scheduling Order, the Board directed that a movant seeking to file a motion for leave to file timely new or amended contentions under 10 C.F.R. § 2.309(f)(2) should ensure that the motion cover the three criteria of 10 C.F.R. § 2.309(f)(2). Initial Scheduling Order at 8-9.

Second, a contention that does not qualify for admission as a new contention under 10 C.F.R. § 2.309(f)(2) may still be admitted if it satisfies the provisions set forth in 10 C.F.R. § 2.309(c). *See id.* at 8-9. In accordance with § 2.309(c)(1), the presiding officer may admit a late filed contention after balancing the following eight factors:

- (i) Good cause, if any, for the failure to file on time;
- (ii) The nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding;
- (iii) The nature and extent of the requestor's/petitioner's property, financial or other interest in the proceeding;

- (iv) The possible effect of any order that may be entered in the proceeding on the requestor's/petitioner's interest;
- (v) The availability of other means whereby the requestor's/petitioner's interest will be protected;
- (vi) The extent to which the requestor's/petitioner's interests will be represented by existing parties;
- (vii) The extent to which the requestor's/petitioner's participation will broaden the issues or delay the proceeding; and
- (viii) The extent to which the requestor's/petitioner's participation may reasonably be expected to assist in developing a sound record.

10 C.F.R. § 2.309(c)(1). Intervenors seeking admission of a late-filed contention bear the burden of showing that a balancing of these factors weighs in favor of admittance. See *Baltimore Gas & Elec. Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 & 2), CLI-98-25, 48 NRC 325, 347 (1998) (noting that the Commission has summarily dismissed petitioners who failed to address the factors for a late-filed petition).

The first factor, whether good cause exists for the failure to file on time, is entitled to the most weight. *State of New Jersey* (Department of Law and Public Safety), CLI-93-25, 38 NRC 289, 296 (1993). Where no showing of good cause for lateness is tendered, a petitioner's demonstration on the other factors must be particularly strong. *Texas Utils. Elec. Co.* (Comanche Peak Steam Electric Station, Units 1 & 2), CLI-92-12, 36 NRC 62, 73 (1992). The fifth and sixth factors, the availability of other means to protect the petitioner's interest, and the ability of other parties to represent the petitioner's interest, are less important than the other factors, and are therefore entitled to less weight. See *id.* at 74.

Third, amended and new contentions must comply with the general contention admissibility requirements set forth in 10 C.F.R. § 2.309(f)(1). In accordance with 10 C.F.R. § 2.309(f)(1), an admissible contention must:

- (i) provide a specific statement of the legal or factual issue sought to be raised;

- (ii) provide a brief explanation of the basis for the contention;
- (iii) demonstrate that the issue raised is within the scope of the proceeding;
- (iv) demonstrate that the issue raised is material to the findings the NRC must make to support the action that is involved in the proceeding;
- (v) provide a concise statement of the alleged facts or expert opinions, including references to specific sources and documents, that support the petitioner's position and upon which the petitioner intends to rely at the hearing;
- (vi) . . . provide sufficient information to show that a genuine dispute with the Applicant exists with regard to a material issue of law or fact, including references to specific portions of the application that the petitioner disputes, or in the case when the application is alleged to be deficient, the identification of such deficiencies and supporting reasons for this belief

10 C.F.R. § 2.309(f)(1). The Commission has emphasized that the rules on contention admissibility are "strict by design." *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001), *pet. for reconsideration denied*, CLI-02-01, 55 NRC 1 (2002). Failure to comply with any of these requirements is grounds for the dismissal of a contention. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999). "Mere 'notice pleading' does not suffice." *Amergen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 119 (2006) (internal quotation omitted). The general contention admissibility requirements apply to contentions on the DEIS as well. See, e.g., *Exelon Generating Company, LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 808-09 (2005) (applying 10 C.F.R. § 2.309(f) standards to DEIS contentions).

II. Intervenors' DEIS Contentions Should Be Denied

As explained below, Intervenors' contentions are inadmissible because they fail to satisfy the admissibility requirements of 10 C.F.R. § 2.309(f)(1). Intervenors were also required by both the regulations and the Initial Scheduling Order to address the late-filing requirements of

10 C.F.R. § 2.309(c) and (f)(2). See § 2.309(c), (f)(2); Initial Scheduling Order at 8-9; see also Pre-hearing Conference Transcript at 1018 (Apr. 7, 2010) (J. Gibson reminding Intervenors of their obligations under the regulations and the scheduling order with respect to new contentions). Intervenors did not do so, however. As relevant, the Staff will address § 2.309(c) and (f)(2), below.

- A. Contention 1: The DEIS analysis of the need for power is flawed and incomplete.

DEIS Contentions at 2. Intervenors present eight arguments (in bases A through H) in support of Contention 1.³ As explained below, no part of Contention 1 is admissible.

1. Need for Power Assessments

The assessment of need for power has historically been equated “with the benefits of the proposed action” for the cost-benefit balance consideration. Nuclear Energy Institute; Denial of Petition for Rulemaking, 68 Fed. Reg. 55,905, 55,909 (Sept. 29, 2003) (NEI Rulemaking Petition Denial). While need for power assessments are required, they “should not involve burdensome attempts to precisely identify future conditions. Rather, it should be sufficient to reasonably characterize the costs and benefits associated with proposed licensing actions.” *South Carolina Electric & Gas Co. & South Carolina Public Service Authority (Also Referred to as Santee Cooper)* (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-01, 71 NRC ___, ___ (Jan. 7, 2010) (slip op. at 21) (quoting NEI Rulemaking Petition Denial, 68 Fed. Reg. at 55,910). The Commission has also recognized that long-range forecasts of need for power are especially uncertain because they depend on many factors, and many of these factors are, themselves, inherently uncertain. *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant, Units 1, 2, 3, and 4), CLI-79-5, 9 NRC 607, 609-10 (1979).

³ The Staff will individually respond to each of these bases, below, because that is how Intervenors have organized Contention 1 and because the bases present distinct arguments that require individual treatment. The Staff, however, also does not believe that these bases have any cumulative force that would constitute an admissible contention. The Staff will treat Contention 2 the same way for the same reasons.

The review team's assessment of need for power is contained in Chapter 8 of the DEIS. In Chapter 8, the review team examined whether there was a need for baseload power⁴ in the region of interest in the appropriate timeframe.⁵ In accordance with NRC guidance, the review team relied upon the forecasts and documents created by (or for) the Electric Reliability Council of Texas (ERCOT) after determining that these forecasts and documents were (1) systematic, (2) comprehensive, (3) subject to confirmation, and (4) responsive to forecasting uncertainty. DEIS at 8-7. However, not all of the information in the ERCOT forecasts and documents were of equal importance to the review team's assessment. The review team's analysis and conclusions were ultimately directed toward assessing the need for baseload power. *Id.* at 8-8, 8-25 to 8-26. After completing its assessment, the review team reached the following conclusion:

The review team concludes that there is an expected future shortage of baseload power in the ERCOT region that could be at least partially addressed by construction of proposed Units 3 and 4 at the STP site. The review team determined that the STPNOC assessment of its need for power in its ER is not unreasonable. Building of the two new units could address (1) growth in demand for baseload power and (2) replacement of retiring baseload generating units elsewhere in ERCOT. *Based on its analysis, the review team concludes that there is a justified need for new baseload generating capacity in the ERCOT region in excess of the planned 2740 MW capacity output of proposed Units 3 and 4 at STP.*

Id. at 8-25 to 8-26 (emphasis added).

2. Contention 1 is inadmissible.

BASIS A:

The DEIS analysis of the need for power is incomplete because it accounts only for decline in demand attributable to demand side management from the requirements of Texas House Bill 3693. The DEIS does not account for reduced demand caused by funds for energy efficiency programs under the American Recovery and Reinvestment Act nor additional funds for the same purpose as

⁴ A rule of thumb definition of a baseload power source is a source with at least an 80% capacity factor (i.e., producing power at least 80% of the time). DEIS at 8-17.

⁵ The review team explored the need for baseload power "in the years 2014-2019, which spans the potential completion dates for proposed Units 3 and 4." DEIS at 8-25.

proposed in the recently passed U.S House of Representatives HB 5019. Additionally, the DEIS does not address the recent energy efficiency experiences of the San Antonio municipal utility that yielded a peak reduction of 44.7 MW and anticipated energy savings of 86,712,978 KWh at a cost of \$0.032/KWh. The DEIS's attenuated consideration of the effects of energy efficiency/demand side management programs has the effect of overstating the Applicant's need for power.

DEIS Contentions at 2-3 (internal footnotes omitted). In support of their arguments relating to the American Recovery and Reinvestment Act (ARRA) and "HB 5019"⁶ Intervenor's cite to page 6 of the Power Report. DEIS Contentions at 3 n.3. The Power Report discussion of ARRA and House Bill 5019 is as follows:

In addition to the \$218 million in funding from the American Recovery and Reinvestment Act, additional Federal incentives for energy efficiency programs recently passed in the House of Representatives in HB5019 and would provide over \$6 billion in energy efficiency retrofit incentives further reducing the need for new generation.

Power Report at 6.

Staff Response: Contention 1, Basis A, does not present sufficient information to demonstrate a genuine dispute with the DEIS on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). In addition, portions of Intervenor's arguments are untimely, and therefore fail to meet the criteria for late-filed contentions. 10 C.F.R. § 2.309(c), (f)(2).

Intervenor's first argue that the DEIS should account for ARRA, but Intervenor's never explain how \$218 million of stimulus funds could materially affect the DEIS assessment of the need for baseload power in the region of interest in the relevant timeframe under consideration. In order to challenge an assessment of the need for power, an intervenor must provide more than just statistical or anecdotal references. *Summer*, CLI-10-01, 71 NRC at ___ (slip op. at 22 n.84). In *Summer*, the Commission agreed with the Board that sufficient information to establish a genuine dispute with the applicant was not provided by an expert who

⁶ While Intervenor's reference is not clear, it appears that Intervenor's are referring to H.R. 5019, "Home Star Energy Retrofit Act of 2010," which was passed by the House of Representatives on May 6, 2010. See Home Star Energy Retrofit Act of 2010, H.R. 5019, 111th Cong. (as passed by House, May 6, 2010), available at <http://thomas.loc.gov/cgi-bin/bdquery/z?d111:H.R.5019>:

used statistical and anecdotal references to the economic downturn rather than quantifying the need for power or specifically challenging the applicant's analysis. *Id.* Similarly, here, Intervenor's assert, without any analysis, that this need for power assessment is deficient unless it specifically accounts for the funding from ARRA. As in *Summer*, Intervenor's failure to meaningfully engage the DEIS need for power assessment does not satisfy the thresholds for contention admissibility. Accordingly, this basis for Contention 1 is inadmissible. 10 C.F.R. § 2.309(f)(1)(vi).

In addition, Intervenor's do not meet their burden of demonstrating that their ARRA arguments are timely. 10 C.F.R. § 2.309(c), (f)(2). With regard to Intervenor's ARRA arguments, the Applicant's ER and the NRC's DEIS assessment of need for power are not significantly different. 10 C.F.R. § 2.309(f)(2). The ER does not explicitly account for ARRA, and both the ER and DEIS assessments were based on ERCOT forecasts and documents, except that the Applicant's need for power assessment is based on references from 2007 or earlier. *Compare* DEIS Chapter 8 *with* ER Chapter 8 (Rev. 3) (Sept. 16, 2009).⁷ Also, because ARRA was signed into law in February 2009,⁸ the basis for Intervenor's argument was previously available and not materially different from previously available information. See § 2.309(f)(2)(i)-(ii). In addition, the ARRA argument was not submitted in a timely fashion. See § 2.309(f)(2)(iii); Initial Scheduling Order at 8 (providing thirty days for contentions based on new, material information and forty days for contentions based on the DEIS).

With respect to the § 2.309(c) balancing factors, Intervenor's have not shown good cause under § 2.309(c)(1)(i) because the information they rely upon is not new and could have been raised much earlier. See *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station,

⁷ Chapter 8 of the ER is split into five sections with the following ADAMS Accession numbers: Section 8.0 (ML092931585), Section 8.1 (ML092931586), Section 8.2 (ML092931587), Section 8.3 (ML092931588), and Section 8.4 (ML092931589).

⁸ See American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (Feb. 17, 2009).

Units 2 and 3), CLI-05-24, 62 NRC 551, 564-65 (2005) (defining “good cause” as a showing that the petitioner (1) could not have met the filing deadline and (2) “filed as soon as possible thereafter”). Good cause is the most important of the balancing factors, *State of New Jersey*, CLI-93-25, 38 NRC at 296, and where good cause has not been shown, the showing on the other factors must be particularly strong. *Comanche Peak*, CLI-92-12, 36 NRC at 73. Intervenor, however, do not even attempt to make a showing on these other factors. For the foregoing reasons, Intervenor have not met their burden of demonstrating that their ARRA arguments satisfy 10 C.F.R. § 2.309(c) and (f)(2).

Intervenor also present an argument based on a bill recently passed by the House of Representatives. As with their ARRA arguments, Intervenor do not meaningfully engage the need for power analysis, but only provide a dollar figure associated with a proposed bill and assert that the DEIS needs to account for it. This is insufficient support for a need for power contention and does not demonstrate a genuine, material dispute with the DEIS. *Summer*, CLI-10-01, 71 NRC at ___ (slip op. at 22 n.84). Further, Intervenor do not fulfill their obligation under 10 C.F.R. § 2.309(f)(1)(vi) to explain why the DEIS is legally required to account for such proposed legislation. Proposed legislation has no force of law, and Intervenor do not provide legal support for the proposition that need for power assessments must rely on legislative proposals that may or may not come to fruition. Not accounting for such proposals accords with Commission precedent holding that conservative need for power forecasts are not automatically suspect, because the consequences of demand outstripping capacity are “far more serious” than the consequences of unneeded capacity. See *Duke Power Co. (Catawba Nuclear Station, Units 1 and 2)*, ALAB-355, 4 NRC 397, 410 (1976), *reconsideration denied*, ALAB-359, 4 NRC 619 (1976). It is reasonable not to account for legislative proposals in the need for power context, and reasonableness is all that is required by NEPA. *Summer*, CLI-10-01, 71 NRC at ___ (slip op. at 21); see also *Louisiana Energy Services, L.P.* (National Enrichment

Facility), CLI-05-20, 62 NRC 523, 536 (2005) (“NEPA does not call for certainty or precision, but an *estimate* of anticipated (not unduly speculative) impacts”).

Finally, Intervenors present an argument based on the energy efficiency experiences of a San Antonio municipal facility. DEIS Contentions at 3. The DEIS, however, relied upon 2009 ERCOT forecasts that already account for demand side management and energy efficiency programs. DEIS at 8-15. These 2009 ERCOT forecasts also account for a demand side management program designed to reduce electricity demand by 15 to 20%. DEIS at 8-24. Intervenors do not engage the need for power assessment to explain how energy efficiency is inadequately accounted for in a material way. Intervenors also do not explain how the need for facilities producing 20 to 22 million MWh per year, DEIS at 10-18, with a baseload capacity of 2740 MW could be materially affected even if DEIS calculations of peak demand and energy growth were reduced by the amounts cited by Intervenors (86,712 MWh and 44.7 MW capacity). Intervenors’ anecdotal reference does not serve to create a genuine, material dispute with the DEIS. *Summer*, CLI-10-01, 71 NRC at ___ (slip op. at 22 n.84).⁹

For the above reasons, Basis A does not support the admissibility of Contention 1.

BASIS B:

The DEIS analysis of the need for power is flawed because it does not consider the most recent energy forecast from ERCOT. The DEIS assumes that peak demand in 2015 will be 72,172 MW. However, the most recent ERCOT forecast actually projects peak demand in 2015 at 70,517 MW or a 1655 MW/ 2.2% reduction in peak demand. The failure to consider this more recent energy forecast has the effect of overstating the Applicant’s need for power.

DEIS Contentions at 3 (internal footnotes omitted). As support for this basis, Intervenors cite to page 3 of the Power Report, which references a “May 2010 load forecast and reserve margin

⁹ Basis A also cites a cost figure, but Intervenors do not explain how such a monetary cost is material to the DEIS need for power assessment or cite to any legal requirement that need for power assessments must account for monetary costs. Intervenors, therefore, fail to satisfy 10 C.F.R. § 2.309(f)(1)(vi) with respect to any argument based on monetary cost.

update” presented to the ERCOT Board of Directors. Intervenors filed the slides for this presentation (ERCOT Slides) as an attachment to the Power Report.

