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# **PUBLIC LAND RENEWABLE ENERGY DEVELOPMENT ACT OF 2013**

**THE BACKGROUND, CHALLENGES, AND  
IMPLEMENTATION PLAN**



**COLUMBIA | SIPA**  
School of International and Public Affairs

**This report was prepared for the Fall Workshop in Applied Earth Systems in the Master of Public Administration-Environmental Science and Policy Program at Columbia University.**

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## Executive Summary

This report was produced under the assumption that the Public Land Renewable Energy Development Act of 2013 has been enacted and implementation will begin on January 1st. As the BLM has already undertaken some of the site suitability analyses necessary for the selection of site for the pilot program, an immediate implementation would be feasible. This report consists of all the necessary requirements to successfully establish and pursue this program during the first year of implementation including staffing, budgeting, a master calendar, and report and performance measurement metrics.

The Public Land Renewable Energy Development Act of 2013 was introduced to the U.S. Senate in February of 2013 by the Democratic Senator from Montana, Jon Tester. The Act promotes the development of renewable energy by establishing a streamlined competitive leasing pilot program on lands managed by the Bureau of Land Management (BLM), assessing the environmental impacts of renewable energy development on United States Department of Agriculture (USDA) Forest Service lands, and identifying Department of Defense lands suitable for renewable energy development. The goal of the pilot program is to determine if a competitive leasing structure would be the most satisfactory process of increasing utility scale renewable energy developments on public lands. The Secretary of the Interior and the Secretary of Agriculture will review the results of the pilot program in order to determine if it is fair to the public and an efficient way to increase wind and solar developments.

The Public Land Renewable Energy Development Act of 2013 is representative of the government action needed to reduce greenhouse gases in the atmosphere from anthropogenic sources. Discovering the power of fossil fuels has led to the increased use of these energy sources to power transportation, industry and domestic comforts. An increased demand in fossil fuels sparked the need for mining and extraction throughout the United States, including various public lands. The mining and

extraction of fossil fuels can have detrimental effects on the surrounding land, such as habitat fragmentation, topsoil loss, and water contamination.

Aside from the negative impacts of fossil fuel collection, the most critical negative impact of fossil fuel usage is global climate change. Global climate change is caused by the combustion of fossil fuels, which emits harmful greenhouse gases into the atmosphere such as carbon dioxide. The continued and increasing usage of fossil fuel sources has released a significant amount of carbon dioxide in the atmosphere, warming the globe. The past 100 years have shown an average global temperature increase of 1.4°F. This has led to an increased rate of sea ice melt, sea level rise, climate range shifts, and an increase in the occurrence and intensity of extreme weather events.

The Public Land Renewable Energy Development Act of 2013 aims to indirectly, but positively, influence these issues by encouraging the increased production of renewable energy, thus decreasing dependence on fossil fuels. In June 2013, President Obama launched his Climate Action Plan with the purpose of cutting carbon pollution while preparing for climate change impacts. One goal laid out in his plan is to increase the production and use of clean energy. The vast amount of land available on public lands, combined with the large amount of potential solar and wind energy, make these lands an attractive area for renewable energy development. The Public Land Renewable Energy Development Act of 2013 will help meet this goal by promoting and increasing renewable energy on public lands. The Act mandates the selection of two wind and two solar sites as pilot sites for which the development rights will be auctioned off. The first year program design focuses on this competitive leasing pilot program and the processes for site selection, bidder qualifications, and preparation for the auction of the BLM lands. The BLM has already established a National Renewable Energy Coordination Office (RECO) and State RECOs in ten western states to expedite the development of renewable energy on public lands. Existing BLM employees at national and state levels will be designated to perform the tasks outlined within the Public Land Renewable Energy Development Act of 2013. A National Performance Review Analyst will review the state offices' quarterly reports and budget constraints. Each individual state office will designate two agency Liaisons and two Analysts, while each state within the multistate office will have one Agency Liaison and one Analyst.

The reporting process to the BLM will consist of quarterly reports to monitor the progress of the pilot program. The first quarterly report is compiled by the state level analysts and will be submitted to the National Performance Review Analyst from the Wind and Solar Contacts in the National RECO by April 1<sup>st</sup>. The second quarterly report is also compiled by the state level analysts and will be submitted to the Wind and Solar Contacts in the National RECO by July 1<sup>st</sup> and is to evaluate the logistical and financial feasibility of the proposed sites. The third quarterly report is to be submitted to the Assistant

Director from the Wind and Solar Contacts by September 15<sup>th</sup>. The Wind and Solar Contacts will evaluate the state proposals and select the two most suitable wind and solar sites from among the proposed sites, and report to the Assistant Director who will approve their selected sites. On October 1<sup>st</sup>, the Assistant Director will announce the sites selected for the competitive leasing pilot program. The final quarterly report will consist of the selected states preparing a 12-month report as the Year One Progress Report, to be submitted by December 1<sup>st</sup> to the Assistant Director.

## Introduction

Historically, extensive fossil fuel extraction has occurred on public lands in the western United States. However the threat of global climate change, combined with the negative environmental impacts of fossil fuels extraction and changing national energy priorities, these states are interested in expanding renewable energy on their public lands. In February 2013, Jon Tester, a Democratic Senator from Montana, introduced the Public Land Renewable Energy Development Act of 2013 to the U.S. Senate to help expedite this shift. The legislation's co-sponsors include Dean Heller (R-NV), Mark Udall (D-CO), Tom Udall (D-NM), James Risch (R-ID), Martin Heinrich (D-NM), Max Baucus (D-MT), and Michael Bennet (D-CO).

This report examines the issues related to the impacts of fossil fuel extraction on the environment, the effects of global climate change, the impacts of mining on public lands, and why government action must be taken. The report will address how solar and wind energy development on public lands might mitigate these adverse impacts. Additionally, it outlines how the Bureau of Land Management (BLM) pilot program should be designed to ensure effective and efficient implementation. The program design includes a staff structure, budget, and reporting requirements.

### Threat of Climate Change

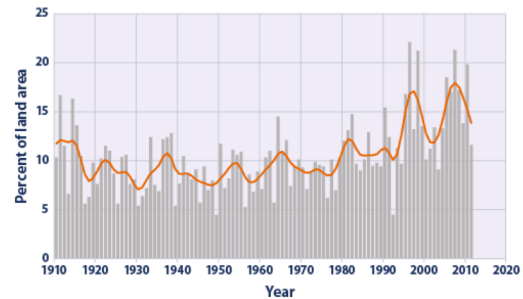
Fossil fuels, including coal, natural gas, and oil have been mined around the world for energy since the 1800s. These fuels are created through the decomposition of living organisms combined with extreme heat and pressure for hundreds of millions of years. When fossil fuels are burned, an incomplete combustion process produces a range of harmful emissions including carbon dioxide. Carbon dioxide — the most abundant greenhouse gas—is naturally present in the atmosphere and helps maintain Earth's moderate temperature by preventing some heat from escaping to space. However, industrialization and the burning of fossil fuels have removed significant amounts of carbon stored underground and released it into the atmosphere faster than it can be reabsorbed. Currently, the carbon dioxide concentration is above any naturally occurring concentration in the past 400 thousand years based on air samples from ice cores.<sup>1</sup> This is causing the climate, or long-term weather pattern, to change rapidly.

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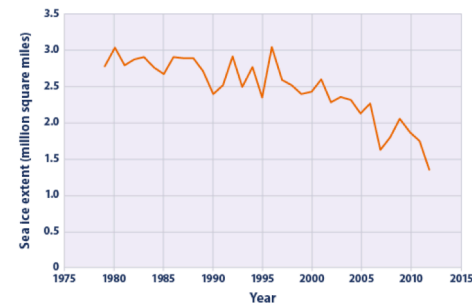
<sup>1</sup> Carbon Dioxide Information Analysis Center. 2003.

