

173 FERC ¶ 61,050  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

18 CFR Part 292

[Docket Nos. RM21-2-000 and RM20-20-000]

Fuel Cell Thermal Energy Output

Bloom Energy Corporation

(Issued October 15, 2020)

AGENCY: Federal Energy Regulatory Commission.

ACTION: Notice of Proposed Rulemaking.

SUMMARY: In this Notice of Proposed Rulemaking, the Federal Energy Regulatory Commission proposes to amend the definition of useful thermal energy output in § 292.202 of its regulations implementing the Public Utility Regulatory Policies Act of 1978 to recognize the technical evolution of cogeneration.

DATES: Comments are due **[INSERT DATE 30 days after date of publication in the FEDERAL REGISTER]**

ADDRESSES: Comments, identified by docket number, may be filed electronically at <http://www.ferc.gov> in acceptable native applications and print-to-PDF, but not in scanned or picture format. For those unable to file electronically, comments may be filed by mail or hand-delivery to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street, NE, Washington, DC 20426. The Comment Procedures Section of this document contains more detailed filing procedures.

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SUPPLEMENTARY INFORMATION:

173 FERC ¶ 61,050  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Neil Chatterjee, Chairman;  
Richard Glick and James P. Danly.

Fuel Cell Thermal Energy Output

Docket Nos. RM21-2-000

Bloom Energy Corporation

RM20-20-000

NOTICE OF PROPOSED RULEMAKING

(Issued October 15, 2020)

**I. Introduction**

1. In this Notice of Proposed Rulemaking (NOPR), the Federal Energy Regulatory Commission (Commission) proposes to revise its regulations (PURPA Regulations)<sup>1</sup> implementing sections 201 and 210 of the Public Utility Regulatory Policies Act of 1978 (PURPA)<sup>2</sup> in light of the development of Solid Oxide Fuel Cell systems with integrated natural gas reformation equipment as a technical evolution of cogeneration and in response to a petition for rulemaking submitted by Bloom Energy Corporation (Bloom Energy) asking the Commission to take such action given such development.

2. PURPA was enacted in 1978 as part of a package of legislative proposals intended to reduce the country's dependence on oil and natural gas, which at the time were in short

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<sup>1</sup> 18 CFR Part 292.

<sup>2</sup> 16 U.S.C. 796, 824a-3.

supply and subject to dramatic price increases.<sup>3</sup> PURPA sets forth a framework to encourage the development of cogeneration facilities that make more efficient use of the heat produced both from fossil fuels used in the production of electricity by using that heat for, e.g., industrial purposes, and also from fossil fuels used for, e.g., industrial purposes by using that heat for the production of electricity. As relevant here, as required by PURPA, a cogeneration facility is a qualifying facility (QF) if the Commission determines that the QF meets certain requirements.<sup>4</sup>

3. In enacting PURPA, Congress could not, and did not, predict specific technological developments that would occur in future years, but instead recognized the Commission's discretion by directing the Commission to "from time to time thereafter revise[] such rules as it determines necessary to encourage cogeneration."<sup>5</sup> Although in 1978 the predominant form of cogeneration was a more traditional combined heat and power, Congress did not limit the definition of qualifying cogeneration facilities to the particular technologies then in existence. Instead, Congress defined a cogeneration facility in a more open-ended manner, as a facility that produces: (1) electric energy; and (2) steam or forms of useful energy, such as heat, which are used for industrial,

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<sup>3</sup> *Qualifying Facility Rates and Requirements Implementation Issues Under the Public Utility Regulatory Policies Act of 1978*, Order No. 872, 85 FR 54,638 (Sept. 2, 2020), 172 FERC ¶ 61,041, at P 47 (2020).

<sup>4</sup> 16 U.S.C. 796(18); 18 CFR 292.203(b), 292.205.

<sup>5</sup> 16 U.S.C. 824a-3(a).

commercial, heating or cooling purpose.<sup>6</sup> Congress thus left it for the Commission to determine the types of facilities that would qualify as cogeneration facilities under the statute.

