

BLACK DIAMOND ENERGY COMPANY

13215 SE Mill Plain Boulevard Building C8, Suite 231 Vancouver, WA 98684 USA

T 503.203.2695 F 971.925.4107 E blkDiamondEnergy@gmail.com

SUBJECT: BDE-Cascade Mountain FERC # QF12-457-000

Pursuant to 18 C.F.R. § 292.207(a)(ii), Black Diamond Energy is hereby providing a copy of our self-certification or request for Commission certification to **PacifiCorp** with which the facility will interconnect and/or transact, as well as to the **Oregon** State Public Utility Commission.

28 July 2012

7017 AUG -1 A 8: 25

FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON, DC

OMB Control # 1902-0075 Expiration 5/31/2013

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

General

Questions about completing this form should be sent to Form556@ferc.gov. Information about the Commission's QF program, answers to frequently asked questions about QF requirements or completing this form, and contact information for QF program staff are available at the Commission's QF website, www.ferc.gov/QF. The Commission's QF website also provides links to the Commission's QF regulations (18 C.F.R. § 131.80 and Part 292), as well as other statutes and orders pertaining to the Commission's QF program.

Who Must File

Any applicant seeking QF status or recertification of QF status for a generating facility with a net power production capacity (as determined in lines 7a through 7g below) greater than 1000 kW must file a self-certification or an application for Commission certification of QF status, which includes a properly completed Form 556. Any applicant seeking QF status for a generating facility with a net power production capacity 1000 kW or less is exempt from the certification requirement, and is therefore not required to complete or file a Form 556. See 18 C.F.R. § 292.203.

How to Complete the Form 556

This form is intended to be completed by responding to the items in the order they are presented, according to the instructions given. If you need to back-track, you may need to clear certain responses before you will be allowed to change other responses made previously in the form. If you experience problems, click on the nearest help button (🚯) for assistance, or contact Commission staff at Form556@ferc.gov.

Certain lines in this form will be automatically calculated based on responses to previous lines, with the relevant formulas shown. You must respond to all of the previous lines within a section before the results of an automatically calculated field will be displayed. If you disagree with the results of any automatic calculation on this form, contact Commission staff at Form556@ferc.gov to discuss the discrepancy before filing.

You must complete all lines in this form unless instructed otherwise. Do not alter this form or save this form in a different format. Incomplete or altered forms, or forms saved in formats other than PDF, will be rejected.

How to File a Completed Form 556

Applicants are required to file their Form 556 electronically through the Commission's eFiling website (see instructions on page 2). By filing electronically, you will reduce your filing burden, save paper resources, save postage or courier charges, help keep Commission expenses to a minimum, and receive a much faster confirmation (via an email containing the docket number assigned to your facility) that the Commission has received your filing.

If you are simultaneously filing both a waiver request and a Form 556 as part of an application for Commission certification, see the "Waiver Requests" section on page 3 for more information on how to file.

Paperwork Reduction Act Notice

This form is approved by the Office of Management and Budget (OMB Control No. 1902-0075, expiration 05/31/2013). Compliance with the information requirements established by the FERC Form No. 556 is required to obtain or maintain status as a QF. See 18 C.F.R. § 131.80 and Part 292. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The estimated burden for completing the FERC Form No. 556, including gathering and reporting information, is as follows: 3 hours for self-certification of a small power production facility, 8 hours for self-certifications of a cogeneration facility, 6 hours for an application for Commission certification of a small power production facility, and 50 hours for an application for Commission certification of a cogeneration facility. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing this burden, to the following: Information Clearance Officer, Office of the Executive Director (ED-32), Federal Energy Regulatory Commission, 888 First Street N.E., Washington, DC 20426; and Desk Officer for FERC, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503 (oira_submission@omb.eop.gov). Include the Control No. 1902-0075 in any correspondence.

FERC Form 556 Page 3 - Instructions

Filing Fee

No filing fee is required if you are submitting a self-certification or self-recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(a).

A filing fee is required if you are filing either of the following:

- (1) an application for Commission certification or recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(b), or
- (2) a petition for declaratory order granting waiver pursuant to 18 C.F.R. §§ 292.204(a)(3) and/or 292.205(c).

The current fees for applications for Commission certifications and petitions for declaratory order can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Fee Schedule link.

You will be prompted to submit your filing fee, if applicable, during the electronic filing process described on page 2.

Required Notice to Utilities and State Regulatory Authorities

Pursuant to 18 C.F.R. § 292.207(a)(ii), you must provide a copy of your self-certification or request for Commission certification to the utilities with which the facility will interconnect and/or transact, as well as to the State regulatory authorities of the states in which your facility and those utilities reside. Links to information about the regulatory authorities in various states can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Notice Requirements link.

What to Expect From the Commission After You File

An applicant filing a Form 556 electronically will receive an email message acknowledging receipt of the filing and showing the docket number assigned to the filing. Such email is typically sent within one business day, but may be delayed pending confirmation by the Secretary of the Commission of the contents of the filing.

