

WORKPLAN

1. OVERALL PROJECT SUMMARY AND APPROACH

1.a. Description of GHG Reduction Measures

1.a.i. Brief project Summary. Bay Mills Indian Community (BMIC) is a federally recognized Tribe with 2,300 Tribal Citizens in the Eastern Upper Peninsula (EUP) of Michigan, near Brimley and not far from Sault Ste. Marie (home of the Soo Locks). Much of the 3,500-acre BMIC Reservation sits on the shores of the Upper St. Mary's River, which drains Lake Superior through Whitefish Bay into Lake Huron at a key juncture of the Great Lakes system—home to nearly 20% of the world's fresh surface water. A sovereign entity, BMIC is fully responsible for its operations as a governmental unit, including public safety/law enforcement, judicial affairs, health care, and economic development. The tribal enterprises that drive BMIC's economy include the Bay Mills Resort & Casino, Wild Bluff Golf Course, Sunrise View RV Park, Bay Mart gas station, and Four Seasons grocery store. BMIC's on-reservation population consists of 727 Tribal members, many of whom work in the accommodation and food services industry. Our region's primary economic engine is tourism, which is highly impacted by and vulnerable to external influences such as weather, climate change, transportation costs, and public health crises.

With generous EPA grant support through the Climate Pollution Reduction Grant (CPRG) program, BMIC will construct an 11 MW ground-mounted solar installation with 5 MWh of battery storage on 40 acres of BMIC trust land. The site is directly adjacent to the headquarters of Cloverland Electric Cooperative, which provides power to much of the EUP, and directly across Interstate 75 from Cloverland's substation connection to regional transmission lines. As indicated in its attached letter-of-commitment, Cloverland intends to buy electricity produced by the installation from BMIC—and some of the renewable energy credits (RECs) it will generate—through a purchase-power agreement (PPA). The project will provide the UP—an isolated, patchwork energy system that leaves its residents and businesses particularly dependent on and vulnerable to markets and decision-makers beyond its borders—with a price-stable, home-grown, clean, and reliable electricity generation project.

In addition to delivering improved health outcomes, significant jobs and economic opportunities, and other social benefits—as detailed below in Sections 2, 3, and 4 and our attached Technical Appendix—the project will generate 15.5 GWh of renewable energy each year, which will offset all of the GHG emissions from BMIC's governmental and enterprise operations (described above) and provide the Tribe with an average annual revenue boost of \$636,488 in REC and electricity/capacity sales. BMIC will invest this much-needed income in the vital and comprehensive services we offer our community, particularly our vulnerable and low-income members. That revenue will also support implementing other elements of BMIC's Priority Climate Action Plan or PCAP (described below), thus delivering further ongoing GHG emissions reductions, energy and utility bill savings, indoor and outdoor air quality improvements, public health benefits, and local jobs and economic opportunities.

1.a.ii. Project context and vision. BMIC's mission statement is: Mino Bimaadziwin, "Good Life," guides Gnoozhekaaning, "Place of the Pike" (the Bay Mills Indian Community), to preserve and to promote the sovereignty, culture, and prosperity for our citizens, community, and employees to the benefit of present and future generations. Reflecting the Tribe's dependence on the natural environment for physical, mental, emotional, and spiritual health and well-being, the "Good Life" is rooted in the land, water, and air connected to the "Place of the Pike." Subsistence hunting, fishing, gathering, commercial fishing, and other Anishinaabek ways of life and cultural traditions have strengthened our long-standing relationships with the Great Lakes Basin's seasons, cycles, and nonhuman beings. The region's native

plants and animals also offer essential medicine, food, craft, and continual reminders of creation stories that we have maintained for millennia.

In addition to making our members particularly vulnerable to the climate crisis (please see Section 4), our enduring connection to this specific place on earth fosters a deep commitment in our community to preserving and protecting it. Climate and weather patterns are accelerating, with an expected increase in mean annual temperature of 5.5 to 6 degrees Fahrenheit by the midcentury (2041 – 2070; GLISA 2016) and Michigan Tribes are currently experiencing the impacts of climate change: warmer average annual air and surface water temperatures, more volatile weather characterized by extreme precipitation events, decreases in duration and extremity of winter temperatures, and increases in summer temperatures. These changes are already impacting culturally and socio-economically important fish, wildlife, plant species, and other natural features; undermining our cultural activities and infrastructure/community development resources; and causing human health risks. The urgency with which BMIC responds to the climate crisis reflects the immediate and long-term risks it poses to our community's survival and way of life.

