

Decision No. C07-0386

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO**

DOCKET NO. 07R-166E

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IN THE MATTER OF THE PROPOSED RULES IMPLEMENTING RENEWABLE ENERGY STANDARDS 4 CCR 723-3.

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**NOTICE OF PROPOSED RULEMAKING**

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Mailed Date: May 11, 2007

Adopted Date: May 9, 2007

**I. BY THE COMMISSION**

**A. Statement**

1. The Colorado Public Utilities Commission (Commission) gives notice of a proposed rulemaking regarding its rules pertaining to the implementation and regulation of the renewable energy standard as required pursuant to § 40-2-124, C.R.S. The intent of the limited rulemaking is to revise and clarify the existing renewable energy standard rules contained in 4 *Code of Colorado Regulations* (CCR) 723-3-3650, *et seq.* as a result of the passage and signing of House Bill 07-1281. The bill became law on March 27, 2007.

2. House Bill 07-1281, among other things, expands the compliance percentages of the renewable energy standard for investor owned Qualifying Retail Utilities (QRUs) in order to reach a goal of 20 percent of their electric energy portfolio to be generated by specific technologies by the year 2020. It also requires both municipally owned QRUs, with greater than 40,000 customers, and all cooperative electric associations to meet a compliance percentage of 10 percent by the year 2020. The bill further adds “recycled energy” as an eligible energy resource, provides incentives for the development of certain types of energy resources within Colorado, provides additional incentives to QRUs to develop and own eligible energy resources,

and clarifies certain provisions surrounding the maximum retail rate impacts to achieve the new renewable energy standards.

3. In Docket No. 05R-112E, the Commission adopted the initial renewable energy standard rules. The Commission stated that it would re-examine these rules following the completion of one compliance cycle. Because a complete compliance cycle for the current QRUs has not been completed, we are limiting this rulemaking to address only the necessary changes from House Bill 07-1281.<sup>1</sup> Based on our experience in the original rulemaking, it is highly unlikely that if we opened this rulemaking to address any aspect of the renewable energy standard rules, we could complete our work by the October 1, 2007 deadline contained in HB 07-1281.

4. In Docket No. 06R-492E, the Commission adopted additional changes to the electric rules as part of its repeal and reenactment process originally commenced in Docket No. 03R-519E. We adopted the changes for the renewable energy standard (rules 3650 through 3665) recommended by the Administrative Law Judge at our weekly meeting of April 25, 2007. However, these changes are not scheduled to take effect until August 31, 2007. Therefore, for ease of reference, the attached, proposed redline rules begin with the renewable energy standard rules with the most recent changes already included. The proposed redline version of the renewable energy standard rules, with the exception of Rule 3665 – Interconnection<sup>2</sup>, is attached to this order.

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<sup>1</sup> The initial cycle is currently at the QRU compliance plan stage. A full cycle concludes with the final resolution of a QRU compliance report filing with the Commission.

<sup>2</sup> We are omitting the interconnection rule from the NOPR because we do not believe any changes are necessary to the interconnection process as a result of HB 07-1281. Also because this rule alone is over 23 pages in length, by omitting it from the NOPR saves the Commission additional printing and mailing costs.

5. The statutory authority for the rules proposed here is found at §§ 24-4-101, C.R.S. *et seq.*, 40-1-101, *et seq.*, 40-2-108, 40-3-102, 40-3-103, 40-4-101, and 40-4-108.

6. The Commission *en banc* will conduct a hearing on the proposed rules and related issues at the below stated time and place. Interested persons may submit written comments on the rules and present these orally at hearing, unless the Commission deems oral presentations unnecessary. The Commission also encourages interested persons to submit written comments before the hearing scheduled in this matter. In the event interested persons wish to file comments before the hearing, the Commission requests that such comments be filed no later than June 11, 2007. Reply comments should be submitted by June 21, 2007. The Commission requests that interested persons submitting comments do so both in paper and electronic format. The Commission may post electronically submitted comments to its web site. The Commission will consider all submissions.

7. Finally, the Commission reiterates its intention to keep this rulemaking focused on rule changes that are required to comport our rules with the new law. Parties should constrain their comments to these rule changes and not venture into other areas at this time. Following the completion of one full cycle of practice under the renewable energy rules, the Commission will consider other rule modifications that parties may wish to advocate.

8. A hearing in this matter is scheduled as follows:

DATE: July 2, 2007 if necessary July 3, 2007

TIME: 9:00 a.m.

PLACE: Commission Hearing Room  
1560 Broadway, Suite 250  
Denver, Colorado

**II. ORDER**

**A. The Commission Orders That:**

1. This Notice of Proposed Rulemaking shall be filed with the Colorado Secretary of State for publication in the June 11, 2007 edition of *The Colorado Register*.

2. A hearing on the proposed rules and related matters shall be held before the Commission *en banc* as follows:

DATE	July 2, 2007 if necessary July 3, 2007
TIME:	9:00 a.m.
PLACE:	Commission Hearing Room 1560 Broadway, Suite 250 Denver, Colorado

At the time set for hearing in this matter, interested persons may submit written comments and may present these orally unless the Commission deems oral comments unnecessary.

3. Interested persons may file written comments in this matter before hearing. The Commission requests that such pre-filed comments be submitted in both paper and electronic format no later than June 11, 2007. Reply comments should be submitted by June 21, 2007. All submissions, whether oral or written, will be considered by the Commission.

4. This Order is effective upon its Mailed Date.

**B. ADOPTED IN COMMISSIONERS' WEEKLY MEETING  
May 9, 2007.**

(SEAL)



ATTEST: A TRUE COPY



Doug Dean,  
Director

THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF COLORADO

RON BINZ

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CARL MILLER

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Commissioners

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## COLORADO DEPARTMENT OF REGULATORY AGENCIES

### Public Utilities Commission

#### 4 CODE OF COLORADO REGULATIONS (CCR) 723-3

#### PART 3 RULES REGULATING ELECTRIC UTILITIES

**BASIS, PURPOSE, AND STATUTORY AUTHORITY** [omitted unaffected rule section]

[Rules 3000(a), 3000(b)(I) to b(XI), and (b)(XIII), 3000(c) and 3001 through 3649 are omitted, unaffected rule sections]

**3000. Scope and Applicability.**

- (b) The following rules in this Part 3 shall apply to cooperative electric associations which have elected to exempt themselves from the Public Utilities Law pursuant to § 40-9.5-103, C.R.S.:

\* \* \*

[signifies omission of unaffected rule sections]

- (XII) Rules 3650(b), 3651, 3652, 3654(b), (e) through (k), (m), (p); 3656(a), 3659(a)(I) through (a)(V), (b) through (k), 3660(j), 3661(b) through (c), (g), (i) (k), 3662(a)(I) through (a)(X), (b) through (e), through 3655 provided the cooperative electric association has more than 40,000 customers and has not either voted to exempt themselves from rules 3650 through 3655 through the process in rule 3652 or has adopted a substantially similar program as outlined in rule 3653.

\* \* \*

[signifies omission of unaffected rule sections]

- (d) The following rules in this Part 3 shall apply to municipally owned utilities, which are qualifying retail utilities:

- (I) Rules 3650(c), 3653, 3654(b) and (c).

- (e) The following rules in this Part 3 shall apply to municipally owned utilities which are not qualifying retail utilities:

- (I) Rules 3650(d).

\* \* \*

[signifies omission of unaffected rule sections]

## RENEWABLE ENERGY STANDARD

### 3650. Applicability.

- (a) Rules 3650 to 3665 shall apply to all investor owned jurisdictional electric utilities in the state of Colorado ~~which are QRUs serve over 40,000 customers, that have not voted to exempt themselves, and that~~ are subject to the Commission's regulatory authority.
- (b) Rules 3651, 3652, 3654(b), (e) through (k), (m), (p); 3656(a), 3659(a)(I) through (a)(V), (b) through (k), 3660(j), 3661(c) through (d), (g),(j), (k), 3662(a)(I) through (a)(X), (b) through (e) shall apply to cooperative electric associations in the state of Colorado. ~~The board of directors of each QRU subject to these rules may, at its option, submit the question of its exemption from these rules to its consumers on a one meter equals one vote basis. Approval by a majority of those voting in the election shall be required for such exemption, providing that a minimum of 25 percent of eligible consumers participate in the election.~~
- ~~(f) Within 45 days of the conclusion of any vote for exemption, the QRU shall provide written notification of the outcome of the vote to the Director of the Commission.~~
- (c) Rules 3653, 3654(b) and (c) shall apply to municipally owned electric utilities in the state of Colorado, which are QRUs.
- ~~(de)~~ The board of directors of each municipally owned electric utility ~~or rural electric cooperative~~ not subject to these rules may, at its option, submit the question of whether to be subject to these rules to its consumers on a one meter equals one vote basis. Approval by a majority of those voting in the election shall be required for such inclusion, providing that a minimum of 25 percent of eligible consumers participates in the election.
- (l) Within 45 days of the conclusion of any vote to be subject to these rules, the municipally owned electric utility ~~or rural electric cooperative~~ shall provide written notification of the outcome of the vote to the Director of the Commission.
- ~~(d) For municipal utilities and cooperative electric associations that become qualifying retail utilities after December 31, 2006, the percentage requirements identified in rule 3654(a) shall begin in the first calendar year following qualification as follows:~~
- ~~(i) Years one through four: Three percent of retail electricity sales;~~
- ~~(ii) Years five through eight: Six percent of retail electricity sales; and~~
- ~~(iii) Years nine and thereafter: Ten percent of retail electricity sales.~~
- (e) Nothing in these rules is intended to expand the Commission's regulatory oversight and powers over municipally owned electric utilities or cooperative rural electric associations~~cooperatives~~.

