Hopi Utilities Corporation BBB Regional Challenge Concept Proposal

Section 1. Background

The Hopi Tribe has existed for many hundreds of years before the founding of the United States. The Hopi Tribe (referred to as “Hopi” or “the Tribe” throughout the paper) is located in northeastern Arizona about 90 miles from Flagstaff in Coconino County. In 1934, the Hopi Tribe chose to organize under a constitutional form of government under the Indian Reorganization Act of 1934. The Hopi Constitution established the Hopi Tribal Council as the governing body for all issues affecting the Tribe as a whole, while local matters are largely left to the 12 village governments.

The main Hopi “1882 reservation” is isolated and surrounded by the Navajo Nation. This isolation creates economic challenges for purchasing basic food and necessities when the people are forced to regularly travel to communities such as Flagstaff, Winslow and Gallup, to shop and conduct the basic business activities of life. The Hopi Tribe’s total membership is approximately 14,390, of which an estimated 7,815 live and work on the reservation. The median family income on Reservation is $37,754, well below the national average of $53,889. More than 61% of the households on reservation are below poverty level, and this percentage has been increasing.

Historically, the Tribe’s revenue has been driven largely by coal-related operations. Over the past 40 years, the Hopi Tribe has had a partnership with the Navajo Nation and with Peabody Energy to provide energy through the Navajo Generating Station (NGS) power plant and the former Mohave Generating Station (closed in 2005). Historically, the power plants and the associated coal mining operations produced a significant number of high-paying jobs for Tribal members, as well as annual revenue to the Tribe. Royalty payments to the Tribe from coal related operations represented between 85-90 percent of the Tribal budget.

In 2019, the Navajo Generating Station closed, significantly impacting the Tribe’s economy. The closures of the coal plant and mining operations blindsided the Tribe. Because the Tribe had no ownership stake in the project, the Tribe did not have adequate time to plan for the associated lost revenues. As outlined in the Tribe’s Comprehensive Economic Development Strategy (CEDS), the closure of the Navajo Generating Station (NGS) is estimated to result in approximately 1,360 to 1,904 jobs lost. Furthermore, it is estimated that the total economic impact to the Tribe is approximately $40 million of lost economic activity. The Tribe’s annual revenue that is used in lieu of a tax base has decreased by approximately 85%. This puts the Tribe in a precarious position over the next 5 years to keep providing services to support the livelihood of members living on reservation.

The closure of NGS highlighted issues with the past model of energy development on Reservation. Specifically, the Tribe: 1) relied too heavily on a single industry (coal), 2) had limited control over coal-related jobs, 3) had limited control over the fate of its economy, and 4) sustainability and equity were not at the forefront of its economic plan. This project concept brings together a coalition to transition the Tribe’s economy beyond coal in a way that reflects the Tribe’s history, culture, values, and goals – with a special emphasis on enhancing self-determination and new revenue & jobs for the Tribe.

Section 2. Vision for the Hopi Tribe’s Future and Description of Component Projects

Hopí’s vision is to invest in a large-scale solar project that can fill the void of lost revenues and jobs related to the NGS closure. The large-scale project would support the growth and enhancement of the Hopi Utilities Commission (HUC) and Hopi Telecommunications Inc. (HTI), as well as provide technical training for Tribal members to create high-paying jobs. With the new revenue streams created by the large-scale solar project, the strengthening of HUC and HTI, and the development of skilled labor, the Tribe would pursue smaller-scale renewable energy, broadband, or similar infrastructure projects that provide the backbone for future economic development. There are four key components to the Tribe’s vision, each is described in more detail in Section 5:
<table>
<thead>
<tr>
<th>Component Project</th>
<th>Key Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) A large-scale solar project with a co-located large energy user</td>
<td>Capitalize on the Tribe’s abundant solar resource to replace lost coal-related revenues</td>
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<td>2) A workforce development program tied to the construction of these projects</td>
<td>Create high-paying construction, maintenance, and utility jobs on Reservation in the wake of the NGS closure</td>
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<tr>
<td>3) A planning effort that strengthens Hopi’s organizational capacity to build future infrastructure projects by leveraging the labor force involved with the infrastructure project</td>
<td>Develop the long-term Tribal organizational capacity to grow the Tribe’s economy</td>
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<td>4) Smaller-scale infrastructure projects focused on reliability, resilience, and supporting new business development across Hopi villages</td>
<td>Enhance security, reliability, and provide the building blocks for future economic opportunities</td>
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**Project 1.1: Large-scale solar project**

