

RWE Clean Energy, LLC 353 N. Clark Street, 30th Floor Chicago, IL 60654 U.S.A. americas.rwe.com

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SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

August 16, 2024

Public Utilities Commission of South Dakota Capitol Building, 1st floor 500 E. Capitol Ave. Pierre, SD 57501-5070

RE: Notice of Certification of Qualifying Facility Status for RWE Clean Energy, LLC Generating Facilities in South Dakota

To Whom It May Concern:

Pursuant to 18 C.F.R. § 292.207(c)(1), RWE Clean Energy, LLC hereby submits the enclosed copies of FERC Form 556, Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility, for the facilities listed below which are located in South Dakota. A copy of the self-certification form has also been provided to the utility with which the facility will interconnect.

| Facility | Docket | Utility |
|--------------------------|--------------|--|
| CED Aurora County Wind, | QF16-76-005 | NorthWestern Corporation, d/b/a NorthWestern |
| LLC | | Energy |
| CED Brule County Wind, | QF16-87-005 | NorthWestern Corporation, d/b/a NorthWestern |
| LLC | | Energy |
| CED Davison County Wind, | QF16-77-005 | NorthWestern Corporation, d/b/a NorthWestern |
| LLC | | Energy |
| | QF10-449-005 | NorthWestern Corporation, d/b/a NorthWestern |
| Oak Tree Energy, LLC | | Energy |

This submission <u>does not require any approval</u> or response from the Commission, and is only being submitted for informational purposes pursuant to FERC's regulations. Please let me know if any additional information is requested.

Respectfully submitted,

/s/ Paul Varnado

Paul Varnado Counsel for RWE Clean Energy, LLC

Enclosures

FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON, DC

OMB Control # 1902-0075 Expiration 11/30/2022

Form 556 Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

| 1b Applicant street ac 353 N. Clark S | | | |
|--|---|---|--|
| 1c City | | 1d State/prov | ince |
| Chicago | T | IL | 7 |
| 1e Postal code 60654 | 1f Country (if not United States) | | 1g Telephone number 312–358–9873 |
| 1h Has the instant fac | ility ever previously been certified as a Q | F? Yes 💢 🐧 | No 🗌 |
| 1i If yes, provide the o | locket number of the last known QF filing | g pertaining to th | his facility: QF16 - 77 - 004 |
| 1j Under which certifi | cation process is the applicant making th | nis filing? | |
| Notice of self-cel (see note below) | rtification \Box_{fe}^{A} | pplication for Co e; see "Filing Fee | ommission certification (requires filing e" section on page 2) |
| QF status. A notic notice of self-certi | f-certification is a notice by the applicant e of self-certification does not establish a fication to verify compliance. See the "W for more information. | proceeding, an | d the Commission does not review a |
| 1k What type(s) of QF | status is the applicant seeking for its faci | lity? (check all th | nat apply) |
| Qualifying small | power production facility status Q | ualifying cogene | eration facility status |
| | e and expected effective date(s) of this fil | ing? | |
| | tion; facility expected to be installed by | | nd to begin operation on |
| | reviously certified facility to be effective | X | January costion starting on page 24) |
| | of change(s) below, and describe change e and/or other administrative change(s) | e(s) in the Miscell | ianeous section starting on page 24) |
| | | | |
| | ecting plant equipment, fuel use, power | production capa | acity and/or cogeneration thermal outpu |
| Supplement or o | correction to a previous filing submitted | on | |
| (describe the sup | oplement or correction in the Miscellaneo | ous section starti | ing on page 24) |
| • | ring three statements is true, check the b ble, explaining any special circumstance | | |
| previously grar | lity complies with the Commission's QF rated by the Commission in an order date iscellaneous section starting on page 24; | d | virtue of a waiver of certain regulations (specify any other relevant waiver |
| | lity would comply with the Commission' ith this application is granted | s QF requiremen | its if a petition for waiver submitted |
| employment of | lity complies with the Commission's regular funique or innovative technologies not called the compliance via this form difficult of the compliance via the compl | ontemplated by | the structure of this form, that make |

FERC Form 556 Page 7 - All Facilities

| | 2a Name of contact person | | 2b Telephone number | | | | |
|----------------------------|--|-----------------------|--|---|--|--|--|
| | Paul Varnado | | 312-358-9873 | | | | |
| | 2c Which of the following describes the contact person's relation | onship to the app | olicant? (check one) | | | | |
| | Applicant (self) Employee, owner or partner of a | pplicant authoris | zed to represent the applicant | 4 | | | |
| O | ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ | orized to represe | ent the applicant on this matter | | | | |
| ati | Lawyer, consultant, or other representative authorized to | represent the ap | pplicant on this matter | | | | |
| Ē | 2d Company or organization name (if applicant is an individua | l, check here and | skip to line 2e) | 0 | | | |
| Contact Information | RWE Clean Energy, LLC | RWE Clean Energy, LLC | | | | | |
| 를 | 2e Street address (if same as Applicant, check here and skip to line 3a) | | | | | | |
| tac | | | | | | | |
| on | | | | | | | |
| | 2f City | 2g State/provi | nce | | | | |
| | | | | | | | |
| | 2h Postal code 2i Country (if not United 9 | states) | | 1 | | | |
| | | | | | | | |
| | 3a Facility name | | | 1 | | | |
| on | CED Davison County Wind | | | | | | |
| dentification and Location | 3b Street address (if a street address does not exist for the facil | ity, check here a | nd skip to line 3c) | | | | |
| O ₁ | | | | U | | | |
| p | 3c Geographic coordinates: Specify the latitude and longitude | coordinates of t | he facility in degrees (to three decimal | 1 | | | |
| an | places). Use the following formula to convert to decimal degree | | | = | | | |
| on | degrees + (minutes/60) + (seconds/3600). See the "Geographic | Coordinates se | ection on page 5 for neip. | | | | |
| ati | | | | | | | |
| ific | Latitude 43.738 degrees North (+) | ongitude | 98.196 degrees West (-) | | | | |
| nt | - | | | | | | |
| <u>qe</u> | | 7 - 6 | | - | | | |
| ₹ | 3d City (if unincorporated, check here and enter nearest city) | - | | | | | |
| Facility | Mitchell | South D | | - | | | |
| Fa | | Country (if not | United States) | 0 | | | |
| | Davison | | | - | | | |
| | Identify the electric utilities that are contemplated to transact w | th the facility. | | | | | |
| ies | 4a Identify utility interconnecting with the facility | | | | | | |
| .≓ | NorthWestern Corporation, d/b/a NorthWeste | rn Energy | | | | | |
| ゔ | 4b Identify utilities providing wheeling service or check here if | none 🔀 | | 0 | | | |
| ng | | | | | | | |
| Œ | 4c Identify utilities purchasing the useful electric power output | or check here if | none 🔀 | 1 | | | |
| Transacting Utilities | | | | | | | |
| rar | 4d Identify utilities providing supplementary power, backup po | wer, maintenan | ce power, and/or interruptible power | 0 | | | |
| _ | <pre>service or check here if none</pre> | n France | | | | | |
| | notelimesterin corporation, a/b/a northweste. | THE THE TAN | | 1 | | | |

