Economic and Threshold Analysis
for
Revisions to 43 CFR Parts 2800 and 2880
and New Subpart 2809

Competitive Processes, Terms, and Conditions for Leasing Public Lands for Solar and Wind Energy Development and Technical Changes and Corrections for 43 CFR Parts 2800 and 2880

Introduction

The Bureau of Land Management (BLM) proposes to amend its existing rights-of-way (ROW) regulations to facilitate responsible solar and wind energy development. Among other things, the rule would promote the use of designated leasing areas for solar and wind energy development and establish competitive processes for issuing solar and wind energy development ROWs inside and outside designated leasing areas. It would establish terms and conditions, including rent, fee, and bonding requirements. It would also clarify existing regulations and codify policies that are already in effect and make the 2880 regulations, to the extent possible, consistent with the changes to the 2800 regulations.

Statutes and Executive Orders[1] require an agency proposing a significant regulatory action to provide a qualitative and quantitative assessment of the anticipated costs and benefits of that action. Executive Order 12866 requires agencies to assess the benefits and costs of regulatory actions, and, for significant regulatory actions, submit a detailed report of their assessment to the Office of Management and Budget (OMB) for review. Under Executive Order 12866, a significant regulatory action is any rule that may:

- Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health, safety, or State, local, or tribal governments or communities;
- Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

OMB has determined that this rule is significant because it could raise novel policy or legal issues.

For a major rule, as defined by the Small Business Regulatory Enforcement Fairness Act (SBREFA), the agency must prepare an initial regulatory flexibility analysis. For SBREFA, a rule may be major and require a deeper analysis if it may:

[1] Executive Order 12866, Regulatory Planning and Review, the Unfunded Mandates Reform Act, and the Small Business Regulatory Enforcement Fairness Act.

- Have an annual effect on the economy of $100 million or more;
- Create a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or
- Have significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic and export markets.

The Regulatory Flexibility Act (RFA) requires that agencies analyze the economic impact of proposed and final regulations to determine the extent to which there is a significant economic impact on a substantial number of small entities. The RFA establishes an analytical process for determining how agencies can best achieve public policy goals without erecting barriers to competition, stifling innovation, or imposing undue burdens on small entities.

Executive Order 13272 reinforces executive intent that agencies give serious attention to impacts on small entities and develop regulatory alternatives to reduce the regulatory burden on small entities. When the proposed regulation will impose a significant economic impact on a substantial number of small entities, the agency must evaluate alternatives that would accomplish the objectives of the rule without unduly burdening small entities. Inherent in the RFA is a desire to remove barriers to competition and encourage agencies to consider ways of tailoring regulations to the size of the regulated entities.

In order to certify a rule as having "no impact" under the RFA, an agency must describe the affected entities and the impacts, and in that description clearly justify the certification. The agency should state explicitly its reasoning and assumptions underlying its certification in order to obtain appropriate public comment. The agency could use this information to re-evaluate the certification.[2]

Statement of Need

The BLM believes that the rule would allow it to operate more efficiently and meet the renewable energy goals placed on the program. It would also address some of the recommendations made by the Office of the Inspector General (OIG) in a 2012 report titled "Bureau of Land Management's Renewable Energy Program: A Critical Point in Renewable Energy Development."[3]

In 2005, Congress passed the Energy Policy Act (EPAct) and encouraged the Secretary of the Interior (Secretary) to approve at least 10,000 megawatts (MW) of non-hydropower renewable energy projects within 10 years of enactment.[4] The BLM met that goal in 2012 by approving over 12,000 MWs of renewable energy.

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[2] U.S. Small Business Administration, Office of Advocacy, A Guide for Government Agencies: How to Comply with the Regulatory Flexibility Act, May 2003, (http://www.sba.gov/advo/laws/rfaguide.pdf).
[3] OIG Report CR-EV-BLM-0004-2010. Available on the web at http://www.doi.gov/oig/reports/upload/CR-EV-BLM-0004-2010Public.pdf.
[4] See Section 211, Public Law 109-58, 119 Stat. 660 (2005).

Since Congress passed the EPAct, the Secretary issued several Secretarial Orders (SO) reiterating that renewable energy development is a continuing Federal priority. The Secretary signed SO No. 3283, "Enhancing Renewable Energy Development on the Public Lands," on January 16, 2009. This SO facilitates the Department of the Interior's (DOI) efforts to achieve the goal established by Congress in Section 209 of the EPAct. The Secretary signed SO No. 3285, "Renewable Energy Development by the Department of the Interior" on March 11, 2009. It describes the need for strategic planning and a balanced approach to domestic resource development. It was amended by SO No. 3285A1, "Renewable Energy Development by the Department of the Interior," in February 2010. It establishes the development of renewable energy on public lands as one of the DOI's highest priorities.

On June 25, 2013, the President announced the release of the Climate Action Plan to reduce carbon pollution, prepare the U.S. for the impacts of climate change, and lead international efforts to address global climate change. The Climate Action Plan established a new goal for the DOI: To permit enough renewable electricity generation on public lands to power more than 6 million homes by 2020. This goal will require the approval of 20,000 megawatts (MW) of renewable energy projects on the public lands by 2020.

In addition to these policy statements, a 2012 report by the DOI's Office of the Inspector General (OIG) included a number of recommendations for the BLM renewable energy program. These recommendations addressed, among other things, competitive leasing of renewable energy, rent, bonding, and Federal procedure. Specifically, the OIG recommended that the BLM should:

- Develop and implement procedures to ensure collection of the current rental rate on all existing wind energy developments;
- Determine if it could retroactively collect wind revenues;
- Require a bond for all wind and solar projects;
- Reassess the minimum bond requirements;
- Track and manage bond information;
- Develop and implement procedures that if a project is assigned, the first bond would be returned to the initial company and a bond would be received from the newly assigned company; and
- Develop and implement Bureau-wide guidance for using competitive bidding on wind and solar ROWs.

The recommendation regarding a competitive bidding process is one of the principal reasons for this rulemaking effort. The BLM has also adopted in the proposed rule some of the recommendations regarding bonding.

Background

The BLM, as the land management agency with the responsibility to manage the largest inventory of public land within the Federal Government, is leading Federal agencies in establishing procedural and regulatory matters for the development of renewable energy. Renewable energy development includes wind, solar, geothermal, and biomass projects and the

siting of connected ancillary facilities such as electric transmission lines needed to deliver this power to the consumer.

In June 24, 2005, the BLM completed the Final Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United States relating to the authorization of wind energy projects on public lands. The Wind Final Programmatic Environmental Impact Statement (EIS) analyzed the environmental impact of the development of wind energy projects on public lands in the West and identified approximately 20.6 million acres of public lands with wind energy development potential. The Final Wind Programmatic EIS and associated Record of Decision (ROD) support the BLM wind energy development program and best management practices, including requirements such as bonding for wind energy projects.

The Draft Solar Programmatic EIS described how the BLM might offer lands inside designated solar energy zones (designated leasing areas) for development on a competitive basis. The Supplement to the Draft Solar EIS and Final Solar Programmatic EIS, published on October 28, 2011 and July 27, 2012, respectively, and the Solar Programmatic EIS ROD, issued on October 12, 2012, further discuss competitive leasing. The Final Solar EIS identified 17 solar energy zones on BLM-managed lands and explained the requirements for solar energy development on the public lands, including bonding, rental, competition, nomination of lands, and filing fees.

Wind Energy

The BLM has identified approximately 21 million acres of public lands having wind energy development potential. The BLM can approve wind energy development on BLM-administered lands under Title V of the Federal Land Policy and Management Act of 1976 (FLPMA) if the proposed project is consistent with BLM land use planning. As of May 23, 2013, the BLM approved 33 utility-scale wind energy facilities on public lands in California, Wyoming, Arizona, Oregon, and Utah, with a total installed capacity of 917 MWs.

There are currently 32 wind energy ROW applications covering approximately 380,000 acres of public lands in Arizona, California, Idaho, Nevada, Oregon, Utah, and Wyoming (Table 1 - Wind Energy Right-of-Way Applications).

Table 1 -Wind Energy Right-of-Way Applications

State	Number of Applications	Acres
Arizona	1	37,816
California	8	64,447
Idaho	2	15,271
Nevada	7	54,912
Oregon	5	48,233
Utah	4	32,285
Wyoming	5	127,187
Total	32	380,152

Source: BLM, Legacy Rehost System (LR2000), December 18, 2013.

Typically, an applicant must reimburse the BLM for its costs in processing the application. If the BLM approves a project, the BLM will issue a ROW grant to the applicant for a specified term, typically up to 30 years. All projects require environmental review under the National Environmental Policy Act (NEPA).

Solar Energy

The BLM has identified approximately 19 million acres of public lands having solar energy development potential. The BLM can approve solar energy development on BLM-administered lands under Title V of FLPMA if the proposed project is consistent with the BLM's land use plans for a given area. As of December 18, 2013, the BLM had approved 16 utility-scale projects with capacities of 20 MWs or greater on public lands. These projects will generate electricity that is delivered into the electricity transmission grid. The BLM expects to issue final authorization for several additional projects before the end of calendar year 2014.

On December 18, 2013, the BLM had 62 active applications pending for utility-scale solar energy projects in Arizona, California, and Nevada that involve approximately 492,037 acres of land.

Table 2 - Solar Energy Right-of-Way Applications

State	Number of Applications	Acres
Arizona	7	62,434
California	28	129,982
Nevada	27	187,378
Total	62	379,794

Source: BLM, LR 2000, December 18, 2013.

Like proposed wind energy projects, the applicant must reimburse the BLM for its costs in processing the application and all projects require an environmental review under NEPA. If the BLM approves a project, the BLM will issue a ROW grant to the applicant for a specified term, typically 30 years.

The Solar Programmatic EIS, coauthored by the BLM and the Department of Energy, covers the potential development of solar energy projects within the six southwestern states (Arizona, California, Colorado, New Mexico, Nevada, and Utah). In addition to this programmatic effort, the BLM established 17 solar energy zones (two in Arizona, two in California, four in Colorado, five in Nevada, one in New Mexico, and three in Utah) that have received in-depth environmental analysis as part of the Solar Programmatic EIS. The total land area in these zones is approximately 285,000 acres. Seven applications inside solar energy zones pre-date the Solar Programmatic EIS. The number of these solar applications may decrease as a company may choose to withdraw its application or fail to meet agency due-diligence requirements.

On July 5, 2013, the Secretary withdrew 303,900 acres of public land in the solar energy zones, for a period of 20 years, from location or entry under the mining laws on behalf of the BLM to protect and preserve solar energy zones for future solar energy development. Previously, as part of the withdrawal process, the lands were segregated for up to 2 years from surface entry and mining while various studies and analyses were made to support a final decision on the Solar Programmatic EIS. The lands remained open to the land disposal, mineral leasing, and mineral material laws.[5]

The Arizona Restoration Design Energy Project supports the Secretary's goals for renewable energy. In addition to this state-specific programmatic effort, the BLM established two additional solar energy zones in Arizona that received in-depth environmental analysis.