4. Due to innovation and development in the last decade, Solid Oxide Fuel Cell systems with integrated natural gas reformation equipment are now a viable option for efficient electric energy cogeneration furthering PURPA's goal of encouraging the innovation and development of cogeneration facilities. Additionally, the industrial applications of hydrogen continue to grow, with distributed production of hydrogen becoming increasingly important.<sup>7</sup> Solid Oxide Fuel Cell systems with integrated natural gas reformation equipment represent "continuing progress in the development of efficient electricity generating technology"<sup>8</sup> since the enactment of PURPA. We find that this development constitutes a sufficient change in circumstance since the Commission's PURPA regulations were first promulgated in 1980<sup>9</sup> to warrant issuing this NOPR.

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<sup>6</sup> 16 U.S.C. 796(18)(A).

<sup>7</sup> Today almost all the hydrogen produced in the United States is used for refining petroleum, treating metals, producing fertilizer, and processing foods, as the use of hydrogen as a fuel source for energy generation is currently limited by lack of infrastructure for hydrogen distribution and delivery. U.S. Department of Energy, Alternative Fuels Data Center, *Hydrogen Production and Distribution* (Oct 2020), [https://afdc.energy.gov/fuels/hydrogen\\_production.html#:~:text=Natural%20Gas%20Refarming%2FGasification%3A%20Synthesis,water%20to%20produce%20additional%20hydrogen](https://afdc.energy.gov/fuels/hydrogen_production.html#:~:text=Natural%20Gas%20Refarming%2FGasification%3A%20Synthesis,water%20to%20produce%20additional%20hydrogen). Thus, using the hydrogen, in this case for electricity generation, where it is produced represents an efficient use of that hydrogen.

<sup>8</sup> 16 U.S.C. 824a-3(n)(1)(A)(iii).

<sup>9</sup> *Small Power Production and Cogeneration Facilities – Qualifying Status*, Order No. 70, FERC Stats. & Regs. ¶ 30,134 (cross-referenced at 10 FERC ¶ 61,230), *orders*

5. We thus propose to add a new paragraph (4) to § 292.202(h) of its PURPA Regulations to amend the definition of “[u]seful thermal energy output” of a topping cycle cogeneration facility to include thermal energy that is used by a Solid Oxide Fuel Cell system with an integrated steam hydrocarbon reformation process for production of fuel for electricity generation. This definition would clarify that the thermal energy produced by a Solid Oxide Fuel Cell that then uses the thermal energy it produces to reform methane and produce hydrogen for electricity generation is useful thermal energy that would enable a facility powered by such fuel cells to be certified as a cogeneration QF.<sup>10</sup> To be clear, this NOPR applies only to Solid Oxide Fuel Cell systems with integrated natural gas reformation that take in natural gas to produce hydrogen and to generate electricity by using steam from the power generation process to reform the natural gas to produce the hydrogen that the Solid Oxide Fuel Cell systems use to generate electricity.

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*on reh’g*, Order No. 70-A, FERC Stats. & Regs. ¶ 30,159 (cross-referenced at 11 FERC ¶ 61,119), *order on reh’g*, Order No. 70-B, FERC Stats. & Regs. ¶ 30,176 (cross-referenced at 12 FERC ¶ 61,128), *order on reh’g*, FERC Stats. & Regs. ¶ 30,192 (1980) (cross-referenced at 12 FERC ¶ 61,306), *amending regulations*, Order No. 70-D, FERC Stats. & Regs. ¶ 30,234 (cross-referenced at 14 FERC ¶ 61,076), *amending regulations*, Order No. 70-E, FERC Stats. & Regs. ¶ 30,274 (1981) (cross-referenced at 15 FERC ¶ 61,281).

<sup>10</sup> There are different types of fuel cells, classified primarily by the kind of electrolyte used, with different kinds of chemical reactions. The type of chemical reaction determines the temperature range of operation, and other factors relating to the suitability of applications. Bloom Energy Petition at 8.

6. We seek comments on these proposed reforms 30 days from the date of publication of the NOPR in the *Federal Register*.