An applicant submitting a self-certification of QF status should expect to receive no documents from the Commission, other than the electronic acknowledgement of receipt described above. Consistent with its name, a self-certification is a certification by the applicant itself that the facility meets the relevant requirements for QF status, and does not involve a determination by the Commission as to the status of the facility. An acknowledgement of receipt of a self-certification, in particular, does not represent a determination by the Commission with regard to the QF status of the facility. An applicant self-certifying may, however, receive a rejection, revocation or deficiency letter if its application is found, during periodic compliance reviews, not to comply with the relevant requirements.

An applicant submitting a request for Commission certification will receive an order either granting or denying certification of QF status, or a letter requesting additional information or rejecting the application. Pursuant to 18 C.F.R. § 292.207(b)(3), the Commission must act on an application for Commission certification within 90 days of the later of the filing date of the application or the filing date of a supplement, amendment or other change to the application.

Waiver Requests

18 C.F.R. § 292.204(a)(3) allows an applicant to request a waiver to modify the method of calculation pursuant to 18 C.F.R. § 292.204(a)(2) to determine if two facilities are considered to be located at the same site, for good cause. 18 C.F.R. § 292.205(c) allows an applicant to request waiver of the requirements of 18 C.F.R. §§ 292.205(a) and (b) for operating and efficiency upon a showing that the facility will produce significant energy savings. A request for waiver of these requirements must be submitted as a petition for declaratory order, with the appropriate filing fee for a petition for declaratory order. Applicants requesting Commission recertification as part of a request for waiver of one of these requirements should electronically submit their completed Form 556 along with their petition for declaratory order, rather than filing their Form 556 as a separate request for Commission recertification. Only the filing fee for the petition for declaratory order must be paid to cover both the waiver request and the request for recertification if such requests are made simultaneously.

18 C.F.R. § 292.203(d)(2) allows an applicant to request a waiver of the Form 556 filing requirements, for good cause. Applicants filing a petition for declaratory order requesting a waiver under 18 C.F.R. § 292.203(d)(2) do not need to complete or submit a Form 556 with their petition.

1

Page 4 - Instructions

Geographic Coordinates

If a street address does not exist for your facility, then line 3c of the Form 556 requires you to report your facility's geographic coordinates (latitude and longitude). Geographic coordinates may be obtained from several different sources. You can find links to online services that show latitude and longitude coordinates on online maps by visiting the Commission's QF webpage at www.ferc.gov/QF and clicking the Geographic Coordinates link. You may also be able to obtain your geographic coordinates from a GPS device, Google Earth (available free at http://earth.google.com), a property survey, various engineering or construction drawings, a property deed, or a municipal or county map showing property lines.

Filing Privileged Data or Critical Energy Infrastructure Information in a Form 556

The Commission's regulations provide procedures for applicants to either (1) request that any information submitted with a Form 556 be given privileged treatment because the information is exempt from the mandatory public disclosure requirements of the Freedom of Information Act, 5 U.S.C. § 552, and should be withheld from public disclosure; or (2) identify any documents containing critical energy infrastructure information (CEII) as defined in 18 C.F.R. § 388.113 that should not be made public.

If you are seeking privileged treatment or CEII status for any data in your Form 556, then you must follow the procedures in 18 C.F.R. § 388.112. See www.ferc.gov/help/filing-guide/file-ceii.asp for more information.

Among other things (see 18 C.F.R. § 388.112 for other requirements), applicants seeking privileged treatment or CEII status for data submitted in a Form 556 must prepare and file both (1) a complete version of the Form 556 (containing the privileged and/or CEII data), and (2) a public version of the Form 556 (with the privileged and/or CEII data redacted). Applicants preparing and filing these different versions of their Form 556 must indicate below the security designation of this version of their document. If you are *not* seeking privileged treatment or CEII status for any of your Form 556 data, then you should not respond to any of the items on this page.

Non-Public: Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This non-public version of the applicant's Form 556 contains all data, including the data that is redacted in the (separate) public version of the applicant's Form 556.
Public (redacted): Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This public version of the applicants's Form 556 contains all data except for data from the lines indicated below, which has been redacted.
Privileged: Indicate below which lines of your form contain data for which you are seeking privileged treatment
Critical Energy Infrastructure Information (CEII): Indicate below which lines of your form contain data for which you are seeking CEII status

The eFiling process described on page 2 will allow you to identify which versions of the electronic documents you submit are public, privileged and/or CEII. The filenames for such documents should begin with "Public", "Priv", or "CEII", as applicable, to clearly indicate the security designation of the file. Both versions of the Form 556 should be unaltered PDF copies of the Form 556, as available for download from www.ferc.gov/QF. To redact data from the public copy of the submittal, simply omit the relevant data from the Form. For numerical fields, leave the redacted fields blank. For text fields, complete as much of the field as possible, and replace the redacted portions of the field with the word "REDACTED" in brackets. Be sure to identify above all fields which contain data for which you are seeking non-public status.

