

107 FERC ¶ 61, 043  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;  
Nora Mead Brownell, Joseph T. Kelliher,  
and Suedeen G. Kelly.

Ormesa LLC

Docket No. QF86-681-005

ORDER GRANTING RECERTIFICATION OF SMALL POWER PRODUCTION  
FACILITY AND DENYING REQUEST FOR FINDING THAT ENERGY USED BY  
ORMESA FOR REINJECTION OF GEOTHERMAL FLUID IS NOT PART OF  
ORMESA'S POWER PRODUCTION PROCESS

(Issued April 16, 2004)

1. This order addresses a request by Ormesa LLC (Ormesa) that the Commission recertify its geothermal-fueled small power production facility as a qualifying facility (QF), with net capacity of 16.57 MW. Ormesa's requested net capacity depends upon the Commission finding that electric power used by Ormesa for reinjection of geothermal fluid (1.35 MW) is not part of the auxiliary load (also referred to as station use) of Ormesa's geothermal facility. As discussed below, we find that on the facts of this case the electric power used by Ormesa for reinjection of the geothermal fluid is part of the auxiliary load of Ormesa's facility, and we recertify the QF, with a net capacity of only 15.22 MW.

**Background**

**Factual Background**

2. The geothermal facility at issue here is located in Imperial County, California. The primary components of the facility consist of twenty Ormat energy converters (OECs) which are individually comprised of a preheater, a vaporizer, a turbine, a generator, a condenser, and a transformer.<sup>1</sup>

---

<sup>1</sup> Ormesa's facility was certified as a small power production QF in 1986. Ormesa Geothermal II, 36 FERC ¶ 62,030 (1986). Notices of self-recertification were filed on July 28, 1987, July 7, 1995, May 22, 2002, and December 30, 2002. On December 30, 2002, Ormesa LLC submitted a notice of self-recertification to reflect the transfer of ownership from Ormesa Geothermal II to Ormesa LLC.

3. Geothermal fluids are produced by seven geothermal production wells (six working, one reserve) and transported from the wells to the facility by pumps. The geothermal fluids are pumped through vaporizers that vaporize the working fluid, isopentane.<sup>2</sup> The spent geothermal fluids are then returned from the power plant facilities to seven different, reinjection wells.

4. On February 3, 2004, Ormesa filed an application requesting that the Commission certify the net capacity of its QF as 16.57 MW. According to the application, the facility has a gross capacity of 19.95 MW. In the application Ormesa acknowledges that it uses 3.38 MW within the facility for power production; this 3.38 MW includes power for essential fuel handling within the facility. Subtracting this 3.38 MW from the 19.95 MW gross capacity results in the 16.57 MW net capacity claimed by Ormesa. The application identifies two additional loads, which are the loads at issue here and which are discussed below.

5. The facility also uses 3.24 MW of electricity for extraction of the geothermal fluids from the geothermal wells and for transportation of the geothermal fluids from the wells to the facility. Ormesa states that the Commission has ruled that electricity used for the extraction and transportation of geothermally heated water and steam is similar to the extraction and transportation of fuel to a power plant and is thus not categorized as a station power use.<sup>3</sup> Ormesa concludes therefore that the 3.24 MW used for extraction and transportation of the geothermal fluid from the wells to the generation facility should not be subtracted from the facility's gross capacity in determining the facility's net capacity.

6. In addition, the facility uses 1.35 MW of electricity for reinjection of the geothermal fluids. Ormesa states that treatment of the electricity used for the reinjection of geothermal fluids is a new issue. Ormesa requests that the Commission state that energy used for reinjection of geothermal fluids is not part of the power production process so that the 1.35 MW used by its facility for reinjection is not subtracted from the gross capacity of the facility to determine the net capacity of the facility. Ormesa argues that the reinjection of the geothermal fluids, just as the extraction of the geothermal fluids, is not integral to or necessary for power generation, but rather is a key component of the long-term management of the geothermal resource, as well as being an environmentally-mandated requirement for dealing with a by-product of power

---

<sup>2</sup> The gaseous isopentane flows directly to OEC turbines and subsequently to the condenser, from which it is pumped back to the vaporizers in a closed loop.

<sup>3</sup> Ormesa cites to GEO East Mesa Limited Partnership, 55 FERC ¶ 61,255 (1991) (GEO Mesa).

generation. Ormesa argues that the need to reinject the fluids (in this case brine) is not related to the power production process, but instead is a function of the particular geothermal fuel resource. Ormesa points out that there are geothermal resources that require no pumping for extraction or for reinjection, while others require pumping for extraction only but not for reinjection, while still others require pumping for reinjection, but not extraction. Ormesa argues that without power for fuel handling, pumps, blowers and exciter equipment, the turbine and generator cannot produce electricity, while in contrast, a turbine and generator can operate irrespective of whether geothermally-heated brine is reinjected into the ground after it exits the power production facility. Based on this analysis, Ormesa concludes that the Commission should certify its facility as a 16.57 MW net capacity small power production facility.<sup>4</sup>

### **Notice, Interventions, Protests and Answers**

7. Notice of the Ormesa's filing was published in the Federal Register, 69 Fed. Reg. 7923 (2004), with comments, protests, and interventions due on or before March 4, 2004.

