

**APPLICANTS' JOINT REPLY TO THE EXECUTIVE DIRECTOR'S RESPONSE TO  
APPEALS OF THE EXECUTIVE DIRECTOR'S NEGATIVE USE DETERMINATIONS**

**TCEQ DOCKET NOS.**

<b>2008-0830-MIS-U (UD 07-11914)</b>	<b>Tenaska Gateway Partners, Ltd – Rusk County</b>
<b>2008-0831-MIS-U (UD 07-11966)</b>	<b>Freestone Power Generation, L.P. – Freestone County</b>
<b>2008-0832-MIS-U (UD 07-11971)</b>	<b>Borger Energy Associates, L.P. – Hutchinson County</b>
<b>2008-0849-MIS-U (UD 07-11969)</b>	<b>Brazos Valley Energy, L.P. – Fort Bend County</b>
<b>2008-0850-MIS-U (UD 07-11994)</b>	<b>Freeport Energy Center, L.P. – Brazoria County</b>
<b>2008-0851-MIS-U (UD 07-11926)</b>	<b>CER-Colorado Bend Energy LLC (f/k/a Navasota Wharton Energy Partners, L.P.) – Wharton County</b>
<b>2012-1559-MIS-U (UD 12210 &amp; 12211)</b>	<b>Topaz Power Group, LLC – Nueces County</b>
<b>2012-1562-MIS-U (UD 15506, 16410, 16411 &amp; 16412)</b>	<b>Cottonwood Energy Company LP – Newton County</b>
<b>2012-1586-MIS-U (UD 12268)</b>	<b>Wolf Hollow I, LP – Hood County</b>
<b>2012-1587-MIS-U (UD 13534)</b>	<b>South Texas Electric Cooperative, Inc. – Victoria County</b>
<b>2012-1635-MIS-U (UD 13544)</b>	<b>Brazos Electric Power Cooperative, Inc. – Johnson County</b>
<b>2012-1648-MIS-U (UD 16413)</b>	<b>Brazos Electric Power Cooperative, Inc. – Jack County</b>
<b>2012-1650-MIS-U (UD 07-12271)</b>	<b>Midlothian Energy Limited Partnership – Ellis County</b>
<b>2012-1660-MIS-U (UD 07-12202)</b>	<b>Wise County Power Company, LLC – Wise County</b>
<b>2012-1662-MIS-U (UD 07-12203)</b>	<b>Ennis Power Company, LLC – Ellis County</b>
<b>2012-1682-MIS-U (UD 07-12272)</b>	<b>Hays Energy Limited Partnership – Hays County</b>
<b>2012-1683-MIS-U (UD 12826)</b>	<b>EIF Channelview Cogeneration LLC – Harris County</b>

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**APPLICANTS' JOINT REPLY TO THE EXECUTIVE DIRECTOR'S RESPONSE TO  
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Testimony Requested  
(30 Tex. Admin. Code § 17.25(e)(1))

By recovering waste heat from gas turbines to produce steam, heat recovery steam generators (“HRSGs”) substantially reduce a facility’s NOx emissions per unit of output. The Legislature recognized HRSGs’ pollution control benefits in 2007 when it required TCEQ to adopt rules listing HRSGs as pollution control property. Shortly thereafter, many facility owners applied for HRSG pollution control property use determinations, and a number of them received 100% positive use determinations, which are still in effect today. But the Applicants<sup>1</sup> who also applied for a pollution control property use determination shortly after TCEQ’s listing, and six of whom originally received 100% positive use determinations, all received nearly identical negative use determinations in 2012. The Applicants appealed and the Commission remanded consideration of the applications to the Executive Director (“ED”) on December 10, 2012, who responded with 2013 and 2014 notices of technical deficiencies and whose continued misunderstandings culminated in a second round of negative use determinations.

The ED’s negative use determinations are based on two misunderstandings. The ED’s first misunderstanding is that the Applicants must cite to an environmental rule *requiring* HRSG installation. His position finds no support in the Texas Tax Code (“Tax Code”) or TCEQ rules. Still, the Applicants did cite for the ED rules that are met or exceeded by use of HRSGs. In fact, for the first time in the course of these proceedings, the ED concedes in his response brief that NSPS KKKK<sup>2</sup> is an environmental rule that is met or exceeded through the use of HRSGs.

The ED’s second misunderstanding is that the Applicants must apply a use determination calculation methodology—the cost analysis procedure (“CAP”) with pre-determinative inputs—that will always yield a negative result for property that even the ED agrees provides pollution control benefits. The ED’s insistence on defining key CAP inputs in a manner that always forces a negative use determination unreasonably negates HRSGs’ pollution prevention benefits. Further, the ED’s imposition of the CAP on Tier IV applicants lacks basis in statute or rule.

The Tax Code provides that property listed in §11.31(k), such as HRSGs and enhanced steam turbines (ESTs”), is entitled to a positive use determination “in whole or in part.” The statute directs the ED and Commission to move past “whether” equipment on the 11.31(k) list is entitled to a positive use determination and to focus instead on determining “how much.” Yet the ED refuses to do so. The statute is also unambiguous that if the Commission wishes to overcome the statutory presumption in §11.31(k) and (m), it must initiate a rulemaking and establish that

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<sup>1</sup> Tenaska Gateway Partners, Ltd; Freestone Power Generation, L.P.; Borger Energy Associates, L.P.; Brazos Valley Energy, L.P.; Freeport Energy Center, L.P.; CER-Colorado Bend Energy LLC (f/k/a Navasota Wharton Energy Partners, L.P.); Topaz Power Group, LLC; Cottonwood Energy Company LP; Wolf Hollow I, LP; South Texas Electric Cooperative, Inc.; Brazos Electric Power Cooperative, Inc.; Brazos Electric Power Cooperative, Inc.; Midlothian Energy Limited Partnership; Wise County Power Company, LLC; Ennis Power Company, LLC; Hays Energy Limited Partnership; and EIF Channelview Cogeneration LLC.

<sup>2</sup> 40 CFR Part 60, Subpart KKKK.

compelling evidence exists that HRSGs and ESTs provide no environmental benefit. The Commission has not done so. In fact, the Commission recently conducted its triennial review of the items listed in §11.31(k) and removed no items. As Chairman Shaw explained at TCEQ's December 5, 2012, Agenda meeting, "an interpretation of this code as written is that we need not make a determination about whether it is pollution control equipment...because the legislature did that for us unless the TCEQ goes in through section (l) and removes it."

The Legislature directed the ED to issue a positive use determination for (k)-listed equipment such as HRSGs and ESTs within 30 days of his receipt of a complete application.<sup>3</sup> But many of the applications at issue have been pending for over half a decade. After the Commission's 2012 remand, Applicants diligently worked together—as with this reply brief—to uniformly respond to the ED's misunderstandings, by, among other things, developing and proposing reasonable alternatives to the ED's suggested CAP methodology. As highlighted by the ED, Applicants did seek extensions to the ED's Notice of Deficiency response deadlines, but those extensions were necessary to facilitate a joint response effort and those short extensions do not account for the nearly two years that have passed since the Commission's remand. It is past time that this matter be resolved in accordance with Legislative directives and expectations. We respectfully request that the Commission remand our applications to the ED with specific instructions to issue positive use determinations for HRSGs and ESTs for the pending applications using either the Avoided Emissions Approach or the Clarified CAP Approach, as appropriate based on the facts of each case using the consistent and uniform methodologies proposed by the Applicants.<sup>4</sup>

**I. Property Listed in Texas Tax Code §11.31(k) is Entitled to a Positive Use Determination, "In Whole or in Part."**

Contrary to Chairman Shaw's statement at TCEQ's December 5, 2012, Agenda meeting, the ED argues that equipment listed in Tax Code §11.31(k) is not entitled to an automatic positive use determination. Specifically, the ED argues that "applicant asks for an interpretation of Section 11.31 that disregards the constitution by allowing a positive use determination for property that is not used, constructed, acquired or installed to meet or exceed environmental rules."

