**Prairie Island Net Zero Project**

**Certified Total Cost**

December 26, 2022

*Prepared For:*

**Minnesota Department of Commerce**

*Prepared By:*

**Prairie Island Indian Community**

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# 1. Executive Summary

On May 27, 2020, Minnesota Governor Tim Walz signed House File 1842. As provided in the legislation, the “Prairie Island Net Zero Project is established with the goal of the Prairie Island Indian Community developing an energy system that results in net zero emissions” (Laws of Minnesota 2020, chapter 118, section 3, subdivision 1). Further, the law reads: “The Prairie Island Indian Community must obtain bids to construct the proposed project from no fewer than three separate contractors and must enter into one or more contracts to complete the project and must submit the certified total cost to the commissioner no later than January 1, 2023” (Amended[[1]](#footnote-2) Laws of Minnesota 2020, chapter 118, section 3, subdivision 3) and “(d) For the purposes of this subdivision, "certified total cost" means the total cost of all contracts the Prairie Island Indian Community enters into with contractors to complete the Prairie Island Net Zero Project” (Amended Laws of Minnesota 2021, First Special Session, chapter 4, article 2, section 3).

Herein is the Certified Total Cost filed with Minnesota Department of Commerce Commissioner Grace Arnold. Consistent with the law, this *Certified Total Cost* certifies: a) total Prairie Island Indian Community (“PIIC”) Net Zero Project costs expended towards the appropriation, and b) affirms that these PIIC costs meet or exceed the $46.2M appropriated, and therefore, PIIC will return no extraneous funds to the State of Minnesota.

Figure 1 identifies PIIC total certified Net Zero Project costs. The following sections provide detail on costs as well as PIIC compliance with legislation requirements for competitive procurement.

Figure 1. PIIC Certified Total Cost

The PIIC Net Zero Project comprises three phases as shown in Figure 2, from planning through procurement, design, and construction of solutions. This *Certified Total Cost* concludes Phase II.

Figure 2. Net Zero Project Phases

PIIC thanks the Minnesota Department of Commerce for its support of the PIIC Net Zero Project and is willing to respond to any additional inquiries not addressed within this report. PIIC’s legally binding agreements with consultants and contractors that back up this *Certified Total Cost* are available upon request.

# 2. Review of Certified Costs

## 2.1. Commercial Electrification Project

Electrifying PIIC commercial end uses--replacing natural gas with electric technologies, backed by clean generation sources--is the foundation of PIIC efforts to achieve Net Zero. In early 2022, PIIC facilitated a Request for Proposal (“RFP”) process through which the community received four bids for contractor teams to design and build a commercial electrification solution. PIIC selected and contracted with Pioneer Power, with design-build work underway in Phase II (July 2022) and planned to extend through Phase III. The electrification scope of work comprises the Design-Build of a geothermal-based heating and cooling system to support PIIC commercial facilities.

Table 1. Commercial Electrification Project Costs

|  |  |  |  |
| --- | --- | --- | --- |
| **Company** | **Cost Amount** | **Cost Source** | **Relevant Dates** |
| **Pioneer Power Inc.**  *Design-Build Contractor* | $675,000.00 | Certified Cost - Design-Build Agreement *(Design costs)* | July 2022 – Phase III |
| $114,660.00 | Certified Cost – D-B Change Order 1 | July – December 2022 |
| $172,252.50 | Certified Cost – D-B Change Order 2 | July – December 2022 |
| $25,801,292.65 | Certified Cost – D-B Amendment *(Build costs)* | December 2022 – Phase III |
| **TOTAL** | $26,763,205.15 |  |  |

## **2.2. Commercial Solar Renewable Energy Project**

Development of a commercial solar project on PIIC tribal land will provide renewable energy for community use and revenue through a Power Purchase Agreement (“PPA”) to help financially sustain the Net Zero Project over time. PIIC facilitated an RFP process in early 2022 through which PIIC received three bids for contractor teams to engineer, procure, and construct (“EPC”) the solar project. PIIC selected and contracted with Knobelsdorff Enterprises, with EPC work underway in Phase II and planned to extend through Phase III. Additionally, PIIC is contracted to cover solar interconnection costs from Dakota Electric Association and PPA-related security fund costs from Great River Energy.