FERC Form 556

| | 5a Direct ownership as of effective date or operation date: Identify all direct owners of the percent equity interest. For each identified owner, also (1) indicate whether that own defined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or a holding com 1 262(8) of the Public Utility Holding Company Act of 2005 (42 U.S.C. 16451(8)), and (2) utilities or holding companies, provide the percentage of equity interest in the facility direct owners hold at least 10 percent equity interest in the facility, then provide the retwo direct owners with the largest equity interest in the facility. | er is an electric utility pany, as defined in If for owners which a I held by that owner | ty, as section are electric c. If no |
|---------------|--|---|---|
| | Full legal names of direct owners | Electric utility or holding company | If Yes, % equity interest |
| | 1) CED Davison County Wind, LLC | Yes No 🗌 | 100% |
| | 2) | Yes No | 90 |
| | 3) | Yes No No | 9 |
| | 4) | Yes No No | 98 |
| | 5) | Yes No | 96 |
| | 6) | Yes No No | 06 |
| | 7) | Yes No | 010 |
| _ | 8) | Yes No | 000 |
| Operation | 9) | Yes No | |
| rat | 10) | Yes No No | 96 |
| ре | Check here and continue in the Miscellaneous section starting on page 24 if addit | ional space is need | ed |
| Ownership and | defined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding compared 1262(8) of the Public Utility Holding Company Act of 2005 (42 U.S.C. 16451(8)). Also pequity interest in the facility held by such owners. (Note that, because upstream owners another, total percent equity interest reported may exceed 100 percent.) Check here if no such upstream owners exist. | rovide the percenta | ge of |
| O | Full local page of all strictures halding someone constructions | | % equity |
| | Full legal names of electric utility or holding company upstream owne 1) RWE Clean Energy Asset Holdings, Inc. | | interest |
| | 2) RWECE Clean Energy, Inc. | | 100% |
| | 3) RWE Clean Energy, LLC | | 100% |
| | 4) RWE US Holdings, LLC | | 100% |
| | 5) RWE Renewables International Participations BV | | 100% |
| | 6) RWE Renewables Europe & Australia GmbH | | 100% |
| | 7) GBV Zweiunddreißigste Gesellschaft für Beteiligungsverwal | <u> </u> | 100% |
| | 8) RWE AG | | 100% |
| | 9) | - | 96 |
| | 10) | | 90 |
| | Check here and continue in the Miscellaneous section starting on page 24 if addition | onal space is needed | <u> </u> |
| | 5c Identify the facility operator RWE Clean Energy Asset Holdings, Inc. | | |

Energy Input

FERC Form 556 Page 9 - All Facilities **6a** Describe the primary energy input: (check one main category and, if applicable, one subcategory) ☐ Biomass (specify) Renewable resources (specify) ☐ Geothermal ☐ Landfill gas Fossil fuel (specify) ☐ Hydro power-river ☐ Hydro power - tidal ☐ Coal (not waste) ☐ Municipal solid waste
 ☐ Hydro power - wave ☐ Fuel oil/diesel ☐ Sewage digester gas ☐ Solar - photovoltaic □ Natural gas (not waste) ☐ Wood ☐ Solar - thermal Other fossil fuel (describe on page 24) Other biomass (describe on page 24) Wind Other renewable resource Other (describe on page 24) Waste (specify type below in line 6b) (describe on page 24) 6b If you specified "waste" as the primary energy input in line 6a, indicate the type of waste fuel used: (check one) Waste fuel listed in 18 C.F.R. § 292.202(b) (specify one of the following) ☐ Anthracite culm produced prior to July 23, 1985 Anthracite refuse that has an average heat content of 6,000 Btu or less per pound and has an average ash content of 45 percent or more Bituminous coal refuse that has an average heat content of 9,500 Btu per pound or less and has an average ash content of 25 percent or more Top or bottom subbituminous coal produced on Federal lands or on Indian lands that has been determined to be waste by the United States Department of the Interior's Bureau of Land Management (BLM) or that is located on non-Federal or non-Indian lands outside of BLM's jurisdiction, provided that the applicant shows that the latter coal is an extension of that determined by BLM to be waste Coal refuse produced on Federal lands or on Indian lands that has been determined to be waste by the ☐ BLM or that is located on non-Federal or non-Indian lands outside of BLM's jurisdiction, provided that applicant shows that the latter is an extension of that determined by BLM to be waste Lignite produced in association with the production of montan wax and lignite that becomes exposed as a result of such a mining operation Gaseous fuels (except natural gas and synthetic gas from coal) (describe on page 24) Waste natural gas from gas or oil wells (describe on page 24 how the gas meets the requirements of 18 ☐ C.F.R. § 2.400 for waste natural gas; include with your filing any materials necessary to demonstrate compliance with 18 C.F.R. § 2.400) ☐ Materials that a government agency has certified for disposal by combustion (describe on page 24) Heat from exothermic reactions (describe on page 24) Residual heat (describe on page 24) ☐ Used rubber tires ☐ Plastic materials ☐ Refinery of f-gas ☐ Petroleum coke Other waste energy input that has little or no commercial value and exists in the absence of the qualifying facility industry (describe in the Miscellaneous section starting on page 24; include a discussion of the fuel's lack of commercial value and existence in the absence of the qualifying facility industry) 6c Provide the average energy input, calculated on a calendar year basis, in terms of Btu/h for the following fossil fuel energy inputs, and provide the related percentage of the total average annual energy input to the facility (18 C.F.R. § 292.202(j)). For any oil or natural gas fuel, use lower heating value (18 C.F.R. § 292.202(m)).

| Fuel | Annual average energy input for specified fuel | Percentage of total annual energy input |
|-----------------|--|---|
| Natural gas | 0 Btu/h | 0 % |
| Oil-based fuels | 0 Btu/h | 0 % |
| Coal | 0 Btu/h | 0 % |

Indicate the maximum gross and maximum net electric power production capacity of the facility at the point(s) of delivery by completing the worksheet below. Respond to all items. If any of the parasitic loads and/or losses identified in lines 7b through 7e are negligible, enter zero for those lines.

