

**Testimony of Virinder Singh**  
**Vice President, Regulatory and Legislative Affairs**  
**EDF Renewables**

Chairman Lowenthal and Ranking Member Stauber, thank you for invitation and your continued focus on promoting renewable energy on public lands.

I am Virinder Singh, Vice President of Regulatory and Legislative Affairs for EDF Renewables, one of the nation's largest independent producers of solar and wind power. On behalf of our company, I want express our sincere appreciation for the hard work of this committee and its staff, Department of Interior leadership, and staff at the Bureau of Land Management—it is more essential than ever as we make a concerted effort to meaningfully address the unfolding harm of climate change.

EDF Renewables is committed to the responsible development of renewable energy on federal lands, with full respect and care for protecting our natural resources and investing in healthy communities of all kinds. Through our work, EDF Renewables regularly engages with environmental NGOs, local communities and their designated representatives, tribal members and their representatives, and local, state and federal officials. Our proven ability to build projects requires an ethic of respect that we are committed to as we continue to work with you on advancing these important issues.

**INTRODUCTION TO EDF RENEWABLES**

With headquarters in San Diego and employees and offices throughout the U.S., EDF Renewables builds and maintains wind (onshore and offshore), solar, storage, and electrical vehicle charging projects across the United States, including on public lands. We have developed over 20,000 Megawatts (MW) of projects, and we operate and maintain over 13,000 MW of projects both for ourselves and for other parties, meaning we have a long-term presence in many rural communities in the U.S.

EDF Renewables is playing a leading role in developing renewable energy on federal lands and waters, including with the following project examples:

- **Palen/Desert Harvest, Riverside County, California.** We are steadily building multiple phases totaling 650 MW of solar coupled with battery-based energy storage on the Palen and Desert Harvest sites on BLM land in Riverside County, California. The two phases of the overall project site employed a peak of 900 on-site workers last year, and in partnership with four different unions. The site will supply low-cost and clean power to a variety of customers, including Southern California Edison, community choice aggregators such as Marin Clean Energy, and individual commercial customers.
- **Projects on Moapa tribal reservation, Nevada.** We are proud to be a guest and partner of the Moapa Band of Paiutes in southern Nevada, on whose land we will be building three projects coupling solar plus flexible batteries. The 200-MW Arrow Canyon project will come online in 2022, sited on 2,220 acres approved through the NEPA process in January 2021. And the Chuckwalla and Playa del Solar will be adjacent projects—with Chuckwalla being a 200-MW solar project + 180 MW of battery storage.

The combined projects would pay over \$115 million in rent and local government revenues, including Tribal Employment Rights Ordinance payments and payments in lieu of taxes.

We want to take this opportunity to express our appreciation for the timeliness and efficiency of the Bureau of Indian Affairs in their permitting efforts.

We particularly thank the Moapa tribe for their vision of making renewable energy a vital part of their community and economy.

- **Atlantic Shores, federal waters off of New Jersey.** We are in a 50/50 joint venture with Shell New Energies on the Atlantic Shores offshore wind project, to be located on a federal lease area located approximately 10-20 miles off the New Jersey coast between Atlantic City and Barnegat Light. Atlantic Shores, once fully developed, has the potential to generate over 3,000 MW of offshore wind energy - enough to power over 1.5 million homes. Fully developing the project will also create thousands of full-time jobs over the project lifecycle, including permanent operations and maintenance jobs. The project is currently employing 85 people on five American vessels in a multi-year geophysical and geotechnical survey.

## **THE IMPORTANCE OF FEDERAL LANDS FOR THE NATION'S CLEAN ENERGY FUTURE**

Renewable energy is essential for the United States to address the current and future risks posed by climate change. It is also a low-cost resource that converts replenishable resources into energy essential for our modern economy. And renewable energy brings economic provenance to communities throughout the nation, in the form of steady local revenues.

Our stable multi-decadal projects provide a financial annuity that enables communities to finance essential services such as schools, first responders, and health care infrastructure. Accordingly, we support the Biden Administration's climate goals, and the underlying deployment of clean energy solutions to address the climate danger.

According to studies by Lawrence Berkeley National Labs, Princeton University, and the University of California, Berkeley, to achieve the Biden Administration's climate goals, there will be a need to increase annual deployment of renewable energy by two to 3.5 times the current annual rate. That means roughly 60,000 MW per year over the next decade.