The Commission is not responsible for detecting or correcting filer errors, including those errors related to security designation. If your documents contain sensitive information, make sure they are filed using the proper security designation.

FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON, DC

OMB Control # 1902-0075 Expiration 5/31/2013

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

1b Applicant street ad 13215 SE Mill I Building C8, St	Plain Blvd.				
1c City		1d State/prov	ince		
Vancouver		WA			
1e Postal code 98684	1f Country (if not United States)		1g Telephone number 503.203.2695		
1h Has the instant facil	ity ever previously been certified as a C	F? Yes 🗌 N	No 🛛		
1i If yes, provide the do	ocket number of the last known QF filin	g pertaining to th	his facility: QF		
1j Under which certific	ation process is the applicant making t	his filing?	, 		
Notice of self-cert (see note below)	•		ommission certification (requires filing e" section on page 3)		
QF status. A notice notice of self-certif	certification is a notice by the applicant of self-certification does not establish ication to verify compliance. See the "V or more information.	a proceeding, and	ility complies with the requirements for d the Commission does not review a om the Commission After You File"		
1k What type(s) of QF	status is the applicant seeking for its fac	ility? (check all th	nat apply)		
Qualifying small power production facility status Qualifying cogeneration facility status					
	What is the purpose and expected effective date(s) of this filing? Original certification; facility expected to be installed by 7/1/14 and to begin operation on 8/1/14 Change(s) to a previously certified facility to be effective on (the write to prove of the prove (s) below, and describe shange(s) in the Missellaneous section starting on page 19)				
Original certificati	\bigcirc Original certification; facility expected to be installed by $\boxed{7/1/14}$ and to begin operation on $\boxed{8/1/14}$				
	Change(s) to a previously certified facility to be effective on				
	(identify type(s) of change(s) below, and describe change(s) in the Miscellaneous section starting on page 19)				
Name change and/or other administrative change(s)					
 Change in ownership Change(s) affecting plant equipment, fuel use, power production capacity and/or cogeneration thermal output 					
			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		
1 	rection to a previous filing submitted o plement or correction in the Miscellane		ng on page 19)		
1m If any of the follow		oox(es) that desc	ribe your situation and complete the for		
The instant facil previously grant		requirements by ed	virtue of a waiver of certain regulations (specify any other relevant waiver		
	ity would comply with the Commission th this application is granted	's QF requiremen	its if a petition for waiver submitted		
employment of	ity complies with the Commission's reg unique or innovative technologies not on of compliance via this form difficult	contemplated by	special circumstances, such as the v the structure of this form, that make escribe in Misc. section starting on p. 19)		

Page 6 - All Facilities

FERC Form 556

	2a Name of contact person			2b Telephone number	7	
	J. Garrett Smith, PE			503.203.2695		
	2c Which of the following describes the contact person's relationship to the applicant? (check one)					
	Applicant (self) 🔀 Empl	oyee, owner or partner o	of applicant authori	zed to represent the applicant		
Employee of a company affiliated with the applicant authorized to represent the applicant on this matter					İ	
ati	Employee of a company affiliated with the applicant authorized to represent the applicant on this matter Lawyer, consultant, or other representative authorized to represent the applicant on this matter 2d Company or organization name (if applicant is an individual, check here and skip to line 2e) Black Diamond Energy, LLC 2e Street address (if same as Applicant, check here and skip to line 3a)					
Ę						
ည္						
2e Street address (if same as Applicant, check here and skip to line 3a) ✓				6		
[ac	2 Street address (it same as Abblicant's check here and sub to line 3a) 🖂				_	
on o						
Ŭ		,	2g State/provi	nce		
	2h Postal code	2i Country (if not Unite	d States)		1	
			·			
 -	3a Facility name			-	1	
٦	BDE-Cascade Mountain					
äţi	3b Street address (if a street address	does not exist for the fa	cility, check here a	nd skip to line 3c)	e e	
Ö	7220 NW O'Neil Highway		,,		U	
긎	•					
ty Identification and Location	then you must specify the latitud the following formula to convert degrees + (minutes/60) + (second	le and longitude coordir to decimal degrees fron ds/3600). See the "Geo	nates of the facility in degrees, minutes graphic Coordinate	ur facility by checking the box in line 3b, in degrees (to three decimal places). Use and seconds: decimal degrees = es" section on page 4 for help. If you graphic coordinates below is optional. North (+)		
en_	Longitude West (-)	degrees	Latitude [South (-)degrees		
<u>ام</u>	3d City (if unincorporated, check he	re and enter nearest city) 3e State/pr	ovince		
	Prineville		OR			
Facili	3f County (or check here for indepen	ndent city) 🗌 💢	3g Country (if not	United States)] ()	
╵╙╌	Crook		USA			
	Identify the electric utilities that are c	ontemplated to transact	with the facility.	<u> </u>		
es	4a Identify utility interconnecting w	ith the facility			1	
Œ	PacifiCorp					
Uti	4b Identify utilities providing wheeling service or check here if none					
б	PacifiCorp					
E.	4c Identify utilities purchasing the u	seful electric power outp	out or check here if	none	0	
Sa	PacifiCorp					
Transacting Utilities	4d Identify utilities providing supple service or check here if none PacifiCorp	mentary power, backup	power, maintenan	ce power, and/or interruptible power	Ø	