Staff Response: Contention 1, Basis B, does not present sufficient information to demonstrate a genuine dispute with the DEIS on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). As explained in the DEIS, ERCOT emphasizes peak load demand because of ERCOT’s institutional responsibilities for meeting peak demand and reserve margin, *id.* at 8-8, but the DEIS review focuses on baseload power needs. *Id.* at 8-8, 8-25 to 8-26. Intervenors, however, do not engage the DEIS assessment of baseload power to show a material dispute with the DEIS conclusions. In addition, power demand in the ERCOT region is projected to steadily increase. See *id.* at 8-8, 8-16 (Table 8-2 showing an increase in peak summer demand from 2010 to 2024), and 8-25 (Table 8-5 showing an increase in baseload power needs from 2010 to 2024). Even the ERCOT Slides relied upon by Intervenors show such an increase. See ERCOT Slides at 7 (showing a steady increase in total summer peak demand). Given this increase, Intervenors have not explained how the additional baseload capacity from the proposed units would not be needed or otherwise explain how the DEIS conclusions would be materially altered.

Need for power assessments need only be reasonable, not perfect. *Summer, CLI-10-01, 71 NRC at ___* (slip op. at 21). In addition, environmental contentions must focus on “significant inaccuracies or omissions” in the DEIS to be admissible. *System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 NRC 10, 13 (2005). Intervenors, however, do not explain the significance of their Basis B claim. Basis B, therefore, does not support the admissibility of Contention 1 because it does not demonstrate a genuine dispute with the DEIS on a material issue of law or fact. 10 C.F.R. § 2.309(f)(1)(vi).

BASIS C:

The DEIS analysis does not account for increases in wind carrying capacity. The most recent ERCOT analysis indicates that wind carrying capacity has increased has increased [sic] from 708 MW to 793 MW so far this year and is expected to

increase another 115 MW by 2015. The failure of the DEIS to account for this increase has the effect of understating the total generation capacity available in the ERCOT region.

DEIS Contentions at 3 (internal footnotes omitted). As support for Basis C, Intervenor's cite to page 3 of the Power Report, which references data from the ERCOT Slides. Power Report at 3.

Staff Response: Contention 1, Basis C, does not demonstrate a genuine dispute with the DEIS on a material issue of law or fact because the DEIS goes beyond either the 2009 or 2010 ERCOT forecasts in accounting for future wind capacity, as explained below. See 10 C.F.R. § 2.309(f)(1)(vi). The data relied upon by Intervenor's comes from the ERCOT slides, which gives a value of 793 MW in 2015 for Effective Load-Carrying Capability (ELCC) of wind generation and 115 MW in 2015 for ELCC of planned wind units accounted for in the assessment. ERCOT Slides at 7. The review team, however, recognized that "[l]arge amounts of wind energy have or are about to enter the ERCOT region," and performed calculations accounting for this increase. DEIS at 8-17. The calculated values are presented in DEIS Table 8-3 and assume the installation of an additional 18,564 MW (nameplate) of wind generation by 2018. *Id.* at 8-20. For 2014, Table 8-3 gives a value of 708 MW for ELCC of wind units and 211 MW for ELCC of planned wind units. *Id.* The total 2014 value is 919 MW, which is larger than the total 2015 value of 908 MW from the ERCOT Slides. For 2019, the ELCC of planned wind units increases to 1606 MW. Basis C, therefore, is not an admissible basis because it does not provide information demonstrating a genuine, material dispute with the DEIS. See 10 C.F.R. § 2.309(f)(1)(vi).

BASIS D:

The DEIS fails to account for the addition of 2,073 MW of non-nuclear capacity to the ERCOT generation portfolio. This additional capacity was not accounted for in the need for power discussion in the DEIS. The failure of the DEIS to account for this increase has the effect of understating the total capacity available in the ERCOT region.

DEIS Contentions at 4 (internal footnotes omitted). In support of Basis D, Intervenors cite to pages 3 and 4 of the Power Report. *Id.* at 4 n.8. The data relied upon in the Power Report is derived from the ERCOT Slides. See Power Report at 3-4 & at 4 n.7.

Staff Response: Basis D is not admissible because Intervenors assertions, placed in their proper context, do not demonstrate a genuine dispute with the DEIS on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). The ERCOT Slides should be viewed in their totality because petitioners' documents may be examined both for statements that support and oppose their position. See *Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 334 n.207 (2008). Although slide 4 of the ERCOT Slides reflect 2,073 MW of additional capacity, the same slide also reflects resource reductions of 48 MW in cancelled generation projects, 2,053 MW in mothballed units, and 446 MW due to “[c]hanges in unit ratings, PUNs and mothballed unit return probabilities.” ERCOT Slides at 4. According to the ERCOT Slides, the total resources in 2014 are 76,893 MW, ERCOT Slides at 7, which is less than the 79,123 MW of 2014 total resources given in the DEIS. DEIS at 8-16 (Table 8-1). Because the ERCOT Slides, viewed as a whole, are not materially inconsistent with the DEIS need for power assessment, Intervenors have not demonstrated a genuine, material dispute with the DEIS, and Basis D does not support the admissibility of Contention 1.

BASIS E:

The DEIS does not account for 31,757 MW of additional capacity through interconnections in the ERCOT region by 2015. The addition of this capacity will create a reserve capacity of 51% in the ERCOT region. The failure of the DEIS to account for this increase has the effect of understating the total capacity available in the ERCOT region without the addition of STP Units 3 & 4.

DEIS Contentions at 4 (internal footnotes omitted). Intervenors cite to page 4 of the Power Report in support of this basis. DEIS Contentions at 4 n.9. The entire Power Report discussion of the Basis E issue is as follows:

Additionally 26,182MW of planned units in the Full Interconnection Study Phase are also reported, providing an Ercot total estimate of 31,757MW⁸ of additional

generation available in 2015. By ERCOT's estimates the reserve capacity will exceed 51% under these conditions.

Power Report at 4 (with footnote 8 stating, "Mothballed capacity 5,022, 50% of non-synchronous ties 553MW, planned units in full interconnection study phase 26,182").

Staff Response: As explained below, Basis E does not support the admissibility of Contention 1 because Intervenor do not cite a legal requirement that the information they seek to have included must be included or otherwise explain why the information ought to be included in the DEIS. For this reason, Intervenor do not meet the requirements for a contention of omission and do not demonstrate a genuine, material dispute with the DEIS need for power assessment. See 10 C.F.R. § 2.309(f)(1)(vi). In addition, the Basis E argument also fails to meet the timeliness requirements of § 2.309(c), (f)(2).

According to Commission precedent, need for power assessments are considered adequate so long as they are reasonable. *Summer*, CLI-10-01, 71 NRC at ___ (slip op. at 21). The review team based its need for power assessment on ERCOT forecasts and documents after concluding that the forecasts and documents were (1) systematic, (2) comprehensive, (3) subject to confirmation, and (4) responsive to forecasting uncertainty. DEIS at 8-7. The DEIS also provides the review team's reasons for concluding that the preceding criteria were met. See DEIS at 8-5 to 8-7. Intervenor have not raised a challenge to any part of the DEIS evaluation of the reliability of ERCOT's forecasts and documents. As explained below, however, Intervenor appear to be implicitly attacking the ERCOT forecasting methodology, but Intervenor do not explain why the ERCOT process is not reasonable.

As the DEIS explains, planned generation is included in the available resources used to calculate reserve margin if there is a signed generation interconnection agreement (SGIA) and, if required, a Texas Commission on Environmental Quality air permit. *Id.* at 8-14. Available resources also include 50% of non-synchronous ties and available mothballed generation. *Id.* DEIS Table 8-3 includes planned generation meeting these criteria. *Id.* at 8-20. Intervenor,

however, assert that certain additional potential generation should be included. The material and figures cited in the Power Report come from slide 7 of the ERCOT Slides. Slide 7 contains a detailed table that accounts for both power demand and resource availability and calculates the reserve margin. ERCOT Slides at 7. As with Table 8-3 of the DEIS, this table also includes 50% of non-synchronous ties, available mothballed generation, and planned generation meeting the SGIA and air permit criteria. *Id.* The information cited by Intervenor is from below this table and comes under the heading "Other Potential Resources." *Id.* These resources are not included in the reserve margin calculation. ERCOT Slides at 7.¹⁰

Intervenor asserts that the other potential capacity they identify must be included in the need for power assessment. However, neither Intervenor nor Mr. Power provide supporting reasons for why the omitted information is required. See 10 C.F.R. § 2.309(f)(1)(vi). Intervenor relies upon the Power Report, but even an expert opinion is inadequate if it merely states a conclusion without providing a reasoned basis or explanation for that conclusion. *USEC, Inc. (American Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 472 (2006). Intervenor, therefore, do not provide sufficient information to demonstrate a genuine dispute with the DEIS on a material issue of law or fact.

In addition, Intervenor does not meet their burden of demonstrating that their Basis E arguments are timely. 10 C.F.R. § 2.309(c), (f)(2). Both the Applicant's ER and the review team's DEIS assessment of need for power were based on ERCOT forecasts and documents, and both ER Section 8.4 and DEIS Section 8.2 provided the same criteria for including

¹⁰ The ERCOT definition for "other potential resources" explicitly states that it includes mothballed capacity and tie resources not included in the reserve margin calculation. "Report on the Capacity, Demand, and Reserves in the ERCOT Region," at 7 (May 2010) (2010 CDR Report) (Staff Attachment 1 (containing pages 1-7)), available at <http://www.ercot.com/content/news/presentations/2010/2010%20Capacity,%20Demand%20and%20Reserves.pdf>. The other component of "other potential resources" is "Planned Units in Full Interconnection Study Phase." ERCOT Slides at 7. The ERCOT definition for this term does not include a criteria for signed interconnection agreement, 2010 CDR Report at 7, and planned resources with such an agreement and air permit, as required, are accounted for in the DEIS. DEIS at 8-14, 8-20.

resources in the reserve margin calculation. Compare ER at 8.4-1 to -2 (Rev. 3) with DEIS at 8-14. Therefore, to the extent that Intervenor challenge the ERCOT methodology, the ER and DEIS do not “differ significantly” in this respect. 10 C.F.R. § 2.309(f)(2). Also, Intervenor do not point to any material, previously unavailable information upon which their arguments are based, so they fail to satisfy § 2.309(f)(2)(i)-(iii). Intervenor should have made their Basis E arguments much earlier under § 2.309(f)(2) and not have waited for the DEIS to be published.

With respect to the § 2.309(c) balancing factors, Intervenor have not shown good cause under § 2.309(c)(1)(i) because the information they rely upon is not new and could have been raised much earlier. *Millstone*, CLI-05-24, 62 NRC at 564-65. Good cause is the most important of the balancing factors, *State of New Jersey*, CLI-93-25, 38 NRC at 296, and where good cause has not been shown, the showing on the other factors must be particularly strong. *Comanche Peak*, CLI-92-12, 36 NRC at 73. Intervenor, however, do not attempt to make a showing on these other factors. For the foregoing reasons, Intervenor have not met their burden of demonstrating that Basis E meets the late-filing factors of 10 C.F.R. § 2.309(c), (f)(2).

For the above reasons, Basis E is inadmissible.

BASIS F:

The DEIS does not account for a non-wind renewable capacity mandate under consideration by the Texas PUC. Adoption of this renewable portfolio standard would add 500 MW of capacity in the ERCOT region. The failure of the DEIS to account for this increase has the effect of understating the total capacity available in the ERCOT region.

DEIS Contentions at 4 (internal footnotes omitted). In support of this contention, Intervenor cite to page 4 of the Power Report. DEIS Contentions at 4 n.10. The Power Report discussion of the Basis F issue is as follows:

The PUC is considering adding an additional renewable energy mandate to the state’s existing Renewable Portfolio Standard. This has been assigned a project #35792 and a strawman has been issued.⁹ This would provide an additional 500 MW of generating capacity in the ERCOT market.

Power Report at 4 (with footnote 9 stating, “The hearing on this rule was held 4/30/2010, final comments were filed 5/11/2010, rule would apply starting in 2011 at 100MW and ramp to 500 MW by 2015”).

Staff Response: Basis F is not admissible because Intervenors have not demonstrated a genuine, material dispute with the DEIS. 10 C.F.R. § 2.309(f)(1)(vi). First, Intervenors do not explain why the DEIS is legally required to account for this proposed regulation. Although § 2.309(f)(1)(vi) requires contentions of omission to provide supporting reasons for why the omitted information is required, Intervenors fail to do so. Conservative need for power forecasts are not automatically suspect. See *Duke Power Co. (Catawba Nuclear Station, Units 1 and 2)*, ALAB-355, 4 NRC 397, 410 (1976). In the need for power context, it is reasonable not to account for regulatory proposals that have not been issued, and reasonableness is all that is required by NEPA. *Summer*, CLI-10-01, 71 NRC at ___ (slip op. at 21); *LES*, CLI-05-20, 62 NRC at 536 (“NEPA does not call for certainty or precision, but an *estimate* of anticipated (not unduly speculative) impacts”).

Second, Intervenors do not explain how 500 MW of unspecified non-wind renewable capacity would materially alter the DEIS evaluation that concluded that 2740 MW of *baseload* power is needed. This is especially so since power demand in the ERCOT region is projected to steadily increase. See DEIS at 8-8, 8-16 (Table 8-2), and 8-23 (Table 8-5) and ERCOT Slides at 7. Intervenors have not explained how the additional capacity from the proposed units would not be needed if an additional 500 MW of renewable generation comes online or otherwise explained how the DEIS conclusions would be materially altered.

Third, it is not clear that the proposed regulation will result in an additional 500 MW of capacity even if it is issued in current form. The “Staff Strawman Rule” for this proposal would only amend existing regulations. Staff Strawman Rule, Project No. 35792 at 1 (Dec. 2009) (Staff Attachment 2), *available at* http://www.puc.state.tx.us/rules/rulemake/35792/Strawman_122009.pdf. While changes are

being proposed in § 25.173(h) that would explicitly add yearly goals for *non-wind* renewable generation that would increase from 100 MW to 500 MW, the overall renewable capacity goals remain unchanged for the years 2009 to 2014 and for beyond 2014. See Staff Strawman Rule at 10-11 and 16 Tex. Admin. Code § 25.173(h) (2010) (current regulation).¹¹ Intervenors do not explain how the proposed regulation would result in different outcomes that could materially alter the DEIS conclusions. To be admissible, environmental contentions must focus on “significant inaccuracies or omissions” in the DEIS. *Grand Gulf*, CLI-05-4, 61 NRC at 13. For the foregoing reasons, Basis F fails to demonstrate a genuine, material dispute with the DEIS need for power assessment. See 10 C.F.R. § 2.309(f)(1)(vi). Thus, Basis F is inadmissible.

BASIS G:

The DEIS does not account for reduced demand caused by the adoption of the International Energy Conservation Code. The IECC building code has the potential to reduce peak demand by 2,362 MW annually by 2023 in the ERCOT region. The failure of the DEIS to account for this reduction in peak demand has the effect of understating the total capacity available in the ERCOT region.

DEIS Contentions at 4 (internal footnote omitted) (citing to Power Report at 4). On page 4 of the Power Report, Mr. Power discusses the IECC building code and peak demand reductions by first claiming that the “State Energy Conservation Office (SECO) has announced that the state will be adopting the IECC 2009 building code” and by then citing to a report by the American Council for an Energy-Efficient Economy (ACEEE) for the claimed 2,362 MW reduction in peak summer demand by 2023. Power Report at 4 & n.12 (citing to ACEEE, *Potential for Energy Efficiency, Demand Response, and Onsite Renewable Energy to Meet Texas’s Growing Electricity Needs* (Mar. 2007) (filed by Intervenors as an attachment to the Power Report)).

¹¹ The Staff also notes that the 500 MW non-wind renewable capacity goal is also reflected in unchanged text in § 25.173(a)(1). See Staff Strawman Rule at 3 and 16 Tex. Admin. Code § 25.173(a)(1) (2010) (current regulation).

Staff Response: For the reasons discussed below, Basis G does not demonstrate a genuine, material dispute with the DEIS need for power assessment. See 10 C.F.R. § 2.309(f)(1)(vi). First, an examination of Intervenor's supporting documents reveals questions about a simple application of the ACEEE peak demand reduction to the DEIS need for power assessment. The ACEEE Report values for peak summer demand are based on implementation of "[m]ore stringent building codes" in 2009. See ACEEE Report at 48 (Table A-2). However, the 2009 IECC Code will not apply until April 2011. Final Rule; 34 Tex. Admin. Code § 19.53, 35 Tex. Reg. 4727, 4729 (June 4, 2010) (stating new 34 Tex. Admin. Code § 19.53(b)). Intervenor's do not address the implications of applying a value premised on implementation in 2009 to a situation in which implementation occurs in 2011.¹² Examining Intervenor's sources is proper because a petitioner's documents may be examined both for statements that support and oppose its position. See *North Anna*, LBP-08-15, 68 NRC at 334 n.207. Second, even if the ACEEE value could be straightforwardly applied to the DEIS assessment, Intervenor's do not explain how a *summer peak power demand value for 2023* would materially alter any DEIS conclusions regarding the need for *baseload power "in the years 2014-2019, which spans the potential completion dates for proposed Units 3 and 4."* DEIS at 8-25 (emphases added). Because Intervenor's fail to meaningfully engage the DEIS need for power analysis, they have not demonstrated a genuine dispute with the DEIS on a material issue of law or fact. 10 C.F.R. § 2.309(f)(1)(vi). Basis G does not support contention admissibility.