The Applicants are not asking the Commission to ignore or disregard anything. Rather, the Applicants are asking the Commission to implement the plain language of the statute. Furthermore, it is not the ED's role to adjudge the constitutionality of the language adopted by

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<sup>3</sup> See TEX. TAX CODE § 11.31(m).

<sup>4</sup> Three other briefs were filed in response to the Applicants' Notices of Appeal: (1) by the TCEQ's Office of Public Interest Counsel ("OPIC") (all dockets); (2) by Pritchard & Abbot, Inc. for Rusk, Wise, Jack, Hood, Newton and Victoria County Appraisal Districts (Docket Nos. 2008-0830-MIS-U; 2012-1660-MIS-U; 2012-1648-MIS-U; 2012-1562-MIS-U; 2012-1586-MIS-U; 2012-1587-MIS-U); and (3) by Ellis Appraisal District and Hays County Appraisal District (Docket Nos. 2012-1650-MIS-U; 2012-1661-MIS-U; 2012-1682-MIS-U). The additional briefs do not, in the view of the Applicants, raise material issues that are distinct from the positions taken by the ED in the Executive Director's Response to Appeals of the Executive Director's Negative Use Determinations. This brief replies to the arguments presented in the ED's response brief and in the briefs filed in support of the ED's determinations.

the Legislature when no court has questioned it in the seven years since it was adopted. The list is specific. The directive is express. The Applicants simply ask the Commission to follow the law and not second-guess the most direct evidence of legislative intent – what the statute actually says.

**A. Statutory Finding that §11.31(k) Equipment is Pollution Control Property.**

It is undisputed that HRSGs and ESTs are on the §11.31(k) list—a list reserved for “facilities, devices, or methods for the control of air, water, or land pollution.” Tax Code §11.31(a) authorizes a property tax exemption for a “facility, device, or method for the control of air, water, or land pollution,” and §11.31(b) defines that term to mean:

...any structure, building, installation, excavation, machinery, equipment, or device, and any attachment or addition to or reconstruction, replacement, or improvement of that property, that is used, constructed, acquired, or installed wholly or partly to meet or exceed rules or regulations adopted by any environmental protection agency of the United States, this state, or a political subdivision of this state for the prevention, monitoring, control, or reduction of air, water, or land pollution.

By using the statutorily defined term “facilities, devices, or methods for the control of air, water, or land pollution” to describe the different pieces of equipment listed in §11.31(k), the Legislature determined that, by definition, the listed items in §11.31(k) satisfy all facets of the full definition of that term in §11.31(b), including being “used, constructed, acquired, or installed wholly or partly to meet or exceed rules or regulations adopted by any environmental protection agency ... for the prevention, monitoring, control, or reduction of air, water, or land pollution.” Thus, according to the definition provided by the Legislature, the equipment listed in §11.31(k) meets or exceeds rules or regulations for the control of pollution. This position is further supported by language in §11.31(m), by which the Legislature exempted applicants for §11.31(k)-listed equipment from providing any information related to the environmental benefit of the listed equipment.

**B. Mandate to the Commission to Timely Assess Whether Equipment is on the (k) List and, if so, Recognize its Exempt Status, in Whole or in Part.**

Tax Code §11.31(m) states:

***Notwithstanding the other provisions of this section, if*** the facility, device, or method for the control of air, water, or land pollution described in an application for an exemption under this section ***is*** a facility, device, or method included ***on the list*** adopted under Subsection (k), the executive director of the Texas Commission on Environmental Quality, not later than the 30th day after the date of receipt of the information required by Subsections (c)(2) and (3) and without regard to whether the information required by Subsection (c)(1) has been submitted, ***shall determine*** that the facility, device, or method described in the application is used wholly or partly as a facility, device, or method for the control

of air, water, or land pollution and shall take the actions that are required by Subsection (d) in the event such a determination is made.

The plain language of the statute directs the Commission to move past “whether” equipment on the §11.31(k) list is entitled to a positive use determination and to focus exclusively on determining “how much.” By misinterpreting the statutory mandate, the ED has failed to do the job the Legislature gave the Commission and has refused to approve appropriate methodologies to properly evaluate applications involving equipment that has both production and pollution prevention features through energy efficiency benefits inherent in its design.

**C. If the Commission Wants to Overcome the Statutory Presumption in Sections 11.31(k) and (m), it must Initiate a Rulemaking and Establish that Compelling Evidence Exists that HRSGs and ESTs Provide No Environmental Benefit.**

The unambiguous presumption in §11.31(k) and (m) is accompanied by an unambiguous roadmap for the Commission to remove items from the §11.31(k) list. Section 11.31(l) provides that “[a]n item may be removed from the list if the commission finds compelling evidence to support the conclusion that the item does not provide pollution control benefits.” The ED and OPIC attempt to rebut the presumption by arguing that the §11.31(k) list is nothing more than a list of items entitled to an expedited use determination review process. Even if they are right, which they are not, it does not explain why the Legislature would give the Commission a statutorily-defined procedure with a statutorily defined burden of proof to remove items on the (k) list if the Legislature intended to empower the Commission to effectively remove those items at any time.

If compelling evidence existed that HRSGs or ESTs do not provide pollution control benefits, the ED should have recommended that the Commission remove those items from the (k) list. He did not, and last month the Commission conducted its triennial review of the items listed in §11.31(k) and removed no items.<sup>5</sup> If there is no compelling evidence that HRSGs and ESTs fail to provide an environmental benefit, then there is no legal basis under which the Commission may prevent this equipment from receiving the tax exemption to which it is entitled. And so, the question is not “whether” an exemption should be granted, it is “how much.”

Despite repeated claims by the ED and OPIC that the Applicants are asking the Commission to disregard its rules and the constitution, the simple fact is that the ED has overlooked the statutory presumption created by the plain language of §§11.31 (k) and (m).

**D. The Commission Is Not Empowered to Determine Constitutional Issues or to Read in New Statutory Requirements.**

The ED’s response brief cites the *Air Products* case where the ED argued that statutory ambiguity and unconstitutionality meant the Commission could ignore the legislative directive in

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<sup>5</sup> TCEQ Order adopting amended rules in 30 TAC Chapter 17, concerning Tax Relief for Property Used for Environmental Protection and adopting new and amended rules in 30 TAC Chapter 18, concerning Rollback Relief for Pollution Control Requirements; TCEQ Docket No. 2013-2090-RUL, issued August 15, 2014.

§11.31(m).<sup>6</sup> In its *Air Products* briefing, the ED and OPIC read ambiguity into the clear directive of §11.31(m), but there is a simple explanation that does not undo the unambiguous directive preceding Section 11.31(m)'s final phrase, "in the event such a determination is made": the "determination" referenced here is the necessary determination that must be made regarding whether the equipment in a given case is, in fact, on the (k) list.

The second element of the ED and OPIC argument is that the Commission can ignore the statutory presumption of §§11.31(k) and 11.31(m) because that presumption is "unconstitutional." There are two fatal flaws in this argument: (1) the Commission does not get to make that call as it has no power to determine the constitutionality of statutes and (2) it is founded on the faulty premise that environmental regulations that call for the reduction of pollution are not appropriate regulatory citations unless those regulations *require* the use of HRSGs. The first can be summarily addressed with the recognition that, no matter how novel the legal theory, Texas courts have held that administrative agencies should not adjudge the constitutionality of statutes.<sup>7</sup> The second reads additional requirements into the constitutional and statutory provisions that simply do not exist.