	defined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or a holding com 1262(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 two direct owners with the largest equity interest in the facility.	!) for owners v y held by that	which a t owner. rmation	re electri . If no
	Full legal names of direct owners	holdin compai	g	% equit
1)	Black Diamond Energy, LLC	Yes 🔲 🛚 N	Vo ⊠	
2)		Yes 🗌 🛚 N	√o []	
3)		Yes 🔲 N	4o 🗌	
4)		Yes 🔲 N	√o	
5)		Yes 🔲 N	lo 🗌	
6)		Yes 🔲 N	√ 0	
7)		Yes 🔲 N	1 0 🗌	
8)		Yes 🔲 N	10 <u> </u>	
9)		Yes 🔲 N	10 <u> </u>	
10	0)	Yes 🗌 N	10 [_]	
5b	Upstream (i.e., indirect) ownership as of effective date or operation date: Identify all to of the facility that both (1) hold at least 10 percent equity interest in the facility, and (2) defined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding comp 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 own another total percent equity interest reported may exceed 100 percent.)	upstream (i.e. 2) are electric anies, as defi provide the pe	, indirect tutilities ned in se ercentag	t) owner , as ection ge of
	Upstream (i.e., indirect) ownership as of effective date or operation date: Identify all to of the facility that both (1) hold at least 10 percent equity interest in the facility, and (idefined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding comp 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 own another, total percent equity interest reported may exceed 100 percent.) Check here if no such upstream owners exist.	upstream (i.e. 2) are electric anies, as defi provide the pe ers may be su	, indirec : utilities ned in s ercentag ubsidiar	t) owner s, as ection ge of ies of on % equit
	Upstream (i.e., indirect) ownership as of effective date or operation date: Identify all to of the facility that both (1) hold at least 10 percent equity interest in the facility, and (idefined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding comp 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 own another, total percent equity interest reported may exceed 100 percent.) Check here if no such upstream owners exist.	upstream (i.e. 2) are electric anies, as defi provide the pe ers may be su	, indirec : utilities ned in s ercentag ubsidiar	t) owner s, as ection ge of ies of on % equit
1)	Upstream (i.e., indirect) ownership as of effective date or operation date: Identify all to of the facility that both (1) hold at least 10 percent equity interest in the facility, and (idefined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding comp 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 own another, total percent equity interest reported may exceed 100 percent.) Check here if no such upstream owners exist.	upstream (i.e. 2) are electric anies, as defi provide the pe ers may be su	, indirec : utilities ned in s ercentag ubsidiar	t) owner s, as ection ge of ies of on % equit
1)	Upstream (i.e., indirect) ownership as of effective date or operation date: Identify all to of the facility that both (1) hold at least 10 percent equity interest in the facility, and (idefined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding comp 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 own another, total percent equity interest reported may exceed 100 percent.) Check here if no such upstream owners exist.	upstream (i.e. 2) are electric anies, as defi provide the pe ers may be su	, indirec : utilities ned in s ercentag ubsidiar	t) owner s, as ection ge of ies of on % equit
1) 2) 3)	Upstream (i.e., indirect) ownership as of effective date or operation date: Identify all to of the facility that both (1) hold at least 10 percent equity interest in the facility, and (idefined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding comp 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 own another, total percent equity interest reported may exceed 100 percent.) Check here if no such upstream owners exist.	upstream (i.e. 2) are electric anies, as defi provide the pe ers may be su	, indirec : utilities ned in s ercentag ubsidiar	t) owner s, as ection ge of ies of on % equit
1) 2) 3) 4)	Upstream (i.e., indirect) ownership as of effective date or operation date: Identify all to of the facility that both (1) hold at least 10 percent equity interest in the facility, and (idefined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding comp 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 own another, total percent equity interest reported may exceed 100 percent.) Check here if no such upstream owners exist.	upstream (i.e. 2) are electric anies, as defi provide the pe ers may be su	, indirec : utilities ned in s ercentag ubsidiar	t) owner s, as ection ge of ies of on % equity
1) 2) 3) 4) 5)	Upstream (i.e., indirect) ownership as of effective date or operation date: Identify all to of the facility that both (1) hold at least 10 percent equity interest in the facility, and (idefined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding comp 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 own another, total percent equity interest reported may exceed 100 percent.) Check here if no such upstream owners exist.	upstream (i.e. 2) are electric anies, as defi provide the pe ers may be su	, indirec : utilities ned in s ercentag ubsidiar	t) owner s, as ection ge of ies of on % equit
1) 2) 3) 4) 5) 6)	Upstream (i.e., indirect) ownership as of effective date or operation date: Identify all to of the facility that both (1) hold at least 10 percent equity interest in the facility, and (idefined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding comp 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 own another, total percent equity interest reported may exceed 100 percent.) Check here if no such upstream owners exist.	upstream (i.e. 2) are electric anies, as defi provide the pe ers may be su	, indirec : utilities ned in s ercentag ubsidiar	t) owner s, as ection ge of ies of on % equity
1) 2) 3) 4) 5) 6) 7)	Upstream (i.e., indirect) ownership as of effective date or operation date: Identify all to of the facility that both (1) hold at least 10 percent equity interest in the facility, and (idefined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding comp 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 own another, total percent equity interest reported may exceed 100 percent.) Check here if no such upstream owners exist.	upstream (i.e. 2) are electric anies, as defi provide the pe ers may be su	, indirec : utilities ned in s ercentag ubsidiar	t) owner , as ection ge of
1) 2) 3) 4) 5) 6) 7) 8)	Upstream (i.e., indirect) ownership as of effective date or operation date: Identify all to of the facility that both (1) hold at least 10 percent equity interest in the facility, and (idefined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding comp 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 own another, total percent equity interest reported may exceed 100 percent.) Check here if no such upstream owners exist.	upstream (i.e. 2) are electric anies, as defi provide the pe ers may be su	, indirec : utilities ned in s ercentag ubsidiar	t) owner s, as ection ge of ies of on % equity
1) 2) 3) 4) 5) 6) 7) 8) 9)	Upstream (i.e., indirect) ownership as of effective date or operation date: Identify all to of the facility that both (1) hold at least 10 percent equity interest in the facility, and (idefined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding comp 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 own another, total percent equity interest reported may exceed 100 percent.) Check here if no such upstream owners exist. Full legal names of electric utility or holding company upstream owners exist.	upstream (i.e. 2) are electric anies, as defi provide the pe ers may be su	, indirec : utilities ned in s ercentag ubsidiar	t) owner s, as ection ge of ies of on % equit
1) 2) 3) 4) 5) 6) 7) 8)	Upstream (i.e., indirect) ownership as of effective date or operation date: Identify all to of the facility that both (1) hold at least 10 percent equity interest in the facility, and (idefined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding comp 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 own another, total percent equity interest reported may exceed 100 percent.) Check here if no such upstream owners exist. Full legal names of electric utility or holding company upstream owners exist.	upstream (i.e. 2) are electric anies, as defi provide the po ers may be su	, indirect utilities ned in serventage ubsidiar	et) owners, as ection ge of ies of on white interest