## II. Background

7. PURPA was part of a legislative package Congress enacted in 1978 to address the energy crisis then facing the country.<sup>11</sup> As the Supreme Court explained in *FERC v. Mississippi*, in passing PURPA Congress was aware that domestic oil production had lagged behind demand, and the country had become increasingly dependent on foreign oil – which could jeopardize the country’s economy and undermine its independence.<sup>12</sup> Roughly a third of the nation’s electricity was generated using oil and natural gas,<sup>13</sup> and Congress concluded that increased reliance on cogeneration and small power production could significantly contribute to conserving this energy.<sup>14</sup> As recognized by the Supreme Court, Congress passed PURPA to address the consequences of shortages of oil and natural gas (and electric utilities’ decreasing efficiency in their generating capacities), which adversely impacted rates to customers and the economy as a whole.<sup>15</sup>

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<sup>11</sup> See Pub. L. No. 95-617, 92 Stat. 3117. In addition to PURPA, that legislative package included: the Energy Tax Act of 1978, Pub. L. No. 95-618, 92 Stat. 3174; the National Energy Conservation Policy Act, Pub. L. No. 95-619, 92 Stat. 3206; the Powerplant and Industrial Fuel Use Act of 1978, Pub. L. No. 95-620, 92 Stat. 3289; and the Natural Gas Policy Act of 1978, Pub. L. No. 95-621, 92 Stat. 3351.

<sup>12</sup> *FERC v. Miss.*, 456 U.S. 742, 756 (1982).

<sup>13</sup> *Id.* at 745.

<sup>14</sup> *Id.* at 757.

<sup>15</sup> *Id.* at 745-46.

8. Congress enacted PURPA section 210 in 1978 to address the energy crisis by encouraging the development of QFs and thereby reducing the country's demand for traditional fossil fuels.<sup>16</sup> To accomplish this, section 210(a) directed that the Commission “prescribe, and from time to time thereafter revise, such rules as [the Commission] determines necessary to encourage cogeneration and small power production.”<sup>17</sup>

9. In 1980, the Commission issued Order No. 70, which promulgated the required rules that, as relevant here, remain in effect today.<sup>18</sup> Order No. 70 established the “criteria and procedures by which small power producers and cogeneration facilities can obtain qualifying status to receive the rate benefits and exemptions” contained in section 210 of PURPA.<sup>19</sup> As relevant here, the Commission established criteria for a cogeneration QF, a facility that, as required by the statute, “produces electric energy as well as steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes.”<sup>20</sup>

10. In 2005, Congress passed the Energy Policy Act of 2005 (EPAAct 2005).<sup>21</sup> Pursuant to section 210 of PURPA, as modified by section 1253 of EPAAct 2005, the

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<sup>16</sup> *Id.* at 750.

<sup>17</sup> 16 U.S.C. 824a-3(a).

<sup>18</sup> Order No. 70, FERC Stats. & Regs. ¶ 30,134.

<sup>19</sup> *Id.* at 30,933.

<sup>20</sup> 16 U.S.C. 796(18); *accord* 18 CFR 292.202(c).

<sup>21</sup> Pub. L. No. 109-58, 119 Stat. 594, 969-70, as implemented in *Revised Regulations Governing Small Power Production and Cogeneration Facilities*, Order No. 671, FERC Stats. & Regs. ¶ 31,203 (cross-referenced at 114 FERC ¶ 61,102), *order*



Commission established regulations to ensure that new cogeneration QFs are using their thermal output in a productive and beneficial manner; that the electrical, thermal, chemical and mechanical output of any new cogeneration QFs are used fundamentally for industrial, commercial, residential or institutional purposes; and that there is continuing progress in the development of efficient electric energy generating technology.<sup>22</sup> In determining whether the thermal output is used in a “productive and beneficial manner,” the Commission stated it would consider factors such as whether the product produced by the thermal energy is needed and whether there is a market for the product.<sup>23</sup>

11. Unlike more traditional electric generation that relies on combustion of fossil fuels to produce electric energy, fuel cells convert the chemical energy in hydrogen to electric energy without combustion. This conversion has been characterized as a significant improvement in the efficiency of electric generation.<sup>24</sup> More specifically, hydrogen fuel enters the anode side of the fuel cell. Simultaneously, ambient air enters the cathode side of the fuel cell. The hydrogen fuel on the anode attracts oxygen ions from the cathode. In a Solid Oxide Fuel Cell system with integrated natural gas reformation equipment, the

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*on reh'g*, Order No. 671-A, FERC Stats. & Regs. ¶ 31,219 (2006) (cross-referenced at 115 FERC ¶ 61,225).

<sup>22</sup> 16 U.S.C. 824-3(n)(1)(A)(iii).