### 3651. Overview and Purpose.

The purpose of these rules is to establish a process to implement the renewable energy standard for qualifying retail utilities in Colorado, pursuant to § 40-2-124, C.R.S.



Section 40-2-124, C.R.S., was enacted by the voters of the State of Colorado as 2004 Ballot Amendment 37 and was amended by the 2005 Colorado General Assembly by Senate Bill 05-143. Section 40-2-124 was further amended by the 2007 Colorado General Assembly by House Bill 07-1281.

Energy is critically important to Colorado's welfare and development, and its use has a profound impact on the economy and environment. Growth of the state's population and economic base will continue to create a need for new energy resources, and Colorado's renewable energy resources are currently underutilized.

Therefore, in order to save consumers and businesses money, attract new businesses and jobs, promote development of rural economies, minimize water use for electricity generation, diversify Colorado's energy resources, reduce the impact of volatile fuel prices, and improve the natural environment of the state, it is in the best interests of the citizens of Colorado to develop and utilize renewable energy resources to the maximum practicable extent.

It is the policy of this State to encourage local ownership of renewable energy generation facilities to improve the financial stability of rural communities.

### **3652. Definitions.**

The following definitions apply only to rules 3650 – 3665. In the event of a conflict between these definitions and a statutory definition, the statutory definition shall apply.

- (a) "Annual compliance report" means the report a QRU is required to file annually with the Commission pursuant to rule 3662 to demonstrate compliance with the Renewable Energy Standard.
- (b) "Biomass" means nontoxic plant matter consisting of agricultural crops or their byproducts, urban wood waste, mill residue, slash, or brush; animal wastes and products of animal wastes; or methane produced at landfills or as a by-product of the treatment of wastewater residuals.
- (c) "Community-based project" means a project located in Colorado and: (a) that is owned by individual residents of a community, nonprofit organization, cooperative, local government entity, or tribal council; (b) whose generating capacity does not exceed thirty megawatts; (c) for which there is a resolution of support adopted by the local governing body of each local jurisdiction in which the project is to be located; and d) is placed into service after the effective date of these rules.
- (de) "Compliance plan" means the annual plan a QRU is required to file with the Commission pursuant to rule 3657.
- (ee) "Compliance year" means a calendar year for which the renewable energy standard is applicable.
- (fe) "Eligible ~~renewable~~ energy" means ~~either~~ renewable energy, recycled energy or RECs, ~~or both~~.
- (gf) "Eligible ~~renewable~~ energy resources" are recycled energy or facilities that generate electricity by means of the following energy sources: solar radiation, wind, geothermal, biomass, hydropower, and fuel cells using hydrogen derived from eligible ~~renewable~~ energy resources. Fossil and nuclear fuels and their derivatives are not eligible energy resources. Hydropower resources in

existence on January 1, 2005 must have a nameplate rating of thirty megawatts or less. Hydropower resources not in existence on January 1, 2005 must have a nameplate rating of ten megawatts or less.

- (hg) “Off-grid on-site solar system” means an on-site solar system located on the premises of an end-use electric consumer located within the service territory of a QRU or an electric utility that is eligible to become a QRU pursuant to § 40-2-124(5)(b), C.R.S., that is not connected to, and operates completely independently from, the distribution system or transmission system facilities of any electric utility.
- (ih) “On-site solar system” means a solar renewable energy system located on the premises of an end-use electric consumer located within the service territory of a QRU or an electric utility that is eligible to become a QRU pursuant to § 40-2-124(5)(b), C.R.S. For the purposes of this definition, the non-residential end-use electric customer, prior to the installation of the solar renewable energy system, shall not have its primary business being the generation of electricity for retail or wholesale sale from the same facility. In addition, at the time of the installation of the solar renewable energy system, the non-residential end-use electric customer must use its existing facility for a legitimate commercial, industrial, governmental, or educational purpose other than the generation of electricity. An On-site solar system is limited to a maximum size of two MW.
- (ij) “Person” means Commission staff or any individual, firm, partnership, corporation, company, association, cooperative association, joint stock association, joint venture, governmental entity, or other legal entity.
- (kj) “Qualifying retail utility” or “QRU” means any provider of retail electric service in the state of Colorado other than municipally owned electric utilities that serves ~~over~~ 40,000 customers or less.
- (li) “Recycled energy” means energy produced by a generation unit with a nameplate capacity of not more than fifteen megawatts that converts the otherwise lost energy from the heat from exhaust stacks or pipes to electricity and that does not combust additional fossil fuel. Recycled energy does not include energy produced by any system that uses energy, lost or otherwise, from a process whose primary purpose is the generation of electricity, including, without limitation, any process involving engine-driven generation or pumped hydroelectricity generation.
- (mk) “Renewable energy” means energy generated from eligible ~~renewable~~ energy resources.
- (nl) “Renewable energy credit” or “REC” means a contractual right to the full set of non-energy attributes, including any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, directly attributable to a specific amount of electric energy generated from an eligible ~~renewable~~ energy resource. One REC results from one megawatt-hour of electric energy generated from an eligible ~~renewable~~ energy resource. For the purposes of these rules, RECs include, but are not limited to, S-RECs and SO-RECs.
- (om) “Renewable energy credit contract” means a contract for the sale of renewable energy credits without the associated energy.
- (pn) “Renewable energy standard” means the electric resource standard for eligible renewable energy resources specified in § 40-2-124, C.R.S.

Redline/strikeout indicates comparison to latest changes to rules made in Docket No. 06R-492E

- (ge) “Renewable energy supply contract” means a contract for the sale of renewable energy and the RECs associated with such renewable energy. If the contract is silent as to renewable energy credits, the renewable energy credits will be deemed to be combined with the energy transferred under the contract.
- (rp) “Solar electric generation technologies” means any technology that uses solar radiation energy to generate electricity.
- (se) “Solar on-site renewable energy credit” or “SO-REC” means a REC created by an on-site solar system.
- (tr) “Solar renewable energy credit” or “S-REC” means a REC created by a solar renewable energy system. For the purposes of these rules, S-RECs include, but are not limited to, SO-RECs.
- (us) “Solar renewable energy system” means a system that uses a solar electric generation technology to generate electricity.
- (vt) “Standard rebate offer” or “SRO” means a standardized incentive program offered by a QRU to its retail electric service customers for on-site solar systems that do not exceed 100 kW per installation.
- (wt) “Watt” means a unit of measure of alternating current electric power at a point in time, as capacity or demand. For the purposes of measurement of output from solar renewable energy systems used in the solar program, the watts referenced herein mean those determined by a nationally accepted testing organization.

**3653. Municipal ~~and Cooperative~~ Utilities.**

- (a) ~~Each If a~~ municipally owned ~~electric utility~~ QRU ~~shall or a rural electric cooperative~~ implements a renewable energy standard substantially similar to the provisions of § 40-2-124, C.R.S., ~~then the municipally owned electric utility or rural electric cooperative will have no obligations under this article.~~
- (b) ~~Each The~~ municipally owned ~~QRU utility or rural electric cooperative~~ implementing a renewable energy standard substantially similar to the provisions of § 40-2-124, C.R.S., shall submit a statement to the Commission that demonstrates its renewable energy standard program, at a minimum, meets the following criteria:
  - (I) The eligible ~~renewable~~ energy resources ~~shall~~ must be limited to those identified in subsection § 40-2-124(1)(a);
  - (II) The percentage requirements ~~shall~~ must be equal to or greater in the same years than those identified in subsection § 40-2-124(1)(c)(~~Vt~~) and counted in the manner allowed by Rule 3654(~~e~~); and
  - (III) The utility must have an optional pricing program in effect that allows retail customers the option to support through utility rates emerging renewable energy technologies.