BASIS H:

The DEIS does not account for a compressed air energy storage (CAES) project planned for Texas by ConocoPhillips/General Compression that will be available for baseload capacity. This recently announced project is proof that the combination of wind capacity and CAES is a viable means of generating

¹² The Staff also notes that although the ACEEE Report is being cited for savings due to the 2009 IECC, the ACEEE Report was issued in March 2007 and generally speaks about more stringent building codes without specifically mentioning the IECC.

baseload power. The failure of the DEIS to account for this source of baseload capacity has the effect of understating the future total generating capacity in the ERCOT region.

DEIS Contentions at 5 (internal footnotes omitted). As support for Basis H, Intervenors cite to page 6 of the Power Report. DEIS Contentions at 5 n.12. The Power Report discussion of CAES cites to the website for General Compression and quotes from an April 14, 2010 press release. Power Report at 6.

Staff Response: Basis H does not support the admissibility of Contention 1 because it does not demonstrate a genuine, material dispute with the DEIS need for power assessment. See 10 C.F.R. § 2.309(f)(1)(vi). As the Commission recently explained, a petitioner that relies on anecdotal and statistical references “rather than quantifying the need for power or specifically challenging the applicant’s analysis” does not demonstrate a genuine, material dispute under 10 C.F.R. § 2.309(f)(1)(vi). See *Summer*, CLI-10-01, 71 NRC at ___ (slip op. at 22 n.84). The recent announcement regarding a CAES facility in Texas is just such an anecdote, and Intervenors do not explain how the need for power assessment is materially affected. A review of the actual press release quoted by the Power Report indicates that the announcement is for the development of a “pilot project” of unspecified capacity. Press Release; General Compression Signs Agreement with ConocoPhillips to Develop Compressed Air Energy Storage Projects (Apr. 14, 2010) (CAES Press Release), *available at* <http://www.prnewswire.com/news-releases/general-compression-signs-agreement-with-conocophillips-to-develop-compressed-air-energy-s-projects-90838434.html>.¹³ There is nothing in this press release that suggests a material error or omission on the part of the DEIS, and Intervenors fail to explain how any specific part of the DEIS discussion is in error. Basis H of Contention 1, therefore, is inadmissible.

¹³ This source is not attached because it is copyright.

In sum, as discussed above, none of the bases, either individually or together, support the admission of Contention 1.

- B. Contention 2: The DEIS understates the effect of global warming on the cumulative impacts of the operation of STP 3 & 4.

DEIS Contentions at 5. This contention is divided into four bases, which the Staff will treat individually.

BASIS A:

The DEIS conclusion that cumulative effects of greenhouse gas emissions are projected to be “noticeable but not destabilizing” is contradicted by the EPA’s April 27, 2010 report “Climate Change Indicators in the United States”. *Inter alia*, the EPA report finds compelling evidence that composition of the atmosphere and many fundamental measures of climate are changing. By understating the effects of climate change the DEIS effectively minimizes the contributions to the GHG inventory attributable to operation of STP Units 3&4. This has the further effect of minimizing the importance of selecting the lowest GHG alternatives to generate electricity. A full accounting for all stages of the UFC shows that nuclear power has significantly greater GHG burdens than wind, solar power or geothermal. The DEIS did not make any such comparison, however.

DEIS Contentions at 5-6 (internal footnotes omitted). Intervenors cite to the following sources in Contention 2A: DEIS at 7-43 to 7-44; Environmental Protection Agency, “Climate Change Indicators in the United States” (2010); Power Report at 8-9; Kristin Shrader-Frechette, *Greenhouse Emissions and Nuclear Energy*, Modern Energy Review, August 2009, at 54-57; and DEIS, Table 9-5 at 9-30. *Id.* Specifically, Intervenors raise a concern regarding the conclusion in the DEIS that “the cumulative impacts would be noticeable but not destabilizing, with or without the greenhouse gas emissions of the proposed project.” DEIS at 7-44. Intervenors rely upon the Power Report, which, in turn, relies on portions of an April 27, 2010, report by EPA entitled, “Climate Change Indicators in the United States” (herein, “EPA report”) to present “compelling evidence” that climate change in the United States is affecting the environment. DEIS Contentions at 5 (citing Power Report at 8-9 (quoting EPA report at 22, 68)). Mr. Power’s analysis, in its entirety, is as follows: “It’s hard to conclude

that changes in temperature that ‘can disrupt a wide range of natural processes’ and ‘cause illness and death in vulnerable populations’ are not destabilizing.” Power Report at 9 (quoting EPA report at 22).

Staff Response: The contention fails to satisfy the admissibility requirements set forth in 10 C.F.R. § 2.309(f)(1)(vi).

Intervenors contend that the DEIS is flawed in its conclusion that the national and global cumulative impacts of greenhouse gas emissions are “noticeable but not destabilizing.” DEIS at 7-44. In accordance with 10 C.F.R. Part 51, Subpart A, Appendix B, Footnote 3, the impact findings in the DEIS are based on three significance levels: small, moderate, and large. The review team chose to use the “moderate” significance level – in which the environmental effects are sufficient to alter noticeably, but not to destabilize, important attributes of the resource -- to describe its impression of the national and global cumulative impacts of greenhouse gas emissions. In its selection of the “moderate” significance level, the review team acknowledged that climate change appears to be occurring and will continue to occur, and though it is, to a large extent, related to greenhouse gas emissions, it is not destabilizing the affected resources on a “national and worldwide” scale. DEIS at 7-44. As explained below, Intervenors have not demonstrated a genuine dispute with the DEIS conclusion. 10 C.F.R. § 2.309(f)(1)(vi).

To be material, environmental contentions must focus on “significant inaccuracies or omissions” in the DEIS. *Grand Gulf*, CLI-05-4, 61 NRC at 13. Intervenors do not dispute the fundamentally relevant conclusion made by the review team in the DEIS, that “cumulative impacts [of greenhouse gas emissions] would be noticeable but not destabilizing, *with or without the greenhouse gas emissions of the proposed project.*” *Id* (emphasis added). When the Commission amended its hearing regulations in 1989 to strengthen the standards for contention admissibility, the Commission explained that a dispute would not be considered “material” under former 10 C.F.R. § 2.714(b)(2)(iii) unless “the resolution of the dispute would make a difference

in the outcome of the licensing proceeding.” Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,172 (Aug. 11, 1989).¹⁴ Intervenors’ dispute in Contention 2A is with the “moderate” impact significance level used in the DEIS to describe global climate change effects in general, separate from the emissions of the proposed units. This proceeding, however, concerns a decision on whether to issue COLs for two ABWR units at the proposed site, and it is not a forum for determining which significance level best describes the global effects of climate change. Even had the review team concluded that the national and worldwide cumulative impacts of greenhouse gas emissions were “small” or “large,” the estimated impacts from greenhouse gas emissions of the proposed units on global climate change would not have changed that finding, given that the impacts of emissions from building, operating, and decommissioning the proposed units would be minimal. DEIS at 7-43. Resolution of Intervenors’ dispute with the review team’s impact finding would not make any material difference in the DEIS conclusion: that national and worldwide cumulative impacts of greenhouse gas emissions would remain at the same significance level, with or without greenhouse gas emissions from the proposed units. Thus, Contention 2A does not show that a genuine, material dispute with the DEIS exists. 10 C.F.R. § 2.309(f)(1)(vi).

Intervenors do not offer adequate factual support or expert opinion to support their assertion that the DEIS is flawed. 10 C.F.R. § 2.309(f)(1)(vi). Intervenors rely on the Power Report as support for Contention 2A. However, the Power Report does not provide adequate support for the contention. Unsupported expert assertions, by themselves, do not offer support for an admissible contention. See *USEC, Inc. (American Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 472 (2006) (internal citations omitted) (“An expert opinion that merely states a conclusion (e.g., the application is ‘deficient,’ ‘inadequate,’ or ‘wrong’) without providing a reasoned basis or explanation for that conclusion is inadequate . . .”). Here, the Power Report

¹⁴ Former § 2.714(b)(2)(iii) contained the genuine, material dispute standard that is now found, with some minor differences, in § 2.309(f)(1)(vi).

simply references sections from the EPA report and asserts a general conclusion that the DEIS conclusion is flawed, without sufficient analysis of why the EPA report necessarily negates the Staff's findings. The entire analysis offered in the Power Report is as follows: "It's hard to conclude that changes in temperature that 'can disrupt a wide range of natural processes' and 'cause illness and death in vulnerable populations' are not destabilizing." Power Report at 9 (quoting EPA report at 22). Because the Power Report is a collection of references to the EPA report along with the bare assertion that the DEIS is flawed, it does not provide sufficient information to demonstrate a genuine, material dispute with the DEIS. 10 C.F.R. § 2.309(f)(1)(vi).

Similarly, the EPA report does not provide adequate support for Intervenors' contention. 10 C.F.R. § 2.309(f)(1)(vi). Intervenors allege that the DEIS impact finding is in conflict with the EPA report. DEIS Contentions at 5. However, the DEIS impact finding is actually supported by the EPA report. Intervenors' proffered expert cites to sections of the EPA report to present "compelling evidence" that climate in the United States is changing and will affect the environment. Power Report at 8-9. The DEIS does not dispute this; it states that the "production and use of energy" is a "primary cause of global warming," and that as result, "climate change will eventually affect our production and use of energy." DEIS at 7-43. The DEIS acknowledges that the "total number and variety of greenhouse gas emissions is extremely large and ubiquitous." DEIS at 7-44. Examining Intervenors' sources is proper because a petitioner's documents may be examined both for statements that support and oppose its position. See *North Anna*, LBP-08-15, 68 NRC at 334 n.207. Contrary to Intervenors' assertion, the EPA report does not contradict the DEIS conclusion that the national and worldwide cumulative impacts of greenhouse gas emissions are noticeable, but not destabilizing. Both the EPA report and the DEIS acknowledge that changes in climate are occurring, will continue to occur, and will negatively affect the environment. See, e.g., EPA Report at 22, 68; DEIS at 2-159 to 2-160, 2-162, 7-26, 7-33, 7-43 to 7-45. Intervenors'

references to the EPA report, however, do not show that such negative effects are destabilizing the affected resources. Intervenor has not shown how the EPA report contradicts the DEIS “moderate” impact finding. There is no genuine dispute between the EPA report and the DEIS. 10 C.F.R. § 2.309(f)(1)(vi).

Additionally, the EPA report fails to provide adequate support for Intervenor’s contention because the EPA report relies on the same document used by the review team to analyze greenhouse gas impacts in the DEIS. 10 C.F.R. § 2.309(f)(1)(vi). The EPA report relies on “assessment reports from . . . the U.S. Global Change Research Program” for the conclusion that climate change is “linked . . . to increasing greenhouse gas emissions from human activities.” Power Report at 8. The most recent assessment report from the U.S. Global Change Research Program (“GCRP report”) is the principal document that the review team relied on for its greenhouse gas analysis in the DEIS, and is cited in the very sentence that Intervenor disputes: “Based on the impacts in the GCRP [Global Change Research Program] report, the review team concludes that the national and worldwide cumulative impacts of greenhouse gas emissions are noticeable but not destabilizing.” DEIS at 7-44. Intervenor’s EPA report does not support their position that the DEIS is flawed, given that both documents relied on the GCRP report. Intervenor does not take issue with the GCRP report itself, nor do they take issue with the carbon dioxide emission rate statistics listed in Table 7-2 or the carbon footprint estimates in Appendix I. DEIS at 7-44 and DEIS, Appendix I at I-1. The DEIS conclusions on greenhouse gas emissions are not in conflict with the EPA report, but rather affirm them. Intervenor has not shown that a genuine dispute exists between the EPA report and the DEIS. 10 C.F.R. § 2.309(f)(1)(vi).

Intervenor also alleges that by “understating” the effects of climate change, the DEIS minimizes the importance of selecting the energy source with the lowest greenhouse gas emissions. DEIS Contentions at 5. The review team, however, concluded in the DEIS that since all of the viable alternatives to the proposed action would involve the use of fossil fuels,

the proposed STP units would result in the lowest level of emissions of greenhouse gases among the viable alternatives. DEIS at 9-31. There is, therefore, no genuine, material dispute with the DEIS on this account. 10 C.F.R. § 2.309(f)(1)(vi).

Intervenors, however, also address alternatives not considered viable in the DEIS. Intervenors claim that fully accounting for the uranium fuel cycle shows that nuclear power “has significantly greater GHG burdens than wind, solar power or geothermal.” DEIS Contentions at 5-6. Intervenors, citing to information in DEIS Section 9.2.5, further claim that the DEIS does not make this comparison, but instead “limits its comparison of CO₂ emissions to nuclear, coal, gas and combinations thereof.” *Id.* at 6 & n.17. For several reasons, this argument does not support the admissibility of Contention 2.

First, the DEIS does, in fact, quantitatively account for CO₂ emissions from the uranium fuel cycle (UFC) in DEIS Section 6.1.3, stating that the CO₂ emissions for both units would amount to 45,000,000 metric tons for the 40 years of operation that would be authorized by the license. See DEIS at 6-9. This result is also reflected in the discussion in DEIS Section 9.2.5 of the greenhouse gas emissions of the proposed action and alternatives. See *id.* at 9-29 to -30. Intervenors have not disputed the DEIS calculation of UFC greenhouse emissions or any other DEIS calculation of the proposed units’ greenhouse emissions. Thus, there is no genuine dispute with the DEIS regarding the calculation of UFC emissions. 10 C.F.R. § 2.309(f)(1)(vi).

Second, the DEIS does discuss the CO₂ emissions of energy alternatives other than coal, nuclear, and gas. DEIS Section 9.2.5 states:

CO₂ emissions associated with generation alternatives such as wind power, solar power, and hydropower would be associated with workforce transportation, construction, and decommissioning of the facilities. Because these generation alternatives do not involve combustion, the review team considers the emissions to be minor and concludes that the emissions would have a minimal cumulative impact.

DEIS at 9-30.¹⁵ Intervenors do not explain how this discussion is deficient, much less explain

¹⁵ This section of the DEIS also discusses “[o]ther energy generation alternatives involving

how this discussion could in any way cause the DEIS to “understate[] the effect of global warming on the cumulative impacts of the operation of STP 3 & 4” as their contention claims. DEIS Contentions at 5 (statement of Contention 2).

Third, Intervenors claim that the DEIS is deficient because it does not compare the greenhouse gas emissions of the proposed units with the emissions from the wind, solar, and geothermal alternatives. NEPA, however, does not require the DEIS to compare the environmental impacts (including greenhouse gas emissions) of the proposed units with the environmental impacts of wind, solar, or geothermal generation alternatives because none of these alternatives are “reasonable alternatives” to the proposed action.¹⁶ NRC regulations require the DEIS to contain a discussion of alternatives to the proposed action, 10 C.F.R. § 51.71, but “[t]o make an impact statement something more than an exercise in frivolous boiler-plate the concept of alternatives must be bounded by some notion of feasibility.” *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 551 (1978). An “agency need not analyze the ‘environmental consequences of alternatives it has in good faith rejected as too remote, speculative, or . . . impractical or ineffective.’” *Fuel Safe Washington v. Federal Energy Regulatory Commission*, 389 F.3d 1313, 1323 (10th Cir. 2004) (quoting *All Indian Pueblo Council v. United States*, 975 F.2d 1437, 1444

combustion of oil, wood waste, municipal solid waste, or biomass-derived fuels.” The DEIS states that these other alternatives:

would have CO₂ emissions from combustion as well as from workforce transportation, plant construction, and plant decommissioning. It is likely that the CO₂ emissions from the combustion process for these alternatives would dominate the other CO₂ emissions associated with the generation alternative. It is also likely that the CO₂ emissions from these alternatives would be the same order of magnitude as the emissions for the fossil-fuel alternatives considered in Sections 9.2.2.1, 9.2.2.2, and 9.2.4. However, because the review team determined that these alternatives do not meet the need for baseload power generation, the review team has not evaluated the CO₂ emissions quantitatively.

DEIS at 9-30 to 9-31.

¹⁶ The DEIS interchangeably uses the terms “reasonable alternative” and “viable alternative” to represent the same concept, which will be explained below.

