

OPEN MEETING COVER SHEET

MEETING DATE: July 20, 2007

DATE DELIVERED: July 13, 2007

AGENDA ITEM NO.: 33

CAPTION: Project No. 33492, Rulemaking Relating to the Target for Renewable Energy Resources other than Wind Power

ACTION REQUESTED: Discussion and possible action with respect to proposal for adoption

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Public Utility Commission of Texas

Date: July 13, 2007

To: Chairman Paul Hudson
Commissioner Julie Caruthers Parsley
Commissioner Barry T. Smitherman

From: Lauren Damen, Electric Industry Oversight *MS for L.D.*

Subject: Project Number 33492, Rulemaking Relating to the Target for Renewable Energy Resources Other than Wind Power, July 20, 2007, Open Meeting

Attached for your review is Staff's recommendation for a Commission Order to adopt amendments to P.U.C. SUBST. R. §25.173, relating to *Goal for Renewable Energy* for consideration at the July 20, 2007, Open Meeting.

The amendments will increase the state's renewable portfolio standard (RPS) and will establish a target of having at least 500 megawatts (MW) of capacity from a renewable energy technology other than a source using wind energy. Both changes are required by Senate Bill 20, 79th Legislature, 1st Called Session (2005), which amended Public Utility Regulatory Act (PURA) §39.904, relating to the *Goal for Renewable Energy*. Changes resulting from HB 1090, 80th Legislature (2007) will be addressed in a subsequent rulemaking.

Staff's recommendation includes a number of changes to the published version based on the comments received from interested parties, and changes clarifying the commission's intent. These changes include:

- Modification of the definition of microgenerator in subsection (c)(6), setting the capacity limit at less than 1 MW rather than 10 kW or less, to allow larger generators to use aggregators for renewable energy credits.
- Modification of subsection (e) to increase the allowed use of fossil fuel, increasing the cap from 2% to 25% of total fuel input on a British thermal unit (BTU) or equivalent basis, and setting requirements for the metering, reporting and auditing of renewable energy resources whose use of fossil fuel exceeds 2%.
- Deletion of the prohibition of facilities that are repowered to use renewable fuel from earning RECs in subsection (f)(3) and amending subsection (e) to permit facilities repowered to use renewable fuel to earn RECs on capacity less than 150 MW.
- Modification of the language regarding the capacity conversion factor in subsection (j) to eliminate confusion regarding the 12 and 24 month provisions, specifying that it will be based on actual generator performance data for renewable resources in the trading program for which at least 12 months of performance data are available.



- Modification of subsection (l) to provide that all non-wind renewable technology will earn the same number of compliance premiums (one per REC) and specifying that the awarding of compliance premiums will start with energy generated after December 31, 2007.
- Modification of subsection (p), amending the requirement regarding installation of microgenerator units, specifying that the installation must comply with P.U.C. Substantive Rules, applicable interconnection agreements, and federal rules.
- Modification of subsection (p), amending the allowed methods for reporting generation of microgenerators to permit the aggregator to read the meters and provide the information to the program administrator.

If you have any questions, please contact Annette Mass, 936-7271, annette.mass@puc.state.tx.us, or Lauren Damen, Electric Industry Oversight Division, 936-7401, lauren.damen@puc.state.tx.us.

1 PROJECT NO. 33492

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5 **RULEMAKING RELATING TO THE § PUBLIC UTILITY COMMISSION**
6 **TARGET FOR RENEWABLE ENERGY §**
7 **RESOURCES OTHER THAN WIND § OF TEXAS**
8 **POWER §**

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(STAFF RECOMMENDATION)
ORDER ADOPTING TO §25.173 FOR CONSIDERATION AT THE JULY 20, 2007
OPEN MEETING

8 The Public Utility Commission of Texas (commission or PUC) adopts an amendment to.
9 §25.173, relating to *Goal for Renewable Energy* with changes to the proposed text as published
10 in the February 9, 2007, issue of the *Texas Register* (32 TexReg 480). The amendment will
11 increase the state’s renewable portfolio standard (RPS) and will establish a target of having at
12 least 500 megawatts (MW) of capacity from a renewable energy technology other than a source
13 using wind energy. Both changes are required by Senate Bill 20, 79th Legislature, 1st Called
14 Session (2005), which amended Public Utility Regulatory Act (PURA) §39.904, relating to the
15 *Goal for Renewable Energy*. This amendment is adopted under Project Number 33492.

16
17 The principal purpose of this amendment was to implement SB 20, which increased the RPS and
18 added a 500 MW non-wind target. Other amendments were made to improve the renewable
19 energy program under PURA §39.904, based on experience with the program and developments
20 in the renewable energy field. While a number of parties expressed concern about the
21 commission’s proposal to adopt a compliance premium as an incentive for the development of
22 non-wind renewable resources, there are several other amendments that would provide additional
23 incentives for non-wind resources. In particular, the rule has been amended to permit fossil fuel

1 generating facilities that are repowered to use a renewable fuel to earn renewable energy credits
2 (RECs) and to permit small renewable resources to aggregate their energy for purposes of earning
3 RECs. The commission believes that there is significant uncertainty about its authority to
4 establish a separate RPS for non-wind renewable resources, but this rule should provide
5 incentives for the development of non-wind renewable resources. If this expectation is not
6 realized, the commission has the latitude to review the rule and amend it in the future.

7
8 A public hearing on the amendment was held at the commission offices on March 27, 2007, at
9 9:00 a.m. Representatives from AEP Southwestern Electric Power Company (SWEPCO); the
10 City of Austin d/b/a/ Austin Energy (Austin Energy); the Electric Reliability Council of Texas
11 (ERCOT); Good Company Associates; MeadWestvaco Corporation (MeadWestvaco);
12 Nacogdoches Power, LLC; State Energy Conservation Office; Texas Industrial Energy
13 Consumers (TIEC); and TXU Competitive Companies; and VRS Corporation attended the
14 hearing. Nacogdoches Power, Austin Energy and TIEC provided comments. To the extent that
15 these comments differ from the submitted written comments, such comments are summarized
16 herein.

17
18 The commission received written comments on the proposed amendment and questions posed by
19 the commission from Austin Energy; AES Corporation (AES); City Public Service of San
20 Antonio (CPS); El Paso Electric Company (EPE); ERCOT; MeadWestvaco; Nacogdoches
21 Power; Public Citizen Texas Office (Public Citizen); Reliant Energy, Inc. (Reliant); SOAR
22 Energy, LLC (SOAR); SWEPCO; TIEC; and TXU Cities Steering Committee (TXU Cities).

1 Comments were also received from Senator Robert L. Nichols; Senator Todd Staples;
2 Representative Wayne Christian; Representative John Zerwas, M.D.; Nacogdoches County Judge
3 Joe English; and the Nacogdoches Economic Development Corporation. The commission
4 received reply comments from Guadalupe-Blanco River Authority (GBRA); Maverick County
5 Water Control and Improvement District No. 1 (Maverick County); MeadWestvaco; TIEC; and
6 the Wind Coalition.

7
8 In addition to seeking comments on the proposed amendment, the commission posed three
9 questions for comments.

10
11 1) *Subsection (e)(2) provides that in order for a facility that requires fossil fuel to be eligible*
12 *to produce RECs, the facility's use of fossil fuel must not exceed 2.0% of the total annual*
13 *fuel input on a British thermal unit (BTU) or equivalent basis. Would it be appropriate to*
14 *raise the percentage as high as 25%? What technologies should be able to take*
15 *advantage of such an increased allowance in the use of fossil fuel? Are there negative*
16 *consequences that would result from such an increase?*

17
18 Austin Energy, MeadWestvaco, Reliant, SOAR, TIEC, and TXU Cities supported an increase in
19 the cap of fossil fuel use for facilities that require the use of fossil fuel to be eligible to produce
20 RECs.

21

1 Austin Energy stated that as part of its goal to procure 100 MW of solar resources by the year
2 2020, it issued and reviewed the responses to a request for proposal (RFP) for solar supply
3 resources, and that some responses involved centralized solar installations which could be co-
4 fired with natural gas-based resources. Austin Energy stated that it is clear from their review of
5 the responses to their RFP that in some instances, solar resources could be provided more
6 cheaply and with a higher capacity factor if co-fired with natural gas. Austin Energy did not see
7 any negative consequences to allowing a solar or other renewable technology generating facility
8 to be co-fired with a reasonable portion of natural gas and stated that the share of the energy
9 produced from the renewable resource can and should be classified as renewable and awarded
10 RECs, which would provide an additional potential stream of revenue for the developer and help
11 the State to achieve the 500 MW target. Austin Energy stated that it believed that this option
12 could reduce the costs of acquiring energy from a centralized solar station, which would expand
13 the supply options.

14
15 MeadWestvaco strongly supported raising the percentage of fossil fuel input to as high as 25% to
16 foster the development of non-wind renewable energy technologies; assist the commission in
17 meeting the 500 MW non-wind target; recognize the particular needs of industrial facilities; and
18 match federal policy on the use of fossil fuels in biomass facilities. MeadWestvaco commented
19 that the type of facility that it is considering developing will be connected to an industrial process
20 where the facility will be integrated into the mill power plant complex to supply as-needed
21 energy to the plant. MeadWestvaco explained that the industrial process of producing paper
22 imposes certain requirements that cannot be satisfied with only 2% annual average fossil fuel

1 input on a heat-input basis. According to MeadWestvaco, natural gas or fuel oil would need to
2 be burned continuously in very small amounts in an otherwise all solid fuel-fired boiler in order
3 to achieve fast load response and to maintain steam-header pressure. Additionally,
4 MeadWestvaco commented that in an industrial complex, steam-header pressure must be
5 maintained even when there are solid fuel handling problems at the facility, such a malfunction
6 in a conveyor belt, because the paper machine's demand does not drop during the conditions, and
7 the boiler must immediately make up the difference.

8

9 MeadWestvaco commented that under the Public Utilities Regulatory Policies Act and Federal
10 Energy Regulatory Commission rules, "a biomass facility is considered to be a 'small power
11 production facility' even though it uses fossil fuels if (i) its use of fossil fuels are for authorized
12 purposes and (ii) its use of fossil fuels does not, in the aggregate, exceed 25% of the total energy
13 input of the facility during any relevant 12-month period." MeadWestvaco stated that it would
14 be appropriate for the commission to adopt similar standards, which would provide incentives for
15 the development of additional renewable-fueled cogeneration facilities, and would be consistent
16 with PURA §35.061, relating to *Encouragement of Economical Production*, which directs the
17 commission to encourage the economical production of electric energy by qualifying facilities.
18 MeadWestvaco commented that the commission may have a concern over the use of a limited
19 amount of fossil fuels by eligible facilities in the production of renewable energy, and
20 recommended that RECs should only be awarded for the portion of the facility that uses
21 renewable fuels. MeadWestvaco stated that without an increase in the amount of fossil fuel that

1 an eligible facility can consume, its ability to benefit from the REC program would be
2 substantially impaired.

3

4 Reliant supported eliminating specific limitations on how much fossil fuel can be used in a
5 generation facility in order to qualify to produce RECs, and stated that a better approach would
6 be to allow generators to count any percentage of the production that is renewable for the
7 purposes of producing RECs. Reliant stated that this should benefit both existing non-wind
8 renewable technologies that rely in part on fossil fuels, and renewable energy technologies that
9 may not be ready for commercial use today, but will be available in the future. Reliant added
10 that it would increase the facilities that could participate in the program, increasing market
11 liquidity and facilitating new market entry. Reliant did not anticipate any potential negative
12 consequences from such a change. Reliant proposed deleting subsection (e)(2), consistent with
13 its comments.

14

15 SOAR supported an increase in the fossil fuel input total to 25%. SOAR stated that the start up
16 of its plant would entail bringing the turbine to optimal performance, and then switching it to
17 biofuel. Although SOAR does not intend to use more than 2.0%, it stated that a future blending
18 technology may arise in which a larger blend of natural gas and biofuel would be optimal in the
19 firing of the turbine. SOAR also stated that any limitation may be restrictive to achieving greater
20 operational efficiencies that may lower the heat rate of a plant.

21

1 TIEC supported an increase and stated that it could significantly increase the development of
2 additional non-wind renewable energy technologies and provide a means to achieve the 500 MW
3 non-wind target without the need of additional subsidies, and a means that does not result in an
4 improper increase to the RPS requirement. TIEC commented that certain non-wind technologies
5 require the use of fossil fuel for startup and flame stabilization, and technologies that require a
6 minimal amount of fossil fuel for these purposes should not be precluded from participating in
7 the REC program. TIEC recommended that the rule be neutral with respect to the type of facility
8 than can use a minimal amount of fossil fuel and still qualify as renewable.