| 7a The maximum gross power production capacity at the terminals of the individual generator(s) under the most favorable anticipated design conditions | 20,700 kW |
|--|--------------------------|
| 7b Parasitic station power used at the facility to run equipment which is necessary and integral to the power production process (boiler feed pumps, fans/blowers, office or maintenance buildings directly related to the operation of the power generating facility, etc.). If this facility includes non-power production processes (for instance, power consumed by a cogeneration facility's thermal host), do not include any power consumed by the non-power production activities in your | 237700 |
| reported parasitic station power. | 60 kW |
| 7c Electrical losses in interconnection transformers | 245 kW |
| 7d Electrical losses in AC/DC conversion equipment, if any | 0 kW |
| 7e Other interconnection losses in power lines or facilities (other than transformers and AC/DC conversion equipment) between the terminals of the generator(s) and the point of interconnection with the utility | 395 kW |
| 7f Total deductions from gross power production capacity = 7b + 7c + 7d + 7e | 70 0. 0 kW |
| 7g Maximum net power production capacity = 7a - 7f | 20,000.0 kW |

7h Description of facility and primary components: Describe the facility and its operation. Identify all boilers, heat recovery steam generators, prime movers (any mechanical equipment driving an electric generator), electrical generators, photovoltaic solar equipment, fuel cell equipment and/or other primary power generation equipment used in the facility. Descriptions of components should include (as applicable) specifications of the nominal capacities for mechanical output, electrical output, or steam generation of the identified equipment. For each piece of equipment identified, clearly indicate how many pieces of that type of equipment are included in the plant, and which components are normally operating or normally in standby mode. Provide a description of how the components operate as a system. Applicants for cogeneration facilities do not need to describe operations of systems that are clearly depicted on and easily understandable from a cogeneration facility's attached mass and heat balance diagram; however, such applicants should provide any necessary description needed to understand the sequential operation of the facility depicted in their mass and heat balance diagram. If additional space is needed, continue in the Miscellaneous section starting on page 24.

Davison County Wind consists of 9 General Electric wind energy turbines each rated at 2.3 MW nameplate capacity; GE also provides control technology which limits the aggregate output of the eleven turbines to 20MW. The turbine's energy output is transformed to 34.5 kV by a pad-mounted transformer, and output is transmitted through a 34.5 kV underground collector system to a new substation owned by Davison County Wind, LLC. The substation transforms the output to 34.5 kV and delivers the transformed energy to a 34.5 kV transmission line owned by NorthWestern Corporation d/b/a NorthWestern Energy.



Information Required for Small Power Production Facility

If you indicated in line 1k that you are seeking qualifying small power production facility status for your facility, then you must respond to the items on this page. Otherwise, skip pages 11 through 15.

Pursuant to 18 C.F.R. § 292.204(a), the power production capacity of any small power production facility, together with the power production capacity of any other small power production facilities that use the same energy resource, are owned by the same person(s) or its affiliates, and are located at the same site, may not exceed 80 megawatts. To demonstrate compliance with this size limitation, or to demonstrate that your facility is exempt from this size limitation under the Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990 (Pub. L. 101-575, 104 Stat. 2834 (1990) as amended by Pub. L. 102-46, 105 Stat. 249 (1991)), respond to lines 8a through 8f below (as applicable).

Electric Generating Equipment

Electrical generating equipment will refer to all boilers, heat recovery steam generators, prime movers (any mechanical equipment driving an electric generator), electrical generators, photovoltaic solar panels, inverters, fuel cell equipment and/or other primary power generation equipment used in the facility, excluding equipment for gathering energy to be used in the facility. Each wind turbine on a wind farm and each solar panel in a solar facility is considered electrical generating equipment because each wind turbine and each solar panel is independently capable of producing electric energy.

Distance

The distance between two facilities is to be measured from the edge of the closest electrical generating equipment for which qualification or recertification is sought to the edge of the nearest electrical generating equipment of the other affiliated small power production qualifying facility using the same energy resource. An affiliated small power production QF located one mile or less from the instant facility is irrebuttably presumed to be at the same site. An affiliated small power production QF located more than one mile and less than 10 miles from the instant facility is rebuttably presumed to be at a separate site. An affiliated small power production QF located 10 miles or more from the instant facility is irrebuttably presumed to be located at a separate site.

8a Identify affiliated small power production QFs located less than 10 miles from the electrical generating equipment of the instant facility that use the same energy resource and are held (with at least a 5 percent equity interest) by any of the entities identified in lines 5a or 5b or their affiliates. Specify the latitude and longitude coordinates for both the applicant and the affiliate small power production QF based on the nearest electrical generating equipment for each facility. Report coordinates in degrees (to three decimal places) as a positive number for east and north or a negative number for west and south. Use the following formula to convert to decimal degrees from degrees, minutes and seconds: decimal degrees = degrees + (minutes/60) + (seconds/3600). See the "Geographic Coordinates" section on page 5 for help obtaining coordinates. The distances for each facility listed below will be automatically calculated from the reported coordinates. See www.ferc.qov/QF for more information on how this form calculates distance.

Check here if no such facilities exist.

| | Facility location (city or county, state) | Ro | oot docket # (if any) | Maximum net powe production capacity | | Common owner(s) |
|----|--|--------|--------------------------|--------------------------------------|---|-----------------|
| | | QF | - | kV | 1 | |
| | Coordinates (in degrees) and Distar | ce (m | iles): | | | |
| 1) | Closest electrical generating equipn | nent f | or applicant's | facility: | | |
| | Latitude Choose +/- | | ongitude | Choose +/- | | |
| | Closest electrical generating equipr | nent f | or affiliate's fa | cility: | | Distance |
| | Latitude Choose +/- | L | ongitude | Choose +/- | 0 | miles |