(10th Cir.1992)). Rather, an EIS only needs to consider reasonable or feasible alternatives. *City of Sausalito v. O'Neill*, 386 F.3d 1186, 1207 (9th Cir. 2004). An alternative might not be considered reasonable for a variety of reasons, including a failure of the alternative to meet the project's purpose and need. *Exelon Generation Co. (Early Site Permit for Clinton ESP Site)*, CLI-05-29, 62 NRC 801, 806 (2005) (excluding the energy efficiency alternative because it would not advance the applicant's goals), *aff'd Environmental Law and Policy Center v. U.S. Nuclear Regulatory Comm'n*, 470 F.3d 676 (7th Cir. 2006). For alternatives that are not reasonable, an agency need only "briefly discuss" the reasons why the alternative was rejected from more detailed study. 40 C.F.R. § 1502.14(a) (Council on Environmental Quality (CEQ) regulation).¹⁷

In DEIS Sections 9.2.3.2, 9.2.3.3, and 9.2.3.5, the review team examined the wind, solar, and geothermal alternatives, respectively, and determined that they should be excluded from further consideration because they are not reasonable alternatives.¹⁸ In Contention 2, Intervenor's have not even cited to these analyses, much less offered a specific, focused, material, and sufficiently supported dispute with the DEIS.¹⁹ For Contention 2A to be admissible, Intervenor's must demonstrate that the issues raised are material, offer supporting facts or expert opinions, and provide sufficient information to demonstrate a genuine, material

¹⁷ Although CEQ regulations are not binding on the Commission, both the NRC and the U.S. Supreme Court accord them "substantial deference." See *Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), CLI-07-27, 66 NRC 215, 222 n.21 (2007) (citing *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 334, 355-56 (1989)).

¹⁸ In Section 9.2.4 of the DEIS, the review team considered a combination of alternatives that included a mix of gas generation, wind generation, hydropower, biomass generation, and additional energy savings from conservation and demand-side management beyond what is currently planned. DEIS at 9-27 to -28. The review team determined that this combination of alternatives was a reasonable alternative to the proposed units and compared the environmental impacts of the combination of alternatives with the impacts from the proposed units. *Id.* The review team, however, concluded in DEIS Section 9.2.5 that the combination of alternatives was not environmentally preferable to the proposed units. *Id.* at 9-29. Intervenor's do not dispute the DEIS discussion of the combination of alternatives.

¹⁹ Intervenor's do claim in Contention 3 that the wind and solar alternatives were wrongly determined to be non-viable, but as explained in the Staff response to Contention 3, this challenge is inadmissible.

dispute with the DEIS. 10 C.F.R. § 2.309(f)(1)(iv)-(vi). Admissible contentions also “must include references to specific portions of the application” (in this case the DEIS) that Intervenor dispute “and the supporting reasons for each dispute.” 10 C.F.R. § 2.309(f)(1)(vi). As the Commission has held, petitioners “must read the pertinent portions of the license application . . . and . . . state the applicant's position and the petitioner's opposing view.” *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001), *pet. for reconsideration denied*, CLI-02-01, 55 NRC 1 (2002) (internal quotation omitted). As discussed above, because Intervenor has done none of these things, their Contention 2A alternatives arguments do not constitute an admissible basis for Contention 2. See 10 C.F.R. § 2.309(f)(1)(vi).

BASIS B:

The DEIS acknowledges that a rising sea level caused by climate change could cause salt water to flow farther up the Colorado River towards the Reservoir Makeup Pumping Facility but does not consider the increased salinity of the water on plant operations. Increased salinity of water from the Colorado River could have adverse effects on plant operations.

DEIS Contentions at 6 (internal footnotes omitted). Intervenor asserts that the DEIS does not consider the increased salinity of the water on plant operations. *Id.* Intervenor next asserts that increased salinity of water from the Colorado River could have adverse effects on plant operations. *Id.* Specifically, relying on the Power Report, Intervenor asserts that:

. . . no analysis has been conducted in the DEIS on the impact of the salt water incursion into the Reservoir Makeup Pumping Facility or the increased salinity of the groundwater used for makeup. If the salinity increases the current fresh water based cooling system will be subject to corrosion and may become inoperable or need to be replaced by a desalinization facility.

Power Report at 10. Finally, Intervenor references, without explanation, a 1984 NRC Information Notice and a 1986 article on cooling towers and salt water corrosion. DEIS Contentions at 6 n.19.

Staff Response: Staff opposes admission of DEIS Contention 2, Basis B, as Intervenor have failed to satisfy the general contention admissibility requirement set forth in 10 C.F.R. § 2.309(f)(1)(vi) (contention raises no genuine dispute on a material issue of law or fact).

Intervenors fail to explain in the DEIS Contentions what they mean by impact on operations. DEIS Contentions at 6. However, the Power Report referenced by Intervenor discusses the issue of salinity causing corrosion of the cooling system. See Power Report at 10. The Staff interprets this to be the focus of the contention.²⁰ The Power Report refers to potential corrosion of the cooling water system and the possibility that the cooling water system may become inoperable or need to be replaced by a desalinization facility. Power Report at 10. Mr. Power, however, provides no explanation or support for the proposition that such corrosion would occur, or how the cooling water system would become operable, or why a desalinization facility might be necessary. Unsupported expert assertions, by themselves, do not offer support for an admissible contention. See *USEC, Inc. (American Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 472 (2006). Intervenor and the Power Report fail to establish how these concerns are applicable to the STP COLA. According to the COLA, the ultimate heat sink (UHS) for STP Units 3 and 4 will have two water storage basins and helper mechanical draft towers. See DEIS at 3-6 to 3-8. The UHS would be fed from groundwater, with backup from the Main Cooling Reservoir (MCR). Intervenor, however, do not explain how their salinity concerns are specifically applicable to the STP units. *Id.* Intervenor's contention raises no genuine dispute on a material issue of law or fact and as such does not satisfy 10 C.F.R. § 2.309(f)(1)(vi).

Mr. Power also does not explain how corrosion would result in an environmental impact that needs to be included in the DEIS. Even under the unsupported scenario put forth by

²⁰ To the extent Intervenor contemplated other environmental contentions involving salinity, the Staff notes that not only did Intervenor fail to raise or specify any such contentions, Intervenor also did not take issue with the DEIS discussion of the environmental impacts associated with salinity. The arguments specifically raised in the Power Report are addressed below.

Intervenors, in which the plant temporarily becomes inoperable while repairs take place, there would be no environmental impact from not operating. In addition, Intervenors' assertion that a desalinization facility may have to be constructed is unsupported by any facts, law, or analysis. Speculation that something may happen is not material because "NEPA does not call for certainty or precision, but an *estimate* of anticipated (not unduly speculative) impacts." *LES*, CLI-05-20, 62 NRC at 536. The Power Report, therefore, does not demonstrate a genuine dispute with the DEIS on a material issue. See 10 C.F.R. § 2.309(f)(1)(vi).

Intervenors also provide two generic references but do not provide an analysis or explanation of how the referenced material applies to the DEIS or to the STP COL proceeding. DEIS Contentions at 6 n.19. Simply attaching or referencing documents in support of a contention without any explanation of its significance does not provide a basis for a contention. See *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-10, 47 NRC 288, 298-99 (1998). In order to demonstrate a genuine, material dispute with the DEIS on a specific plant, Intervenors must engage the *specific* analysis in the DEIS and explain how it is incorrect using facts that are *specific* to the plant in question. Intervenors' contention raises no genuine dispute on a material issue of law or fact and as such does not satisfy § 2.309(f)(1)(vi).

For the reasons set forth above, proposed Contention 2, Basis B should be rejected.

BASIS C:

The DEIS describes STP 3 & 4 cumulative impacts on surface water and groundwater quality but fails to compare cumulative impacts to surface water quality from alternatives such as wind and solar. The failure to compare water quality impacts from alternatives including wind, solar, geothermal, etc. has the effect of distorting the relative advantages of nuclear power.

DEIS Contentions at 6 (internal footnote omitted).

Staff Response: Contention 2, Basis C is inadmissible because it does not demonstrate that the issue it raises is material, is not supported by alleged facts or expert opinion, and fails to create a genuine, material dispute with the DEIS. See 10 C.F.R. § 2.309(f)(1)(iv)-(vi). As explained in more detail in the Staff response to Contention 2A, NEPA does not require a

comparison of the environmental impacts of the proposed action with the environmental impacts of alternatives that are not considered reasonable or feasible. See *Fuel Safe Washington*, 389 F.3d at 1323; *City of Sausalito v. O'Neill*, 386 F.3d at 1207. The wind, solar, and geothermal generation alternatives were examined in DEIS Sections 9.2.3.2, 9.2.3.3, and 9.2.3.5, respectively, and were determined not to be reasonable alternatives to the proposed action. For this reason, the review team was under no obligation to compare the impacts (cumulative or otherwise) of wind, solar, and geothermal generation with the impacts of the proposed action. Such a comparison, therefore, is not material to the findings required in this proceeding. 10 C.F.R. § 2.309(f)(1)(iv). Intervenors cite to no legal authority that such a comparison is required, as is required for contentions of omission. 10 C.F.R. § 2.309(f)(1)(vi). In Contention 2, Intervenors also do not cite to the DEIS analyses rejecting the wind, solar, and geothermal alternatives, much less offer a genuine, material, and sufficiently supported challenge to these analyses, as is required by 10 C.F.R. § 2.309(f)(1)(iv)-(vi).²¹ Contention 2C, therefore, is inadmissible.

BASIS D:

The DEIS fails to consider the effect of global warming on operations of STP Units 3 & 4 related to: 1) water availability; and 2) increased ambient temperatures of air and the effect of higher cooling water temperatures. The failure to consider these adverse impacts has the effect of omitting material information concerning water usage and temperature thereof and effects on plant operations. This omission has the effect of overstating relative advantages of nuclear power and understating environmental impacts.

DEIS Contentions at 6 (internal footnotes omitted). Intervenors argue that the DEIS failed to consider the effect of global warming on operations of STP Units 3 and 4. *Id.* In support, Intervenors cite the Power Report, which asserts that the DEIS failed to: analyze the impact of increased ambient air and cooling water temperatures on operations; examine the impact of increased thermal loading resulting from the discharge; examine the impact of increased

²¹ Intervenors do claim in Contention 3 that the wind and solar alternatives were wrongly determined to be non-viable, but as explained in the Staff response to Contention 3, this challenge is inadmissible.

ambient temperature on the temperature of the cooling water reservoir; and analyze the impact of changes in precipitation. See Power Report at 10-11. As for any specific impacts associated with the above, the Power Report cites to a 2009 report for the proposition that “nuclear plants have been limited in their operations by reduced river levels caused by higher temperatures and thermal limits on water discharge.” *Id.* at 10 & n.29. The Power Report also cites to the experience of French nuclear units, which had to reduce their power output during a heat wave in 2003. *Id.* at 11. Finally, the Power Report cites to a Texas Water Department Board report stating that, as water consumption increases over the next fifty years, the power sector, particularly in Central and West Texas, will become increasingly vulnerable to drought. *Id.* The cited source goes on to state that drought can threaten the ability to cool a steam-electric power plant. *Id.*

Staff's Response: Contention 2, Basis D, does not meet the contention standards in 10 C.F.R. § 2.309(f)(1)(vi). Although not clear, the basis for Contention 2 refers to impacts on operations and the relative advantages of nuclear power, and alleges that the DEIS understates environmental impacts. However, the Power Report makes broad references to: the impact of increased ambient air and cooling water temperatures on operations; the impact of increased thermal loading resulting from the discharge; the impact of increased ambient temperature on the temperature of the cooling water reservoir; and the impact of changes in precipitation. See Power Report at 10-11. With respect to these general assertions, Intervenor's do not specifically explain how the DEIS is deficient. Contrary to Intervenor's assertions, the effects of global warming were discussed in the DEIS. Specifically, Chapter 7 of the DEIS provided:

. . . On a larger spatial and longer time scale, Global Climate Change (GCC) is a subject of national and international interest. The recent compilation of the state of knowledge by the U.S. Global Change Research Program (GCRP), a Federal Advisory Committee, has been considered in preparation of this EIS (Karl et al. 2009). Within the Colorado River Basin, changes in temperature and precipitation are projected by 2080-2099. In Section 2.9.1, the review team discussed changes to temperature and precipitation resulting from global climate change forecasted by U.S. GCRP for the vicinity of the site. The review team determined that the forecasted changes could affect water supply and water quality in the

Colorado River Basin during operation of the proposed STP Units 3 and 4. For the water use and water quality assessments discussed below, the review team considered forecasted changes to temperature and precipitation for the entire Colorado River watershed. The projected change in temperature from 'present day' (1993-2008) to the period encompassing the licensing action (i.e., the period of 2040 to 2059 in the GCRP report) for the Colorado River watershed is an increase of between 0 to 5°F. While the GCRP has not incrementally forecasted the change in precipitation by decade to align with the licensing action, the projected change in precipitation from the 'recent past' (1961-1979) to the period 2080 to 2099 is a decrease of between 10 to 30 percent (Karl et al. 2009). The GCRP assessment also identified this region as likely to experience water conflicts by 2025 based on a combination of factors including population trends and potential endangered species' needs.

DEIS at 7-8. On the impact of climate change on groundwater use, the DEIS provided:

The review team is also aware of the potential climate changes that could affect groundwater use. A recent compilation of the state of knowledge in this area (Karl et al. 2009) has been considered in the preparation of this EIS. Projected changes in the climate for the region during the life of the proposed Units 3 and 4 include an increase in average temperature and a decrease in precipitation. These changes are likely to result in changes to agriculture including crops, pests, and the associated changes in application of nutrients, pesticides and herbicides that may reach groundwater. As a result, groundwater quality may be altered by the infiltration of different chemicals. While the groundwater quality changes that are indirectly attributable to climate change may not be insignificant, the review team did not identify anything that would alter its conclusion regarding groundwater quality above.

DEIS at 7-15. Intervenors point to no deficiencies in the discussion; therefore, they have not demonstrated a genuine, material dispute with the DEIS. 10 C.F.R. § 2.309(f)(1)(vi).

Intervenors' only specific focus appears to be reduced power output and temporary shutdown, directly or indirectly caused by water shortages or rising water temperatures. See Power Report at 11. Intervenors, however, only provide generic references, and do not provide an analysis or explanation of how the referenced material applies to the DEIS or to the proposed STP Units. The simple act of disagreeing with the DEIS does not provide sufficient information to establish a genuine, material dispute with the Applicant. See *USEC, Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006). Intervenors' contention raises no genuine dispute on a material issue of law or fact and as such does not satisfy 2.309(f)(1)(vi).

In addition, Intervenor do not explain how any discussion of environmental impacts is deficient. Intervenor, in the context of a DEIS review, fail to discuss any impact related to *not* operating the proposed STP Units. Staff fails to see how there would be additional environmental impacts from not operating the STP Units as, by definition, there would be no impacts from plant operations if the plants were not operating. Intervenor do not establish how their concerns are material to the STP DEIS. Intervenor show no genuine dispute on a material issue of law or fact and as such do not satisfy § 2.309(f)(1)(vi). Basis D, therefore, is inadmissible.

For the reasons set forth above, proposed Contention 2 should be denied.

- C. Contention 3: The DEIS fails to compare the CO₂ emissions of the UFC to the CO₂ emissions of wind and solar power.

DEIS Contentions at 7. Intervenor claim that a study by B.K. Sovacool, referenced in Appendix I of the DEIS, concludes that “alternatives such as wind, solar, and geothermal have much smaller CO₂ footprints than nuclear powered generation.” *Id.* Although Intervenor recognize that the DEIS concludes that “wind, solar and hydropower have minor CO₂ impacts,” Intervenor assert that the DEIS “does not quantify any comparisons and erroneously concludes that the nuclear option has the lowest emission of GHG of viable alternatives.” *Id.* According to Intervenor, the DEIS wrongly concludes that “alternatives such as wind, solar, and geothermal (or combinations thereof) are not viable baseload alternatives.” *Id.* As a refutation to this DEIS conclusion, Intervenor offer a recent announcement of a CAES facility in Texas, along with a conclusion by the National Renewable Energy Laboratory (NREL) that wind generation coupled with CAES is a “viable baseload source.” *Id.* at 7-8. Citing to page 7 of the Power Report, Intervenor also claim that the DEIS fails to discuss combinations of wind and solar as baseload generation. *Id.* at 8. The Power Report amplifies this argument by stating:

[T]here has been considerable additional information on the conclusions of combining new generation power sources with storage that would also apply in this instance. *Natural gas, wind, solar, and energy storage* either individually or in combination, are viable alternatives that could both produce baseload power and

be environmentally preferable to nuclear generation.

Power Report at 7 (emphasis added).

Staff Response: Contention 3 claims that the DEIS must compare the UFC CO₂ emissions with CO₂ emissions from wind and solar, but, as explained in more detail in the response to Contention 2A, an EIS is only required to compare the environmental impacts of the proposed action with the environmental impacts of reasonable alternatives. See *Fuel Safe Washington*, 389 F.3d at 1323; *City of Sausalito v. O'Neill*, 386 F.3d at 1207. The review team determined that wind and solar generation were not reasonable alternatives, so these alternatives did not need to be considered further. DEIS Sections 9.2.3.2 and 9.2.3.3. Intervenor, however, assert that this conclusion is erroneous because wind and solar can be baseload sources in combination with CAES. As explained below, Contention 3 is inadmissible because it fails to provide sufficient information to demonstrate a genuine, material dispute with the DEIS over whether wind and solar are reasonable alternatives to the proposed action.