The lands within the solar energy ROW applications in southern California are within the BLM California Desert District (CDD). Public lands within the CDD are used or are available for electrical power generating plants, high-capacity power transmission lines, oil and gas pipelines, communication sites, transportation routes, conservation purposes, and a wide range of recreational uses.

Most of the lands within the solar energy ROW applications in southern Nevada are within the BLM Southern Nevada District. The Department of the Interior has withdrawn a large percentage of the lands within the District for military purposes, and the BLM manages most of the remainder for multiple uses. However, the proximity of the public lands to the Las Vegas metropolitan area has a significant effect on those uses.

The BLM Lake Havasu, Yuma, Hassayampa, and Lower Sonoran Field Offices administer most of the lands within the solar energy ROW applications in southwestern Arizona. The BLM manages these public lands primarily for multiple resource uses, including appropriation under the public land laws. In 2008, BLM Arizona experienced a rush of ROW applications for solar facilities on the 12.2 million acres of public land in the State. Interest in using public lands for solar development continues.

Summary of Proposed Rule

The proposed rule would amend existing regulations at 43 CFR parts 2800 and 2880 to establish a competitive offer process for solar and wind energy development on public lands and would also amend regulations pertaining to ROWs for any transmission line 100 kV or more, or for any pipeline 10 inches or more in diameter. Part 2800 applies to ROWs under the FLPMA and Part 2880 applies to ROWs under the Mineral Leasing Act. The rule would make technical adjustments and changes, corrections, and clarifications within 43 CFR part 2800 to incorporate existing requirements previously made through policy and establish the competitive offer process for solar and wind energy. The rule would make additional technical adjustments to 43 CFR part 2880 to maintain continuity in BLM administrative procedures regarding the competitive offer process adjustments made to part 2800.

[5] 74 FR 31308, June 30, 2009.

The BLM examined all of the proposed provisions and determined that some would have an economic impact. Table 3 briefly summarizes these instances. In addition, we believe that some provisions would have an economic impact, but the impact is too speculative to quantify.

Table 3 - Provisions Estimated to have Economic Impacts

Existing Regulations	Proposed Regulations	Importance of the Change	Incremental Change[6]
Cost Recovery			
BLM assumes costs for pre-application meetings.	Would require prospective applicants to pay reasonable[7] or actual costs associated with pre-application meetings for solar and wind energy development, any transmission line 100 kV or more, or for any pipeline 10 inches or more in diameter.	Transfers burden of the BLM pre-application expenses from the public to the potential applicant.	Pre-application meetings cost estimates range from $5,000 - $15,000 per project with the average cost being $5,000. These costs would apply to applications outside of designated leasing areas only. Based on an anticipated 20 projects per year, the average annual increase in cost to potential operators is $100,000.
Application / Nomination			
BLM does not require filing fees when filing a solar or wind energy application.	Would require applicant to pay a nonrefundable application filing fee of $15 per acre for solar and wind energy development or assignment and $2 per acre for wind energy testing applications.	Establishes requirements to discourage speculation and limits the ability to tie up the public land with an application.	Estimated Annual cost: <u>Testing Applications</u>: $480,000 per year. <u>Development Applications</u>: $990,000 per year.

[6] Figures presented in Economic Difference column are discussed in detail in the Direct Economic Impacts section below and summarized in the Table 11 in the Conclusion section below.
[7] Section 304(b) of FLPMA requires that all reasonable costs be recovered.

Existing Regulations	Proposed Regulations	Importance of the Change	Incremental Change[6]
BLM does not require payment of costs associated with nominating a competitive lease site.	Would require a nonrefundable $5 per acre nomination fee for solar and wind energy leases inside designated leasing areas.	Supports a nominee's selection of specific lease area.	Estimated cost: $30,000 per year.
Bonding			
Existing policy requires bonding for solar and wind energy authorizations based on a reclamation cost estimate.	Would increase the minimum bond amount for wind turbines to $20,000 per turbine and establish a minimum bond amount for solar development at $10,000 per acre. The final bond amount for a project would be the greater of either the reclamation cost estimate or the minimum bond amount.	Establishes a higher minimum bond amount to account for current cost.	We would expect this provision to have no impact, as it would only increase the bond amount for projects where the minimum bond amount exceeds the reclamation cost estimate.
Existing regulations do not address standard bond amounts for solar or wind projects in designated leasing areas.	Would establish a standard bond amount of $20,000 per wind turbine and $10,000 per acre for solar development. No reclamation cost estimate is used in establishing bond amount inside designated leasing areas.	Increase certainty of project costs to bidders.	We would expect cost savings to operators as the standard bond amount required is generally less than a reclamation cost estimate. This provision would only increase the bond amount for projects where the standard bond amount would exceed the reclamation cost estimate (if it had been required).
Rents and Fees			

Existing Regulations	Proposed Regulations	Importance of the Change	Incremental Change[6]
Existing regulations have a rent late fee of $25 or 10 percent of the rent owed, not to exceed $500.	Would remove the late fee cap of $500.	Incentivize timely rent payment.	Based on historic late payment fees, $480,000 per year increase in late payment fees.
Existing policies establish the solar and wind MW capacity fee calculations using a rate of return.	Would establish a minimum of 4 percent for the rate of return.	Ensures that the rate of return will be no less than the minimum.	Historically, rates have been higher than the proposed minimum. Therefore we anticipate reduced costs for operators.
Existing policies set the rent for wind project area site testing at a minimum of $1,000 per authorization or $1 per acre, whichever is greater.	Would increase the rental amount for wind project area site testing authorizations to a $2,000 minimum or $2 per acre, whichever is greater	Updates rent to current market conditions.	Estimated $1,212,000 per year increase in rental.
Existing policies set the MW capacity fee for wind energy development at $4,155 per MW.	Would increase the megawatt capacity fee to $6,209 per MW.	Updated to reflect current market conditions.	Additional fee will be $2,054 per MW per year for projects Estimated total cost range from $980,000 to $7.33 million per year.
No current acreage rental for wind energy.	Would establish an acreage rent utilizing the county rates established under existing rules at 43 CFR 2806.20.	Establishes a new rental requirement.	$2,916,000 additional rent per year.
Existing regulations do not address acreage rental for solar energy. Existing policy establishes acreage rent on a county-by-county basis using 2010 data.	Would adjust concurrently with the rental schedule for linear rights-of-way.	Provides consistent acreage rental determinations methodologies. Generally, an additional $33.86 per acre in rental.	$3,248,000 increase in rent per year

Existing Regulations	Proposed Regulations	Importance of the Change	Incremental Change[6]
Existing policy establishes a phased-in solar energy MW capacity fee where a percent of the capacity rent is owed, as follows: Year 1, 20%; Year 2, 40%; Year 3, 60%; Year 4, 80%; and Year 5 and beyond, 100%	Would shorten the phase-in period to three years, as follows: Year 1, 25%; Year 2, 50%; and Year 3 and beyond, 100%;	Accelerates the phase-in for capacity rent for solar operations.	For a solar operation, the accelerated phase-in would increase the MW capacity fee by $394 in year one, $788 in year two, $3,154 in year three and $1,576 in year four. The rent would be the same in year five and beyond as it is under the existing rule.
Existing policy charges on a per MW basis, and specifies the solar energy MW capacity fee based on the type of technology: photovoltaic (PV); concentrated photovoltaic or solar power without storage (CPV); or concentrated solar power with storage over three hours (CSP).	Establishes the solar capacity rent in regulation and updates the fees.	Updates the rent to reflect current market conditions.	Annual decrease of $2,562/MW after year four. $14.12 million prospective decrease in rent per year for MWs that are approved, but not in production. $615,000 decrease annually to prospective solar rent.
Competitive Offer			
Competitive bidding process is not established by existing regulations.	Would establish competitive processes for solar and wind energy development inside and outside designated leasing areas.	Facilitates an orderly competitive process.	No defensible way to estimate or calculate what the economic impact might be.
Existing regulations do not provide for competitive leasing, as such minimum bid criteria is not established by existing regulations or policy.	Would establish minimum bid criteria for competitive offers.	Provide basis for minimum cost of a competitive offer.	$50,000 annually for minimum bid.

Existing Regulations	Proposed Regulations	Importance of the Change	Incremental Change[6]
Bonus bid is not established by existing regulations.	Would provide for bonus bid within competitive offer.	Provide for highest bid cost of a competitive offer.	Annual bonus bid $4.8 million.
Variable offset is not established by existing regulations.	Would establish potential offsets within the competitive bidding.	Incentivizes prospective bidder interest in competitive offers.	The estimated total cost may range from zero dollars to $960,000 per year.
Existing regulations allow a competitive process for all ROWs only when there are two or more competing applications.	Would establish that the BLM may also hold a competitive offer on its own initiative.	Allow the BLM to initiate competitive offer for all ROWs when the agency is prepared.	No defensible way to estimate or calculate what the economic impact might be.

Provisions that were Analyzed and Determined to have no Economic Impact

Many provisions in the proposed rule codify existing requirements that are already established by policy. The preamble of the proposed rule provides specific discussions of each section of the proposed rule. These provisions do not represent a change and will have no economic impact. They are as follows:

- Application – Provision would require no less than two pre-application meetings for solar and wind energy generation projects outside of designated leasing areas.
- Application – Provision would require no less than two pre-application meetings for any transmission line 100 kV or more, or for any pipeline 10 inches or more in diameter.
- Application – Provision would require that screening criteria be applied to all solar and wind applications.
- Application – Provision would require that solar and wind applications be prioritized.
- Application – Provision would require that the BLM evaluate a solar or wind application and either deny it or continue to process it.
- Application – Provision would require a POD conforming to the template and a schedule for when it would be submitted to the BLM for solar and wind energy, any transmission line 100 kV or more, or for any pipeline 10 inches or more in diameter.
- Application – Provision would establish and consolidate the requirements for when a ROW holder must notify the BLM.
- Bonding – Provision would require bonds for all wind energy testing and development authorizations and all solar energy development authorizations. Bonding would be based on the reclamation cost estimate for authorizations outside the designated leasing areas.
- Bonding – Provision clearly restates the requirement that liabilities would continue regardless of the amount of bond required by the BLM.
- Rental – Provision would specifically establish when rent may be retroactively collected.

- Rental – Provision would establish rental rates specific to wind testing and solar and wind energy development in the regulations.
- Rental – Provision would establish a phase-in period for solar and wind energy development.