9
10 TXU Cities commented that it would be appropriate to maintain as much flexibility as possible in
11 the definition of resources eligible to produce RECs, and one way to enhance such flexibility
12 would be to increase the cap on fossil fuel co-firing in the proposed rule. Therefore, TXU Cities
13 supported raising the fossil fuel co-firing cap to 25% to the extent that it can be shown to lower
14 the overall costs and increase the reliability of renewable resources and to the extent the fossil
15 fuel portion is not reflected in the renewable energy base used to set the capacity conversion
16 factor (CCF) and annual RPS for renewable energy. TXU Cities saw no significant negative
17 consequences in increasing the cap and stated that there were clearly benefits in the form of
18 providing additional flexibility in the design of such facilities as well as increasing the reliability
19 and output capability of renewable generation projects.

20
21 In reply comments, MeadWestvaco disagreed with the assertion of TXU Cities that the increase
22 should only be allowed if it can be shown to lower the overall cost and increase the reliability of

1 renewable resources. MeadWestvaco stated that such an approach is too narrow and ignores the
2 benefits that can be achieved through the use of fossil fuels by industrial biomass cogeneration.

3
4 In reply comments, TIEC suggested that the commission take particular note of the numerous
5 comments that supported increasing the amount of fossil fuel that can be utilized by an eligible
6 facility and that support the notion that there are a variety of non-wind renewable energy
7 technologies that could be developed through a simple change to the current rule. TIEC
8 commented that the 2.0% limitation appears to be the largest barrier to entry that non-wind
9 technologies face, and that raising the limit could result in substantial development of
10 concentrated solar, wood-waste biomass, fuel-source conversion, and other types of non-wind
11 renewable energy technologies which could make an impact towards the 500 MW non-wind
12 target without additional cost to the market or consumers. TIEC stated that this type of market-
13 based solution should be the commission's first step in encouraging the development of non-
14 wind renewable energy resources.

15
16 CPS Energy stated that this issue is difficult, and pointed out that an increase to 25% would serve
17 to assist primarily biomass and biomass waste projects, which offer better dispatchability to meet
18 load, but such an increase would fail to capitalize fully on the State's abundant solar potential.

19
20 Nacogdoches Power commented that potential changes to the REC eligibility standard for fossil
21 fuel use implicate complex environmental and economic issues, such as potential increases in

1 overall fossil fuel utilization, and recommended that such issues be dealt with in a separate
2 rulemaking process.

3

4 Public Citizen commented that it would not oppose raising the percentage as long as there were
5 pollution control requirements in place, such as requiring the facilities to include pollution
6 controls that produce emission rates as low as those that would occur from using the Best
7 Available Control Technology. Without such controls, negative impacts could result, such as
8 RECs going towards generating sources that emit large amount of pollution, contrary to the
9 purpose of RECs to promote clean, renewable energy generation. Public Citizen stated that
10 concentrated solar energy combined with natural gas is an example of a technology that would
11 benefit from raising the percentage, as the natural gas can provide energy when solar energy is
12 not available.

13

14 In reply comments, MeadWestvaco disagreed with Public Citizen's suggestion that the
15 commission should impose specific pollution control requirements if the limit on the use of fossil
16 fuel is increased. MeadWestvaco stated that such regulation is beyond the scope of this
17 rulemaking, and would require legislative direction. Additionally, only the portion of the
18 capacity produced by renewable energy would be eligible to receive RECs, and therefore, no
19 RECs would be awarded for the portion of the capacity that uses fossil fuel.

20

1 *Commission response:*

2 **The commission appreciates the comments of Austin Energy, MeadWestvaco, Reliant,**
3 **SOAR, TIEC, and TXU Cities, and understands there is merit in the concept that a change**
4 **to the allowed use of fossil fuel could benefit the development of renewable energy**
5 **technologies, particularly that of non-wind technologies. Therefore, the commission**
6 **amends the rule to permit the use of fossil fuel up to 25%. The commission agrees with**
7 **MeadWestvaco that only the portion of the capacity produced by a renewable source**
8 **should be eligible to receive RECs. Currently, there is not a way for the program**
9 **administrator to measure such use to ensure that the portion of the generation that is not**
10 **generated from a renewable source does not earn RECs. Therefore, the commission adds**
11 **metering and auditing requirements for facilities that choose to exceed 2.0% of the total**
12 **annual fuel input on a British thermal unit (BTU) or equivalent basis.**

13
14 2) *This proposal contemplates that RECs and compliance premiums will have the same life*
15 *span of three years. Would the value of the compliance premiums be increased or*
16 *decreased if the rule established a longer life-span for compliance premiums? Would a*
17 *different life-span for compliance premiums be appropriate?*

18
19 Public Citizen stated that extending the life-span for compliance premiums to 10 years would
20 improve the value for solar energy projects. However, Public Citizen commented that the
21 compliance premium approach would not create sufficient economic value to customers, and

1 therefore such an approach would not be successful at helping to create a non-wind renewable
2 energy market.

3
4 Nacogdoches Power commented that the value of compliance premiums would be increased if
5 their lifespan was increased beyond three years due to the option value of being able to retain the
6 premiums and use or sell them during periods of higher value RECs. Nacogdoches Power stated
7 that in the past, it had proposed a 10 year life-span for non-wind RECs and compliance premiums
8 because a portion of new renewable generation will consist of baseload biomass generation. The
9 baseload generation will require an increase in the CCF in order for the market to reflect the high
10 capacity factor of this type of generation and adjust the number of RECs that are attributable to
11 the installed renewable capacity. However, Nacogdoches Power stated that as subsection (j)
12 provides that the CCF will only be reset every other year and only after 12 months of operating
13 data, a renewable resource that begins operation in January 2009, will not have its performance
14 data reflected in the CCF until the fourth quarter of 2011. Nacogdoches Power commented that
15 extending the life-span of RECs and compliance premiums is one way to compensate for this
16 timing problem.

17
18 CPS Energy stated that the REC market was meant originally to cover all forms of renewables
19 and no additional changes or provisions to the RECs should be necessary for the additional 500
20 MW.

21

1 Reliant commented that a compliance premium should have the same life-span as a REC, that the
2 rule is intended to allow the compliance premiums to be used in the same manner as RECs, and
3 that it would be administratively easier for them to have the same characteristics. They stated
4 that an additional reason for this is technological neutrality. Reliant also stated that the economic
5 benefit to non-wind generators of the compliance premiums having a longer life-span than RECs
6 would accrue only if the market were in an oversupply situation for non-wind RECs, which is not
7 likely to occur.

8
9 TIEC stated that to the extent the commission decides to adopt compliance premiums, the life
10 span should be the same as traditional RECs, and the compliance premiums awarded to non-wind
11 renewable energy technologies should match the characteristics of RECs awarded to other
12 renewable technologies as closely as possible.

13
14 TXU Cities recommended that the life span for RECs and compliance premiums be maintained
15 at three years, and stated that increasing the life-span would likely increase the value and cost of
16 compliance premiums by providing greater flexibility as to when to exercise such premiums,
17 which could increase costs to end-use customers.

18
19 ***Commission response:***

20 **The commission agrees with Reliant, TIEC and TXU Cities that the life span of compliance**
21 **premiums should be three years, equal to that of RECs because the compliance premiums**
22 **are intended to essentially serve as bonus RECs and as such should have essentially the**

1 **same characteristics. The commission also agrees with Reliant that it will be**
2 **administratively easier for compliance premiums to have the same characteristics as RECs.**
3 **Therefore, the commission retains the language as proposed.**

4

5 3) *Proposed subsection (l)(1) provides that eligible non-wind renewable technologies that*
6 *have no air emissions will be awarded two compliance premiums rather than the one*
7 *compliance premium awarded to other technologies. Is it appropriate for this rule to*
8 *make this distinction among renewable technologies?*

9

10 CPS Energy stated that the advantage of allowing additional compliance premiums would be to
11 encourage the use of solar, wave/tidal and possibly geothermal technologies rather than biomass-
12 based projects. CPS commented that it is appropriate to make the distinction if the end result is
13 to foster the development of renewables other than wind and biomass.

14

15 SOAR supported awarding two compliance premiums to plants that have no air emissions, and
16 stated that these plants are more costly to build and require greater economic reward to encourage
17 development and cleaner air for Texas.

18

19 Public Citizen commented that renewable energy technologies should not be awarded two
20 compliance premiums because it would dilute the value of RECs and therefore damage the REC
21 and renewable energy markets.

22

1 Nacogdoches Power commented that differentiated compliance premiums are generally within
2 the commission's plenary powers, but would not alone effect compliance with the expressly
3 "volumetric" directives of the legislature. Nacogdoches Power recommended the commission
4 revise the proposed rule to clarify that the RPS obligations include the purchase of the energy
5 equivalent of at least 500 MW of non-wind renewable resources. They commented that the
6 controlling factor in this matter should be the legislative intent of the 2005 Senate Bill 20
7 amendments to PURA §39.904. Nacogdoches Power stated that as a general matter, PURA
8 §14.001 relating to *Power to Regulate and Supervise*, provides the commission "the general
9 power to regulate and supervise the business of each public utility" and §14.002, relating to
10 *Rules*, further provides the authority to "adopt and enforce rules reasonably required in the
11 exercise of its powers and jurisdiction." Nacogdoches Power added that Texas Courts have
12 similarly confirmed this general regulatory authority, cited Public Util. Comm'n of Texas et al. v.
13 Southwestern Bell Tel. Co. 980 S.W.2nd 116, 119 (Tex. App. 1997), and stated that such
14 delegation is not open-ended and should be implemented in a manner that effectuates the will of the
15 Legislature. Nacogdoches Power stated that in this regard, the critical point is that the
16 Legislature established directives in "expressly volumetric terms," specifying the installed
17 volume of at least 500 MW of non-wind renewable capacity in §39.904(a); allowing the
18 commission in §39.904(b) to establish a program for REPs to purchase sufficient RECs to satisfy
19 renewable requirements and in §39.904(c)(1) which Nacogdoches Power commented directs the
20 commission to adopt rules that "establish the minimum annual renewable energy requirement for
21 each retail energy provider...in a manner reasonably calculated by the commission to produce, on
22 a statewide basis, compliance with the requirement prescribed in Subsection (a)." Nacogdoches

1 Power reported that the requirement of subsection (a) expressly includes the minimum volume of
2 500 MW of non-wind resources. Nacogdoches Power stated that while the ability to order
3 differentiated compliance premiums would generally fall within the commission's plenary
4 regulatory powers, in this instance, the provisions would not in themselves comply with the
5 express directive of the Legislature that the commission adopt rules that are reasonably
6 calculated to produce compliance with the specific "volumetric" requirements of the statute.
7 They added that the problem is that there is no assurance that the resulting compliance premiums
8 would provide revenues sufficient to incentivize or support any investment in non-wind
9 resources.

10
11 Nacogdoches Power continued its comments, stating that in a well-functioning and non-
12 differentiated REC market, a single market clearing price will generally be set by the last unit
13 needed to fulfill the purchase amount, and will thus reflect only the incremental REC revenues
14 required by such marginal unit, and not the revenues required by units that did not clear in the
15 market. In the current market, and foreseeable market, that marginal unit will tend to be a wind
16 project, whose costs are less than non-wind renewable resources, and requires less supplemental
17 revenue from the REC market in order to be financially viable. Therefore, under the current
18 proposal, the RPS revenue available to non-wind resources will be a multiple of the REC
19 clearing price that is set by a wind project, which does not relate to the level of revenue required
20 by non-wind resources. Nacogdoches Power recommended language regarding annual non-wind
21 REC requirements to be added to subsection (h)(1), in accordance with their comments; stated
22 that its proposed revision and clarification would be consistent with "best practices" adopted by

1 numerous other jurisdictions where the policy objective for particular or diversified types of
2 renewable resources is “volumetric” in nature; and cited studies discussing the separate
3 requirement and tier approaches of some RPS programs.

4
5 In reply comments, MeadWestvaco strongly disagreed with Nacogdoches Power’s suggestion
6 that the commission should clarify “that the RPS obligations include the purchase of the energy
7 equivalent of at least 500 MW of non-wind renewable resources.” MeadWestvaco stated that
8 this appears to create a requirement that the renewable energy eligible for RECs be sold, which is
9 contrary to PURA §39.904(a), which provides that the goal for renewable energy counts
10 renewable generating capacity that is installed. MeadWestvaco commented that requiring the
11 purchase of the equivalent of the 500 MW of non-wind resources would deviate from the
12 structure of the entire existing RPS program and would unfairly discriminate against those new
13 facilities that self-generate and consume on-site without the sale of the renewable electricity
14 produced.

15
16 TIEC commented that it opposed distinctions that would favor one technology over another in
17 ways not contemplated by PURA.

