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To: All Field Officials
From: Director *Robert C. Gilkey*
Subject: Solar Energy Interim Rental Policy

Program Area: Right-of-Way Management, Solar Energy

Purpose: This Instruction Memorandum (IM) provides updated guidance on the rental provisions of right-of-way authorizations for solar energy projects on public lands administered by the Bureau of Land Management (BLM).

Policy/Action: Applications for solar energy projects are processed as right-of-way authorizations under Title V of the Federal Land Policy and Management Act (FLPMA) and require the payment of rent in accordance with the requirements of Section 504(g) of FLPMA and the provisions of 43 CFR 2806. This IM establishes an Interim Policy for a solar energy rental schedule for solar energy right-of-way authorizations and replaces the rental provisions of the Solar Energy Development Policy (IM 2007-097) issued April 4, 2007. This Interim Policy will remain in effect until updated by further guidance. Issuance of this IM ensures BLM-wide consistency for solar energy right-of-way rental fees.

Rental Fees

The BLM will calculate rents on all solar energy right-of-way authorizations in accordance with this IM and the provisions of 43 CFR 2806. Some holders or facilities may be exempt from rent pursuant to the Rural Electrification Act of 1936 (REA), as amended (43 CFR 2806.14(d)). Electric facilities that are financed or are eligible for REA financing, qualify for a rent exemption under the provisions of the Act.

The holder of a solar energy right-of-way authorization must pay an annual rent in conformance with the regulations (43 CFR 2806.10(a)). Consistent with 43 CFR 2806.50, the BLM has developed a schedule to calculate rental fees for solar energy right-of-way authorizations. This rental schedule includes a base rent for the acreage of public land included within the solar

energy right-of-way authorization and an additional megawatt (MW) capacity fee based on the total authorized MW capacity for the approved solar energy project on the public land administrated by the BLM.

As set forth below, the rental schedule for solar right-of-way authorizations will consist of two components: (1) a base rent to be paid upon issuance of the authorization, and (2) a MW capacity fee that will be implemented over a 5-year period once the facility begins generating electricity.

Base Rent

The BLM will calculate and bill the applicant a base rent to be paid upon the date of issuance of the right-of-way authorization consistent with the provisions of 43 CFR 2806.11. As calculated in conformance with the county rates set forth below, the base rent is a per-acre fee that will be charged, regardless of the stage of development or operations, on the entire public land acreage described in the right-of-way authorization.

The base rent will be paid on an annual basis, with no phase-in period. However, the BLM State Director may approve a rental payment plan for the first annual payment, consistent with the provisions of 43 CFR 2806.15(c). This payment plan for the first base rent payment is in response to the unique financing arrangements for some solar projects.

The BLM published regulations in 2008 that used land values published by the National Agricultural Statistics Service (NASS) to establish rental fees for linear right-of-way facilities on the public lands. Per-acre rental fees were established for every county in the U.S. based on the published NASS land values. The per-acre rental fees vary from county to county based on the different rural/agricultural land values in each county. The BLM used a 50 percent encumbrance factor of the land for linear types of rights-of-way to determine the annual rental fee. The BLM will use the same NASS data to establish the base rent for solar energy right-of-way authorizations; however, a 100 percent encumbrance factor will be used to reflect the high density land use common to solar energy projects. The encumbrance factor is a measure of the degree that a particular type of facility encumbers a right-of-way area or excludes other types of land uses. The 100 percent encumbrance factor for solar energy projects reflects the fact that a solar energy project is encumbering the entire right-of-way area to the exclusion of all other uses.

The BLM will adjust base rents for states and counties that are used for solar energy authorizations each year, based on the Implicit Price Deflator-Gross Domestic Product (IPD-GDP) index. The IPD-GDP index is also used to adjust the linear right-of-way rental fee each year (43 CFR 2806.22(a)). The BLM also periodically updates the schedule of county land values as new NASS data is published. The following is a list of the current calendar year (CY) 2010 solar energy base rental fee rates by state and county:

Arizona	CY 2010 Base Rent Fees
La Paz County	\$ 62.78 per acre
Maricopa County	\$188.34 per acre
Mohave County	\$ 31.38 per acre
Pima County	\$ 15.70 per acre