<sup>23</sup> Order No. 671, FERC Stats. & Regs. ¶ 31,203 at P 17. Here, the relevant product would be hydrogen.

<sup>24</sup> Bloom Energy Petition at 8.

resulting electrochemical reaction provides electricity, plus heat and steam that is used to reform natural gas on-site to produce the hydrogen fuel to fuel the cell.<sup>25</sup>

12. If the natural gas reformation equipment were instead located offsite, then waste heat (in the form of steam) from the electricity production by the Solid Oxide Fuel Cell would not be available to aid the reformation process to fuel the cell. In this offsite reformation scenario, we would expect the external reformation process to require additional natural gas to be burned to create steam so that the remainder of the input natural gas could be reformed into hydrogen.<sup>26</sup> This would be inefficient, and inconsistent with Congress's goal in enacting PURPA, as discussed above.

13. Stated another way, integrating the natural gas reformation process into a Solid Oxide Fuel Cell generating facility as described in this NOPR<sup>27</sup> results in significant "progress in the development of efficient electric energy generating technology."<sup>28</sup>

### **III. Commission Proposal**

14. As discussed above, the statutory definition of cogeneration facilities requires that a cogeneration facility produce "(i) electric energy, and (ii) steam or forms of useful

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<sup>25</sup> *Id.*

<sup>26</sup> Furthermore, as hydrogen is frequently compressed or liquified for shipment to the point of consumption, yet more energy would be needed for these activities. *Id.* at 8 & App. B.

<sup>27</sup> *See supra* P 5 (emphasizing the limited scope of the proposed change in the regulations).

<sup>28</sup> Bloom Energy Petition at 1, 3, 7, 16 (citing 16 U.S.C. 824a-3(n)(1)(A)(iii)).

energy (such as heat) which are used for industrial, commercial, heating or cooling purposes....”<sup>29</sup> This definition provides for steam or other forms of useful energy to be used for, e.g., an industrial purpose. The creation by a Solid Oxide Fuel Cell system with an integrated natural gas reformation process of a commercially valuable fuel as described in this NOPR fits within this definition. Consistent with the PURPA regulations, Solid Oxide Fuel Cell systems with integrated natural gas reformation equipment produce two forms of energy: electricity; and the heat/steam (thermal energy) used to create the hydrogen (a chemical energy).

15. Currently, the Commission’s PURPA regulations provide that a topping-cycle cogeneration facility is a cogeneration facility in which the energy input to the facility is first used to produce useful power output and at least some of the reject heat from the power production process is then used to provide useful thermal energy.<sup>30</sup>

16. Solid Oxide Fuel Cell systems with integrated natural gas reformation equipment convert the chemical energy within natural gas into electricity using a steam-methane reformation process,<sup>31</sup> which converts the natural gas input to hydrogen, which then

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<sup>29</sup> 16 U.S.C. 796(18)(A).

<sup>30</sup> 18 CFR 292.202(d).

<sup>31</sup> Industrial gas manufacturers also produce hydrogen from natural gas using a steam-methane reformation process, but must produce their own steam, usually through combustion of some of the input natural gas. Because the buyers of the resulting hydrogen are usually remote from the industrial gas manufacturer, this hydrogen is either compressed or liquified in order to transport the hydrogen to the end user. Integrating the natural gas steam reformation process into a Solid Oxide Fuel Cell system increases

reacts with oxygen in the fuel cell to produce electricity. The by-product of the fuel cell's production of electricity is heat and steam, some of which is used in the steam-methane reformation process to convert more methane into hydrogen, which the fuel cells use, in combination with oxygen from the air, to produce electricity.

17. A cogeneration QF is one that “produces electric energy as well as steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes.”<sup>32</sup> Consistent with these regulations, Solid Oxide Fuel Cell systems with integrated natural gas reformation equipment generate two forms of useful energy – electricity, and heat/steam (thermal energy) that is used to produce hydrogen (a chemical energy). Commission regulations provide three categories of useful thermal output of a topping-cycle cogenerator. They are thermal energy: (1) that is “made available to an industrial or commercial process ...; (2) that is used in a heating application...; or (3) that is used in a space cooling application.”<sup>33</sup> We propose to amend our regulations to provide that the production of heat/steam by a Solid Oxide Fuel Cell system for use in an integrated natural gas reformation process to produce hydrogen is an industrial process that, as described in this NOPR, yields a “useful thermal energy output” that entitles such a system to be considered a topping cycle cogeneration facility

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efficiency and avoids the energy loss of external reformation, and compression or liquefaction for surface transportation. Bloom Energy Petition at 8 & App. B.