18
19 TXU Cities did not favor the creation of “artificial or arbitrary incentives” for non-wind
20 renewable technologies. TXU Cities stated the proposed provision of awarding additional
21 compliance premiums would simply increase the statewide RPS requirement and therefore
22 increase costs that will be passed on to end-use customer for what may “prove to be insignificant

1 improvements in air emissions of non-wind renewable technologies.” TXU Cities recommended
2 leaving the development of such technologies to market forces and customer choice.

3

4 *Commission response:*

5 **The commission does not find it appropriate at this time to give preference to plants that**
6 **have no air emissions and therefore concludes that all non-wind technology should receive**
7 **the same number of compliance premiums. The Legislature has not provided the**
8 **commission a sufficiently clear legal or policy directive to establish additional benefits for**
9 **non-polluting renewable energy technologies.**

10

11 **The commission declines to amend the rule to require the RPS obligations to include non-**
12 **wind requirements as proposed by Nacogdoches Power. The commission previously sought**
13 **comments regarding an RPS requirement to meet the 500 MW non-wind target and issued**
14 **the proposed rule without such a requirement, as the commission questioned whether it**
15 **had the authority to require such purchases. The commission notes that during the 80th**
16 **Legislative Session in 2007, bills were filed that would have given the commission the**
17 **authority to require the purchase of non-wind RECs; however, these bills were not passed.**

18

19 §25.173

20 *Subsection (a)*

21 EPE commented that the distinction between target and goal as it pertains to the 500 MW of non-
22 wind renewable resources is somewhat obfuscated, and that same language used with regard to

1 the 10,000 MW target should have been used with respect to the 500 MW target. EPE proposed
2 language consistent with this comment.

3
4 SWEPCO commented that proposed subsection (a)(1) creates confusion whether the 500 MW of
5 total generation from non-wind renewable resources to be installed after September 1, 2005, is
6 intended as a goal. In similar comments, TIEC stated that as currently drafted, §25.173(a)(1)
7 appears to make the 500 MW non-wind target mandatory, as it provides for “at least 500 MW of
8 the total installed renewable capacity after September 1, 2005, coming from a renewable energy
9 technology other than a source using wind energy...” TIEC commented that this language
10 implies that 500 MW of the total installed capacity must be from non-wind resources, which is
11 contrary to PURA §39.904, which provides that the commission only establish a target. TIEC
12 requested that “a target of” be added prior to “at least”.

13
14 MeadWestvaco supported the commission’s determination that the 500 MW target is voluntary
15 and is not a mandatory obligation, and noted that there could be unintended consequences if the
16 target were mandatory. As an example, MeadWestvaco commented that there could be a
17 significant increase in the cost of raw materials that MeadWestvaco needs for its core paper
18 production business if there were a sudden increase in the number of biomass facilities.

19

1 *Commission response:*

2 **It appears that words “a target of” were inadvertently omitted from this subsection as**
3 **proposed. The commission agrees that this omission causes confusion and clarifies the**
4 **language.**

5

6 *Subsection (c)*

7 Austin Energy commented that §25.173(c)(6), *Definitions, Microgenerator*, defines a
8 microgenerator as “a customer who owns one or more eligible renewable energy generating units
9 with a rated capacity of 10 kW or less operating on the customer’s side of the utility meter” and
10 provides in subsection (p) that a REC aggregator “may manage the participation of multiple
11 microgenerators in the REC trading program.” Austin Energy stated that the 10 kW cutoff is
12 “unworkably restrictive,” and could erect a barrier to the expansion of small solar systems.
13 Austin Energy noted that an 11 kW solar array is approximately three times the size of a typical
14 residential project under its solar rebate program. Austin Energy stated that it is currently
15 aggregating behind-the-meter solar facilities as large as 20 kW, and that the City of Austin’s new
16 convention center will have a solar array of 750 kW. Austin Energy added that it hopes that as
17 the city pursues the goals in the Austin Climate Protection Plan systems as large as 500 MW will
18 be installed on many buildings owned by the city and that the solar rebate program can be
19 extended to provide sufficient incentives to locate larger solar arrays on commercial rooftops
20 throughout the city. Austin Energy stated its belief that as long as the microgenerator operates on
21 the customer’s side of the meter on a residential or commercial building, the size limitation
22 should be extended to at least one MW.

1

2 ***Commission response:***

3 **The commission agrees that it is appropriate to raise the cap on capacity for a**
4 **microgenerator to allow additional facilities to be included within aggregations. While the**
5 **commission does not find the process necessary to report and be awarded RECs to be**
6 **overly burdensome, it acknowledges that this could be a deterrent to participation for**
7 **smaller facilities that are currently active or may be built. Therefore, the commission**
8 **amends the rule to allow facilities under one MW to be designated microgenerators. The**
9 **commission finds that facilities larger than one MW can reasonably be expected to have the**
10 **necessary resources and be able to report and be awarded RECs.**

11

12 Austin Energy commented that subsection (c)(19), *Definitions, Retail entity*, could
13 unintentionally suggest that municipally owned utilities are subject to the RPS. Austin Energy
14 suggested a minor modification to the language to clarify the phrase. ERCOT also offered
15 language for this purpose.

16

17 ***Commission response:***

18 **The commission agrees that the proposed wording is confusing and modifies the language**
19 **as requested.**

20

21 Nacogdoches Power commented that it is unclear why the proposed amendment of subsection
22 (c)(21), *Definitions, Small producer*, which changes the definition of a “small producer” from

1 two megawatts to ten megawatts is necessary. It commented that this would award RECs for a
2 class of facilities not currently eligible for RECs, and therefore additional RECs would be created
3 without the installation of any additional generation, thereby reducing the amount of new
4 renewable generation required to achieve the statutorily established limits in SB 20.
5 Nacogdoches Power recommended that this amendment be eliminated.

6
7 SOAR requested that this definition be modified to allow a small producer to include resources
8 less than 150 MW, in order to include plants of a size that it intends to operate in the proposed
9 modification.

10
11 In reply comments, Maverick County opposed the recommendations of Nacogdoches Power and
12 SOAR. Maverick County explained that it is a governmental agency and body politic that
13 operates a water control and improvement district in Eagle Pass. Maverick County stated that it
14 purchased three small hydroelectric generating units which were at one time owned by Central
15 Power and Light Company, and are interconnected to ERCOT at transmission voltage. Maverick
16 County sells the output to a municipally owned utility in ERCOT. Maverick County commented
17 that small renewable generators are only “marginally economic,” particularly those that are
18 hydroelectric which were installed years ago, and are dependent on the river to generate
19 electricity. Maverick County stated that its units were originally installed in 1932 and do not
20 operate during low-water periods. Maverick County also stated that an increase in the cutoff
21 point would enable small hydroelectric generators to earn RECs and assist in maintaining their
22 economic viability, which will help ensure they remain in operation and encourage diversity of

1 renewable energy technologies in Texas. Additionally, Maverick County stated, setting the
2 ceiling at 10 MW would make the definition in this rule consistent with the definition of “on-site
3 distributed generation” under P.U.C. SUBST. R. §25.211(c)(10), which addresses small
4 generation units interconnected at the distribution level. Maverick County commented that this
5 change would eliminate the discrepancy and assure that small distributed generation and small
6 renewable units are treated in a similar fashion, whether they are interconnected at transmission
7 voltage or distribution voltage. Maverick County noted that 13 small hydroelectric generators
8 with a total nameplate capacity of less than 50 MW would be affected by the proposed change to
9 the definition of “small producer.”

10
11 Maverick County stated that the recommendations of Nacogdoches Power and SOAR should be
12 rejected as they would perpetuate the discrepancy between the definitions of small producer and
13 on-site distributed generation without any rational basis. Maverick County commented that
14 Nacogdoches Power’s claim that the proposed change would reduce the amount of new
15 renewable generation required to achieve the statutory goals is incorrect, and the goal for new
16 generation set forth in the statute would be unaffected by the proposed change. Maverick County
17 stated that the increase in the cutoff point to 10 MW may allow some hydroelectric generating
18 facilities to remain in business that would otherwise terminate operations.

19
20 In reply comments, GBRA supported the change of small producer from two MW to 10 MW as
21 published and stated that it “further supports and adopts” the comments of Maverick County.

22

1 *Commission response:*

2 **The commission disagrees with Nacogdoches Power that the proposed increase in the**
3 **capacity of a small producer from two MW to 10 MW should not be adopted. The**
4 **commission agrees with Maverick County that the change to 10 MW will make this rule**
5 **consistent with P.U.C. SUBST. R. §25.211(c)(10). The commission notes that in Project**
6 **Number 20944, in which the commission set the two MW cap, the commission concluded**
7 **that the offset methodology in the rule would benefit facilities existing in 1999 with a**
8 **capacity of more than two MW. However, as confirmed by the comments of Maverick and**
9 **GBRA, there are facilities with capacities over two MW, but under 10 MW, that need**
10 **incentives such as RECs in order to remain in business. PURA §39.904(a) establishes the**
11 **goal for renewable energy to be met by 2015 in two parts, 5000 MW of new renewable**
12 **resources and 5880 of total renewable resources. The comments of Maverick County**
13 **suggest that insufficient incentives for existing resources could result in loss of some**
14 **existing resources. Thus, it is reasonable to increase the small producer cap to 10 MW to**
15 **provide additional incentives for these existing renewable resources.**

16
17 **The commission disagrees with SOAR that the definition should be modified to allow a**
18 **small producer to include resources less than 150 MW. The commission does not consider**
19 **facilities this size to be small producers and, and finds 10 MW to be the appropriate cut-off**
20 **for small producers as it is consistent with P.U.C. SUBST. R. §25.211(c)(10).**

21

22 **The commission leaves the definition of small producer as proposed.**

1
2 *Subsection (e)*
3 Reliant commented that the commission could promote the development of non-wind
4 technologies by modifying the rules to allow for methane that is produced from animal waste and
5 other organic waste to be converted from BTUs into RECs at the source of the methane. Reliant
6 stated that given the amount of cattle ranching and chicken farms in Texas, there is a potential to
7 create renewable energy fuel through anaerobic digester technology, but there are administrative
8 difficulties in tracking the methane produced at the source to the production of energy in an
9 electric generator. Reliant proposed language consistent with this recommendation.

10

11 *Commission response:*

12 **The purpose of this rule is to encourage the output and use of renewable energy; therefore,**
13 **the commission does not agree that the suggested change is appropriate in this rule.**
14 **Measuring the production of RECs in any manner other than the output of electric energy**
15 **is questionable. The statute includes provisions in §39.904(e) and (f) for awarding RECs**
16 **for a specific set of land-fill gas projects by measuring the energy value of the gas, and the**
17 **inclusion of authority to award RECs in this limited circumstance implies that the**
18 **commission does not have the authority to do so in other circumstances. Additionally, the**
19 **commission expects that similar claims could be made of other technologies and a thorough**
20 **investigation of the possibilities, the advantages, and disadvantages would be necessary**
21 **prior to making a policy decision that is such a significant departure from the current rule.**

22

1 MeadWestvaco recommended that subsection (e) be revised to provide that a facility eligible for
2 producing RECs is one that uses verifiable, sustainable biomass. MeadWestvaco stated its belief
3 that only those facilities that use sustainable forestry measures and have industry certification
4 should be eligible to earn RECs under the rule, and that the use of sustainable measures supports
5 the long-term viability of the resources so that the resources are available for future generations.
6 MeadWestvaco commented that other states have recognized the importance of adopting
7 sustainability standards, such as Delaware, and the forest industry has created the Sustainable
8 Forestry Initiative, Inc., which is a program with “rigorous” standards which a facility must meet
9 in order to receive sustainability certification. MeadWestvaco proposed new subsection (e)(6)
10 with language consistent with its comments.

11
12 *Commission response:*
13 **The commission declines to change the rule as requested by MeadWestvaco. It is outside**
14 **the scope of this rulemaking to add additional requirements for a source to meet that were**
15 **not set forth in the proposal for publication. Additionally, PURA does not require such**
16 **restrictions on eligibility and the commission would need an extended period of time to**
17 **evaluate the appropriateness of such a provision.**

18
19 *Subsection (f)*
20 SOAR, Reliant and TIEC recommended that subsection (f)(3) be deleted. As currently proposed,
21 this subsection falls under the facilities not eligible for producing RECs, and provides that “[a]
22 fossil fueled generating plant that is repowered to use a renewable fuel, unless the plant is a small

1 producer” is not eligible to earn RECs. Reliant saw no compelling policy reason to limit
2 participation of re-powered facilities to those that are less than 10 MW in size, and stated that the
3 state should encourage renewable energy to participate in the program regardless of size.

