

AMENDMENT TO H.R. 2454
OFFERED BY MR. CARDOZA OF CALIFORNIA

Page 296, after line 6, insert the following new section:

1 **SEC. 199. NET METERING AND INTERCONNECTION STAND-**
2 **ARDS.**

3 (a) IN GENERAL.—Section 113 of the Public Utility
4 Regulatory Policies Act of 1978 (16 U.S.C. 2623) is
5 amended by adding at the end the following:

6 “(d) NET METERING.—

7 “(1) DEFINITIONS.—In this subsection and
8 subsection (e):

9 “(A) CUSTOMER-GENERATOR.—The term
10 ‘customer-generator’ means the owner or oper-
11 ator of a qualified generation unit.

12 “(B) ELECTRIC GENERATION UNIT.—The
13 term ‘electric generation unit’ means—

14 “(i) a qualified generation unit; and

15 “(ii) any electric generation unit that
16 qualifies for net metering under a net me-
17 tering tariff or rule approved by a State.

18 “(C) LOCAL DISTRIBUTION SYSTEM.—The
19 term ‘local distribution system’ means any sys-

1 tem for the distribution of electric energy to the
2 ultimate consumer of the electricity, whether or
3 not the owner or operator of the system is a re-
4 tail electric supplier.

5 “(D) NET METERING.—The term ‘net me-
6 tering’ means the process of—

7 “(i) measuring the difference between
8 the electricity supplied to a customer-gen-
9 erator and the electricity generated by the
10 customer-generator that is delivered to a
11 local distribution system at the same point
12 of interconnection during an applicable
13 billing period; and

14 “(ii) providing an energy credit to the
15 customer-generator in the form of a kilo-
16 watt-hour credit for each kilowatt-hour of
17 energy produced by the customer-generator
18 from a qualified generation unit.

19 “(E) QUALIFIED GENERATION UNIT.—The
20 term ‘qualified generation unit’ means an elec-
21 tric energy generation unit that uses as the en-
22 ergy source of the unit solar energy to generate
23 electricity to heat or cool that—

1 “(i) is located on premises that are
2 owned, operated, leased, or otherwise con-
3 trolled by the customer-generator;

4 “(ii) operates in parallel with the re-
5 tail electric supplier; and

6 “(iii) is intended primarily to offset all
7 or part of the requirements of the cus-
8 tomer-generator for electric energy.

9 “(F) RETAIL ELECTRIC SUPPLIER.—The
10 term ‘retail electric supplier’ means any electric
11 utility that sells electric energy to the ultimate
12 consumer of the energy.

13 “(2) ADOPTION.—Not later than 1 year after
14 the date of enactment of this subsection, each State
15 regulatory authority (with respect to each electric
16 utility for which the State regulatory authority has
17 ratemaking authority), and each nonregulated elec-
18 tric utility, shall—

19 “(A) provide public notice and conduct a
20 hearing with respect to the standards estab-
21 lished under paragraph (3); and

22 “(B) on the basis of the hearing, adopt the
23 standard.

24 “(3) ESTABLISHMENT OF NET METERING
25 STANDARD.—

1 “(A) IN GENERAL.—Each retail electric
2 supplier shall offer to arrange (either directly or
3 through a local distribution company or other
4 third party) to make net metering available, on
5 a first-come, first-served basis, to each of the
6 retail customers of the retail electric supplier in
7 accordance with the requirements described in
8 subparagraph (B) and other provisions of this
9 subsection.

10 “(B) REQUIREMENTS.—The requirements
11 referred to in subparagraph (A) are, with re-
12 spect to a retail electric supplier, that—

13 “(i) rates and charges and contract
14 terms and conditions for the sale of electric
15 energy to customer-generators shall be the
16 same as the rates and charges and con-
17 tract terms and conditions that would be
18 applicable if the customer-generator did
19 not own or operate a qualified generation
20 unit and use a net metering system; and

21 “(ii) each retail electric supplier shall
22 notify all of the retail customers of the re-
23 tail electric supplier of the standard estab-
24 lished under this paragraph as soon as

1 practicable after the adoption of the stand-
2 ard.

3 “(4) NET ENERGY MEASUREMENT.—

4 “(A) IN GENERAL.—Each retail electric
5 supplier shall arrange to provide to customer-
6 generators who qualify for net metering under
7 subsection (b) an electrical energy meter capa-
8 ble of net metering and measuring, to the max-
9 imum extent practicable, the flow of electricity
10 to or from the customer, using a single meter
11 and single register.

12 “(B) IMPRACTICABILITY.—In a case in
13 which it is not practicable to provide a meter to
14 a customer-generator under subparagraph (A),
15 a retail electric supplier (either directly or
16 through a local distribution company or other
17 third party) shall, at the expense of the retail
18 electric supplier, install 1 or more of those elec-
19 tric energy meters for the customer-generators
20 concerned.