Over the past 100 years, which is a very short time period on the geologic scale, the average temperature of the planet has increased by 1.4 °F.<sup>2</sup> Studies on the Agassiz Ice Cap in the Canadian Arctic show that the melt rate of the past 25 years is greater than any period seen in the past 4,200 years.<sup>3</sup> This ice shrinkage causes a natural feedback loop that increases the warming effects because incoming radiation is absorbed by the oceans instead of being reflected into the atmosphere by the white snow and ice. This in turn increases the ocean temperature and rate of ice melt. September 2012 saw the lowest record of sea ice extent in the history of satellite monitoring at 1.3 million square miles- 49% lower than the 1979-2000 average.<sup>4</sup> This melt has contributed to a rise in sea levels, estimated at 0.12 inches per year, a rate that was almost twice the historic increase rate from 1880.<sup>5</sup>

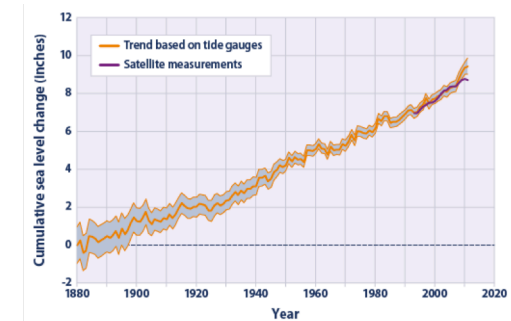
Climate change also negatively impacts the oceans, weather patterns, plant and animal species, and humans. Measurements from a geographic spread show that the ocean now contains higher levels of dissolved carbon dioxide, which increases the acidity of the oceans, decreases mineral content, and has contributed to the decline of coral reefs by roughly 45% over the past 20 years.<sup>6</sup> Migratory birds have been forced to shift their northern ranges farther north. The National Audubon Society collects yearly data on the movement of migratory birds in North America, and in the past 40 years, 58% of the studied species showed a pattern of shifting wintering ranges. Other indicators of climate change include shifting ranges in climate patterns and an increase in severe weather events such as hurricanes and droughts. In 2012, almost 75% of the continental U.S.



*Extreme One Day Precipitation Events in United States*



*Sea Ice Extent*



*Sea Level Rise*

<sup>2</sup> Union of Concerned Scientists.

<sup>3</sup> Fisher, D., Zheng, J., Burgess, D., Zdanowicz, C., Kinnard, C., Sharp, M., & Bourgeois, J. 2012.

<sup>4</sup> Union of Concerned Scientists.

<sup>5</sup> United States Environmental Protection Agency, Climate Change. 2013.

<sup>6</sup> Ifill, G. 2013.



experienced drier than normal conditions<sup>7</sup> and eight of the top ten years of extreme one-day events occurred within the past 20 years.<sup>8</sup>

Different models have predicted human and societal catastrophes under different climate change scenarios. Some of these include depletion of the Ogallala Aquifer that provides 80% of drinking and agriculture water to the western United States, as well as a shift in crop production due to a change in weather patterns. Other regional economies, such as skiing in the Northeast, are already suffering due to shorter winter seasons.<sup>9</sup> In addition, climate change is predicted to affect human health across the globe. Studies show that an increase in temperature increases rates of disease and food poisoning, while fossil fuel emissions are known to cause permanent lung damage.

#### Environmental Impacts of Fossil Fuel Extraction

In addition to interfering with the natural greenhouse gas balance, there are significant local environmental impacts of fossil fuel extraction. These include the construction of roads and intensive water use and contamination. Coal and tar sands are extracted by removing the surface layers of rock and sediment above the resource. Oil and gas are extracted by drilling vertical wells and relying on the natural pressure of the gas, or the pressure of water, chemicals, or steam, to flush the resource out of the deposit. Recently, new technologies like hydraulic fracturing have become popular; this process adds a horizontal component to the drill once it is in the deposit. The rocks containing the secured deposits are fractured and water and sand flush the natural gas out of its location.

In order to set up a mine, there must be appropriate roads created for the heavy equipment that is associated with both the drilling and transportation of the resource. These roads can cause habitat fragmentation by disrupting the local wildlife and their patterns of movement across the landscape. For example, in the removal of tar sands from a mining site, trucks with a capacity of up to 320 tons per load are used to transport the sands for refining.<sup>10</sup> The trucks are powered by fossil fuels producing both carbon dioxide and noise pollution that can disturb wildlife.<sup>11</sup> After mining is complete, major reclamation is needed. It can take up to 15 years for an ecosystem to recover, but sometimes the mixing of soil types, compaction, and loss of topsoil causes the soil quality to decrease so much that

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<sup>7</sup> United States Environmental Protection Agency, Climate Change. 2013.

<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

<sup>10</sup> 2012 Oil Shale and Tar Sands Programmatic EIS. 2012.

<sup>11</sup> United States Environmental Protection Agency, (2008). *An assessment of the environmental implications of oil and gas production: A regional case study*

full recovery is impossible and the species that repopulate the area are weedy and less diverse than the original ecosystem.<sup>12</sup>



*Prior to Reclamation*

*During Reclamation*

*After Reclamation*

Additionally, the extraction process is extremely water-intensive. For example, the extraction of oil from tar sands and the associated processing require several barrels of water for each barrel of oil that is produced.<sup>13</sup> In other situations, groundwater is extracted along with the resource, it is then injected to flush more of the oil or gas out of the ground. This contaminated water is one of the most significant waste sources associated with all of the mining processes. The contaminated water can be stored in large pits on the surface, but can leak into the groundwater, aquifers, or natural surface water, which are sources of drinking water for both humans and wildlife. It is estimated that up to 42% of these waste pits are unlined, providing no form of barrier to protect natural water sources.<sup>14</sup> Coal mining, in particular, introduces sulfur and nitrogen compounds into nearby water, which makes it difficult for many aquatic plant and animal species to survive.<sup>15</sup>

The United States' dependence on fossil fuels for energy has contributed to global climate change and negative local environmental impacts on public lands. Slow improvements to technology and public opinion have opened the door to the production of less harmful forms of energy such as wind and solar on public lands.

### Energy Development on Public Lands

Of the 2.27 billion acres of land in the U.S., 28% or 643.2 million acres are considered public land. These lands are held in trust for the American people by the federal government; the majority of the land is managed by the Department of the Interior and its agencies including the BLM. Other public lands include Forest Service lands under the management of the Department of Agriculture and

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<sup>12</sup> Ibid.

<sup>13</sup> National Oil Shale Association. 2012.

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

military lands under the Department of Defense. It is the responsibility of these agencies to manage these lands to appropriately protect natural resources and recreational uses while providing the American taxpayers with the most profitable economic return for the provided goods and services.

Due in large part to the mere scope of the public lands, there are vast energy resources on public lands and the U.S. government has been selling the rights to extract these resources since the implementation of the Mineral Leasing Act of 1920. For conventional fossil fuel energy resources, land and mineral rights are competitively auctioned off to the highest bidder who then has a lease for a predetermined length of time on the land to extract and sell the resources. The lease payments and royalties generate a considerable amount of revenue. In 2012, there were \$233 million in total receipts from oil and gas lease sales on BLM managed lands.<sup>16</sup> The competitive bidding process ensures that companies are able to secure the minerals available as a resource and use the land until the resource has been fully extracted. By contrast, renewable energy development requires a right-of-way (ROW) authorization, the same type of application that is used for transmission lines or roads on public lands, which is slower and does not allow for competitive bidding.