## **II. The ED's Reliance on a TCEQ Rule Over the Texas Statute Voids the Rule, and In Any Event, the Applicants Properly Cited Rules and Regulations that are Met or Exceeded by the Use of HRSGs.**

### **A. The Rule, As Interpreted by the ED, is Void, Which the ED Does not Contest.**

The ED has consistently argued that 30 TAC 17.10(d) requires Applicants to cite to an environmental rule, but the ED has not responded to the Applicants' argument that the very same TCEQ rule—as interpreted by the ED—is void due to statutory conflict.<sup>8</sup>

Here, the ED interprets 30 TAC §17.10(d) as mandating that the Applicants cite an environmental rule that HRSGs help to meet or exceed. This interpretation is squarely in opposition to the plain language of Tax Code §11.31(m), which imposes no such requirement on (k)-listed equipment. OPIC's suggestion that 30 TAC §17.10(d) creates uniformity in all Prop 2 applications provides no salvation. The (k)-list exists so that HRSGs and other equipment will be treated differently. Regardless, where, as here, a rule is in conflict with the statute, imposition of the rule is invalid.

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<sup>6</sup> Executive Director's Response to Appeals of the Executive Director's Negative of Use Determinations, at p.5 (citing Commission's decision regarding appeal of Air Product, LLC Application No. 16632, TCEQ Docket No. 2013-1252-MIS-U).

<sup>7</sup> See, e.g., *Tex. State Bd. of Pharm. v. Walgreen Tex.*, 520 S.W.2d 845 (Tex. Civ. App.—Austin 1975, writ ref'd n.r.e.) ("Administrative agencies have no power to determine the constitutionality of statutes."); *Mitz v. Tex. State Bd. of Vet. Examiners*, 278 S.W.3d 17 (Tex. App.—Austin 2008, pet. dismissed) (same).

<sup>8</sup> See *Office of Pub. Util. Counsel v. Pub. Util. Comm'n*, 104 S.W.3d 225, 232 (Tex. App.—Austin 2003, no pet.); see also *Lee v. Tex. Workers' Compensation Comm'n*, 272 S.W.3d 806, 813 (Tex. App.—Austin 2008, pet. denied) ("If a promulgated rule has no supporting statutory authority, the rule is void."); *Employees Retirement Sys. of Tex. v. Jones*, 58 S.W.3d 148, 154 (Tex. App.—Austin 2001, no pet.) ("A rule of an administrative agency is void if it conflicts with the statute, regardless of how long-standing such rule may be.").

The ED, in his Response, at last concedes that certain Applications have met his requirements (those that are subject to NSPS KKKK and one Application with a special permit condition), while arbitrarily denying that eleven other Applications have appropriately cited what the ED believes is a proper rule or regulation. Creating yet another layer of gatekeeping, the ED not only imposes a requirement to cite to a rule, but demands that an Applicant cite a rule or regulation that *requires* the use of a HRSG.

Nothing in the Tax Code or the TCEQ's rules imposes an obligation to cite to a rule or regulation that specifically requires the use of a HRSG. To the contrary, the Tax Code only requires that the pollution control property be "used, constructed, acquired, or installed **wholly or partly to meet or exceed rules or regulations.**"<sup>9</sup> The ED has offered no response to the disconnect between what he has imposed on the Applicants and the actual language of the Tax Code and the TCEQ rules.

In fact, during the December 5, 2012 Agenda, this very issue was discussed by the Commission and the ED's legal staff, where the ED admitted that there is no requirement in §11.31 that the environmental rule compel the use of a particular piece of equipment:

**Chairman Shaw:** I think it's appropriate while we're discussing this to ensure that we're clear in applications going forward whether they're on the (k) list or not as far as what the ED's thoughts are with regard to that requirement for meeting or exceeding rules. Is it your intention and suggestion that the rule would specifically have to prescribe the equipment or that the equipment would have to arguably help to meet or exceed a standard that doesn't necessarily require that particular piece of equipment?

**Dan Long:** ... The rule doesn't have to directly say which piece of equipment but the equipment has to help meet or exceed.

Furthermore, the Commission has previously recognized that "[t]he term 'exceed' is interpreted to include voluntary projects which go beyond the minimum requirements of environmental laws, rules, or regulations, provided that the projects are initiated pursuant to or in compliance with an adopted or enacted law, rule, or regulation."<sup>10</sup> Thus, even if an environmental rule does not specifically call for the installation of a HRSG, if a HRSG assists in reducing pollution beyond the minimum requirements of that rule, then it exceeds the environmental rule and is eligible for a positive use determination.

The Applicants nevertheless have attempted to comply with ED's interpretation by citing rules that are met or exceeded by the use of HRSGs.

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<sup>9</sup> TEX. TAX CODE §11.31(b) (emphasis added).

<sup>10</sup> 19 Tex. Reg. 7737, 7793 (Sept. 30, 1994).

**B. The Rules Cited by the Applicants are Met or Exceeded by the Use of HRSGs.**

**1. The ED Concedes that 10 Applications Have Cited to Rules or Regulations that Meet His Standards.**

Despite his incorrect position on whether the Applicants needed to cite a rule or regulation, the ED concedes in his Response—for the first time in these multi-year proceedings—that HRSGs are used to meet the requirements of New Source Performance Standard 40 CFR pt. 60, subpt. KKKK (“NSPS KKKK”).<sup>11</sup>

As a consequence, the ED acknowledges that nine applications—Navasota Wharton Bend (Application No. 11926), Brazos Valley Energy (Application No. 11969), Topaz Power Group Barney Davis Power Plant (Application No. 12210), Topaz Power Group Nueces Bay Power Plant (Application No. 12211), Wolf Hollow Power Plant (Application No. 12268), Midlothian Energy Project (Application No. 12271), South Texas Electric Cooperative Sam Rayburn Power Plant (Application No. 13534), Freeport (Application No. 11994), and Brazos Electric Power Cooperative Jack County Facility (Application No. 16413)—have met his standards (even if invalid) and have appropriately cited to a rule or regulation. The ED also conceded that Brazos Electric Power Cooperative Johnson County Generation Facility (Application No. 13544) has a special condition in its air permit that demonstrated the HRSGs are used to meet an environmental rule.<sup>12</sup>

Accordingly, for these ten Applications, the only remaining question is the amount of pollution tax exemption for the HRSG.<sup>13</sup>

**2. The ED’s Rejection of the Rules and Regulations Cited for the Remaining Facilities Does Not Stand to Reason.**

The ED’s concession that the ten Applications meet his standards does not extend to the eleven other Applications. Specifically, the ED rejected every single rule and regulation cited by Tenaska Gateway Partners (Application No. 11914), Freestone Power Generation (Application No. 11966), Borger Energy Associates (Application No. 11971), Cottonwood Energy Company (Application Nos. 15506, 16410, 16411, and 16412), Wise County Power Company (Application No. 12202), Ennis Power Company (Application No. 12203), Hays Energy (Application No. 12272), and EIF Channelview Cogeneration (Application No. 12816) (collectively, the “Remaining Applications”).

Contrary to the ED’s determination, the Remaining Applications have cited equally appropriate rules (even while maintaining that they were not required to do so), which should not

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<sup>11</sup> See ED’s 2014 Response Brief, p. 6.

<sup>12</sup> *Id.*

<sup>13</sup> While the ED’s brief includes Midlothian Energy Project in the applications for which HRSGs are used to meet or exceed the requirements of NSPS Subpart KKKK, applicant Midlothian Energy Limited Partnership has not alleged that the units in question are subject to NSPS Subpart KKKK. Applicant Midlothian Energy Limited Partnership uses the HRSGs at the Midlothian Energy Project to meet or exceed other NSPS standards, however, including Subpart Da, addressed herein, and Subpart GG.

have been rejected by the ED. For this consolidated reply, we have selected representative rules to discuss. The individual Remaining Applications rely on all the rules and regulations they have cited and briefed, and incorporate those by reference.