10 C.F.R. § 2.309(f)(1)(vi).²²

With respect to alternative sources of power, the Commission has focused on the *type and amount* of electrical energy that the applicant seeks to produce. See *Clinton ESP*, CLI-05-29, 62 NRC at 809-10. In order to be a reasonable alternative, an alternative must be able to produce sufficient power to satisfy the project's purpose. *Id.* In *Clinton ESP*, the Commission specifically noted that the licensing board's decision rested, in part, upon the fact that "[i]n order to satisfy the purpose of the project, and thus to constitute a reasonable

²² In the supporting discussion for Contention 3, Intervenor also mention geothermal energy. DEIS Contentions at 7. However, Intervenor fail to demonstrate that geothermal energy is a viable alternative other than to simply assert that the DEIS wrongly rejects it; Intervenor do not even attempt to engage the DEIS evaluation of geothermal energy. See DEIS at 9-24. Thus, Intervenor clearly fail to provide alleged supporting facts or expert opinions or sufficient information to demonstrate a genuine, material dispute with the DEIS evaluation of geothermal energy. See 10 C.F.R. § 2.309(f)(1)(v),(vi).

alternative, the combined facility must be able to generate power in the amount of 2180 MW at all times.” *Id.* at 809. With this in mind, the Commission found that “[b]ecause a solely wind- or solar-powered facility could not satisfy the project's purpose, there was no need to compare the impact of such facilities to the impact of the proposed nuclear plant.” *Id.* at 810.

For the STP COL application, the project’s purpose and need is the production of baseload electrical power “for use in the owner’s current markets and/or for potential sale on the wholesale market.” DEIS at 1-8. Chapter 8 of the DEIS concluded that there was a justified need for new baseload capacity in excess of the 2740 MW(e) output of the proposed units, and Chapter 9 used 2700 MW(e) as the target value for comparing energy alternatives.

Id. at 8-26, 9-4. Therefore, the key issue in determining the admissibility of Contention 3 is whether Intervenors have provided sufficient information to demonstrate a genuine, material dispute over whether wind and solar generation can generate 2700 MW(e) of baseload power. 10 C.F.R. § 2.309(f)(1)(vi).

However, the support offered by Intervenors in support of Contention 3 is not in disagreement with the DEIS analyses, and does not demonstrate a genuine, material dispute with the DEIS rejection of wind and solar as alternatives. In support of their contention, Intervenors offer a conclusion by NREL that wind energy combined with CAES can provide baseload power. DEIS Contentions at 8. However, in DEIS Section 9.2.3.2, the review team recognized that wind energy, which individually is an intermittent power source, might serve as a baseload power source in combination with CAES. DEIS at 9-21.

As explained in the DEIS, the problem with CAES is an undemonstrated ability to provide capacity in the amount produced by the proposed units:

Only two CAES plants are currently in operation. A 290-MW plant near Bremen, Germany, began operating in 1978, and a 110-MW plant located in McIntosh, Alabama, has been operating since 1991. Both facilities use salt caverns (Succar and Williams 2008). A CAES plant requires suitable geology such as an underground cavern for energy storage. A 268-MW CAES plant coupled to a wind farm, the Iowa Stored Energy Park, has been proposed for construction near Des Moines, Iowa. The facility would use a porous rock storage reservoir for

the compressed air (Succar and Williams 2008). To date, nothing approaching the scale of a 2700 MW(e) facility has been contemplated. Therefore, the review team concludes that the use of CAES in combination with wind turbines to generate 2700 MW(e) in Texas is unlikely.

Id. The DEIS analysis of solar generation in Section 9.2.3.3 similarly recognized that normally intermittent solar generation might serve as a baseload power source when coupled with energy storage. *Id.* at 9-23. The review team, however, referencing its earlier discussion of storage in the wind generation context, determined that these storage possibilities are limited and that solar, therefore, is not a reasonable alternative. *Id.* These conclusions were appropriate because an EIS need not assess the impacts of alternatives that are not reasonable. *City of Sausalito v. O'Neill*, 386 F.3d at 1207. Only alternatives that meet the need for 2700 MW(e) of baseload power require further exploration. See *Clinton ESP*, CLI-05-29, 62 NRC at 809-10.

The recent announcement regarding a CAES facility in Texas does not contradict the DEIS analysis. The Power Report provides more information about the announcement and quotes from a press release about it. Power Report at 6. However, as explained in the Staff response to Contention 1, Basis H, a review of the announcement in the press release indicates that it is for the development of a “pilot project” of unspecified capacity. CAES Press Release at 1. There is nothing in this press release that is inconsistent with the DEIS analysis of CAES, and Intervenor do not even attempt to specifically explain how any part of the DEIS discussion is in error. The existence of an agreement to pursue development of a pilot CAES project of unspecified capacity does not create a genuine, material dispute over whether CAES is capable of supporting 2700 MW(e) of baseload wind and/or solar generation.

Intervenor further claim that the DEIS fails to discuss a combination of wind and solar as baseload generation, but Intervenor do not explain how wind and solar, in combination with CAES storage, could produce 2700 MW(e) of baseload power. Given that Intervenor cite to page 7 of the Power Report in support of this combination argument, it is possible that their argument could potentially contemplate a combination of wind, solar, energy storage, and

natural gas generation. See Power Report at 7 (mentioning a combination of natural gas, wind, solar, and energy storage as a baseload power source). However, the review team examined the following combination of alternatives in DEIS Section 9.2.4:

. . . *three 675 MW(e) natural gas combined-cycle generating units at the STP site*, and the following contributions from within STPNOC's ROI: 50 MW(e) of hydropower (including a new reservoir), 250 MW(e) from biomass sources including municipal solid waste, 175 MW(e) from additional conservation and demand-side management programs beyond what is currently planned, and *200 MW(e) from wind power*. . . *Wind energy would need to be combined with an energy storage mechanism, such as CAES, to be a base-load resource*. The review team believes that the preceding contributions are reasonable and representative for STPNOC's ROI.

DEIS at 9-27 (emphases added). In Section 9.2.5 the review team determined that although the combination of alternatives was reasonable, it was not environmentally preferable to the proposed units. *Id.* at 9-29. Intervenor do not cite to, much less provide a material, sufficiently focused and supported dispute with the DEIS discussion of the combination of alternatives.²³

As explained above, Contention 3 is inadmissible because Intervenor fail to provide sufficient information to demonstrate a genuine dispute on a material issue of law or fact. 10 C.F.R. § 2.309(f)(1)(vi).

- D. Contention 4: The DEIS analysis of STP 3 & 4 construction impacts related to GHG emissions assumes appropriate mitigation measures would be adopted but fails to discuss what mitigation measures would be available to minimize GHG emissions during construction.

DEIS Contentions at 8. Intervenor support this contention with the following discussion:

²³ The discussion of the combination of alternatives did not include solar generation. However, "an agency's consideration of alternatives is sufficient if it considers an appropriate range of alternatives, even if it does not consider every available alternative." *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-03-30, 58 NRC 454, 479 (2003) (quoting *Headwaters, Inc. v. BLM*, 914 F.2d 1174, 1181 (9th Cir. 1990), *reh'g and reh'g en banc denied*, 940 F.2d 435 (1991)) (alteration in original). If Intervenor believed that the DEIS discussion of the combination of alternatives was deficient because it excluded solar generation, it was incumbent on Intervenor to submit a contention that explained the alleged deficiency and provided sufficient support to demonstrate admissibility. 10 C.F.R. § 2.309(f)(1).

The DEIS acknowledges that construction activities include those with GHG impacts. And then the DEIS dismisses any need to analyze such because it assumes appropriate mitigation would be implemented. But the DEIS makes no attempt to determine what mitigation measures/alternatives are available let alone what actual effects on GHG emissions would be realized by such. The DEIS suggests no specific alternatives or GHG mitigation measures related to earthmoving, concrete batch plant operations or any other construction related activity. This assumption/ leap of faith is contrary to 10 CFR 51.70(b) that requires the DEIS to be analytic in its discussion of impacts.

DEIS Contentions at 8-9 (internal footnotes omitted). Intervenors cite to the DEIS at 4-63.

Id. at 8.

Staff Response: The contention fails to satisfy the admissibility requirements in 10 C.F.R. § 2.309(f)(1)(v)-(vi), as well as the requirements for new and amended contentions in 10 C.F.R. § 2.309(f)(2) and (c).

In Section 4.7.1 of the DEIS, the review team acknowledged that development activities at the proposed site would result in temporary impacts on air quality at the site, generating fugitive dust, as well as emitting carbon monoxide, oxides of nitrogen, and volatile organic compounds. DEIS at 4-62. The review team next addressed the Applicant's proposed mitigation measures to minimize the impacts of construction and preconstruction activities on air quality at the site (*i.e.*, the Construction Environmental Controls Plan, which would identify "measures to control fugitive dust and other emissions"). *Id.* at 4-62, 4-63. The review team then analyzed *greenhouse gas impacts* from construction and preoperational activities, estimating that the CO₂ emission footprint from all of the construction equipment for the proposed project would be about 70,000 metric tons over the seven-year construction period, as compared to the total U.S. annual CO₂ emission rate of 6,000,000,000 metric tons. *Id.* at 4-63. Because of the relatively small carbon footprint from construction activities as compared to the U.S. annual CO₂ emission rate, the review team concluded that "atmospheric impacts of greenhouse gases from construction and preconstruction activities would not be noticeable and additional mitigation would not be warranted." *Id.* Finally, the review team summarized its

findings on air quality for all of Section 4.7.1, concluding that impacts on air quality from “construction and preconstruction activities” would be “temporary and limited in magnitude,” and thus “would not be noticeable because appropriate mitigation measures would be adopted.” *Id.*

Contentions based on an imprecise reading of the DEIS cannot serve to generate a genuine issue suitable for litigation. *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 300 (1995) (rejecting a contention based on a mistaken reading of the SAR), *rev'd in part on other grounds*, CLI-95-10, 42 NRC 1 (1995). Contention 4 is based on a misreading of the DEIS. Intervenors cite to the portion of the DEIS that summarizes the entire section on air quality impacts from construction and preconstruction activities when they allege that the DEIS “assumes appropriate mitigation measures would be adopted” but fails to discuss mitigation measures to minimize greenhouse gas impacts. DEIS Contentions at 8. The mitigation measures in the cited portion refer to mitigation measures for emissions *other than* greenhouse gases. DEIS at 4-62 and 4-63. The review team did not consider further mitigation measures for greenhouse gases because it concluded that those impacts would be negligible. DEIS at 4-63. Thus, Intervenors have shown no genuine, material dispute with the DEIS.

To the extent that Intervenors are arguing that mitigation measures specifically for greenhouse gas emissions should be discussed in Section 4.7.1, Intervenors do not establish a genuine dispute on a material issue. To be material, environmental contentions must focus on “significant inaccuracies or omissions” in the DEIS. *Grand Gulf*, CLI-05-4, 61 NRC at 13. Intervenors do not dispute the key conclusion in the DEIS – that the impact of greenhouse gas emissions from construction and preconstruction activities as compared to the sum of annual emissions in the United States is small – but allege that the DEIS fails to address greenhouse gas impacts from construction activities as well as mitigation measures in that context. DEIS Contentions at 8-9. As stated above, the review team did analyze greenhouse gas impacts from construction activities, estimating that the CO₂ emission footprint from all of the

construction equipment for the proposed project would be about 70,000 metric tons over the seven-year construction period, as compared to the total U.S. annual CO₂ emission rate of 6,000,000,000 metric tons. DEIS at 4-63. As for a more detailed consideration of mitigation measures in the greenhouse gas context, Intervenor do not provide any support for their argument that such a discussion is warranted, given that the impact finding is small. A properly pled contention of omission states that “the application fails to contain information on a relevant matter as required by law . . . and [provides] the supporting reasons for the petitioner's belief.” 10 C.F.R. § 2.309(f)(1)(vi). Intervenor do not explain why an analysis of mitigation measures specifically for greenhouse gas impacts is required.

Intervenor’s insistence on a specific analysis of mitigation measures for greenhouse gas impacts does not constitute a significant omission or error that would render the contention material. NEPA gives agencies broad discretion to keep their inquiries within appropriate and manageable boundaries. *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 103 (1998). In accordance with NRC regulations, the review team analyzed data in the DEIS in a level of detail that was “commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced.” See 10 C.F.R. Part 51, Subpart A, Appendix A, Section 6. Here, since the impact on greenhouse gas emissions from the proposed units was negligible, a specific mitigation analysis was unnecessary. Intervenor do not offer factual support or expert opinion to demonstrate that the DEIS is flawed or to confirm the existence of a specified, material omission in the DEIS. 10 C.F.R. § 2.309(f)(1)(v)-(vi). “If the ER (or EIS) on its face comes to grips with all important considerations nothing more need be done.” *Grand Gulf*, CLI-05-4, 61 NRC at 13. Thus, Contention 4 fails to raise a significant inaccuracy or omission in the DEIS under the materiality requirement in 10 C.F.R. § 2.309(f)(1)(vi) or to produce supporting evidence or expert opinions as required under 10 C.F.R. § 2.309(f)(1)(v).

Intervenor’s argument related to the discussion of mitigation measures in the context of

greenhouse gas impacts is also untimely. As the language of 10 C.F.R. § 2.309(c) and (f)(2) make clear, Intervenor has the burden of demonstrating that contentions filed after the initial filing deadline meet the late-filing standards of § 2.309(c) and (f)(2). See *Oyster Creek*, CLI-09-7, 69 NRC at 260-61. The Board's Initial Scheduling Order reinforced this burden, see Initial Scheduling Order at 8-9, but Intervenor has not attempted to meet it.

Intervenor has not explained how the data or conclusions in the DEIS "differ significantly" from the data or conclusions in the Applicant's documents, as required under 10 C.F.R. § 2.309(f)(2). The DEIS captures the same mitigation measures for air quality discussed by the Applicant in the ER – the Construction Environmental Controls Plan and other measures to reduce emissions from equipment and vehicles. See, e.g., ER §§ 3.9S.1.1, 3.9S.5, 3.9S.2.2 (Rev. 3) (ML092931553). Thus, the information upon which Intervenor's contention is based is not "materially different than information previously available."

10 C.F.R. § 2.309(f)(2)(ii). Intervenor had an earlier opportunity to challenge the ER on the adequacy of its air quality mitigation plans for the construction of the proposed two units, but they chose not to do so.

With respect to the § 2.309(c) balancing factors, Intervenor has not shown good cause under § 2.309(c)(1)(i) because they have not shown that the information they rely upon is new and could not have been raised earlier. *Millstone*, CLI-05-24, 62 NRC at 564-65. Good cause is the most important of the balancing factors, *State of New Jersey*, CLI-93-25, 38 NRC at 296, and where good cause has not been shown, the showing on the other factors must be particularly strong. *Comanche Peak*, CLI-92-12, 36 NRC at 73. Intervenor makes no attempt to demonstrate fulfillment of the other factors. For the above reasons, Intervenor has not met their burden of demonstrating that Contention 4 meets the late-filing factors of § 2.309.

Thus, Contention 4 is inadmissible.

- E. Contention 5: The DEIS conclusion that impacts caused by changes in global climate change "may not be insignificant" fails to meet the requirements of 10 CFR 51.70(b) to be "clear and analytic."

DEIS Contentions at 9. Intervenors' discussion focuses on discussions in two sections of the DEIS: Section 7.2.1.2, Groundwater Use Impacts, and Section 7.7, Nonradiological Health. See DEIS Contention at 9 nn.33 & 34. Intervenors contend that with respect to climate change impacts related to groundwater and nonradiological health, the DEIS has a "somewhat ambiguous conclusion" and fails to satisfy 10 C.F.R. § 51.70(b). *Id.* Intervenors also claim that the DEIS:

Failed to take a "hard look" at impacts it determines are "not significant" and instead merely concludes such have small effects. This failure does not provide sufficient detail to understand how conclusions were reached. As a result, the public and decision makers are unable to make reasoned choices among competing alternatives.

Id. at 10.

Staff's Response: For the reasons set forth below, Staff opposes admission of proposed Contention 5. Although Intervenors claim that the DEIS failed to take a hard look at impacts it determines are not significant, the DEIS does in fact explain how the conclusions in it were reached. See DEIS 7-13 to 7-16. Further, Intervenors fail to provide any support for a dispute with the DEIS. For these reasons, Intervenors fail to meet 10 C.F.R. § 2.309(f)(1)(v)-(vi).

The Intervenors argue that the DEIS conclusion that certain impacts are "not insignificant" is "inconsistent with conclusion that are considered 'small.'" DEIS Contentions at 9. However, the DEIS conclusions are not inconsistent. Specifically, regarding nonradiological health, the DEIS review team concluded that the cumulative impacts on public and worker nonradiological health would be SMALL. See DEIS at 7-47. The phrase "are not insignificant" refers to potential climate change impacts in the geographic area of proposed Units 3 & 4, which the review team characterized as follows:

Projected changes in the climate for the region during the life of proposed Units 3 and 4 include an increase in average temperature and a decrease in precipitation. Potential changes in water temperature and frequency of downpours could alter the presence of thermophilic microorganisms.