Yuma County	\$313.88 per acre
Other counties	Double the linear right-of-way rental fee
California	CY 2010 Base Rent Fees
Imperial County	\$188.34 per acre
Kern County	\$ 94.16 per acre
Riverside County	\$313.88 per acre
San Bernardino County	\$125.56 per acre
Other counties	Double the linear right-of-way rental fee
Colorado	CY 2010 Base Rent Fees
Alamosa County	\$ 62.78 per acre
Conejos County	\$ 62.78 per acre
Saguache County	\$ 62.78 per acre
Other counties	Double the linear right-of-way rental fee
Nevada	CY 2010 Base Rent Fees
Clark County	\$188.34 per acre
Esmeralda County	\$ 62.78 per acre
Lincoln County	\$ 62.78 per acre
Mineral County	\$ 15.70 per acre
Nye County	\$ 62.78 per acre
Other counties	Double the linear right-of-way rental fee
New Mexico	CY 2010 Base Rent Fees
Dona Ana County	\$ 94.16 per acre
Hidalgo County	\$ 15.70 per acre
Luna County	\$ 15.70 per acre
Other counties	Double the linear right-of-way rental fee
Utah	CY 2010 Base Rent Fees
Beaver County	\$125.56 per acre
Iron County	\$ 62.78 per acre
Millard County	\$ 62.78 per acre
Other counties	Double the linear right-of-way rental fee

As an example, the base rent for a 4,000 acre solar energy right-of-way authorization in Clark County, Nevada, would be \$753,360 per year (4,000 acres x \$188.34 per acre).

Megawatt Capacity Fee

The BLM will charge a MW capacity fee in addition to the base rent for each solar energy right-of-way authorization. The MW capacity fee captures the increased industrial use value of the authorization, above the limited rural/agricultural land value captured by the base rent. The MW capacity fee will be calculated based on the total authorized MW capacity approved by the BLM

authorized officer for the project, or an approved phase of development. This capacity fee will be charged on an annual basis upon the start of generation of electricity from the facility.

To allow for a reasonable and diligent testing and operational period, the BLM will provide for a 5-year implementation of the MW capacity fee after the start of generation operations (at the rates of 20 percent the first year, 40 percent the second year, 60 percent the third year, 80 percent the fourth year, and 100 percent the fifth and subsequent years of operations). If generation of electricity starts from Phase 1 of a project, the MW capacity fee will be charged for the authorized MW capacity approved for Phase 1 only. The MW capacity fee for subsequent phases of development will start at the time that generation of electricity begins for the subsequent phases of development. The 5-year implementation of the MW capacity fee will apply to each phase of development after the start of generation operations from each phase. In moving from one phase of a project to the next phase, only incremental (newly added) capacity will be subject to the phase-in of the capacity fee. The phase-in does not apply to capacity previously installed.

Some solar energy development projects may include separate right-of-way authorizations issued for support facilities only (administration building, groundwater wells, construction lay down and staging areas, surface water management and control structures, etc.). The rental fee for these right-of-way authorizations would only use the base rent and not a MW capacity fee. Any separate right-of-way authorizations issued for linear right-of-way facilities (pipelines, roads, power lines, etc.) would use the rental fees established for linear rights-of-way (43 CFR 2806.20).

The MW capacity fee established by this IM is: \$5,256 per MW for photovoltaic (PV) solar projects; \$6,570 per MW for concentrated PV and concentrated solar power (parabolic trough, power tower and solar dish/engine) projects without storage capacity; and \$7,884 per MW for concentrated solar power projects with storage capacity of 3 hours or more. The difference in the MW capacity fee for PV solar projects, concentrated PV, and concentrated solar power projects is dependent on the differences in the efficiency or capacity factor of each technology. These technologies include PV technologies (20 percent efficiency factor), concentrated PV and concentrated solar power without storage capacity (25 percent efficiency factor), and concentrated solar power technologies with storage capacity of 3 hours or more (30 percent efficiency factor). The BLM will periodically review the efficiency factors for the various solar technologies and update the MW capacity fee to reflect improvements in technology.

The MW capacity fee is calculated using a formula that includes an average electricity price of \$0.06 per kilowatt hour and an average Federal bond yield of 5.0 percent. The Federal bond yield reflects the rate of return the public would expect for the use of Federal resources. The Federal bond yield is based on the 10-year average of the 20-year Treasury bond yield (as of March 2010). The formula for the MW capacity fee is as follows:

Photovoltaic: The MW capacity fee is \$5,256 per year, calculated as (authorized capacity on public land in MWs) x (8,760 hours per year) x (20 percent capacity factor) x (5.0 percent Federal bond yield) x (\$0.06 average price per kilowatt hour) x (1,000 kilowatts per MW) = \$5,256 per year for each MW of capacity.