The government has little power to encourage the efficient and cost effective development of commercial renewable energy projects on private land. However, the government has the power and the duty to work to expand and expedite the current renewable energy development on the public lands. The current ROW process is slow and cumbersome and renewable energy projects are outcompeted by the financial profit margins of fossil fuel production. Additionally, the government must help foster commercial wind and solar energy projects and ensure they are developed with minimal and mitigated environmental impacts.<sup>17</sup>

### Renewable Energy Challenges

Solar and wind energy, being fairly new technology, do not come without their own set of unique challenges and negative consequences. Commercial scale wind and solar production on public lands may disturb wildlife by habitat alteration and loss, and avian deaths. Local ecosystems are likely to be disturbed during the installation of solar photovoltaic fields. Additionally, shading created by equipment could potentially disrupt fragile ecosystems by changing vegetation distribution and type.<sup>18</sup>

One of the largest concerns to ecosystem impacts are concentrated solar power installations. The Ivanpah Solar Plant in California's Mojave Desert, for example, has been subject to criticism from environmental organizations for its potential negative impacts on native plant and animal species,

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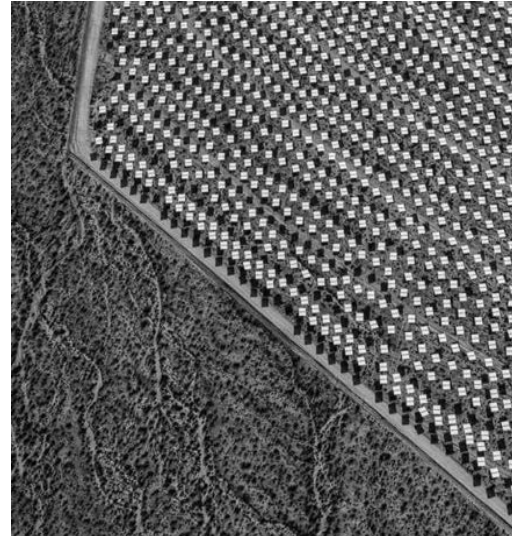
<sup>16</sup>Bureau of Land Management. Oil and Gas Lease Sales, Calendar Years 2009-2012.

<sup>17</sup> Ibid.

<sup>18</sup> Environmental Protection Agency, Energy Impacts & Adaptation. 2013.

especially the endangered desert tortoise.<sup>19</sup> In addition, wind energy production may negatively impact bird and bat populations. Research conducted in the United States and Europe over the past 20 years indicates that bird collisions with wind turbines could be as much as 30 collisions per turbine per year.<sup>20</sup>

Solar and wind energy both have inherent intermittency problems including non-controllable variability, partial unpredictability, and location dependency. For example, hourly wind power output on 29 different days in April 2005 at California's Tehachapi wind plant showed huge variability each day and hour.<sup>21</sup> This creates several challenges when integrating solar and wind generated energy into the grid. Non-controllable variability of solar and wind energy requires other more reliable energy sources to balance supply and demand in the grid on an instantaneous basis, as well as ancillary services such as frequency regulation and voltage support.<sup>22</sup>



*Aerial View of the Ivanpah Solar Plant*

Another challenge is that unlike fossil fuel power plants, renewable energy development is restricted to where the sun shines and the wind blows. In order to utilize the energy produced in remote areas, an expansion of the current transmission network is required. Additionally, there is a transmission bottleneck problem with the current grid network. For example, due to grid saturation, wind farms in Oregon and Washington state are shut down on a rolling basis.<sup>23</sup> Similar to transmission, the storage of the produced energy also provides a challenge. There are many types of energy storage technologies available but most have yet to be commercialized. These technologies include pumped hydro, compressed air energy storage (CAES), fly wheels, fuel batteries, and superconducting electricity storage.<sup>24</sup> Currently, pumped hydro accounts for 99% (127,000 MW) of installed energy storage in the

<sup>19</sup> United States. Department of the Interior. Bureau of Land Management. Environmental Impact Statement: Ivanpah Solar Electric Generating System Project. 2010.

<sup>20</sup> Kuvlesky, W.P., Brennan, L.A., Morrison, M.L., Boydston, K. K., Ballard, B.M. and Bryant, F.C., Wind Energy Development and Wildlife Conservation: Challenges and Opportunities.

<sup>21</sup> IEC. Grid integration of large-capacity Renewable Energy sources and use of large-capacity Electrical Energy Storage: White Paper. 2012.

<sup>22</sup> Ibid.

<sup>23</sup> Pentland, W. Transmission Bottlenecks Bad News for Renewable Energy. 2011.

<sup>24</sup> Pthenakis, V. et al. The technical, geological, and economic feasibility for solar energy to supply the energy needs of the US. Energy Policy. 2008.

world.<sup>25</sup> Compressed air energy storage installations are the next largest (440 MW), followed by sodium-sulfur batteries (316 MW).<sup>26</sup> The three most popular systems all incur very high initial investment, and the pumped hydro and compressed air energy storage have specific geographic requirements in terms of space and elevation which do not always correspond with where the most productive wind and solar sites are located.

Despite these challenges, renewable energy is still considered to be the preferred form of energy production to the traditional fossil fuels. The Public Land Renewable Energy Development Act of 2013 is one strategy to increase and expedite the development of utility scale renewable energy on public lands.

## Legislative Summary

The Public Land Renewable Energy Development Act of 2013 establishes a pilot program to trial a competitive leasing structure, instead of non-competitive right of way applications, for the rights to develop utility scale renewable energy projects on public land. This pilot program will be carried out on BLM property, and if successful, be applied to USDA Forest Service and military lands. The legislation carefully lays out the responsibilities of each department to advance wind and solar projects on their lands and ensures environmental impacts of projects are assessed and mitigated.

### Bureau of Land Management

BLM has already completed a site suitability analysis and Programmatic Environmental Impact Statement (PEIS) to identify potential renewable energy production sites on its property. Therefore, within one year and three months of the Public Land Renewable Energy Development Act's passage, the Secretary of the Interior shall establish a competitive leasing pilot program for two wind and two solar sites on its lands. Sites are to be selected based on 1) high level of industry interest, 2) comparatively low value for other resources and 3) represent future solar or wind energy production sites. Based on the results of the pilot, including bidder interest and revenues, the Secretary of the Interior and Secretary of Agriculture will make a joint determination by the end of the second year on whether or not to expand the competitive leasing structure to other public lands.

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<sup>25</sup> Electric Power Research Institute. *Electricity Energy Storage Technology Options: A White Paper Primer on Applications, Costs, and Benefits*. 2010.

<sup>26</sup> *Ibid.*

### USDA Forest Service

The USDA Forest Service has already completed a site suitability analysis for wind and solar projects on its lands. Therefore, within two years of the Public Land Renewable Energy Development Act's passage, the Secretary of Agriculture shall prepare and publish in the Federal Register a notice of intent to prepare a PEIS to analyze the potential impacts of development. The Secretary must also amend land use plans as necessary for development.

### Department of Defense

The Department of Defense has yet to conduct a full analysis of potential renewable energy development on military owned lands. Therefore, within two years of the Public Land Renewable Energy Development Act's passage, the Secretary of Defense (in consultation with the Secretary of the Interior) shall study and report on which areas within its jurisdiction exhibit a high potential for renewable energy production, are disturbed or otherwise have comparatively low value for other resources, and could be developed for renewable energy production. The Secretary of Defense shall also investigate the administrative process needed to develop renewable energy on military lands. Within one year of the study's completion, the Secretary of Defense shall prepare and publish a notice of intent to prepare a PEIS and report the results to Congress.

### Environmental Impacts

Within 18 months of the Act's passage, the Secretary of the Interior and the Secretary of Agriculture shall analyze the development of a conservation banking program to mitigate the environmental impacts of renewable energy development on public lands. Additionally, the Public Land Renewable Energy Development Act of 2013 establishes a Renewable Energy Resource Conservation Fund to secure monies for additional development mitigation efforts.

### Revenue Distribution

Revenues from rent and royalties will be distributed to the federal, state, and county government. According to the legislation, 25% will go to the state, 25% to the counties, 35% to the Renewable Energy Resource Conservation Fund, and 15% to the Federal Treasury.