8. On March 4, 2004, Southern California Edison (SoCal Edison) filed a motion to intervene and protest. SoCal Edison opposes Ormesa's request that the electrical load associated with the reinjection of geothermal fluids be considered non-auxiliary load. SoCal Edison argues that the load associated with reinjection is necessary and integral to power production and should be excluded from the facility's net capacity.

9. SoCal Edison also argues that the Commission should reconsider its precedent, GEO Mesa, relating to extraction and transportation of geothermal fluids. SoCal Edison argues that geothermal fluid is not a fuel source, but rather is a heated working fluid. Edison contends that the actual fuel for the facility is the hot underground rocks that heat the geothermal fluid. In support of this belief, Edison draws analogies between a geothermal facility, a nuclear power plant and a steam cycle plant. Edison states that in the nuclear production cycle, the pumping of the working fluid back towards the reactor is considered auxiliary load. Edison states that in a steam cycle plant the movement of air away from the generator and back to the heat source is considered auxiliary load.

10. Finally, So Cal Edison requests that, if the Commission finds that there is a genuine issue of material fact concerning the location and function of the geothermal pumping equipment at the Ormesa project, the matter be set for hearing.

---

<sup>4</sup> Ormesa states that it satisfies the Commission ownership requirements because none of the owners of the facility is an electric utility or an electric utility holding company or is a subsidiary of an electric utility or an electric utility holding company. See 18 C.F.R. § 292.206 (2003).

11. On March 19, 2004, Ormesa filed a request for leave to answer SoCal Edison's protest, together with an answer. Ormesa argues that Edison's protest is a collateral attack on GEO Mesa. Ormesa further states that Edison has failed to support its request for an evidentiary hearing. On April 6, 2004, SoCal Edison filed a request for leave to answer Ormesa's answer, together with an answer.

### **Discussion**

12. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2003), SoCal Edison's timely, unopposed motion to intervene serves to make it a party to this proceeding.

13. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2003), prohibits answers to protests or answers unless otherwise ordered by the decisional authority. We are not persuaded to accept Ormesa's answer to SoCal Edison's protest and will, therefore, reject it. Correspondingly, we will reject SoCal Edison's answer to Ormesa's answer.

14. Preliminarily, it is important to understand that while a QF is interested in maximizing the amount of capacity and energy that the QF can sell, others (such as SoCal Edison here) may be interested in minimizing the amount that the QF can sell. Since, as discussed below, only net capacity can be sold, a QF is interested in maximizing its net capacity. Given that, as also discussed below, auxiliary uses or loads are subtracted from a QF's gross capacity to determine its net capacity rating, a QF is correspondingly interested in minimizing the amounts that are considered auxiliary uses or loads for such purposes. Others (such as SoCal Edison here) may have directly contrary interests.

15. Turning to the filing before us, as discussed below, we will recertify Ormesa's facility, but as a 15.22 MW net capacity small power production facility. There is no question that Ormesa's facility satisfies the technical criteria (18 C.F.R. § 292.204 (2003)) and ownership criteria (18 C.F.R. § 292.206 (2003)) for certification as a qualifying small power production facility. We will accordingly recertify the facility as a qualifying small power production facility. The only question in this proceeding is the net capacity to be certified. There are two issues raised concerning the net capacity: (1) whether the 3.24 MW used to extract the brine from the wells and transport the brine to the facility is an auxiliary (or station power) use that should be subtracted from the gross capacity of the facility to determine the net capacity; and (2) whether the 1.35 MW used to reinject the brine is an auxiliary (or station power) use that should be subtracted from the gross capacity of the facility to determine the net capacity.

16. It is well established that the certified electric power production capacity of a qualifying facility is the net capacity of the facility.<sup>5</sup> In Penntech Papers, 48 FERC at 61,423, the Commission explained that:

In the process of generating power, the facility must consume some electric power for auxiliary equipment such as pumps, blowers, fans, etc. If the electric power consumed is not taken directly from the facility, as would normally be the case, it must come from another source. Therefore, the amount of electric power actually capable of being displaced by a facility is the facility's output net of such auxiliary uses, that is, the gross electric power output of the facility less the electric power consumed by the facility in the power production process.

17. The issue in this proceeding is whether both the power for the extraction and transportation of the geothermal brine used as a fuel for the facility and the power for the reinjection of the geothermal brine after its use as a fuel, are considered to be a “necessary and integral” part of the power production process and thus considered to be auxiliary load. If these uses are auxiliary load, they must be subtracted from the gross capacity of the facility in calculating the net capacity of the facility and they thus reduce the net capacity of the facility. If they are not considered auxiliary load, they need not be subtracted from gross capacity to determine net capacity and they thus do not reduce net capacity.

