TESTIMONY[1] OF
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SELECT COMMITTEE ON THE CLIMATE CRISIS
UNITED STATES HOUSE OF REPRESENTATIVES
ON
"TRIBAL VOICES, TRIBAL WISDOM: STRATEGIES FOR THE CLIMATE CRISIS"

Chair Kathy Castor and Ranking Member Graves, thank you for the opportunity to provide my views on Indian Country's substantial opportunities to contribute to the United States', President Biden's and state and local governments' ambitious carbon reduction goals and to better prepare and adapt to the now too real impacts of climate change on tribal communities. Coming on the heels of the now enacted Infrastructure Investment and Jobs Act, and on the verge of the (hopefully) soon to be passed Build Back Better Act, this hearing is timely and important to identify the critical role the federal government can play - and should play - in supporting Indian Tribes, Alaska Native villages, and other indigenous communities in the strategies and actions necessary to protect vulnerable communities from the worst of those impacts.

In June 2020, the Select Committee issued its Majority Staff Report on "Solving the Climate Crisis." That report included a section on partnering with Tribes and Indigenous Communities. I'm encouraged that the House and this Committee recognize the importance of renewable energy, energy efficiency and workforce development for Indian tribes, and the roles that tribes can, and should, play in the nation's clean energy future.

Tribal Clean Energy Development Should be Unleashed to Achieve Climate Change Mitigation Goals

According to the National Renewable Energy Laboratory's Techno-Economic Renewable Energy Potential on Tribal Lands, published in 2018,[2] Indian Country has over 6% of the total technically and economically feasible renewable energy resources in the United States. A summary of the resources is shown in the following table:

Resource / Technology	Installed Capacity	Generation Capacity	Generation Capacity - % of United States
Solar PV	6,035 GW	10,688 TWh	5.4%
Wind	891 GW	7,701 TWh	8.3%
Biomass	542 MW	2 TWh	1.6%
Geothermal	330 MW	228 thousand MWh	.6%
Hydroelectric	21 GW	124 TWh	36.4%
Total	9,063 GW	20,912 TWh	6.5%

[1] The views expressed here are those of the witness, and do not necessarily reflect the views of the Firm or its clients. Some of this testimony is adapted from previous testimony before the House Energy and Commerce Committee on July 8, 2020. That testimony can be found at: https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/Testimony-Thomas-Tribal%20Communities%20Hearing_070820.pdf

[2] https://www.nrel.gov/docs/fy18osti/70807.pdf

With almost 21,000 TWh of generation capacity, there is enough energy potential to power the whole United States[3] multiple times over. And yet, despite these immense clean and renewable energy resources, there are only two commercial scale renewable energy projects operating on Indian lands. Indian Country clean renewable energy resources can, should, and must be brought to bear on the United States' efforts to reduce carbon emissions if the nation is going to succeed at meeting its commitments to future generations and the world in mitigating climate change.

Unfortunately, there are many obstacles remaining that need to be overcome if this contribution is to be unlocked. Those include:

Access to transmission, transmission capacity and state siting processes. Access to the Bulk Transmission System and Wholesale Markets through "middle grid" development - and the capital necessary to build it - is necessary for Tribes to be able to access wholesale markets for electricity purchases or to sell power into the market.

Access to off-takers, buyers, and markets. One way to expand access to markets is through leveraging corporate off-takers. According to several recent studies in 2017, private corporations entered into contracts to procure almost 2 GW of solar and wind power. Corporations are engaged in these direct procurement efforts for several reasons, including corporate sustainability goals, renewable energy commitments, climate change commitments, and economic benefits. Recently for example, over 1,500 United States companies – from Fortune 500 to small businesses - have committed to supporting the Paris Climate Accord. Corporate procurement is now one of the major drivers of new renewable energy deployments. These companies are prime partners for tribes that are still interested in commercial scale projects – generating and exporting renewable power off of the reservation. Commercial projects primarily benefit tribes through lease payments, development fees, taxes, and construction, operations and maintenance jobs. A typical commercial scale project requires an experienced developer, a tax equity investor (to monetize the federal tax credits), a willing lender, and a credit worthy off-taker. In the past, the off-taker has typically been the local utility. But, in many states, the ability to sell to the utility can be challenging at best. As more and more companies are devising ways to directly procure renewable power, tribes with good locations and plenty of renewable energy potential may have another advantage – as a minority supplier to a corporate direct user off-taker. Another benefit of working directly with a corporate off-taker is that Tribes could use their substantial renewable energy resources to attract companies - especially those that are in energy intensive industries, or have renewable energy goals that cannot be met by local utilities - to locate on the reservations. This effort would require investment in energy infrastructure and human capital. And, it has the added benefit of bringing jobs to Indian reservations.

Development support. Capacity building and development capital are still in short supply to assist tribes, tribal leaders and tribal staff with development-related activities for commercial scale renewable energy projects. While it is not rocket science, development activities are hard, complicated and expensive. Environmental review processes, market and financial analysis, transmission interconnection and studies - to name just a few major development activities - take time, money and staff power. Yet, there is little to no federal support for this critical (and fatal flaw) component of actually bringing projects to fruition.