While the Public Land Renewable Energy Development Act outlines specific requirements for the Secretaries of the Interior, Agriculture, and Defense to complete within the first year of its passage, it was decided that the most appropriate implementation strategy was to begin with the development of a pilot program to competitively lease wind and solar development projects on BLM lands. BLM has the staff and capacity to implement this program now and the results of the pilot will directly influence how the USDA, Forest Service and Department of Defense move forward with assessing the potential

for renewable energy development on their lands as well as whether or not the competitive leasing program will be implemented on these lands. The following section lays out the program design, staff, budget, timeline, and reporting for the first year. Preparing for lease auctions will take place in the second year.

## Program Design

The first year program design centers on the preparations necessary for the establishment of a competitive leasing pilot program on BLM lands, with the actual auction not taking place until the second year. Since the BLM has already conducted its site suitability analysis and its PEIS, the design focuses specifically on the processes of selecting sites for the program, publicizing bidder qualifications, and preparing for the auction. The state Renewable Energy Coordination Offices (RECOs) will evaluate potential sites in their respective states and submit a maximum of two wind and two solar sites to the National Renewable Energy Coordination Office (National RECO) for consideration within six months of the Act's passage. As required, within nine months of the Act's passage, two solar and two wind sites will be selected for the pilot program. The renewable energy projects within the BLM are handled by the Minerals and Realty Management Division, so the Assistant Director of that division will serve as the highest executive for this pilot program. Two different sites for each type of development will provide the Secretaries with a range of information about which characteristics of a site made it more or less successful than its counterparts in terms of bidder revenue or interest. The pilot site selections are submitted with the bidder qualifications, as defined in the Act, to the Federal Register.

Due to the high number of potential sites that will be submitted, it is crucial that the most intensive analysis of a site's suitability occur at the state level.<sup>27</sup> The state RECOs will recommend a site for the pilot program based on specific criteria. The assessment of these criteria will begin in the first quarter of the program. In most situations, ranking these energy zones should be done in order to identify lands to be excluded from utility-scale solar and wind energy development in each state, priority areas within the lands open to solar and wind energy development that are best suited for utility-scale production of solar and wind energy, important areas to avoid for the right-of-way variance process, locations where there is generally low resource conflict, and to establish basic mitigation requirements for solar and wind energy development on public lands to ensure the most environmentally responsible development and delivery of the energy.<sup>28</sup>

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<sup>27</sup> "Final Programmatic Environmental Impact Statement", 2012

<sup>28</sup> "Programmatic agreement among", 2012

During the second quarter, the site selection process will focus on the logistical and financial feasibility of the sites. The state RECO Agency Liaisons will publish a Notice Seeking Public Interest for solar or wind energy development as part of the site evaluation process. The intent of the notice is to gauge the level of developer interest for renewable energy projects on a potential site. This level of interest will be considered while the state RECOs decide which sites to propose to the National RECO. A high level of bidder interest is desirable for a proposed site because it increases the chances of a more competitive auction, greater revenues, and more successful pilot project establishment.

The third quarter involves the National RECO, who will evaluate state RECOs' proposals in order to select the most suitable sites for the pilot program from among the 20 wind (from 10 states with previously completed site analyses) and 12 solar (from 6 states with previously completed site analyses) options. Each state may be awarded with a maximum of two solar and two wind sites. The Wind and Solar Contacts will perform the tasks associated with selecting pilot program sites. The Wind Contact will be responsible for assessing the proposed wind energy development sites and the Solar Contact will be responsible for the solar energy development sites. When the Assistant Director and the Wind and Solar contacts have chosen the final two wind and two solar sites, the state Analysts will need to ensure that bidders meet the specified qualifications before the auction takes place. The Assistant Director will be responsible for outlining the bidder qualifications prior to publishing these sites in the Federal Register, which is relatively straightforward because these bidder qualifications are laid out in the Public Land Renewable Energy Development Act of 2013. This step should be completed by September 30<sup>th</sup>.

Immediately after the sites for the pilot program are selected, they must be officially announced and the qualifications for bidders must be made public.<sup>29</sup> The Assistant Director will publish the qualifications in the Federal Register at the same time that the selected pilot sites will be announced which must be by October 1<sup>st</sup>.

In the fourth quarter, once the pilot sites have been determined, the states selected for a pilot project must prepare for the auction process and prepare a 12-month report that will stand as the Year One Progress Report, summarizing the entire year's selection process and establish qualifications for those wishing to bid on the rights to develop a solar or wind energy project as part of the pilot program.

The legislation also specifically lays out duties to be completed in the years following the pilot program. During the second year, the actual auction will be conducted in format consisting of a sealed-bid and

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<sup>29</sup> S. 279. 2013.



application process, followed by a live auction to increase interest and the ability of distant developers to have the opportunity to bid. The state RECOs will report the successes and challenges of the second year process to the national RECO and National Performance Review Analyst, who will then compile a formal report chronicling the pilot program to submit to the Secretary of the Interior and Secretary of Agriculture at the end of the second year. The Secretaries will then determine if the program should be expanded to other public lands based on whether or not the program maximizes the return to the American public. During this time period, the USDA Forest Service will conduct a PEIS, with mentoring from the BLM offices if necessary, in order to be prepared to initiate the leasing process on their lands upon the Secretaries’ determination.

The third year is dependent on the Secretaries’ decision to continue with the leasing process, but, in conjunction with the continued site selection and auctions of said sites, the BLM and USDA Forest Service will work together to complete a conservation banking study and will report their findings to Congress. It is also during the third year that the Department of Defense will begin formal investigations on military land for potential utility scale renewable energy projects.

**Staffing**

The pilot program, under the direction of the Minerals and Realty Management Division, will be implemented through established BLM offices and reallocating responsibilities of 32 existing positions.

As shown in Figure 1, the National RECO will employ one Assistant Director who is part of the Minerals and Realty Management division of BLM, one National Performance Review Analyst, one Wind Contact, and one Solar Contact. Individual state Renewable Energy Coordination Offices were established in Arizona, California, Nevada, and Wyoming based on the states’ interest in or potential for renewable energy development. Each office will therefore employ two Analysts and two Agency Liaisons. The multistate office for Colorado, Idaho, Montana, New Mexico, Oregon, and Utah will employ a

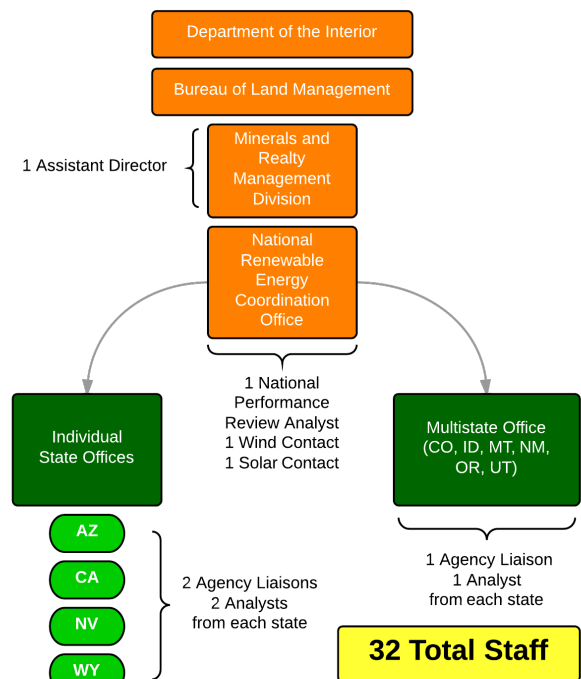


Figure 1 Organizational Chart

total of six Analysts and six Agency Liaisons. Staff responsibilities are outlined in Table 1 below.