- (c) The statement to be submitted by a municipally owned ~~QRU utility or rural electric cooperative~~ is for information purposes only and is not subject to approval by the Commission. Upon filing of the certification statement, the municipally owned QRU shall have no further obligations under these rules.
- (d) Nothing in this section prohibits a municipally owned electric utility ~~or a rural electric cooperative~~ from buying and selling RECs.

**3654. Renewable Energy Standard.**

- (a) Each investor owned QRU shall generate or cause to be generated (through purchase or by providing rebates or other form of incentive) eligible ~~renewable~~ energy in the following minimum amounts:
  - (I) Three percent of its retail electric energy sales in Colorado for ~~each of the compliance years 2007 through 2010~~;
  - (II) ~~Five~~Six percent of its retail electric energy sales in Colorado for each of the compliance years ~~2008~~11 through ~~2014~~14;
  - (III) Ten percent of its retail electric energy sales in Colorado for each compliance years 2011 through 2014; ~~beginning in 2015 and continuing thereafter.~~
  - (IV) Fifteen percent of its retail electric energy sales in Colorado for each compliance years 2015 through 2019; and
  - (V) Twenty percent of its retail electric energy sales in Colorado for each compliance years beginning in 2020 and continuing thereafter.
- (b) Each cooperative electric association QRU and municipally owned QRU shall generate or cause to be generated eligible energy in the following minimum amounts:
  - (I) One percent of its retail electric energy sales in Colorado for the compliance years 2008 through 2010;
  - (II) Three percent of its retail electric energy sales in Colorado for each of the compliance years 2011 through 2014;
  - (III) Six percent of its retail electric energy sales in Colorado for each compliance years 2015 through 2019; and
  - (IV) Ten percent of its retail electric energy sales in Colorado for compliance years beginning in 2020 and continuing thereafter.
- (c) For municipal utilities that become a municipally owned QRUs after December 31, 2006, the minimum percentage requirements of eligible energy shall begin in the first calendar year following qualification as follows:
  - (I) Years one through three: One percent of retail electricity sales;

- (II) Years four through seven: Three percent of retail electricity sales;
- (III) Years eight through twelve: Six percent of retail electricity sales; and
- (IV) Years thirteen and thereafter: Ten percent of retail electricity sales.
- (~~db~~) Of the eligible renewable energy amounts specified in Rrule 3654(a), each investor owned QRU shall derive at least four percent ~~shall be derived~~ from solar electric generation technologies. At least one-half of this four percent shall be derived from on-site solar systems located at customers' facilities
- (e) For purposes of compliance with the renewable energy standard specified in rules 3654(b) and (c), for cooperative electric association QRUs and municipal QRUs, each kilowatt-hour of eligible energy generated from solar electric generation technology shall be counted as 3.0 kilowatt-hours of eligible energy, provided that the solar electric generation technology commenced producing electricity prior to July 1, 2015. For solar electric generation technology that commenced producing electricity on or after July 1, 2015, each kilowatt-hour of eligible energy generated from solar electric generation technology shall be counted as 1.0 kilowatt-hours of eligible energy for compliance purposes.
- (~~fe~~) For purposes of compliance with the renewable energy standard, each kilowatt-hour of eligible ~~renewable~~ energy generated in Colorado shall be counted as 1.25 kilowatt-hours of eligible ~~renewable~~ energy.
- (g) For purposes of compliance with the renewable energy standard, each kilowatt-hour of eligible energy generated from a community-based project shall be counted as 1.5 kilowatt-hours of eligible energy.
- (h) For purposes of compliance with the renewable energy standard, each kilowatt-hour of eligible energy may take advantage of only one of the compliance multipliers in rules 3654(e), (f) or (g).
- (~~id~~) For purposes of compliance with ~~this the~~ renewable energy standard specified in rule 3654(a), a QRU may generate, or cause to be generated, and count eligible ~~renewable~~ energy for compliance:
- (I) For the compliance year immediately preceding the compliance year during which it was generated, provided that such eligible renewable energy is generated no later than July 1 of the calendar year immediately following the end of the compliance year for which it is being counted;
  - (II) For the compliance year during which it was generated; or
  - (III) For the five compliance years immediately following the compliance year during which it was generated.

- (IV) Eligible ~~renewable~~ energy generated on or after January 1, 2004 may be counted for compliance with this renewable energy standard. ~~Renewable-Eligible~~ energy or RECs generated on or before December 31, 2003 shall not be eligible for, and shall not be counted for, compliance with this renewable energy standard. The eligibility for compliance of all eligible ~~renewable~~ energy shall expire at the end of the fifth calendar year following the calendar year during which it was generated.
- (je) For purposes of compliance with this renewable energy standard, a QRU may substitute the equivalent RECs, S-RECs, or SO-RECs for eligible ~~renewable~~ energy.
- (kf) For the first four compliance years, 2007 through 2010, the QRU may borrow forward eligible ~~renewable~~ energy generated during the following two compliance years. Any borrowed eligible ~~renewable~~ energy generated during a compliance year must be made up by actual eligible ~~renewable~~ energy generated during that compliance year or borrowed from subsequent compliance years, provided that the 2010 compliance year is the last compliance year that borrowing forward may occur pursuant to this rule. For purposes of this rule, the term “borrow forward” means that a QRU may count eligible ~~renewable~~ energy that it has not yet generated or caused to be generated to satisfy its current year obligations toward compliance with the renewable energy standard and the term “made up” means that any counting of eligible ~~renewable energy~~ resources by a QRU in a compliance year that it had not actually generated nor caused to be generated shall be actually generated or caused to be generated in a subsequent year.
- (lg) For the first four compliance years, 2007 through 2010, no administrative penalties shall be assessed against an investor owned QRU if the failure to meet the renewable energy standard results from events beyond the reasonable control of the QRU which could not have reasonably been mitigated by the QRU.
- (mh) For purposes of compliance with this renewable energy standard, there shall be no “double counting” of renewable energy or RECs. Notwithstanding the foregoing, eligible renewable energy generated or acquired by a QRU and counted toward compliance with a federal renewable energy standard may also be counted by the QRU toward compliance with the renewable energy standard.
- (ni) A QRU may apply to the Commission for a determination as to whether eligible ~~renewable~~ energy sold by the QRU under an optional renewable energy pricing program may be counted by the QRU toward compliance with the renewable energy standard. Such eligible ~~renewable~~ energy shall not be counted toward compliance with the renewable energy standard until the Commission grants approval of the utility’s application following an evidentiary hearing.
- (oj) For purposes of compliance with this renewable energy standard, if a generation system uses a combination of fossil fuel and eligible renewable energy resources to generate electricity, a QRU may count only as eligible renewable energy the proportion of the total electric output of the generation system that results from the use of eligible renewable energy resources. The QRU shall include in its annual compliance plan the method of calculation used to determine the proportion of eligible renewable energy.
- (pk) The QRU may generate, or cause to be generated, eligible renewable energy without regard to economic dispatch procedures.

**3655. Resource Acquisition.**

- (a) It is the Commission's policy that utilities should meet the renewable energy standard in the most cost-effective manner. To this end, the investor owned QRU shall use competitive bidding for acquiring ~~renewable-eligible~~ energy from eligible ~~renewable~~ energy resources using solar electric generation technologies with nameplate rating greater than 100 kW.
- (b) Competitive solicitations shall be conducted by each investor owned QRU to achieve the statutory policies contained in the legislative declaration of intent. Whenever a QRU acquires ~~renewable-eligible~~ energy and/or RECs by competitive acquisition, to the extent possible, the solicitations and evaluations of proposals should be coordinated to avoid redundancy and to minimize the cost of acquiring such renewable energy and/or RECs. A QRU may conduct, in its discretion, separate solicitations or combined solicitations, for any of the following:
- (I) ~~Renewable-Eligible~~ energy from on-site solar systems;
  - (II) ~~Renewable-Eligible~~ energy from solar energy systems that are not on-site solar systems;
  - (III) ~~Renewable-Eligible~~ energy from non-solar resources such as wind, geothermal, biomass, hydropower, fuel cells;
  - (IV) Renewable energy credits (RECs);
  - (V) Solar renewable energy credits (S-RECs); and
  - (VI) Solar on-site renewable energy credits (SO-RECs).
- (c) The investor owned QRU may apply to the Commission, at any time, for review and approval of ~~renewable-eligible~~ energy supply contracts and renewable energy credit contracts. The Commission will review and rule on these contracts within sixty days of their filing. The Commission may set the contract for expedited hearing, if appropriate, under the Commission's Rules of Practice and Procedure. If the QRU enters into an ~~eligible renewable~~ energy supply contract or a renewable energy credit contract in a form substantially similar to the form of contract approved by the Commission as part of the investor owned QRU's compliance plan, that contract shall be deemed approved by the Commission under this rule.
- (d) ~~Renewable-Eligible~~ energy supply contracts entered into after ~~the effective date of these rules~~ July 2, 2006:
- (I) Shall be for the acquisition of both renewable energy and the associated RECs;
  - (II) May reflect a fixed price, or a price that varies by year;
  - (III) Shall have a minimum term of 20 years (or shorter at the sole discretion of the seller); and
  - (IV) Shall require the seller to relinquish all REC ownership associated with contracted renewable energy to the buyer.