<sup>32</sup> 16 U.S.C. 796(18).

<sup>33</sup> 18 CFR 292.202(h).

that qualifies, subject to meeting the other relevant requirements,<sup>34</sup> to be a QF. The recent technological advances in utilizing the thermal energy from a Solid Oxide Fuel Cell in an integrated steam hydrocarbon reformation process were not known or anticipated when the Commission adopted its original definitions for useful thermal energy, but that fact should not stand in the way of the Commission now recognizing such advances and responding accordingly.<sup>35</sup>

18. In sum, recognizing technological advancements over the past 40 years and Congress's commitment to "continuing progress in the development of efficient electric energy generating technology,"<sup>36</sup> and in light of the development and commercialization of Solid Oxide Fuel Cell systems with integrated natural gas reformation equipment since the original adoption of the PURPA regulations, we propose to amend § 292.202(h) of the PURPA Regulations by adding a new paragraph to provide that useful thermal energy output includes the thermal energy "that is used by a solid oxide fuel cell system with an

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<sup>34</sup> See 18 CFR 292.203(b), 292.205.

<sup>35</sup> We recognize that in *EG&G, Inc.*, 16 FERC ¶ 61,060, at 61,104 (1981), the Commission stated that, for cogeneration, "the use of thermal energy must be completely independent of the power production process." That order did not involve fuel cells and in any event was issued under the regulations then effective, *see id.* at 61,103-04, which we propose to revise in this NOPR, to now allow – for a Solid Oxide Fuel Cell system with an integrated natural gas reformation process – the production of hydrogen to be considered an industrial process that yields a "useful thermal energy output" that entitles such a system to be considered a topping cycle cogeneration facility that qualifies, subject to meeting the other relevant requirements, as a QF.

<sup>36</sup> 16 U.S.C. 824a-3(n)(1)(A)(iii).

integrated steam hydrocarbon reformation process for production of fuel for electricity generation.”

19. In proposing this change to its regulations, the Commission does not propose to revise § 292.205(d) of the PURPA Regulations, which establishes additional criteria for new cogeneration facilities seeking to sell electric energy pursuant to PURPA section 210.<sup>37</sup> The Commission proposes that any new cogeneration facility that is a solid oxide fuel cell system with an integrated steam hydrocarbon reformation process would be required to satisfy the existing criteria of § 292.205(d) of the PURPA Regulations if it seeks to make sales of electric energy pursuant to PURPA section 210.

#### **IV. Information Collection Statement**

20. The Paperwork Reduction Act<sup>38</sup> requires each federal agency to seek and obtain the Office of Management and Budget’s (OMB) approval before undertaking a collection of information (including reporting, record keeping, and public disclosure requirements) directed to ten or more persons or contained in a rule of general applicability. OMB regulations require approval of certain information collection requirements contemplated by proposed rules (including deletion, revision, or implementation of new

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<sup>37</sup> 18 CFR 292.205(d); *see also* 18 CFR 292.205(d)(4) (“For purposes of paragraphs (d)(1) and (2) of this section, a new cogeneration facility of 5 MW or smaller will be presumed to satisfy the requirements of those paragraphs.”). That presumption, we note, is a rebuttable presumption, though. *Revised Regulations Governing Small Power Production and Cogeneration Facilities*, Order No. 671, 114 FERC ¶ 61,102, at PP 26, 60, *order on reh’g*, Order No. 671-A, 115 FERC ¶ 61,225 (2006).

<sup>38</sup> 44 U.S.C. 3501-21.

requirements).<sup>39</sup> Upon approval of a collection of information, OMB will assign an OMB control number and an expiration date. Respondents subject to the filing requirements of a rule will not be penalized for failing to respond to the collection of information unless the collection of information displays a valid OMB control number.

**Public Reporting Burden:** In this NOPR, the Commission proposes to revise its regulations implementing PURPA. The proposed change is to provide that useful thermal energy outputs will now include the thermal energy “that is used by a solid oxide fuel cell system with an integrated steam hydrocarbon reformation process for production of fuel for electricity generation.” The estimated changes to the burden and cost of the information collection affected by this NOPR, i.e., the FERC Form No. 556, follow.<sup>40</sup>

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<sup>39</sup> See 5 CFR 1320.11.