Table 2. Commercial Solar Project Costs

|  |  |  |  |
| --- | --- | --- | --- |
| **Company** | **Cost Amount** | **Cost Source** | **Relevant Dates** |
| **Knobelsdorff Enterprises**  *Engineering, Procurement, and Construction Contractor* | $96,193.00 | Certified Cost – Service Agreement *(Due diligence costs)* | August – October 2022 |
| $11,911,903.00 | Certified Cost – EPC Agreement *(Engineer, procure, construct costs)* | November 2022 – Phase III |
| **Dakota Electric Association**  *Cooperative Electric Utility Service Provider* | $463,616.00 | Certified Cost – Interconnection Agreement *(Interconnection costs)* | November 2022 – Phase III |
| **Great River Energy**  *Cooperative Electric Utility Service Provider* | $270,000.00 | Certified Cost - Power Purchase Agreement *(PPA Security Fund cost)* | December 2022 – Phase III |
| **TOTAL** | $12,741,712.00 |  |  |

## 2.3. Commercial Monitoring-based Commissioning Platform

PIIC competitively secured three bids from companies for monitoring-based commissioning software that will enable PIIC staff to better manage and optimize commercial energy systems for efficiency. PIIC selected a platform from Pappe Companies.

Table 3. MBCx Platform Costs

|  |  |  |  |
| --- | --- | --- | --- |
| **Company** | **Cost Amount** | **Cost Source** | **Relevant Dates** |
| **Pappe Companies**  *Technology platform provider* | $65,240.00 | Certified Cost – License Agreement *(Year 1)* | December 2022 – December 2023 |
| **TOTAL** | $65,240.00 |  |  |

## 2.4. Technical, Strategy, Management, and Legal Consulting Expertise

PIIC identified the need for consultants with special expertise and capacity to support the tribe in planning, procuring, and implementing the Net Zero Project from Phase I through III (i.e., project completion). PIIC selected and contracted with a team of consultants, including technical and strategy consultants: Indian Energy, NV5, and Chief Strategy Group as well as management and legal consultants: Quarles & Brady and Winthrop & Weinstine.

Table 4. Consulting Costs

|  |  |  |  |
| --- | --- | --- | --- |
| **Company** | **Cost Amount** | **Cost Source** | **Relevant Dates** |
| **Indian Energy**  *Technical Consultant* | $2,331,000.00 | Certified Cost - Service Agreement *(included NV5 and CSG costs through May 2022)* | January 2021 – May 2022 |
| $95,667.00 | Certified Cost - Amended Service Agreement *(Change Order for work through May 31 costs)* | January 2021 – May 2022 |
| $103,000.00 | Certified Cost - Amended Service Agreement *(Work beginning June 1 costs)* | June 2022 – Phase III |
| **Chief Strategy Group**  *Strategy Consultant* | $176,565.00 | Certified Cost - Service Agreement | June 2022 – Phase III |
| **NV5 Inc.**  *Technical Consultant* | $640,545.00 | Certified Cost - Service Agreement | June 2022 – Phase III |
| $1,000,000.00 | Certified Cost - Amended Service Agreement | November 2022 – Phase III |
| **Quarles & Brady**  *Legal Consultant* | $194,023.16 | Legal Engagement Letter & Actual Expenditures | July 2021 – July 2022 |
| $152,575.00 | Legal Engagement Letter & Certified Cost – Budget Memo | August 2022 – Phase III |
| **Winthrop & Weinstine**  *Management & Legal*  *Consultant* | $184,835.50 | Legal Engagement Letter & Actual Expenditures | June 2020 – December 2021 |
| **TOTAL** | $4,878,210.66 |  |  |

## 2.5. PIIC Owner’s Operations & Contingency

Legislation for the PIIC Net Zero Project states: “(b) The commissioner shall reserve a portion of the appropriation made under this section and Laws 2020, chapter 118, section 5, subdivision 2, to pay actual expenditures on the project that exceed the certified total cost. The amount reserved shall be the lesser of: (1) 20 percent of the certified total cost for the project; or (2) the difference between the certified total cost and $46,200,000. (c) Notwithstanding paragraph (a), if the certified total cost for the project is less than $46,200,000, the commissioner shall withhold from the project appropriation in fiscal year 2023 an amount equal to the difference between $46,200,000 and the sum of the amount of the certified total cost and the amount reserved by the commissioner under paragraph (b), and shall cancel the withheld amount to the renewable development account.” and additionally, the legislation identifies: “This appropriation is available until June 30, 2031” (Amended Laws of Minnesota 2021, First Special Session chapter 4, article 2, section 3).

Consistent with the legislation, PIIC intends to use $1,751,632.19 from the Net Zero funds to support critical PIIC operational and business functions for the commercial electrification and solar projects. This use of funds is essential for Net Zero Project sustainability. Operations funds will support Project management and administration, given the need for PIIC to have expertise, capacity, and infrastructure to support a Project of this size and scope. Additionally, owner’s contingency funds will support change orders to the above-detailed PIIC-contractor agreements. All funds under this category will be used to support the Net Zero Project and meet the State intention to invest in projects that are successful over the long-term.