Id. However, the review team did not identify anything that would increase the presence of

etiological agents; therefore, the DEIS conclusion of “SMALL” remained unchanged. Thus, there is no inconsistency in the DEIS evaluation; no genuine, material dispute exists.

10 C.F.R. § 2.309(f)(1)(vi); *Georgia Tech*, LBP-95-6, 41 NRC at 300 (rejecting a contention based on a mistaken reading of the SAR).

With regard to groundwater use, the DEIS stated the following:

Projected changes in the climate for the region during the life of proposed Units 3 and 4 include an increase in average temperature and a decrease in precipitation. This may result in less groundwater recharge. While the changes that are attributed to climate change in these studies are not insignificant, the review team did not identify anything that would alter its conclusion regarding groundwater use below.

DEIS at 7-15. The DEIS recognized that climate change has the potential to affect groundwater in the region of interest, but the review team’s overall conclusions on cumulative impacts were not altered. *Id.* Intervenor’s fail to engage the DEIS discussion of groundwater use impacts on pages 7-13 to 7-16 and specifically explain how any of the DEIS conclusions would be altered. Intervenor’s have shown no inconsistency and have not demonstrated that a genuine, material dispute with the DEIS exists. See 10 C.F.R. § 2.309(f)(1)(vi).

Regarding the Intervenor’s claim that the DEIS “does not provide sufficient detail to understand how the conclusions were reached,” as described above, the DEIS does explain the review team’s conclusions regarding the impacts of climate change in the region of interest. Intervenor’s fail to explain how the impacts discussions, as described above, are materially inadequate. To be material, environmental contentions must focus on “significant inaccuracies or omissions in the [DEIS].” *Grand Gulf*, CLI-05-4, 61 NRC at 13. Intervenor’s did not identify any inaccuracies or omissions in the DEIS. The review team analyzed data in the DEIS in a level of detail that was “commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced.” See 10 C.F.R. Part 51, Subpart A, Appendix A, Section 6. Nothing in 10 C.F.R. 51.70(b) or 10 C.F.R. Part 51, Subpart A, supports Intervenor’s claim that a more extensive analysis in the relevant DEIS section is required. Thus,

Contention 5 fails to raise a genuine dispute on a material issue as required under 10 C.F.R. § 2.309(f)(1)(vi).

For the reasons set forth above, proposed Contention 5 should be denied.

- F. Contention 6: The DEIS analysis of surface water availability fails to account for the sale of 19,356 acre ft/yr from the Colorado River to the Las Brisas coal-fired power plant.

DEIS Contentions at 10. Intervenors contend that the failure to discuss the Las Brisas Energy Center project²⁴ is a material omission from the DEIS discussion of surface water impacts and is significant, particularly in low-flow periods, when the proposed STP units will be competing for scarce water resources with other power plants. *Id.* at 11. Intervenors cite to the Power Report, which provides that:

The review team failed to analyze the impact of increased ambient air and cooling water temperatures on operations. Nor did it analyze the impact of the increase thermal loading resulting from the discharge. Both of these impacts were raised during public comments on this plant. The failure of the NRC's Staff to analyze these impacts is a serious omission.

Power Report at 12. Intervenors claim that the DEIS did not discuss the transaction, nor the effects thereof, on the assumed volume of water available from the Colorado River for STP Units 3 & 4. *Id.*

Staff Response: Staff opposes Intervenors' proposed Contention 6 because Intervenors fail to explain how the DEIS evaluation of cumulative surface water impacts is materially deficient without accounting for a possible sale of 19,356 acre ft/yr of water. Accordingly, Intervenors fail to satisfy the general contention admissibility requirements by not demonstrating that a genuine dispute on a material issue of law or fact exists. See 10 C.F.R. § 2.309(f)(1)(vi).

²⁴ The DEIS was issued in March 2010. After the issuance of the DEIS, the City of Corpus Christi, Texas, in May 2010, authorized its city manager to negotiate a water contract for the proposed Las Brisas Energy Center project. Intervenors contend that water resources for Units 3 & 4 operations have been diminished by the recent "sale" of 19,356 acre ft/yr from the Colorado River for use by the Las Brisas coal-fired power plant.

Intervenors do not attempt to engage the DEIS evaluation of surface water impacts to show that the omission is significant. With respect to the materiality of contentions, issues are material if they represent significant inaccuracies or omissions. The Commission, in affirming a licensing board's rejection of a contention, stated the following:

At NRC licensing hearings, petitioners may raise contentions seeking correction of significant inaccuracies and omissions in the ER. Our boards do not sit to 'flyspeck' environmental documents or to add details or nuances.

Grand Gulf, CLI-05-4, 61 NRC at 13. Intervenors have not demonstrated the materiality of Contention 6.

DEIS Section 7.2.1.1 evaluated Surface Water-Use Impacts, and part of the DEIS analyzed regional and state water planning, allocation, and management plans. See DEIS at 7-9 to 7-13. The DEIS review included a review of the Texas State Water Plan, Summary of Lower Colorado (K) Region, which provided information on the estimated 2010 to 2060 water supply in Region K. *Id.* The review team reached the following conclusion:

The operation of existing and proposed units at the STP site, the WSEC project, and the LCRA SAWS project together would use 21 percent of the estimated 2010 water supply in Region K. With the anticipated implementation of the proposed water management strategies (TWDB 2006b), the combined water used by the projects listed above would be 17 percent of the Region K 2060 water supplies. The combined water used by the projects listed above would be 28 percent of the Region K 2060 water supply without implementation of any new water management strategies. The review team concludes that the combined water use of the proposed units at the STP site, the WSEC project, and the LCRA-SAWS project would result in a noticeable but not destabilizing impact on the surface water resources of Region K. As stated above, implementation of water management strategies results in additional water available for use.

Id. at 7-11 to 7-12. The WSEC project, in particular, is useful for comparison because Intervenors cite to a map in the Power Report that states that the water use for the WSEC would be identical to that of the Las Brisas project. See Power Report at 12. The review team evaluated the surface water withdrawals of the WSEC project as follows:

The WSEC water use of 22,000 ac-ft per year would be 2 percent of the current estimated water supply and 2.5 percent of the 2060 water supply in Region K without implementation of water management strategies, and 1 percent of the 2060 Region K water supply with implementation of all water management strategies. The review team concludes that the surface water use impact of the WSEC project would be minimal.

Id. Intervenor's do not take issue with any of the above analysis, nor do they explain how the review team's evaluation is materially deficient because it did not account for a possible sale of 19,356 acre ft/yr of water. Although Intervenor's reference the Power Report, the Power Report provides no discussion or analysis explaining the significance of the omission. This lack of analysis does not support contention admissibility. See *USEC*, CLI-06-10, 63 NRC at 472 (stating that an expert opinion is inadequate if it merely states a conclusion without providing a reasoned basis or explanation for that conclusion). Because Intervenor's have not shown that the omission is significant, they have not demonstrated the materiality of Contention 6.

Contention 6 is inadmissible.

CONCLUSION

As explained above, the DEIS Contentions do not satisfy the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1). In addition, portions of these contentions are untimely,

and Intervenor have not attempted to demonstrate that they meet the late-filing factors in 10 C.F.R. § 2.309(c) and (f)(2). For these reasons, Intervenor's DEIS Contentions should be dismissed.

/Signed (electronically) by/

Michael A. Spencer
Counsel for NRC Staff
U.S. Nuclear Regulatory Commission
Mail Stop O-15 D21
Washington, DC 20555-0001
(301) 415-4073
Michael.Spencer@nrc.gov

Executed in Accord with 10 CFR § 2.304(d)

Anthony Wilson
Counsel for NRC Staff
U.S. Nuclear Regulatory Commission
Mail Stop O-15 D21
Washington, D.C. 20555-0001
(301) 415-3699
Anthony.Wilson@nrc.gov

Executed in Accord with 10 CFR § 2.304(d)

Stephanie N. Liaw
Counsel for NRC staff
U.S. Nuclear Regulatory Commission
Mail Stop O-15 D21
Washington, DC 20555-0001
(301) 415-2472
Stephanie.Liaw@nrc.gov

Staff Attachment 1



**REPORT ON THE CAPACITY, DEMAND, AND
RESERVES IN THE ERCOT REGION**

May 2010

**ERCOT
2705 West Lake Drive
Taylor, Texas 76574**

Contents

Section	Page	Notes
Disclaimer	5	Please read.
Definitions	6	List of definitions
Changes from 2009 CDR (December Update)	8	List of changes from the 2009 CDR (December Update)
Summer Summary	9	Shows load forecast, generation resources, and reserve margin for Summer 2010 through Summer 2015
Summer Capacities	11	Lists units and their capabilities used in determining the generation resources in the Summer Summary
Winter Summary	21	Shows load forecast, generation resources, and reserve margin for Winter 2010 through Winter 2015
Winter Capacities	23	Lists units and their capabilities used in determining the generation resources in the Winter Summary
Long Term Projections	33	Graphs of capacity and demand through 2030
Summer Fuel Types	34	Lists generation fuel types by MW and by percentage for Summer 2010 through Summer 2015
Winter Fuel Types	39	Lists generation fuel types by MW and by percentage for Winter 2010 through Winter 2015
Summer Coincident Demand by County	44	Shows estimated Summer coincident demand by county for 2010 through 2015
Summer Load by County	49	Shows estimated Summer non-coincident load by county for 2010 through 2015
Summer Generation by County	54	Shows Summer generation by county for 2010 through 2015
Summer Import-Export by County	59	Shows calculated import or export by county for Summer 2010 through Summer 2015
Winter Coincident Demand by County	64	Shows estimated Winter coincident demand by county for 2010 through 2015
Winter Load by County	69	Shows estimated Winter non-coincident load by county for 2010 through 2015
Winter Generation by County	74	Shows Winter generation by county for 2010 through 2015
Winter Import-Export by County	79	Shows calculated import or export by county for Winter 2010 through Winter 2015

Disclaimer

CDR WORKING PAPER FOR PLANNING PURPOSES ONLY

This ERCOT Working Paper has been prepared for specific ERCOT and market participant purposes and has been developed from data provided by ERCOT market participants. The data may contain errors or become obsolete and thereby affect the conclusions and opinions of the Working Paper. ERCOT MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND DISCLAIMS ANY AND ALL LIABILITY WITH RESPECT TO THE ACCURACY OF SAME OR THE FITNESS OR APPROPRIATENESS OF SAME FOR ANY PARTICULAR USE. THIS ERCOT WORKING PAPER IS SUPPLIED WITH ALL FAULTS. The specific suitability for any use of the Working Paper and its accuracy should be confirmed by each ERCOT market participant that contributed data for this Working Paper.

This Working Paper is based on data submitted by ERCOT market participants as part of their Annual Load Data Request (ALDR) and their generation asset registration and on data in the EIA-411. As such, this data is updated on an ongoing basis, which means that this report can be rendered obsolete without notice.

Definitions

Available Mothballed Generation

The probability that a mothballed unit will return to service, as provided by its owner, multiplied by the capacity of the unit. Return probabilities are considered protected information under the ERCOT Protocols and therefore are not included in this report.

BULs

Balancing up load. Loads capable of reducing the need for electrical energy when providing Balancing Up Load Energy Service as described in the ERCOT Protocols, Section 6, Ancillary Services. BULs are not considered resources as defined by the ERCOT Protocols.

Effective Load-Carrying Capability (ELCC) of Wind Generation

The amount of wind generation that the Generation Adequacy Task Force (GATF) has recommended to be included in the CDR. The value is 8.7% of the nameplate capacity listed in the Unit Capacities tables, both installed capacity and planned capacity.

Emergency Interruptible Load Service

ERCOT procures Emergency Interruptible Load Service (EILS) by selecting qualified Loads to make themselves available for interruption in an electric grid emergency. EILS is an emergency load reduction service designed to decrease the likelihood of the need for firm Load shedding (a.k.a, “rolling blackouts”). Customers meeting EILS criteria may bid to provide the service through their qualified scheduling entities (QSEs). EILS is authorized by Public Utility Commission Substantive Rule §25.507.

LaaRs (Loads acting as resources)

Load capable of reducing or increasing the need for electrical energy or providing Ancillary Services to the ERCOT System, as described in the ERCOT Protocols, Section 6, Ancillary Services. These Resources may provide the following Ancillary Services: Responsive Reserve Service, Non-Spinning Reserve Service, Replacement Reserve Service, and Regulation Service. The Resources must be registered and qualified by ERCOT and will be scheduled by a Qualified Scheduling Entity

Mothballed Capacity

The difference in the available mothballed generation (see definition above) and the total mothballed capacity. This value is zero in the upcoming Summer CDR Report because there isn't enough time to return those units to service before the start of the summer.

Mothballed Unit

A generation resource for which a generation entity has submitted a Notification of Suspension of Operations, for which ERCOT has declined to execute an RMR agreement, and for which the generation entity has not announced retirement of the generation resource.

Net Dependable Capability

Maximum sustainable capability of a generation resource as demonstrated by performance testing.

Non-Synchronous Tie

Any non-synchronous transmission interconnection between ERCOT and non-ERCOT electric power systems

Other Potential Resources

Capacity resources that include one of the following:

- Remaining "mothballed" capacity not included as resources in the reserve margin
- Remaining DC tie capacity not included as resources in the reserve margin calculation,
- New generating units that have initiated full transmission interconnection studies through the ERCOT generation interconnection process (Note that new wind generating units would be included based on the appropriate discounted capacity value applied to existing wind generating units.)

Planned Units in Full Interconnection Study Phase

To connect new generation to the ERCOT grid, a generation developer must go through a set procedure. The first step is a high-level screening study to determine the effects of adding the new generation on the transmission system. The second step is the full interconnection study. These are detailed studies done by the transmission owners to determine the effects of the addition of new generation on the transmission system.

Private Networks

An electric network connected to the ERCOT transmission grid that contains load that is not directly metered by ERCOT (i.e., load that is typically netted with internal generation).

Reliability Must-Run (RMR) Unit

A generation resource unit operated under the terms of an agreement with ERCOT that would not otherwise be operated except that they are necessary to provide voltage support, stability or management of localized transmission constraints under first contingency criteria.

Signed IA (Interconnection Agreement)

An agreement that sets forth requirements for physical connection between an eligible transmission service customer and a transmission or distribution service provider

Switchable Unit

A generation resource that can be connected to either the ERCOT transmission grid or a grid outside the ERCOT Region.

Staff Attachment 2

PROJECT NO. 35792

RULEMAKING TO RELATING TO	§	PUBLIC UTILITY COMMISSION
THE GOAL FOR RENEWABLE	§	
ENERGY	§	OF TEXAS
	§	
	§	

STAFF STRAWMAN RULE

The staff of the Public Utility Commission of Texas request comments on the following strawman amendments to rules relating to the goal for renewable energy. Project No. 35792 has been assigned to this proceeding.

The amendments include changes to PUC Substantive Rule 25.173, Goal for Renewable Energy, that would establish renewable energy credits to serve as the enforcement mechanism for the 500 megawatt non-wind renewable energy target in PURA § 39.904. Other changes to this section are (1) the establishment of alternative compliance payments; (2) elimination of compliance premiums for non-wind renewable resources; and (3) elimination of renewable energy offsets for facilities in operation prior to January 1, 2002 and allowing such facilities to earn RECs, instead. The amendments also include changes to PUC Substantive Rule 25.109, Registration of Power Generation Companies and Self-Generators, to permit small generating facilities that comply with the interconnection rules for distributed generation facilities to avoid registering as a power generation company or self generator. The amendments also include changes to PUC Substantive Rule 25.211, Interconnection of On-Site Distributed Generation, to require that the owners of distributed generation facilities that interconnect with a utility

distribution system provide information concerning the distributed generation facilities to the utility.

The staff invites comments on the draft rules. These comments will be useful in developing proposed rules that are expected to be issued in a formal comment period early in 2010. Comments on the draft rule (16 copies) may be submitted to the Filing Clerk, Public Utility Commission of Texas, 1701 North Congress Avenue, PO Box 13326, Austin, Texas 78711-3326, before 3 p.m. on January 29, 2010.

Comments should be organized in a manner consistent with the organization of the draft rule.

All comments should refer to Project Number 35792.

Questions concerning the comments or this notice should be referred to David Smithson, Competitive Services Division, (512)-936-7156.

§25.173. Goal for Renewable Energy.