<b>Position</b>	<b>Office</b>	<b>Responsibility</b>
<b>Assistant Director</b>	National RECO	Announce program; Review progress reports; Select two wind and two solar sites for pilot program; Announce bidder qualifications
<b>National Performance Review Analyst</b>	National RECO	Ensure progress meets legislative and budget requirements via quarterly reporting
<b>Wind Contact, Solar Contact</b>	National RECO	Receive pilot site proposals from state offices
<b>Analyst</b>	State RECO	Recommend up to two wind and two solar sites for pilot; Report to National Analyst quarterly
<b>Liaison</b>	State RECO	Work with potential bidders and outside agency representatives; Report to National Analyst quarterly

*Table 1: Staff Responsibilities*

The state Agency Liaisons will be responsible for consultation with other federal agencies for evaluating the site selection criteria. These agencies can include, but are not limited to, the National Park Service, the United States Fish and Wildlife Service, the Army Corps of Engineers, State Historic Preservation Officers, and Native American tribes.<sup>6</sup> The Agency Liaisons will summarize and report these consultations to the Analysts, who will be responsible for evaluating whether sites satisfy the economic and logistical criteria, choosing sites to recommend, and writing and submitting a maximum of two wind and two solar site proposals to the appropriate Wind or Solar Contact at the national level.

## Quarterly Reports

Analysts and Agency Liaisons are required to report to the National Performance Review Analyst each quarter to ensure progress is adequate and legislative requirements are satisfied.

### First Quarter

*January 1st- April 1st*

This report should be completed by the state Analysts and submitted to the national Wind and Solar Contacts as well as the National Performance Review Analyst by April 1<sup>st</sup>. All feedback from the Wind and Solar Contacts should be sent back to the state Analysts within 30 days of submission.

To ensure progress has been made, the National Performance Review Analyst will review progress from the quarterly report at the time of submission. Progress will be measured by using the following metrics:

- Can the proposed site support more than 20 MW? How much more?
- Does it provide maximum insolation or wind?
- How large will the footprint be?
- Are there other valuable resources within site boundaries?
- Has each state met budget constraints?

The National Performance Review Analyst will also review the progress to assess whether the Wind and Solar Contacts completed the review process within the allotted 30-day timeframe as well as determine how well each party is meeting budget requirements.

### Second Quarter

*April 2nd- July 1st*

This report should be completed by the state Analyst and submitted to the Wind and Solar contacts by June 1<sup>st</sup>. Any feedback from the Wind and Solar Contacts on this report should be sent back to the state analyst within 30 days of submission.

The National Performance Review Analyst will review the performance of the reporting process at this stage and will measure the success of the following measurement criteria:

- Is the site development economically and technically feasible?
- Are sites viable locations for connecting to a transmission system?
- Has the state determined interested bidders with appropriate experience?

- Does the report contain expectations for construction plans be set out and submitted by potential bidders?
- Which consultations have occurred?
- Have all of these reports been reviewed and approved by liaisons?
- Did the wind and solar contacts review the sites rankings and provide feedback if necessary
- What are the economic indicators used to determine suitable bidders?
- Did the report evaluate capacity based on Environmental Impact Assessment (EIA) forms including forms (860 and 923)?<sup>30</sup>

The National Performance Review Analyst will also review the progress of whether the Wind and Solar Contacts completed the review process within the allotted 30-day timeframe as well as how well each party is adhering to budget requirements.

### Third Quarter

*July 2nd- October 1st*

Both the Wind and Solar Contacts are responsible for producing a report summarizing the two selected sites by September 15<sup>th</sup>. After the Assistant Director and the Wind and Solar Contacts have chosen the final two wind and two solar sites, the BLM will need to ensure that bidders meet these qualifications before the auction takes place. The Assistant Director will be responsible for outlining the bidder qualifications prior to publishing these sites in the Federal Register. This step should be completed by September 30<sup>th</sup>. The Assistant Director will announce the selected pilot program sites by October 1<sup>st</sup>.

To complete these tasks in a timely manner, the National Performance Review Analyst will oversee the Wind and Solar Contacts by comparing the third quarter report against the established criteria. This criteria includes the following:

- Have all plans been submitted by the states?
- Does the number of applications exceed 20 wind or 12 solar?
- Was all information considered in selecting the top choices for pilot program sites?
- What are the specific qualifications for bidders?
- Were all budget constraints met?

National analyst measurement metrics:

- Have the contacts met with the assistant director to discuss top two sites
- Has the assistant director determined the sites are acceptable on time?
- Has the public announcement done by October 1st?
- Does the announcement include the final sites and bidder qualifications?

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<sup>30</sup> EIA Generation forms.

## Final Quarter

*October 2nd- December 31st*

This report should be completed by December 1<sup>st</sup> and sent to National RECO for review. The final measure the National Performance Review Analyst must assess is through the 12-month reporting process and measure the success of the report by the following measurement criteria:

- How was the site selection process carried out?
- How could the program be improved?
- Were all budget constraints met?
- What are the plans in place for the upcoming auction?

As the program continues, performance management will continue to be a critical factor in the success of the established process. Some questions remaining for future performance measurements that will need to be considered include:

- Is construction on target?
- Are there lease sales and land use plans established 180 days after site selection?
- Does it provide a fair valuation of wind and solar energy to public?
- Can it offset environmental impacts by the following June?
- How effective will conservation banking on federal land be?
- How will the Renewable Resource Conservation Fund be used effectively?
- Prepare PEIS for states which have not completed analysis on public and military lands by the following December
- Were the PEIS' successfully completed for forest service and military lands?

Performance measures are critical to completing each stage of the project on time and within the budget constraints. These measures and quarterly reports allow for mid-course correction in response to the interagency feedback from the Wind and Solar Contacts, National Performance Review Analyst, and Assistant Director. The reports also provide the departments with standards of measure by which they can judge the success of the outlined competitive leasing program and make adjustments before it is implemented on other public lands.

## Budget

### Assumptions

The program and line item budgets were based on the following assumptions.

1. The program will utilize existing BLM offices (National RECO and state RECOs) and staff.
2. The details for personnel, such as general schedule level (GS-level), base salaries, and fringe benefits, were based on BLM job postings and the U.S. Government Salary Table.
3. The percentage of staff time devoted to the program was determined based on the tasks that are required in the program implementation.
4. Only staff in state RECOs will account for travel costs in the budget and travel costs were determined by GS-levels.

### Program Budget

#### National Renewable Energy Coordination Office (RECO)

The budget for the National RECO was constructed by determining the number of staff, GS-level of staff positions, and the full time equivalent (FTE) spent on each position. The GS-level of the Assistant Director is estimated to be GS-15 level and will only dedicate 15% of full time equivalent. The National Performance Review Analyst is estimated to be GS-13 with 40% of full time equivalent. The wind and solar contacts will be GS-11 levels with 43.75% of full time equivalent. This percentage figure was calculated based on an assumption that wind and solar contacts will devote 100% of their time to the program only when they have to review and select sites, which is for three months, and 25% of their time for the remaining nine months. Since the main function of the National Renewable Energy Coordination Office is revision and selection of sites, it has been determined that wind and solar contacts will dedicate 80% of their time for revision and selection of sites and 20% for program administration. The program budget below shows 8.75% and 35% for program administration and review and selection of sites, respectively, because these numbers are 20% of 43.75% FTE and 80% of 43.75% FTE. Summing up the salaries of the four staff and office expenses, the total budget for national Renewable Energy Coordination Office is around \$161,167.61.

Staff in the National Renewable Energy Coordination Office will only be doing administrative work, which will only require office supplies under other than personnel services. Rent and utilities were not considered in the budget as existing offices and staff are being utilized for the program. The numbers for supplies are low for annual numbers, however these amounts are reasonable taking into account

that most of the work that will be concentrated in the three-month period for review and selection of sites.