| 8a (| Continued | |
|------|--|-----------------|
| | Facility location Root docket # Maximum net power (city or county, state) (if any) production capacity QF - kW | Common owner(s) |
| | | |
| | Coordinates (in degrees) and Distance (miles): | |
| 2) | Closest electrical generating equipment for applicant's facility: | |
| | Latitude Choose +/- Longitude Choose +/- | |
| | Closest electrical generating equipment for affiliate's facility: | Distance |
| | Latitude Choose +/- Longitude Choose +/- | e miles |
| | Facility location Root docket # Maximum net power (city or county, state) (if any) production capacity | Common owner(c) |
| | (city or county, state) (if any) production capacity QF - kW | Common owner(s) |
| | | |
| 3) | Coordinates (in degrees) and Distance (miles): | |
| رد | Closest electrical generating equipment for applicant's facility: | |
| | Latitude Choose +/- Longitude Choose +/- | <u></u> |
| | Closest electrical generating equipment for affiliate's facility: | Distance |
| | Latitude Choose +/- Longitude Choose +/- | <u>f</u> miles |
| | Facility location Root docket # Maximum net power (city or county, state) (if any) production capacity | Common owner(s) |
| | QF - kW | Common owner(s) |
| | Coordinates (in degrees) and Distance (miles): | |
| 4) | Closest electrical generating equipment for applicant's facility: | |
| ., | Latitude Choose +/- Longitude Choose +/- | |
| | Entrade Prisone 17 | |
| | Closest electrical generating equipment for affiliate's facility: | Distance |
| | Latitude Choose +/- Longitude Choose +/- | miles |
| | Facility location Root docket # Maximum net power | |
| | (it any) production capacity | Common owner(s) |
| | (city or county, state) (if any) production capacity QF - kW | Common owner(s) |
| | QF - kW | Common owner(s) |
| 5) | QF - kW Coordinates (in degrees) and Distance (miles): | Common owner(s) |
| 5) | QF - kW Coordinates (in degrees) and Distance (miles): Closest electrical generating equipment for applicant's facility: | Common owner(s) |
| 5) | QF - kW Coordinates (in degrees) and Distance (miles): | Common owner(s) |
| 5) | QF - kW Coordinates (in degrees) and Distance (miles): Closest electrical generating equipment for applicant's facility: | Distance |

| | 8a | 8a Continued | | | | | | | |
|---|----|---|---------------|--|--|--|--|--|--|
| | | Facility location Root docket # Maximum net (city or county, state) (if any) production co | • | Common owner(s) | | | | | |
| | | QF - | kW | | | | | | |
| | | Coordinates (in degrees) and Distance (miles): | | | | | | | |
| | 6} | Closest electrical generating equipment for applicant's facility: | | | | | | | |
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| ਰਿ | | Closest electrical generating equipment for affiliate's facility: | | Distance | | | | | |
| nue | | Latitude Choose +/- Longitude Choo | ose +/- | miles | | | | | |
| Compliance with Size Limitations (continued | | Facility location Root docket # Maximum net | | | | | | | |
| <u>)</u> | | (city or county, state) (if any) production call QF - | hpacity kW | Common owner(s) | | | | | |
| Suc | | | KVV | | | | | | |
| atic | | Coordinates (in degrees) and Distance (miles): | | | | | | | |
|)ita | 7) | Closest electrical generating equipment for applicant's facility: | | | | | | | |
| Lin | | Latitude Choose +/- Longitude Choo | se+/- | | | | | | |
| ize | | Closest electrical generating equipment for affiliate's facility: | | Distance | | | | | |
| <u>S</u> | | Latitude Choose +/- Longitude Choo | | miles | | | | | |
| <u>∓</u> | | | | | | | | | |
| JCe | | Facility location Root docket # Maximum net (city or county, state) (if any) production can | | Common owner(s) | | | | | |
| <u>lia</u> | | QF - | kW | | | | | | |
| dπ | | Coordinates (in degrees) and Distance (miles): | | | | | | | |
| Ō | 8) | Closest electrical generating equipment for applicant's facility: | | | | | | | |
| _ | | | se +/- | ************************************** | | | | | |
| u O | | Latitude Choose 47- | 3E T/* | | | | | | |
| atic | | Closest electrical generating equipment for affiliate's facility: | | Distance | | | | | |
| Ď L | | Latitude Choose +/- Longitude Choo | se +/- | miles | | | | | |
| Certification o | | Facility location Root docket # Maximum net | power | 90.1 | | | | | |
| | | (city or county, state) (if any) production ca | | Common owner(s) | | | | | |
| | | QF | kW | | | | | | |
| | | Coordinates (in degrees) and Distance (miles): | | | | | | | |
| | 9) | Closest electrical generating equipment for applicant's facility: | | | | | | | |
| | | Latitude Choose +/- Longitude Choo | se +/- | | | | | | |
| | | Closest electrical generating equipment for affiliate's facility: | | Distance | | | | | |
| | | Latitude Choose +/- Longitude Choo | se +/- | miles | | | | | |
| | | | 1 | | | | | | |

| | | location unty, state) | Root docket # (if any) | Maximum net power production capacity | Common owne |
|--|---|--|--|---|---|
| | | | QF - | kW | |
| | Coordinates (in c | | | | |
| 10) | Closest electrical | | | | |
| | Latitude | Choose +/- | Longitude | Choose +/- | |
| | Closest electrical | generating equipm | ent for affiliate's fa | acility: | Distance |
| | Latitude | Choose +/- | Longitude | Choose +/- | |
| pow | the calculator be ance Calculator : er production QF | low below to calcula Specify the latitude based on the neares | ate distances base and longitude coo st electrical genera | starting on page 24 if addidentified on facility coordinates. Ordinates for both the appleating equipment for each fast and porth or a pegative | icant and the affiliate acility. Report coordi |
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| pow deg Use deg cooi cooi | the calculator be cance Calculator of the production QF rees (to three decithe following form rees + (minutes/60 rdinates. See www. | Specify the latitude based on the neares imal places) as a posula to convert to de the conders of the conders o | and longitude cod st electrical genera itive number for e ecimal degrees fro See the "Geograp y listed below will nore information o | ordinates for both the applating equipment for each fast and north or a negative or degrees, minutes and sobic Coordinates" section of be automatically calculates in how this form calculates | icant and the affiliate acility. Report coording e number for west and econds: decimal degre on page 5 for help obted ad from the reported |
| pow deg Use degr coor | the calculator be cance Calculator of the production QF rees (to three decitor the following form rees + (minutes/60 rdinates. The distance of the following form rees + (minutes/60 rdinates. See www.closest electrical g | Specify the latitude based on the neares mal places) as a pos nula to convert to de 0) + (seconds/3600). Sinces for each facility w.ferc.gov/QF for managementating equipmentating equipmentations. | and longitude cocst electrical generalitive number for electrical generalitive number for electrical degrees from See the "Geograpy listed below will core information of the for applicant's fall Longitude | ordinates for both the applating equipment for each fast and north or a negative or degrees, minutes and sobic Coordinates" section of be automatically calculates in how this form calculates acility (degrees): | icant and the affiliate acility. Report coording e number for west and econds: decimal degre on page 5 for help obted ad from the reported |

8b You have the option below to assert preemptively that your facility is at a separate site from affiliated small power production QFs using the same energy resource more than one mile but less than 10 miles from your facility. If additional space is needed, continue in the Miscellaneous section starting on page 24.