The core infrastructure project proposed is a large solar project (likely with battery storage) that 1) generates new revenue for the Tribe, 2) creates new jobs, and 3) redefines how Hopi plans, executes, and manages energy projects on Tribal lands. In the past, the Hopi Tribe allowed non-Tribal entities to plan, own, and construct projects on the Reservation. The main source of revenue for the Tribe was coal royalties and land leases. Often Tribal jobs were part of the economic arrangement, but it was left to private partners to determine the pay, training, and long-term economic value of the project. The proposed concept positions the coalition members to take a greater role in the planning, execution, and management of the project such that the long-term economic value creation of the project is more aligned with Tribal values, goals, and objectives outlined in the CEDS report. To accomplish this important objective, the coalition will ensure HUC and HTI play a major role in the planning and management of the solar project.

**Project 1.2: Co-located data center or similar large energy user**

To amplify the value of the solar project, coalition partners would work closely with industry partners to identify and negotiate an arrangement with a large energy user that co-locates a facility with the solar project. The coalition has initiated conversations with industry partners, focused primarily on data centers, to extract more economic value from the renewable energy generated. The team has focused in on a unique and innovative model that targets “interruptible” Tier 0 data centers that do not require 24/7 power. This innovative model allows for unique power purchasing arrangements between the transmission owner, solar project owner, and large energy user. It also potentially alleviates some of the sizing constraints and fees associated with available transmission capacity in the region.

**Project 2: Collaboration with Hopi educational institutions and Native Renewables Inc. on workforce development**

The large infrastructure project provides a significant opportunity work with coalition partners to hire and train Tribal members that were previously employed in coal-related jobs for the construction and management of the renewable energy project. There are two main goals of the workforce development component project 1) integrate the solar project with Tribal youth education programs to get young Tribal members excited about STEM jobs on-Reservation and 2) train former coal workers to transition to longer-term construction and maintenance jobs for renewable energy, broadband, or similar projects.

**Project 3: Strategic planning for HUC and HTI to leverage infrastructure projects and workforce development**

The Tribe seeks to redefine its relationship with its land and valuable resources by focusing on internal capacity and organizational development to take a more active role in the ownership and management of
the value creation of selling its resources to the market and/or using those resources on Tribal land. To accomplish this, the Tribe will focus on empowering HUC and HTI to be active participants in the planning, execution, and management of the infrastructure project, as well as the organizational platform to leverage labor for future projects.

Project 4: Plan several smaller-scale infrastructure projects to directly benefit Hopi villages
Lastly, Hopi seeks to leverage the large-scale solar project, associated revenues, and trained personnel to address another significant long-term need for the Tribe: local energy, internet and other infrastructure to support the isolated facilities on Reservation. Hopi seeks to leverage component projects 1-3 to create the regional resources to continually plan, build, and manage infrastructure throughout the Reservation. By connecting these projects to the revenue stream created from the large infrastructure project and using the trained personnel, Hopi will be better positioned to create a sustainable economic development model to attract businesses throughout the Reservation.

Section 3. Economic Opportunity of Regional Cluster with Preliminary Metrics

- **Increased Tribal GDP** – the coalition is targeting a solar project size of at least 100 MW. With an assumed engineering, procurement, and construction cost of approximately $1,000 per kW of installed capacity, the solar project will cost approximately $100 million. Additionally, the co-located energy user is expected to have an engineering, procurement, and construction cost of approximately $25 - $75 million, depending on the final customer chosen for the Phase 2 project. Similarly, the smaller-scale infrastructure projects that provide direct infrastructure support for Hopi businesses and homes are likely to cost another $5 - $10 million, depending on the final concept.