#### State Renewable Energy Coordination Offices

State Renewable Energy Coordination Offices will have five functions: program administration, site selection and application, site visits, liaison communication, and potential bidder identification. The total budget for ten state offices is about \$1.3 million. The state analysts will be GS-8 level, dedicating about 50% of their time to the program and agency liaisons will be GS-7 level, dedicating 100% of their time for the program. The analysts will be responsible for three functions in the program, which are program administration (8.625%), site selection and application (46%) and site visits (2.875%). The percentage devoted to each function of the program was calculated the same way as the staff in the national office. This is based on the fact that the major job of the analysts will be examining all possible wind and solar sites and selecting sites according to the criteria set out in our program for site selection. The 14 agency liaisons will devote 100% of their time to the program. They will spend 80% of their time on consulting with other agencies and stakeholders as this will be their main job. The travel costs will be determined based on the GS-level of the staff conducting visits.

#### National Renewable Energy Coordination Office

<i>Program Administration</i>	\$61,341.38
<i>Review and Selection of Sites</i>	\$78,841.33
<i>Site Visits</i>	\$21,984.90
	<hr/>
<b>Total</b>	<b>\$162,167.61</b>
	<hr/> <hr/>

#### State Renewable Energy Coordination Office

<i>Program Administration</i>	\$71,239.67
<i>Site Selection and Application</i>	\$379,147.73
<i>Site Visits</i>	\$207,644.25
<i>Liaison Communication</i>	\$548,246.94
<i>Potential Bidder Identification</i>	\$78,320.99
	<hr/>
<b>Total</b>	<b>\$1,284,599.59</b>
	<hr/> <hr/>
<b>Total Project Budget</b>	<b>\$1,446,767.17</b>

Considering that the program design will utilize existing BLM offices and staff, GS-levels, base salaries and fringes are determined based on BLM job openings and the U.S. Government Salary Table. The timeline for the first year program was also evaluated to determine the percentage of staff's salary year, functions under the program, and travel costs. In order to implement the program for year one, the total budget required will be \$1.4 million. A total of 96.3% of the operation cost will be used for personnel services while 3.7% of the operation cost will be used for travel costs and supplies. Since the program will involve a lot of office work rather than fieldwork, the majority of budget allocated for personnel services is reasonable.

According to the 2014 Budget Justifications of the BLM, budget increase of \$7,121,000 has been requested for geothermal energy management and renewable energy studies. In the Budget Justification report, it was stated that a portion of the budget increase will be used to enable BLM to prepare and offer the first competitive lease sales for solar energy development within Solar Energy Zones (SEZ) and will also be used to implement renewable energy plans in Arizona, California, and Nevada.<sup>32</sup> Therefore, a certain percentage of this fund could be used for the first year program of the Public Land Renewable Energy Development Act of 2013. A more detailed budget can be found in the appendices.

### Line-Item Budget

#### Personnel Services

Salaries		
National Renewable Energy Coordination Office		\$123,869.84
State Renewable Energy Coordination Offices		\$987,943.90
Total Salaries (without benefits)		\$1,111,813.74
Fringe (25%)		\$277,953.43
	Total Personnel Services	<u>\$1,389,767.17</u>

#### Other Than Personnel Services

Travel		\$32,000.00
Supplies		\$25,000.00
	Total OTPS	<u>\$57,000.00</u>

**Total Operation Cost** \$1,446,767.17

**Total Project Budget** \$1,446,767.17

<sup>32</sup> Bureau of Land Management. Budget Justifications and Performance Information Fiscal Year 2014.



## Conclusion

In conclusion, the Public Lands Renewable Energy Development Act of 2013 aims to encourage the development of utility scale wind and solar projects on public land by streamlining the process and making it more comparable to the current leasing structure for traditional fossil fuels. Initially two wind and two solar sites on BLM land will be selected by the National RECO office from among applications from the state offices and be auctioned to developers. Following the auction the USDA Forest Service and Department of Defense will begin the site analysis process in preparation of the decision by the Secretary of the Interior and Secretary of Agriculture as to whether the competitive leasing process is a streamlining time saver versus the current process. This process will reduce the amount of land that is available for the detrimental processes of extracting these fossil fuels thereby helping to protect the public lands as well as increase the amount of renewable energy that the United States generates and uses, thus promoting increased energy independence and slowing the national contribution to carbon dioxide emissions and global climate change.

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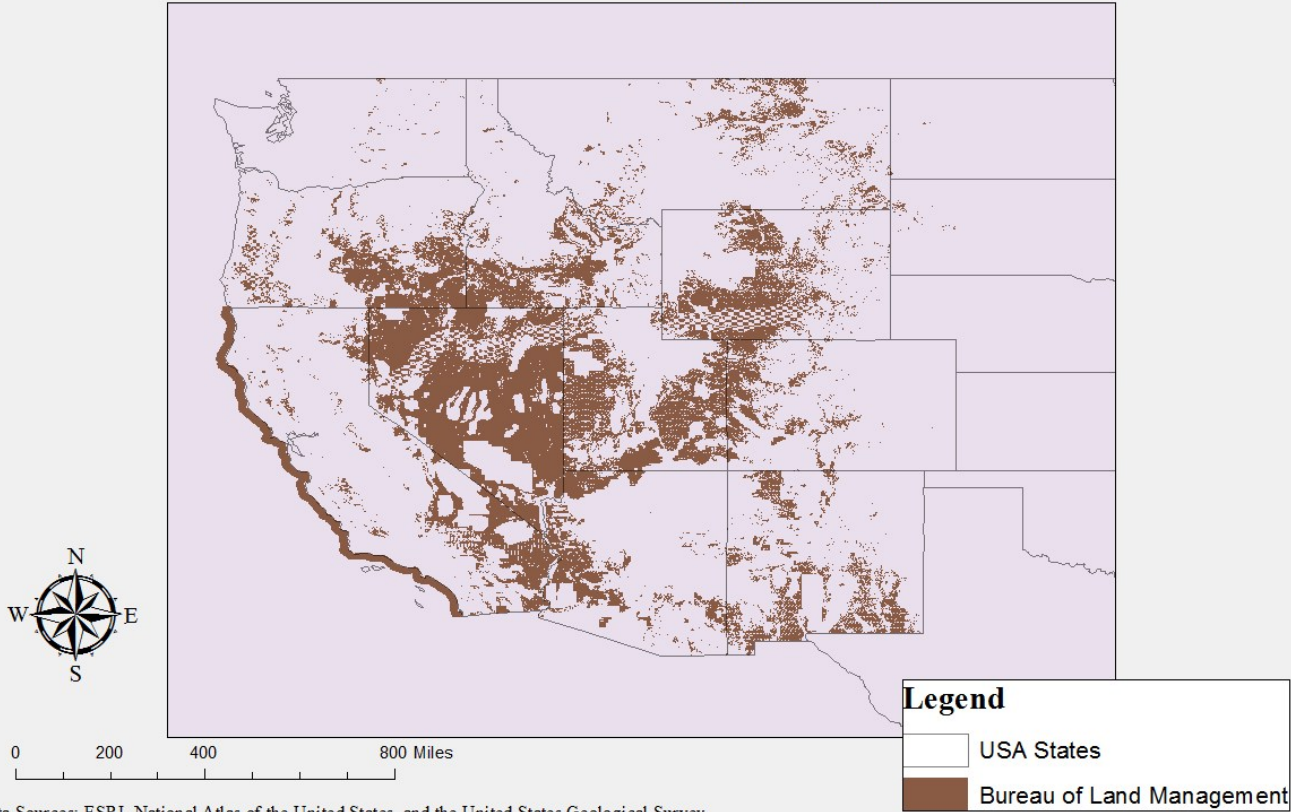
## Appendices