- (e) Renewable energy credit contracts entered into after ~~the effective date of these rules~~ July 2, 2006:
  - (I) Shall be for the acquisition of RECs only;
  - (II) May reflect a fixed price, or a price that varies by time period; and
  - (III) Shall have a minimum term of 20 years if the REC is from an on-site solar system.
- (f) Competitive solicitations for eligible ~~renewable~~ energy from on-site solar systems that provide SO-RECs shall be conducted at least two times per year by each investor owned QRU in 2006 and 2007 and thereafter as necessary to comply with the renewable energy standard.
  - (I) The treatment of any solar-generated electricity generated on-site in excess of the consumption of the host facility will be governed by the net metering provisions pursuant to rule 3664.
- (g) Competitive solicitations for the acquisition of S-RECs may be conducted by each investor owned QRU as needed to comply with the renewable energy standard.
- (h) Competitive solicitations for ~~renewable-eligible~~ energy or RECs from eligible ~~renewable~~ energy resources other than on-site solar systems shall be conducted by each investor owned QRU in a timeframe that takes into account the projected needs of the QRU.
- (i) Each competitive solicitation pursuant to these rules shall be targeted toward acquiring the amount of eligible ~~renewable~~ energy required for compliance with each component of the renewable energy standard, and taking into account:
  - (I) The retail rate impact, and
  - (II) The estimated number of SO-RECs procured under and expected to be procured under the standing standard rebate offer.
- (j) Each investor owned QRU shall provide all parties to the bid process timely notice of bidding procedure.
- (k) Each investor owned QRU shall disclose, at the Commission's request, all information that will be used in the acquisition process, including but not limited to, interconnection and transmission studies, and methods for modeling or otherwise analyzing bids. Confidential information may be protected in accordance with rules 1100 through 1102 of the Commission's Rules of Practice and Procedure.
- (l) If the investor owned QRU intends to accept proposals for ~~renewable-eligible energy~~ resources from the QRU or from an affiliate of the QRU, it shall include a written separation policy and name an independent auditor whom the utility proposes to hire to review and report to the Commission on the fairness of the competitive acquisition process. The independent auditor shall have at least five years' experience conducting and/or reviewing the conduct of competitive electric utility resource acquisition, including computerized portfolio costing analysis. The independent auditor shall be unaffiliated with the utility; and shall not, directly or indirectly, have benefited from employment or contracts with the utility in the preceding five years, except as an independent



auditor under these rules. The independent auditor shall not participate in, or advise the utility with respect to, any decisions in the bid-solicitation or bid-evaluation process. The independent auditor shall conduct an audit of the utility's bid solicitation and evaluation process to determine whether it was conducted fairly. For purposes of such audit, the utility shall provide the independent auditor immediate and continuing access to all documents and data reviewed, used or produced by the utility in its bid solicitation and evaluation process. The utility shall make all its personnel, agents and contractors involved in the bid solicitation and evaluation available for interview by the auditor. The utility shall conduct any additional modeling requested by the independent auditor to test the assumptions and results of the bid evaluation analyses. Within 60 days of the utility's selection of final resources, the independent auditor shall file a report with the Commission containing the auditor's views on whether the utility conducted a fair bid solicitation and bid evaluation process, with any deficiencies specifically reported. After the filing of the independent auditor's report, the utility, other bidders in the resource acquisition process and other interested parties shall be given the opportunity to review and comment on the independent auditor's report.

- (m) Responses to competitive solicitations shall be evaluated and ranked by the investor owned QRU.
  - (I) In addition to the cost of the renewable-eligible energy and RECs, the QRU may take into consideration the characteristics of the underlying Eligible-eligible Renewable eEnergy Resource-resource that may impact the ability of the bidder to fulfill the terms of the bid including, but not limited to project in-service date, resource reliability, viability, economic development benefits, energy security benefits, amount of water used, fuel cost savings, environmental impacts including tradable emissions allowances savings, load reduction during higher cost hours, transmission capacity and scheduling, and any other factor the QRU determines is relevant to the QRU's needs.
  - (II) Bids with prices that vary by year will be evaluated by discounting the yearly prices at the utility discount rate.
  - (III) A QRU is not required to accept any bid and may reject any and all bids offered. However, each solicitation shall culminate in a report detailing the outcome of the solicitation and identifying which bids were selected, which were rejected, and why.
  - (IV) For purposes of comparing bids for RECs only with bids for electricity and RECs, the QRU shall assign a value for the electricity and subtract this value from the electricity and RECs bid, and evaluate bids on the basis of RECs only. The QRU shall include, as part of its Compliance Plan, a description of its methodology and price(s) it intends to use for this evaluation.
- (n) Within 15 days, the investor owned QRU shall notify respondents as to whether their bid has met the bid submission criteria.
- (o) Upon ranking of eligible bids, each investor owned QRU shall within 15 days indicate to all respondents with which proposals it intends to pursue a contract
- (p) If there is a dispute between a bidder and the investor owned QRU, either party may refer the dispute to the Commission for resolution.

**3656. Environmental Impacts.**

- (a) ~~Renewable electric generation facilities~~ Eligible energy resources must meet all applicable federal, state, and local environmental permitting requirements
- (b) For eligible ~~renewable~~ energy resources larger than two MW with any wind turbine structures extending over 50 feet in height, the investor owned QRU shall require project developers to include in the bid package written documentation that consultation occurred with appropriate governmental agencies (for example, the Colorado Division of Wildlife or the U.S. Fish and Wildlife Service) responsible for reviewing potential project development impacts to state and federally listed wildlife species, as well as species and habitats of concern.
- (c) For eligible ~~renewable~~ energy resources larger than two MW with any wind turbine structures extending over 50 feet in height, the investor owned QRU renewable energy supply contract shall require project developers to certify, as a condition precedent to achieving commercial operation, that the developer has performed and made publicly available site specific avian and other wildlife surveys conducted on the facility's site prior to construction. The developer shall further certify that the developer used the results of these surveys in the design, placement, and management of the facilities to ensure that the environmental impacts of facility development are minimized to state and federally listed species and species of special concern, sites shown to be local bird migration pathways, critical habitat and areas where birds or other wildlife are highly concentrated and are considered at risk.

**3657. QRU Compliance Plan.**

- (a) Every year on or before July 1, ~~beginning in 2007,~~ each investor owned QRU shall file with the Commission, by application, its proposed plan detailing how the QRU intends to comply with these rules during the next compliance year. ~~Each QRU shall file with the Commission, by application, its proposed plan for the 2007 compliance year within 60 days after the effective date of these rules.~~ Each annual QRU plan shall include rules, regulations and tariffs, if applicable, and the following:
  - (I) The QRU's:
    - (A) Determination of the retail rate impact pursuant to rule 3661;
    - (B) Estimate of its retail electricity sales;
    - (C) Estimate of the eligible ~~renewable~~ energy that the QRU already has acquired and the QRU's estimate of the additional eligible ~~renewable~~ energy that will be needed to meet the renewable energy standards;
    - (D) Estimate of the funds that the QRU will have available to generate, or cause to be generated, additional eligible ~~renewable~~ energy under the retail rate impact rule;
    - (E) Plan to acquire additional eligible ~~renewable~~ energy given the constraints of the retail rate impact rule, including the allocation of the funds available under the retail rate impact rule to acquire ~~renewable eligible~~ energy or RECs from each of

the following: on-site solar systems; solar ~~renewable~~ energy systems that are not on-site solar systems; and non-solar ~~renewable-eligible~~ energy;

- (F) Standard rebate offer and the QRU's estimate of the eligible ~~renewable~~ energy that will be acquired under the standard rebate offer;
  - (G) Plan to track how ~~it-the QRU~~ is responding to customers participating in the standard rebate offer program. The QRU shall track from the start of the application process to when the photovoltaic system commences generation.
  - (H) Plan to acquire the additional eligible ~~renewable~~ energy, including the QRU's use of competitive acquisitions to obtain the additional solar eligible renewable energy it needs to meet the renewable energy standard;
  - (I) The proposed request for proposal including any standard contracts to be included with the acquisition for all eligible renewable energy that the QRU plans to acquire by competitive acquisition; and
  - (J) Proposed ownership investment, if any, in eligible renewable energy resources and estimate of whether its investment will provide net economic benefits to the QRU's customers, entitling the QRU to extra profit on its investment, pursuant to rule 3660.
- (II) The competitive acquisition process for ~~renewable-eligible~~ energy resources, pursuant to rule 3655;
  - (III) The establishment of the initial level and adjustments to the standard rebate offer for solar electric generation resources, pursuant to rule 3658;
  - (IV) The treatment, tracking, counting and trading of RECs, pursuant to rule 3659;
  - (V) The establishment of a cost recovery mechanism, pursuant to rule 3660;
  - (VI) The net metering for renewable energy resources, pursuant to rule 3664; and
  - (VII) The interconnection of renewable energy resources, pursuant to rule 3665.
- (b) The Commission shall either approve the investor owned QRU's compliance plan or order modifications to the compliance plan. Investor owned QRU actions consistent with an approved compliance plan will be presumed prudent.
  - (c) The investor owned QRU may apply to the Commission at any time for approval of amendments to an approved compliance plan.