Beyond the Administration's goals, many Western states have enacted renewable energy requirements that drive the need to build new renewable generation in the West. In addition to federal goals and state-level requirements, individual electric utilities are committing to large amounts of renewable generation in their integrated resource plans, overseen by state public utility commissions.

The above facts reinforce that it is more timely than ever to have the 25 Gigawatt (GW) by 2025 goal established in Section 3014 of the 2020 Energy Act. The role of federal lands in hosting renewable generation must be heightened and acted upon.

In contrast to the 60,000 per year figure above, federal lands today host just under 4,000 MW total, or under 7% of just the annual need.

- Just 6.2% of large-scale solar projects are on federal land, according to the U.S. Energy Information Administration.

- Less than 1% of the nation’s installed wind project capacity is on federal lands, according to American Clean Power, a leading trade association of which we are on the Board.

We clearly need to do more to make federal lands relevant to our clean energy future. Below we provide our thoughts on ways to achieve that.

### **INVENTORY OF POTENTIAL PROJECTS TO MEET THE “25 BY 2025” GOAL<sup>1</sup>**

There is a wide gap between the amount of renewable energy generation today on federal lands and the 2025 goal. We believe that, given the gap, it is important for the Department of Interior to inventory current projects in the permitting process, and understand their viability for coming online by 2025.

Running an inventory alone will provide an important snapshot of what is possible by 2025—a typical development timeline for large-scale projects is four years at best, meaning that an inventory this year can inform Interior of what is needed going forward. We note that understanding project viability will require increased expertise in project development and electricity markets, which is also discussed in our next recommendation.

### **AGENCY RESOURCES—A TOP IMPERATIVE TO EXPAND RENEWABLE ACCESS TO FEDERAL LANDS**

Before discussing several key issues that determine whether federal lands are viable for renewable energy development, it is worth highlighting that administering agencies need the necessary resources to implement the necessary policies. Without the agency resources, the policies will not be meaningful.

**Sufficiently staff the national Renewable Energy Coordination Office (RECO) network.** The reinstatement of RECOs in Section 3102 of the 2020 Energy Act was an essential step in mounting a serious program of renewable energy deployment. Longer processing of each of the many necessary steps in the federal siting and permitting of a project compound and result in years of delay that the industry will recognize, learn from, and typically avoid by choosing private lands, or building in higher costs for a final project.

RECO staffing is necessary at the national, state, and local/district levels. This is not a question of course of just numbers, but also about the quality and expertise of the people, including in traditional BLM specialties such as biology and archeology, but crucially also in energy and the electric sector. Whether all the resourcing is done via full-time employees, consultants, and/or consultative agreements with entities such as the U.S. Department of Energy is not something we can opine on in depth, though we recommend that some component of electric sector expertise exist among full-time BLM personnel.

**Identify priority states and districts for priority RECO resourcing.** We also emphasize the need to establish sufficient RECO resources in states and districts commensurate with a clear sense of interest in developing renewable energy in those locations. For example, we see a high volume of interest, including our own, in the Southern Nevada District Office (SNDO), where along with the (southern)

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<sup>1</sup> Section 3014 of the 2020 Energy Act states that the Secretary of Interior “shall seek to issue permits that, in total, authorize production of not less than 25 gigawatts of electricity from wind, solar, and geothermal energy projects by not later than 2025, through management of public lands and administration of Federal laws.”

California Desert District is the location of a particularly high volume of solar project applications. Dedicated specialists with a Field Office manager in SNDO can be a major improvement in the office's ability to process applications in the present and set programmatic direction in the near future--and concurrently.

Given the widespread adoption of assertive clean energy requirements in six Western states, and major utility-level clean energy commitments in at least two other states, renewable energy development interest is higher than ever in all Western states. An internal knowledge of the electricity market will provide a more nuanced sense of where interest in projects will arise, with need for commensurate RECO resources.

## **OTHER KEY ISSUES TO EXPAND RESPONSIBLE RENEWABLES DEPLOYMENT ON FEDERAL LANDS**

We can categorize our issues and solutions for enhanced renewables deployment on federal lands into the following themes:

- (1) **Place.** Supporting the right locations from the perspective of conservation and other imperatives, as well as from the practicalities of how the national electric grid functions.
- (2) **Time.** Avoiding a wide disparity in the time required to bring a project on-line, compared to timelines on private lands.
- (3) **Cost.** Ensuring a fair payment for the use of public resources while avoiding a wide disparity in the cost of building on federal versus private lands.