**a. New Source Performance Standard 40 CFR §60.44Da (“NSPS Da”)**

The ED’s rejection of NSPS Da as an appropriate rule directly conflicts with the ED’s acceptance of NSPS KKKK.<sup>14</sup> The ED admits that the emission limitations prescribed by NSPS Da and NSPS KKKK are functionally equivalent.<sup>15</sup> And the ED properly concluded that the HRSGs are used to satisfy the limitations prescribed by NSPS KKKK. By contrast, the ED reached the opposite conclusion for NSPS Da. The ED’s position makes no sense because HRSGs provide the same function in meeting both standards, and the difference in the two NSPS is essentially installation date.<sup>16</sup>

The ED’s basis for discounting the HRSG’s role in meeting NSPS Da (while at the same time recognizing that role in NSPS KKKK) is illogical because the same pollution benefit—less fuel burned resulting in a lower NOx emission rate per amount of electricity produced—is achieved whether under NSPS KKKK or Da. Just as with NSPS KKKK, HRSGs reduce the amount of NOx being emitted and help to meet or exceed NSPS Da.

**b. Clean Air Interstate Rule (“CAIR”)**

CAIR is an important component of pollution prevention that is applicable to most of the facilities with Remaining Applications pending.<sup>17</sup> Under CAIR, an electric generating facility must have a sufficient number of “allowances” to cover the amount of NOx emitted. *See* 30 TAC §101.506(c). The allowances are calculated, in part, upon the amount of fuel combusted. HRSGs reduce the amount of fuel combusted, which reduces the amount of NOx emitted by the facility. This fuel reducing function meets or exceeds CAIR by helping the facility to stay within its NOx allowance allocation.

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<sup>14</sup> Of the Remaining Applications, Tenaska Gateway Partners (Application No. 11914), Borger Energy Associates (Application No. 11971), Cottonwood Energy Company (Application Nos. 15506, 16410, 16411, and 16412), and EIF Channelview Cogeneration (Application No. 12816) relied upon NSPS Da, among other rules.

<sup>15</sup> The Executive Director described the emission limitation of NSPS KKKK as the “mass of NOx emitted per unit electricity produced (lbs. NOx/megawatt hour).” Executive Director’s 2014 Response Brief, p. 6. That phrasing is nearly identical to the phrasing used by the Executive Director to describe NSPS Da, which was the “mass of NOx emitted per gross electricity generated (lb/MWh).” *Id.* at 16.

<sup>16</sup> To this point, EPA in promulgating KKKK represented that the new standards “reflect[ed] changes in NOx emission control technologies and turbine design since standards for [stationary combustion turbines] were originally promulgated in 40 CFR part 60, subpart GG,” and directed that “[h]eat recovery steam generators and duct burners subject to subpart KKKK are exempt from the requirements of 40 CFR part 60, subparts Da, Db, and Dc.” *See* 71 Fed. Reg. 38,482, 38,482-483 (July 6, 2006).

<sup>17</sup> Of the Remaining Applications, Tenaska Gateway Partners (Application No. 11914), Freestone Power Generation (Application No. 11966), Borger Energy Associates (Application No. 11971), Cottonwood Energy Company (Application Nos. 15506, 16410, 16411, and 16412), Wise County Power Company (Application No. 12202), and EIF Channelview Cogeneration (Application No. 12816) relied on CAIR, among other rules. Many of the facilities subject to NSPS KKKK also cited to CAIR.

The ED rejects CAIR as a validly-cited rule, claiming that he cannot locate language in the CAIR rule requiring the use of HRSGs.<sup>18</sup> The ED's position is not supported by the law. First, nothing in the Tax Code or TCEQ rules mandates that HRSGs be specifically required. Even so, with regard to CAIR, without the use of HRSGs, a facility would either have to obtain additional NOx allowances to produce the same amount of power (increasing emissions from the facility) or reduce the amount of power it generates. HRSGs absolutely are used to meet or exceed CAIR.

**c. Best Available Control Technology (“BACT”)**

BACT is a rule that applies to all air permitted sources in Texas.<sup>19</sup> According to the TCEQ's own rules, BACT is defined as either add-on pollution control equipment, or a *production process*.<sup>20</sup> A facility's BACT requirement is expressed in emissions limits. A HRSG reduces the amount of fuel used to produce a given amount of electricity, which reduces NOx being emitted from the facility, thus meeting or exceeding the applicable BACT-derived permit limits.<sup>21</sup>

The ED argues that BACT is not applicable because HRSGs are not specifically required by BACT.<sup>22</sup> But nothing in the Tax Code or TCEQ rules requires that HRSGs be specifically required. *See* Section II.A above.

For the reasons discussed above and in the Applicants' previous briefings in this matter, all of the rules cited by the Remaining Applications are **met or exceeded** by the use of HRSGs.

**C. The Legislature has Already Provided the Standard for What Constitutes an Adequate Environmental Regulation**

While the ED has conceded that those Applicants subject to NSPS KKKK have cited an appropriate environmental citation, the ED continues to argue that the other environmental rules cited by Applicants are insufficient because they do not require the use of a HRSG. The ED must rely on the Legislature's plain language and not engraft a more stringent standard on what constitutes a sufficient environmental regulation to qualify a property under the program. As a matter of law, we must presume the Legislature did, in fact, go through such a constitutional assessment when it passed HB 3732. As a factual matter, the Legislature confirmed its sensitivity to this issue through the language it added to Section 11.31(k)(16), which states: “if the United States Environmental Protection Agency adopts a final rule or regulation regulating

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<sup>18</sup> *See* ED's 2014 Response Brief, p. 17.

<sup>19</sup> Of the Remaining Applications, Tenaska Gateway Partners (Application No. 11914), Freestone Power Generation (Application No. 11966), Borger Energy Associates (Application No. 11971), and Wise County Power Company (Application No. 12202) relied upon BACT, among other rules.

<sup>20</sup> 30 TAC §116.10(1) (emphasis added).

<sup>21</sup> In some instances, the facilities' HRSGs are combined with a selective catalytic reduction (“SCR”) system, which is a pollution control device. The HRSGs are needed to cool the exhaust in order for the SCR system to operate properly. If the HRSGs provide the temperature reduction necessary for the SCR to operate properly, and the SCR is used to meet BACT's requirements, it logically follows that HRSGs are helping to meet or exceed the BACT-derived permit limits.

<sup>22</sup> *See* ED's 2014 Response Brief, p. 18.

carbon dioxide as a pollutant, property that is used, constructed, acquired, or installed wholly or partly to capture carbon dioxide from an anthropogenic source in this state that is geologically sequestered in this state.” This triggering language was added to the statute in Senate Committee (the language was not in the filed House Committee versions of the bill) to ensure compliance with constitutional requirements because, at the time the bill was being considered, no environmental rule yet existed regulating carbon dioxide as a pollutant. When describing the type of environmental regulation that needed to be met or exceeded, the Legislature did not say that the rule must require a specific piece of equipment to reduce emissions or that the rule impose a mandate of any kind on a specific source category or type of facility – it required only that there be a rule or regulation regulating the pollutant.

When the U.S. Supreme Court issued its decision in *UARG v. EPA* earlier this year, it restricted how the EPA could regulate CO<sub>2</sub>. However, by allowing EPA to continue requiring “anyway sources” to conduct BACT analyses for greenhouse gases (“GHGs”), this decision confirmed that EPA may regulate CO<sub>2</sub> emissions from certain stationary sources. Given that the underlying rules were published in the Federal Register on June 3, 2010 and have been in effect since January 2, 2011, the test provided by the Legislature in §11.31(k)(16) has already been met.

Thus, two conclusions can be drawn from the language in §11.31(k)(16) and the current state of GHG regulation: First, the only standard articulated by the Legislature as to what constituted an appropriate environmental rule does not require that the rule mandate a specific piece of equipment be used. Instead the standard articulated by the Legislature only requires that a rule exist which regulates emissions of a particular pollutant that are reduced by use of the equipment. Second, with regard to GHGs, a sufficient environmental rule is in place and its validity is now sufficiently clear to provide an additional environmental rule for HRSGs and ESTs in addition to the numerous authorities cited above and in prior briefings.