This rule would address pre-application requirements for ROW applications for solar or wind energy development projects, any transmission line 100 kV or more, or for any pipeline 10 inches or more in diameter. Screening criteria would be applied to each solar or wind energy ROW application and the applications would be prioritized based on that evaluation. Based upon the pre-application meetings, screening criteria and the prioritization of the application, the BLM may deny an application prior to a NEPA analysis and its resulting decision. These new regulatory requirements do not create any new burden to the lessees/operators, as existing policy provides these requirements.

This rule would require the submittal of a POD to the BLM for all solar or wind energy development projects, any transmission line 100 kV or more, or for any pipeline 10 inches or more in diameter. The proposed rule would require a schedule at the time of grant or lease issuance for the submittal of a POD conforming to the approved template. The BLM currently has discretionary authority to require submittal of a POD through existing regulations and policy for such developments. The submittal of the schedule is intended to facilitate coordination of permit processing activities and reduce costs in the overall process. There is a cost to a ROW holder when preparing a POD for a development, but providing a POD to the BLM is currently required through policy and practice so there is no change in cost.

This rule would require that a ROW holder contact the BLM under certain circumstances. Existing regulations require that the BLM be notified of substantial deviations or changes in ownership of the ROW. This rule would codify requirements of existing policy regarding name changes in ownership of a ROW facility. The situations described are identified within the existing regulations as amendments and assignments. For changes in ownership, this rule introduces the policy requirement for name changes, where there are no changes in ownership, but the change in the name of the ROW owner. These are existing requirements of the regulations and policy and are not an economic impact of this rulemaking.

This rule would require a performance and reclamation bond for a ROW to cover losses and damages to the environment or property in connection with the ROW and allow for termination of the authorization. The BLM uses a reclamation cost estimate to determine the amount of a performance and reclamation bond for a ROW outside of a designated leasing area. The reclamation cost estimate is specific for each authorization and its unique environmental and technological concerns. Therefore, it is problematic to provide an estimated cost of such bond instruments beyond the required minimum amounts; the analysis below discusses the costs.

The proposed rule would establish the annual rental for wind energy authorizations that reflects current market conditions. This analysis discusses the solar and wind rent amounts below in the Direct Economic Impacts section, under the Rental heading.

This rule would carry forward the existing requirement that a bond be based on a reclamation cost estimate, which determines the costs for reclaiming and restoring the public lands. This amount would include the administrative costs for the BLM to administer a contractor to reclaim and restore the lands in the authorization. The reclamation cost estimate would only be for ROWs outside of designated leasing areas. For a ROW inside a designated leasing area, no reclamation cost estimate would be required when bonding is as described below in the Direct Economic Impacts section under the heading of Bonding. There is a cost to a ROW holder when preparing a reclamation cost estimate. However, providing a reclamation cost estimate to the BLM is an existing requirement of policy; therefore, the costs in preparing one would not be an increase.

There would be no impact for a bond established either by a reclamation cost estimate outside a designated leasing area or by standard bond inside a designated leasing area should it be insufficient to cover a bonded requirement, such as reclamation of the project. The proposed rule would repeat the clear requirement of the existing regulations that should a bond amount be insufficient or not in place, for whatever reason, the holder of the authorization would be responsible to cover the costs for fulfilling the requirements of the authorizations (see section 2807.13).

This rule would clarify when the BLM would retroactively collect rent. A holder must pay all rent for a ROW under the existing terms and conditions. Under the current rules, the BLM collects rent, when appropriate. The BLM only collects rent retroactively when there is an error or omission in the billed or unbilled rent amount to a holder. This rule proposes to codify these instances to clarify when the BLM would retroactively collect rent of a ROW in order to facilitate the orderly administration of these rents. The BLM would only retroactively collect rent when there is: 1) an unbilled rent; 2) a clerical error identified; 3) an adjustment to rent schedules is not applied; or 4) an omission or error in complying with the terms and conditions of the authorized ROW is identified. This is consistent with existing regulations and policy; therefore, this change would have no economic impact

Alternative Approaches

The BLM considered alternative approaches when developing the proposed rule. This section describes those alternatives and their estimated impacts, where quantifiable.

Pre-application cost recovery: By policy, the BLM requires a series of meetings between the BLM, the project proponent, and other Federal, State, and tribal governments during the pre-application stage of any solar or wind energy project proposal. The BLM funds these pre-application meetings, which generally cost about $5,000 for the entire pre-application period, but may cost as much as $15,000. The range reflects the number of meetings, the project's complexity, and resource concerns. In the proposed rule, the BLM would require prospective applicants to pay the reasonable or actual costs associated with the pre-application meetings.

As one alternative, the BLM considered establishing a flat fee for the pre-application meetings. A flat fee might be desirable for two primary reasons. It might be easier to administer and applicants would have a clear expectation of what costs they would incur. Assuming 20 projects

per year, a flat fee of $5,000 (roughly the average cost) per pre-application engagement would potentially cost applicants $100,000 per year. A flat fee of $7,500 would potentially cost applicants $150,000 per year. A flat fee of $10,000 (the midpoint of the range) would potentially cost applicants $200,000 per year. Ultimately, the BLM determined that a flat fee might not promote fairness, since pre-application costs may vary by the complexity and resource concerns of the proposed project.

The BLM also considered whether the cost recovery payment for the pre-application period should be voluntary for the applicants. The BLM rejected this idea as it believes it would likely bear the costs of the pre-application period and that the expense should be borne by the applicant.

Application Filing Fees and Nomination Fees: The BLM currently does not require filing fees when applicants file a solar or wind energy application or nomination fees when applicants nominate a competitive lease site. The proposed rule would require an applicant to pay a nonrefundable application filing fee of $15 per acre for solar and wind energy development and a fee of $2 per acre for wind energy testing. It would require a nonrefundable $5 per acre nomination fee for solar and wind energy leases inside designated leasing areas. The proposed application filing fees would be higher than nomination fees, reflecting the various potential uses for the areas that could be impacted or precluded by an application. Nomination fees are lower, reflecting the limited and intended use of the area nominated for a competitive lease.

Rather than setting a uniform per acre fee, the BLM initially considered setting filing fees on a county-by-county basis, which is similar to the acreage fee process for solar developments. This would have allowed for a 12-tier schedule of filing fees for an application based upon the general land value of the area and identified further by an encumbrance factor of 0 to 100 percent. The county areas would have been broken down by the National Agricultural Statistics Service census data and would likely have had an Implicit Price Deflator, Gross Domestic Product (IPD-GDP) index value added to the fees that would vary from year to year. The BLM considered this system since the land valuation process was already in place and used for rental schedules for linear and solar rentals. However, the BLM determined that this alternative would have been overly complex and may have led to inaccurate filing fees.

Capacity Fee and Acreage Rent: Existing policies set the MW capacity fee for wind energy development at $4,155 per MW. There is currently no acreage rental for wind energy. The BLM is proposing to increase the fee to $6,209 per MW, to reflect market conditions, and to establish a new rental requirement.

The BLM originally considered increasing the MW rate to $6,740 per year based on a market study completed for the BLM by the DOI's Office of Valuation Services (OVS). The BLM also considered using an encumbrance factor of 20 percent for wind energy developments. Further, the BLM considered adjusting the current 3-year phase-in of the MW rate for wind energy to a 5-year phase-in.

The BLM did not include these alternatives in the proposed rule. The OVS conducted a market study of wind rental rates in early 2012. The market study identified a variety of royalty rates

and payment structures. The BLM does not have the statutory authority to collect a royalty for wind and solar energy on public lands to match the current market practices; therefore, the BLM identified a rate of return as a comparable percentage to use for returning market value.

A range of discounted rates consistent with a phase-in period were also identified in the study ranging from 2 to 5 years that support both existing agency phase-in periods of 3 and 5 years. Further, a review of the existing authorized wind energy development facilities showed that the actual encumbrance factor for wind developments was lower than initially considered. Considering the current market data and the methodology proposed for determining the MW capacity fee, the BLM is proposing a MW capacity fee of $6,209 per MW and not $6,740 per MW. The MW capacity fee of $6,740 reflects older market data and was therefore not proposed in the rule. A $6,740 per MW fee would have cost the industry an additional $1.23 million to $8.84 million per year. The lower bound represents the incremental gains from existing projects alone. The upper bound represents incremental gains from existing projects and potential projects.

The BLM established the existing solar rental by policy with a 5-year phase-in period for the MW capacity fee. The BLM considered leaving the solar phase-in period as established by policy. On February 27, 2012, the comment period closed for the Advanced Notice of Proposed Rulemaking (ANPR) for the competitive leasing of solar and wind energy on public land. Comments received on the ANPR indicated that a shorter phase-in period for the MW capacity fee was appropriate for solar developments. In consideration of the comments received, the 5-year phase-in period for the solar energy was not carried forward in the proposed rule as indications of a longer phase-in period for non-competitive authorizations, while favorable to a developer, were not typical of the market or supported by the public. The preamble to the proposed rule contains a discussion of the comments received that responded to questions in the ANPR.

The BLM established the solar MW capacity fee by policy in 2010, and the BLM considered maintaining it because it is recent. However, the BLM determined to maintain uniformity between the solar and wind MW capacity fee structures in this rule. In order to maintain uniformity, it would be necessary to update the solar MW capacity fees using the methodology proposed in this rule for determining rent.

Bonding: The BLM conducted an internal review of bond adequacy and the review indicated that it should revise minimum bond amounts. The proposed rule would increase the minimum bond amounts to reflect increased reclamation costs. The BLM did not consider amounts deviating from that which it proposes, because the other amounts would be inappropriate.

For projects inside designated leasing areas, the BLM is proposing to make the new minimum bond amount the standard bond amount, and not require or consider a reclamation cost estimate. Another alternative would be to treat all projects equally, regardless of location, and require a bond amount that is either the minimum bond or the reclamation cost estimate, whichever is higher.

Competitive offer: Procedures for solar and wind energy competitive offers are currently authorized by existing regulations. The BLM has used a variety of competitive offer methods, including various means of bidding methodologies, in other contexts (*e.g.*, coal leasing, oil and gas development). In the proposed rule, the BLM does not specify the exact mechanics of the competitive offer so that it may maintain flexibility. Meaning, the BLM may use different types of offers to ensure greater participation and competition.

Number of Potentially Affected Entities

The proposed rule would primarily affect individuals and companies that will obtain authorizations to develop wind and solar resources on public lands. To a lesser extent, the proposed rule would also affect companies that will obtain authorizations for certain transmission or pipeline projects.

There are currently 8 distinct entities holding solar authorizations, 26 entities holding wind authorizations, and 625 entities holding pipeline and transmission authorizations. We believe that these entities generally characterize the types of entities that will obtain authorizations in the future.

Table 4 – Number of Current BLM Authorizations

Type of Authorization	Number of Approved Authorizations	Number of Distinct Entities	Estimated Number of Authorizations per Year
Solar	12	8	3
Wind	36	26	2
Pipeline	504	484	1
Transmission	162	141	5

The proposed provisions (see preamble to the proposed rule) that have the potential to have an economic effect on entities include the pre-application cost recovery, application filing fee, and rental rules. Renewable energy development ROWs on public lands are a discretionary action by the BLM. Because the BLM may not approve some applications for a renewable energy development, this analysis assumes fewer authorizations than applications.