Pursuant to 18 C.F.R. § 292.204(a)(2)(i)(C), if affiliated small power producer qualifying facilities are more than one mile but less than 10 miles apart there is a rebuttable presumption that they are at separate sites. The factors listed below are examples of the factors that the Commission may consider in deciding whether small power production facilities that are owned by the same person(s) or its affiliates are located "at the same site": (1) physical characteristics, including such common characteristics as: infrastructure, property ownership, property leases, control facilities, access and easements, interconnection agreements, interconnection facilities up to the point of interconnection to the distribution or transmission system, collector systems or facilities, points of interconnection, motive force or fuel source, off-take arrangements, connections to the electrical grid, evidence of shared control systems, common permitting and land leasing, and shared step-up transformers; and (2) ownership/other characteristics, including such characteristics as whether the facilities in question are: owned or controlled by the same person(s) or affiliated persons(s), operated and maintained by the same or affiliated entity(ies), selling to the same electric utility, using common debt or equity financing, constructed by the same entity within 12 months, managing a power sales agreement executed within 12 months of a similar and affiliated small power production qualifying facility (continued next page)...

| | 8b Continued |
|---|---|
| Certification of Compliance with Size Limitations (continued) | (continued from previous page) in the same location, placed into service within 12 months of an affiliated small power production QF project's commercial operation date as specified in the power sales agreement, or sharing engineering or procurement contracts. |
| of Comp | 8c The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990 (Incentives Act) provides exemption from the size limitations in 18 C.F.R. § 292.204(a) for certain facilities that were certified prior to 1995. Are you seeking exemption from the size limitations in 18 C.F.R. § 292.204(a) by virtue of the Incentives Act? Yes (continue at line 8d below) No (skip lines 8d through 8f) |
| ation | 8d Was the original notice of self-certification or application for Commission certification of the facility filed on or before December 31, 1994? Yes No |
| rtific | 8e Did construction of the facility commence on or before December 31, 1999? Yes No |
| G | 8f If you answered No in line 8e, indicate whether reasonable diligence was exercised toward the completion of the facility, taking into account all factors relevant to construction? Yes No |
| | If you answered Yes, provide a brief narrative explanation in the Miscellaneous section starting on page 24 of the construction timeline (in particular, describe why construction started so long after the facility was certified) and the diligence exercised toward completion of the facility. |
| Certification of Compliance with Fuel Use Requirements | Pursuant to 18 C.F.R. § 292.204(b), qualifying small power production facilities may use fossil fuels, in minimal amounts, for only the following purposes: ignition; start-up; testing; flame stabilization; control use; alleviation or prevention of unanticipated equipment outages; and alleviation or prevention of emergencies, directly affecting the public health, safety, or welfare, which would result from electric power outages. The amount of fossil fuels used for these purposes may not exceed 25 percent of the total energy input of the facility during the 12-month period beginning with the date the facility first produces electric energy or any calendar year thereafter. |
| of C Rec | 9a Certification of compliance with 18 C.F.R. § 292.204(b) with respect to uses of fossil fuel: |
| ion (Use | Applicant certifies that the facility will use fossil fuels <i>exclusively</i> for the purposes listed above. |
| icat uel | 9b Certification of compliance with 18 C.F.R. § 292.204(b) with respect to amount of fossil fuel used annually: |
| Certifi with F | Applicant certifies that the amount of fossil fuel used at the facility will not, in aggregate, exceed 25 percent of the total energy input of the facility during the 12-month period beginning with the date the facility first produces electric energy or any calendar year thereafter. |

1

Information Required for Cogeneration Facility

If you indicated in line 1k that you are seeking qualifying cogeneration facility status for your facility, then you must respond to the items on pages 16 through 18. Otherwise, skip pages 16 through 18.

Pursuant to 18 C.F.R. § 292.202(c), a cogeneration facility produces electric energy and forms of useful thermal energy (such as heat or steam) used for industrial, commercial, heating, or cooling purposes, through the sequential use of energy. Pursuant to 18 C.F.R. § 292,202(s), "seguential use" of energy means the following: (1) for a toppingcycle cogeneration facility, the use of reject heat from a power production process in sufficient amounts in a thermal application or process to conform to the requirements of the operating standard contained in 18 C.F.R. § 292.205(a); or (2) for a bottoming-cycle cogeneration facility, the use of at least some reject heat from a thermal application or process for power production. **10a** What type(s) of cogeneration technology does the facility represent? (check all that apply) Topping-cycle cogeneration Bottoming-cycle cogeneration 10b To help demonstrate the sequential operation of the cogeneration process, and to support compliance with other requirements such as the operating and efficiency standards, include with your filing a mass and heat balance diagram depicting average annual operating conditions. This diagram must include certain items and meet certain requirements, as described below. You must check next to the description of each requirement below to certify that you have complied with these requirements. Check to certify compliance with indicated requirement Requirement Diagram must show orientation within system piping and/or ducts of all prime movers, **General Cogeneration** heat recovery steam generators, boilers, electric generators, and condensers (as applicable), as well as any other primary equipment relevant to the cogeneration process. nformation Any average annual values required to be reported in lines 10b, 12a, 13a, 13b, 13d, 13f, 14a, 15b, 15d and/or 15f must be computed over the anticipated hours of operation. Diagram must specify all fuel inputs by fuel type and average annual rate in Btu/h. Fuel for supplementary firing should be specified separately and clearly labeled. All specifications of fuel inputs should use lower heating values. Diagram must specify average gross electric output in kW or MW for each generator. Diagram must specify average mechanical output (that is, any mechanical energy taken off of the shaft of the prime movers for purposes not directly related to electric power generation) in horsepower, if any. Typically, a cogeneration facility has no mechanical output. At each point for which working fluid flow conditions are required to be specified (see below), such flow condition data must include mass flow rate (in lb/h or kg/s), temperature (in °F, R, °C or K), absolute pressure (in psia or kPa) and enthalpy (in Btu/lb or k.J/kg). Exception: For systems where the working fluid is liquid only (no vapor at any point in the cycle) and where the type of liquid and specific heat of that liquid are clearly indicated on the diagram or in the Miscellaneous section starting on page 24, only mass flow rate and temperature (not pressure and enthalpy) need be specified. For reference, specific heat at standard conditions for pure liquid water is approximately 1.002 Btu/ (lb*R) or 4.195 kJ/(kg*K). Diagram must specify working fluid flow conditions at input to and output from each steam turbine or other expansion turbine or back-pressure turbine. Diagram must specify working fluid flow conditions at delivery to and return from each thermal application. Diagram must specify working fluid flow conditions at make-up water inputs.