### **III. The ED Unlawfully Imposed Incorrect Use Determination Formulas on the Tier IV Applicants.**

The ED took a “belt and suspenders” approach in its results-driven review of the Applicants’ applications. Just in case the Commissioners disagreed with the ED’s interpretation of the Tax Code and the treatment of HRSGs under § 11.31(m), the ED “found only one methodology that properly took into account the purported pollution control aspect as well as the production aspect of the HRSG – the CAP.”<sup>23</sup> For the Tier IV Applicants, the ED is both imposing the CAP where it is not required and wrongfully rejecting the proposed “avoided emissions” methodology that better captures the undisputed pollution prevention benefit of HRSGs. For all of the Applicants, the ED’s insistence on defining key CAP inputs in a manner that forces a negative use determination is unreasonable and represents a complete failure to recognize the pollution prevention benefits of HRSGs.

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<sup>23</sup> ED’s 2014 Response Brief, p. 7.

**A. The CAP is Not Required for the Tier IV Applicants.**

First, under TCEQ's own regulations, *no* CAP can ever be applied to the Tier IV Applications unless they consent.<sup>24</sup> Under Tier IV, it is **the Applicant** who has the right to determine the "method and the calculation used to calculate the use percentage."<sup>25</sup> Because the Tier IV Applications involve no property that is **not** on the Equipment and Categories List, the ED has no right to require the Tier IV Applicants to utilize any particular formula or calculation. *See* 30 TAC §17.10(d)(5) (2008).

Second, efficiency that reduces emissions *is* a legitimate and recognized form of pollution control. The ED "acknowledge[s] that HRSGs could be used to meet output based emission limit[s]."<sup>26</sup> OPIC adds in its response brief that "[p]ollution control through energy efficiency serves the public interest, and OPIC supports this principle."<sup>27</sup> In a case of severe understatement, OPIC adds that "the CAP may not be the best tool to evaluate pollution control which results from an energy efficient process."<sup>28</sup>

The fact that OPIC regards the CAP as no more than an allegedly "better" bad standard for evaluating the pollution control benefits of energy efficient equipment is no justification for the ED's use of it relative to the Tier IV Applicants, or for the "customized" way he purported to force it on all of the Applicants. This is not facilitating uniformity; it is ensuring injustice. The Tier III CAP actually predated Tier IV, and Tier IV was enacted to address HB 3732, because the CAP was not deemed an appropriate measure of pollution control thereunder. In a similar vein, as the Applicants have demonstrated, by using new approaches under Tier IV and/or even a CAP reasonably interpreted and applied (or "supplemented with a different methodology specific to efficiency"<sup>29</sup>), reasonable and justified pollution control percentages can be calculated.

Particularly for Tier IV Applicants, the CAP is a bad fit, and the ED has wrongly rejected more-appropriate measures proposed by the Tier IV Applicants for valuing both the pollution control and production benefits of the Applicants' HRSGs.

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<sup>24</sup> *See* 30 TAC §17.17(b) (2008) and §17.17(c).

<sup>25</sup> *See* 30 TAC §17.10(d)(6).

<sup>26</sup> ED's 2014 Response Brief, p. 6.

<sup>27</sup> OPIC's 2014 Response Brief, p. 11.

<sup>28</sup> *Id.*

<sup>29</sup> OPIC's 2014 Response Brief, p. 12. It is worth specifically noting that the components of the CAP do, or at least could, allow for some interpretation as to what may be included when considering each of them. The ED himself has interpreted the variables of the formula when providing the Applicants instructions on application of the CAP in his Notices of Deficiency. However, careful reading of those engrafted conditions only reveals additional outcome determinative efforts by the ED to ensure that any use of the CAP will generate unfavorable results for the Applicants.

**B. The Avoided Emissions Approach is Reasonable and Establishes the Applicants' Rights to a Positive Use Determination.**

**1. The Avoided Emissions Approach Accounts for the Productive Value of the HRSGs.**

The ED argues that the Tier IV Applicants' proposed avoided emissions methodology is not reasonable because it does not attribute any value to production.<sup>30</sup> This is simply untrue, and reflects a misunderstanding of the avoided emissions approach.

As noted in the Applicants' Notices of Appeal,<sup>31</sup> the avoided emissions approach is based on an approach developed by the EPA for measuring pollution prevention and outlined in EPA's *Output-Based Regulations: A Handbook for Regulators*.<sup>32</sup> The avoided emissions approach is aimed at capturing the pollution prevention due to energy efficiency and the reduction in emissions that results from generating more energy from the same amount of fuel. Importantly, the avoided emissions approach **does** attribute value to production from HRSGs, through its incorporation of heat rate values.

The avoided emissions approach compares the emissions output of the "subject plant" (the HRSG-equipped plant that is the subject of the application) to a "baseline plant." The baseline plant, not equipped with a HRSG, generates energy less efficiently and has a higher heat rate than the subject plant. The avoided emissions approach only calculates a positive use determination to the extent that the subject plant produces power more efficiently than the baseline plant, and does not reward the subject plant for baseline-efficiency energy production. In this regard, the avoided emissions approach accounts for the productive value of the HRSG – reflected by results that support a **partial** positive use determination.

**2. The Avoided Emissions Approach Does Not Capture Reductions Attributable to Other Pollution Control Property.**

The ED argues that the avoided emissions approach "attributes the entire avoided emissions to the HRSGs" and ignores any emissions reductions attributable to other pollution control property, such as selective catalytic reduction ("SCR") systems, flue gas recirculation, or low-NOx burners.<sup>33</sup> This is inaccurate and mischaracterizes the avoided emissions approach.

The avoided emissions approach compares the subject plant (equipped with a HRSG) to a baseline plant (not equipped with a HRSG). By comparing the subject plant to a similarly equipped, gas-fired baseline plant, the avoided emissions approach seeks to make an "all things being equal – **except** for the HRSG" comparison. The avoided emissions approach is not

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<sup>30</sup> ED's 2014 Response Brief, p. 8. [Note that Ellis Appraisal District and Hays County Appraisal District made same argument in their Brief in Support – avoided emissions approach "does not consider the economic benefit of the value of the electricity produced by the HRSG and steam turbine."]

<sup>31</sup> See, e.g., Hays Energy LLC's Appeal of the Executive Director's Negative Use Determination (July 3, 2014).

<sup>32</sup> U.S. EPA, Office of Atmospheric Protection Programs, *Output-Based Regulations: A Handbook for Air Regulators*, pp. 31-33 (Aug. 2004).

<sup>33</sup> ED's 2014 Response Brief, p. 8.

designed to capture, and does not capture, NOx reductions attributable to equipment such as SCRs or low-NOx burners. The formula captures the pollution prevention generated by the HRSG and **not** general NOx emissions reduction due to add-on emissions controls.

For this same reason, the ED's slippery-slope argument that the avoided emissions approach would support 100% positive use determinations for gas-fired plants (compared to coal-fired plants) and wind farms (compared to gas-fired plants)<sup>34</sup> is inapposite. The avoided emissions approach compares the efficiency of energy production of similarly equipped, gas-fired electric generating units with one key variable – the subject plant is equipped with a HRSG. That is wholly different from comparing two different types of energy generation that utilize different power generation technologies and fuel sources, and the Applicants do not offer the avoided emissions approach as a method for generating a use determination percentage in the ED's hypothetical scenarios.