<sup>40</sup> The changes to the FERC Form No. 556, adopted in Order No. 872 are pending OMB review (under ICR #202006-1902-004). Those changes are separate and are not addressed in this NOPR.

| <b>FERC-556, Certification of Qualifying Facility Status for a Small Power Production or Cogeneration Facility, Proposed Changes Due to NOPR in Docket Nos. RM21-2-000 and RM20-20-000<sup>41</sup></b> |                                    |                                  |  |  |   |  |  |
|---|------------------------------------|----------------------------------|--|--|---|--|--|
| <b>Facility Type</b>  | <b>Filing Type</b>                 | <b>Number of Respondents (1)</b> | <b>Annual Number of Responses per Respondent (2)</b> | <b>Total Number of Responses (1)*(2)=(3)</b> | <b>Average Burden Hours &amp; Cost Per Response (4)</b> | <b>Total Annual Burden Hours &amp; Total Annual Cost (3)*(4)=(5)</b> | <b>Annual Cost per Respondent (\$) (5)÷(1)</b> |
| Cogeneration Facility ≤ 1 MW <sup>42</sup>  | Self-certification                 | 5                                | 600 <sup>43</sup>                                    | 3,000  | 1.5 hrs.; \$124.50                                      | 4,500 hrs.; \$373,500  | \$74,700                                       |
| Cogeneration Facility > 1 MW  | Self-certification                 | 5                                | 20   | 100  | 1.5 hrs.; \$124.50                                      | 1,500 hrs.; \$12,450   | \$2,490  |
| Cogeneration Facility > 1 MW  | Application for FERC certification | 5                                | 1  | 5  | 50 hrs.; \$4,150  | 250 hrs.; \$20,750   | \$4,150  |
| <b>FERC-556, TOTAL ADDITIONAL BURDEN AND COST DUE TO NOPR in RM21-2 and RM20-20</b>   |                                    | <b>15</b>                        |  | <b>3,105</b>                                 |   | <b>6,250 hrs.; \$406,700</b>   |  |

**Title:** FERC-556, Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

<sup>41</sup> The figures in this table reflect estimated changes to the current OMB-approved inventory for the FERC Form No. 556 (approved by OMB on November 18, 2019). This table only reflects cogeneration facilities because small power production facilities will not be affected by the proposed changes in the NOPR. The Commission staff believes that the industry is similarly situated to the Commission in terms of wages and benefits. Therefore, cost estimates are based on FERC's 2020 average hourly wage (and benefits) of \$83.00/hour.

<sup>42</sup> Such facilities are not required to file but have the choice whether to do so.

<sup>43</sup> Bloom Energy has stated they have 600 facilities, with an average size of 0.6MW, *see* Bloom Energy Petition at 14, which, if they all were in fact to file, would result in as many as 600 self-certifications of below 1 MW facilities. The Commission accordingly will adopt a conservative approach and estimate 600 such responses over the course of a year, which is especially conservative given that the Commission's regulations do not require below-1 MW facilities to submit self-certifications.



**Action:** Revisions to existing information collection FERC-556.<sup>44</sup>

**OMB Control No.:** 1902-0075

**Respondents:** Facilities that are self-certifying their status as a cogenerator or that are submitting an application for Commission certification of their status as a cogenerator; and electric utilities, state regulatory authorities, or other entities submitting comments on, or protests to, the self-certification or application for Commission certification.

**Frequency of Information:** Ongoing.

**Necessity of Information:** The Commission proposes the changes in this NOPR in order to revise its implementation of PURPA in light of technological advancements in electric generation since the enactment of PURPA in 1978.

**Internal Review:** The Commission has reviewed the proposed changes and has determined that such changes are necessary. These requirements conform to the Commission's ongoing need for efficient information collection, communication, and management within the energy industry, in light of technological advancements in electric generation.

Interested persons may obtain information on the reporting requirements by contacting the Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC

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<sup>44</sup> The FERC Form No. 556 is not being revised, but respondents with Solid Oxide Fuel Cell systems with integrated natural gas reformation equipment who are self-certifying or requesting Commission certification as a cogenerator will use the FERC Form No. 556. On page 8, item 6a of the FERC Form No. 556, those respondents should indicate "Fossil fuel, natural gas (not waste)."