- **New sources of revenue for the Tribe** – the sale of energy from the solar project to the large energy user and wholesale market is expected to generate at least $8 million in revenue per year (100 MW * 30% capacity factor * 8,760 hours per year * $30 per MWh). In addition to the sale of solar power from the large project, Hopi seeks to leverage the enhanced management capacity of HUC and HTI, as well as the newly trained labor force, to grow its Tribally-owned utility operations. Each year, customers on Reservation spend approximately $3 million on electricity that is currently paid to Arizona Public Service. This revenue stream represents an opportunity for Hopi to retain utility-related revenues on Reservation by growing HUC’s management and operational capacity.

- **New, high-paying jobs for Tribal Members** – an important objective for Hopi is to create quality jobs for Tribal members that have been hurt by the closure of NGS (and MGS). The proposed concept brings together coalition members that will work to maximize job creation on Reservation through a dedicated training and workforce development program. A 100 MW solar project has the potential to create approximately 150 construction jobs and 10 – 20 on-going operations & maintenance jobs. A 100 MW data center could create approximately 15 on-going maintenance jobs. Lastly, Hopi proposes leveraging these projects to enhance HUC and HTI, creating additional utility-related jobs.

- **Enhanced Tribal organizations that retain revenue, profits, and jobs on Reservation** – by strengthening HUC and HTI’s planning, execution, and management capacity, the Tribe has the opportunity to capture a larger portion of the solar project revenue and potential revenue from utility sales. Without the Tribal capacity, the Tribe would rely on non-Tribal solar developers and non-Tribal utilities to own and manage these activities. Hopi desires to redefine this model so the Tribe recirculates more energy and infrastructure related economic activity on Reservation and has greater control of the associated jobs and economic benefit.

- **Greater ability to attract new businesses/industries to the Reservation** – by enhancing local infrastructure and positioning HUC and HTI to play a lead role supporting new facilities, the Tribe will be better-positioned to attract new businesses.
Section 4. Coalition Members

1. Hopi Utilities Corporation (HUC), Lead Applicant – in 2017, the Hopi Tribal Council passed Resolution H-062-2017 to approve the Charter of Incorporation for HUC (Attachment A). HUC has broad authority to own, manage, and operate water and electric power systems and services on the Hopi Reservation for the benefit of the Tribe and its People. Additionally, HUC was established to “improve, promote, and develop businesses and economic opportunities for the Hopi Tribe”. HUC is a wholly-owned business of the Tribe, chartered as a Hopi corporation under Hopi Tribal Ordinance 45. HUC will play a lead role in the planning, execution, and management of the solar project, as well as the proposed smaller infrastructure projects.

2. Hopi Telecommunications Inc. (HTI) – in 2004, the Hopi Tribal Council passed Resolution H-043-2004 to approve the Charter of Incorporation for HTI. HTI’s mission is to provide quality telecommunications services and to implement an internal work culture that supports and encourages cultural awareness. Similar to HUC, HTI is a wholly-owned business of the Hopi Tribe, chartered as a Hopi corporation under Hopi Tribal Ordinance 45 and would play a lead role ensuring the Tribe develops the organizational capacity to pursue future infrastructure projects.

3. Hopi Renewable Energy Office (HREO) is a Tribal office established with Tribal Resolution #H-098-2009 to pursue long-range planning for renewable energy projects. HREO is currently engaged in late stage negotiations for a 100 MW solar project and would leverage this work for the proposed component projects.

4. Hopi Community Planning, Economic Development, and Land Information Systems (HCPEDLIS) is a Tribal department that was established by Hopi Tribal Council approving Ordinance 55. HCPEDLIS manages the development and execution of Hopi’s CEDS. As a coalition partner, the Tribal department would ensure plans and component projects align with the CEDS.

5. Hopi Education – Hopi’s educational department would be involved in coordinating the workforce development activities with Tribal schools. The goal is to excite students on Reservation about STEM-related jobs on Reservation and provide a pipeline for trained personnel will and able to construct infrastructure like renewable energy and broadband.