- On an annual basis, the BLM anticipates an average of 20 pre-application meeting periods, involving 12 entities, which will be subject to the proposed cost recovery provision.
- The BLM anticipates 10 new solar and wind energy development applications and 40 wind testing applications per year. These 50 filings, involving an estimated 30 entities, will potentially be affected by the proposed application filing fee provision.
- The proposed changes to the rental provisions will affect both existing and new wind development authorizations. There are currently 101 wind testing authorizations, involving 70 entities, and 36 wind development authorizations involving 26 entities. In

addition, the BLM anticipates 15 new wind testing applications that are not a renewal of an existing authorization, involving eight entities, and two new wind development authorizations, involving two entities per year.

- The proposed changes to the rental provisions will affect both existing and new solar authorizations. There are currently 12 solar authorizations involving 8 entities. In addition, the BLM anticipates three new solar authorizations involving three entities per year.
- For comparison purposes of this analysis, the BLM assumes one lease area nomination and competitive offer per year of equal size to the average application and anticipates three entities competing for that lease parcel.

Affected Small Entities

The BLM reviewed the potentially affected entities to determine the extent to which the affected entities are small businesses, as defined by the Small Business Administration (SBA). Further, we examined the extent to which the proposed rule would economically impact the affected small entities.

Upon this review, we determined that the rule would potentially affect a substantial number of small entities. However, we determined that the proposed rule would not pose a significant economic impact on a substantial number of small businesses. The basis for these determinations is as follows.

The SBA assigns size standards to industries for the purpose of carrying out the Small Business Act. Table 5 shows the industries that would be affected by the rule, their North American Industry Classification System (NAICS) codes, and the SBA size standards for determining whether an entity within the industry is considered a small business. The definitions are available at 13 CFR 121.201, as amended at 78 FR 77343, 77351 (Dec. 23, 2013).

Table 5 – NAICS Code Definitions

NAICS Code	NAICS U.S. Industry Title	Size Standards in Millions of Dollars	Size Standards in Number of Employees	Relevance
221114	Solar Electric Power Generation		250	Solar energy
221115	Wind Electric Power Generation		250	Wind energy
221121	Electric Bulk Power Transmission and Control		500	Transmission lines with a capacity of 100 kV or more
486110	Pipeline Transportation of Crude Oil		1,500	Pipelines 10 inches or more in diameter

NAICS Code	NAICS U.S. Industry Title	Size Standards in Millions of Dollars	Size Standards in Number of Employees	Relevance
486210	Pipeline Transportation of Natural Gas	$25.5		Pipelines 10 inches or more in diameter
486910	Pipeline Transportation of Refined Petroleum Products		1,500	Pipelines 10 inches or more in diameter
486990	All Other Pipeline Transportation	$34.5		Pipelines 10 inches or more in diameter

There are currently 659 distinct entities with authorizations for solar and wind energy, transmission lines 100 kV or more, and pipelines 10 inches or more in diameter. The BLM reviewed these entities to determine whether they are small businesses as defined by the SBA. The reference material included company annual reports or other materials and annual filings to the U.S. Securities and Exchange Commission.

Regarding entities with approved or active authorizations for wind and solar development, we found that many entities are subsidiaries of larger parent (or holding) companies that generally exceed the size criteria and are not small entities according to the SBA. However, we also found several entities that did not exceed the size criteria and are small entities according to the SBA. For this reason, we believe that the rule could potentially affect a substantial number of small entities in those industries.

Regarding entities with pipeline or electric transmission authorizations, we could not determine whether the entities are small as defined by the SBA. Therefore, we assume that the proposed rule would potentially affect a substantial number of small entities in those industries.

To determine the extent to which the proposed rule would impact these small entities, we took two approaches. First, we attempted to measure the direct costs of the proposed rule as a portion of the net incomes of affected small entities. However, we were unable to obtain the financial records for a representative sample.

Next, we measured the direct costs of the proposed rule as a portion of the total costs of a project.

As a result of this proposed rule, a developer of wind and solar energy would incur the following costs, which we discuss in the direct economic impacts portion of this analysis:

- Application or nomination filing fees;
- Pre-application meetings;
- Acreage rent;
- MW capacity fee;
- Bonding; and

- Bonus Bids.

Tables 6 and 7 show the cost of the proposed rule as a percent of the total solar or wind project cost (for both large and small projects). The BLM further calculated the upper threshold of a bonus bid in the event that a competitive offer is held. Competitive offers may provide for variable offsets that would reduce the total bonus bid amount by up to 20 percent. Impact ranges for a project are provided below each table that identify the cost of the rule, upper threshold of a bonus bid and the maximum variable offset.

The BLM has provided a range of impacts to costs for individual projects using two set project sizes. Developing higher cost projects would be more cost effective than lower cost projects due to economies of scale. Table 6 represents the estimated costs for a high project cost for a 6,000 acres and 80 MW of energy capacity. Table 7 represents the estimated costs for a low project cost for a 40 acres and 5 MW of energy capacity.

The BLM used solar PV costs in this estimation since solar PV is the most commonly deployed solar technology on both public and private lands. The BLM used information from the National Renewable Energy Laboratory (NREL)[8] and the Western Electricity Coordination Council (WECC).[9] This information estimated costs such as materials, financing, and acquiring site control (e.g., a BLM permit or private lease). This information is an estimate of the cost, per acre, to develop a solar or wind energy project.

Table 6 – Comparison of Project and Proposed Rule Costs Per Project (Large)

6,000 Acres and 80 MWs	**Project Cost**	**Impact of Proposed Rule**	**Upper Threshold Bonus Bid Amount**	**% of Total Project Cost**
Solar (Low)	$1.3 billion	$1.2 million	$ 0	0.09 %
Solar (High)	$6.3 billion	$1.3 million	$4.8 million	0.10 %
Wind (Low)	$180 million	$290,000	$ 0	0.16 %
Wind (High)	$420 million	$350,000	$4.8 million	1.21 %

*With Competitive Offer***:** Assuming an upper threshold for variable offsets in a competitive offer for larger projects equal to $960,000 (amount up to 20 percent of the bonus bid), the range of estimated impacts to a project would change to be 0.08 percent to 0.99 percent of the total project cost.

Table 7 – Comparison of Project and Proposed Rule Costs Per Project (Small)

[8]http://www.nrel.gov/analysis/tech_size.html
[9]http://www.wecc.biz/Lists/Calendar/Attachments/5892/140212_WECC_GenCapitalCostRecommendations_Final.pdf

40 Acres and 5 MWs	Project Cost	Impact of Proposed Rule	Upper Threshold Bonus Bid Amount	% of Total Project Cost
Solar (Low)	$8.7 million	- $ 3,256	$ 0	- 0.04 %
Solar (High)	$42.3 million	- $ 2,900	$ 31,800	0.07 %
Wind (Low)	$1.2 million	$ 12,000	$ 0	1.00 %
Wind (High)	$2.8 million	$ 12,000	$ 31,800	1.58 %

*With Competitive Offer***:** Assuming an upper threshold for variable offsets in a bonus bid for smaller projects equal to $6,360 (amount up to 20 percent of the bonus bid), the range of estimated impacts to a project would change to be -0.04 percent to 1.35 percent of the total project cost.

The proposed rule would also impact potential developers of transmission lines 100 kV or more and pipelines 10 inches or more in diameter. The only provision that would impact these entities would be cost recovery for pre-application meetings. Table 8 compares the costs that a developer would incur for transmission line and pipeline projects to the cost of the rule.

The BLM used information from the WECC's report for estimating the capital costs for transmission and substations[10] in preparing the transmission line estimate for this analysis. This information estimated costs such as materials, financing, and acquiring site control (e.g., a BLM rent). This information did not include the cost for attaining site control of a project or cost recovery for a Federal agency. Cost recovery would increase the overall project costs, reducing the proposed rule's percentage of the cost impact of total project costs.

The BLM has provided a range of impacts to costs of individual transmission projects using two set project sizes. Developing higher cost projects would be more cost effective than lower cost projects due to economies of scale. Table 8 represents the estimated costs for a high project cost for a 100-mile long, dual circuit 500 kV transmission line on monopole structures and for a low project cost for a 1-mile single circuit 230 kV transmission line on lattice structures.

For pipeline projects, the BLM was unable to find a range of costs per mile or other measurable scale. The BLM analyzed application filings submitted to the Federal Energy Regulatory Commission (FERC) for interstate and international pipelines, which included project cost estimates and sizing information.. The BLM compared the costs of the proposed rule cost to the information found in the application filings.

[10]http://www.wecc.biz/committees/BOD/TEPPC/TAS/121012/Lists/Minutes/1/121005_TransCapCostReport_finaldraft.pdf

The range of project costs identified in Table 8 compare higher cost and a lower cost pipeline project to the cost of the proposed rule. The projects used were those for Ruby Pipeline Project, a high cost pipeline project, and for the City of Clarksville Gas and Water Natural Gas Interconnect Pipeline Project, a low cost pipeline project. The high cost project is a 42 inch pipeline that is 678 miles long and the low cost project is a 12 inch pipeline that is 13 miles long.

Table 8 – Comparison of Project and Proposed Rule Costs Per Project (Pipeline/Transmission Lines)

	Project Cost	**Impact of Proposed Rule**	**% of Total Project Cost**
Transmission (Low)	$2.5 million	$ 5,000	0.20 %
Transmission (Hi)	$4.8 billion	$ 5,000	0.0001%
Pipeline (Low)	$20 million	$ 5,000	0.03 %
Pipeline (High)	$3 billion	$ 5,000	0.0002%

To conclude, for the various types and sizes of projects, we found that the impacts of the proposed rule represented a small percent of the total project costs. As such, we determined that that the proposed rule would not pose a significant economic impact on a substantial number of small businesses.

Direct Economic Impacts

The BLM has identified five general provisions proposed in the rule that would have quantifiable direct economic impacts on entities involved in the development of wind and solar resources on public lands. The pre-application cost recovery provision would require individuals and companies interested in obtaining an authorization to develop renewable energy resources on public lands to pay the government's costs associated with pre-application meetings and other activities. The proposed application filing fee and nomination fees would require applicants for renewable energy authorizations to pay a fee when filing an application or submitting a nomination. The proposed rule would also add new rental requirements to wind energy authorizations and update solar rent. The proposed minimum bonding requirements would require companies authorized for solar and wind energy developments to provide minimum bond amounts outside designated leasing areas and standard bond amounts inside designated leasing areas. The BLM would establish a competitive offer process for both inside and outside of designated areas and clarify the procedures and costs of these actions.