Month	Action	Responsibility
January	Announce Program	Assistant Director
	Analyze Solar & Wind Zones	Analyst
February	Visit Sites	Analyst
March	Rank Suitability	Analyst
	<b>3 Month Report</b>	<b>Analyst</b>
	Analyze Bid Interest & Visit Sites	Liaison
April	Analyze/Rank Economic Feasibility	Analyst
May	Create Overall Ranking	Analyst
June	<b>6 Month Report</b>	<b>Analyst</b>
July	Compile & Submit to National Analyst	Wind/Solar Contact
	Provide Feedback to States	Wind/Solar Contact
August	Review & Submit Report to Assistant Director	National Analyst
September	<b>9 Month Report</b>	<b>Wind/Solar Contact</b>
	Select & Announce Final Sites	Assistant Director
November	Prepare Lease Auction	Liaison
	Report Auction Progress	Liaison
December	<b>12 Month Report</b>	<b>Wind/Solar Contact</b>

### Appendix 1 Master Calendar

# Bureau of Land Management Lands

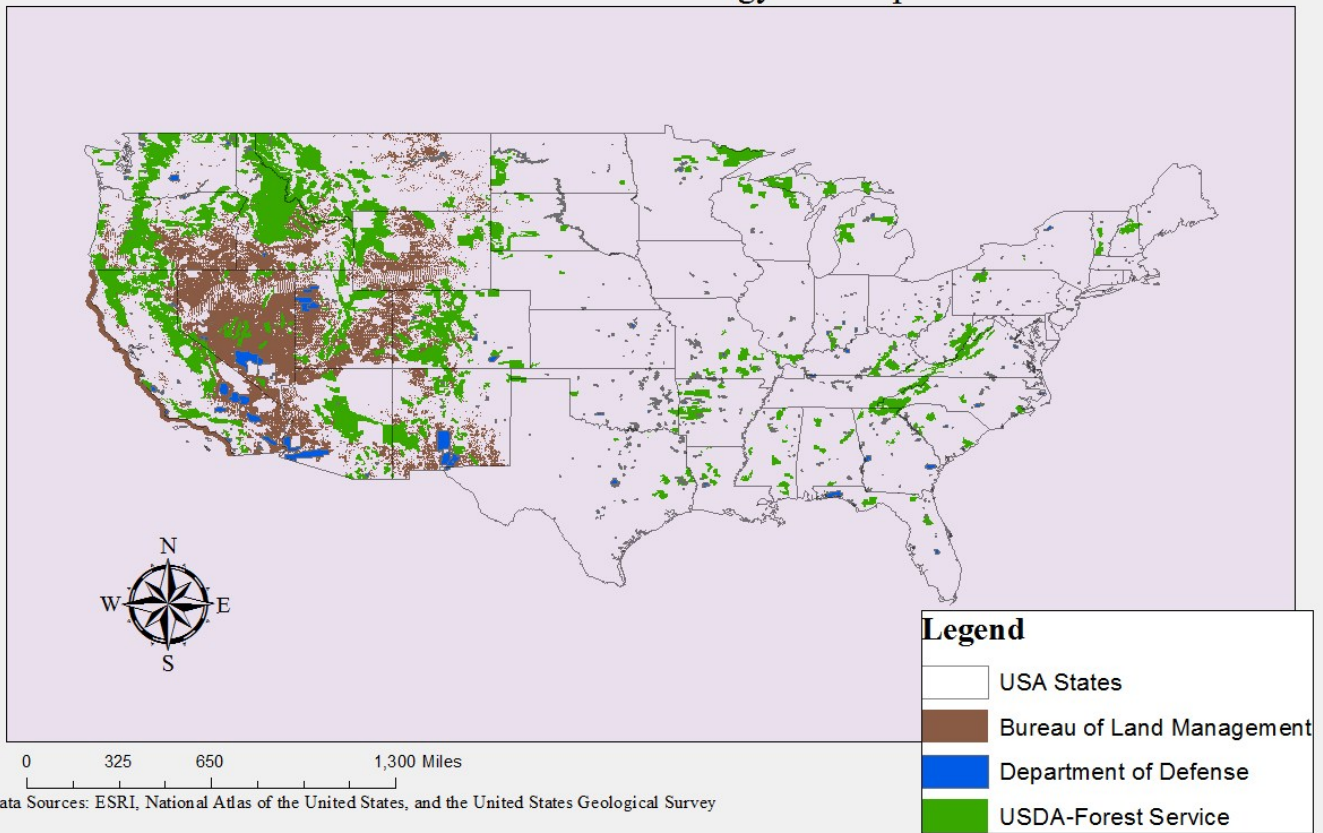
To be Considered for Solar and Wind Energy Development  
Under the Public Land Renewable Energy Development Act of 2013



Appendix 2 Bureau of Land Management Lands in Western States

## Federally Managed Lands

To be Considered for Solar and Wind Energy Development  
Under the Public Land Renewable Energy Development Act of 2013



### Appendix 3 United States Public Lands



<b>PERSONNEL SERVICES</b>							
Job Title	GS Level	Base Salary	# of Positions	Total Salary	% devoted	Salary devoted to the program	
<b>National Renewable Energy Coordination Office</b>							
Assistant Director	GS-15	\$ 139,629.00 <sup>1</sup>	1	\$ 139,629.00	15%	\$ 20,944.35	
National Analyst	GS-13	\$ 84,924.50	1	\$ 84,924.50	40%	\$ 33,969.80	
Program Manager - Wind Contact	GS-11	\$ 78,806.50 <sup>2</sup>	1	\$ 78,806.50	43.75% <sup>3</sup>	\$ 34,477.84	
Program Manager - Solar Contact	GS-11	\$ 78,806.50	1	\$ 78,806.50	43.75%	\$ 34,477.84	
<b>State Renewable Energy Coordination Office</b>							
Arizona - Renewable Energy Program Coordinator	GS-8, Step 5	\$ 48,686.00	2	\$ 97,372.00	52.5% <sup>4</sup>	\$ 51,120.30	
California - Renewable Energy Program Coordinator	GS-8, Step 5	\$ 48,686.00	2	\$ 97,372.00	52.5%	\$ 51,120.30	
Nevada - Renewable Energy Program Coordinator	GS-8, Step 5	\$ 48,686.00	2	\$ 97,372.00	57.5% <sup>5</sup>	\$ 55,988.90	
Wyoming - Renewable Energy Program Coordinator	GS-8, Step 5	\$ 48,686.00	2	\$ 97,372.00	57.5%	\$ 55,988.90	
Arizona - Agency Liaisons	GS-7, Step 5	\$ 43,964.00	2	\$ 87,928.00	100.0%	\$ 87,928.00	
California - Agency Liaisons	GS-7, Step 5	\$ 43,964.00	2	\$ 87,928.00	100.0%	\$ 87,928.00	
Nevada - Agency Liaisons	GS-7, Step 5	\$ 43,964.00	2	\$ 87,928.00	100.0%	\$ 87,928.00	
Wyoming - Agency Liaisons	GS-7, Step 5	\$ 43,964.00	2	\$ 87,928.00	100.0%	\$ 87,928.00	
<b>Multistate Renewable Energy Coordination Virtual Office</b>							
Colorado - Renewable Energy Program Coordinator	GS-8, Step 5	\$ 48,686.00	1	\$ 48,686.00	57.5%	\$ 27,994.45	
Idaho - Renewable Energy Program Coordinator	GS-8, Step 5	\$ 48,686.00	1	\$ 48,686.00	52.5%	\$ 25,560.15	
Montana - Renewable Energy Program Coordinator	GS-8, Step 5	\$ 48,686.00	1	\$ 48,686.00	57.5%	\$ 27,994.45	
New Mexico - Renewable Energy Program Coordinator	GS-8, Step 5	\$ 48,686.00	1	\$ 48,686.00	52.5%	\$ 25,560.15	
Oregon - Renewable Energy Program Coordinator	GS-8, Step 5	\$ 48,686.00	1	\$ 48,686.00	52.5%	\$ 25,560.15	
Utah - Renewable Energy Program Coordinator	GS-8, Step 5	\$ 48,686.00	1	\$ 48,686.00	52.5%	\$ 25,560.15	
Colorado - Agency Liaisons	GS-7, Step 5	\$ 43,964.00	1	\$ 43,964.00	100.0%	\$ 43,964.00	
Idaho - Agency Liaisons	GS-7, Step 5	\$ 43,964.00	1	\$ 43,964.00	100.0%	\$ 43,964.00	
Montana - Agency Liaisons	GS-7, Step 5	\$ 43,964.00	1	\$ 43,964.00	100.0%	\$ 43,964.00	
New Mexico - Agency Liaisons	GS-7, Step 5	\$ 43,964.00	1	\$ 43,964.00	100.0%	\$ 43,964.00	
Oregon - Agency Liaisons	GS-7, Step 5	\$ 43,964.00	1	\$ 43,964.00	100.0%	\$ 43,964.00	
Utah - Agency Liaisons	GS-7, Step 5	\$ 43,964.00	1	\$ 43,964.00	100.0%	\$ 43,964.00	
Total (without benefits)						\$ 1,111,813.74	
Fringes (25%)						\$ 277,953.43	
TOTAL PERSONNEL SERVICES						\$ 1,389,767.17	
Percentage							