### **3. The Amount of Pollution “Avoided” by the Use of a HRSG Is Relevant in Evaluating a HRSG Application.**

Finally, the ED states that “[t]he amount of pollution ‘avoided’ by the use of a particular piece of property is not relevant in trying to determine the portion of the property that is attributable to pollution control.”<sup>35</sup> The amount of pollution avoided by the use of the Applicants' HRSGs is **absolutely** relevant, and is the basis for the Applicants' applications. It is undisputed that pollution prevention is a form of pollution control recognized under the Prop. 2 Program. The ED's assertion regarding the irrelevance of the amount of pollution avoided simply makes no sense. If a particular piece of property controls pollution by preventing pollution, then a measurement of the amount of pollution avoided is how the TCEQ should weigh the pollution-control benefit of that property. The ED's analogy to two different size spill containers is not apt<sup>36</sup> because the spill containers would be pollution control property that qualifies for a 100% positive use determination regardless of size and the ability to capture larger or smaller quantities. The avoided emissions method does allow the Commission to distinguish between the productive value of a HRSG and the HRSG's pollution-control value.

#### **C. The “Clarified” CAP Is Far More Reasonable than the CAP as Imposed by the ED.**

Applying the CAP to property that controls pollution through increased energy efficiency is like forcing a square peg into a round hole, as acknowledged by OPIC in its Response Brief.<sup>37</sup> That is why the CAP, as modified by the ED specifically for the Applicants, generates extreme negative use determination figures for HRSGs even though they indisputably provide a pollution control benefit. In an attempt to respond to the ED's request that the CAP be applied, and to demonstrate that the CAP – if interpreted correctly – could provide a reasonable means of

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<sup>34</sup> *Id.*

<sup>35</sup> *Id.* at p. 8.

<sup>36</sup> Each spill container would be eligible for a 100% use determination. The only difference between the two containers would be the cost of each unit. *See, e.g.*, Tier I Table, Figure: 30 TAC § 17.14(a), Items W-64, S-6, S-20, M-11, and T-2.

<sup>37</sup> OPIC's 2014 Response Brief, p. 11.

evaluating HRSG applications, the Tier IV Applicants proposed a different CAP-based approach that is consistent with state law and TCEQ’s rules, referred to as the Clarified CAP.

The Clarified CAP more accurately reflects the function of a HRSG and the circumstances surrounding HRSG installation, and defines key variables in a manner that more accurately apportions the production and pollution prevention roles of a HRSG when compared to the CAP as defined by the ED.<sup>38</sup> The HRSG is not replacement equipment and is not installed by power plant operators to replace a boiler; as such, it is proper to define Capital Cost Old (“CCO”) as \$0 when calculating a use determination percentage with the CAP. Additionally, the ED’s exclusion of steam turbines and other ancillary equipment that are necessary components of a HRSG’s production would result in the CAP accounting for the HRSG’s production while omitting the costs of equipment necessary to achieve that production. If the CAP is to take into account the value of the marketable product produced by a HRSG, it must also take into account all of the capital costs necessary for the HRSG to produce that product. For both of these reasons, the Applicants’ Clarified CAP is reasonable and more consistent with the legislative intent behind partial use determinations under the Prop 2 Program. If the Commission finds that the ED should continue to use a form of the CAP in evaluating the Tier IV applications on remand, the Commission should direct the ED to define both CCO and CCN consistent with the Applicants’ proposed CAP.

#### **IV. The ED’s CAP Formula, as Applied to HRSGs, Fails to Comply with Legislative Directives**

##### **A. The CAP Formula—As Applied to Tier III or Tier IV Applicants— Fails to Address Efficiency Gains, Pollution Control, and Pollution Prevention**

The CAP’s use of purely economic factors (e.g., costs and revenues) fails to properly identify the proportionate split of the HRSG’s production and pollution control functions. The ED’s very concept of determining the alleged percentage of pollution control function solely by a comparison of equipment costs less certain revenues without any consideration of actual emissions reduction or of the costs of fuel and ancillary equipment required to produce the steam in the HRSGs is logically flawed. First, such an “economics-only” focus in an analysis of HRSGs actually ensures that the CAP operates only to reward inefficiency and punish efficiency. Simply, the more efficient a combined cycle unit is, the more Marketable Product (or Byproduct) it will produce, and the larger its related deduction will be in the CAP formula. Conversely, the more inefficient a plant is, the higher will be its pollution control exemption. This result is logically inconsistent and diametrically opposed to TCEQ’s fundamental responsibility of protecting the environment and incentivizing environmentally friendly equipment, processes and actions. It simply is not what the Legislature intended.

##### **B. Calculation is to Distinguish Production and Pollution Control Functions**

The purpose of the use determination calculation is to determine what percentage of the equipment’s value is attributable to production and what percentage is attributable to pollution

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<sup>38</sup> The proper definition for Capital Cost Old (“CCO”) under the CAP is addressed in part V.A. The proper definition for Capital Cost New (“CCN”) is addressed in part V.B.

control.<sup>39</sup> The percentages must add up to 100%. The calculations, as mandated by the ED, result in significantly negative percentages across all of the HRSG Applicants. As a result, this approach fails to meet the statutory directive that TCEQ adopt rules that “allow for determinations that distinguish the proportion of property that is used to control, monitor, prevent, or reduce pollution from the proportion of property that is used to produce goods or services.”<sup>40</sup> A HRSG simply cannot have a production function of 186% or more, any more than an athlete can give more than 100%.<sup>41</sup> It is a mathematical impossibility. Further, the Legislature has determined that HRSGs have a pollution control function. The ED is barred from determining otherwise, and therefore is required to make a determination that some portion of the HRSG serves a pollution control function, and that the HRSG Applicants are eligible for a tax exemption reflective of that pollution control proportion.

#### **V. The ED’s Application of the CAP Formula, with Modified and Mandated Inputs, is Contrary to the Legislature’s Designation of HRSGs as Pollution Control Property**

The inputs the ED required Applicants to use in the CAP formula are contrary to Tex. Tax Code §§ 11.31(b), (k), and (m). Under these provisions of the Tax Code, the Legislature has statutorily designated HRSGs as pollution control equipment that “shall” receive a positive use determination. As such, some portion of the value of that equipment must be attributed to pollution control, and the HRSG applicant must be provided a tax exemption for that portion of the value of that equipment. Again, the production and pollution control percentages must add up to 100%.

The ED cites a report of the Legislative Budget Board (“LBB”) for the proposition that the CAP formula has been recognized as an appropriate method to account for both pollution control and economic benefit. The ED fails to acknowledge that the LBB, in that same report stated that even County tax appraisers, county governments and some environmental groups recognized that some percentage of the HRSG’s function does control pollution.<sup>42</sup> The LBB went further to explain that these groups wanted to “ensure that the value of the tax exemption was proportional with the value of the pollution control part of the equipment.”<sup>43</sup> While even tax appraisers and taxing authorities have acknowledged the Legislature’s designation of HRSGs as pollution control property, the ED’s application of the CAP formula, with mandated inputs, ensures an outcome that is contrary to this legislative directive.

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<sup>39</sup> In fact, neither the controlling statute nor TCEQ’s implementing regulation itself actually require a determination of “production” function as a prerequisite to a valid positive use determination based on pollution control or prevention. All that is required is a determination of the proportion of property that is pollution control property. See TEX. TAX CODE § 11.31(d), (m) ; 30 TAC § 17.12(3). Given that the HRSG has two functions – pollution control and production, once the pollution control proportion is determined, the production function can be determined by subtracting the pollution control percentage from 100%.

<sup>40</sup> TEX. TAX CODE § 11.31(g)(3).

<sup>41</sup> As John Wooden said, “You don’t have 110 percent. You only have 100 percent, and that’s what I want from you right now.”

<sup>42</sup> LEGIS. BUDGET BD., *Government Effectiveness and Efficiency Report Submitted to the 81<sup>st</sup> Texas Legislature*, at 109 (Jan. 2009).

<sup>43</sup> *Id.* at 112.