4
5 *Commission response:*

6 **The commission agrees with SOAR, Reliant and TIEC that subsection (f)(3) should be**
7 **deleted and that it is appropriate to allow a facility that was previously a fossil fueled**
8 **generating plant that has been repowered to use a renewable fuel, to be eligible for RECs**
9 **provided that it meets the other provisions of the rule. However, the commission finds that**
10 **it is appropriate to cap the amount of capacity allowed to produce RECs through this**
11 **mechanism in order to encourage diversity in types of renewable resources and facilities,**
12 **and amends subsection (e) accordingly. Additionally, the commission notes that the**
13 **definition of “repowering” in subsection (c)(18) causes confusion, and that the term is not**
14 **being used consistent with its definition in this rule. The commission modifies the term to**
15 **“repower” and modifies its definition for clarification and consistency.**

16
17 **The commission acknowledges that allowing facilities that have been repowered to use**
18 **renewable fuel to produce RECs is a change from the original policy decision made in**
19 **Project Number 20944. The commission finds that this policy change is appropriate for the**
20 **following reasons: the climate for renewable energy in Texas has changed since 1999; a**
21 **sufficient number of new facilities have come on line; there has been sufficient time for new**
22 **technologies to come on line; wind power is by far the greatest participating technology in**

1 **the trading program; there is increased emphasis in adding non-wind renewable sources to**
2 **the grid and trading program; there is increased emphasis on diversifying sources of**
3 **energy in Texas; and repowering such facilities to use renewable power could be an**
4 **economically efficient way to add non-wind renewable power to the grid. The commission**
5 **notes that in light of the fact that the price for renewable energy credits is set by wind**
6 **resources, providing non-wind technologies additional options in finding potentially**
7 **economical ways to develop and operate is one way to encourage development of non-wind**
8 **technologies.**

9
10 TIEC also recommended that subsection (f)(4) be deleted. TIEC commented that renewable
11 demonstration facilities should be eligible to participate in the REC trading program, that there is
12 no reason to penalize these facilities and that such projects should be encouraged. TIEC further
13 stated that the purpose of the statute is to encourage the development of all renewable energy
14 technologies and to count all renewable capacity toward the goal, and that the proposed language
15 and some of the language in the current rule is in violation of PURA §39.904(m) which requires
16 that all renewable energy be counted toward the goal.

17
18 *Commission response:*

19 **The commission concludes that renewable demonstration facilities should be eligible to**
20 **participate in the REC trading program so long as they meet all of the applicable**
21 **requirements, and therefore deletes proposed subsection (f)(4).**

22

1 *Subsection (h)*

2 Nacogdoches Power recommended language regarding annual non-wind REC requirements to be
3 added to subsection (h)(1) consistent with its comments regarding question three.

4
5 In reply comments, MeadWestvaco disagreed that the commission should implement an RPS that
6 utilizes separate tiers or classes for wind and non-wind renewable generation, and stated that
7 there are no “volumetric terms” contained in Senate Bill 20 that require the overall RPS
8 requirement to include a minimum of 500 MW of non-wind renewable energy. PURA §39.904
9 provides a 500 MW target. MeadWestvaco urged the commission to reject Nacogdoches’
10 proposed revision to subsection (h)(1) and instead adopt the proposals of TIEC, EPE and
11 SWEPCO, and revise subsection (a)(1) to clarify that the 500 MW non-wind target is not
12 mandatory.

13
14 ***Commission response:***

15 **Consistent with the commission’s response to this recommendation in Question Three, the**
16 **commission declines to change subsection (h)(1) as requested by Nacogdoches Power.**

17
18 SWEPCO commented that subsection (h)(1), in addition to (a)(1) and (l), is proposed to be
19 amended to address the calculated renewable energy capacity as a requirement and not a target,
20 and that consequently, confusion may arise as to how to treat compliance premiums awarded
21 from non-wind renewable energy and the effect of the calculation on the RPS requirement.
22 SWEPCO stated its belief that market participants would benefit from the commission’s

1 clarification of its intended treatment of the 500 MW from non-wind renewable energy, whether
2 as a goal or a target.

3

4 *Commission response:*

5 **The proposed change of “renewable energy capacity targets” to “renewable energy**
6 **capacity requirements” is intended to alleviate confusion between target and requirement.**
7 **Subsection (h)(1) outlines the breakdown of the additional renewable capacity required by**
8 **the PURA §39.904, which is different than the target for non-wind set by the statute.**
9 **Therefore, the commission declines to change the wording of this paragraph as suggested**
10 **by SWEPCO. However, the commission is changing subsection (a)(1), as previously**
11 **discussed, which should help alleviate the confusion identified by SWEPCO.**

12

13 TIEC commented that §25.173(h)(1)(J) should be deleted, and that it inappropriately includes an
14 additional 5,000 MW of renewable energy in the RPS for each year after 2014. TIEC stated that
15 it is possible that the language is an attempt to capture the language regarding the 10,000 MW
16 target in PURA §39.904(a), however, the language turns target into a mandate, which is a clear
17 violation of the plain language of the statute. TIEC commented that the mandated RPS should
18 expire once the required amount is met, and should not be increased after the 5,880 MW is
19 fulfilled. Additionally, as currently drafted, the language could be interpreted to mean that an
20 additional 5,000 MW should be added each year after 2014, which was not the Legislature’s
21 intent.

22

1 *Commission response:*

2 **The structure of the capacity requirements in subsection (h)(1) has not changed from the**
3 **original rule. The count of renewable capacity required for each year is reflected as “MW**
4 **of new resources” even in the years in which it remains consistent with the requirement**
5 **from the year before and is only meant to communicate that it is an increase over the**
6 **original 880 MW, not an increase from the year before. The commission does not see a**
7 **need to change this structure. The commission notes that the 5,000 MW of new resources**
8 **after 2014 is simply to indicate that the RPS continues at the same level as 2014. Part of the**
9 **incentives provided under the application of the statute that the commission has adopted is**
10 **the ability for a renewable energy resource to earn RECs for a ten-year period.**
11 **Terminating the requirement to retire RECs after 2015 would eliminate this incentive for**
12 **resources that come into service just before 2015. Moreover, the commission does not**
13 **believe that it has the authority to terminate the RPS once the requirement is met.**

14

15 *Subsection (i)*

16 SWEPCO supported the change to subsection (i)(5) regarding a REC offset ceasing to be
17 effective if the power purchase agreement on which it was based is no longer in effect.
18 SWEPCO stated that this change properly focuses on the term of the power purchase agreement
19 nominated at the commencement of the REC offset program, and recognizes that the utility,
20 municipally-owned utility or cooperative that originally nominated that agreement can transfer it
21 to its successors in interest without disqualifying the REC offsets associated with that agreement.
22 SWEPCO, AEP Texas North Company and AEP Texas Central Company (AEP Companies)

1 explained that they continue to hold the same 74.6 MW Southwest Mesa wind power project
2 purchase agreement that they nominated at the commencement of the REC offset program, and
3 will soon transfer their interests to their power marketing affiliate, AEP Energy Partners, as part
4 of their business separation plans. AEP Companies stated that the power purchase agreement
5 will continue to generate REC offsets throughout the remainder of its term, which expires on
6 August 2, 2019. SWEPCO proposed amending subsection (i)(4)(A) to include a reference to
7 successors in interest which SWEPCO proposed to be consistent with subsection (i)(5).

8

9 ***Commission response:***

10 **The commission agrees that as drafted, subsections (i)(4)(A) and (i)(5) are inconsistent with**
11 **each other in regard to whether REC offsets may be transferred to successors in interest.**
12 **Therefore, subsection (i)(4)(A) is amended to include a reference to successors in interest.**

13

14 ***Subsection (j)***

15 TIEC commented that subsection (j)(4) should be revised to use actual generator performance
16 using actual metered data, which includes the effects of transmission constraints and other real-
17 world operational limitations. TIEC stated that although the proposed rule excludes the use of
18 test data for periods prior to commercial operation, the term “valid performance data” opens the
19 door to the inclusion of estimates or studies as opposed to real-world, performance data, and
20 inclusion of information other than actual performance data could distort the calculation of the
21 CCF. TIEC noted that distortions could have significant consequences because RECs are
22 awarded based on “actual MWh produced,” and it would be unfair to consumers to base the REC

1 requirement on estimates that do not take into account congestion or other real limitations and
2 require consumers to “suffer the increased REC costs that would result from those limitations.”
3 Additionally, TIEC stated, including estimates could result in arguments about what a generator
4 “could have produced” which would open the door to a host of gaming opportunities. TIEC
5 further commented that subsections (j)(1) & (2) appear to conflict in that paragraph (1) provides
6 that the CCF must be based on actual generator performance data for the previous two years
7 while paragraph (2) provides that the CCF must be based on all renewable resources in the
8 program for which 12 months of data are available. TIEC recommended that the data acquired
9 from the subsections should be from the same time period and the rule should be clear that actual
10 generator performance will be used, which is measured by actual metered output.

11
12 In reply comments, the Wind Coalition stated that in contrast to TIEC, it agreed with the
13 commission in the use of an appropriate modification to eliminate the error-inducing impact of
14 start-up or test energy at renewable energy facilities. The Wind Coalition stated that the current
15 CCF of 27.9% being used by the Texas REC Program Administrator is suspected of being flawed
16 and should be scrutinized for accuracy. In particular, treatment of startup energy from new wind
17 projects is thought to lead to a significant degree of underprediction of the CCF, perhaps by more
18 than 20%, based on 2006 wind production data and the likelihood that Southwest Power Pool
19 wind projects and biomass facilities in the Texas REC program will embody higher capacity
20 factors than the ERCOT wind average. The Wind Coalition commented that the term “valid
21 data” should be defined, as it has led to stakeholder disputes in the past, and stated that utilization

1 of historical data that includes resources with periods of curtailments will generally underpredict
2 the CCF.

3

4 *Commission response:*

5 **The commission agrees with TIEC that subsections (j)(1) and (j)(2) are confusing as**
6 **proposed, and amends the subsection to require that the CCF be based on actual generator**
7 **performance data for renewable resources in the trading program for which at least 12**
8 **months of performance data are available.**

9

10 *Subsection (k)(7)*

11 TIEC commented that it is unclear whether the proposed language in subsection (k)(7) applies to
12 the entire RPS requirements or to an individual retail entity's RPS requirement, and that while it
13 may be appropriate for RECs that have exceeded their life to not be used to satisfy an individual
14 REC requirement, PURA §39.904(m) requires that all RECs count toward the goal in PURA
15 §39.904(a). TIEC recommended that the rule make it clear that the total annual requirement for
16 the following period will be reduced by the un-retired RECs that have exceeded their life, and
17 proposed language consistent with this recommendation.

18

19 *Commission response:*

20 **The commission agrees that subsection (k)(7) is unclear, and finds that the language is**
21 **unnecessary as RECs should not exceed their life. Accordingly, the commission deletes this**
22 **language.**

1

2 *Subsection (l)(1)*

3 ERCOT stated that it will be able to implement the separate tracking and identification that the
4 proposed rule envisions for compliance premiums, and noted that software changes will be
5 needed to accommodate the proposed rule changes regarding the definition of small producer; the
6 requirement to use actual generator performance data in the CCF; the introduction of compliance
7 premiums; the annual requirement to increase the statewide RPS by the number of compliance
8 premiums retired during the previous compliance period; and the 1: 1.25 ratio for aggregator-
9 estimated renewable-unit output. ERCOT stated that if the final rule is adopted by June, and
10 there are no substantive changes to the rule as published, the necessary software changes can be
11 implemented, tested, and fully operational by the end of the year.

12

13 *Commission response:*

14 **Because this rulemaking has not been approved by June, the commission amends**
15 **subsection (l)(1) to specify that compliance premiums shall be awarded for RECs awarded**
16 **for energy generated after December 31, 2007. Since ERCOT awards RECs at the end of**
17 **each quarter, this should allow ERCOT sufficient time to make the required changes.**

18

19 *Subsection (l)(4)*

20 TIEC expressed its concern regarding subsection (l)(4) which increases the RPS to reflect the
21 number of compliance premiums retired during the previous compliance period. TIEC stated
22 that this has the effect of making the 500 MW target mandatory, contrary to PURA §39.904 and

1 will increase the total cost of the program year over year. TIEC stated that REPs will have to buy
2 additional compliance premiums or RECs to comply with the newly-set and unpredictable
3 requirement, which will effectively raise the total cost of the RPS. Additionally, TIEC stated,
4 because of the lack of a track record regarding many of the non-wind resources, it is possible that
5 a generator could be awarded significant compliance premiums in one year, raising the RPS the
6 next year, and be unable to produce energy at the same level the next year. TIEC commented
7 that under the published rule, the result would be to create exposure for REPs and consumers
8 based on an ever increasing RPS standard that may or may not reflect real-world generation
9 performance. TIEC recommended that the commission avoid creating a moving target in the
10 RPS and how it is calculated, and stated that REPs and consumers need to understand the
11 potential burden of this requirement so they can plan and appropriately assign risk in their
12 contracts. In concept, TIEC stated that the compliance premium program could be a reasonable
13 mechanism to encourage the development of additional non-wind resources, but as implemented,
14 it violates that statute, negatively impacts the current REC program, creates unwarranted
15 potential volatility, and increases costs to all market participants.