(a) **Purpose.** The purposes of this section are:

- (1) to ensure that the cumulative installed generating capacity from renewable energy technologies in this state totals ~~2,280 megawatts (MW) by January 1, 2007~~, 3,272 MW by January 1, 2009, 4,264 MW by January 1, 2011, 5,256 MW by January 1, 2013, and 5,880 MW by January 1, 2015, with a target of at least 500 MW of the total installed renewable capacity after September 1, 2005, coming from a renewable energy technology other than a source using wind energy, and that the means exist for the state to achieve a target of 10,000 MW of installed renewable capacity by January 1, 2025;
- (2) to provide for a renewable energy credits trading program by which the renewable energy requirements established by the Public Utility Regulatory Act (PURA) §39.904(a) may be achieved in the most efficient and economical manner;
- (3) to encourage the development, construction, and operation of new renewable energy resources at those sites in this state that have the greatest economic potential for capture and development of this state's environmentally beneficial resources;
- (4) to protect and enhance the quality of the environment in Texas through increased use of renewable resources; and
- (5) to ensure that all customers have access to providers of energy generated by renewable energy resources pursuant to PURA §39.101(b)(3).

(b) **Application.** This section applies to power generation companies, as defined in §25.5 (relating to Definitions), distributed renewable generation owners (DRGOs) and independent school district solar generation owners (ISD-SG Owners) as defined in

§25.217 of this title (relating to distributed renewable generation), and retail entities as defined in subsection (c) of this section.

(c) **Definitions.**

- (1) **Compliance period** -- A calendar year beginning January 1 and ending December 31 of each year in which renewable energy credits are required of a retail entity.
- ~~(2) **Compliance premium** -- A premium awarded by the program administrator in conjunction with a renewable energy credit that is generated by a renewable energy source that is not powered by wind and meets the criteria of subsection (m) of this section. For the purpose of the renewable energy portfolio standard requirements, one compliance premium is equal to one renewable energy credit.~~
- ~~(23) **Designated representative** -- A responsible natural person authorized by the owners or operators of a renewable resource to register that resource with the program administrator. The designated representative must have the authority to represent and legally bind the owners and operators of the renewable resource in all matters pertaining to the renewable energy credits trading program.~~
- ~~(4) **Existing facilities** -- Renewable energy generators placed in service before September 1, 1999.~~
- ~~(35) **Generation offset technology** -- Any renewable technology that reduces the demand for electricity at a site where a customer consumes electricity. An example of this technology is solar water heating.~~
- ~~(46) **Microgenerator** -- A customer who owns one or more eligible renewable energy resources generating units with a rated capacity of less than 1 MW operating on the customer's side of the utility meter.~~
- ~~(7) **New facilities** -- Renewable energy generators placed in service on or after September 1, 1999. A new facility includes the incremental capacity and associated energy from an existing renewable facility achieved through repowering activities undertaken on or after September 1, 1999.~~

- (5) New non-wind renewable energy resource (non-wind renewable resource) --**
A resource installed after September 1, 2005 that produces energy derived from renewable energy technologies other than wind.
- (68) Off-grid generation --** The generation of renewable energy in an application that is not interconnected to a utility transmission or distribution system.
- (79) Opt-Out Notice --** Written notice submitted to the commission by a transmission-level voltage customer pursuant to PURA §39.904(m-1).
- (810) Program administrator --** The entity approved by the commission that is responsible for carrying out the administrative responsibilities related to the renewable energy credits trading program as set forth in subsection (g) of this section.
- (911) REC aggregator --** An entity managing the participation of two or more microgenerators in the REC trading program.
- (1012) REC offset (offset) --** A REC offset represents one megawatt-hour (MWh) of renewable energy from an existing facility that is not eligible to earn renewable energy credits ~~or compliance premiums~~.
- (1113) Renewable energy credit (REC or credit) --** A REC represents one MWh of ~~renewable~~ energy that is physically metered and verified in Texas and meets the requirements set forth in subsection (e) of this section.
- (1214) Renewable energy credit account (REC account) --** An account maintained by the renewable energy credits trading program administrator for the purpose of tracking the production, sale, transfer, purchase, and retirement of RECs ~~or compliance premiums~~ by a program participant.
- (1315) Renewable energy credits trading program (trading program) --** The process of awarding, trading, tracking, and submitting RECs ~~or compliance premiums~~ as a means of meeting the renewable energy requirements set out in subsection (d) of this section.
- (1416) Renewable energy resource (renewable resource) --** A resource that produces energy derived from renewable energy technologies.

- (1517) **Renewable energy technology** -- Any technology that exclusively relies on an energy source that is naturally regenerated over a short time and derived directly from the sun, indirectly from the sun, or from moving water or other natural movements and mechanisms of the environment. Renewable energy technologies include those that rely on energy derived directly from the sun, wind, geothermal, hydroelectric, wave, or tidal energy, or on biomass or biomass-based waste products, including landfill gas. A renewable energy technology does not rely on energy resources derived from fossil fuels, waste products from fossil fuels, or waste products from inorganic sources.
- (1618) **Renewable Portfolio Standard (RPS)** -- The amount of capacity required to meet the requirements of PURA §39.904 pursuant to subsection (h) of this section.
- (1719) **Repowered Facility** -- An existing facility that has been modernized or upgraded to use renewable energy technology to produce electricity consistent with this rule.
- (1820) **Retail entity** -- Municipally-owned utilities, generation and transmission cooperatives and distribution cooperatives that offer customer choice; retail electric providers (REPs); and investor-owned utilities that have not unbundled pursuant to PURA Chapter 39.
- (1924) **Settlement period** -- The first calendar quarter following a compliance period in which the settlement process for that compliance period takes place.
- ~~(22) **Small producer** -- A renewable resource that is less than ten megawatts (MW) in size.~~
- (20) Tier 1 renewable energy credit (Tier 1 REC) – A REC earned by a renewable resource using solar renewable energy technology.
- (21) Tier 2 renewable energy credit (Tier 2 REC) – A REC earned by a renewable resource using renewable energy technology other than wind or solar.
- (22) Tier 3 renewable energy credit (Tier 3 REC) – A REC earned by a renewable resource that is not a new non-wind resource.

~~(2320)~~ **Transmission-level voltage customer** -- A customer that receives electric service at 60 kilovolts (kV) or higher or that receives electric service directly through a utility-owned substation that is connected to the transmission network at 60 kV or higher.

(d) **Renewable energy credits trading program (trading program).** Renewable energy credits may be generated, transferred, and retired by renewable energy power generators certified pursuant to subsection ~~(e)~~ of this section, retail entities, and other market participants as set forth in this section.

(1) The program administrator shall apportion an RPS requirement among all retail entities as a percentage of the retail sales of each retail entity as set forth in subsection (h) of this section. Each retail entity shall be responsible for meeting its RPS requirement by retiring sufficient RECs or making alternative compliance payments, as set forth in subsections (h) and (l) of this section to comply with this section. The requirement to retire RECs or make alternative compliance payments to comply with this section becomes effective on the date a retail entity begins serving retail electric customers in Texas or, for an electric utility, as specified by law.

(2) A power generating company may participate in the program and may generate RECs and buy or sell RECs as set forth in subsection ~~(l)~~ of this section.

(3) RECs shall be credited on an energy basis as set forth in subsection ~~(l)~~ of this section.

(4) Municipally-owned utilities and distribution cooperatives that do not offer customer choice have no RPS requirement. However, regardless of whether the municipally-owned utility or distribution cooperative offers customer choice, a municipally-owned utility or distribution cooperative possessing renewable resources that meet the requirements of subsection (e) of this section may sell RECs generated by such a resource to retail entities as set forth in subsection ~~(l)~~ of this section.

- (5) Except where specifically stated, the provisions of this section shall apply uniformly to all participants in the trading program.
- (e) **Facilities eligible for producing RECs ~~and compliance premiums~~ in the renewable energy credits trading program.** For a renewable facility to be eligible to produce RECs ~~and compliance premiums~~ in the trading program it must be either a ~~new facility~~ renewable resource (including a new non-wind renewable resource) or a repowered facility as defined in subsection (c) of this section, and must also meet the requirements of this subsection.
- (1)-(7) (No change.)
- (f) **Facilities not eligible for producing RECs in the renewable energy credits trading program.** A renewable energy capacity addition associated with an emissions reductions project described in Health and Safety Code §382.05193, that is used to satisfy the permit requirements in Health and Safety Code §382.0519 ~~renewable facility~~ is not eligible to produce RECs in the trading program: ~~if it is:~~
- (1) ~~A renewable energy capacity addition associated with an emissions reductions project described in Health and Safety Code §382.05193, that is used to satisfy the permit requirements in Health and Safety Code §382.0519; or~~
- (2) ~~An existing facility that is not a small producer as defined in subsection (e) of this section or has not been repowered as permitted under subsection (e) of this section.~~
- (g) **Responsibilities of program administrator.** The commission shall appoint an independent entity to serve as the trading program administrator. At a minimum, the program administrator shall perform the following functions:
- (1) Create accounts that track RECs ~~or compliance premiums~~ and alternative compliance payments for each participant in the trading program;
- (2) Award RECs ~~or compliance premiums~~ to registered renewable energy facilities on a quarterly basis based on verified meter reads;

- ~~(3)~~ Award offsets to retail entities on an annual basis based on a nomination submitted by the retail entity pursuant to subsection (i) of this section;
- (34) Annually record the retirement of RECs ~~or compliance premiums~~ and remission of alternative compliance payments of that each retail entity ~~submits~~;
- ~~(45)~~ Retire RECs at the end of each REC's compliance life;
- ~~(56)~~ Maintain public information on its website that provides trading program information to interested buyers and sellers of RECs;
- ~~(67)~~ Create an exchange procedure where persons may purchase and sell RECs ~~or compliance premiums~~. The exchange shall ensure the anonymity of persons purchasing or selling RECs ~~or compliance premiums~~. The program administrator may delegate this function to an independent third party, subject to commission approval;
- ~~(78)~~ Make public each month the total energy sales of retail entities in Texas for the previous month;
- ~~(89)~~ Perform audits of generators participating in the trading program to verify accuracy of metered production data;
- ~~(910)~~ Allocate the RPS requirement to each retail entity in accordance with subsection (h) of this section; and
- ~~(1011)~~ Submit an annual report to the commission and remit to the commission the alternative compliance payments it has received. The program administrator shall submit a report to the commission on or before May 15 of each calendar year. The report shall contain information pertaining to renewable energy power generators and retail entities. At a minimum, the report shall contain:
 - (A) the amount of existing and new renewable energy capacity in MW installed in the state by technology type, the owner/operator of each facility, the date each facility began to produce energy, the amount of energy generated in megawatt-hours (MWh) each quarter for all capacity participating in the trading program or that was retired from service; ~~and~~
 - (B) a listing of all retail entities participating in the trading program, and for each retail entity's its RPS requirement, ~~the number of offsets used by~~

~~each retail entity, the number of RECs retired by each retail entity, the number of compliance premiums retired by each retail entity, and the amount of any alternative compliance payments made; and~~

(C) ~~a listing of all retail entities that were in compliance with the RPS requirement, a listing of all retail entities that failed to comply with the RPS requirement, and the deficiency of each retail entity that failed to retire sufficient RECs or remit alternative compliance payments or compliance premiums to meet its RPS requirement.~~

(h) **Allocation of RPS requirement to retail entities.** The program administrator shall allocate RPS requirements among retail entities. ~~Any renewable capacity that is retired before January 1, 2015 or any capacity shortfalls that arise due to purchases of RECs from out-of-state facilities shall be replaced and incorporated into the allocation methodology set forth in this subsection. Any changes to the allocation methodology to reflect replacement capacity shall occur two compliance periods after the facility is retired or the capacity shortfall occurs.~~ The program administrator shall use the following methodology to determine the total annual RPS requirement for a given year and the final RPS allocation for individual retail entities:

(1) The total statewide RPS requirement for each compliance period shall be calculated in terms of MWh and shall be equal to the applicable capacity requirement set forth in this paragraph multiplied by 8,760 hours per year, multiplied by the appropriate capacity conversion factor set forth in subsection (j) or (k) of this section. The renewable energy capacity requirements for the compliance period beginning January 1, of the year indicated shall be:

~~(A) 1,400 MW of new resources in 2006;~~

~~(B) 1,400 MW of new resources in 2007;~~

~~(C) 2,392 MW of new resources in 2008;~~

~~(A)(D) 2,392 MW of new resources in 2009;~~

(BE) 3,384MW of new resources in 2010, including 100 mW from non-wind renewable resources, 10 mW of which are from solar resources;

- (~~CF~~) 3,384 MW of new resources in 2011, including 200 mW from non-wind renewable resources, 20 mW of which are from solar resources;
 - (~~DG~~) 4,376 MW of new resources in 2012, including 300 mW from non-wind renewable resources, 30 mW of which are from solar resources;
 - (~~EH~~) 4,376 MW of new resources in 2013, including 400 mW from non-wind renewable resources, 40 mW of which are from solar resources;
 - (~~FF~~) 5,000 MW of new resources in 2014, including 500 mW are from non-wind renewable resources, 50 mW of which are from solar resources; and
 - (~~GF~~) 5,000 MW of new resources for each year after 2014, including 500 mW from non-wind renewable resources, 50 mW of which are from solar resources.
- (2) The final RPS allocation for an individual retail entity for a compliance period shall be calculated as follows:
- (A) Beginning with the ~~2008–2010~~ compliance period, ~~prior to the preliminary RPS allocation~~ each retail entity's total retail energy sales are reduced to ~~exclude~~ by the consumption of customers that opt out in accordance with subsection (j) of this section. Each retail entity's ~~preliminary~~ RPS allocation is determined by dividing its total retail energy sales in Texas (excluding consumption of customers that opt out) by the total retail sales in Texas of all retail entities, and multiplying that percentage by the total statewide RPS requirement for that compliance period.
 - (i) A Tier 1 RPS allocation shall be based on the solar resource requirement in paragraph (1) for the year.
 - (ii) A Tier 2 RPS allocation shall be based on the non-wind resource requirement in paragraph (1) for the year, less the requirement for solar resources for that year.
 - (iii) A Tier 3 RPS allocation shall be based on the solar resource requirement in paragraph (1) for the year, less the requirement for non-wind and solar resources for that year.

~~(B) The adjusted RPS allocation for each retail entity that is entitled to an offset is determined by reducing its preliminary RPS allocation by the offsets to which it qualifies, as determined under subsection (i) of this section, with the maximum reduction equal to the retail entity's preliminary RPS allocation. The total reduction for all retail entities is equal to the total usable offsets for that compliance period.~~

~~(C) Each retail entity's final RPS allocation for a compliance period shall be increased to recapture the total usable offsets calculated under subparagraph (B) of this paragraph. The additional RPS allocation shall be calculated by dividing the retail entity's preliminary RPS allocation by the total preliminary RPS allocation of all retail entities. This fraction shall be multiplied by the total usable offsets for that compliance period and this amount shall be added to the retail entity's adjusted RPS allocation to produce the retail entity's final RPS allocation for the compliance period.~~

(3) A REC offset that was generated prior to the effective date of this paragraph may be retired to meet a Tier 3 RPS, in accordance with the rules that were in effect prior to the effective date of this paragraph. ~~Concurrent with determining final individual RPS allocations for the current compliance period in accordance with this subsection, the program administrator shall recalculate the final RPS allocations for the previous compliance periods, taking into account corrections to retail sales resulting from resettlements. The difference between a retail entity's corrected final RPS allocation and its original final RPS allocation for the previous compliance periods shall be added to or subtracted from the retail entity's final RPS allocation for the current compliance period.~~

~~(i) **Nomination and award of REC offsets.**~~

~~(1) A REP, municipally owned utility, G&T cooperative, distribution cooperative, or an affiliate of a REP, municipally owned utility, or distribution cooperative, may~~

~~apply offsets to meet all or a portion of its renewable energy purchase requirement, as calculated in subsection (h) of this section, only if those offsets were nominated in a filing with the commission by June 1, 2001.~~

- ~~(2) — The program administrator shall award offsets consistent with the commission's actions to verify designations of REC offsets and with this section.~~
- ~~(3) — REC offsets shall be equal to the average annual MWh output of an existing resource for the years 1991-2000 or the entire life of the existing resource, whichever is less.~~
- ~~(4) — REC offsets qualify for use in a compliance period under subsection (h) of this section only to the extent that:
 - ~~(A) — The resource producing the REC offset has continuously since September 1, 1999 been owned by or its output has been committed under contract to a utility, municipally-owned utility, or cooperative (or successor in interest) nominating the resource under paragraph (1) of this subsection or, if the resource has been committed under a contract that expired after September 1, 1999 and before January 1, 2002, it was owned by or its output was committed under contract to a utility, municipally-owned utility, or cooperative on January 1, 2002; and~~
 - ~~(B) — The facility producing the REC offsets is operated and producing energy during the compliance period in a manner consistent with historic practice.~~~~
- ~~(5) — If the production of energy from a facility that is eligible for an award of REC offsets ceases for any reason, or if the power purchase agreement with the facility's owner (or successor in interest) that is referred to in paragraph (4)(A) of this subsection has lapsed or is no longer in effect, the retail entity shall no longer be awarded REC offsets related to the facility.~~
- ~~(6) — REC offsets shall not be traded.~~

(ij) **Opt-out notice.**

- (1) A customer receiving electrical service at transmission-level voltage who submits an opt-out notice to the commission for the applicable compliance period shall have its load excluded from the RPS calculation.
- (2) An investor-owned utility that is subject to a renewable energy requirement under this section shall not collect costs attributable to the REC program from an eligible customer who has submitted an opt-out notice. An investor-owned utility whose rates include the cost of RECs shall file a tariff to implement this subsection, not later than 30 days after the effective date of this section.
- (3) A customer opt-out notice must be filed in the commission-designated project number before the beginning of a compliance period for the notice to be effective for that period. Each opt-out notice must include the name of the individual customer opting out, the customer's ESI IDs, the retail entities serving those ESI IDs, and the term for which the notice is effective, which may not exceed two years. The customer opting out must also provide the information included in the opt-out notice directly to ERCOT and may request that ERCOT protect the customer's ESI ID and consumption as confidential information. ~~For notices submitted for the 2008 compliance period, a customer may amend a notice to include this information not later than January 15, 2009, if its initial notice did not include the information.~~—A customer may revoke a notice under this subsection at any time prior to the end of a compliance period by filing a letter in the designated project number and providing notice to ERCOT.