6. Native Renewables Inc. (NRI) is a 501c3 nonprofit corporation with a mission to empower Native American families, including Hopi families, to achieve energy independence by growing renewable energy capacity. NRI brings direct experience training Tribal Members and families on solar project in remote locations on Navajo and Hopi land.

Section 5. Industry Partners

Tribal energy and utility planning and advisory – the Hopi Tribe hired Woven Energy with a competitive bid to serve as the Tribe’s energy advisory. Woven Energy is a consulting firm dedicated to unlocking the internal capacity of Tribes to lead the clean energy transition, on energy and utility planning for the Tribe. Woven Energy has worked with more than 25 Tribes across the country on Tribal utility feasibility & formation, Tribal renewable project development, and Tribal microgrid planning & formation.

Large solar project engineering, procurement, and construction – the Hopi Tribe plans to conduct a competitive RFP for the large infrastructure projects. However, the Tribe has made significant headway establishing relationships and gaining interest in the proposed project. Mortenson Construction, the largest builder of renewable energy in the US, has submitted a letter of support for the project.
Large energy user developer – the Hopi Tribe is flexible with the type of large energy user, but has had preliminary discussions with data center builders for Tier 0 data centers that allow for an “interruptible” power supply model. Compute North has submitted a letter of support for this aspect of the project.

Microgrid and small infrastructure project planning – The Hopi Tribe plans to conduct a competitive RFP for the smaller infrastructure projects. The Tribe seeks partners that have experience working with Tribes and also building microgrids in remote locations. The Alaska Native Renewable Industries and Daylight Energy Services, is a unique partner with experience working with Tribes in isolated and remote villages in Alaska using local labor. They have submitted a letter of support.

Other participation and support – the Hopi Tribe has also had planning discussions with Arizona State University’s Just Energy Transition Center (“ASU”). Although ASU did not have enough time to obtain approval from the President to become a coalition member, they have their support and are hopeful to stay engaged in the project as the team works on the Phase 2 concept. Arizona Public Service (APS) is another key industry partner because they own much of the transmission and distribution infrastructure that will be involved in the energy projects. Preliminary discussions have been held with APS’ team to start the collaborative process of working on the interconnection.

Section 6. Matching Funds: due to the severe economic impact the closure of NGS had on the Hopi Tribe, there are limited internal funds to match Federal support. However, the Tribe has secured foundation funding to support the Regional Economic Competitiveness Officer role and has experience attracting external private investment for large-scale solar generation on Reservation.

Section 7. Barriers to Implementation:

Transmission capacity: the availability of transmission capacity in the region is a factor that is likely to impact the sizing of the large solar project. Hopi has conducted past interconnection feasibility studies (Attachment H) and has had preliminary conversations with APS regarding availability. Based on past studies and recent conversations, the team is confident it will identify a suitable area with the requisite land, solar resource, and transmission availability for a 100 MW or larger project.

Interconnection process: the interconnection process can be lengthy and is likely to be a critical path activity in the project schedule. The team will manage this risk by prioritizing early conversations with APS and all associated activities that support site selection and an interconnection application.

Collaboration with APS: related to the above risks, there is a risk that if APS is not cooperative, they could delay the project schedule or make it challenging to implement some of the component projects. The fact that APS owns most of the transmission and distribution infrastructure involved with the project makes it very important that a strong and collaborative relationship is maintained with APS to meet project milestones and schedule commitments.

Availability of labor: given the size of the project and general labor shortages, there is a risk that the team has challenges mobilizing enough labor to support the large infrastructure project. To address this risk, the team will work early with the coalition partners, labor partners and the engineering, procurement, and construction partners to develop a labor strategy.

Section 9. General Timeline for Implementation: the attached project and budget narrative file contains a breakdown of the 9-month schedule for Phase 1. The Phase 1 schedule entails a 3-month planning “sprint” to support the Phase 2 application and then 6 months of additional planning focused on preparing for implementation. Attachment K provides a gantt chart for the proposed 5-year project schedule for the component projects. It highlights how each component project builds off the earlier components.