21 “(5) BILLING.—

22 “(A) IN GENERAL.—Each retail electric
23 supplier subject to subsection (b) shall calculate
24 the electric energy consumption for a customer

1 using a net metering system in accordance with
2 subparagraphs (B) through (D).

3 “(B) MEASUREMENT OF ELECTRICITY.—
4 The retail electric supplier shall measure the
5 net electricity produced or consumed during the
6 billing period using the metering installed in ac-
7 cordance with paragraph (4).

8 “(C) BILLING AND CREDITING.—

9 “(i) BILLING.—If the electricity sup-
10 plied by the retail electric supplier exceeds
11 the electricity generated by the customer-
12 generator during the billing period, the
13 customer-generator shall be billed for the
14 net electric energy supplied by the retail
15 electric supplier in accordance with normal
16 billing practices.

17 “(ii) CREDITING.—

18 “(I) IN GENERAL.—If electric en-
19 ergy generated by the customer-gener-
20 ator exceeds the electric energy sup-
21 plied by the retail electric supplier
22 during the billing period, the cus-
23 tomer-generator shall be billed for the
24 appropriate customer charges for that
25 billing period and credited for the ex-

1 cess electric energy generated during
2 the billing period, with the credit ap-
3 pearing as a kilowatt-hour credit on
4 the bill for the following billing period.

5 “(II) APPLICATION OF CRED-
6 ITS.—Any kilowatt-hour credits pro-
7 vided to a customer-generator under
8 this clause shall be applied to cus-
9 tomer-generator electric energy con-
10 sumption on the following billing pe-
11 riod bill (except for a billing period
12 that ends in the next calendar year).

13 “(III) CARRYOVER OF UNUSED
14 CREDITS.—At the beginning of each
15 12-month period, any unused kilo-
16 watt-hour credits remaining from the
17 preceding year will carry over to the
18 new 12-month period.

19 “(D) USE OF TIME-DIFFERENTIATED
20 RATES.—

21 “(i) IN GENERAL.—Except as pro-
22 vided in clause (ii), if a customer-generator
23 is using a meter and retail billing arrange-
24 ment that has time-differentiated rates—

1 “(I) the kilowatt-hour credit shall
2 be based on the ratio representing the
3 difference in retail rates for each
4 time-of-use rate; or

5 “(II) the credits shall be reflected
6 on the bill of the customer-generator
7 as a monetary credit reflecting retail
8 rates at the time of generation of the
9 electric energy by the customer-gener-
10 ator.

11 “(ii) DIFFERENT TARIFFS OR SERV-
12 ICES.—A retail electric supplier shall offer
13 a customer-generator the choice of a time-
14 differentiated energy tariff rate or a
15 nontime-differentiated energy tariff rate, if
16 the retail electric supplier offers the choice
17 to customers in the same rate class as the
18 customer-generator.

19 “(6) PERCENT LIMITATIONS.—

20 “(A) 8 PERCENT LIMITATION.—The stand-
21 ard established under this subsection shall not
22 apply for a calendar year in the case of a cus-
23 tomer-generator served by a local distribution
24 company if the total generating capacity of all
25 customer-generators with net metering systems

1 served by the local distribution company in the
2 calendar year is equal to or more than 8 per-
3 cent of the capacity necessary to meet the aver-
4 age forecasted aggregate customer peak de-
5 mand of the company for the calendar year.

6 “(B) 4 PERCENT LIMITATION.—The stand-
7 ard established under this subsection shall not
8 apply for a 12-month period in the case of a
9 customer-generator served by a local distribu-
10 tion company if the total generating capacity of
11 all customer-generators with net metering sys-
12 tems served by the local distribution company
13 in the calendar year using a single type of
14 qualified generation unit is equal to or more
15 than 4 percent of the capacity necessary to
16 meet the forecasted aggregate customer peak
17 demand of the company for the calendar year.

18 “(C) RECORDS AND NOTICE.—

19 “(i) RECORDS.—Each retail electric
20 supplier shall maintain, and make available
21 to the public, records of—

22 “(I) the total generating capacity
23 of customer-generators of the system
24 of the retail electric supplier that are
25 using net metering; and

1 “(II) the type of generating sys-
2 tems and energy source used by the
3 electric generating systems used by
4 the customer-generators.

5 “(ii) NOTICE.—Each such retail elec-
6 tric supplier shall notify the State regu-
7 latory authority and the Commission at
8 each time at which the total generating ca-
9 pacity of the customer-generators of the
10 retail electric supplier reaches a level that
11 equals or exceeds—

12 “(I) 75 percent of the limitation
13 specified in subparagraph (B); or

14 “(II) the limitation specified in
15 subparagraph (B).