	<u>۔</u>	5 1			sin sets as a read if applicab	o one subsetegoni
	6a	Describe t	he primary energy input: (ci		ain category and, if applicab	
		_	ss (specify)	☐ R	enewable resources (specify	
		_	Landfill gas		☐ Hydro power - river	Fossil fuel (specify)
			Manure digester gas		☐ 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 19)
			Other biomass (describe on	page 19)	☐ Wind	· ·
			(specify type below in line 6		Other renewable resour (describe on page 19)	
	6b	If you spe	cified "waste" as the primary	energy inp	out in line 6a, indicate the typ	e of waste fuel used: (check one)
		Wast	e fuel listed in 18 C.F.R. § 29	2.202(b) (sp	ecify one of the following)	
			Anthracite culm produced	-		
			Anthracite refuse that has ash content of 45 percent		heat content of 6,000 Btu or	less per pound and has an average
			Bituminous coal refuse tha average ash content of 25			Btu per pound or less and has an
nput			determined to be waste by (BLM) or that is located on	the United non-Federa	States Department of the In	on Indian lands that has been iterior's Bureau of Land Management e of BLM's jurisdiction, provided that ermined by BLM to be waste
Energy Input			BLM or that is located on n	on-Federal	s or on Indian lands that has or non-Indian lands outside ctension of that determined	been determined to be waste by the of BLM's jurisdiction, provided that by BLM to be waste
ш	Lignite produced in association with the production of montan wax and lignite that becomes enter as a result of such a mining operation					
			Gaseous fuels (except natu	ıral gas and	synthetic gas from coal) (de	scribe on page 19)
				tural gas; in		he gas meets the requirements of 18 Iterials necessary to demonstrate
			Materials that a governme	nt agency h	as certified for disposal by co	ombustion (describe on page 19)
			Heat from exothermic read	tions (desc	ribe on page 19)	Residual heat (describe on page 19)
		×	Used rubber tires] Plastic ma	aterials 🔲 Refinery	off-gas 🔲 Petroleum coke
		☐ facilit	ty industry (describe in the l	Miscellaneo	o commercial value and exist us section starting on page 1 te absence of the qualifying t	s in the absence of the qualifying 9; include a discussion of the fuel's acility industry)
	6с	energy in	outs, and provide the related	d percentag	calendar year basis, in terms e of the total average annua ver heating value (18 C.F.R. §	s of Btu/h for the following fossil fuel I energy input to the facility (18 C.F.R. § 292.202(m)).
					nual average energy	Percentage of total
			Fuel Natural gas	ing	out for specified fuel	annual energy input
j			Oil-based fuels		0 Btu/h	
			Coal	-	<u>0</u> Btu/h	7.7
			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

7, 500 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 reported parasitic station power.