### **1. Support the Right Locations**

Federal agencies entrusted with permitting on federal lands have various statutory missions. When it comes to renewable energy, compatibility of siting decisions with the realities of the electric grid is not one that is emphasized in law. Yet siting exercises for electric sector investments can fall short of their stated mission without taking grid realities firmly into account.

**Revise previous BLM site prioritization for renewable energy.** The 2012 solar programmatic environmental impact statement (solar PEIS) process kicked off with the right intentions of striking the careful balance between solar energy development and multiple use protection. However, the resulting amendment of 89 resource management plans (RMPs) across six Western states did not result in meaningful renewable energy generation. The plans were long on considering biological and other physical characteristics. But numerous sites were not close enough to transmission with sufficient capacity to take in the power and send it to where electricity consumers are.

We applaud H.R. 3326's (the Public Lands Renewable Energy Development Act of 2021) provisions that will improve on both the 2012 solar PEIS and 2005 wind PEIS by adding new priority areas within three years of enactment. In terms of solar project design and technology innovation, 2012 is a long time ago. For example, new solar panel technology can capture more solar insolation and convert it to useful energy, and do so at lower cost, thus allowing for areas of less insolation to be economic today compared to 2012. And transmission flows have changed sufficiently, and with new transmission upgrades in effect, to warrant revisiting priority zones relative to available transmission.

**Avoid "over prioritizing" priority areas to the detriment of variance areas.** No matter the effort involved in a programmatic look at site prioritization at the regional level, there is no substitute to

intensive, site-specific evaluation. Variance lands are lands that are not a priority area, nor excluded, and with the potential to host renewable energy. The inherent imperfection of regional-scale mapping has resulted in portions of variance lands appearing to be more viable than originally mapped. That's not too surprising, given the scale--the 2012 solar PEIS included 19 million acres of variance lands, compared to less than 300,000 acres of priority areas.

The thresholds to cross to develop on variance lands are very high. One must show that priority areas are not an alternative, address 25 variance factors which we recommend revisiting, and face evaluation of approximately 400 programmatic design features, as prescribed in the solar PEIS.

In addition to procedures applied to variance lands, a lack of BLM resources can widen the gap between agency permitting efforts on priority areas and on variance areas, as district and state offices are forced to make difficult decisions in allocating scarce personnel to multiple sites. The more acute the shortage, the more concerned we are that variance areas get further de-prioritized, no matter the potential for hosting new renewable generation.

Accordingly, we applaud H.R. 3326's attention to directing the timely processing of renewable energy applications on variance areas.

## **2. Manage Toward Reasonable Timelines**

Renewable energy projects are never quick undertakings. From initial site evaluation to COD, the span lasts four years at the very least and longer than that on average. Despite the typically long and winding road travelled by renewable energy projects, Federal lands have a reputation for significantly lengthening project development timelines compared to projects on private land. Longer timelines exacerbate cost and risk issues and are another factor that discourage investment in projects on federal lands. Finally, extended project timelines can run afoul of the 25 GW by 2025 goal set in the 2020 Energy Act.

**Continue permitting existing applications while implementing new programmatic initiatives.** Policy hold up is one concern, no matter the smart design of the policy causing the hold up. In this case, we are concerned that renewed efforts on PEIS design and resulting RMP amendments can take critical resources away from the permitting of site-specific efforts underway now, and which are certainly more likely to be built by 2025 compared to projects permitted pursuant to a new PEIS.

We emphasize as a tool project-specific RMP amendments to ensure a steady pace of permitting and near-term project completion, and not just programmatic RMP amendments which would take more time.

We applaud H.R. 3326's direction to continue processing of site-specific environmental review and permits, while PEISs, RMPs and RMP amendments occur at the same time.

**Avoid reliance on competitive leasing in lieu of the traditional right-of-way (ROW) process.**

Competitive leasing, while attractive at first glance, raises significant timeline risks that, if applied to all sites of at least some interest, would make achievement of the 2025 goal highly unlikely. We do not oppose competitive leasing in all cases – such as when there are multiple early stage applications for the same site. Yet in many instances, the choice of competitive leasing over traditional ROWs can

undermine timely delivery of renewable energy and requires a good understanding of electricity markets before choosing.