20426 [Attention: Ellen Brown, Office of the Executive Director], by email to DataClearance@ferc.gov, or by phone (202) 502-8663.

Please send comments concerning the collection of information and the associated burden estimates to: Office of Information and Regulatory Affairs, Office of Management and Budget [Attention: Federal Energy Regulatory Commission Desk Officer]. Due to security concerns, comments should be sent directly to [www.reginfo.gov/public/do/PRAMain](http://www.reginfo.gov/public/do/PRAMain). Comments submitted to OMB should be sent within 30 days of publication of this notice in the Federal Register and should refer to FERC-556 (OMB Control No. 1902-0075).

## V. Environmental Analysis

21. The Commission is required to prepare an Environmental Assessment or an Environmental Impact Statement for any action that may have a significant adverse effect on the human environment.<sup>45</sup> Whether and how the revisions proposed here, however, would affect QF development and the environment is speculative.

22. The proposed changes to the PURPA Regulations do not authorize or fund particular generation that may happen to qualify as QFs, nor do they license or issue permits for operation of generation that may happen to qualify as QFs; such generation can be built and operated independent of, i.e., without, QF certification. They do not authorize or prohibit a generator's use of any particular technologies or fuels, nor do they

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<sup>45</sup> *Regulations Implementing National Environmental Policy Act of 1969*, Order No. 486, 52 FR 47,897 (Dec. 17, 1987), FERC Stats. & Regs. Preambles 1986-1990 ¶ 30,783 (1987) (cross-referenced at 41 FERC ¶ 61,284).

mandate or limit where QFs should or should not be built. They do not exempt QFs from any Federal, state or local environmental, siting, or other similar laws or regulatory requirements. Given these facts any environmental impact analysis of the revisions proposed here would be speculative and not meaningfully inform the Commission or the public of the revisions' impact on QF development or, correspondingly, of any associated potential impacts on the environment; there are, in short, no reasonably foreseeable environmental impacts for the Commission to consider.<sup>46</sup> Moreover, the revisions proposed here would apply only to a limited number of QFs: Solid Oxide Fuel Cell systems with integrated natural gas reformation equipment. Therefore, the Commission will not prepare an environmental document.

## **VI. Regulatory Flexibility Act Analysis**

23. The Regulatory Flexibility Act of 1980 (RFA)<sup>47</sup> generally requires a description and analysis of proposed rules that will have significant economic impact on a substantial number of small entities. In lieu of preparing a regulatory flexibility analysis, an agency may certify that a proposed rule will not have a significant economic impact on a substantial number of small entities.<sup>48</sup>

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<sup>46</sup> While courts have held that NEPA requires “reasonable forecasting,” an agency is not required “to engage in speculative analysis” or “to do the impractical, if not enough information is available to permit meaningful consideration.” *N. Plains Res. Council v. Surface Transp. Board*, 668 F.3d 1067, 1078 (9th Cir. 2011).

<sup>47</sup> 5 U.S.C. 601-12.

<sup>48</sup> 5 U.S.C. 605(b).

24. The Small Business Administration's (SBA) Office of Size Standards develops the numerical definition of a small business.<sup>49</sup> The SBA size standard for electric utilities is based on the number of employees, including affiliates.<sup>50</sup> Under SBA's current size standards, the threshold for a small entity (including its affiliates) is 250 employees for cogeneration in the NAICS<sup>51</sup> category:

NAICS code 221118 for Other Electric Power Generation

25. The Commission does not expect the proposed revision, if adopted, to affect a substantial number of small entities. This proposed rule directly affects only certain QFs, i.e., those that are Solid Oxide Fuel Cell systems with integrated natural gas reformation equipment; this rule is voluntary. That is, this rule expands the types of cogenerators that would be eligible to qualify as QFs to include Solid Oxide Fuel Cell systems with integrated natural gas reformation equipment, but this rule does not require Solid Oxide Fuel Cell systems with integrated natural gas reformation equipment to file for QF certification. The Commission does not anticipate that the number of affected small entities would be substantial, nor does the Commission expect that any additional

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<sup>49</sup> 13 CFR 121.101.