1,700 kW

7c Electrical losses in interconnection transformers

7c Electrical losses in interconnection transformers

25 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

7f Total deductions from gross power production capacity = 7b + 7c + 7d + 7e

1,750.0 kW

7g Maximum net power production capacity = 7a - 7f

5,750.0 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 19.

The BDE-Cascade Mountain facility will convert 1.75-2.25 million scrap tires per year into Tire Derived Fuel (TDF) via mechanical processing, to then be converted to syngas in gasification equipment (3 modules rated for 25 TPD = 75 TPD of TDF, or 80 MMBtu/hr of feedstock) from Pyromex/PowerHouse Energy. The 70 MMbtu/hr of syngas will be conditioned for quality, compressed, and fired in a single SOLAR Turbines Taurus 60 gas turbine generator. Waste heat will be captured as hot water to operate a closed-loop, dry-cooled Organic Rankine Cycle system for supplemental power generation. Recycled steel and blackCHAR will be recovered as solid products, and exhaust emissions will be recycled into algae and/or hydroponic greenhouse crops for comprehensive, ultra-clean, net-Zero impact tire conversion.

Ø

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 page 10.

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 8e below (as applicable). 8a Identify any facilities with electrical generating equipment located within 1 mile of the electrical generating equipment of the instant facility, and for which any of the entities identified in lines 5a or 5b, or their affiliates, holds at least a 5 percent equity interest. Certification of Compliance Check here if no such facilities exist. 🔀 Maximum net power Facility location Root docket # with Size Limitations Common owner(s) production capacity (city or county, state) (if any) QF 2) kW QF kW 3) QF Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed 8b 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? No (skip lines 8c through 8e) Yes (continue at line 8c below) 8c Was the original notice of self-certification or application for Commission certification of the facility filed on or before December 31, 1994? Yes No 8d Did construction of the facility commence on or before December 31, 1999? Yes No 8e If you answered No in line 8d, 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 19 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. Pursuant to 18 C.F.R. § 292.204(b), qualifying small power production facilities may use fossil fuels, in minimal with Fuel Use Requirements Certification of Compliance 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. 9a Certification of compliance with 18 C.F.R. § 292,204(b) with respect to uses of fossil fuel: Applicant certifies that the facility will use fossil fuels exclusively for the purposes listed above. 9b Certification of compliance with 18 C.F.R. § 292.204(b) with respect to amount of fossil fuel used annually: 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.

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 11 through 13. Otherwise, skip pages 11 through 13.

	energy (such as heat or suse of energy. Pursuant cycle cogeneration facilithermal application or p 292.205(a); or (2) for a boapplication or process for application or process for app	22.202(c), a cogeneration facility produces electric energy and forms of useful thermal steam) used for industrial, commercial, heating, or cooling purposes, through the sequential to 18 C.F.R. § 292.202(s), "sequential use" of energy means the following: (1) for a toppingty, the use of reject heat from a power production process in sufficient amounts in a process to conform to the requirements of the operating standard contained in 18 C.F.R. § obtoming-cycle cogeneration facility, the use of at least some reject heat from a thermal proposer production. The eneration technology does the facility represent? (check all that apply) The eneration cogeneration of the cogeneration process, and to support compliance with a such as the operating and efficiency standards, include with your filing a mass and heat epicting average annual operating conditions. This diagram must include certain items and ements, as described below. You must check next to the description of each requirement it you have complied with these requirements.
	Check to certify compliance with indicated requirement	Requirement
ration		Diagram must show orientation within system piping and/or ducts of all prime movers, heat recovery steam generators, boilers, electric generators, and condensers (as applicable), as well as any other primary equipment relevant to the cogeneration process.
General Cogeneration Information		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.
ene		Diagram must specify average gross electric output in kW or MW for each generator.
Ð		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 kJ/kg). Exception: For systems where the working fluid is <i>liquid only</i> (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 19, 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.
ł	П	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	0
	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	Ø
s ë	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?	Ø
ner n Fa	Yes (continue at line 11d below)	
EPAct 2005 Requirements for Fundamental Use of Energy Output from Cogeneration Facilities	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 l oger	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?	0
ements from C	Yes. Provide in the Miscellaneous section starting on page 19 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.	
Require utput 1	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 11e.	
95 F y O	11e Will electric energy from the facility be sold pursuant to section 210 of PURPA?	Ø
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 E	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?	Ø
	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)	0 %

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 19 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 14 and 15. Otherwise, skip pages 14 and 15.