**OTHER THAN PERSONNEL SERVICES**

Travel	\$ 32,000.00
Supplies	\$ 25,000.00
TOTAL OTPS	\$ 57,000.00
<b>TOTAL OPERATION COST</b>	
Total Budget (Funding)	\$ 7,121,000.00

PERSONNEL SERVICES		Job Title	Program Admin	Review and Selection of Sites	Site Selection and Application	Site Visits	Liaison Communication	Potential Bidder Identification	SHEET 1 & 2 TOTAL
<b>National Renewable Energy Coordination Office</b>									
	Assistant Director		\$ 20,944.35						\$ 20,944.35
	National Analyst		\$ 13,587.92	\$ 6,793.96		\$ 13,587.92			\$ 33,969.80
	Program Manager - Wind Contact		\$ 6,895.57	\$ 27,582.28					\$ 34,477.84
	Program Manager - Solar Contact		\$ 6,895.57	\$ 27,582.28					\$ 34,477.84
<b>State Renewable Energy Coordination Office</b>									
	Arizona - Renewable Energy Program Coordinator		\$ 7,668.05		\$ 40,896.24	\$ 2,556.02			\$ 51,120.30
	California - Renewable Energy Program Coordinator		\$ 7,668.05		\$ 40,896.24	\$ 2,556.02			\$ 51,120.30
	Nevada - Renewable Energy Program Coordinator		\$ 8,398.34		\$ 44,791.12	\$ 2,799.45			\$ 55,988.90
	Wyoming - Renewable Energy Program Coordinator		\$ 8,398.34		\$ 44,791.12	\$ 2,799.45			\$ 55,988.90
	Arizona - Agency Liaisons					\$ 17,585.60	\$ 61,549.60	\$ 8,792.80	\$ 87,928.00
	California - Agency Liaisons					\$ 17,585.60	\$ 61,549.60	\$ 8,792.80	\$ 87,928.00
	Nevada - Agency Liaisons					\$ 17,585.60	\$ 61,549.60	\$ 8,792.80	\$ 87,928.00
	Wyoming - Agency Liaisons					\$ 17,585.60	\$ 61,549.60	\$ 8,792.80	\$ 87,928.00
<b>Multistate Renewable Energy Coordination Virtual Office</b>									
	Colorado - Renewable Energy Program Coordinator		\$ 4,199.17		\$ 22,395.56	\$ 1,399.72			\$ 27,994.45
	Idaho - Renewable Energy Program Coordinator		\$ 3,834.02		\$ 20,448.12	\$ 1,278.01			\$ 25,560.15
	Montana - Renewable Energy Program Coordinator		\$ 4,199.17		\$ 22,395.56	\$ 1,399.72			\$ 27,994.45
	New Mexico - Renewable Energy Program Coordinator		\$ 3,834.02		\$ 20,448.12	\$ 1,278.01			\$ 25,560.15
	Oregon - Renewable Energy Program Coordinator		\$ 3,834.02		\$ 20,448.12	\$ 1,278.01			\$ 25,560.15
	Utah - Renewable Energy Program Coordinator		\$ 3,834.02		\$ 20,448.12	\$ 1,278.01			\$ 25,560.15
	Colorado - Agency Liaisons					\$ 8,792.80	\$ 30,774.80	\$ 4,396.40	\$ 43,964.00
	Idaho - Agency Liaisons					\$ 8,792.80	\$ 30,774.80	\$ 4,396.40	\$ 43,964.00
	Montana - Agency Liaisons					\$ 8,792.80	\$ 30,774.80	\$ 4,396.40	\$ 43,964.00
	New Mexico - Agency Liaisons					\$ 8,792.80	\$ 30,774.80	\$ 4,396.40	\$ 43,964.00
	Oregon - Agency Liaisons					\$ 8,792.80	\$ 30,774.80	\$ 4,396.40	\$ 43,964.00
	Utah - Agency Liaisons					\$ 8,792.80	\$ 30,774.80	\$ 4,396.40	\$ 43,964.00
	Total (without benefits)		\$ 104,190.59	\$ 61,958.51	\$ 297,958.32	\$ 155,309.52	\$ 430,847.20	\$ 61,549.60	\$ 1,111,813.74
	Fringes (25%)		\$ 26,047.65	\$ 15,489.63	\$ 74,489.58	\$ 38,827.38	\$ 107,711.80	\$ 15,387.40	\$ 277,953.43
	TOTAL PERSONNEL SERVICES		\$ 130,238.24	\$ 77,448.14	\$ 372,447.90	\$ 194,136.89	\$ 538,559.00	\$ 76,937.00	\$ 1,389,767.17
	Percentage		9%	6%	27%	14%	39%	6%	100%
<b>OTHER THAN PERSONNEL SERVICES</b>									
	Travel					\$ 32,000.00			\$ 32,000.00
	Supplies		\$ 2,342.81	\$ 1,393.19	\$ 6,699.83	\$ 3,492.26	\$ 9,687.94	\$ 1,383.99	\$ 25,000.00
	TOTAL OTPS		\$ 2,342.81	\$ 1,393.19	\$ 6,699.83	\$ 35,492.26	\$ 9,687.94	\$ 1,383.99	\$ 57,000.00
	<b>TOTAL OPERATION COST</b>		\$ 132,581.05	\$ 78,841.32	\$ 379,147.73	\$ 229,629.15	\$ 548,246.94	\$ 78,320.99	\$ 1,446,767.17
	Total Budget (Funding)								

**State Renewable Energy Coordination Office***Program Administration*

Personnel Services	\$	69,833.99
14 Analysts (GS-8, 8.625% FTE)		
Other Than Personnel Services	\$	1,405.69
Supplies		
Total Program Administration	\$	<u>71,239.67</u>

*Site Selection and Application*

Personnel Services	\$	372,447.90
14 Analysts (GS-8, 46% FTE)		
Other Than Personnel Services	\$	6,699.83
Supplies		
Total Site Selection and Application	\$	<u>379,147.73</u>

*Site Visits*

Personnel Services	\$	684,313.22
14 Analysts (GS-8, 2.875% FTE)		
14 Agency Liaisons (GS-7, 20% FTE)		
Other Than Personnel Services	\$	30,492.26
Travel		
Supplies		
Total Site Visits	\$	<u>714,805.48</u>

*Liaison Communication*

Personnel Services	\$	538,559.00
14 Agency Liaisons (GS-7, 80% FTE)		
Other Than Personnel Services	\$	9,687.94
Supplies		
Total Liaison Communication	\$	<u>548,246.94</u>

*Potential Bidder Identification*

Personnel Services	\$	76,937.00
14 Agency Liaisons (GS-7, 10% FTE)		
Other Than Personnel Services	\$	1,383.99
Supplies		
Total Potential Bidder Identification	\$	78,320.99
Total State Renewable Energy Coordination Offices	\$	<b>1,791,760.82</b>