PIIC use of funds under this category represents <4% of the total appropriated Net Zero Project funds. PIIC will expend funds under this category no later than Net Zero Project completion (i.e., June 30, 2031), in alignment with the appropriation terms identified in the legislation. PIIC has discussed this use of funds with the Department of Commerce grant administrators and received their approval.

# 3. PIIC Progress Towards Net Zero Goal

On May 27, 2020, Minnesota Governor Tim Walz signed House File 1842 which appropriated $46.2M to the PIIC Net Zero Project. These funds are intended to support PIIC community progress towards its Net Zero carbon emissions goal. More broadly, these funds serve an important purpose in helping bring clean energy solutions to the historically disadvantaged PIIC community—funding solutions which have too often been historically relegated to communities with the means to secure them, rather than to those who could most benefit. Further, this appropriation has been identified as a learning opportunity and model to inform other communities interested in clean energy and carbon neutrality.

Through the Net Zero Project, PIIC identified the importance of implementing on-site carbon reduction solutions whenever possible, rather than simply purchasing external financial offsets to achieve its Net Zero goal. This decision speaks to PIIC’s deep, authentic commitment to decarbonizing its community and achieving a sustainable future for the next seven generations. Within this framework, PIIC acknowledged from Net Zero Project beginnings that the real cost of achieving the Net Zero goal was unknown and the $46.2M appropriation might be insufficient to fully realize the goal. PIIC has sought to responsibly apply the funds towards solutions that maximize carbon reduction and community benefits.

PIIC submitted a Phase I Net Zero Project Plan in July 2021, which identified a high-level pathway for PIIC to achieve a significant reduction of carbon emissions with the appropriated funds—based on preliminary information. Through Phase II, PIIC conducted competitive procurement processes and negotiated contracts based on circumstances and updated costs of the time. Today, the solutions committed through this *Certified Total Cost* are estimated to reduce the PIIC community’s annual carbon emissions by a total of 10,439,953 pounds annually, moving PIIC approximately 52% of the way towards its Net Zero goal. Additionally, PIIC has received other third-party funding to achieve an additional 1% carbon emissions reduction for a total of approximately 53% carbon reduction expected annually when projects are complete.

PIIC acknowledges the benefits and challenges of this breakthrough Project. A variety of factors have contributed to the *Certified Total Cost* hereinand the related carbon emission reductions that PIIC will receive through these solutions. Key factors include:

* **Pandemic supply chain effects:** The COVID-19 pandemic has had meaningful, long-term impacts on material costs and labor supply that have affected PIIC projects. For example, solar PV panels have increased 50% and modules have increased 16x; copper wiring has increased nearly 100%; and HVAC equipment is increased about 50-60%. Other material costs have risen dramatically, and the U.S. Bureau of Labor Statistics indicates the cost of labor, doing business, and transportation have increased three-fold in the last several years.
* **Technology development.** The best pathway to Net Zero for PIIC is to transition commercial buildings from natural gas to electric. However, safe and mature technology does not yet exist to support this transition for certain aspects of PIIC infrastructure, including laundry facilities of PIIC’s size and scale, which represents 23% of PIIC’s commercial building gas load. PIIC intends to monitor this industry for future technology solutions to meet these needs.
* **On-site, custom solutions:** PIIC is developing custom, on-site carbon-reduction solutions that integrate effectively with its operations, infrastructure, and community values. While this approach is critical to Net Zero Project success, on-site solutions are more complex and a greater financial investment than simply purchasing carbon offsets. However, PIIC believes that this approach demonstrates its deep commitment to decarbonizing its community and also best meets the spirit of the Renewable Development Account and the Net Zero appropriation.
* **Firm contractor cost proposals:** Preliminary cost estimates were developed in Phase I by technical experts using industry standard estimating software, incorporating a high-level, conceptual scope of work and past market conditions. Phase II activities enabled PIIC to conduct a robust procurement process wherein real costs proposals were received from contractors—based on a detailed understanding of existing conditions, a complete scope of work, and updated supply chains impacts—as the basis of negotiations and contracts within the *Certified Total Cost*.

Additional funding sources will be critical to PIIC’s success in reaching its Net Zero goal. PIIC is seeking opportunities to augment the state funding, including pursuing grant opportunities, such as those available through the Inflation Reduction Act, Bipartisan Infrastructure Law, and other sources. Once grant and other funds are secured, PIIC intends to leverage these funds to make additional progress towards the PIIC Net Zero goal, such as further commercial electrification, energy efficiency measures, and vehicle electrification as well as critical energy solutions for community member homes.

1. Amended Laws: https://www.revisor.mn.gov/laws/2022/0/Session+Law/Chapter/41/ [↑](#footnote-ref-2)