	Thermal host's relationship to facility; Thermal host's use of thermal output Select thermal host's relationship to facility Select thermal host's use of thermal output Select thermal host's relationship to facility Select thermal host's use of thermal output Select thermal host's relationship to facility Select thermal host's relationship to facility	B1
	Select thermal host's use of thermal output Select thermal host's relationship to facility Select thermal host's use of thermal output Select thermal host's relationship to facility	B1
	Select thermal host's relationship to facility Select thermal host's use of thermal output Select thermal host's relationship to facility	Bt Bt
	Select thermal host's use of thermal output Select thermal host's relationship to facility	
	Select thermal host's relationship to facility	
	_	-
	Select thermal host's use of thermal output	
		Bt
L	Select thermal host's relationship to facility]
	Select thermal host's use of thermal output	Bt
	Select thermal host's relationship to facility	
	Select thermal host's use of thermal output	Bt
	Select thermal host's relationship to facility	
	Select thermal host's use of thermal output	Bt
ere and continue in t	the Miscellaneous section starting on page 19 if a	additional space is needed
	tion of usefulness of dentified above. In s facility's use of therr lear, then you must p be rejected and/or a tion: If you have prev	Select thermal host's use of thermal output sere and continue in the Miscellaneous section starting on page 19 if a tion of usefulness of thermal output: At a minimum, provide a brief of dentified above. In some cases, this brief description is sufficient to of facility's use of thermal output is not common, and/or if the usefulne lear, then you must provide additional details as necessary to demon be rejected and/or additional information may be required if an insultion: If you have previously received a Commission certification appro- to the instant facility, then you need only provide a brief description of number to the order certifying your facility with the indicated use. S

orm 556	Page 15 - Topping	-Cycle Cogeneration Fac	cilities
Applicants for facilities representing topping-cycle teck cycle operating standard and, if applicable, efficiency stregulations (18 C.F.R. § 292.205(a)(1)) establishes the opthe useful thermal energy output must be no less than (18 C.F.R. § 292.205(a)(2)) establishes the efficiency star installation commenced on or after March 13, 1980: the thermal energy output must (A) be no less than 42.5 perfacility; and (B) if the useful thermal energy output is less than 45 percent of the total energy input of compliance with the topping-cycle operating and/or effective exempt from the efficiency standard based on the date 131 below.	tandard. Section 292.205(a)(1) perating standard for topping-c 5 percent of the total energy or dard for topping-cycle cogene e useful power output of the factorent of the total energy input ss than 15 percent of the total enatural gas and oil to the facility fficiency standards, or to demon	of the Commission's cycle cogeneration facilit utput. Section 292.205(a ration facilities for which cility plus one-half the uof natural gas and oil to energy output of the facily. To demonstrate hat your facility in the f	ties: a)(2) n seful the ility,
If you indicated in line 10a that your facility represents	both topping-cycle and bottom	ing-cycle cogeneration	
technology, then respond to lines 13a through 13l belo			
attributable to the topping-cycle portion of your facility which mass and energy flow values and system compo	y. Your mass and heat balance	diagram must make clea	ır ha
cogeneration system.	nents are for which portion (to)	sping of bottoming) or t	
13a Indicate the annual average rate of useful thermal	energy output made available		
to the host(s), net of any heat contained in condensate			Btu/h
13b Indicate the annual average rate of net electrical e	nergy output		kW
13c Multiply line 13b by 3,412 to convert from kW to B	tu/h		
		0	Btu/h
13d Indicate the annual average rate of mechanical en of the shaft of a prime mover for purposes not directly	ergy output taken directly off		
(this value is usually zero)	related to power production	1	hp
13e Multiply line 13d by 2,544 to convert from hp to B	tu/h	· ·	
	<u>.</u> .	0	Btu/h
13f Indicate the annual average rate of energy input fr	om natural gas and oil		D4 /l-
13g Topping-cycle operating value = 100 * 13a / (13a -			Btu/h
13g topping-cycle operating value = 100 13a7 (13a 1	r ise + isej	0 ,	%
13h Topping-cycle efficiency value = 100 * (0.5*13a +	13c + 13e) / 13f		
		0 (%
13i Compliance with operating standard: Is the operat	ing value shown in line 13g gre	ater than or equal to 5%	6?
Yes (complies with operating standard)	No (does not comply wi	th operating standard)	
13j Did installation of the facility in its current form cor	nmence on or after March 13, 1	980?	
Yes. Your facility is subject to the efficiency req compliance with the efficiency requirement by			
No. Your facility is exempt from the efficiency s	tandard. Skip lines 13k and 13l		
13k Compliance with efficiency standard (for low oper than 15%, then indicate below whether the efficiency v	ating value): If the operating va alue shown in line 13h greater	llue shown in line 13g is than or equal to 45%:	less
Yes (complies with efficiency standard)	No (does not comply wi	th efficiency standard)	

131 Compliance with efficiency standard (for high operating value): If the operating value shown in line 13g is greater than or equal to 15%, then indicate below whether the efficiency value shown in line 13h is greater than or

No (does not comply with efficiency standard)

Yes (complies with efficiency standard)

equal to 42.5%:

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 16 and 17. Otherwise, skip pages 16 and 17.