Concentrated PV and concentrated solar power without storage: The MW capacity fee is \$6,570 per year, calculated as (authorized capacity on public land in MWs) x (8,760 hours per year) x (25 percent capacity factor) x (5.0 percent Federal bond yield) x (\$0.06 average price per kilowatt hour) x (1,000 kilowatts per MW) = \$6,570 per year for each MW of capacity.

Concentrated solar power with storage capacity of 3 hours or more: The MW capacity fee is \$7,884 per year, calculated as (authorized capacity on public land in MWs) x (8,760 hours per year) x (30 percent capacity factor) x (5.0 percent Federal bond yield) x (\$0.06 average price per kilowatt hour) x (1,000 kilowatts per MW) = \$7,884 per year for each MW of capacity.

As an example, the MW capacity fee for a 400-MW photovoltaic solar energy right-of-way authorization would be \$2,102,400 per year (400 MW x \$5,256 per MW), implemented over a 5-year period after start of generation. The MW capacity fee for a 400-MW concentrated PV or concentrated solar power right-of-way authorization without storage capacity would be \$2,628,000 per year (400 MW x \$6,570 per MW), implemented over a 5-year period after start of generation. The MW capacity fee for a 400-MW concentrated solar power right-of-way authorization with storage capacity of 3 hours would be \$3,153,600 per year (400 MW x \$7,884 per MW), implemented over a 5-year period after start of generation.

The payment of the MW capacity fee is in addition to the annual base rent for the acreage of the right-of-way authorization. The full base rent would be paid upon the date of issuance of the right-of-way authorization, and the MW capacity fee would be implemented over a 5-year period after the start of electricity generation from the facility.

Rent Language in Authorization

The BLM has included standard terms in right-of-way grants to provide for adjustments to both the base rent and the MW capacity fee when necessary to reflect changes in the fair market value of right-of-way authorizations. The following revised standard language will be included in all solar energy right-of-way authorizations to additionally provide for rent adjustments consistent with regulatory changes or provisions of new or revised statutory authorities:

“For and in consideration of the rights granted, the holder agrees to pay the Bureau of Land Management fair market value rental, which includes both base rent and a megawatt capacity fee, as determined by the authorized officer unless specifically exempted from such payment by regulation. Provided, however, that the rental may be adjusted by the authorized officer, whenever necessary, to reflect changes in the fair market rental value as determined by the application of sound business management principles, and as far as practicable and feasible, in accordance with comparable commercial practices. The rental provisions of this authorization may also be modified consistent with the provisions of any regulatory changes or pursuant to the provisions of any new or revised statutory authorities.”

Timeframe: This policy is effective immediately. Pending solar energy right-of-way applications will be processed consistent with the provisions of this IM. The rental policy will periodically be reviewed to ensure that the base rent and MW capacity fee represent a fair return to the public.

Budget Impact: The application of this policy will have minimal budget impact. The processing of solar energy right-of-way applications are subject to the cost recovery provisions of the regulations (43 CFR 2804.14).

Background: As part of an overall strategy to develop a diverse portfolio of domestic energy supplies for our future, the Energy Policy Act of 2005 (Public Law 109-58, August 8, 2005) encourages the development of renewable energy resources on the public lands, including solar energy. Section 211 of the Energy Policy Act encourages the approval of at least 10,000 MW of non-hydropower renewable energy projects on the public lands by 2015. Secretarial Order 3285, signed by the Secretary on March 11, 2009, established the development of renewable energy as a priority of the Department of the Interior.

There is significant potential for the development of solar energy on the public lands in the southwestern states. The BLM has identified some 23 million acres of public lands with utility-scale solar energy potential and over 200 right-of-way applications have been submitted to the BLM for processing. As the cost of producing solar energy declines and as additional transmission capacity is developed, there will be an even greater interest in locating utility-scale solar energy projects on the public lands. This policy IM is necessary to ensure BLM-wide consistency in calculating rental fees for solar energy right-of-way authorizations on the public lands.

Manual/Handbook Sections Affected: This IM transmits interim policy that will be incorporated into BLM Manual 2810, Right-of-Way Management, and Handbook H-2801-1 during the next revision.

Coordination: The BLM State Offices reviewed and provided input to this policy prior to its finalization.

Contact: Please direct any questions concerning the content of this IM to Mike Nedd or your staff may contact Ray Brady, Renewable Energy Policy Team, at 202-912-7312, or ray_brady@blm.gov.