| | EPAct 2005 cogeneration facilities: The Energy Policy Act of 2005 (EPAct 2005) established a new section 210(n) of the Public Utility Regulatory Policies Act of 1978 (PURPA), 16 USC 824a-3(n), with additional requirements for any qualifying cogeneration facility that (1) is seeking to sell electric energy pursuant to section 210 of PURPA and (2) was either not a cogeneration facility on August 8, 2005, or had not filed a self-certification or application for Commission certification of QF status on or before February 1, 2006. These requirements were implemented by the Commission in 18 C.F.R. § 292.205(d). Complete the lines below, carefully following the instructions, to demonstrate whether these additional requirements apply to your cogeneration facility and, if so, whether your facility complies with such requirements. | | | | | | |
|---|--|---|--|--|--|--|--|
| | 11a Was your facility operating as a qualifying cogeneration facility on or before August 8, 2005? Yes No | ď | | | | | |
| | 11b Was the initial filing seeking certification of your facility (whether a notice of self-certification or an application for Commission certification) filed on or before February 1, 2006? Yes No | | | | | | |
| s e | If the answer to either line 11a or 11b is Yes, then continue at line 11c below. Otherwise, if the answers to both lines 11a and 11b are No, skip to line 11e below. | | | | | | |
| ntal Us acilitie | 11c With respect to the design and operation of the facility, have any changes been implemented on or after February 2, 2006 that affect general plant operation, affect use of thermal output, and/or increase net power production capacity from the plant's capacity on February 1, 2006? | - | | | | | |
| mei n Fa | Yes (continue at line 11d below) | | | | | | |
| Fundai ieratio | No. Your facility is not subject to the requirements of 18 C.F.R. § 292.205(d) at this time. However, it may be subject to to these requirements in the future if changes are made to the facility. At such time, the applicant would need to recertify the facility to determine eligibility. Skip lines 11d through 11j. | | | | | | |
| for loger | 11d Does the applicant contend that the changes identified in line 11c are not so significant as to make the facility a "new" cogeneration facility that would be subject to the 18 C.F.R. § 292.205(d) cogeneration requirements? | - | | | | | |
| ement: from C | Yes. Provide in the Miscellaneous section starting on page 24 a description of any relevant changes made to the facility (including the purpose of the changes) and a discussion of why the facility should not be considered a "new" cogeneration facility in light of these changes. Skip lines 11e through 11j. | | | | | | |
| ct 2005 Requirements for Fundamental Use nergy Output from Cogeneration Facilities | No. Applicant stipulates to the fact that it is a "new" cogeneration facility (for purposes of determining the applicability of the requirements of 18 C.F.R. § 292.205(d)) by virtue of modifications to the facility that were initiated on or after February 2, 2006. Continue below at line 11 e. | | | | | | |
| 05 I y O | 11e Will electric energy from the facility be sold pursuant to section 210 of PURPA? | - | | | | | |
| t 20 nerg | Yes. The facility is an EPAct 2005 cogeneration facility. You must demonstrate compliance with 18 C.F.R. § 292.205(d)(2) by continuing at line 11f below. | | | | | | |
| EPAC of Er | No. Applicant certifies that energy will <i>not</i> be sold pursuant to section 210 of PURPA. Applicant also certifies its understanding that it must recertify its facility in order to determine compliance with the requirements of 18 C.F.R. § 292.205(d) <i>before</i> selling energy pursuant to section 210 of PURPA in the future. Skip lines 11f through 11j. | | | | | | |
| | 11f Is the net power production capacity of your cogeneration facility, as indicated in line 7g above, less than or equal to 5,000 kW? | - | | | | | |
| | Yes, the net power production capacity is less than or equal to 5,000 kW. 18 C.F.R. § 292.205(d)(4) provides a rebuttable presumption that cogeneration facilities of 5,000 kW and smaller capacity comply with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2). Applicant certifies its understanding that, should the power production capacity of the facility increase above 5,000 kW, then the facility must be recertified to (among other things) demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Skip lines 11g through 11j. | | | | | | |
| | No, the net power production capacity is greater than 5,000 kW. Demonstrate compliance with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2) by continuing on the next page at line 11g. | | | | | | |

Lines 11g through 11k below guide the applicant through the process of demonstrating compliance with the requirements for "fundamental use" of the facility's energy output. 18 C.F.R. § 292.205(d)(2). Only respond to the lines on this page if the instructions on the previous page direct you to do so. Otherwise, skip this page.

18 C.F.R. § 292.205(d)(2) requires that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility. If you were directed on the previous page to respond to the items on this page, then your facility is an EPAct 2005 cogeneration facility that is subject to this "fundamental use" requirement.

The Commission's regulations provide a two-pronged approach to demonstrating compliance with the requirements for fundamental use of the facility's energy output. First, the Commission has established in 18 C.F.R. § 292.205(d)(3) a "fundamental use test" that can be used to demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Under the fundamental use test, a facility is considered to comply with 18 C.F.R. § 292.205(d)(2) if at least 50 percent of the facility's total annual energy output (including electrical, thermal, chemical and mechanical energy output) is used for industrial, commercial, residential or institutional purposes.

Second, an applicant for a facility that does not pass the fundamental use test may provide a narrative explanation of and support for its contention that the facility nonetheless meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility.

Complete lines 11g through 11j below to determine compliance with the fundamental use test in 18 C.F.R. § 292.205(d)(3). Complete lines 11g through 11j even if you do not intend to rely upon the fundamental use test to demonstrate compliance with 18 C.F.R. § 292.205(d)(2).

| 11g Amount of electrical, thermal, chemical and mechanical energy output (net of internal | |
|---|-----|
| generation plant losses and parasitic loads) expected to be used annually for industrial, | |
| commercial, residential or institutional purposes and not sold to an electric utility | MWh |
| 11h Total amount of electrical, thermal, chemical and mechanical energy expected to be | |
| sold to an electric utility | MWh |
| 11i Percentage of total annual energy output expected to be used for industrial, | |
| commercial, residential or institutional purposes and not sold to a utility | |
| =100 * 11g /(11g + 11h) | · % |
| | |

11j Is the response in line 11i greater than or equal to 50 percent?

Yes. Your facility complies with 18 C.F.R. § 292.205(d)(2) by virtue of passing the fundamental use test provided in 18 C.F.R. § 292.205(d)(3). Applicant certifies its understanding that, if it is to rely upon passing the fundamental use test as a basis for complying with 18 C.F.R. § 292.205(d)(2), then the facility must comply with the fundamental use test both in the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years.

No. Your facility does not pass the fundamental use test. Instead, you must provide in the Miscellaneous section starting on page 24 a narrative explanation of and support for why your facility meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a QF to its host facility. Applicants providing a narrative explanation of why their facility should be found to comply with 18 C.F.R. § 292.205(d)(2) in spite of non-compliance with the fundamental use test may want to review paragraphs 47 through 61 of Order No. 671 (accessible from the Commission's QF website at www.ferc.gov/QF), which provide discussion of the facts and circumstances that may support their explanation. Applicant should also note that the percentage reported above will establish the standard that that facility must comply with, both for the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years. See Order No. 671 at paragraph 51. As such, the applicant should make sure that it reports appropriate values on lines 11g and 11h above to serve as the relevant annual standard, taking into account expected variations in production conditions.