			<u> </u>	
	whi the cycl	ch at least some of the reject heat Commission's regulations (18 C.F. e cogeneration facility must be us	oming-cycle cogeneration facility is the energy relate t is then used for power production. Pursuant to sec .R. § 292.202(c) and (e)), the thermal energy output seful. In connection with this requirement, describe d for power production by responding to lines 14a a	ctions 292.202(c) and (e) of of a qualifying bottoming- the process(es) from which
	14a	host. For hosts with multiple bo	nal host and each bottoming-cycle cogeneration pro ottoming-cycle cogeneration processes, provide the	ocess engaged in by each data for each process in
		Name of entity (thermal host) performing the process from which at least some of the reject heat is used for power production	Thermal host's relationship to facility; Thermal host's process type	Has the energy input to the thermal host been augmented for purposes of increasing power production capacity? (if Yes, describe on p. 19)
	1)		Select thermal host's relationship to facility	Yes 🔲 No 🔲
			Select thermal host's process type	
<u>ө</u>	2)		Select thermal host's relationship to facility	Yes 🔲 No 🗍
			Select thermal host's process type	
ф	3)		Select thermal host's relationship to facility	Yes 🗍 No 🗌
ot of			Select thermal host's process type	
ut i		ional space is needed		
Usefulness of Bottoming-Cycle Thermal Output	ider facil mus addi prev facil to th char	ntified above. In some cases, this lity's process is not common, and/ t provide additional details as neo itional information may be requiry viously received a Commission cel ity, 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 ed if an insufficient showing of usefulness is made. It is a specific bottoming-cycle processes and a reference by the brief description of that process and a reference by the indicated process. Such exemption may not lade.) If additional space is needed, continue in the Market	ness. However, if your asonably clear, then you n may be rejected and/or (Exception: If you have cess related to the instant date and docket number be used if any material

Bottoming-Cycle Operating and Efficiency Value Calculation

than or equal to 45%:

Yes (complies with efficiency standard)

in 350 rage 17 - Bottoming	
Applicants for facilities representing bottoming-cycle technology and for which install March 13, 1990 must demonstrate compliance with the bottoming-cycle efficiency stathe Commission's regulations (18 C.F.R. § 292.205(b)) establishes the efficiency standar cogeneration facilities: the useful power output of the facility must be no less than 45 of natural gas and oil for supplementary firing. To demonstrate compliance with the b standard (if applicable), or to demonstrate that your facility is exempt from this standard installation of the facility began, respond to lines 15a through 15h below.	ndards. Section 292,205(b) of d for bottoming-cycle percent of the energy input ottoming-cycle efficiency
If you indicated in line 10a that your facility represents both topping-cycle and bottom technology, then respond to lines 15a through 15h below considering only the energy attributable to the bottoming-cycle portion of your facility. Your mass and heat balance which mass and energy flow values and system components are for which portion of topping or bottoming).	inputs and outputs e diagram must make clear
15a Did installation of the facility in its current form commence on or after March 13,	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	(b). Demonstrate compliance r.
No. Your facility is exempt from the efficiency standard. Skip the rest of page	17.
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	0 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)	l
	hphp
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 or oil	Btu/h
15g Bottoming-cycle efficiency value = 100 * (15c + 15e) / 15f	0.0%

15h Compliance with efficiency standard: Indicate below whether the efficiency value shown in line 15g is greater

No (does not comply with efficiency standard)

Certificate of Completeness, Accuracy and Authority

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.

He or she has read the filing, including any information contained in any attached documents, such as cogeneration

Signer identified below certifies the following: (check all items and applicable subitems)

knows its contents.	d any information contained in the Miscellaneous	section starting on page 19, and
He or she has provided all of the request to the best of his or her knowledge a	uired information for certification, and the provide and belief.	d information is true as stated,
He or she possess full power and aut Practice and Procedure (18 C.F.R. § 3	hority to sign the filing; as required by Rule 2005(a 85.2005(a)(3)), he or she is one of the following: (ch)(3) of the Commission's Rules of neck one)
\square The person on whose behalf	the filing is made	
An officer of the corporation.	, trust, association, or other organized group on be	half of which the filing is made
An officer, agent, or employe filing is made	of the governmental authority, agency, or instrun	nentality on behalf of which the
	practice before the Commission under Rule 2101 (F.R. § 385.2101) and who possesses authority to si	
He or she has reviewed all automatic calculations and agrees with their results, unless otherwise noted in the Miscellaneous section starting on page 19.		
He or she has provided a copy of this Form 556 and all attachments to the utilities with which the facility will interconnect and transact (see lines 4a through 4d), as well as to the regulatory authorities of the states in which the facility and those utilities reside. See the Required Notice to Public Utilities and State Regulatory Authorities section on page 3 for more information.		
Procedure (18 C.F.R. § 385.2005(c)) provides that persons filing their documents electronically may use typed characters representing his or her name to sign the filed documents. A person filing this document electronically should sign (by typing his or her name) in the space provided below.		
Your Signature	Your address	Date
J. Garrett Smith	13215 SE Mill Plain Blvd, C8-231 Vancouver, WA 98684	7/22/2012
Audit Notes		

FERC Form 556 Page 19 - All Facilities

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.