It is the HRSG Applicants' conclusion that the calculation, using the specific inputs mandated by the ED, will in each and every case result in a negative use determination, based on a CAP calculation that will be significantly negative. This result is contrary to the Legislature's enactment of Tax Code §§ 11.31(b) and (k). Because the CAP formula, as applied by the ED, is capable of generating a negative number, and in many of the cases at hand, a significantly negative number, it is inconsistent with state law, and invalid as a matter of law.

The ED has contended that the rules contemplate that a CAP calculation can be negative. The calculations, based on inputs mandated by the ED indicate that this is demonstrably so. The ED's conclusion to date, using the CAP formula and the mandated inputs, is that HRSGs are not pollution control property. However, an agency decision must be consistent with relevant statutory provisions.<sup>44</sup> To date, the ED has failed to demonstrate how the rules, as applied; the formula, as mandated; and his resulting negative use determination are consistent with the Legislature's mandate that HRSGs are, by law, pollution control property.

#### **A. The ED's Mandate of the Cost of a Boiler as the Input for CCO is in Error**

The ED mandated that a boiler is the one and only piece of comparable equipment that is appropriate for the CCO input in the CAP formula calculation. Further, in doing so, the ED mandated the consideration of quite possibly the most expensive equipment possible. The ED erred by mandating that the replacement boiler be used to calculate CCO. Such action exceeded his authority under the statute and under TCEQ rules.

##### **1. CCO Definition – 30 TAC § 17.2(2) (2010)**

CCO is defined in two places within 30 TAC ch. 17. The term is first defined as “The cost of the equipment that is being or has been replaced by the equipment covered in an application.”<sup>45</sup> The definition continues by directing that the calculation of this variable in the CAP formula is to be performed using one of the four hierarchical methods set forth in 30 TAC §17.17(b)(1).<sup>46</sup> Of the four methods, only the first could be possibly applicable to the HRSGs that are the subject of the pending applications.

Under this method, if comparable equipment without the pollution control feature is on the market in the United States, then an average market price of the most recent generation of technology must be used. “Comparable equipment” is not a defined term in 30 TAC ch. 17. “Comparable” is defined in normal usage as similar, or capable of comparison. Synonyms include “analogous,” “corresponding,” “matching,” and “resembling.”

##### **2. No Equipment Being Replaced, No Comparable Equipment**

However, there is no equipment that is being or has been replaced by the equipment covered in the pending applications. To proceed further with this method is to completely

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<sup>44</sup> See TEX. GOV'T CODE § 2001.174; see also *TGS-NOPEC Geophysical Co. v. Combs*, 340 S.W.3d 432, 438 (Tex. 2011); *Public Util. Comm'n of Texas v. Gulf States Utils. Co.*, 809 S.W.2d 201, 207 (Tex. 1991); *Stanford v. Butler*, 142 Tex. 692, 181 S.W.2d 269, 273 (1944).

<sup>45</sup> 30 TAC § 17.2(2) (emphasis added).

<sup>46</sup> It appears that this reference should be to 30 TAC § 17.17(c)(1).

disregard the definition of CCO, which is premised on the replacement of equipment. Further, there is no comparable equipment that serves the function of the HRSG without its pollution control feature.

An example of a piece of equipment that fits neatly into the CAP analysis is a piece of production equipment that operates without pollution control and is being replaced by the new equipment which includes a scrubber. In this example, CCO would be the capital cost of the old equipment that is being or has been replaced by the new equipment. That is not the case in the pending HRSG applications.

The CAP formula appears to have been conceived to address equipment which can be added to (or removed from) existing equipment without any more fundamental design or function changes. It is simply not suitable for a use determination analysis based on efficiency, or pollution avoidance (rather than pollution control). It is for this reason that the ED's staff has struggled so in trying to fit an energy efficiency project into an add-on pollution control model. In doing so, the focus and results are completely contrary to the very purposes the law was intended to serve and achieve.

### **3. Differences between Boiler and HRSG**

Here, the HRSG is the equipment that is the subject of the use determination application. The HRSG is a fabricated, metal piece of equipment that connects to the combustion turbine ("CT") exhaust and directs the hot exhaust gas through a series of metal tubes to the exhaust stack. The HRSG and its dedicated ancillary systems are necessary to capture residual heat from the CT's exhaust and convert it into electrical power. HRSGs are used to effectively extract additional Btu of energy from this residual heat, by utilizing this residual heat to produce steam, which in turn powers a steam turbine-generator set to produce electrical power. The HRSG is the device that allows a Plant to function as a combined-cycle gas turbine power plant.

The ED's mandated "comparable equipment" is a replacement boiler. Essentially, the ED is mandating an expansion of the current gas turbine facility and a reconfiguration such that the Plant is a simple-cycle steam turbine power plant, rather than a combined-cycle plant. While the HRSG and the replacement boiler each produce steam, the units do so in entirely different manners.

While a boiler contains a furnace to produce heat, the HRSG captures exhaust heat from the gas turbine to produce steam and, through other ancillary equipment, generate electricity. Without the HRSG, the waste heat would discharge directly to the stack from the gas turbine. The HRSG requires additional and completely different ancillary equipment.

The replacement boiler is a "stand alone" piece of equipment that generates steam with a dedicated heat source for the sole purpose of generating steam, but not additional megawatts. A boiler would not be installed in a combined cycle facility as a replacement for the HRSGs. The ED's mandated replacement boiler would require a complete redesign of the Plant.

A boiler cannot perform the function of the HRSG. HRSGs are not replacement equipment, but rather new equipment that provides both a production benefit and a pollution prevention benefit. These differences demonstrate that the replacement boiler is not analogous to

and does not correspond with, match or resemble the HRSG. By mandating the use of the hypothetical replacement boiler in the calculation of CCO, the ED erred.

#### **4. HRSG's Production, Efficiency Functions Integrally Tied**

The production and energy efficiency functions of the HRSG are integrally tied, as a HRSG is designed to generate power not through the combustion of fuel, but through the capture of waste heat. With the possible exception of the spool piece that is discussed below, there is no equipment on the market that captures and directs residual heat, but does not have the pollution control function (i.e. energy efficiency) of the HRSG. Under the hierarchical methods, CCO is therefore \$0, and the production gains are captured by the calculation of the NPVMP of the additional steam produced by the HRSG.

#### **5. CCO Definition - 30 TAC § 17.17(c)**

TCEQ's rules additionally define CCO in the CAP formula set forth in 30 Tex. TAC § 17.17(c), stating, "Capital Cost Old is the cost of comparable equipment or process without the pollution control."<sup>47</sup> The ED's interpretation of this element of the formula disregards the fact, as stated above, that the subject of the application is a HRSG, for which there is no other comparable equipment, and thus there can be no value for CCO in the CAP calculation for the HRSG.

#### **6. The ED's Mandate of One and Only Comparable Equipment is in Error**

Even if a replacement boiler was analogous to a HRSG, it cannot be argued that a replacement boiler is the only comparable equipment. If a CCO must be used, an appropriate comparable equipment is a spool piece that would vent heat in the absence of the HRSGs.

The spool piece is a fabricated piece of metal that would connect the CT exhaust to the exhaust stack. It would direct the residual heat to the exhaust stack, but without the efficiency gain, i.e., the pollution control, that is achieved through the use of the HRSG. The ED asserts that the spool piece "does not reflect comparable production capability as the HRSG." This additional production capacity, however, is captured by the calculation of the NPVMP. If anything, the introduction of the spool piece, which has no productive capacity, ensures that the CAP formula does not double count the production increase attributable to the HRSG by counting it once in the calculation of CCO, through mandating the equalization of the productive capacity of the HRSG and the mandated replacement boiler, and again in the calculation of NPVMP.

If the Commission views the spool piece as comparable equipment without the pollution control, the HRSG Applicants could provide a cost of the spool piece for use as CCO, as many HRSG Applicants already have. The productivity gains resulting from the use of the HRSG would be captured in the calculation of the NPVMP.