Usefulness of Topping-Cycle Thermal Output

Information Required for Topping-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents topping-cycle cogeneration technology, then you must respond to the items on pages 19 and 20. Otherwise, skip pages 19 and 20.

The thermal energy output of a topping-cycle cogeneration facility is the net energy made available to an industrial or commercial process or used in a heating or cooling application. Pursuant to sections 292.202(c), (d) and (h) of the Commission's regulations (18 C.F.R. §§ 292.202(c), (d) and (h)), the thermal energy output of a qualifying toppingcycle cogeneration facility must be useful. In connection with this requirement, describe the thermal output of the topping-cycle cogeneration facility by responding to lines 12a and 12b below. 12a Identify and describe each thermal host, and specify the annual average rate of thermal output made available to each host for each use. For hosts with multiple uses of thermal output, provide the data for each use in separate rows. Average annual rate of thermal output attributable to use (net of Name of entity (thermal host) Thermal host's relationship to facility; heat contained in process taking thermal output Thermal host's use of thermal output return or make-up water) Select thermal host's relationship to facility 1) Select thermal host's use of thermal output Btu/h Select thermal host's relationship to facility 2) Select thermal host's use of thermal output Btu/h Select thermal host's relationship to facility 3) Select thermal host's use of thermal output Btu/h Select thermal host's relationship to facility 4) Select thermal host's use of thermal output Btu/h Select thermal host's relationship to facility 5) Select thermal host's use of thermal output Btu/h Select thermal host's relationship to facility 6) Select thermal host's use of thermal output Btu/h Check here and continue in the Miscellaneous section starting on page 24 if additional space is needed 12b Demonstration of usefulness of thermal output: At a minimum, provide a brief description of each use of the thermal output identified above. In some cases, this brief description is sufficient to demonstrate usefulness. However, if your facility's use of thermal output is not common, and/or if the usefulness of such thermal output is not reasonably clear, then you must provide additional details as necessary to demonstrate usefulness. Your application may be rejected and/or additional information may be required if an insufficient showing of usefulness is made. (Exception: If you have previously received a Commission certification approving a specific use of thermal output related to the instant facility, then you need only provide a brief description of that use and a reference by date and docket number to the order certifying your facility with the indicated use. Such exemption may not be used if any change creates a material deviation from the previously authorized use.) If additional space is needed, continue in the Miscellaneous section starting on page 24.

| 111 330 | rage 20 Topping Cycle Cogeneration racinties |
|--|---|
| cycle operating standard and, if applicable, e regulations (18 C.F.R. § 292.205(a)(1)) establist the useful thermal energy output must be no (18 C.F.R. § 292.20S(a)(2)) establishes the efficinstallation commenced on or after March 13 thermal energy output must (A) be no less the facility; and (B) if the useful thermal energy obe no less than 45 percent of the total energy compliance with the topping-cycle operating | -cycle technology must demonstrate compliance with the topping-fficiency standard. Section 292.205(a)(1) of the Commission's shes the operating standard for topping-cycle cogeneration facilities: eless than 5 percent of the total energy output. Section 292.205(a)(2) ciency standard for topping-cycle cogeneration facilities for which , 1980: the useful power output of the facility plus one-half the useful an 42.5 percent of the total energy input of natural gas and oil to the utput is less than 15 percent of the total energy output of the facility, y input of natural gas and oil to the facility. To demonstrate and/or efficiency standards, or to demonstrate that your facility is in the date that installation commenced, respond to lines 13a through |
| technology, then respond to lines 13a through | epresents <i>both</i> topping-cycle and bottoming-cycle cogeneration ph 13l below considering only the energy inputs and outputs our facility. Your mass and heat balance diagram must make clear |

which mass and energy flow values and system components are for which portion (topping or bottoming) of the

| ···································· | |
|---|---------------------------------|
| cogeneration system. | |
| 13a Indicate the annual average rate of useful thermal energy output made availab | le |
| to the host(s), net of any heat contained in condensate return or make-up water | Btu/h |
| 13b Indicate the annual average rate of net electrical energy output | |
| | kW |
| 13c Multiply line 13b by 3,412 to convert from kW to Btu/h | |
| | 0 Btu/h |
| 13d Indicate the annual average rate of mechanical energy output taken directly of | |
| of the shaft of a prime mover for purposes not directly related to power production | |
| (this value is usually zero) | hp |
| 13e Multiply line 13d by 2,544 to convert from hp to Btu/h | 1,10 |
| 100 manapy mile 100 by a for the contract ment in the order in | () Btu/h |
| 13f Indicate the annual average rate of energy input from natural gas and oil | O Dtd/H |
| indicate the annual average rate of energy input from natural gas and on | Btu/h |
| 13g Topping-cycle operating value = 100 * 13a / (13a + 13c + 13e) |) Dtd/11 |
| 13g Topping Cycle Operating Value = 100 | 0 % |
| 13h Topping-cycle efficiency value = 100 * (0.5*13a + 13c + 13e) / 13f | 0 70 |
| 1311 Topping-cycle efficiency value = 100 (0.5 13a + 13c + 13e) / 131 | ú % |
| 201 C | 1: - |
| 13i Compliance with operating standard: Is the operating value shown in line 13g g | reater than or equal to 5%? |
| Yes (complies with operating standard) No (does not comply | with operating standard) |
| 13j Did installation of the facility in its current form commence on orafter March 13, | , 1980? |
| Yes. Your facility is subject to the efficiency requirements of 18 C.F.R. § 292.2 | 05(a)(2). Demonstrate |
| compliance with the efficiency requirement by responding to line 13k or 13l, | as applicable, below. |
| | |
| No. Your facility is exempt from the efficiency standard. Skip lines 13k and 1 | 31. |
| 13k Compliance with efficiency standard (for low operating value): If the operating | value shown in line 13g is less |
| than 15%, then indicate below whether the efficiency value shown in line 13h greate | 9 1 |
| | · |
| Yes (complies with efficiency standard) No (does not comply to | with efficiency standard) |
| 13I Compliance with efficiency standard (for high operating value): If the operating | value shown in line 13a is |
| greater than or equal to 15%, then indicate below whether the efficiency value show equal to 42.5%: | |
| Yes (complies with efficiency standard) No (does not comply to | with efficiency standard) |

Information Required for Bottoming-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents bottoming-cycle cogeneration technology, then you must respond to the items on pages 21 and 22. Otherwise, skip pages 21 and 22.