For example, a site with a single transmission path and a single holder of a scarce transmission interconnection queue position renders the site unfit for mass bidding for site access— as other bidders other than the holder of the queue position have no viable path to building a project.<sup>2</sup> Yet the competitive leasing requirement has the strong possibility of adding years to the completion of the project, without commensurate benefit to the public, given that a higher bid but lack of a resulting project will short change the public of both revenues and of new renewable energy.<sup>3</sup>

The above example is another case where it is essential for BLM to have electric sector expertise to understand where a site is truly open to multiple developers—in the case above, the scarcity of available transmission does not make a site amenable to competitive leasing.

### 3. Ensure Fair Cost

Renewable energy project development has inherently high costs and risks.

- Costs for a typical large project are over \$100 million and can go far higher.
- Ongoing risks from project conception to completion involve a multitude of issues: transmission, tax, dynamic costs of inputs, wildlife protection, community acceptance, electricity market dynamics, and others.

Project development will never be devoid of cost and risk. When it comes to federal lands, there is an additional layer of administrative issues that, when added to the above list of typical risks, can imperil specific projects and, when noticed by industry and investors, can drive away interest in additional project development. We are experiencing that challenge today and see it as a top risk to federal lands' proper role in being a part of the nation's clean energy future.

**Revisit existing approaches to determining rents.** Section 3103 of the 2020 Energy Act serves as a promising foundation for necessary policies to address the current problem of rental rates. Section 3103 focuses on “increasing economic certainty” on renewable energy on federal lands, and includes adjustment in annual rents and fees if existing rates “exceed fair market value, impose economic hardships, limit commercial interest...or are not competitively priced compared to other available land.” Section 3103 is compatible with FLPMA’s requirement that BLM charge not more or less than “fair market value.”

Wind and solar rents are a combination of acreage rents and a megawatt capacity fee. The acreage rent is based on National Agricultural Statistics Services values for agricultural lands, rather than appraisals of nearby private lands. However, the types of federal lands used for solar development, such as lands in

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<sup>2</sup> Note that interconnection queues are governed by “open access transmission tariffs” subject to oversight from the Federal Energy Regulatory Commission and designed, per the term, to ensure open access, noting that any level of transmission capacity scarcity must limit the number of viable positions in the queue.

<sup>3</sup> In the case of the Dry Lake solar energy zone in Nevada, the competitive leasing process took two years to implement from the creation of the zone in the 2012 solar PEIS. Given that leasing process was based on a site with advanced NEPA review, a competitive leasing process on variance lands would, all else being equal, take longer.

the southern California desert and in southern Nevada, rarely have the characteristics of agricultural lands. As a result, the “fair market value” estimate often is an overestimate.

The addition of a megawatt capacity fee on top of the acreage rent was meant to reflect land on which the best use was deemed to be renewable energy. That concept appears to contradict the aforementioned valuation of rents based on agricultural land. Moreover, a capacity fee is akin to a royalty, despite the fact that wind and solar resources are inexhaustible.<sup>4</sup> And combined with acreage rents, the result in southern California (Riverside, San Bernardino and San Diego Counties) is total annual payments charged to solar projects that are far higher than fair market value. A filing by EDF Renewables includes estimates that land rental rates for nine solar ROWs in Riverside County are up to 16 times greater than the fair market value, even before capacity fees are considered.

Consistent with Section 3103 of the Energy Act of 2020, we encourage BLM to: (1) revisit rental rate methodologies, (2) adjust rents and fee where they exceed fair market value, (3) revisit the reasoning for a capacity fee when renewables are not exhaustible, and (4) be open to requests by ROW grantees for renewable energy projects to calculate rent based on site-specific appraisals and develop a streamlined process for doing so—aggregating a process for multiple projects in proximity to each other is one example of streamlining for limited BLM staff and developer resources.

## **CONCLUSION**

Thank you for your time and efforts on this important issue. Federal lands must be an important part of our clean energy future, or else that future is unlikely to happen. EDF Renewables understands this will require a balancing of interests. But by understanding what is possible now, by investing in our people, and by addressing issues related to locations, timelines and cost, we can deliver clean energy at a low cost with strong economic benefits, all while addressing the imperative of climate change.

I look forward to your questions.

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<sup>4</sup> As The Wilderness Society explains, “Federal energy royalty rates were established by several statutes, including the Mineral Leasing Act of 1920, to ensure that the government and the American people are properly compensated for the development and use of the non-renewable energy resources—oil, gas, and coal—extracted from public lands.” <https://www.wilderness.org/sites/default/files/media/file/Fact%20sheet%20-%20Federal%20Energy%20Royalty%20Rates.pdf#:~:text=A%20royalty%20is%20the%20percentage,public%20lands%20is%2012.5%20percent>.