

by which actual power plant dismantlement costs exceed actual income attributable to salvage of the power plant.

§ 206.355 How do I calculate royalty due on geothermal resources I sell at arm's length to a purchaser for direct use?

If you sell geothermal resources produced from Class I, II, or III leases at arm's length to a purchaser for direct use, then the royalty on the geothermal resource is the gross proceeds accruing to you from the sale of the geothermal resource to the arm's-length purchaser multiplied by the royalty rate in your lease or that BLM prescribes under 43 CFR 3211.18. See § 206.361 for additional provisions applicable to determining gross proceeds under arm's-length sales.

§ 206.356 How do I calculate royalty or fees due on geothermal resources I use for direct use purposes?

If you use the geothermal resource for direct use:

(a) For Class I leases, you must determine the royalty due on geothermal

resources in accordance with the first applicable of the following three paragraphs.

(1) The weighted average of the gross proceeds established in arm's-length contracts for the purchase of significant quantities of geothermal resources to operate the lessee's same direct-use facility multiplied by the royalty rate in your lease. In evaluating the acceptability of arm's-length contracts, the following factors will be considered: time of execution, duration, terms, volume, quality of resource, and such other factors as may be appropriate to reflect the value of the resource.

(2) The equivalent value of the least expensive, reasonable alternative energy source (fuel) multiplied by the royalty rate in your lease. The equivalent value of the least expensive, reasonable alternative energy source will be based on the amount of thermal energy that would otherwise be used by the direct use facility in place of the geothermal resource. That amount of thermal energy (in Btu) displaced by the geothermal resource will be determined by the equation:

$$\text{thermal energy displaced} = \frac{(h_{\text{in}} - h_{\text{out}}) \times \text{density} \times 0.113681 \times \text{volume}}{\text{efficiency factor}}$$

Where h_{in} is the enthalpy in Btu/lb at the direct use facility inlet (based on measured inlet temperature), h_{out} is the enthalpy in Btu/lb at the facility outlet (based on measured outlet temperature), density is in lbs/cu ft based on inlet temperature, the factor 0.113681 (cu ft/gal) converts gallons to cubic feet, and volume is the quantity of geothermal fluid in gallons produced at the wellhead or measured at an approved point. The efficiency factor of the alternative energy source will be 0.7 for coal and 0.8 for oil, natural gas, and other fuels derived from oil and natural gas, or an efficiency factor proposed by the lessee and approved by MMS. The methods of measuring resource parameters (temperature, volume, etc.) and the frequency of com-

puting and accumulating the amount of thermal energy displaced will be determined and approved by BLM under 43 CFR 3275.13-3275.17.

(3) A royalty determined by any other reasonable method approved by MMS or the Assistant Secretary, Land and Minerals Management of the Department of the Interior, under § 206.364 of this part.

(b) For geothermal resources produced from Class II and Class III leases, you must multiply the appropriate fee from the schedule in subparagraph (b)(1) of this section by the number of gallons or pounds you produce from the direct use lease each month.

(1) You must use the following fee schedule to calculate fees due under this section:

DIRECT USE FEE SCHEDULE
[Hot water]

If your average monthly inlet temperature (°F) is		Your fees are . . .	
At least . . .	But less than . . .	(\$/million gallons)	(\$/million pounds)
130	140	2.524	0.307
140	150	7.549	0.921
150	160	12.543	1.536
160	170	17.503	2.150
170	180	22.426	2.764
180	190	27.310	3.379
190	200	32.153	3.993
200	210	36.955	4.607
210	220	41.710	5.221
220	230	46.417	5.836
230	240	51.075	6.450
240	250	55.682	7.064
250	260	60.236	7.679
260	270	64.736	8.293
270	280	69.176	8.907
280	290	73.558	9.521
290	300	77.876	10.136
300	310	82.133	10.750
310	320	86.328	11.364
320	330	90.445	11.979
330	340	94.501	12.593
340	350	98.481	13.207
350	360	102.387	13.821

- (i) For direct use geothermal resources with an average monthly inlet temperature of 130 °F or less, you must pay only the lease rental.
- (ii) The MMS, in consultation with BLM, will develop and publish a revised

- fee schedule in the FEDERAL REGISTER, as needed.
- (iii) The MMS, in consultation with BLM, will calculate revised fees schedules using the following formulas:

$$\text{For reporting on a volume basis: } R_v = \rho \times (T_{in} - T_{out}) \times P_{prbc} \times F_{rr} \times \frac{1}{e}$$

$$\text{For reporting on a mass basis: } R_m = (T_{in} - T_{out}) \times P_{prbc} \times F_{rr} \times \frac{1}{e}$$