<sup>50</sup> SBA Final Rule on "Small Business Size Standards: Utilities," 78 FR 77,343 (Dec. 23, 2013).

<sup>51</sup> The North American Industry Classification System (NAICS) is an industry classification system that Federal statistical agencies use to categorize businesses for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. economy. United States Census Bureau, *North American Industry Classification System*, <https://www.census.gov/eos/www/naics/> (accessed October 4, 2020).

reporting burden or cost imposed on QFs, regardless of their status as a small or large business, would be significant.<sup>52</sup>

## **VII. Comment Procedures**

26. The Commission invites interested persons to submit comments on the matters and issues proposed in this notice to be adopted, including any related matters or alternative proposals that commenters may wish to discuss. Comments are due **[INSERT DATE 30 days after date of publication in the FEDERAL REGISTER]**. Comments must refer to Docket Nos. RM21-2-000 and RM20-20-000, and must include the commenter's name, the organization the commenter represents, if applicable, and the commenter's address.

27. The Commission encourages comments to be filed electronically via the eFiling link on the Commission's web site at <http://www.ferc.gov>. The Commission accepts most standard word processing formats. Documents created electronically using word processing software should be filed in native applications or print-to-PDF format and not in a scanned format. Commenters filing electronically do not need to make a paper filing.

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<sup>52</sup> The average cost per response is estimated to vary from \$124.50 to \$4,150. The cost per respondent will vary based on the respondent's number of facilities and related requests for self-certification and applications for Commission certification (with an estimated cost ranging from \$2,490 to \$74,700 per respondent).

28. Commenters that are not able to file comments electronically must send an original of their comments to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street, NE, Washington, DC 20426.

29. All comments will be placed in the Commission's public files and may be viewed, printed, or downloaded remotely as described in the Document Availability section below. Commenters on this proposal are not required to serve copies of their comments on other commenters.

### **VIII. Document Availability**

30. In addition to publishing the full text of this document in the Federal Register, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the Internet through the Commission's Home Page (<http://www.ferc.gov>). At this time, the Commission has suspended access to the Commission's Public Reference Room due to the President's March 13, 2020 proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID-19).

31. From the Commission's Home Page on the Internet, this information is available on eLibrary. The full text of this document is available on eLibrary in PDF and Microsoft Word format for viewing, printing, and/or downloading. To access this document in eLibrary, type the docket number excluding the last three digits of this document in the docket number field.

32. User assistance is available for eLibrary and the Commission's website during normal business hours from the Commission's Online Support at 202-502-6652 (toll free

at 1-866-208-3676) or email at [ferconlinesupport@ferc.gov](mailto:ferconlinesupport@ferc.gov), or the Public Reference Room at (202) 502-8371. E-mail the Public Reference Room at [public.referenceroom@ferc.gov](mailto:public.referenceroom@ferc.gov).

List of subjects in 18 CFR Part 292

Electric power plants

Electric utilities

Reporting and recordkeeping requirements

By direction of the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

In consideration of the foregoing, the Commission proposes to amend Part 292, chapter I, title 18, Code of Federal Regulations, as follows.

**SUBCHAPTER K – REGULATIONS UNDER THE PUBLIC UTILITY  
REGULATORY POLICIES ACT OF 1978**

\* \* \* \* \*

**PART 292 – REGULATIONS UNDER SECTIONS 201 AND 210 OF THE PUBLIC  
UTILITY REGULATORY POLICIES ACT OF 1978 WITH REGARD TO  
SMALL POWER PRODUCTION AND COGENERATION**

1. The authority citation for part 292 continues to read as follows:

Authority: 16 U.S.C. 791a-825r, 2601-2645; 31 U.S.C. 9701; 42 U.S.C. 7101-7352.

2. Amend § 292.202(h)

- a. by revising paragraphs (2) and (3); and
- b. by adding paragraph (4).

The revisions and addition read as follows:

**§ 292.202 Definitions.**

\* \* \* \* \*

(2) That is used in a heating application (e.g., space heating, domestic hot water heating);



- (3) That is used in a space cooling application (i.e., thermal energy used by an absorption chiller); or
- (4) That is used by a solid oxide fuel cell system with an integrated steam hydrocarbon reformation process for production of fuel for electricity generation.