16

17 *Commission response:*

18 **The language proposed for subsection (l)(4) was intended to address the concerns that the**
19 **compliance premiums given as a bonus with non-wind RECs to provide incentive to reach**
20 **the 500 MW non-wind target would result in more capacity being counted than was**
21 **actually in existence. This provision is meant to ensure that the incentives given to those**
22 **who seek non-wind RECs do not harm the program and do not result in the program**

1 **falling short of its 5,000 MW renewable capacity requirement. While the commission**
2 **acknowledges that this will likely increase the RPS in some years, the commission does not**
3 **agree that this violates the statute. Retail entities are not being required to purchase non-**
4 **wind RECs, but may choose to do so to meet their requirements. Additionally, all retail**
5 **entities have the opportunity to purchase non-wind RECs and compliance premiums, and**
6 **this should result in increased revenue for non-wind RECs throughout the years. The**
7 **commission notes that the RPS will likely always be a moving target for retail entities**
8 **because each retail entity's RPS is calculated based on its retail sales, which are highly**
9 **unlikely to remain static. While this change does add another element to the changing**
10 **nature of each retail entity's RPS and its costs, the commission believes that the increased**
11 **risk will be modest, particularly in the near term. The current level of non-wind renewable**
12 **development is low, and even with the changes that are being made in this rule to**
13 **encourage non-wind renewable resources, it seems unlikely that the change in the RPS**
14 **resulting from the retirement of compliance premiums will have a significant impact on the**
15 **costs of complying with this rule.**

16
17 *Subsection (o)*

18 CPS Energy stated that imposition of administrative penalties on a retail entity, defined to
19 include an MOU, without qualification for failure to meet the rule's obligations is not authorized
20 by PURA. CPS Energy requested that the language be clarified to only include municipally-
21 owned utilities (MOUs) that offer customer choice.

1 *Commission response:*

2 **The commission believes that the modification of the definition of Retail Entity in**
3 **subsection (c)(19) provides the result that CPS Energy is seeking with this**
4 **recommendation. Subsection (o) only refers to Retail Entities, and the modification of the**
5 **definition of Retail Entity makes it clear that MOUs not in customer choice are not Retail**
6 **Entities. The commission believes that it has the authority to assess administrative**
7 **penalties against MOUs that are participating in customer choice.**

8
9 SWEPCO stated that it is not clear whether, with the deletion of language contained in the
10 existing subsection (o), the commission would still consider mitigating factors causing non-
11 compliance with the rule. SWEPCO requested the commission clarify whether it intends that the
12 provisions of PURA §15.023 would allow continued reliance on, and consideration of, mitigating
13 factors for failure to comply with REC obligations, or if the commission's intent is to the
14 contrary, clarify its reasoning for such intent.

15

16 *Commission response:*

17 **The deletion of the mitigating factors from the prior version of subsection (o) will prevent**
18 **the commission from considering those factors in assessing a penalty against a retail entity**
19 **in violation of the rule. In developing the penalty in subsection (o), the commission**
20 **considered the factors in PURA §15.023(c) and determined that \$50 per deficient credit is**
21 **appropriate.**

22

1 TIEC commented that the proposed deletion of the penalty calculation in subsection (o)(2) is
2 unnecessary, and that it is appropriate to base the penalty of the lesser of \$50 or 200% of market,
3 because this “right sizes” the penalty and ensures that it is not confiscatory. TIEC, however,
4 recommended that the penalty be \$50 per REC rather than per MWh as it is appropriate to assess
5 the penalty based on the number of RECs that a retail entity is deficient and it is TIEC’s
6 understanding that this is how the penalty is currently administered.

7

8 *Commission response:*

9 **The commission believes that the \$50 per deficient MWh credit is the most appropriate**
10 **penalty and therefore the option of 200% of the market value is unnecessary. The**
11 **commission does not agree that penalties need to be calculated on RECs rather than MWhs**
12 **as a REC represents one MWh of renewable energy.**

13

14 *Subsection (p)*

15 ERCOT commented, regarding subsection (p)(1), that it is not aware of what standards should be
16 applied in deciding what is or is not a “recognized industry certification organization” and that in
17 the event the program administrator is called upon to make a determination on those grounds,
18 ERCOT would appreciate any additional clarity or guidance that the commission could provide.

19

20 *Commission response:*

21 **The commission agrees with ERCOT. In addition, it is appropriate that the installation of**
22 **these generation units be done in compliance with P.U.C. Substantive Rules, such as**

1 **current §25.211 and §25.212, applicable interconnection standards adopted pursuant to**
2 **these rules, and federal laws. Therefore, the commission modifies the language to refer the**
3 **rules, interconnection standards and federal laws. The commission also adds grid**
4 **connection in subsection (p)(1) and deletes (p)(5) as proposed, because it is more clear to**
5 **address the requirements for connection to the grid in accordance with applicable rules in**
6 **the revised subsection (p)(1).**

7
8 Austin Energy is currently a REC Aggregator of 390 solar, “behind the meter” installations.
9 Austin Energy commented that subsection (p)(2) as proposed is inconsistent with Austin
10 Energy’s metering methodology, which was approved by the commission in Docket 31634,
11 *Petition of City of Austin d/b/a Austin Energy for Approval of Metering Methodology*, December
12 19, 2006.

13
14 Austin Energy stated that if the language is adopted as proposed it would penalize Austin Energy
15 and its solar rebate customers, or alternatively, raise costs of compliance unnecessarily. Austin
16 Energy stated that the meters required by subsection (p)(2)(a), which allows for metering of
17 microgenerators capable of transmitting actual generation data to the program administrator,
18 known in the ERCOT Protocols as “ERCOT Polled Settlement” (EPS) metering “runs on the
19 order of thousands of dollars per unit and is prohibitively and disproportionately expensive for
20 such small generators.” Austin Energy requested that proposed rule be modified to include a
21 third option, consistent with the methodology approved in Docket 31634, which provides
22 accurate measurement and reporting at a minimal compliance costs. Austin Energy stated that

1 under the approved methodology, they read and record renewable energy output data from
2 monthly stand-alone identification numbered meters, that are separate from the service address
3 billing meter, and report the aggregated output data to the program administrator. Austin Energy
4 stated that since the output would be read and reported accurately, and can be audited if
5 necessary, there would be no need to discount the number or awarded RECs (as is proposed
6 under subsection (p)(2)(A) for estimated data). Austin Energy supplied proposed language for
7 this request.

8
9 ERCOT commented that it understood and supported the effort to encourage REC aggregators to
10 use actual generation data by providing 1:1 recovery (1 REC to 1 MWh) where actual generation
11 data is used, and applying a discount factor to aggregator estimation. However, it is not feasible
12 to have each microgenerator within an aggregation unit transmit actual data to the program
13 administrator as proposed in subsection (p)(2)(A). ERCOT stated that such meters are not
14 installed in the ERCOT market for generators below 10 MW and that the number of
15 microgenerators that are likely to be aggregated makes it infeasible to equip them all with
16 advanced meters. ERCOT recommended that proposed (p)(2)(A) be amended to reference actual
17 generation data that is collected and compiled by the aggregator, and subject to program
18 administrator verification, as already provided in subsections (e)(3) and (g)(9). ERCOT
19 proposed edits consistent with its comments.

20
21 In reply comments, the Wind Coalition commented that the treatment of REC Aggregators as
22 discussed by Austin Energy and SWEPCO should be reconsidered and defined more broadly, and

1 that restricting aggregation to microgenerators is overly prescriptive. The Wind Coalition
2 suggested that the rule could be improved by broadening the definition to encompass any entity
3 that represents multiple REC generating facilities. The Wind Coalition also suggested Texas
4 facilitate appropriate customer protection enhancements, and that one change that would help
5 guard against deceptive trade practices, such as double selling of renewable energy claims, and
6 instill greater consumer confidence in renewable energy products, would be to modify the Texas
7 REC Program to allow voluntary REC retirement sub-accounts, permitting RECs to be retired in
8 the name of the end use customers who desire an improved level of certainty, such as small
9 commercial green customers who want assurance they received the benefit of their “green
10 purchase” without having to establish a full trading account.

11

12 *Commission response:*

13 **The commission agrees with Austin Energy and ERCOT that the method used by Austin**
14 **Energy should be allowed under the rule. Therefore, the commission adds language as**
15 **subsection (p)(2)(A) consistent with the requests of Austin Energy and ERCOT. However,**
16 **the commission declines to remove the language proposed as subsection (p)(2)(A) and**
17 **moves the language to subsection (p)(2)(C) with the change requested by SWEPCO.**
18 **Although the commission acknowledges that the type of meters referenced in subsection**
19 **(p)(2)(A) as proposed may not be installed on generators under 10 MW today, with the**
20 **increased emphasis in the market on advanced meters, it is likely that meters with the**
21 **functionality to send the information straight to ERCOT may become more cost effective**

1 **and practical in the future. Therefore, the commission finds it appropriate to retain this**
2 **language as an additional method of possible reporting.**

3
4 **The commission declines to allow facilities other than microgenerators to be included in**
5 **aggregations as it finds that facilities larger than microgenerators should be able to**
6 **participate in the program on their own.**

7
8 **At this time, the commission declines to require ERCOT to create the ability for voluntary**
9 **REC retirement sub-accounts, as suggested in the Wind Coalition’s reply comments for**
10 **aggregation. Making this requirement would require a software change and could impact**
11 **the timing of rule implementation by ERCOT. ERCOT has not conducted any analysis to**
12 **determine how extensive this change would be, how long it would take, or any cost**
13 **implications. Without information to assess the extent of the changes needed, the**
14 **commission cannot determine whether this functionality that may be a service to some**
15 **aggregators and their clients should be a requirement for ERCOT. The commission notes**
16 **that the rule will have to be reopened to address changes required by HB 1090 of the 2007**
17 **legislative session. The commission will consider proposing sub-accounts for aggregators**
18 **in that rulemaking.**

19
20 SWEPCO requested that subsection (p)(2) be amended to reference “applicable protocols and
21 procedures” rather than “protocols and procedures determined by the program administrator”
22 because Protocol 14 is the currently approved protocol for reporting generation data related to

1 RECs, and any changes in the Protocols should go through the ERCOT Protocol Revision
2 process.

3

4 ***Commission response:***

5 **The commission amends the language as requested.**

6

7 *Various Subsections*

8 ERCOT proposed minor cleanup edits throughout, such as adding in references to “compliance
9 premiums” and standardizing references to “compliance periods,” or calendar years.

10

11 ***Commission response:***

12 **The commission has made some of the minor cleanup edits suggested by ERCOT.**

13

14 *General Comments*

15 Senator Robert L. Nichols applauded the commission for striving to develop incentive programs
16 that will maximize opportunities for all types of renewable energy, and encouraged the
17 commission to carefully considered issues associated with the creation of a single RPS for all
18 renewable generation vs. the creation of a separate RPS for non-wind generation. Senator
19 Nichols stated that biomass electric generating facilities hold great promise for the economy in
20 East Texas; that a single RPS for all renewable generation will fail to create an incentive for non-
21 wind generation; and that meaningful incentives will allow East Texas’ abundant timber
22 resources to be used in power generation and provide opportunities for economic growth.

1

2 Senator Todd Staples sent a letter of thanks for moving forward to establish incentives for the
3 construction of non-wind renewable energy generation facilities in Texas, stated that biomass
4 electric generation facilities hold great promise for the economy in East Texas, and encouraged
5 the commission to develop incentive programs that will maximize opportunities for all types of
6 renewable energy.

7

8 Representative Wayne Christian commented that an RPS with compliance premiums will likely
9 create a disincentive for building any kind of renewable power generation by diluting the value of
10 all RECs, and stated that modifying the current RPS to recognize a second class of renewable
11 generation as is done in other states would more likely meet the legislature's non-wind
12 generation target and overall mandate. Representative Christian urged the commission to
13 consider the economic benefits of an RPS that provides significant value for non-wind renewable
14 generation and establish a tiered RPS for non-wind generation.

15

16 Nacogdoches County Judge Joe English and the Nacogdoches Economic Development
17 Corporation commented that it was not clear how a single RPS would serve as an incentive for
18 non-wind renewable generation and in fact it appears to create a disincentive for the installation
19 of any type of renewable generation. Judge English and Nacogdoches Economic Development
20 Corporation urged the commission to fully consider the economic benefits that the installation of
21 non-wind generation brings to Texas, and establish a separate RPS for non-wind generation.