**3658. Standard Rebate Offer.**

- (a) Each investor owned QRU shall make available to its retail electricity customers a standard rebate offer of \$2.00 per watt for on-site solar systems, up to a maximum of 100 kW per system, that become operational on or after December 1, 2004. At the QRU's option, the standard rebate

offer may be paid based upon the direct current (DC) watts produced by the on-site solar systems. Any SO-RECs acquired by the QRU pursuant to such SRO program, regardless of whether the associated renewable energy is specifically metered or contractually specified without specific metering, may be counted by the QRU for purposes of compliance with the renewable energy standard.

- (b) On or before June 1, 2006, each QRU shall make a one-time offer to purchase, under a renewable energy credit contract, the SO-RECs associated with on-site solar systems, up to a maximum of ten kW per system existing prior to December 1, 2004, and off-grid on-site solar systems, up to a maximum of ten kW per system. The purchase price offered by the QRU for such SO-RECs shall be no less than the QRU's then current standard offer payment rate for SO-RECs, exclusive of the standard rebate payment, associated with the QRU's standard rebate offer and established pursuant to rule 3658. Subsequent offers shall be made at the discretion of the QRU. SO-RECs purchased by a QRU pursuant to this rule may be counted for purposes of compliance with the renewable energy standard.
- (c) The standard rebate offer of the investor owned QRUs shall be set forth at least annually and shall meet the following requirements:
- (I) The QRU need not offer a rebate for an on-site solar system smaller than 500 watts.
  - (II) The rebate must be made available to all retail utility customers of the QRU on a non-discriminatory, first-come, first-served basis, based upon the date of contract execution.
  - (III) Applicants who are accepted for SRO rebates shall have one year from the date of contract execution to demonstrate substantial completion of their proposed on-site solar system. Substantial completion means the purchase and installation on the customer's premises of all major system components of the on-site solar system. Customers who do not achieve substantial completion within one year will not receive a rebate, unless the substantial completion date is extended. When substantial completion of an on-site solar system has been achieved by an applicant pursuant to this rule the SO-RECs may be counted for purposes of compliance with the renewable energy standard. Within 30 days of substantial completion, the SRO rebate, pursuant to rule 3658(a), and SO-REC payment, pursuant to rule 3658(c)(VIII), shall be paid to the applicant.
  - (IV) With the exception of batteries, all on-site solar systems eligible for SRO rebates shall be covered by a minimum five-year warranty. Contracts will require customers to maintain the on-site solar system so that it remains operational for the term of the contract.
  - (V) On-site solar systems must consist of equipment that is commercially available and factory new when installed on the original customer's premises to be eligible for the SRO rebate. Rebuilt, used, or refurbished equipment is not eligible to receive the rebate.
  - (VI) Customers may contract to expand their on-site solar systems and obtain a rebate for the expanded capacity.
  - (VII) In order to receive the SRO rebate payment, the customer must enter into an agreement with the QRU, with a minimum term of 20 years, that transfers the SO-RECs generated

by the on-site solar system during the term of the agreement from the customer to the QRU.

- (VIII) For on-site solar systems, up to and including ten kW, that become operational on or after December 1, 2004, the QRU shall offer to make a one-time payment, in addition to the standard rebate payment, for the SO-RECs contracted to be transferred from the customer to the QRU. Any customer that receives the rebate payment and one-time SO-REC payment under this program shall not be entitled to any other compensation for the SO-RECs contracted to be transferred to the QRU. To facilitate installation of these small systems, all procedures, forms, and requirements shall be clear, simple, and straightforward to minimize the time and effort of homeowners and small businesses.
- (IX) For on-site solar systems greater than ten kW that become operational on or after December 1, 2004, the QRU, in addition to the standard rebate payment, shall offer to pay for the SO-RECs contracted to be transferred from the customer to the QRU. Such SO-RECs and the associated payments shall be determined by the specifically metered renewable energy output from the on-site solar system.
- (X) The customer or its representative shall provide a calculation of the annual expected kilowatt-hour production from the customer's on-site solar system. The customer or its representative shall provide the following documentation to back up the customer's calculation:
  - (A) Tilt of the system in degrees (horizontal = 0 degrees);
  - (B) Orientation of the system in degrees (south = 180 degrees);
  - (C) A representation that the orientation of the system is free of trees, buildings and or other obstructions that might shade the system measured from the center point of the solar array through a horizontal angle plus or minus 60 degrees and a through vertical angle between 15 degrees and 90 degrees above the horizontal plane.
  - (D) A calculation of the annual expected kWh of electricity produced by the system. For PV systems, the calculation of annual expected kWh of electricity will be based on the public domain solar calculator PVWatts Version 1 (or equivalent upgrade).
    - (i) The weather station that is either nearest to or most similar in weather to the installation site;
    - (ii) The system output rating which equals the module rating times the inverter efficiency times the number of modules;
    - (iii) Array type: fixed tilt, single axis tracking, or 2 axis tracking; For variable tilt systems, the PVWatts calculations can be run multiple times corresponding to the number of times per year that the system tilt is expected to be changed using those months corresponding to the specific tilt angle used;

- (iv) Array tilt (degrees); and
  - (v) Array azimuth (degrees).
- (E) In the event PVWatts is no longer available, an equivalent tool shall be established.
- (F) For on-site solar systems up to and including ten kW, the REC payment may be adjusted, either up or down, based on the calculation of expected kWh of electric output derived from rule 3658(X)(D) as compared with an optimally oriented fixed, i.e. non-tracking, system at the customer's location, but only if the calculated system output differs from the optimally oriented system output by more than ten percent.
- (XI) The level of SO-REC payments for systems of ten kW and smaller offered in connection with a QRU's SRO program may be adjusted from time to time as needed to achieve compliance with the renewable energy standard.
- (XII) The on-site solar system installed must remain in place on the customer's premises for the duration of its useful life. The customer's equipment must have electrical connections in accordance with industry practice for permanently installed equipment, and it must be secured to a permanent surface (e.g., foundation, roof, etc.). Any indication of portability, including, but not limited to, wheels, carrying handles, dolly, trailer or platform, will render the system ineligible for participation and payments under the SRO program.

**3659. Renewable Energy Credits.**

- (a) Renewable energy credits will be used to comply with the renewable energy standard. Eligible RECs acquired by contracts or through a system of tradable renewable energy credits, exchanges, or brokers may also be used by QRUs to comply with this standard. In calculating compliance, the total RECs acquired from eligible ~~renewable~~ energy resources during a compliance year may include:
- (I) RECs generated by eligible ~~renewable~~ energy resources owned by the QRU or by a QRU affiliate;
  - (II) RECs acquired by the QRU pursuant to ~~renewable-eligible~~ energy supply contracts;
  - (III) RECs acquired by the QRU pursuant to renewable energy credit contracts;
  - (IV) RECs acquired by the QRU pursuant to a ~~standing standard~~ offer program;
  - (V) RECs acquired through a system of tradable renewable energy credits, from exchanges or from brokers
  - (VI) RECs carried forward from previous compliance years, pursuant to rule 3654(~~id~~);
  - (VII) RECs borrowed forward from future compliance years, pursuant to rule 3654(~~fk~~).