Application

Pre-application cost recovery. The proposed rule would expand existing cost recovery authority to include the pre-application stage of a project proposal. The portion of this fee that is not used for this stage is refundable to applicants or may be carried over for processing of the application and included in those cost recovery monies. The pre-application cost recovery fee is based upon estimated costs for the BLM to process a project application through this stage of the project. This fee would be a minimal cost to a project proponent and an average estimate of $5,000 for

each project is used for this analysis. The estimated average cost is based upon the BLM's experience in proceeding through the pre-application process of projects. This fee is dependent on many factors such as project siting, resource conflicts, and technology type. Each factor influences the pre-application cost recovery fee estimates for projects as the fee is based on Federal labor costs.

As discussed above, the BLM estimates this provision would affect approximately 20 pre-applications per year. At an average of $5,000 per project, this would increase costs to the industry by about $100,000 per year. This cost is actually a transfer payment,[11] and as such, the provision would not affect the total resources available to society, but rather who bears the cost.

For areas inside designated leasing areas, there would be no required pre-application meetings and no change in the cost. However, through BLM's experience with reviewing these projects, it is anticipated that meetings would occur with a lessor to discuss a project and cover material similar to what is addressed in pre-application meetings. The cost of these meetings with a lessor would be reimbursable to the BLM under its existing regulations for monitoring and therefore would not be a change in costs.

Application Filing Fees. The proposed rule includes a fee for filing an application for solar and wind energy development for projects proposed outside of an established designated leasing area. The application filing fee is fixed at $2 per acre for wind site testing and $15 per acre for solar and wind energy developments. The applicant must submit this nonrefundable fee with its application. The total filing fee for an application may vary since it is dependent on the number of acres in the application.

Using an assumed average acreage of 6,000 acres per application, based upon a BLM review of its renewable energy records, the filing fee would be about $12,000 per application for a wind testing site. The BLM estimates there will be 40 new wind testing applications annually, for a total estimated annual cost of $480,000.

For the anticipated 10 new solar and wind energy development applications the BLM will receive annually, using an average acreage of 6,000 acres per application, the BLM estimates filing fees could total about $900,000, or approximately $90,000 per application. For purposes of this analysis, the BLM further anticipates that one solar or wind energy development will be assigned per year. Such assignments require an application submittal to the BLM and an application filing fee based upon the acreage of the ROW assigned. This would result in an approximately $90,000 in application filing fees for assignments.

[11] Note, an important, but sometimes difficult, problem in cost estimation is to distinguish between real costs and transfer payments. Transfer payments are not social costs, but rather are payments that reflect a redistribution of wealth. While transfers should not be included in the economic analysis estimates of the benefits and costs of a regulation, they may be important for describing the distributional effects of a regulation. Scarcity rents and monopoly profits, insurance payments, government subsidies and taxes, and distribution expenses are four potential problem areas that may affect both social benefits and costs as well as involve significant transfer payments. (See Economic Analysis of Federal Regulations Under Executive Order 12866, January 11, 1996, http://www.whitehouse.gov/omb/inforeg_riaguide.)

Nomination fee. The proposed rule includes a fee for filing a lease area nomination for solar or wind energy developments for areas inside an established designated leasing area. The lease area nomination fee is a fixed amount of $5 per acre for solar and wind energy developments. The interested party must forward this nonrefundable fee at the time they submit a nomination to the BLM. The total nomination fee for a lease area may vary since it is dependent on the number of acres nominated. While it is problematic to estimate with any level of accuracy the number of lease nominations and the number of acres that may be nominated, this analysis assumes one lease area nomination per year of equal size to the average application area of a 6,000-acre lease area. This equates to an estimated $30,000 in nomination fees per year.

Rents and Fees

Wind testing rent. One hundred thirty-three existing wind energy authorizations would be subject to the proposed rental provisions. One hundred and one of those authorizations involve wind project area testing. These projects would see their rental payments double from an estimated average of $12,000 to $24,000 per year, for a total increase of about $1.2 million per year. The BLM also anticipates 15 new wind testing applications per year, but anticipates that 15 existing wind testing applications will be relinquished per year, for no net annual increase in wind testing applications.

Wind MW rate adjustment. Thirty-two existing wind energy development authorizations would also be affected by the proposed changes. Rental for wind energy development would be increased by adjusting the wind MW capacity fee of $4,155 per MW to $6,209 per MW. The BLM estimates the 36 existing authorizations would have the total MW fees increase by approximately $980,000 due to the proposed increase of $2,054 per MW, a 49 percent increase in fees on the existing wind energy ROWs currently in production. The BLM has approved 3,568 MWs for production. If energy generation begins for the remaining MWs, the total MW capacity fee increase would be $7.33 million each year. Based on the BLM's experience, it is not likely that all wind energy developments will go into production. Therefore, the potential annual increase due to the approved MWs that are placed into production is likely an upper threshold of increased rent per year.

Wind acreage rent. The rule would implement an acreage rent for wind energy generation authorizations where there previously was no acreage rent. The proposed rule would base its rental on the acreage rent established in existing regulations on a per acre county rate that is adjusted annually by the Implicit Price Deflator, Gross Domestic Product (IPD-GDP) for linear ROWs. The acreage rent is calculated to reflect the wind encumbrance on the land. The proposed wind energy acreage rent would reflect a 10 percent encumbrance value of the land compared to linear rental's 50 percent. The encumbrance factor identifies a percentage value that indicates the exclusion of other public land uses

Using the average of 6,000 acres per project, the BLM estimates the per acre rental for the wind energy development authorizations would range from about $10,000 to $400,000, depending on the location of the authorization and the zone designation for the county. The range is established using zone county rates of one through eight from the existing linear rent schedule. The estimated average zone for such developments is zone five. Using an estimated average

increase of $81,000 for acreage rent per authorization, based on the calendar year 2014 rate, the total annual per acre rent for all 36 projects could increase by approximately $2.9 million per year.

The BLM anticipates two new wind energy development authorizations per year. These new projects would be subject to the same rent increases as existing operations. The MW rate increase would raise fee costs by approximately $980,000 per year once energy generation is charged at the full phase-in rate, based on an estimated average of 80 MW per wind project. Assuming 6,000 acre projects and depending on location, the BLM estimates new wind energy development authorizations will be subject to a per acre rental of approximately $90,000 per year.

Solar. The BLM is proposing three different adjustments from existing policy to solar rents and fees that are analyzed below. First, an adjustment to the phase-in of the MW capacity fee is analyzed to illustrate the proposed change to the phase-in. Second, an updated MW capacity fee is analyzed to illustrate the change in the rent. Third, an update to the zone-by-zone designation for acreage rent would be made. A summary that includes the combined change for the phase-in and the MW capacity fee is provided for the solar rental.

Solar phase-in. The proposed adjustment to the phase-in period will not affect existing collection of rental for solar energy generation that is already in production. Only future solar energy that is put into production would be subject to the proposed phase-in period. For years 1 and 2 of the 3-year phase-in, the rental for the MW rate would increase by approximately $394 annually, or a total increase of $394 for year 1 and $788 for year 2. For year 3, the total rate would increase by approximately $3,154 per MW of capacity. For years 4 and 5 of the solar MW capacity, a diminishing rate of increased fees are realized, for the 3-year phase-in. The diminishing rate of increased fees is because the existing 5-year phase-in rate draws closer to the rate of the proposed 3-year phase-in rate. By the fifth year, the increase in the proposed 3-year phase-in has captured only 25 percent more fees than the existing 5-year phase-in.

The highest dollar value established by BLM policy for solar MW rate is for concentrated solar with storage over three hours (CSP). Using the established MW rate of $7,884 per MW would result in a total increase of $5,913 per MW for the first 4 years of the proposed 3-year phase-in. Similar changes for the other solar technology types with MW rate that is established by policy are proposed in the rule. The other technology types for which the rate is already established by policy, are PV and concentrated PV or concentrated solar power without storage (CPV) which are not analyzed here since their rate per MW is less than CSP. The policy established rate for PV is $5,256 per MW and the rate for CPV is $6,570 per MW. The proposed change to the phase-in for all solar technology types will follow the same analysis as described in Table 9.

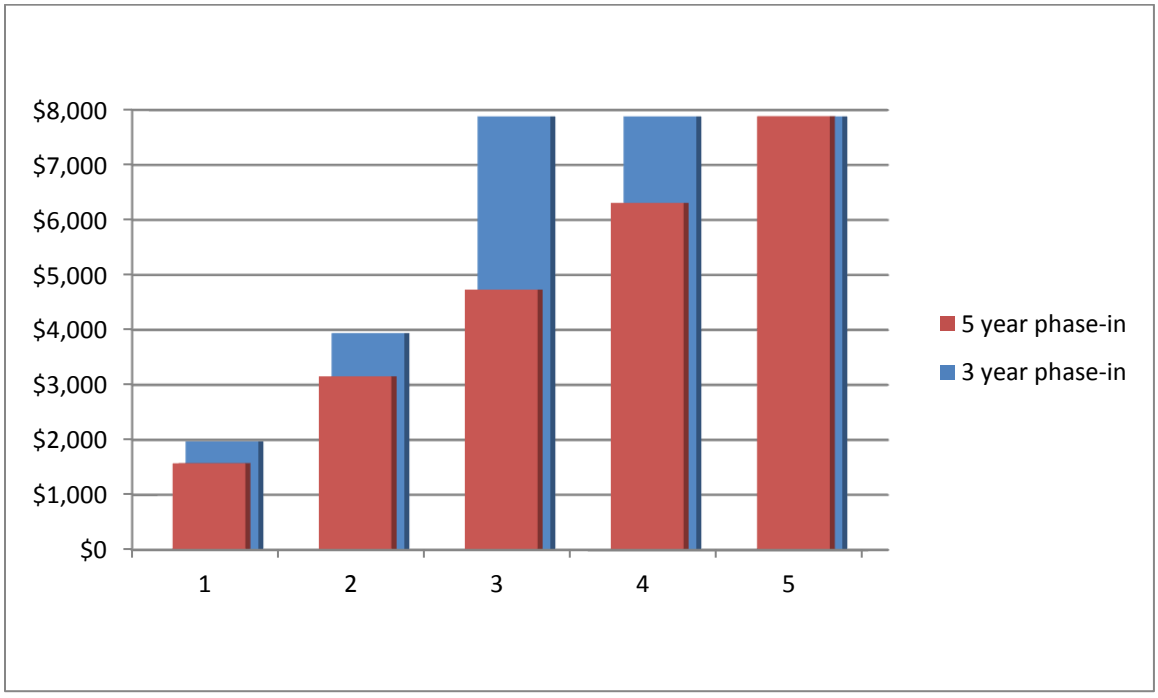
Table 9 - 3-year vs. 5-year Rate Phase-in Comparison

Concentrated Solar Power w/Storage	Year One - Dollar (percent phase-in)	Year Two - Dollar (percent phase-in)	Year Three - Dollar (percent phase-in)	Year Four - Dollar (percent phase-in)	Year Five – Dollar (percent phase-in)

Three Year $7,884/MW	$1,971(25%)	$3,942(50%)	$7,884(100%)	$7,884(100%)	$7,884(100%)
Five Year $7,884/MW	$1,577(20%)	$3,154(40%)	$4,730(60%)	$6,307(80%)	$7,884(100%)
Change in Dollars	$394	$788	$3,154	$1,577	$0

If the remaining MWs were to be placed into production, the total fee change resulting from the phase-in would be best represented by the change analyzed for the MW rate. The MW rate update demonstrates the rate per MW at the full phase-in of the MW rate.