Where:

- R_v = Royalty due as a function of produced volume in the fee schedule, expressed as dollars per million (10⁶) gallons;
- R_m = Royalty due as a function of produced mass in the fee schedule, expressed as dollars per million (10⁶) pounds;
- ρ[rho] = Water density at inlet temperature expressed as lbs per gallon;
- T_{in} = Measured inlet temperature in °F (as required by BLM under 43 CFR part 3275);
- T_{out} = Established assumed outlet temperature of 130° F;
- e = Boiler Efficiency Factor for coal of 70 percent;
- P_{prbc} = The 3-year historical average of Powder River Basin spot coal prices, as pub-

- lished by the Energy Information Administration, or other recognized authoritative reference source of coal prices, in dollars (per MMBtu);
- F_{rr} = The assumed Lease Royalty Rate of 10 percent.
- (2) The fee that you report is subject to monitoring, review, and audit.
- (3) The schedule of fees established under this paragraph will apply to any Class III lease with respect to any royalty payments previously made when the lease was a Class I lease that were due and owing, and were paid, on or after July 16, 2003. To use this provision, you must provide MMS data

showing the amount of geothermal production in pounds or gallons of geothermal fluid to input into the fee schedule (see 43 CFR part 3276).

(i) If the royalties you previously paid are less than the fees due under this section, you must pay the difference plus interest on that difference computed under § 218.302.

(ii) If the royalties you previously paid are more than the fees due under this section, then you are entitled to a refund or credit from MMS of 50 percent of the overpaid royalties. You are also entitled to a refund or credit of any interest that you paid on the overpaid royalties.

(c) For geothermal resources other than hot water, MMS will determine fees on a case-by-case basis.

§ 206.357 How do I calculate royalty due on byproducts?

(a) If you sell byproducts, you must determine the royalty due on the byproducts that are royalty-bearing under:

(1) Applicable lease terms of Class I leases and of Class III leases that do not elect to be subject to all of the BLM regulations promulgated for leases issued after August 8, 2005, under 43 CFR 3200.7(a)(2), or

(2) Applicable statutory provisions at 30 U.S.C. 1004(a)(2) for Class II leases and for Class III leases that do elect to be subject to all of the BLM regulations promulgated for leases issued after August 8, 2005, under 43 CFR 3200.7(a)(2).

(b) You must determine the royalty due on the byproducts by multiplying the royalty rate in your lease or that BLM prescribes under 43 CFR 3211.19 by a value of the byproducts determined in accordance with the first applicable of the following subparagraphs:

(1) The gross proceeds accruing to you from the arm's-length sale of the byproducts, less any applicable byproduct transportation allowances determined under §§ 206.358 and 206.359. See § 206.361 for additional provisions applicable to determining gross proceeds;

(2) Other relevant matters including, but not limited to, published or publicly available spot-market prices, or information submitted by the lessee concerning circumstances unique to a

particular lease operation or the saleability of certain byproducts; or

(3) Any other reasonable valuation method approved by MMS.

§ 206.358 What are byproduct transportation allowances?

(a) When you determine the value of byproducts at a point off the geothermal lease, unit, or participating area, you are allowed a deduction in determining value, for royalty purposes, for your reasonable, actual costs incurred to:

(1) Transport the byproducts from a Federal lease, unit, or participating area to a sales point or point of delivery that is off the lease, unit, or participating area; or

(2) Transport the byproducts from a Federal lease, unit, or participating area, or from a geothermal use facility to a byproduct recovery facility when that byproduct recovery facility is off the lease, unit, or participating area and, if applicable, from the recovery facility to a sales point or point of delivery off the lease, unit, or participating area.

(b) Costs for transporting geothermal fluids from the lease to the geothermal use facility, whether on or off the lease, are not includible in the byproduct transportation allowance.

(c)(1) When you transport byproducts from a lease, unit, participating area, or geothermal use facility to a byproduct recovery facility, you are not required to allocate transportation costs between the quantity of marketable byproducts and the rejected waste material. The byproduct transportation allowance is authorized for the total production that is transported. You must express byproduct transportation allowances as a cost per unit of marketable byproducts transported.

(2) For byproducts that are extracted on the lease, unit, participating area, or at the geothermal use facility, the byproduct transportation allowance is authorized for the total byproduct that is transported to a point of sale off the lease, unit, or participating area. You must express byproduct transportation allowances as a cost per unit of byproduct transported.

(3) You may deduct transportation costs only when you sell, deliver, or