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- (b) RECs representing electricity generated at eligible ~~renewable~~ energy resources ~~located in the state of Colorado~~ shall be counted ~~as 1.25 RECs for the compliance purposes of compliance consistent with the compliance multipliers in~~ rule 3654 ~~(e), (f), and (g)~~.
- (c) The Commission shall not restrict the QRU's ownership of RECs if the QRU complies with the renewable energy standard established in rule 3654 and does not exceed the retail rate impact established in rule 3661.
- (d) Subject to the maximum retail rate impact in rule 3661, the QRU shall have the discretion to determine, in a nondiscriminatory manner, the price it will pay for RECs from on-site customer facilities that are no larger than one hundred kilowatts.
- (ee) All contracts between QRUs and the owners of eligible renewable energy resources entered into after the effective day of these rules shall clearly specify the entity who shall own the RECs associated with the energy generated by the facility.
- (fd) A renewable energy credit shall expire at the end of the fifth calendar year following the calendar year during which it was generated.
- (ge) Renewable energy credits that are generated on or after January 1, 2004 may be counted for compliance with this renewable energy standard.
- (hf) RECs shall be used for a single purpose only, and shall expire or be retired upon use for that purpose. All RECs utilized by the QRU to comply with the renewable energy standard:
  - (I) May not be sold or otherwise exchanged with any other party, or in any other state or jurisdiction;
  - (II) May not be included within a blended energy product certified to include a fixed percentage of renewable energy in any other state or jurisdiction;
  - (III) May be counted simultaneously toward compliance with a federal renewable portfolio standard and with the renewable energy standard.
- (ig) RECs that are generated with fuel cell energy using hydrogen derived from an eligible renewable energy resource are eligible for compliance purposes only to the extent that the energy used to generate the hydrogen did not create renewable energy credits.
- (jh) If a renewable energy system uses an eligible renewable energy resource in combination with a nonrenewable energy source to generate electricity, only the RECs associated with the proportion of the total electric output of the renewable energy system that results from the use of eligible renewable energy resources shall be eligible to count toward compliance with the renewable energy standard.
- (ki) If an on-site solar systems of ten kW or below has received a one-time REC payment from a QRU under rule 3658, the QRU shall be entitled to count the anticipated SO-RECs purchased by the one-time REC payment for compliance with the renewable energy standard even if the on-site solar systems is removed or becomes inoperable.



(lj) An investor owned QRU:

- (I) Shall develop an auditable process to account for RECs using a central database. In the absence of a central third-party database, the QRU shall maintain its own REC internal database and shall make an extract of the REC information available on the utility's website.
- (II) Shall designate within its database any REC sold to a wholesaler if the REC has been assigned to that wholesaler.
- (III) Shall apply for the inclusion of any losses or gains from the purchase or sale of RECs through an appropriate adjustment clause mechanism.
- (IV) Shall hire an independent auditor to verify the accuracy of the QRU internal database which tracks REC. The independent verification shall occur after two years then every three years thereafter.

(mk) The investor owned QRU shall record REC information from eligible ~~renewable~~ energy resources in a central database. The database shall include, but not be limited to, a list of all eligible renewable energy resources the QRU intends to use for compliance with the renewable energy standard, including their type, location, owner, operator, start of operation, actual REC generation, ownership, transfer and retirement. A summary database shall be provided to the Commission Staff and be publicly viewable via the Commission's ~~worldwide-web~~ site. Owners of eligible renewable energy resources with nameplate ratings of 100kW or below and larger eligible renewable resources, at their option, shall have their name and address encoded for privacy. Systems that are encoded for privacy shall have a unique identifying number assigned, and will continue to have the zip code reported.

(nl) In conjunction with the QRU ~~C~~ compliance plans specified in rule 3657, a QRU may make a request that the Commission allow the use of a central third-party database to account for RECs. If a QRU proposes to use a central third-party database for the accounting of RECs, the QRU must show that the central third-party database can be readily audited by the Commission Staff to verify that the renewable energy standard is met and that the alternative system is cost effective.

**3660. Cost Recovery and Incentives.**

- (a) The investor owned QRU shall be entitled to timely cost recovery through retail rate mechanisms for all funds prudently expended to comply with these rules, including the costs the QRU incurs to administer the standard rebate offer and the acquisitions of eligible renewable energy resources. The QRU shall be entitled to recover its investment and expenses associated with these rules through appropriate adjustment clauses that allow recovery of expenditures without the full resetting of electric rates.
- (b) In advance of the approval of the first compliance plan, an investor owned QRU may propose, by application, to implement a forward-looking cost recovery mechanism to provide funding for implementing the renewable energy standard. In its application, the QRU must demonstrate that the funding mechanism proposed will not exceed the retail rate impact test. If approved, the forward-looking funding mechanism may be implemented prior to the first compliance year. Each



QRU with a forward-looking cost recovery mechanism shall separately identify the forward-looking cost recovery mechanism on its customers' bills.

- (l) Interest shall accrue on the unexpended balance of funds collected from a forward-looking rider. The interest rate shall be at the Commission's customer deposit interest rate at the time of the rider. A QRU may request interest on any funds it expends in excess of those collected through the forward-looking rider. The request for interest on excess expenditures shall include the reason(s) for the excess expenditures. The request for interest shall be included as part of the annual compliance report, pursuant to rule 3662.
- (c) If the investor owned QRU incurs costs in acquiring eligible ~~renewable~~ energy to meet the renewable energy standard that exceed the maximum retail rate impact, the QRU shall be entitled to carry forward these costs to a future year for cost recovery. These carried forward amounts shall not increase the amounts that a QRU may charge customers under the retail rate impact rule.
- (d) The investor owned QRU shall be entitled to earn an extra profit on the QRU's ownership investment in a specific eligible ~~renewable~~ energy resource if that eligible renewable energy resource provides net economic benefits to customers. For these investments, the QRU shall be entitled to a return equal to the QRU's most recent authorized rate of return on rate base plus a bonus limited to 50 percent of the of the net economic benefit as long as the QRU is in compliance with these rules implementing the renewable energy standard. If the QRU's investment in a specific eligible renewable energy resource does not provide a net economic benefit to customers, the QRU shall be entitled to a return equal to the QRU's most recent authorized rate of return on rate base.
  - (l) For the purposes of this rule 3660, net economic benefit shall mean that the specific eligible ~~renewable~~ energy resource in which the QRU has made an ownership investment results in an average retail rate impact less than the rate impact that would have resulted from the acquisition of the alternative eligible renewable energy resource meeting the same component of the renewable energy standard that would have been selected absent the QRU's investment. The QRU shall set forth its calculation of the proposed net economic benefit either at the time of a compliance plan filing, an annual compliance report filing, a QRU rate filing or by application. The Commission shall determine the level of the net economic benefit and the level of the bonus after review of the utility's filing. The Commission may set the matter for hearing if appropriate under the Commission's Rules of Practice and Procedure.
  - (ll) To the extent that a QRU uses computer modeling in its analysis of net economic benefit, the QRU shall use the same methodologies and assumptions it used in its most recently approved least-cost planning case, except as otherwise approved by the Commission. Confidential information may be protected in accordance with rules 1100 through 1102 of the Commission's Rules of Practice and Procedure.
  - (lll) Any net economic benefit for which the QRU qualifies to receive a bonus shall be included in the calculation of the retail rate impact rule pursuant to rule 3661.

- (e) An investor-owned QRU may propose to develop and own, in whole or in part, a new eligible energy resource by filing an application with the Commission. The Commission shall determine whether the new eligible energy resource can be constructed at a reasonable cost compared to the cost of similar eligible energy resources available in the market. In addition to determining the reasonability of costs, the Commission shall determine if the proposed new eligible energy resource would provide significant economic development, employment, energy security, or other benefits to the state of Colorado. The Commission may set the matter for hearing, if appropriate, under the Commission's Rules of Practice and Procedure. For the purpose of this rule 3660(e):
- (I) A QRU shall be allowed to develop and own as utility rate-based property, without being required to comply with the competitive bidding requirements in rule 3655, up to twenty-five percent of the total new eligible energy resources that the QRU acquires from entering into power purchase agreements and from developing and owning resources after March 27, 2007 if the Commission determines that the QRU-owned new eligible energy resource can be constructed at a reasonable cost compared to the cost of similar eligible energy resources available in the market.
  - (II) A QRU shall be allowed to develop and own as utility rate-based property, without being required to comply with the competitive bidding requirements in rule 3655, up to fifty percent of the total new eligible energy resources that the QRU acquires from entering into power purchase agreements and from developing and owning resources after March 27, 2007 if the Commission determines that the QRU-owned new eligible energy resource can be constructed at a reasonable cost compared to the cost of similar eligible energy resources available in the market and that the proposed new eligible energy resource would provide significant economic development, employment, energy security, or other benefits to the state of Colorado.
  - (III) The QRU shall be allowed to develop and own as utility rate-based property up to one-hundred percent of the total new eligible energy resources if the QRU bids to own the new eligible energy resources in a competitive solicitation.
  - (IV) The QRU may develop and own new eligible energy resources either solely or jointly with other owners. If the QRU owns the new eligible energy resource jointly, the entire jointly owned resource shall count toward the percentage limitations set forth in rule 3660(e).
  - (V) Nothing in rule 3660(e) shall prevent the Commission from waiving, repealing, or revising any Commission rule in a manner otherwise consistent with applicable law.
- (f) When an investor owned QRU applies for a certificate of public convenience and necessity, the Commission shall consider rate recovery mechanisms that provide for earlier and timely recovery of costs prudently and reasonably incurred by the QRU in developing, constructing, and operating the eligible energy resource, including: (a) rate adjustment clauses until the costs of the eligible energy resource can be included in the utility's base rates; and (b) a current return on the utility's capital expenditures during construction at the utility's weighted average cost of capital, including its most recently authorized rate of return on equity, during the construction, startup, and operation phases of the eligible energy resource.
- (ge) The utility is entitled to recover through rates, its prudently incurred expenditures. While not the exclusive method for establishing prudence, if the Commission approves an eligible renewable

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energy supply contract or a renewable energy credit contract, the expenditures of the investor owned QRU under the contract shall be deemed to be prudent expenditures.