16 “(7) SAFETY AND PERFORMANCE STAND-
17 ARDS.—

18 “(A) IN GENERAL.—A qualified generation
19 unit and net metering system used by a cus-
20 tomer-generator shall meet all applicable safety
21 and performance and reliability standards es-
22 tablished by—

23 “(i) the national electrical code;

24 “(ii) the Institute of Electrical and
25 Electronics Engineers;

1 “(iii) Underwriters Laboratories; or

2 “(iv) the American National Stand-
3 ards Institute.

4 “(B) ADDITIONAL CHARGES.—The Com-
5 mission shall, after consultation with State reg-
6 ulatory authorities and nonregulated local dis-
7 tribution systems and after notice and oppor-
8 tunity for comment, prohibit by regulation the
9 imposition of additional charges by retail elec-
10 tric suppliers and local distribution systems for
11 equipment or services for safety or performance
12 that are in addition to those necessary to meet
13 the standards and requirements referred to in
14 subparagraph (A) and subsection (e).

15 “(8) DETERMINATION OF COMPLIANCE.—

16 “(A) IN GENERAL.—Any State regulatory
17 authority (with respect to each electric utility
18 for which the authority has ratemaking author-
19 ity), and each nonregulated electric utility, may
20 apply to the Commission for a determination
21 that any State net metering requirement or reg-
22 ulations complies with this subsection.

23 “(B) ORDERS.—In the absence of a deter-
24 mination under subparagraph (A), the Commis-
25 sion, on the motion of the Commission or pur-

1 suant to the petition of any interested person,
2 may, after notice and opportunity for a hearing
3 on the record, issue an order requiring against
4 any retail electric supplier or local distribution
5 company to require compliance with this sub-
6 section.

7 “(C) ENFORCEMENT.—

8 “(i) IN GENERAL.—Any person who
9 violates this subsection shall be subject to
10 a civil penalty in the amount of \$500 for
11 each day that the violation continues.

12 “(ii) ASSESSMENT.—The penalty may
13 be assessed by the Commission, after no-
14 tice and opportunity for hearing, in the
15 same manner as penalties are assessed
16 under section 31(d) of the Federal Power
17 Act (16 U.S.C. 823b(d)).

18 “(e) INTERCONNECTION STANDARDS.—

19 “(1) MODEL STANDARDS.—

20 “(A) IN GENERAL.—Not later than 1 year
21 after the date of enactment of this subsection,
22 the Commission shall publish model standards
23 for the physical connection between local dis-
24 tribution systems and qualified generation units
25 and electric generation units that—

1 “(i) are qualified generation units (as
2 defined in subsection (d)(1)(E) other than
3 clause (ii) of subsection (d)(1)(E)); and

4 “(ii) do not exceed 5 megawatts of ca-
5 pacity.

6 “(B) PURPOSES.—The model standards
7 shall be designed to—

8 “(i) encourage the use of qualified
9 generation units; and

10 “(ii) ensure the safety and reliability
11 of the qualified generation units and the
12 local distribution systems interconnected
13 with the qualified generation units.

14 “(C) PROCEDURES.—

15 “(i) IN GENERAL.—The model stand-
16 ards shall have 2 separate procedures, in-
17 cluding—

18 “(I) a standard for inter-
19 connecting qualified generation units
20 of not more than 15 kilowatts; and

21 “(II) a separate standard that
22 expedites interconnection for qualified
23 generation units of more than 15 kilo-
24 watts but not more than 5 megawatts.

1 “(ii) BEST PRACTICES.—The proce-
2 dures shall be based on the best practices
3 that have been used in States that have
4 adopted interconnection standards:

5 “(iii) MODEL RULE.—In designing the
6 procedures, the Commission shall consider
7 Interstate Renewable Energy Council
8 Model Rule MR-I2005.

9 “(D) TIMELINE.—

10 “(i) IN GENERAL.—Not later than 2
11 years after the date of enactment of this
12 subsection, each State shall—

13 “(I) adopt the model standards
14 established under this paragraph, with
15 or without modification; and

16 “(II) submit the standards to the
17 Commission for approval.

18 “(ii) APPROVAL OF MODIFICATION.—
19 The Commission shall approve a modifica-
20 tion of the model standards only if the
21 Commission determines that the modifica-
22 tion is—

23 “(I) consistent with or superior
24 to the purpose of the standards; and

1 “(II) required by reason of local
2 conditions.

3 “(E) NONAPPROVAL OF STANDARDS FOR A
4 STATE.—If standards have not been approved
5 under this paragraph by the Commission for
6 any State during the 2-year period beginning
7 on the date of enactment of this subsection, the
8 Commission shall, by rule or order, enforce the
9 model standards of the Commission in the State
10 until such time as State standards are approved
11 by the Commission.