Chart 1 – 3-year vs. 5-year rent phase-in comparison



As seen in Table 9 and Chart 1, the greatest increase for rates is year 3 of the 3-year phase-in. This is an increase of $3,154 per MW. No increase in rates is seen in years 5 or later as both phase-in periods are at full phase-in rates of 100 percent for the MW capacity fee. The annual increase in rates averaged out for the first four years is $1,478.

MW Capacity fee. The BLM has approved 36 wind projects and many of them are producing power and incurring a MW capacity fee. The BLM collected approximately $2 million in MW capacity fees in 2012 for wind energy authorizations. Total fees received are anticipated to increase in 2013 as an additional 141 MWs of generation are placed into production, equaling approximately $146,000 of additional fees for the first year of phase-in and $293,000 of additional rent for the second year of the phase-in. The proposed rule would increase the wind MW rate to present market conditions of $6,209 per MW of capacity. In addition, this rule would implement an acreage rent for wind energy authorizations where there was previously no

acreage rent. The acreage rent would be established on a per acre county rate that is adjusted by the IPD-GDP and will be available on the BLM Web site once the final rule is published.[12]

The BLM has approved 16 solar projects. Of those 16 projects, one is producing power and has incurred a MW capacity fee of $50,000. The solar rent phase-in would be decreased by this rule from a 5-year phase-in to a 3-year phase-in, in order to consistently match the phase-in period with the current market and that of wind energy authorizations. Further, the BLM proposes to update the solar MW capacity fee to current market conditions.

Solar MW rate adjustments. Adjustments to the solar MW rate include adjustments to technology-specific rents for PV, CPV, and CSP. The MW rates are currently established by policy on a per MW basis at $5,256 for PV, $6,570 for CPV, and $7,884 for CSP. The MW rates would be decreased by the proposed rule on a per MW basis to $3,548 for PV, $4,435 for CPV, and $5,322 for CSP. The BLM proposes to adjusts MW rates for solar energy to reflect current market conditions, which would be a reduction of 32.5 percent from the currently established MW rates. Using the highest dollar value technology type per MW capacity for CSP, the reduction of 32.5 percent in the MW capacity is a decrease of $2,562 per MW of capacity as seen in Table 10. Should generation of the approved 5,512 MWs begin the total MW capacity fee decrease would be $14.12 million each year. Based on the BLM's experience, it is not likely that all solar energy developments will go into production. Therefore, the potential annual decrease in total received MW capacity fees is likely an upper threshold of decreased rent per year.

Table 10 - Updated Solar MW Capacity Fee Comparison

	PV	**CPV**	**CSP**
Proposed Updated MW Capacity Fee	$3,548	$4,435	$5,322
Current Established MW Capacity Fee	$5,256	$6,570	$7,884
Change in Dollars	($1,708)	($2,135)	($2,562)

Table 11 compares the combined change of the proposed phase-in and MW rate decrease to the current phase-in and MW rate. For years 1 and 2 of the 3-year phase-in, the aggregate total rental for the MW rate would be a 16 percent reduction to fees over the first and second years of the 5-year phase-in. For year 3, the aggregate of the total fees would be approximately 2 percent less than the third year of the 5-year phase-in. For years 4 and 5 of the solar MW capacity, a diminishing rate of fees would be realized for the 3-year phase-in as the existing 5-year phase-in with current MW rates draws closer the full MW rate. By the fifth year, the change in the proposed 3-year phase-in would capture 16 percent less fees than the existing 5-year phase-in. The highest dollar value established for solar MW rates would be for concentrated solar with storage over 3 hours. Using the proposed MW rate of $5,322 per MW would result in a total decrease of $1,133 per MW by year 4. Table 12 demonstrates in greater detail the proposed adjustments to the phase-in and the MW rates in a comparison to the existing phase-in and MW

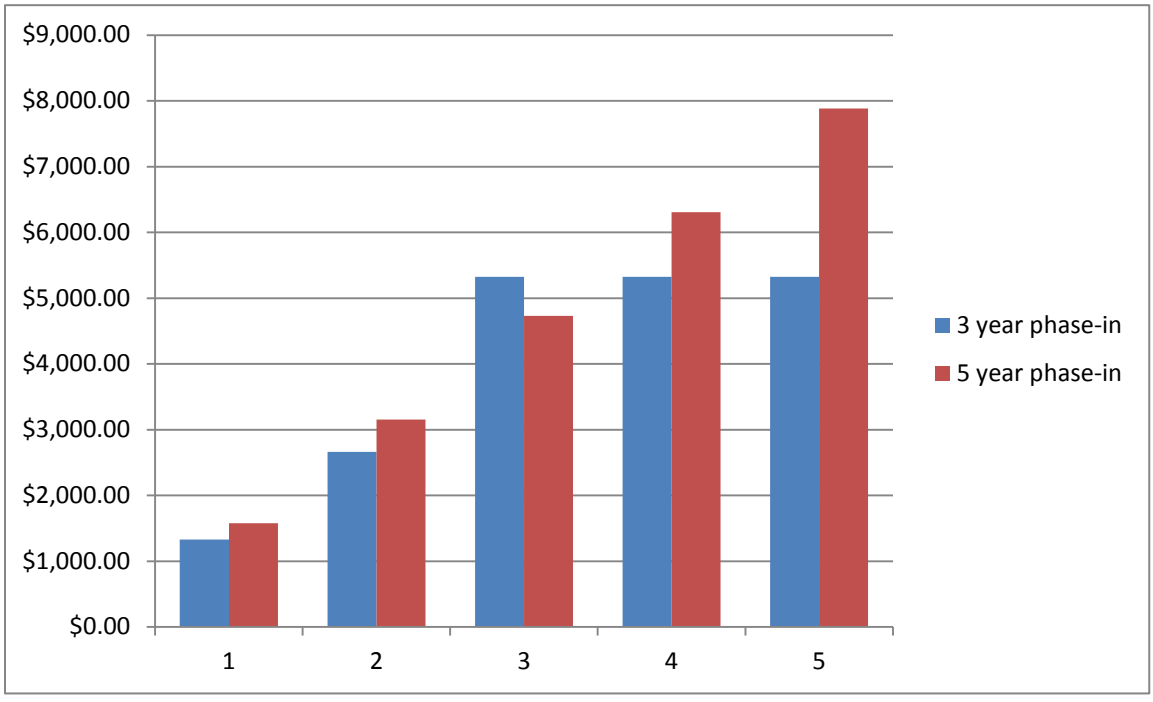
[12] Appendix A to this analysis is the solar rent and fee schedule, and Appendix B to this analysis is the wind rent and fee schedule.

rates. Years subsequent to year 4 of the phase-in would reflect a flat yearly difference of $2,562 per MW in rates between the proposed and existing phase-in as seen in Table 11. For example, year 6 would be a difference of $6,257 and year 7 would be a difference of $8,819.

Table 11 - Proposed Phase-in and Fees Compared to Existing Phase-in and Fees

	Year One – Dollar (percent phase-in)	**Year Two – Dollar (percent phase-in)**	**Year Three – Dollar (percent phase-in)**	**Year Four – Dollar (percent phase-in)**	**Year Five – Dollar (percent phase-in)**
Proposed MW Capacity Fee and Phase-in	$1,331 (25%)	$2,661 (50%)	$5,322 (100%)	$5,322 (100%)	$5,322 (100%)
Existing MW Capacity Fee and Phase-in	$1,577 (20%)	$3,154 (40%)	$4,730 (60%)	$6,307 (80%)	$7,884 (100%)
CSP w/storage $7,884/MW	($246)	($493)	$592	($985)	($2,562)

Chart 2 – Proposed Phase-in and Fees Compared to Existing Phase-in and Fees



The greatest change for rental, as seen in Table 12 and Chart 2, is year 3, which reflects an increase in rental of $592 per MW of capacity. Years 1, 2, 4, and 5 show a decrease in the MW rate. Years following year 5 would show a decrease in rental of $2,562 per MW per year.

Whether a solar energy plant goes into production is beyond the authority and control of the BLM. Holders of solar energy ROWs determine when to put a project into production, if ever. Therefore, it is difficult to analyze beyond a potential cumulative fee amount what the impacts of the adjusted rates would be. The BLM anticipates three new solar energy development authorizations per year. These new projects would be subject to the change of the MW rate, the same as existing operations. The MW rate decrease would decrease prospective fee costs by approximately $615,000 per year once energy production begins, based on an estimated average of 80 MW per solar project of CSP.

Solar acreage rent. The rule would implement an update to the solar acreage rent for solar energy generation authorizations. The update would allow the acreage rent to be adjusted at the same time other comparable acreage rents, such as those for linear facilities, would be adjusted. The solar acreage rent would remain as it currently is established, based upon the linear acreage rental in existing regulations on a per acre county rate that is adjusted annually by the IPD-GDP. The proposed solar energy acreage rent would reflect a 100 percent encumbrance value of the land as compared to linear rental's 50 percent.

The update to the acreage rent would allow the zone designation to adjust the county zone designation of the acreage rent calculation. The BLM would perform this once every 5 years and may move a county upward or downward in the zone designations of the rent schedule. The higher it moves up, the more acreage rent would increase. With the establishment of the proposed rule, the average adjustment would be upward one county zone designation in the rent schedule. One county zone designation is a change of $33.86 for the typical zone adjustment (zone four to zone five) for the year 2014. Using the average of 6,000 acres per project, the BLM estimates that the per acre rental for a solar energy development authorizations would range from about $100,000 to $2 million, depending on the location of the authorization and the zone designation for the county. Using an estimated average increase of $203,000 for the acreage rent per authorization, based upon the estimated range of $100,000 to $2 million per authorization, the total annual per acre rent for all 16 projects could increase by approximately $3.25 million per year.

Table 12 shows the estimated total rents for 2012 and 2013 which are calculated before the implementation of the final rule. The proposed MW rate phase-in period does not apply to capacity that was previously installed for solar, but MW rates would apply once the rule is final. Rental for solar projects and the increase to the MW rate noted in table 12 represent the change in the phase-in period for the second year of an existing project in 2013, using the proposed MW rate adjustment. Projected rents and fees for 2014 include the proposed adjustments to the estimated total rents and fees for existing solar and wind energy generation.