22

1 Nacogdoches Power stated that it submitted comments in this project on January 2, 2007, (in
2 response to the initial questions issued in this project) and wished to incorporate those comments
3 by reference. In those comments, Nacogdoches Power stated that it was its belief that the
4 proposal to award compliance premiums for non-wind generation as part of a single REC trading
5 program would not provide a sufficient incentive to achieving the state's renewable energy
6 objectives for non-wind renewable generation. Nacogdoches Power also believed that the non-
7 wind RPS should not discriminate among non-wind renewable technologies. Nacogdoches
8 Power firmly believed that the best way to achieve the target laid out by the Legislature in SB 20
9 is to establish a separate non-wind renewable portfolio system. In the comments specific to the
10 Proposal for Publication, Nacogdoches Power stated that it believed the proposed amendment by
11 the commission would not provide meaningful incentives for the installation of non-wind
12 renewable generation, and as an alternative, proposed that the commission implement an RPS
13 that utilizes separate tiers or classes for wind and non-wind renewable generation. Nacogdoches
14 Power stated that such tiered RPS systems are in use in other states such as Pennsylvania and
15 Connecticut. Nacogdoches Power urged the commission to revise the proposed amendment to
16 more closely conform with the "express will of the Legislature that the specified minimum
17 volumes of non-wind renewable resources will in fact be achieved," and suggested amendments
18 to result in a single tiered RPS that both utilizes compliance premiums and satisfies the directives
19 of the Legislature. Nacogdoches Power stated that non-wind renewable power generation,
20 biomass generation in particular, can offer significant advantages to electricity consumers in
21 Texas, such as reliable baseload generation located outside of transmission-constrained areas and
22 significant ongoing economic development. Nacogdoches Power commented that it had

1 performed a dispatch analysis using information developed by TXU that demonstrates that a
2 biomass-fired facility could save electricity consumers in Texas millions of dollars on an annual
3 basis by displacing inefficient marginal natural gas-fired units. Nacogdoches Power also
4 commented that by increasing the diversity of generation sources and by providing baseload
5 renewable generation, biomass-fired facilities can help reduce fossil fuel-based electricity pricing
6 pressures, and that these benefits presumably underlie the Legislature's desire to create
7 appropriate incentives to encourage the installation of at least 500 MW of non-wind renewable
8 generation.

9

10 At the public hearing, Nacogdoches noted other benefits of biomass power: it would be a source
11 of new jobs and investment; reduce the production of greenhouse gasses caused by the
12 decomposition of wood waste; contributes to healthy forestry practices; help alleviate
13 environmental problems caused by natural disasters that create a need to dispose of waste.
14 Nacogdoches Power commented that non-wind projects need higher REC prices because wind
15 projects receive greater federal tax benefits (1.9 cent Production Tax Credit for wind, 0.9 cents
16 for biomass, geothermal and hydro); wind projects are eligible for five-year accelerated
17 depreciation; non-wind renewables face higher development costs and longer permitting
18 processes than wind; non-wind renewables have higher capital costs, but longer lifetimes than
19 wind; and different resources need different incentives. Nacogdoches Power noted that the
20 current REC price is \$2.00/MWh and stated that to encourage most non-wind renewable
21 development, the REC price would need to be \$20.00-\$25.00. Therefore, Nacogdoches Power
22 stated that the compliance premium approach will result in little or no additional investment in

1 non-wind renewables in Texas. Nacogdoches Power stated that a two-tiered RPS would
2 encourage investment in biomass power, geothermal power, hydropower and other resources by
3 setting the market price of non-wind RECs at an appropriate price for these technologies. They
4 added that a two-tiered RPS would level the playing field for emerging technologies to compete
5 with wind, and that other states have already successfully enacted a tiered RPS approach.

6
7 AES commented that the proposed rule is fundamentally flawed in its creation of a new class of
8 REC-like “compliance premiums” as a mechanism for implementing the carve-out provision. In
9 reply comments, the Wind Coalition stated that the compliance premium approach has
10 drawbacks relative to the use of Texas RECs only, which already have the capability needed to
11 implement the 500 MW target. The Wind Coalition referred to its comments filed on January 3,
12 2006, in this project.

13
14 ***Commission response:***

15 **As discussed in its response to comments on Question Three, the commission declines to**
16 **amend the rule to require the RPS obligations to include separate non-wind requirements.**
17 **The commission previously sought comments regarding an RPS requirement to meet the**
18 **500 MW non-wind target and issued the proposed rule without such a requirement, as the**
19 **commission questions whether it has the authority to require such purchases. The 80th**
20 **Legislature considered several bills that would have resolved this uncertainty, but none of**
21 **them was adopted. In view of the uncertainty about the commission’s authority to adopt a**
22 **separate non-wind RPS, it is adopting the compliance premium approach that was laid out**

1 **in the proposed rule. The commission considered all parties' comments in determining the**
2 **most appropriate way for compliance premiums to be implemented, and has modified the**
3 **rule regarding small producers and repowered facilities to help encourage the development**
4 **and continuation of non-wind renewable generation.**

5
6 AES recommended that the commission suspend or abate action on the rule pending the outcome
7 of the 2007 Texas Legislative session. The Wind Coalition agreed. In reply comments,
8 MeadWestvaco disagreed with AES as SB 20 was passed in 2005, and stated that it is important
9 for the commission to move forward in adopting rules to foster the development of non-wind
10 renewable energy technologies.

11
12 ***Commission response:***
13 **The commission waited to consider a proposal for adoption in this project until after the**
14 **2007 Texas Legislative session.**

15
16 Reliant commented that the existing rules, even with the proposed amendments are too narrowly
17 drawn and unnecessarily limit developing technologies from participating in the REC trading
18 program. Reliant proposed that the rules be modified to eliminate unnecessary limitations and to
19 ensure that the rules are flexible enough to allow emerging technologies to be included in the
20 REC trading program, and that facilities that are re-powered to use renewable fuels be
21 encouraged to participate in the program. Reliant stated that changes to this rule may necessitate
22 changes to other rules such as P.U.C. SUBST. R. §25.476, relating to *Labeling of Electricity with*

1 *Respect to Fuel Mix and Environmental Impact.* Reliant recommended that the commission
2 consider whether there are other actions that can be taken to help potential non-wind renewable
3 energy developers become certified and participate in the REC trading program, and noted that
4 there may be steps ERCOT could take to make the process easier on non-wind developers, who
5 they stated are likely to be smaller companies. Reliant mentioned simplifying the Standard Form
6 REC Account Agreement and additional education as examples.

7

8 ***Commission response:***

9 **The commission appreciates the suggestions. Changes to the other rules such as P.U.C.**
10 **SUBST. R. §25.476, relating to *Labeling of Electricity with Respect to Fuel Mix and***
11 ***Environmental Impact* may be considered in a subsequent rulemaking. ERCOT may**
12 **review ways to simplify entry into the REC trading program as it deems appropriate,**
13 **consistent with commission rules.**

14

15 SOAR stated that it intends to take an existing ERCOT peaking plant, convert its fuel source
16 from Natural Gas to Biofuel, and add a new steam generator that will increase its current
17 nameplate capacity from 82 MW to 96 MW. SOAR stated that it intends to participate in the
18 REC program, but it is restricted under the current rule. SOAR explained that its plant is
19 designed to use animal fats (non-food feedstock) and convert it into a fuel source. This feedstock
20 does not compete with the food chain and is designed to use what is now a waste product and
21 convert it to clean energy. SOAR commented that its proposed changes would complement the
22 PUC's desire to increase the amount of electricity delivered to customers using renewable

1 generation in Texas, and would allow its plant to help diversify the state’s electric generating
 2 resource portfolio and foster reductions in the cost of renewable energy technologies, and that the
 3 project will add to the reserve margin. SOAR recommended specific changes to the rule to
 4 permit its participation in the REC program as detailed in the specific comments.

5
 6 Representative John Zerwas, M.D., requested that the commission change the necessary rules in
 7 order to allow SOAR’s project to move forward.

8
 9 *Commission response:*

10 **As discussed in regards to subsection (f), the commission has amended the rule to allow**
 11 **facilities repowered to use renewable energy up to 150 MW to qualify for RECs.**

12
 13 TXU Cities stated that they generally are supportive of goals which encourage cost-effective
 14 renewable energy resources in Texas, but do not favor the creation of artificial financial
 15 incentives to encourage the development of renewable resources that otherwise would not be
 16 developed because the cost of providing such incentives ultimately will be borne by customers
 17 through further increases in retail energy costs. TXU Cities commented that the policy would
 18 negatively impact end-use customers who ultimately bear all costs of energy in the market by
 19 increasing the RPS requirement, and this should be recognized. TXU Cities stated that there is
 20 evidence from Texas and other markets that individuals will voluntarily support renewable
 21 resources without the need for provision of mandated financial incentives, and that rather than
 22 adding additional regulatory-mandated cost to be uplifted to the market as a whole and passed on

1 to customers, the development of renewable energy technologies should generally be left to
2 competitive market forces and individual customer choice.

3

4 *Commission response:*

5 **The commission finds that the REC Trading Program is required by PURA. The**
6 **commission has considered the impacts to the end use customers and the directives and**
7 **intent of PURA §39.904 in adopting these amendments.**

8

9 *Public Hearing Comments*

10 At the public hearing, a representative for TIEC and MeadWestvaco responded to Nacogdoches
11 Power's comments regarding the need for a two-tiered RPS to benefit biomass, and pointed to
12 the comments that were filed that indicated that a rule change to allow a higher percentage of
13 fossil fuels to be used could itself result in additional non-wind participation without the need for
14 a two-tiered RPS.

15

16 All comments, including any not specifically referenced herein, were fully considered by the
17 commission. In adopting this section, the commission makes other minor modifications for the
18 purpose of clarifying its intent.

19

20 This amendment is adopted under the Public Utility Regulatory Act, Texas Utilities Code
21 Annotated §§14.001, 14.002, 15.023, 39.101(b)(3) and 39.904 (Vernon 1998 & Supplement
22 2006). PURA §14.001 provides the commission the general power to regulate and supervise the

1 business of each public utility within its jurisdiction and to do anything specifically designated or
2 implied by PURA that is necessary and convenient to the exercise of that power and jurisdiction;
3 §14.002 provides the commission with the authority to make and enforce rules reasonably
4 required in the exercise of its powers and jurisdiction; §15.023 provides the commission the
5 power to impose administrative penalties against a person regulated under PURA who violates
6 PURA or an order adopted under PURA; §39.101(b)(3) provides that a customer is entitled to
7 have access to providers of energy generated by renewable energy resources; and §39.904,
8 provides the commission the power to adopt rules necessary to administer and enforce the
9 programs to promote the development of renewable energy technologies.

10

11 Cross Reference to Statutes: Public Utility Regulatory Act §§14.001, 14.002, 15.023, 36.204,
12 39.101, and 39.904.

1 **§25.173. Goal for Renewable Energy.**

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

3 | (1)____-to ensure that the cumulative installed generating capacity from renewable energy
4 technologies in this state totals 2,280 megawatts (MW) by January 1, 2007, 3,272
5 MW by January 1, 2009, 4,264 MW by January 1, 2011, 5,256 MW by January 1,
6 2013, and 5,880 MW by January 1, 2015, with a target of at least 500 MW of the
7 total installed renewable capacity after September 1, 2005, coming from a
8 renewable energy technology other than a source using wind energy, and that the
9 means exist for the state to achieve a target of 10,000 MW of installed renewable
10 capacity by January 1, 2025.

11 | (2)____-to provide for a renewable energy credits trading program by which the
12 renewable energy requirements established by the Public Utility Regulatory Act
13 (PURA) §39.904(a) may be achieved in the most efficient and economical
14 manner;

15 | (3)____-to encourage the development, construction, and operation of new renewable
16 energy resources at those sites in this state that have the greatest economic
17 potential for capture and development of this state's environmentally beneficial
18 resources;

19 | (4)____-to protect and enhance the quality of the environment in Texas through increased
20 use of renewable resources; and

21 | (5)____-to ensure that all customers have access to providers of energy generated by
22 renewable energy resources pursuant to PURA §39.101(b)(3).

23
24 (b) **Application.** This section applies to power generation companies as defined in §25.5 of
25 this title (relating to definitions), and retail entities as defined in subsection (c) of this
26 section.