12 “(F) UPDATES.—

13 “(i) IN GENERAL.—Not later than 2
14 years after the date of enactment of this
15 subsection and after notice and oppor-
16 tunity for comment, the Commission shall
17 publish an update of the model standards,
18 after considering changes in the underlying
19 standards and technologies.

20 “(ii) AVAILABILITY.—The updates
21 shall be made available to State regulatory
22 authorities for the consideration of the au-
23 thorities.

24 “(2) SAFETY, RELIABILITY, PERFORMANCE,
25 AND COST.—

1 “(A) IN GENERAL.—The standards under
2 this subsection shall establish such measures
3 for the safety and reliability of the affected
4 equipment and local distribution systems as are
5 appropriate.

6 “(B) ADMINISTRATION.—The standards
7 shall—

8 “(i) be consistent with all applicable
9 safety and performance standards estab-
10 lished by—

11 “(I) the national electrical code;

12 “(II) the Institute of Electrical
13 and Electronics Engineers;

14 “(III) Underwriters Laboratories;

15 or

16 “(IV) the American National
17 Standards Institute; and

18 “(ii) impose not more than such min-
19 imum cost and technical burdens to the
20 interconnecting customer generator as the
21 Commission determines, by rule, are prac-
22 ticable.

23 “(3) ADDITIONAL CHARGES.—The model stand-
24 ards under this subsection shall prohibit the imposi-
25 tion of additional charges by local distribution sys-

1 tems for equipment or services for interconnection
2 that are in excess of—

3 “(A) the charges necessary to meet the
4 standards; and

5 “(B) the charges and equipment require-
6 ments identified in the best practices of States
7 with interconnection standards.

8 “(4) RELATIONSHIP TO EXISTING LAW REGARD-
9 ING INTERCONNECTION.—Nothing in this subsection
10 affects the application of section 111(d)(15) relating
11 to interconnection.

12 “(5) CONSUMER-FRIENDLY CONTRACTS.—

13 “(A) IN GENERAL.—The Commission
14 shall—

15 “(i) promulgate regulations that en-
16 sure that simplified contracts will be used
17 for the interconnection of electric energy
18 by electric energy transmission or local dis-
19 tribution systems and generating facilities
20 that have a power production capacity of
21 not greater than 5,000 kilowatts; and

22 “(ii) consider the best practices for
23 consumer-friendly contracts that are used
24 by States or national associations of State
25 regulators.

1 “(B) LIABILITY OR INSURANCE.—The con-
2 tracts shall not require liability or other insur-
3 ance in excess of the liability or insurance that
4 is typically carried by customer-generators for
5 general liability.”.

6 (b) CONFORMING AMENDMENT.—Section 1262 of the
7 Public Utility Holding Company Act of 2005 (42 U.S.C.
8 16451) is amended by striking paragraph (5) and insert-
9 ing the following:

10 “(5) ELECTRIC UTILITY COMPANY.—

11 “(A) IN GENERAL.—The term ‘electric
12 utility company’ means any company that owns
13 or operates facilities used for the generation,
14 transmission, or distribution of electric energy
15 for sale.

16 “(B) EXCLUSION.—The term ‘electric util-
17 ity company’ does not include an electric gen-
18 eration unit (as defined in section 113(d) of the
19 Public Utility Regulatory Policies Act of
20 1978).”.

21 (c) RELATIONSHIP TO STATE LAW.—Section 117(b)
22 of the Public Utility Regulatory Policies Act of 1978 (16
23 U.S.C. 2627(b)) is amended—

24 (1) by striking “Nothing” and inserting the fol-
25 lowing:

1 “(1) IN GENERAL.—Except as provided in para-
2 graph (2), nothing”; and

3 (2) by adding at the end the following:

4 “(2) NET METERING AND INTERCONNECTION
5 STANDARDS.—

6 “(A) IN GENERAL.—Subject to subpara-
7 graph (B), no State or nonregulated utility may
8 adopt or enforce any standard or requirement
9 concerning net metering or interconnection that
10 restricts access to the electric power trans-
11 mission or local distribution system by qualified
12 generators beyond those standards and require-
13 ments established under section 113.

14 “(B) EQUIVALENT OR GREATER ACCESS.—
15 Nothing in this Act precludes a State from
16 adopting or enforcing incentives or require-
17 ments to encourage qualified generation and net
18 metering that—

19 “(i) are in addition to or equivalent to
20 incentives or requirements under section
21 113; or

22 “(ii) afford greater access to the elec-
23 tric power transmission and local distribu-
24 tion systems by qualified generators (as
25 defined in section 113) or afford greater

1 compensation or credit for electricity gen-
2 erated by the qualified generators.”.