Inclusion in state and FERC planning efforts. FERC recently announced a transmission task force, which include 10 state utility commissioner representatives. But, not a single Indian Tribe representative sits on this important task force. If Tribes are going to participate in the clean energy economy, projects located on tribal lands will need access to transmission. And, transmission line projects that will bring clean energy resources to load centers will, in many instances, have to be routed through tribal lands.

[3] According to the Energy Information Administration, the United States consumed 4 trillion kWh (4 TWh) in 2020

Inclusion in state energy regulatory decision-making. With the exception of California, no state public utility regulatory body has a tribal consultation policy or incorporates regular outreach to and input from Indian Tribes. So, while many states have increased their clean energy standards, none have done so with the renewable resources in Indian Country in mind.

Complexity of deal structures and financing to monetize tax benefits. As long as federal tax incentives continue to drive the economics of renewable energy projects, complex deal structures will continue to be the hallmark of clean energy projects. This complexity further adds to the disincentives to include tribes in the development of projects.

Triple sovereign regulatory jurisdiction. Virtually every project on Indian lands has to be approved in some way by all three sovereigns - tribes, the federal government and the state utility regulatory body. This adds further cost and complexity to developing and implementing projects on tribal lands.

TRIBAL CLEAN ENERGY AND UTILITY DEVELOPMENT IS THE KEY TO ADAPTATION AND RESILIENCY IN THE FACE OF CLIMATE CHANGE IMPACTS

All Indian Tribes and Alaska Native villages are capable of implementing distributed energy resource projects that support energy self-sufficiency, energy sovereignty, and energy resiliency and reliability. These goals can be accomplished through mass deployment of community solar, distributed energy, storage, energy efficiency and microgrids or through tribal utility authorities. With plummeting costs of these technologies, federal support - such as technical and financial assistance - can be more impactful and more meaningful. The proposed increases in funding to USDA, DOE, Commerce (among others) through the Infrastructure Investment and Jobs Act and increased appropriations will go a longer way in supporting project development and implementation. But, while this federal support is necessary, it is not sufficient.

Leveraging clean energy resources through the implementation of community solar, distributed energy, microgrids and energy efficiency projects as climate resiliency tools is imperative for Indian Tribes and Alaska Native villages. Lower costs of solar, wind and storage have made distributed energy projects more economically feasible. Distributed energy projects can include rooftop solar, small wind, and community scale solar or wind up to 5-10 MW. The key is that the project is located in the electricity distribution system and is intended to be used directly by a single or multiple buildings (or homes). The primary benefits of a distributed energy project are to reduce the carbon footprint, save money (by offsetting the amount of power purchased from your utility), create jobs, and increase resiliency and reliability (protection from natural and man-made risks to big grid failure). There are still technological challenges with integrating intermittent renewables into the distribution system. And utilities are very concerned about the economic impacts on their business model as more people and companies deploy distributed energy projects. But, a recent study of utility executives in 2017 reveals that at least 60% of them expect distributed energy projects to continue to proliferate and their utilities will have to obtain the necessary expertise and technology to integrate those projects with minimal disruption to the distribution system.[4]

Almost all of the tribal renewable energy projects deployed in the last 5 years have been distributed energy projects. Several tribes have deployed 1 – 3 MW systems, with many also deploying rooftop solar on tribal member homes. These projects have generally been limited in size due to the various federal grant programs. But, many more tribes can, and should be, exploring larger "community scale" projects: projects that are between 5 - 30 MWs that can power critical infrastructure, such as schools, hospitals and health care, public safety, government campuses, tribal enterprises, wastewater treatment, fisheries, farms, and

[4] Accenture Consulting, "Power Surge Ahead: How Distribution Utilities Can Get Smart with Distributed Generation" (2017)

tribal housing. These projects are typically too costly for the federal grant programs but are ripe for public-private partnerships to leverage tax credits that will reduce the cost to construct (and thus the cost of power).

The start-up of tribal-owned electric utilities has accelerated in the last decade primarily due to feasibility study financial assistance from the Department of the Interior and technical assistance from the Department of Energy. Tribes are learning the about the major economic benefits of tribal electric utility ownership and operation which include, but are not limited to:

* Tribal sovereignty, energy self-sufficiency and control over the source of the tribe's electricity
* Cost reduction and management of electricity costs
* Revenue generation and job creation

Through a tribal utility, tribes can reduce their dependence on fossil fuel electricity (such as coal and natural gas), increase their use of renewable energy and distributed energy resources, and reduce electricity costs through the acquisition of electricity of their choosing. Furthermore, a tribal utility can be a vehicle for developing tribal renewable energy resources for both on-reservation and off-reservation use. This provides the tribe with a greater degree of control over the development of those energy resources, while maintaining a separation of effort between the tribal government and the tribal utility's enterprise efforts.