18. In GEO Mesa, the Commission found that the heated brine was the fuel for the facility and that extraction and transportation of heated brine was not an auxiliary load. The Commission stated that the extraction and transportation of the fuel was not a “necessary and integral” part of the power production process and so not auxiliary load – and thus the power to do this need not be subtracted from gross capacity. The Commission, however, found that the pumps also served another function – they performed an essential fuel handling activity, in that they moved the geothermal fuel directly into the generating equipment and so were auxiliary load – and thus the power to do this should be subtracted from gross capacity. The Commission therefore required GEO Mesa to segregate the pumping functions by their respective loads, so that the load associated with the latter, fuel handling function (which was auxiliary load) was subtracted from the facility’s gross capacity to calculate its net capacity, while the load associated with the former, extraction and transportation function (which was not auxiliary load) was not subtracted.<sup>6</sup>

---

<sup>5</sup> See Penntech Papers, Inc., 48 FERC ¶ 61,120 at 61,423 (1989) (Penntech Papers); Power Developers, Inc., 32 FERC ¶ 61,101 at 61,276 (1985); Occidental Geothermal, Inc., 17 FERC ¶ 61,231 at 61,444-45 (1981).

<sup>6</sup> GEO Mesa, 55 FERC at 61,813-14.

19. Just as there was essential fuel handling in GEO Mesa so there is essential fuel handling here – the transportation of the brine within the facility. The treatment of the power associated with the transportation of the brine within the facility as auxiliary load is undisputed. The power associated with such fuel handling in GEO Mesa was treated as auxiliary load and subtracted from gross capacity to get net capacity, and here the power associated with the transportation of the brine within the facility is similarly treated as auxiliary load and subtracted from gross capacity to get net capacity; it is part of the 3.38 MW that Ormesa subtracts from the 19.95 MW gross capacity to get its requested 16.57 MW net capacity. There are two loads discussed below that are in dispute, however.

20. First, SoCal Edison urges the Commission to reexamine its conclusion in GEO Mesa that the extraction and transportation of the geothermal fuel are not a “necessary and integral” part of the power production process. We will not overturn GEO Mesa. We do not agree with SoCal Edison’s argument that the geothermal brine is more properly viewed as a working fluid rather than as a fuel. In GEO Mesa the Commission treated the geothermal brine as the facility’s fuel. The brine itself is not the working fluid of the facility. The working fluid is isopentane. The brine heats the isopentane and the isopentane functions as the facility’s working fluid, turning the turbines and generators. Consistent with GEO Mesa, we will accordingly not deduct the 3.24 MW that Ormesa has attributed to extraction and transportation of the geothermal brine from the gross capacity of the facility in determining the net capacity of the facility; the 3.24 MW will thus be available for sale.<sup>7</sup>

21. Second, we turn to the power used by Ormesa to reinject the brine into the ground, following its use as a fuel. Following the removal of heat from the brine (to heat the isopentane), the brine is no longer fuel, but is effectively spent fuel. It is undisputed that spent fuel must be disposed of, and here is disposed of by reinjection – we find that given the type of QF and its configuration such disposal is “necessary and integral” to this QF’s power production process. We find that the 1.35 MW used by Ormesa to reinject the fuel thus should be deducted from the gross capacity of the facility in determining the net capacity of the facility; the 1.35 MW normally would not be available for sale.<sup>8</sup>

---

<sup>7</sup> SoCal Edison did not challenge the division of the load between the extraction and transportation functions and the fuel handling functions, but rather simply argued that the entire pumping load was station power.

<sup>8</sup> But see infra note 10 (explaining that, because Ormesa will purchase 1.35 MW from another QF, Ormesa is permitted to sell an additional 1.35 MW from its facility without jeopardizing its QF status).

22. We will accordingly certify<sup>9</sup> Ormesa's facility as a 15.22 MW qualifying small power production facility.<sup>10</sup>

The Commission orders:

The application for recertification of qualifying facility status filed on February 3, 2004 by Ormesa, pursuant to 18 C.F.R. § 292.207(b) (2003), and section 3(17)(C) of the Federal Power Act, 16 U.S.C. § 796(17)(C) (2000), is hereby granted to the extent discussed in the body of this order, provided the facility is owned and operated in the manner described in the application and this order.

By the Commission.

( S E A L )

Magalie R. Salas,  
Secretary.

---

<sup>9</sup> Certification as a qualifying facility serves only to establish eligibility for benefits provided by the Public Utility Regulatory Policies Act of 1978, as implemented by the Commission's regulations. 18 C.F.R. Part 292 (2003). It does not relieve a facility of any other requirements of local, state, or federal law, including those regarding siting, construction, operation, licensing and pollution abatement. Certification does not establish any property rights, resolve competing claims for a site, or authorize construction.

<sup>10</sup> Ormesa indicates that here the 1.35 MW will be purchased from another QF. In *Connecticut Valley Electric Company, Inc. v. Wheelabrator Claremont Company, L.P., et al.*, 82 FERC ¶ 61,116 at 61,418 & n.17, order on reh'g, 83 FERC ¶ 61,136 at 61,612 (1998), the Commission found that a sale in excess of net output would deprive a facility of its QF status unless the incremental sale consisted of power solely from cogeneration or small power production facilities. Therefore, notwithstanding the discussion above, given that 1.35 MW will be purchased from another QF, Ormesa is permitted to sell an additional 1.35 MW from its facility without jeopardizing its QF status.