(i) Capacity conversion factor for non-wind renewable energy technologies.

- (1) For the 2010 and 2011 compliance periods, conversion factors for non-wind renewable energy technologies shall be:
 - (A) 75% for non-wind technologies, other than solar; and
 - (B) 25% for solar technologies.
- (2) Beginning with the 2012 compliance period, capacity conversion factors for non-wind renewable and solar energy technologies shall be calculated according to

subsection (k) of this section, using performance data for the relevant technologies.

(k) **Calculation of capacity conversion factor.** The capacity conversion factor used by the program administrator to allocate credits to retail entities shall be calculated during the fourth quarter of each odd-numbered compliance year. The capacity conversion factor shall:

- (1) Be based on actual generator performance data for the previous two years for all renewable resources in the trading program during that period for which at least 12 months of performance data are available.
- (2) Represent a weighted average of generator performance; and
- (3) Use all actual generator performance data that is available for each renewable resource, excluding data for testing periods.

(l) **Alternative compliance payments for non-wind renewable technologies.** A retail entity may meet all or a portion of its non-wind or solar RPS requirement, as calculated in subsection (h) of this section, by making alternative compliance payments to the program administrator.

- (1) A retail entity's non-wind RPS requirement shall be reduced by one Tier 2 REC for every forty dollars (\$40) the retail entity remits in alternative compliance payments.
- (2) A retail entity's solar RPS requirement shall be reduced by one Tier 1 REC for every one hundred dollars (\$100) it remits in alternative compliance payments.
- (3) Alternative compliance payments received by the program administrator shall be remitted to the commission.

(m) **Production, transfer, and expiration of RECs.** The program administrator shall administer a trading program for renewable energy credits in accordance with the requirements of this subsection.

- (1) The owner of a renewable resource shall earn one REC when a MWh is metered at that renewable resource. The program administrator shall record the energy in metered MWh and credit the REC account of the renewable resource that generated the energy on a quarterly basis. Quarterly production shall be rounded to the nearest whole MWh, with fractions of 0.5 MWh or greater rounded up. RECs shall be issued in the following categories:
 - (A) A Tier 1 REC shall be issued for energy produced by a solar generation facility that is a new non-wind renewable resource;
 - (B) A Tier 2 REC shall be issued for energy produced by a new non-wind renewable resource that is not a solar generation facility; and
 - (C) A Tier 3 REC shall be issued for energy produced by a facility that qualifies under this section that is not a new non-wind renewable resource.
- (2) The transfer of RECs between parties shall be effective only when the transfer is recorded by the program administrator.
- (3) The program administrator shall require that RECs be adequately identified prior to recording a transfer and shall issue an acknowledgement of the transaction to parties upon provision of adequate information. At a minimum, the following information shall be provided:
 - (A) identification of the parties;
 - (B) REC serial number, REC issue date, and the renewable resource that produced the REC;
 - (C) the number of RECs to be transferred; and
 - (D) the transaction date.
- (4) A retail entity shall surrender RECs to the program administrator for retirement from the market in order to meet its RPS requirement for a compliance period. The program administrator will document all REC retirements annually.
- (5) On or after each April 1, the program administrator will retire RECs that have not been retired by retail entities and have reached the end of their compliance life.

- (6) The program administrator may establish a procedure to ensure that the award, transfer, and retirement of credits are accurately recorded.
 - (7) The issue date of RECs created by a renewable energy resource shall coincide with the beginning of the compliance period (calendar year) in which the credits are generated. All RECs shall have a compliance life of three compliance periods, after which the program administrator will retire them from the trading program.
 - (8) Each REC that is not used in the compliance period in which it was created may be banked and is valid for the next two compliance periods.
- (n) **Settlement process.** The first quarter following the compliance period shall be the settlement period during which the following actions shall occur:
- (1) By January 31, the program administrator will notify each retail entity of its total RPS requirement for the previous compliance period as determined pursuant to subsection (h) of this section.
 - (2) By March 31, each retail entity shall submit credits from its account or remit alternative compliance payments ~~or compliance premiums~~ to the program administrator ~~from its account~~ equivalent to its RPS requirement for the previous compliance period. If the retail entity does not submit ~~meet~~ its RPS requirement by submitting sufficient credits or compliance premiums and paying alternative compliance payments, the retail entity is subject to the penalty provisions in subsection (p) of this section.
 - (3) The program administrator may request the commission to adjust the deadlines set forth in this section if changes to the ERCOT settlement calendar or other factors affect the availability of reliable retail sales data.
- (o) **Certification of renewable energy facilities.** The commission shall certify all renewable facilities that will produce ~~either REC offsets, RECs, or compliance premiums~~ for sale in the trading program. To be awarded RECs, ~~or REC offsets, or compliance premiums~~, a power generator must complete the certification process

described in this subsection. The program administrator shall not award ~~offsets, RECs, or compliance premiums~~ for energy produced by a power generator before it has been certified by the commission.

(1) The designated representative of the generating facility shall file an application with the commission on a form approved by the commission for each renewable energy generation facility. At a minimum, the application shall include the location, owner, technology, and rated capacity of the facility and shall demonstrate that the facility meets the resource eligibility criteria in subsection (e) of this section. Any subsequent changes to the information in the application shall be filed with the commission within 30 days of such changes.

(2) No later than 30 days after the designated representative files the certification form with the commission, the commission shall inform both the program administrator and the designated representative whether the renewable facility has met the certification requirements. At that time, the commission shall either certify the renewable facility as eligible to receive RECs, ~~offsets, or compliance premiums~~, or describe any insufficiencies to be remedied. If the application is contested, the time for acting is extended for such time as is necessary for commission action.

(3)-(5) (No change.)

(p) **Penalties and enforcement.** If by April 1 of the year following a compliance period the program administrator determines that a retail entity has not retired sufficient credits or made sufficient alternative compliance payments or compliance premiums to satisfy its ~~allocation~~RPS requirement, the retail entity shall be subject to an administrative penalty pursuant to PURA §15.023, of \$50 ~~per MWh~~for each deficient Tier 3 REC and an amount equal to twice the alternative compliance payment for each Tier 1 or Tier 2 REC that the retail entity is deficient.

(q) **Microgenerators and REC aggregators.** A REC aggregator may manage the participation of multiple microgenerators in the REC trading program. The program

administrator shall assign to the REC aggregator all RECs accrued by the microgenerators who are under a REC management contract with the REC aggregator.

(1) The microgenerator's units shall be installed and connected to the grid in compliance with ~~P.U.C. Substantive Rules~~the rules in this title, applicable interconnection standards adopted pursuant to the ~~rules in this title~~P.U.C. ~~Substantive Rules~~, and federal rules.

(2)-(4) (No change.)

§25.109. Registration of Power Generation Companies and Self-Generators.

(a) Application.

(1)-(2) (No change.)

(3) ~~A person that owned such generating facility prior to September 1, 2000 shall register after September 1, 2000 and before January 1, 2001. A person that becomes subject to this section after September 1, 2000 must register on or before the first date of generating electricity.~~

(4) The owner of a distributed generation facility with capacity of two mW or less interconnected to an electric utility's distribution system in accordance with § 25.211 of this title (relating to interconnection of on-site distributed generation) may register under this section by providing the information to the utility that is required under § 25.211 and complying with any streamlined registration process established by the commission.

(b) – (i) (No change.)

§25.211. Interconnection of On-Site Distributed Generation (DG).

- (a) **Application.** Unless the context ~~clearly~~ indicates otherwise, in this section and §25.212 of this title (relating to Technical Requirements for Interconnection and Parallel Operation of On-Site Distributed Generation) the term "electric utility" applies to all electric utilities as defined in the Public Utility Regulatory Act (PURA) §31.002 that own and operate a distribution system in Texas. ~~This section shall not apply to an electric utility subject to PURA §39.102(c) until the expiration of the utility's rate freeze period.~~
- (b) **Purpose.** The purpose of this section is to ~~clearly~~ state the terms and conditions that govern the interconnection and parallel operation of on-site distributed generation in order to implement PURA §39.101(b)(3), which entitles all Texas electric customers to access to on-site distributed generation, to provide cost savings and reliability benefits to customers, to establish technical requirements that will promote the safe and reliable parallel operation of on-site distributed generation resources, to enhance both the reliability of electric service and economic efficiency in the production and consumption of electricity, and to promote the use of distributed resources in order to provide electric system benefits during periods of capacity constraints. Sales of power by a distributed generator in the intrastate wholesale market are subject to the provisions of this title relating to open-access comparable transmission service for electric utilities in the Electric Reliability Council of Texas (ERCOT).
- (c) **Definitions.** The following words and terms when used in this section and §25.212 of this title shall have the following meanings, unless the context ~~clearly~~ indicates otherwise:
- (1)-(15) (No change.)
- (16) **Tariff for interconnection and parallel operation of distributed generation** —
The commission-approved tariff for interconnection and parallel operation of

distributed generation including the application for interconnection and parallel operation of ~~DG~~ distributed generation and pre-interconnection study fee schedule.

(17)-(18)(No change.)

(d) **Terms of Service.**

- (1) **Banking.** An electric utility that sells electricity to retail customers ~~company operating in ERCOT~~ shall make banking services available to any customer upon the customer's request. This obligation continues until the electric utility offers customer choice ~~the ERCOT Independent System Operator begins operating ERCOT as a single control area.~~
- (2) **Distribution line charge.** No distribution line charge shall be assessed to a customer for exporting energy to the utility system.
- (3) **Interconnection operations and maintenance costs.** No charge for operation and maintenance of a utility system's facilities shall be assessed against a customer for exporting energy to the utility system.
- (4) **Scheduling fees.** A one-time scheduling fee for each banking period may be assessed for the disbursement of banked energy. No other scheduling fees may be assessed against an exporting ~~DG~~ distributed generation customer.
- (5) **Transmission charges.** No transmission charges shall be assessed to a customer for exporting energy. For purposes of this paragraph, the term transmission charges means transmission access and line charges, transformation charges, and transmission line loss charges.
- (6) **Contract reformation.** All interconnection contracts shall be conformed to meet the requirements of this section within 60 days of adoption.
- (7) **Tariffs.** No later than 30 days after the effective date of this section as amended, each electric utility shall file a tariff or tariffs for interconnection and parallel operation of distributed generation, ~~including tariffs for banking and scheduling fees,~~ in conformance with the provisions of this section. This provision does not require a utility that filed an interconnection study fee tariff prior to the effective date of this rule as amended to refile such tariff. The utility may file a new tariff or a modification of an existing tariff. Such tariffs shall ensure that back-up,

supplemental, and maintenance power is available to all customers and customer classes that desire such service, ~~until January 1, 2002~~if the electric utility sells electricity to retail customers. Any modifications of existing tariffs or offerings of new tariffs relating to this subsection shall be consistent with the commission-approved form. Concurrent with the tariff filing in this section, each utility shall submit:

- (A) a schedule detailing the charges of interconnection studies and all supporting cost data for the charges;
- (B) a standard application for interconnection and parallel operation of distributed generation; and
- (C) the interconnection agreement approved by the commission.

(e) (No change.)

(f) **Incremental demand charges.** During the term of an interconnection agreement a utility may require that a customer disconnect its distributed generation unit and/or take it off-line as a result of utility system conditions described in subsection (e)(3) and (4) of this section. Incremental demand charges arising from disconnecting the distributed generator as directed by company during such periods shall not be assessed by company to the customer. ~~After January 1, 2002, the distribution utility shall not be responsible for the provision of generation services or their related charges.~~

(g) **Pre-interconnection studies for non-network interconnection of distributed generation.** A utility may conduct a service study, coordination study or utility system impact study prior to interconnection of a distributed generation facility. In instances where such studies are deemed necessary, the scope of such studies shall be based on the characteristics of the particular distributed generation facility to be interconnected and the utility's system at the specific proposed location. By agreement between the utility and its customer, studies related to interconnection of ~~DG~~distributed generation on the customer's premise may be conducted by a qualified third party.

(1)-(2) (No change.)

(h)-(m) (No change.)

- (n) **Reporting requirements.** Each electric utility shall maintain records concerning applications received for interconnection and parallel operation of distributed generation. Such records will include the name of the applicant, the business address of the applicant, and the location of the proposed facility by county, the capacity rating of the facility in kilowatts, whether the facility is a renewable energy resource, as defined in § 25.173 of this title (relating to goal for renewable energy), the date each application is received, documents generated in the course of processing each application, correspondence regarding each application, and the final disposition of each application. The owner of a distributed generation facility that is interconnected under this section shall report to the utility any change in ownership of the facility and the cessation of operations of a facility. By March 30 of each year, ~~each~~^{every} electric utility shall file with the commission a distributed generation interconnection report for the preceding calendar year that identifies each distributed generation facility interconnected with the utility's distribution system. The report shall list the new distributed generation facilities interconnected with the system since the previous year' report, any distributed generation facilities no longer interconnected with the utility's system since the previous report, the capacity of each facility and whether it is a renewable energy resource, and the feeder or other point on the company's utility system where the facility is connected. The annual report shall also identify all applications for interconnection received during the previous one-year period, and the disposition of such applications. Each electric utility shall register with the commission a distributed generation facility on behalf of the owner unless the owner requests to perform the registration.
- (o) **Interconnection disputes.** Complaints relating to interconnection disputes under this section shall be handled in an expeditious manner pursuant to §22.242 (relating to Complaints). In instances where informal dispute resolution is sought, complaints shall be presented to the ~~Electric-Competitive Markets~~ Division. The ~~Electric-Competitive Markets~~ Division shall attempt to informally resolve complaints within 20 business days

of the date of receipt of the complaint. ~~Unresolved complaints shall be presented to the commission at the next available open meeting.~~

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
)
STP NUCLEAR OPERATING COMPANY) Docket Nos. 52-012 & 52-013
)
)
(South Texas Project, Units 3 & 4))

CERTIFICATE OF SERVICE

I hereby certify that copies of the NRC Staff's Answer to Intervenor's Motion for Leave to File New Contentions Based on the Draft Environmental Impact Statement, with attachments, have been served upon the following persons by Electronic Information Exchange this 14th day of June 2010:

Administrative Judge
Michael M. Gibson
Atomic Safety and Licensing Board Panel
Mail Stop – T-3 F23
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
(E-mail: Michael.Gibson@nrc.gov)

Office of Commission Appellate
Adjudication
Mail Stop O-16C1
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail:OCAAmail@nrc.gov

Administrative Judge
Gary S. Arnold
Atomic Safety and Licensing Board Panel
Mail Stop – T-3 F23
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
(E-mail: Gary.Arnold@nrc.gov)

Office of the Secretary
ATTN: Docketing and Service
Mail Stop: O-16C1
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: HEARINGDOCKET@nrc.gov

Administrative Judge
Randall J. Charbeneau
Atomic Safety and Licensing Board Panel
Mail Stop – T-3 F23
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
(E-mail: Randall.Charbeneau@nrc.gov)

Robert V. Eye, Esq.
Counsel for the Intervenor's
Kauffman & Eye
Suite 202
112 SW 6th Ave.
Topeka KS 66603
bob@kauffmaneye.com

Steven P. Frantz, Esq.
Stephen J. Burdick, Esq.
Alvin Gutterman, Esq.
John E. Matthews, Esq.
Counsel for the Applicant
Morgan, Lewis & Bockius, LLP
1111 Pennsylvania Ave., NW
Washington, DC 20004
E-mail:
sfrantz@morganlewis.com
sburdick@morganlewis.com
agutterman@morganlewis.com
jmatthews@morganlewis.com

/Signed (electronically) by/
Michael A. Spencer
Counsel for NRC Staff
U.S. Nuclear Regulatory Commission
Mail Stop O-15 D21
Washington, DC 20555-0001
(301) 415-4073
Michael.Spencer@nrc.gov