

Geothermal Payor Handbook- Class 1 Leases

Contents

	Page
1. About This Handbook	1-1
1.1 Introduction	1-2
1.2 Introduction to New Geothermal Rules and Handbook	1-3
1.3 Using the Geothermal Payor Handbook, Class 1 Leases	1-5
1.4 Nomenclature and Terminology	1-6
1.5 Supplementary Payor Handbooks	1-7
1.6 Handbook Distribution.	1-7
2. Valuation Overview	2-1
2.1 New Royalty Provisions Under the 2007 Regulations	2-1
2.2 Applicability of Valuation Standards	2-2
2.3 Geothermal Production Requiring Royalty Valuation	2-3
2.4 Timing of Valuation and Royalty Payments	2-4
2.5 Minimum Royalty	2-5
2.6 Reporting Codes	2-5
2.6.1 Product codes	2-5
2.6.2 Sales type codes	2-6
2.6.3 Transaction codes	2-7
2.7 Units of Measurement	2-7
2.7.1 Units of measurement for electrical generation.	2-7
2.7.2 Units of measurement for direct use.	2-8
2.7.3 Units of measurement for byproducts.	2-9
2.7.4 Units of measurement for commercially demineralized water	2-9
2.8 Quality Measurements	2-9
2.9 General Valuation Principles	2-9
2.9.1 Arm’s-length contract.	2-10
2.9.2 Gross proceeds	2-11
2.9.3 Exceptions to acceptance of arm’s-length gross proceeds	2-12
2.9.4 Marketable condition and marketing	2-12
2.10 Audits and Record- Keeping.	2-13
2.10.1 Approvals	2-14
3. Valuation Standards for Electrical Generation	3-1
3.1 If You Sell Geothermal Resources at Arm’s- Length that the Purchaser Uses to Generate Electricity	3-1
3.2 If You Use the Geothermal Resources in Your Own Power Plant for the Generation and Sale of Electricity- Netback Method	3-3
3.2.1 Electricity value	3-4
3.2.2 Cost reimbursements	3-4
3.3 Credit for “in-kind” delivery of electricity to states or counties	3-5

3.4 Near Term Production Incentives	3-5
3.5 Improper valuations	3-5
3.6 How Do I Request a Value Determination or Gross Proceeds Determination? .	3-6
3.7 Recordkeeping and Availability	3-6
3.8 Dismantlement Cost Refunds	3-7

4. Gross Proceeds Less Applicable Deductions or Netback Valuation for Electrical Generation (Not Arm’s Length Sales of the Geothermal Resource).	4-1
4.1 General concepts	4-4
4.1.1 Electricity value	4-4
4.1.2 Netback valuations when Electricity Payments Are Not Made on a Calendar Month.	4-4
4.1.3 Deduction periods	4-4
4.1.4 Deduction limits.	4-6
4.1.5 Requisite electricity measurements	4-6
4.1.5.1 Delivered electricity.	4-7
4.1.5.2 Electricity returned to the lease	4-7
4.1.5.3 Interconnected electricity	4-7
4.1.5.4 Net out electricity	4-7
4.1.5.5 Plant parasitic electricity	4-7
4.1.5.6 Plant tailgate electricity	4-7
4.2 Annual cost rates for transmission deductions	4-8
4.2.1 Transmission-line O&M costs	4-9
4.2.2 Transmission-line capital investments.	4-11
4.2.2.1 Real estate costs.	4-12
4.2.2.2 Transmission lines serving more than one powerplant.	4-12
4.2.3 Determine the method of handling capital-related costs	4-12
4.2.4 Calculating transmission-line cost rates by the depreciation method.	4-13
4.2.4.1 Depreciation.	4-13
4.2.4.2 Return on undepreciated capital investment	4-14
4.2.5 Calculating transmission-line cost rates by return-on investment method.	4-15
4.3 Calculate your transmission deduction	4-19
4.3.1 Arm’s-length wheeling charges.	4-19
4.4 Generation cost rates and deductions.	4-20
4.5 Determine power plant costs.	4-22
4.5.1 Power plant capital investments	4-22
4.5.2 Real estate costs	4-25
4.6 Determine your method of handling capital costs	4-25
4.7 Calculating generating cost rates by the depreciation method.	4-25
4.7.1 Depreciation.	4-26
4.7.2 Return on undepreciated capital investment	4-26
4.8 Calculating generating cost rates by the return-on investment method.	4-28
4.9 Calculating your monthly generating deduction.	4-29
4.10 Allocating Value to Leases	4-30

4.11 Reporting Netback Values on Form MMS-2014	4-30
4.12 Recalculated Netback Values: Underpayments and Overpayments	4-31
4.13 Example Netback Calculations.	4-32
5. Valuation Standards for Direct Use	5-1
5.1 Arm’s-Length Sales	5-1
5.2 If you use the geothermal resource for your own direct use purpose.	5-3
5.2.1 First non-arm’s-length valuation benchmark: Weighted average of arm’s-length gross proceeds	5-4
5.2.2 Second non-arm’s-length valuation benchmark: Alternative fuel valuation	5-6
5.2.2.1 Selecting Your Alternative Fuel	5-6
5.2.2.2 Valuing Your Alternative Fuel	5-7
5.2.2.3 Calculating Thermal Energy Displaced	5-8
5.2.3 Third valuation method for direct use- other valuation methods	5-10
5.3 Resource Measurements	5-10
5.4 Allocation to Leases	5-11
5.5 Reporting on Form MMS-2014	5-11
5.6 Example Valuations Using the Alternative Fuel Method.	5-12
6. Byproduct Valuation	6-1
6.1 Byproduct royalty rates	6-1
Appendix A	A-1
Appendix B	A-7