In addition, a tribal utility can control its electricity costs through access to the wholesale electricity market. As regulated utilities and rural electric cooperatives continue to increase retail rates, the wholesale cost of power has stayed relatively flat. Furthermore, tribes that are serviced by incumbent utilities – whether investor owned, rural electric cooperative, or a public power company – lack control over both the source of power and the price they pay for power. A tribal utility can directly access the wholesale market, or negotiate for long term electricity contracts, that will most likely result in lower power costs for the tribal government, enterprises, and tribal members who live on the reservation.

Moreover, instead of making payments to outside utilities, the tribal government, enterprises and members will make payments instead to the tribal utility. These revenues would go directly to a tribal entity that is more responsive to the tribal community. The revenues will also go towards electricity procurement, operations and maintenance of the electricity system and reinvestment into the community. In addition to energy choice, the tribal utility will have more flexibility in operations and customer service.

Lastly, the tribal utility will result in funds and jobs remaining in the tribal community. Tribal utilities can promote tribal member workforce development and job creation through the operations and maintenance of the utility. Depending on the size of the reservation, the energy system, and the number of facilities to be serviced, there can be dozens of new jobs for tribal members. If the tribal utility makes the determination that it can produce its own electricity – such as through distributed energy systems like community solar, wind, or small natural gas generation – the construction and operation of those types of projects will result in further job creation.

Notwithstanding all these potential benefits of tribal electric utility ownership, almost no tribal utility is vertically integrated - that is, they do not produce or generate their own electricity. Tribal utilities continue to operate as distribution utilities only and import all the electricity used within the utilities' service area. Most electric power for tribal utilities comes from the federal power marketing authorities (primarily Western Area Power Administration and Bonneville Power Administration), with additional power coming from wholesale power markets or bi-lateral power purchase agreements.

ADDITIONAL POLICY SUPPORT FOR TRIBAL CLEAN ENERGY OPPORTUNITIES

Additional policy support to help move the needle for Indian Tribes and Alaska Native villages to take full control of their clean energy resources to support their climate adaptation and resiliency goals and implementation actions include support for, among others:

- The exercise of tribal sovereign authority over energy services and development on tribal lands. For the most part, tribal energy development is dependent on state electricity policy and regulatory regimes through the state's jurisdiction over and regulation of utility companies that serve tribal lands. If tribes want to develop and use their own clean energy resources, they have to comply with state policies and regulations - tribal energy policy is cabined by state energy policy.

  Federal agencies, such as the Bureau of Indian Affairs and the Environmental Protection Agency, can also support the full exercise of tribal sovereign authorities through the promotion and technical support for tribes to take advantage of HEARTH Act (25 USC § 415(h)) and Tribal Energy Resource Agreements (25 USC § 3504) for leasing and other land agreements and "Treatment as State" status for Clean Air Act (42 USC § 7601(d)(2)(B)) and Clean Water Act (33 USC § 1377(e)(2)) permitting.

- Specific financial and technical assistance to tribes for tribal energy utility formation and operations to give Indian Tribes the ability to control energy costs, create jobs, control energy sources, and keep revenues within the Tribe. For example, many of the grid resiliency programs enacted in the recent American Energy Act (PL 116-260, Div. Z) and Infrastructure Investment and Jobs Act (PL 117-58) include tribes, but it is not clear that tribal utilities are eligible for these financial assistance programs. The Department of Energy should be encouraged to conduct specific outreach and program development geared towards the unique aspects of tribal-owned utilities.

- Tribal - incumbent utility partnerships to leverage federal support for infrastructure investment and economic viability. Grid modernization is expensive, but necessary to improve grid performance, integrate distributed energy and storage, or otherwise improve grid resiliency and reliability. Most tribes will not be able - or want to - start up tribal owned and operated electric utilities. The Department of Energy could leverage its relationship with incumbent utilities and utility regulators to improve interactions between tribes and their incumbent utilities and to provide additional financial and technical assistance support for tribal-incumbent utility partnerships to develop clean energy infrastructure on tribal lands and in tribal communities.

- Redefine the energy transition challenge. One major challenge with thinking about the energy transition in Indian Country is the very limited way in which this term is used. While it is no doubt important to provide support and assistance to fossil fuel tribes - those that have energy economies based on coal, oil and gas - there is a broader issue with the energy customer - those that use energy services. For example, as the "electrification" efforts escalate to reduce carbon emissions, retrofitting tribal government buildings, housing, and enterprise facilities and change out vehicles will be expensive and time-consuming. There are currently no federal programs to support electrification in Indian Country. One tribe in Minnesota recently received a substantial state grant for a "net zero carbon emission" project to reduce carbon emissions across the whole tribal community. The key effort in this will be to electrify the building stock, replacing natural gas and propane heat with electricity.

- Deployment of distributed energy resources and upgraded distribution grids to accommodate the transition to electrification and carbon emission reductions. More states and local governments are developing low-income and disadvantaged communities programs to support these aspects of energy transition and climate resiliency efforts. But, very few are incorporating tribal communities into these efforts. Federal support will be necessary to step into this gap to ensure tribal communities are not left behind in the broader electrification, carbon reduction and climate resiliency efforts leveraging distributed clean energy resources across the country.

Thank you again for the opportunity to provide this written testimony and information to the Select Committee on the Climate Crisis. I look forward to answering any further questions from the members.