27
28 (c) **Definitions.**

- 1 (1) **Compliance period** — A calendar year beginning January 1 and ending
2 December 31 of each year in which renewable energy credits are required of a
3 retail entity.
- 4 (2) **Compliance premium** — A premium awarded by the program administrator in
5 conjunction with a renewable energy credit that is generated by a renewable
6 energy source that is not powered by wind and meets the criteria of subsection (1)
7 of this section. For the purpose of the renewable energy portfolio standard
8 requirements, one compliance premium is equal to one renewable energy credit.
- 9 (3) **Designated representative** — A responsible natural person authorized by the
10 owners or operators of a renewable resource to register that resource with the
11 program administrator. The designated representative must have the authority to
12 represent and legally bind the owners and operators of the renewable resource in
13 all matters pertaining to the renewable energy credits trading program.
- 14 (4) **Existing facilities** — Renewable energy generators placed in service before
15 September 1, 1999.
- 16 (5) **Generation offset technology** — Any renewable technology that reduces the
17 demand for electricity at a site where a customer consumes electricity. An
18 example of this technology is solar water heating.
- 19 (6) **Microgenerator** — A customer who owns one or more eligible renewable
20 energy generating units with a rated capacity of less than 1MW~~10 kW or less~~
21 operating on the customer's side of the utility meter.
- 22 (7) **New facilities** — Renewable energy generators placed in service on or after
23 September 1, 1999. A new facility includes the incremental capacity and
24 associated energy from an existing renewable facility achieved through
25 repowering activities undertaken on or after September 1, 1999.
- 26 (8) **Off-grid generation** — The generation of renewable energy in an application that
27 is not interconnected to a utility transmission or distribution system.
- 28 (9) **Program administrator** — The entity approved by the commission that is
29 responsible for carrying out the administrative responsibilities related to the

1 renewable energy credits trading program as set forth in subsection (g) of this
2 section.

3 | (10) **REC aggregator** — An entity managing the participation of two or more
4 microgenerators in the REC trading program.

5 | (11) **REC offset (offset)** — ~~A~~ REC offset represents one megawatt-hour (MWh) of
6 renewable energy from an existing facility that is not eligible to earn renewable
7 energy credits or compliance premiums.

8 | (12) **Renewable energy credit (REC or credit)** — A REC represents one MWh of
9 renewable energy that is physically metered and verified in Texas and meets the
10 requirements set forth in subsection (e) of this section.

11 (13) **Renewable energy credit account (REC account)** — An account maintained by
12 the renewable energy credits trading program administrator for the purpose of
13 tracking the production, sale, transfer, purchase, and retirement of RECs or
14 compliance premiums by a program participant.

15 | (14) **Renewable energy credits trading program (trading program)** — The process
16 of awarding, trading, tracking, and submitting RECs or compliance premiums as a
17 means of meeting the renewable energy requirements set out in subsection (d) of
18 this section.

19 (15) **Renewable energy resource (renewable resource)** — A resource that produces
20 energy derived from renewable energy technologies.

21 (16) **Renewable energy technology** — Any technology that exclusively relies on an
22 energy source that is naturally regenerated over a short time and derived directly
23 from the sun, indirectly from the sun, or from moving water or other natural
24 movements and mechanisms of the environment. Renewable energy technologies
25 include those that rely on energy derived directly from the sun, on wind,
26 geothermal, hydroelectric, wave, or tidal energy, or on biomass or biomass-based
27 waste products, including landfill gas. A renewable energy technology does not
28 rely on energy resources derived from fossil fuels, waste products from fossil
29 fuels, or waste products from inorganic sources.

1 (17) **Renewable Portfolio Standard (RPS)** — The amount of capacity required to
2 meet the requirements of PURA §39.904 pursuant to subsection (h) of this
3 section.

4 (18) **Repowered Facility Repowering** — ~~An To modernize Modernizing or~~
5 ~~upgrade upgrading an existing facility that has been modernized or upgraded to use~~
6 ~~renewable energy technology to produce electricity consistent with this rule in~~
7 ~~order to increase its capacity or efficiency.~~

8 (19) **Retail entity** — ~~Municipally-owned Municipally-owned~~ utilities, generation and
9 transmission cooperatives ~~and~~ distribution cooperatives that offer customer
10 choice; retail electric providers (REPs); and investor-owned utilities that have
11 not unbundled pursuant to PURA Chapter 39.

12 (20) **Settlement period** — The first calendar quarter following a compliance period in
13 which the settlement process for that compliance ~~period~~ year takes place.

14 (21) **Small producer** — A renewable resource that is less than ten megawatts (MW) in
15 size.

16
17 (d) **Renewable energy credits trading program (trading program).** Renewable energy
18 credits may be generated, transferred, and retired by renewable energy power generators
19 certified pursuant to subsection (n) of this section, retail entities, and other market
20 participants as set forth in this section.

21 (1) The program administrator shall apportion an RPS requirement among all retail
22 entities as a percentage of the retail sales of each retail entity as set forth in
23 subsection (h) of this section. Each retail entity shall be responsible for retiring
24 sufficient RECs as set forth in subsections (h) and (k) of this section to comply
25 with this section. The requirement to retire RECs to comply with this section
26 becomes effective on the date a retail entity begins serving retail electric
27 customers in Texas or, for an electric utility, as specified by law.

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

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

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

10 (5) Except where specifically stated, the provisions of this section shall apply
11 uniformly to all participants in the trading program.

12
13 (e) **Facilities eligible for producing RECs and compliance premiums in the renewable**
14 **energy credits trading program.** For a renewable facility to be eligible to produce
15 RECs and compliance premiums in the trading program it must be either a new facility,
16 ~~or a small producer, or a repowered facility~~ as defined in subsection (c) of this section and
17 must also meet the requirements of this subsection.

18 (1) A renewable energy resource must not be ineligible under subsection (f) of this
19 section and must register pursuant to subsection (n) of this section.

20 (2) For a renewable energy technology that requires fossil fuel, the facility's use of
21 fossil fuel must not exceed ~~25.0%~~2.0% of the total annual fuel input on a British
22 thermal unit (BTU) or equivalent basis.

23 ~~(3) For a renewable energy technology that requires the use of fossil fuel that exceeds~~
24 2.0% of the total annual fuel input on a BTU or equivalent basis, RECs can only
25 be earned on the renewable portion of the production. A renewable energy
26 resource using a technology described by this paragraph shall comply with the
27 following requirements:

1 (A) A meter shall be installed and periodic tests of the heat content of the fuel
2 shall be conducted to measure the amount of fossil fuel input on a British
3 thermal unit (BTU) or equivalent basis that is used at the facility;

4 (B) The renewable energy resource shall calculate the electricity generated by
5 the unit in MWH, based on the BTUs (or equivalent) produced by the
6 fossil fuel and the efficiency of the renewable energy resource, subtract the
7 MWH generated with fossil fuel input from the total MWH of generation
8 and report the renewable energy generated to the program administrator;

9 (C) The renewable energy resource shall report the generation to the program
10 administrator in the measurements, format and frequency prescribed by the
11 program administrator, which may include a description of the
12 methodology for calculating the non-renewable energy produced by the
13 resource; and

14 (D) The renewable energy resource is subject to audit to verify the accuracy of
15 the data submitted to the program administrator and compliance with this
16 section, to be conducted by the program administrator or an independent
17 third party, as requested by the program administrator. If the program
18 administrator requires a third party audit, the audit shall be performed at
19 the expense of the renewable energy resource.

20 ~~(4)~~(3) The output of the facility must be readily capable of being physically metered and
21 verified in Texas by the program administrator. Energy from a renewable facility
22 that is delivered into a transmission system where it is commingled with
23 electricity from non-renewable resources before being metered can not be verified
24 as delivered to Texas customers. A facility is not ineligible by virtue of the fact
25 that the facility is a generation-offset, off-grid, or on-site distributed renewable
26 facility if it otherwise meets the requirements of this section.

27 ~~(5)~~(4) For a municipally owned utility operating a gas distribution system, any
28 production or acquisition of landfill gas that is directly supplied to the gas
29 distribution system is eligible to produce RECs based upon the conversion of the

1 thermal energy in BTUs to electric energy in kWh using for the conversion factor
2 the systemwide average heat rate of the gas-fired units of the combined utility's
3 electric system as measured in BTUs per kWh.

4 ~~(6)(5)~~ For industry-standard thermal technologies, the RECs can be earned only on the
5 renewable portion of energy production. Furthermore, the contribution toward
6 statewide renewable capacity megawatt goals from such facilities shall be equal to
7 the fraction of the facility's annual MWh energy output from renewable fuel
8 multiplied by the facility's nameplate MW capacity.

9 (7) For repowered facilities, a facility is eligible to earn RECs on all renewable
10 energy produced up to a capacity of 150 MW. A repowered facility with a
11 capacity greater than 150 MW may earn RECs for the energy produced in
12 proportion to 150 divided by nameplate capacity.

13
14 (f) **Facilities not eligible for producing RECs in the renewable energy credits trading**
15 **program.** A renewable facility is not eligible to produce RECs in the trading program if
16 it is:

17 (1) A renewable energy capacity addition associated with an emissions reductions
18 project described in Health and Safety Code §382.05193, that is used to satisfy the
19 permit requirements in Health and Safety Code §382.0519; or

20 (2) An existing facility that is not a small producer as defined in subsection (c) of this
21 section or has not been repowered as permitted under subsection (e) of this
22 section. ~~or~~

23 ~~(3) A fossil fueled generating plant that is repowered to use a renewable fuel, unless~~
24 ~~the plant is a small producer; or~~

25 ~~(4) A facility built with the assistance of a federal grant that was given for the purpose~~
26 ~~of developing that particular facility as a renewable energy demonstration project.~~

27

1 (g) **Responsibilities of program administrator.** The commission shall appoint an
2 independent entity to serve as the trading program administrator. At a minimum, the
3 program administrator shall perform the following functions:

- 4 (1) Create accounts that track RECs or compliance premiums for each participant in
5 the trading program;
- 6 (2) Award RECs or compliance premiums to registered renewable energy facilities on
7 a quarterly basis based on verified meter reads;
- 8 (3) Award offsets to retail entities on an annual basis based on a nomination
9 submitted by the retail entity pursuant to subsection (i) of this section;
- 10 (4) Annually record the retirement of RECs or compliance premiums that each retail
11 entity submits;
- 12 (5) Retire RECs at the end of each REC's compliance~~three-year~~ life;
- 13 (6) Maintain public information on its website that provides trading program
14 information to interested buyers and sellers of RECs;
- 15 (7) Create an exchange procedure where persons may purchase and sell RECs or
16 compliance premiums. The exchange shall ensure the anonymity of persons
17 purchasing or selling RECs or compliance premiums. The program administrator
18 may delegate this function to an independent third party, subject to commission
19 approval;
- 20 (8) Make public each month the total energy sales of retail entities in Texas for the
21 previous month;
- 22 (9) Perform audits of generators participating in the trading program to verify
23 accuracy of metered production data;
- 24 (10) Allocate the RPS requirement to each retail entity in accordance with subsection
25 (h) of this section; and
- 26 (11) Submit an annual report to the commission. The program administrator shall
27 submit a report to the commission on or before May 15 of each calendar year.
28 The report shall contain information pertaining to renewable energy power
29 generators and retail entities. At a minimum, the report shall contain:

- 1 (A) the amount of existing and new renewable energy capacity in MW
2 installed in the state by technology type, the owner/operator of each
3 facility, the date each facility began to produce energy, the amount of
4 energy generated in megawatt-hours (MWh) each quarter for all capacity
5 participating in the trading program or that was retired from service; and
6 (B) a listing of all retail entities participating in the trading program, each
7 retail entity's RPS requirement, the number of offsets used by each retail
8 entity, the number of RECs retired by each retail entity, the number of
9 compliance premiums retired by each retail entity, a listing of all retail
10 entities that were in compliance with the RPS requirement, a listing of all
11 retail entities that failed to comply with the RPS requirement, and the
12 deficiency of each retail entity that failed to retire sufficient RECs or
13 compliance premiums to meet its RPS requirement.
14

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

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

- 1 (A) 1,400 MW of new resources in 2006;
- 2 (B) 1,400 MW of new resources in 2007;
- 3 (C) 2,392 MW of new resources in 2008;
- 4 (D) 2,392 MW of new resources 2009;
- 5 (E) 3,384MW of new resources in 2010;
- 6 (F) 3,384 MW of new resources in 2011;
- 7 (G) 4,376 MW of new resources in 2012;
- 8 (H) 4,376 MW of new resources in 2013;
- 9 (I) 5,000 MW of new resources in 2014; and
- 10 (J) 5,000 MW of new resources for each year after 2014.
- 11 (2) The final RPS allocation for an individual retail entity for a compliance period
12 shall be calculated as follows:
- 13 (A) Each retail entity's preliminary RPS allocation is determined by dividing
14 its total retail energy sales in Texas by the total retail sales in Texas of all
15 retail entities, and multiplying that percentage by the total statewide RPS
16 requirement for that compliance period.
- 17 (B) The adjusted RPS allocation for each retail entity that is entitled to an
18 offset is determined by reducing its preliminary RPS allocation by the
19 offsets to which it qualifies, as determined under subsection (i) of this
20 section, with the maximum reduction equal to the retail entity's
21 preliminary RPS allocation. The total reduction for all retail entities is
22 equal to the total usable offsets for that compliance period.
- 23 (C) Each retail entity's final RPS allocation for a compliance period shall be
24 increased to recapture the total usable offsets calculated under
25 subparagraph (B) of this paragraph. The additional RPS allocation shall
26 be calculated by dividing the retail entity's preliminary RPS allocation by

1 the total preliminary RPS allocation of all retail entities. This fraction
2 shall be multiplied by the total usable offsets for that compliance period
3 and this amount shall be added to the retail entity's adjusted RPS
4 allocation to produce the retail entity's final RPS allocation for the
5 compliance period.