- (hf) If the investor owned QRU recovers fuel and purchased energy expense through an incentive adjustment clause, the QRU shall not receive a benefit from the incentive adjustment clause for the energy generated from QRU-owned eligible renewable energy resources, but the QRU shall be entitled to recover all the fuel and purchased energy costs associated with the eligible ~~renewable~~ energy resource.
- (ig) If a wholesale customer agrees to pay the full costs associated with the acquisition of renewable eligible energy resources and associated RECs by its wholesale provider by providing notice of its intent to pay the full costs within sixty days after the wholesale provider extends the offer, the wholesale customer shall be entitled to receive the appropriate credit toward the renewable energy standard as well as any associated RECs. To the extent that the full costs are not recovered from wholesale customers, a QRU shall be entitled to recover those costs from retail customers.
- (j) Each wholesale energy provider shall offer to its wholesale customers that are cooperative electric associations the opportunity to purchase their load ratio share of the wholesale energy provider's electricity from eligible energy resources. The wholesale customer shall provide notice of its intent to pay the full costs within sixty days after the wholesale provider extends the offer.

#### 3661. Retail Rate Impact.

- (a) The net rate impact of actions taken by an investor owned QRU to comply with the renewable energy standard shall not exceed ~~two~~ percent of the total electric bill annually for each customer of that QRU.
- (b) The net rate impact of actions taken by a cooperative electric association QRU to comply with the renewable energy standard shall not exceed one percent of the total electric bill annually for each customer of that QRU.
- ~~(cb)~~ The net rate impact shall include the prudently incurred direct and indirect costs of all actions by a QRU to meet the renewable energy standard, including, but not limited to, program administration, rebates and performance-based incentives, payments under renewable energy supply contracts, payments under renewable energy credit contracts, payments made for RECs purchased through brokers or exchanges, computer modeling and analysis time, and QRU investment in and return on investment for eligible renewable energy resources.
- ~~(de)~~ The administrative costs of a QRU to implement these rules is capped at ten percent per year of the total annual collection. A QRU may include in its compliance plan a waiver request of this rule during the initial ramp-up stage of the QRU's program.
- ~~(ed)~~ For purposes of calculating the retail rate impact, the investor owned QRU shall use the same methodologies and assumptions it used in its most recently approved least-cost planning case, unless otherwise approved by the Commission. Confidential information may be protected in accordance with rules 1100 through 1102 of the Commission's Rules of Practice and Procedure.

- (fe) In its compliance plan filed under rule 3657, the investor owned QRU shall estimate the retail rate impact of its plan to comply with the renewable energy standard over the upcoming compliance year and shall submit a report detailing the development of the retail rate impact estimate. The compliance plan shall identify the funds that need to be made available to the QRU to comply with the renewable energy standard and the retail rate impact rule. By approving the QRU's compliance plan of an investor owned QRU, the Commission will be approving the investor owned QRU's budget for acquiring eligible renewable energy over the compliance year. Once approved by the Commission, the investor owned QRU shall implement its compliance plan. Actions taken by an investor owned QRU in compliance with the filed and approved compliance plan shall be deemed prudent.
- (g) The retail rate impact shall be determined net of new alternative sources of electricity supply from non-eligible energy resources that are reasonably available at the time of the determination.
- (hf) The basic method for investor owned QRUs for performing the estimate of the retail rate impact limit is as follows:
- (I) The QRU shall determine all commercially available resources to the QRU, either through ownership or by contract, at the time of the beginning of the compliance year and for a minimum of the ten years thereafter (the "RES planning period"). The projected costs of these available resources shall be reflected in both of the scenarios analyzed by the QRU's computer planning models under this paragraph. The QRU shall determine the QRU's capacity and energy requirements over the RES planning period. The QRU shall develop two scenarios to estimate the resource composition of the QRU's future electric system and the cost of that system over the RES Planning Period. The first scenario, a renewable energy standard plan or "RES plan" should reflect the QRU's plans and actions to acquire new eligible renewable energy necessary to meet the renewable energy standard reflecting a gradual ramp-up to the ten percent level. The second scenario, a "No RES plan" should reflect the QRU's resource plan that meets the QRU's capacity and energy requirements over the RES planning period by replacing the new eligible renewable energy resources in the RES plan with new nonrenewable resources reasonably available. For purposes of this rule, new eligible renewable energy means eligible renewable energy from resources which are not commercially operational at the time these two modeling scenarios are performed.
  - (II) The QRU shall use the comparison of the two model runs of the RES planning period along with any additional analysis needed to calculate the estimated annual net retail rate impact for the first compliance year of the RES planning period. The maximum retail rate impact shall not exceed one percent of the total retail bill annually for each customer. To the extent the RES plan exceeds this maximum retail rate impact, the QRU shall modify the RES plan to limit the acquisition of eligible renewable energy so that the QRU compliance plan does not exceed the maximum retail rate impact for the first compliance year of the RES planning period. In calculating the annual net retail rate impact in each compliance plan for the first compliance year of the RES planning period, the QRU shall take into account the on-going annual costs of all eligible renewable energy that the QRU has contracted to acquire under the standard rebate offer under rule 3658 and all Eligible renewable energy from resources that were constructed by the QRU or contracted for by the QRU after the effective date of these rules.

- (ig) Any investor owned QRU with annual retail sales of less than five million megawatt-hours can use an alternate method to determine the estimate of the retail rate impact. The alternative method can be used for those RES planning period years when the only remaining portion of the renewable energy standard with which the QRU needs to comply is the eligible renewable energy that must be acquired from solar electric generating technologies.
- (I) The retail rate impact will be determined by using the estimated costs of the proposed solar electric generating technologies less the estimated annual average costs of energy of existing resources that would be replaced with energy generated by the proposed solar electric generating technologies. The QRU shall also incorporate into this retail rate impact analysis other cost savings created by the deployment of the solar electric generating technologies and any other cost savings from the deployment of other non-solar renewable energy resources used to meet the standard. These cost savings include, but are not limited to, the avoided or deferred costs of generation, transmission and distribution facilities.
- (II) The QRU will then convert this net cost figure into a percent of total electric bill annually for each customer. In no event shall the percent of total electric bill annually exceed one percent for each customer. To the extent that the net cost figure results in the QRU exceeding the one percent for each customer threshold, the QRU shall modify its acquisition of solar electric generating technologies in order to not exceed the maximum retail rate impact.

(j) SEEK RULEMAKING PARTICIPANTS COMMENT ON HOW TO DEVELOP RETAIL RATE IMPACT METHODOLOGY FOR COOPERATIVE ELECTRIC ASSOCIATIONS.

- (k) If the retail rate impact does not exceed the maximum percent level, a QRU may acquire more than the minimum amount of eligible energy resources and RECs required under the renewable energy standard.

**3662. Annual Compliance Report.**

- (a) Beginning in 2007, the investor owned and cooperative electric association QRUs shall file an annual compliance report on June 1 to report on the status of the QRU's compliance with the renewable energy standard for the most recently completed compliance year. The annual compliance report shall provide the following information for the most recently completed compliance year:
- (I) The total megawatt-hours sold by the QRU to its retail customers in Colorado and the associated eligible renewable energy required for compliance with each component of the renewable energy standard;
- (II) The total amount and source of eligible renewable energy acquired by the QRU during the compliance year for each component of the renewable energy standard. The QRU shall separately identify amounts of eligible renewable energy by each type of resource;
- (III) The total amount of eligible renewable energy borrowed forward, pursuant to rule 3654(f), in previous compliance years that was made up during the compliance year to achieve compliance with each component of the renewable energy standard;