Table 12 -Total Estimated Annual Wind and Solar Rents and fees

	2012		2013		2014	
	Acreage Rents	MW Fees	Acreage Rents	MW Fees	Acreage Rents	MW Fees
Wind	NA	$2,000,000	NA	$2,146,000	$2,600,000	$3,198,000
Solar	$7,000,000	$50,000	$7,000,000	$100,000	$9,842,000	$150,000

Bonding. The rule would codify the existing policy for bonding solar and wind projects. Under the proposed rule, in processing each project for lands outside of designated leasing areas, the applicant would provide a reclamation cost estimate to the BLM that would determine the total costs necessary to reclaim the public lands back to an acceptable condition. The proposed rule includes a minimum bond amount at $2,000 per meteorological tower and test site, $20,000 per wind turbine, and $10,000 per acre for a solar development. The BLM's review of recent solar and wind energy project bonds and their reclamation cost estimates support the minimum bond amounts proposed. Based upon site-specific requirements, the necessary bond amount is likely to be higher than the minimum bond amount and will be determined based on the reclamation cost estimate. The BLM review of recent solar and wind energy authorizations has shown reclamation estimates for meteorological towers have been as high as $10,000, as high as $60,000 per wind turbine, and as high as $20,000 per acre for solar projects.

An average capacity size of one MW per turbine, or 80 turbines for an average project, is used for this analysis. The minimum bond amount for an average wind project would be $1.6 million, an increase of $800,000 per project over the current bonding minimum. Typically, a developer will not pay a cash value of the bond, but instead provide a surety bond. The cost of a surety bond to a developer is typically an annual cost of 1 to 2 percent of the total surety bond amount, but can be as high as 4 percent. It is not normal to pay a higher percentage for a surety bond and for purposes of this analysis, a 2 percent annual rate will be used. Therefore, an increase of $800,000 per project in minimum bonding amounts is likely to cost a developer about $16,000 per project per year.

The BLM expects no change in cost to industry. If the reclamation cost estimate were less than the minimum bond amount, there could be a total annual cost to the industry of up to $32,000. Since the BLM currently sets the actual amount of wind bonds based on the full cost of reclaiming the property, the BLM does not anticipate that the proposed bonding provisions would increase bonding costs.

An average acreage size of 6,000 acres for a solar ROW is used for this analysis. The minimum bond amount for an average solar project would be about $60 million per project. There is currently no minimum bonding amount for a solar project, however an increase in cost would only occur if the minimum bond amount were greater than a RCE . RCEs are performed on a case-by-case basis and this bond amount would not be known until a RCE is prepared for a particular project. A solar developer will typically not pay a cash value of the bond and instead would provide a surety bond with an annual cost of 1 to 2 percent of the total surety amount. Therefore, $60 million in bonding requirements at a 2 percent annual rate would be an annual cost of up to $1.2 million to developers. Since the BLM currently sets the actual amount of solar

bonds based on the full cost of reclaiming the property, the BLM does not anticipate that the proposed bonding provisions would increase bonding costs.

The proposed rule would establish a standard bond amount for leases inside a designated leasing area for solar or wind energy developments. The standard bond would equal the proposed minimum bond amounts outside a designated leasing area for energy development. As proposed, bonding for projects inside designated leasing areas would be inadequate if a reclamation project were completed and its costs exceed the standard bond amount. In cases where a grant or lease holder defaults, the burden of the shortfall could potentially fall on the BLM.

The standard bond amounts would be $20,000 per wind turbine and $10,000 per acre for a solar development. No reclamation cost estimate would be required for authorizations inside a designated leasing area. This standard bond would be a known cost to a prospective bidder on a competitively offered lease inside a designated area. The known cost for bonding before an offer is made would reduce uncertainty to a developer. The increase to the certainty of project costs would raise the probability that a developer would bid higher on a lease and would be an incentive to develop inside designated leasing areas.

This analysis assumes only one competitive offer a year and therefore would use the higher cost of solar standard bonding to determine economic impacts. However an increase in cost would only occur if the standard bond amount is greater than a RCE would be if one was required by current policy. The estimated costs are calculated in the same way as for minimum bonding and would include $1.2 million per year for standard bonding inside designated leasing areas for solar and $32,000 for wind. Standard bond amounts inside a designated leasing area would be updated using the change in the IPD-GDP once every 10 years and rounded to the nearest hundred dollars. The update to the standard bond amount would be based on the published 10-year change in the IPD-GDP that occurred prior to the update. Since the BLM currently sets the actual amount of wind and solar bonds based on the full cost of reclaiming the property, the BLM does not anticipate that the proposed bonding provisions would increase bonding costs but reduce costs, since an RCE would not be required to be completed by developers.

Under current and proposed rules, a developer would be responsible for all liabilities associated with their authorization. Operator liabilities would continue regardless of the amount of the bond required by the BLM.

Competitive Bidding.

Minimum and bonus bid. The proposed rule would allow the BLM to use any type of competitive process or procedure to conduct a competitive offer. The rule allows for several options, such as oral auctions, sealed bidding, modified competitive bidding, and others. The BLM office conducting the offer will identify the competitive process and minimum bid in a notice of competitive offer. The BLM would require each competitive offer to have a minimum bid determined by the authorized officer and consist of two components. The first would reimburse the BLM for administrative costs associated with preparation of the competitive offer. The reimbursement of the BLM's administrative costs is a transfer of costs from the Government to the successful bidder in preparation of the competitive offer. The BLM estimates the first

component of the minimum bid to be approximately $10,000 and this includes personnel costs and costs for notification in a newspaper and the *Federal Register*. The second component of the minimum bid is an amount determined by the authorized officer based on the known or potential value of the land. This amount may be based upon acreage rent, potential MW capacity fees, mitigation values of the land, or other known value of the land or the prospective ROW. These costs of the minimum bid may be determined as a percentage value of the known value of the land or prospective ROW. The successful bidder would pay the minimum bid and any bonus bid amounts. The BLM would return any monies paid by unsuccessful bidders during the bidding process to the unsuccessful bidders.

There is a cost increase to the Federal Government to prepare the minimum bid; however, this is determined on a case-by-case basis and may depend on various factors that are unknown at this time. For purposes of this analysis, the BLM will use 5 percent of the first year's acreage rent as the second component of the minimum bid. This is consistent with a competitive offer in Colorado that was held on October 24, 2013. Using the average of 6,000 acres per project, the BLM estimates that the amount of the per acre rent for a solar energy[13] development authorization would range from about $5,000 to $203,000, depending on the zone location. Using an estimated average increase of $40,000, the minimum bid for a solar project would be $50,000. This includes the $10,000 estimated costs for the preparation of the competitive offer. For comparison purposes, the BLM assumes that it will hold only one competitive offer each year. The BLM would set the minimum bond costs on a case-by-case basis and post it in the notice published prior to the offer. Potential bidders would have the minimum bid information prior to the offer. The BLM anticipates that the competitive offer process set out by the proposed rule has the potential to lead to bids higher than the minimum amount and expects that this process would lead to more income to the Federal Government than other offer processes.

Generally, the filing of a ROW application, or successfully bidding in a competitive lease offer is an early step in a long process that may eventually result in a revenue-generating activity for the successful ROW grant or lessee. The competitive process reduces the time that a successful bidder will wait before receiving a lease, further facilitating the solar or wind development and its revenue generation. The BLM would issue a lease, after holding a competitive offer, no less than 30 days after publication of a notice of offer. Processing an application can take several years before the BLM approves or denies it. Generating meaningful estimates of the potential value of a BLM authorization to a successful bidder for a competitive lease or a BLM authorization to a developer via an application and subsequent grant would be speculative. Many factors influence the cost to individual bidders, including the business models for each bidder, solar or wind energy technology uses, and the time horizons for each based upon local and state regulatory frameworks in place at the location of a competitive lease offer. These factors vary and are influenced by statutory and geographic changes.

A competitive lease offer process provides a shortened timeframe for a successful bidder and facilitates the potential to generate bonus bids in addition to the BLM's minimum bid amount.

[13] Acreage rent for solar energy developments are 10 times the acreage rent for wind energy developments.

The BLM intends to collect the fair market value[14] of the lease through the bids, acreage rents and MW capacity fees.

The BLM has not proposed a single auction format in this proposed rule in order to maintain flexibility and approximate fair market value. For example, an open ascending-bid auction would net the second-best price for a parcel. Meaning, the winning bid will be just above the second-best bid and not necessarily the final amount that the winning bidder would have been willing to pay. Sealed-bid auctions can net the best price or second-best price, depending on the mechanics of the auction. For all of these auctions, however, the level of competition is central to the idea that the BLM will receive the fair market value for a given parcel through a competitive bidding process.

The BLM piloted a competitive bidding process for wind energy development in 2004 and selected a winning bonus bid of $795 per acre. However, this process resulted in the selection of a preferred applicant and the winning bidder followed the BLM's application process for a wind energy development. The parcel was centrally located in a known high-wind energy development area and, therefore, would generate a premium over other parcels not so well located. For purposes of this analysis, the BLM will use the minimum bid discussed above as a lower bound for competitive process and use the $795 per acre as evidenced in the competitive process as an upper bound. This establishes a bid range of approximately $14,000 to $4.8 million dollars per parcel for bids, or approximately $4.8 million dollars per parcel for a bonus bid. This bonus bid analysis is used as a comparison for both solar and wind energy for purposes of this analysis. Estimating one competitive offer per year, the annual impact would be $4.8 million.

Variable offset. The successful bidder of a competitive offer inside a designated leasing area could qualify for variable offsets of up to 20 percent. Such offsets may include those for a preferred technology use or those for bidders with existing interconnect agreements. The specific amount for an offset would be described in the competitive offer notice and may vary from one competitive offer to the next. Using the estimated competitive bid amount of $4.8 million per year, a range for variable offset would be zero dollars to $960,000 annually.

Proposed Changes That Were Analyzed, But Not Quantified

Rents and Fees

Minimum Rate of Return. The current MW rate is set within existing policies for solar and wind energy development. The calculation used to determine the MW rate for both solar and wind is the same and is referred to as the MW rate formula in this rule. This formula is the net capacity factor multiplied by the hours per year (total number of hours in a 365 day year) multiplied by the rate of return multiplied by the MW hour (MWh) price. The net capacity factor and hours

[14] 26 CFR § 20.2031-1(b) : http://www.gpo.gov/fdsys/pkg/CFR-2012-title26-vol14/pdf/CFR-2012-title26-vol14-chapI-subchapB.pdf. Federal regulations define fair market value as "the price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or sell and both having reasonable knowledge of relevant facts."

per year are fixed values for the technology types of solar and wind; however, the rate of return and MWh price of electricity are adjustable values, all of which are described in detail in the preamble discussion for proposed sections 2806.50 and 2806.60.