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<sup>47</sup> See Figure: 30 TAC§ 17.17(c)(1). The ED correctly notes that Capital Cost Old was so defined in 30 TAC § 17.2(3) in rules effective prior December 13, 2010. TCEQ's rules also contained a similar, but slightly different hierarchy of standards used to calculate CCO. See Figure: 30 TAC § 17.17(b) (2008).

**B. The ED's Deduction of Necessary Ancillary Equipment and Production Costs is in Error**

In his February 3, 2014 Notice of Technical Deficiency, the ED directed that the Applicants remove certain equipment, specifically, the feedwater systems; boiler systems; chemical injection; cooling air systems; nitrogen systems; and condensate systems from each of the CAP-based calculations. In addition, the ED required that the Applicants remove from the calculation of Production Costs, in each of the CAP-based calculations, any costs related to operating the gas turbine, the water systems, or the steam turbine. The ED acknowledged that his initial refusal to include costs related to the operation of the duct burners, including fuel costs, was in error, and he requested that these costs be included in the calculation of Production Costs.

**1. Listed Ancillary Equipment is Essential to Operation of HRSG**

The ED contends that the feedwater systems, boiler systems, chemical injection, cooling air systems, nitrogen systems, and condensate systems are all production equipment for which a positive use determination is not available. However, these systems are essential to the operation of the HRSG. Without these pieces of equipment, the HRSG will not function and neither the production nor the pollution prevention benefits will be achieved. The HRSG must include all ancillary equipment and production costs required for the equipment to operate. In order for the HRSG to produce the MW required to supply the grid with the load required by ERCOT while limiting the total emissions produced, as required by applicable environmental regulations, HRSGs must function as designed. This design includes the feed water system, cooling air systems, condensate systems, and chemical injection systems. The allocation of the production and pollution prevention functions of the equipment (i.e., "HRSG" defined to include this ancillary equipment) serves to appropriately identify the proportion of the equipment costs for which a tax abatement may be obtained.

**2. The ED Cannot Claim Electricity as Marketable Product without Allowing Ancillary Equipment that is Essential to its Production**

Without the operation of these units, and their associated expenses (including fuel costs), no electricity would be generated from any steam produced via the HRSG, and therefore no marketable product would be generated. The ED cannot have it both ways. If electricity is the marketable product, the Applicants must be allowed to take into account the costs (and the equipment) associated with generating that marketable product as part of its NPVMP calculation. TCEQ's rules mandate it.

**3. Production Cost Includes Fuel, Storage, Transportation, and Personnel Costs**

The ED also narrowed the scope of the CAP's Production Cost variable by asserting that the cost attributed to the production of electricity, which the ED has designated as the marketable product, must exclude costs relating to operating the gas turbine or the steam turbine including fuel costs.

The exclusion of fuel costs from Production Cost is particularly problematic and inappropriate. “Production Cost” expressly includes the cost of “raw materials.”<sup>48</sup> In this context, fuel is the raw material for the production of the steam and its costs are an element of Production Cost, by definition. Additional costs that are included in Production Cost include storage, transportation, and personnel costs.<sup>49</sup> The ED’s interpretation of the elements to be included in, and excluded from, the calculation of NPVMP is inaccurate and constitutes improper and illegal rulemaking.

## **VI. The Applicants’ Use Determination Approaches Follow State Law and TCEQ Rules**

### **A. Tier IV Applicants**

As set forth above, the CAP is not required for the Tier IV Applicants. The Tier IV Applicants have proposed alternatives, including the avoided emissions approach, that are reasonable and that establish the Applicants’ rights to a positive use determination. The avoided emissions approach identifies the pollution prevention benefits provided by the HRSG. In doing so, it appropriately proportions the HRSG’s production and pollution control functions.

The Tier IV Applicants are entitled to propose a reasonable method for determining the use determination percentage.<sup>50</sup> Having proposed a reasonable method, the Tier IV Applicants have established their right to the positive use determination that is the product of that calculation method. The Tier IV Applicants respectfully request that the Commission remand the matter to the ED with instructions that the ED utilize the avoided emissions approach proposed by the Tier IV Applicants to calculate and issue the positive use determinations that result from this approach.

### **B. Tier III Applicants**

With respect to the Tier III Applicants, the CAP formula is required to be used to calculate use determination percentages, but only to the extent that the CAP formula can be used in a manner consistent with state law requiring that the Commission recognize the pollution control function of the HRSG. The ED’s mandated approach to implementing the CAP formula fails this test.

In an attempt to implement the CAP formula in a manner that is consistent with state law, the Applicants proposed an approach to the CAP formula. This approach addressed the calculation of the CCO and NPVMP variables in the CAP formula.

As set forth above, CCO should be \$0, as no equipment is being or has been replaced by the equipment covered in the pending applications, and there is no comparable equipment that serves the function of the HRSG without its pollution control feature. If the Commission requires some value to be included in the CAP formula as CCO, the Applicants propose that this value be based on the cost of the spool piece that would connect the CT exhaust to the exhaust

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<sup>48</sup> See 30 TAC §17.17(c)(2).

<sup>49</sup> See *id.*

<sup>50</sup> See 30 TAC § 17.17(d).

stack without the efficiency gain, i.e., the pollution control, that is achieved through the use of the HRSG.

The approach to the CAP formula proposed by the Applicants more accurately reflects the function of a HRSG and the circumstances surrounding HRSG installation. Further, it defines key variables in a manner that allow TCEQ to more accurately apportion the production and pollution prevention roles of a HRSG and to do so in a manner consistent with state law recognizing the pollution control function of the HRSG. In that regard, the Applicants' approach to the CAP formula is reasonable and consistent with state law.

With respect to NPVMP, the ED has argued that additional electricity produced through the use of the HRSG should be used to calculate NPVMP in the CAP formula, but that none of the ancillary equipment necessary to produce the additional electricity should be included in the HRSG application. The ED cannot have it both ways. Without the ancillary equipment, no additional electricity will be produced, and no NPVMP will be calculated because there is no market for the steam. If the Commission agrees with the ED that the product is the additional electricity produced as a result of the use of the HRSG, the ancillary equipment necessary to produce this additional electricity must be included within the HRSG application.

Along similar lines, the ED has excluded from the CAP formula costs relating to operating the gas turbine or the steam turbine including fuel costs. One of the elements included in the calculation of NPVMP is a deduction for production costs. TCEQ has defined "Production Cost" to expressly include the cost of "raw materials." Fuel is the raw material for the production of the steam and its costs are an element of Production Cost. Additional costs that are required to be included in Production Cost include storage, transportation, and personnel costs. If the Commission agrees with the ED that the product is the additional electricity, the production costs that are incurred to produce this additional electricity must be included in the calculation of NPVMP.

The Tier IV and Tier III Applicants proposed an approach to the CAP that is true to state law and TCEQ's rules. The Tier III Applicants respectfully request that the Commission remand the matter to the ED with instructions that the ED utilize the Applicants' approach to implementation of the CAP formula and issue the positive use determinations that result from this approach.

### **REQUESTED RELIEF**

The ED issued his latest negative use determinations based on misunderstandings of how the Prop 2 Program should be applied to HRSGs. The Applicants filed this appeal so that the Commission could correct these misunderstandings. We respectfully request that the Commission remand consideration of our applications with specific instructions requiring the ED to issue positive use determinations for HRSGs and ESTs using either the Avoided Emissions Approach or the Clarified CAP Approach, as appropriate based on the facts of each case using the consistent and uniform methodologies proposed by the Applicants.

Respectfully submitted,



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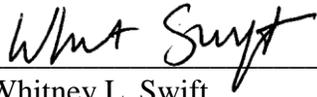


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**CERTIFICATE OF SERVICE**

I hereby certify that on the 5th day of September, 2014, an original and 7 copies of the foregoing was filed with the TCEQ Office of the Chief Clerk and was served by electronic mail or U.S. First Class Mail to the attached mailing list.

  
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