- (IV) The total amount of eligible renewable energy borrowed forward, pursuant to rule 3654(f), from future compliance years to achieve compliance with each component of the renewable energy standard in the compliance year;
  - (V) The total amount and source of eligible renewable energy the QRU is carrying back from the year following the compliance year under rule 3654(d)(l) to achieve compliance with each component of the renewable energy standard in the compliance year;
  - (VI) The total amount of eligible renewable energy the QRU has carried forward from prior calendar years under rule 3654(d)(III) to apply in the compliance year for each component of the renewable energy standard.
  - (VII) The total amount of eligible renewable energy the QRU has acquired in the compliance year that the QRU proposes to carry forward under rule 3654(d)(III) to future years for each component of the renewable energy standard;
  - (VIII) The total amount of eligible renewable energy the QRU has counted toward compliance with each component of the renewable energy standard in the compliance year. The QRU shall separately identify amounts of eligible renewable energy by each type of resource;
  - (IX) The total amount of renewable energy or RECs acquired by the QRU during the compliance year pursuant to the standard rebate offer program;
  - (X) Whether the QRU has invested in any eligible renewable energy resource and whether that resource is under construction or in operation; and
  - (XI) The funds expended and the retail rate impact of the eligible renewable energy acquired. The retail rate impact cap shall be recalculated based on the actual compliance year values if the QRU developed the retail rate impact cap pursuant to rule 3661(gf). To the extent the recalculation of the retail rate impact cap demonstrates that additional funds are available based on actual compliance year values, the QRU shall use those additional funds to acquire RECs, to the extent necessary, to achieve the compliance levels set forth in rules 3654(a) and (b) or until the additional funds have been spent if the QRU intends to claim that the retail rate impact cap prevented it from achieving compliance with the standard.
- (b) In the annual compliance report, the QRU must explain whether it achieved compliance with each component of the renewable energy standard during the most recently completed compliance year, or explain why the QRU had difficulty meeting the renewable energy standard.
- (c) If, in its annual compliance report, the QRU did not comply with its renewable energy standard for each of the RES components as a direct result of absolute limitations within a requirements contract from a wholesale electric supplier, then the QRU must explain whether it acquired a sufficient amount of either eligible RECs or documented and verified energy savings through energy efficiency and/or conservation programs, or both to rectify the noncompliance so as to excuse the investor owned QRU from any administrative fine or other administrative action.



- (d) On the same date that the QRU files its annual compliance report, the QRU shall post an electronic copy of its annual compliance report excluding confidential material on its website to facilitate public access and review.
- (e) On the same date that the QRU files its annual compliance report, it shall provide the Commission with an electronic copy of its annual compliance report excluding confidential material. The Commission may place the non-confidential portion of each QRU's annual compliance report on the Commission's website in order to facilitate public review.

**3663. Compliance Report Review.**

- (a) Compliance reporting [for investor owned QRUs](#).
  - (I) In the annual compliance report, the QRU must explain whether it complied with its renewable energy standard for the solar, on-site solar and non-solar components during the most recently completed compliance year.
  - (II) Upon receipt of the QRU annual compliance report, the Commission will provide notice to interested persons. Interested persons will have 30 days within which to provide comment to the Commission on the content of the annual compliance report. The QRU shall have the opportunity to reply to all comments on or before 45 days following the filing of the annual compliance report.
  - (III) The Staff of the Commission shall review the annual compliance report and any comments received and within 60 days of the filing of the annual compliance report make a recommendation to the Commission as to whether the QRU has met the renewable energy standard and no action should be taken by the Commission, whether any changes are needed to the compliance report, or whether a hearing is necessary.
  - (IV) Upon review of the QRU's annual compliance report, the Staff recommendation and all comments filed, the Commission will issue an order stating whether the QRU complied with the components of its renewable energy standard during the most recently completed compliance year and state whether a hearing is necessary.
  - (V) If the Commission determines that the total number of RECs which the QRU generated or acquired from renewable energy systems during the most recently completed compliance year exceeded the total number of RECs which the QRU needed to comply with each component of its renewable energy standard for the recently completed compliance year:
    - (A) The Commission will state in its order the number of excess solar, on-site solar and/or non-solar RECs which the QRU has available to carry forward from that compliance year or use for any other legal purpose.
    - (B) The QRU may use those excess solar, on-site solar and/or non-solar RECs to comply with its renewable energy standard for the five compliance years immediately following that compliance year.

(b) Compliance report hearing [for investor owned QRUs](#).

- (I) If the Commission determines that the QRU did not comply with the solar, on-site solar or non-solar components of its renewable energy standard during the most recently completed compliance year, the Commission will determine whether the QRU failed to meet the renewable energy standard because of the retail rate impact limit. The Commission will:
  - (A) State in its order the number of RECs by which the QRU failed to comply with each of the solar, on-site solar and non-solar components of its renewable energy standard; and
  - (B) State whether the Commission is satisfied that the failure to meet the renewable energy standard was due to the retail rate impact limit. If the Commission is not satisfied on this issue, the Commission will issue a notice of possible noncompliance and schedule an evidentiary hearing on the matter.
- (II) At the evidentiary hearing, if the QRU asserts that the renewable energy standard was not met due to the retail rate impact, it will have the burden of proof that it failed to comply with the solar, on-site solar and non-solar components of its renewable energy standard during the most recently completed compliance year because of the retail rate impact.
- (III) At the evidentiary hearing, any party that advocates that the QRU failed to comply with the components of the QRU's renewable energy standard during the most recently completed compliance year is the proponent of a Commission order finding non-compliance, and that party shall have the burden of proof that the QRU failed to comply with the solar, on-site solar and non-solar components of its renewable energy standard during the most recently completed compliance year. The QRU may assert that the renewable energy standard was not met due to events beyond the reasonable control of the QRU that could not have been reasonably mitigated.

(c) Compliance penalties [for investor owned QRUs](#).

- (I) After notice and hearing, if the Commission determines that the QRU did not fully comply with any of the solar, on-site solar and non-solar components of its renewable energy standard during the most recently completed compliance year, the Commission shall determine what, if any, administrative penalties should be assessed against the QRU for its failure to meet the renewable energy standard. In assessing penalties, the Commission may take one or more of the following actions:
  - (A) Determine for each component for which there was noncompliance the cost that would have been incurred by the QRU to fully comply with such component standard through the acquisition of RECs and assess all or part of this amount as part of an administrative penalty.
  - (B) No administrative penalties shall be assessed against a QRU if the amount of the shortfall is attributable to the retail rate impact limit.



- (C) Assess no administrative penalties against a QRU if the failure to meet the renewable energy standard results from events beyond the reasonable control of the QRU that could not have been reasonably mitigated including, but not limited to, failures to perform by counterparties to renewable energy supply contracts and renewable energy credit contracts, events that delay the construction or commercial operation of QRU-owned eligible renewable energy resources, and lack of customer interest in the standard rebate offer.
- (II) The cost of such administrative penalties shall not be recovered from retail customers through the QRU's rates.

**3664. Net Metering.**

- (a) All investor owned QRUs shall allow the customer's retail electricity consumption to be offset by the electricity generated from eligible renewable energy resources on the customer's side of the meter that are interconnected with the QRU, provided that the generating capacity of the customer's facility meets the following two criteria:
  - (I) The rated capacity of the generator does not exceed 2000 kW; and
  - (II) The rated capacity of the generator does not exceed the customer's service entrance capacity.
- (b) If a customer with an eligible renewable energy resource generates renewable energy pursuant to subsection (a) of rule 3664 in excess of the customer's consumption, the excess kilowatt-hours shall be carried forward from month to month and credited at a ratio of 1:1 against the customer's retail kilowatt-hour consumption in subsequent months. Within 60 days of the end of each calendar year, or within 60 days of when the customer terminates its retail service, the QRU shall compensate the customer for any accrued excess kilowatt-hour credits, at the QRU's average hourly incremental cost of electricity supply over the most recent calendar year.
- (c) The QRU shall file tariffs that comply with these rules within 30 days of the effective date of these rules.
- (d) A customer's facility that generates renewable energy from an eligible renewable energy resource shall be equipped with metering equipment that can measure the flow of electric energy in both directions. The QRU shall utilize a single bi-directional electric revenue meter.
- (e) If the customer's existing electric revenue meter does not meet the requirements of these rules, the QRU shall install and maintain a new revenue meter for the customer, at the company's expense. Any subsequent revenue meter change necessitated by the customer shall be paid for by the customer.
- (f) The QRU shall not require more than one meter per customer to comply with this rule 3664. Nothing in this rule 3664 shall preclude the QRU from placing a second meter to measure the output of a solar renewable energy system for the counting of RECs subject to the following conditions:

- (I) For customer facilities over ten kW, a second meter shall be required to measure the solar renewable energy system output for the counting of RECs.
- (II) For systems ten kW and smaller, an additional meter may be installed under either of the following circumstances:
  - (A) The QRU may install an additional production meter on the solar renewable energy system output at its own expense if the customer consents; or
  - (B) The customer may request that the QRU install a production meter on the solar renewable energy system output in addition to the revenue meter at the customer's expense.
- (g) A QRU shall provide net metering service at non-discriminatory rates to customers with eligible renewable energy resources. A customer shall not be required to change the rate under which the customer received retail service in order for the customer to install an eligible renewable energy resource. Nothing in this rule shall prohibit a QRU from requesting changes in rates at any time.

[Rules 3665 – 3999 omitted, unaffected rule sections]