This rule proposes a 4.5 percent rate of return that can be adjusted, but not below the minimum rate of 4 percent. The rate of return for solar and wind energy is the 10-year average (2003-2012) of the 20-year Treasury bond yield, rounded up to the nearest one-half percent. The rate of return would be recalculated every 5 years. The rate may adjust upward and downward with the 10-year average of the 20-year Treasury bond yield, but no less than the minimum rate of 4 percent.

The MWh price is the 5-year average of the annual weighted average of the Intercontinental Exchange trading hubs for the wholesale price of electricity in the 11 western states. This 5-year average would be the MWh price for electricity used in the MW rate formula and is used as the market value for electricity. Both the rate of return and MWh price may be adjusted in the future. As the rate of return and the MWh price of electricity would both be adjusted at future intervals based upon the preceding year's average values, a meaningful analysis is problematic, as it would result in a highly speculative inputs to the economic impact analysis.

Competitive Offer.

Bidding process. This rule proposes a new regulation describing the procedure for a competitive offering of lands for solar and wind energy developments on the public land. The procedures include a notice in a newspaper and/or other media sources in the area affected by the competitive offer and a notice in the *Federal Register* to solicit expressions of interest for an area. Such notices would include specifics for the competitive offer area and procedures such as a legal description of the competitively offered parcel, bidding methodology, minimum and bonus bid information, and bidder qualifications for a variable offset. Discussed below are minimum bid amounts and several options for the bidding, such as oral auctions and sealed bidding, and other offer methods that are available in the proposed rule. The BLM expects this proposed rule to remove procedural uncertainty, encourage competition during a competitive offer, and increase the predictability of bidding for potential bidders.

This rule would expand when the BLM may hold a competitive offer for a ROW. Currently, a competitive offer may be held when there are two or more competing applications for the same system or ROW. This rule would expand this authority to allow for competitive offers to be held on the BLM's own initiative, as well as when there are competing applications. Current regulations would have the BLM wait for competing applications for the same system or utility before holding a competitive offer. Under this rule, the BLM intends competitive offers to be held for designated leasing areas, which are based upon planning decisions on current environmental knowledge. Waiting for competing applications would likely result in dated planning decisions should too much time pass between the planning decision to hold a competitive offer and receipt of the competing applications. This would result in lost Federal resources spent on planning decisions to hold the competitive offer. The BLM expects that this proposed rule would address this potential increase in costs and expedite the competitive offer

process. The proposed rule is intended to reduce unnecessary costs by removing procedural uncertainty.

Conclusion

The RFA requires agencies to analyze the economic impact of proposed and final regulations to determine the extent to which a significant economic impact on a substantial number of small entities is possible. Based on the available data, the BLM does not anticipate that this rulemaking will have a significant economic impact on a substantial number of small entities, as defined by the SBA.

Executive Order 12866, the Unfunded Mandates Reform Act, and the Small Business and Regulatory Flexibility Act require agencies to assess, where practical, the anticipated costs and benefits of regulatory actions to determine if it is a significant regulatory action. The BLM estimates the annual effect on the economy of the regulatory changes would be less than $100 million and would not adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local or tribal governments or communities. This rule would not create inconsistencies or otherwise interfere with an action taken or planned by another agency. In addition, this rule would not materially affect the budgetary impact of entitlements, grants, loan programs, or the rights and obligations of their recipients.

The BLM anticipates the proposed changes to the rule would increase costs to applicants, lessees, and operators by an estimated increase of no more than $5,941,000 per year. Of this increase in costs to operators, $4.8 million of this total figure is the amount of the estimated bids. The increase in fees and rentals over the fees and rentals currently set by policy primarily reflect changing market conditions. Increases in the minimum bond amounts also reflect increases in estimated reclamation costs. Table 13 provides the calculations associated with proposed changes in the fees, rents, and bonding, and provides a brief description and calculation used for the determination of economic impacts. These economic impacts are described briefly in Table 1 and more completely in the Direct Economic Impacts portion of this analysis.

Table 13
Calculations Table

Rule Description	Calculation	
Cost Recovery		
Pre-Application Meetings	Average Cost of Pre-Application x Estimated number of Pre-Applications per year = -or- $5,000 x 20 =	$100,000 per year
Application / Nomination		

Application Filing Fee	Average Acreage per Application x Application Filing Fee x Estimated Annual Applications = -or- 6,000 acres x $2 (testing) x 40 = -and- 6,000 acres x $15 (development) x 11 =	<u>Testing Applications</u>: $480,000 per year <u>Development Applications</u>: $990,000 per year Total of $1.47 million per year
Lease Area Nomination Fee	Acres Nominated Per Year x Per Acre Nomination Fee= -or- 6,000 acres x $5=	$30,000 per year

Bonding		
Wind Energy Development Minimum Bonding (no cost increase)	Estimated Number of Turbines Per Project x Minimum Bond Amount Per Turbine Increase x Number of Estimated Annual Authorizations x Percent Rate for Surety Bond= -and (use highest value)- Reclamation Cost Estimate x 2 Percent Rate = -or- Estimated 80 Turbines x $10,000 Per Turbine x 2 Projects Per Year x 2 Percent Rate= -and (use highest value)- Reclamation Cost Estimate x 2 Percent Rate = -or- 80 Turbines x $10,000 Per Turbine x 2 Projects Per Year x 2 Percent Rate =	Final bond amount determined by Reclamation Cost Estimate times a 2 percent surety bond rate Or $32,000 annually. No cost increase unless RCE is less than the minimum.
Wind Energy Standard Bonding	Estimated Number of Turbines Per Project x Standard Bond Amount Per Turbine x Number of Estimated Annual Authorizations x Percent Rate for Surety Bond= -and- Estimated 80 Turbines x $20,000 Per Turbine x 1 Project Per Year x 2 Percent Rate=	$32,000 Per Year. No change to cost. Operator cost savings for no RCE requirement.

Solar Energy Development Minimum Bonding (no cost increase)	Estimated Number of Acres x Minimum Bond Amount Per Acre x Number of Estimated Annual Authorizations x Percent Rate for Surety Bond= -and (use highest value)- Reclamation Cost Estimate x 2 Percent Rate = -or- Estimated 6,000 acre x $10,000/acre x 3 Projects Per Year x 2 Percent Rate= -and (use highest value)- Reclamation Cost Estimate x 2 Percent Rate =	Final bond amount determined by Reclamation Cost Estimate times a 2 percent surety bond rate $3.6 million annually. No cost increase unless RCE is less than the minimum.
Solar Energy Standard Bonding	Estimated Number of Acres x Standard Bond Amount Per Acre x Number of Estimated Annual Authorizations x Percent Rate for Surety Bond= -and- Estimated 6,000 acres x $10,000/acre x 1 Project Per Year x 2 Percent Rate=	$1.2 million per year. No change to cost. Operator cost savings from no RCE requirement.
Rent and Fees		
Late Payment Fee	Number Late Payments x Difference in Late Payments = -or- 80 Late Payments x $6,000 Difference =	$480,000 per year increase in late payment fees.
Wind Project Area Site Testing	Existing Wind Project Area Site Testing Authorizations x Increase in Rental = -or- 101 Authorizations x $12,000 Increase in Rental =	$1,212,000 additional rent per year
Wind Megawatt Capacity Fee	Current Estimated Fee x Approximate Percentage Increase in Rate = -or- $2,000,000 x 49% Increase = -and- Number of Approved MWs x Dollar Increase in Rental Per MW= -or- 3,568 Approved MWs x $2,054 Per MW Increase=	Estimated $980,000 additional fees per year (lower bound) Up to $7.33 million in fees per year for (upper bound).
Wind Acreage Rent	Number of Authorized Projects x Estimated Average Acreage Rent = -or- 36 Projects x $81,000 =	$2,916,000 additional rent per year

Solar Megawatt Phase-in	Variable - See Table 9	Average Annual Increase $1,478 per MW for first four years.
Solar Megawatt Capacity Fee	Variable – See Table 8 Existing MW Rate – Updated MW Rate = -or- $7,884 x -32.5 % = -and- Number of Approved MWs x Dollar Decrease in Rental Per MW= -or- 5,512 Approved MWs x $2,562 Per MW Decrease= -and- Estimated Average MWs for Solar Project x Number of Future Prospective Projects Per Year x Dollar Decrease in Rental Per MW= -or- 80 MWs x 3 Projects Per Year x ($2,562) Per MW=	Annual decrease of $2,562/MW after year four. $14.12 million decrease rent per year for approved, but not in production MWs. (upper threshold) $615,000 decrease annually to prospective solar rental
Solar Acreage Rent Adjustment	Number of Authorized Projects x Estimated Average Acreage Rent Increase =. -or- 16 Project x $203,000	$3,248,000 increase in rent per year
Competitive Offer		
Minimum Bid (lower bound)	Estimated Administrative Costs + Assumed Opening Bid x Assumed Annual Competitive Offers = -or- $10,000 + $40,000 x 1 Competitive Offer=	$50,000 annually for minimum bid.
Variable Offset.	Estimated Annual Bid x Variable Offset Range = -or- $4.8 million x 0% = -and- $4.8 million x 20% =	Estimated annual range of Variable Offset is: $0.00 and $960,000

Bonus Bid (upper bound – inclusive of minimum bid)	Estimated Average Parcel Acreage x Upper Threshold Bonus Bid Acreage Value x Number of Parcels Per Year= -or- 6,000 acres x $795 per acre x 1 parcel=	Annual Bonus Bid $4.8 million.
Total Economic Impacts		$5,941,000

Table 14
Incremental Change Table

Rule Description	**Incremental Change**
Cost Recovery	
Pre-Application Meetings	$100,000
Application / Nomination	
Application Filing Fee	$1,470,000
Lease Area Nomination Fee	$30,000
Bonding	
Wind Energy Development Minimum Bonding (no cost increase)	$0
Wind Energy Standard Bonding	$0
Solar Energy Development Minimum Bonding (no cost increase)	$0
Solar Energy Standard Bonding	$0
Rent and Fees	
Late Payment Fee	$480,000
Wind Project Area Site Testing	$1,212,000
Wind Megawatt Capacity Fee	$7,330,000
Wind Acreage Rent	$2,916,000
Solar Megawatt Phase-in	$0
Solar Megawatt Capacity Fee (Existing)	- $14.120,000
Solar Megawatt Capacity Fee (Future)	- $615,000
Solar Acreage Rent Adjustment	$3,248,000
Competitive Offer	
Minimum Bid (lower bound)	$50,000
Variable Offset.	- $960,000
Bonus Bid (upper bound – inclusive of minimum bid)	$4,800,000
Total Economic Impacts	$5,941,000

Appendices

A – Sample Solar Energy Rent and Fee Schedule
B – Sample Wind Energy Rent and Fee Schedule

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