| | whi the cycl at le | ch at least some of the reject heat Commission's regulations (18 C.F. e cogeneration facility must be use east some of the reject heat is used lidentify and describe each therm | oming-cycle cogeneration facility is the energy relation to set is then used for power production. Pursuant to set is then used for power production. Pursuant to set is then used for power production with this requirement, described for power production by responding to lines 14a anal host and each bottoming-cycle cogeneration pottoming-cycle cogeneration processes, provide the Thermal host's relationship to facility; Thermal host's process type | ections 292.202(c) and (e) of it of a qualifying bottoming- ee the process(es) from which and 14b below. |
|---|---|--|--|---|
| | 1) | | Select thermal host's relationship to facility | Yes No |
| | | | Select thermal host's process type | A |
| <u>e</u> | 2) | | Select thermal host's relationship to facility | Yes No |
| 8 | | | Select thermal host's process type | |
| -6 -1 | 3) | | Select thermal host's relationship to facility | Yes No |
| nir Suf | | | Select thermal host's process type | |
| ton | | Check here and continue in the | ne Miscellaneous section starting on page 24 if add | itional space is needed |
| Usefulness of Bottoming-Cycle Thermal Output | ider facil mus add prev facil to th | ntified above. In some cases, this lity's process is not common, and/ st provide additional details as neo itional information may be requir- viously received a Commission cer lity, then you need only provide a ne order certifying your facility with | thermal output: At a minimum, provide a brief description is sufficient to demonstrate useful for if the usefulness of such thermal output is not recessary to demonstrate usefulness. Your application application approving a specific bottoming-cycle probability of the indicated process. Such exemption may not ade.) If additional space is needed, continue in the | Iness. However, if your easonably clear, then you on may be rejected and/or . (Exception: If you have ocess related to the instant y date and docket number t be used if any material |

Bottoming-Cycle Operating and Efficiency Value Calculation

Applicants for facilities representing bottoming-cycle technology and for which installation commenced on or after March 13, 1990 must demonstrate compliance with the bottoming-cycle efficiency standards. Section 292.205(b) of the Commission's regulations (18 C.F.R. § 292.205(b)) establishes the efficiency standard for bottoming-cycle cogeneration facilities: the useful power output of the facility must be no less than 45 percent of the energy input of natural gas and oil for supplementary firing. To demonstrate compliance with the bottoming-cycle efficiency standard (if applicable), or to demonstrate that your facility is exempt from this standard based on the date that installation of the facility began, respond to lines 15a through 15h below.

If you indicated in line 10a that your facility represents *both* topping-cycle and bottoming-cycle cogeneration technology, then respond to lines 15a through 15h below considering only the energy inputs and outputs attributable to the bottoming-cycle portion of your facility. Your mass and heat balance diagram must make clear which mass and energy flow values and system components are for which portion of the cogeneration system (topping or bottoming).

| 15a Did installation of the facility in its current form commence on or after March 13, 1 | 980? |
|---|------------------------------|
| Yes. Your facility is subject to the efficiency requirement of 18 C.F.R. § 292.205 with the efficiency requirement by responding to lines 15b through 15h below | |
| No. Your facility is exempt from the efficiency standard. Skip the rest of page 2 | 22. |
| 15b Indicate the annual average rate of net electrical energy output | |
| | kW |
| 15c Multiply line 15b by 3,412 to convert from kW to Btu/h | |
| | @ Btu/h |
| 15d Indicate the annual average rate of mechanical energy output taken directly off | |
| of the shaft of a prime mover for purposes not directly related to power production | |
| (this value is usually zero) | hp |
| 15e Multiply line 15d by 2,544 to convert from hp to Btu/h | |
| | 0 Btu/h |
| 15f Indicate the annual average rate of supplementary energy input from natural gas | |
| oroil | Btu/h |
| 15g Bottoming-cycle efficiency value = 100 * (15c + 15e) / 15f | |
| | 0 % |
| 15h Compliance with efficiency standard: Indicate below whether the efficiency value than or equal to 45%: | shown in line 15g is greater |
| Yes (complies with efficiency standard) No (does not comply wi | th efficiency standard) |

FERC Form 556 Page 23 - All Facilities

Certificate of Completeness, Accuracy and Authority

Commission Staff Use Only:

Applicant must certify compliance with and understanding of filing requirements by checking next to each item below and signing at the bottom of this section. Forms with incomplete Certificates of Completeness, Accuracy and Authority will be rejected by the Secretary of the Commission.

| Signer identified below certifies the follow | | | |
|--|--|---|--|
| | ving: (check all items and applicable subitems) | | |
| | ng any information contained in any attached docur d any information contained in the Miscellaneous so | | |
| He or she has provided all of the required to the best of his or her knowledge as | uired information for certification, and the provided nd belief. | information is true as stated, | |
| He or she possess full power and auth Practice and Procedure (18 C.F.R. § 38 | hority to sign the filing; as required by Rule 2005(a)(35.2005(a)(3)), he or she is one of the following: (che | (3) of the Commission's Rules of eck one) | |
| ☐ The person on whose behalf | the filing is made | | |
| oxtimes An officer of the corporation, | trust, association, or other organized group on beh | alfof which the filing is made | |
| An officer, agent, or employe filing is made | of the governmental authority, agency, or instrume | entality on behalf of which the | |
| A representative qualified to practice and Procedure (18 C. | practice before the Commission under Rule 2101 of .F.R. § 385.2101) and who possesses authority to sig | f the Commission's Rules of n | |
| He or she has reviewed all automatic calculations and agrees with their results, unless otherwise noted in the Miscellaneous section starting on page 24. | | | |
| interconnect and transact (see lines 4 facility and those utilities reside. See page 4 for more information. Provide your signature, address and signa Procedure (18 C.F.R. § 385.2005(c)) provide peresenting his or her name to sign the fi | Form 556 and all attachments to the utilities with value through 4d), as well as to the regulatory authorities the Required Notice to Public Utilities and State Resture date below. Rule 2005(c) of the Commission's es that persons filing their documents electronically iled documents. A person filing this document electronically | es of the states in which the gulatory Authorities section on Rules of Practice and y may use typed characters | |
| typing his or her name) in the space provi | ded below. | tromeany should sign (by | |
| typing his or her name) in the space proving the | ded below. Your address | Date | |
| | | | |

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Miscellaneous

Use this space to provide any information for which there was not sufficient space in the previous sections of the form to provide. For each such item of information *clearly identify the line number that the information belongs to*. You may also use this space to provide any additional information you believe is relevant to the certification of your facility.

Your response below is not limited to one page. Additional page(s) will automatically be inserted into this form if the length of your response exceeds the space on this page. Use as many pages as you require.

Line 5 and 8a: Due to an internal reorganization of the corporate structure, RWE US Holdings, LLC is now an upstream corporate owner of this facility.