- 6 | (3) Concurrent with determining final individual RPS allocations-- for the current
7 compliance period in accordance with this subsection, the program administrator
8 shall recalculate the final RPS allocations for the previous compliance periods,
9 taking into account corrections to retail sales resulting from resettlements. The
10 difference between a retail entity's corrected final RPS allocation and its original
11 final RPS allocation for the previous compliance periods shall be added to or
12 subtracted from the retail entity's final RPS allocation for the current compliance
13 period.

14
15 (i) **Nomination and award of REC offsets.**

- 16 (1) A REP, municipally-owned utility, G&T cooperative, distribution cooperative, or
17 an affiliate of a REP, municipally-owned utility, or distribution cooperative, may
18 apply offsets to meet all or a portion of its renewable energy purchase
19 requirement, as calculated in subsection (h) of this section, only if those offsets
20 were nominated in a filing with the commission by June 1, 2001.
- 21 (2) The program administrator shall award offsets consistent with the commission's
22 actions to verify designations of REC offsets and with this section.
- 23 (3) REC offsets shall be equal to the average annual MWh output of an existing
24 resource for the years 1991-2000 or the entire life of the existing resource,
25 whichever is less.
- 26 (4) REC offsets qualify for use in a compliance period under subsection (h) of this
27 section only to the extent that:
- 28 (A) The resource producing the REC offset has continuously since September
29 1, 1999 been owned by or its output has been committed under contract to

1 a utility, municipally-owned utility, or cooperative (or successor in
2 interest) nominating the resource under paragraph (1) of this subsection or,
3 if the resource has been committed under a contract that expired after
4 September 1, 1999 and before January 1, 2002, it was owned by or its
5 output was committed under contract to a utility, municipally-owned
6 utility, or cooperative on January 1, 2002; and

7 (B) The facility producing the REC offsets is operated and producing energy
8 during the compliance period in a manner consistent with historic practice.

9 (5) If the production of energy from a facility that is eligible for an award of REC
10 offsets ceases for any reason, or if the power purchase agreement with the
11 facility's owner (or successor in interest) that is referred to in paragraph (4)(A) of
12 this subsection has lapsed or is no longer in effect, the retail entity shall no longer
13 be awarded REC offsets related to the facility.

14 (6) REC offsets shall not be traded.

15
16 (j) **Calculation of capacity conversion factor.** The capacity conversion factor used by the
17 program administrator to allocate credits to retail entities shall be calculated during the
18 fourth quarter of each odd numbered compliance year. The capacity conversion factor
19 shall:

20 (1) Be based on actual generator performance data for renewable resources in the
21 trading program for which at least 12 months of performance data are
22 available. ~~Reflect actual generator performance data associated with all renewable~~
23 ~~resources in the trading program for the previous two years;~~

24 ~~(2) Be based on all renewable resources in the trading program for which at least 12~~
25 ~~months of performance data are available;~~

26 ~~(2)(3)~~ Represent a weighted average of generator performance; and

27 ~~(3)(4)~~ Use all actual generator ~~valid~~ performance data that is available for each renewable
28 resource, excluding data for testing periods ~~prior to commercial operation.~~

29

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

4 (1) The owner of a renewable resource shall earn one REC when a MWh is metered
5 at that renewable resource. The program administrator shall record the energy in
6 metered MWh and credit the REC account of the renewable resource that
7 generated the energy on a quarterly basis. Quarterly production shall be rounded
8 to the nearest whole MWh, with fractions of 0.5 MWh or greater rounded up.

9 (2) The transfer of RECs between parties shall be effective only when the transfer is
10 recorded by the program administrator.

11 (3) The program administrator shall require that RECs be adequately identified prior
12 to recording a transfer and shall issue an acknowledgement of the transaction to
13 parties upon provision of adequate information. At a minimum, the following
14 information shall be provided:

15 (A) identification of the parties;

16 (B) REC serial number, REC issue date, and the renewable resource that
17 produced the REC;

18 (C) the number of RECs to be transferred; and

19 (D) the transaction date.

20 (4) A retail entity shall surrender RECs to the program administrator for retirement
21 from the market in order to meet its RPS requirement for a compliance period.
22 The program administrator will document all REC retirements annually.

23 (5) On or after each April 1, the program administrator will retire RECs that have not
24 been retired by retail entities and have reached the end of their compliance~~three-~~
25 ~~year~~ life.

26 (6) The program administrator may establish a procedure to ensure that the award,
27 transfer, and retirement of credits are accurately recorded.

28 (7) The issue date of RECs created by a renewable energy resource shall coincide
29 with the beginning of the compliance period (calendar year)~~year~~ in which the

1 credits are generated. All RECs shall have a compliance life of three compliance
2 periods, after which the program administrator will retire them from the trading
3 program. ~~RECs that have exceeded their life shall not be used to satisfy an RPS~~
4 ~~requirement.~~

5 (8) Each REC that is not used in the compliance period in which it was created~~year of~~
6 ~~its creation~~ may be banked and is valid for the next two compliance periods.

7
8 (l) **Target for renewable technologies other than wind power.** In order to meet the target
9 of at least 500 MW of the total installed renewable capacity after September 1, 2005,
10 coming from a renewable energy technology other than a source using wind energy as set
11 forth in paragraph (a)(1) of this section, the program administrator shall award
12 compliance premiums to certified REC generators other than those powered by wind that
13 were installed and certified by the commission pursuant to subsection (n) of this section
14 after September 1, 2005. A compliance premium is created in conjunction with a REC.

15 (1) ~~Compliance premiums shall be awarded as follows:~~

16 (A) ~~For eligible non-wind renewable technologies, one compliance premium shall be~~
17 ~~awarded for each REC awarded for energy generated after December 31, 2007.~~

18 and

19 (B) ~~For eligible non-wind renewable technologies that have no air emissions,~~
20 ~~two compliance premiums shall be awarded for each REC awarded.~~

21 (2) Except as provided in this subsection, the award, retirement, trade, and
22 registration of compliance premiums shall follow the requirements of subsections
23 (d), (k) and (m) of this section.

24 (3) A compliance premium may be used by any entity toward its RPS requirement
25 pursuant to subsection (h) of this section.

1 (4) The program administrator shall increase the statewide RPS requirement
2 calculated for each compliance period pursuant to subsection (h)(1) of this section
3 by the number of compliance premiums retired during the previous compliance
4 period.

5
6 (m) **Settlement process.** The first quarter following the compliance period shall be the
7 settlement period during which the following actions shall occur:

8 (1) By January 31, the program administrator will notify each retail entity of its total
9 RPS requirement for the previous compliance period as determined pursuant to
10 subsection (h) of this section.

11 (2) By March 31, each retail entity shall submit credits or compliance premiums to
12 the program administrator from its account equivalent to its RPS requirement for
13 the previous compliance period. If the retail entity does not submit sufficient
14 credits or compliance premiums to satisfy its obligation, the retail entity is subject
15 to the penalty provisions in subsection (o) of this section.

16 (3) The program administrator may request the commission to adjust the deadlines set
17 forth in this section if changes to the ERCOT settlement calendar or other factors
18 affect the availability of reliable retail sales data.

19
20 (n) **Certification of renewable energy facilities.** The commission shall certify all
21 renewable facilities that will produce either REC offsets, RECs, or compliance premiums
22 for sale in the trading program. To be awarded RECs, or REC offsets, or compliance
23 premiums, a power generator must complete the certification process described in this
24 subsection. The program administrator shall not award offsets, RECs, or compliance
25 premiums for energy produced by a power generator before it has been certified by the
26 commission.

27 (1) The designated representative of the generating facility shall file an application
28 with the commission on a form approved by the commission for each renewable

1 energy generation facility. At a minimum, the application shall include the
2 location, owner, technology, and rated capacity of the facility and shall
3 demonstrate that the facility meets the resource eligibility criteria in subsection (e)
4 of this section. Any subsequent changes to the information in the application shall
5 be filed with the commission within 30 days of such changes.

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

14 (3) Upon receiving notice of certification of new facilities, the program administrator
15 shall create ~~an~~ REC account for the designated representative of the renewable
16 resource.

17 (4) The commission or program administrator may make on-site visits to any certified
18 facility, and the commission shall decertify any facility if it is not in compliance
19 with the provisions of this title.

20 (5) A decertified renewable generator may not be awarded RECs. However, any
21 RECs awarded by the program administrator and transferred to a retail entity prior
22 to the decertification remain valid.

23
24 (o) **Penalties and enforcement.** If by April 1 of the year following a compliance ~~period~~^{year}
25 the program administrator determines that a retail entity ~~—has not retired~~
26 ~~sufficient~~^{insufficient} credits or compliance premiums to satisfy its allocation, the retail
27 entity shall be subject to an administrative penalty pursuant to PURA §15.023, of \$50 per
28 MWh ~~that is deficient pursuant to PURA §15.023~~.

29

1 (p) **Microgenerators and REC aggregators.** A REC aggregator may manage the
2 participation of multiple microgenerators in the REC trading program. The program
3 administrator shall assign to the REC aggregator all RECs accrued by the microgenerators
4 who are under a REC management contract with the REC aggregator.

5 (1) The microgenerator's units shall be installed and connected to the grid in
6 compliance with P.U.C. Substantive Rules, applicable interconnection standards
7 adopted pursuant to the P.U.C. Substantive Rules, and federal rules.~~by a~~
8 ~~technician who is currently certified either by the unit's manufacturer or by a~~
9 ~~recognized industry certification organization.~~

10 (2) Notwithstanding paragraph (e)(3)(4) of this section, a REC aggregator may use
11 any~~either~~ of the following methods for reporting generation to the program
12 administrator, as long as the same method is used for each microgenerator in an
13 aggregation unit, as defined by the REC aggregator. A REC aggregator may have
14 more than one aggregation and may choose any of the methods listed below~~either~~
15 ~~method~~ for each aggregation unit.

16 (A) The REC aggregator may provide the program administrator with
17 production data that is measured and verified by an electronic meter that
18 meets ANSI C12 standards and that will be separate from the aggregator's
19 billing meter for the service address and for which the billing data and the
20 renewable energy data are separate and verifiable data. Such actual data
21 shall be collected and transmitted within a reasonable time and shall be
22 subject to verification by the program administrator. REC aggregators
23 using this method shall be awarded one REC for every MWh generated.~~A~~
24 ~~generating unit may have a meter that transmits actual generation data to~~
25 ~~the program administrator using protocols and procedures determined by~~
26 ~~the program administrator. Such protocols and procedures shall require~~
27 ~~that actual data be collected and transmitted within a reasonable time.~~
28 ~~REC aggregators using this method shall be awarded one REC for every~~
29 ~~MWh generated.~~

1 (B) The REC aggregator may provide the program administrator with
2 sufficient information for the program administrator to estimate with
3 reasonable accuracy the output of each unit, based on known or observed
4 information that correlates closely with the generation output. REC
5 aggregators using this method shall be awarded one REC for every 1.25
6 MWh generated. After installing the unit, the certified technician shall
7 provide the microgenerator, the REC aggregator, and the program
8 administrator the information required by the program administrator
9 pursuant to this paragraph (2) of this subsection.

10 (C) A generating unit may have a meter that transmits actual generation data to
11 the program administrator using applicable protocols and procedures.
12 Such protocols and procedures shall require that actual data be collected
13 and transmitted within a reasonable time. REC aggregators using this
14 method shall be awarded one REC for every MWh generated.

15 (3) REC aggregators shall register with the commission and the program
16 administrator and also register to participate in the REC trading program.

17 (4) A microgenerator participating in the REC trading program individually without
18 the assistance of a REC aggregator shall comply with the requirements of this
19 subsection.

20 ~~(5) All microgenerator units that are connected to the grid or that are installed with~~
21 ~~the capability of connecting to the grid shall comply with the applicable~~
22 ~~requirements of §25.211 and §25.212, of this title (relating to Transmission and~~
23 ~~Distribution Applicable to all Electric Utilities).~~
24