BMIC has been working for many years to serve as a model of tribal environmental sustainability. Over time, our Climate Committee (previously Green Infrastructure Committee) has conducted assessments, developed plans, and taken necessary steps to shrink our environmental and carbon footprint. In addition to our water quality, coastal management, climate adaptation planning, fish and wildlife protection, and other such programs, BMIC has made significant progress in adopting key GHG emissions reduction measures, including:

- Characterizing our waste stream, developing recycling programs, and diverting food and fish waste¹ from the landfill as part of our long-term circular economy initiative;
- Assessing the energy performance of our buildings, adopting efficiency measures, and installing rooftop solar on our Boys and Girls Club, Justice Center, and Elder Center;
- Adding electric vehicle chargers at Bay Mills Resort and Casino as a first step in building comprehensive EV infrastructure and analyzing the most rapid and cost-effective path to converting our vehicle fleet to electric and other clean-fuel technologies.
- Assessing transformative clean energy projects, including conducting a Tribal Utility Authority Feasibility Study in 2019, which included the solar farm proposed in this application, a Combined Heat and Power Feasibility Study in 2022, and a community-scale wind feasibility study.

While adding the staff capacity to implement these and other projects remains a pressing need for our community, BMIC has built a strong employee team to fulfill our environmental values and commitment. Our tribal management team now includes an environmental coordinator, air quality and environmental specialists, a spill response coordinator, a construction manager, a land office coordinator, a director of biological services, a planning manager, a tribal manager, and more.

¹ Along with subsistence fishing, there are 63 commercial fishermen in BMIC (2022). By-catch and fish scrap waste disposal is an ongoing challenge for the community. BMIC has been awarded EPA SWIFR funding to construct a fish composting station at the tribe's Waishkey Bay Farm which will divert that waste from its community trash compactor and eventually the landfill. BMIC has also partnered with neighboring Kinross Charter Township on a food waste collection program whereby food waste from BMIC Enterprises is collected and used in the Township's anaerobic digester as part of their waste water treatment plant operations.

Building from the progress we have already made, our proposed 11 MW solar farm with battery storage will serve as a powerful anchor in pursuing our vision to become a carbon-net-negative community and leave the planet and our place in it better than we found it. As mentioned above, and detailed in Section 3 below, the solar farm will offset all GHG emissions from our tribal government operations and enterprises. While we pursue the other strategies in our PCAP and implement other measures that will take longer to implement—such as decarbonizing member housing, shrinking and reducing the impacts of our waste stream, and implementing clean energy strategies facility-by-facility, the solar farm will serve as a symbol of pride and progress, demonstrating to our community and neighborhoods that we can do more than what we once thought possible to respond to the climate crisis and avoid its most devastating consequences.

1.a.iii. Priority GHG reduction measure: key features and tasks. The following details the priority GHG reduction measures that BMIC will implement with EPA support through a Climate Pollution Reduction Program (CPRG) implementation grant. A more detailed project timeline is provided in Section 3.

Solar farm and battery storage. The core element of our priority GHG reduction measure is relatively simple. We will combine generous EPA grant support with federal elective-pay investment tax credits (ITCs)—and a bridge loan to manage financial timing issues—to fund the construction of an 11 MW ground-mounted solar installation with 5 MWh battery energy storage system (BESS) on 40 acres of BMIC trust land. Initially, BMIC will sell the renewable energy generated by the project and the energy capacity and renewable energy credits (RECs) to the market. In 2029, when an agreement expires that currently prevents Cloverland Electric Cooperative from purchasing energy from BMIC, we intend to sell the renewable power generated by the solar farm—along with the energy capacity and RECs—to Cloverland via a purchase power agreement (PPA).

To maximize our financial benefit from the project and best serve the State of Michigan’s PCAP priority of “better integrat(ing) renewable energy into the electric grid,” BMIC will invest in the most sophisticated available software for timing the sale of the energy stored by the BESS to the market. That technology will direct the BESS to **store/charge** when the market prices that BMIC will receive for that energy are low and **dispatch** to the grid when market prices are high.

Key tasks to implement this component of our proposed GHG reduction measure include:

- Developing/distributing an RFP for a turn-key solar contractor to implement all aspects of the solar farm and battery storage project and making a contractor selection through a competitive bidding process.
- Implementing environmental permitting processes local to our tribal government given that the project will be located on BMIC trust lands, and engaging with Cloverland and others to complete the permitting related to the added (transmission) infrastructure that will be constructed beyond the site.
- Designing and implementing an internal BMIC project management process to oversee and collaborate with our selected contractor and other stakeholders to ensure the project is completed effectively, on-schedule, and on-budget.
- Contracting with expert consultants to provide third-party project management support to supplement our processes and help our team fill any internal gaps we identify in securing bridge financing for the project, engaging State of Michigan assistance in implementing our project (if desired), and managing communications and community engagement related to the project.

Tribal workforce development program. Per our attached Proposal Budget, BMIC will invest in and stand up a workforce development (WFD) program through Bay Mills Community College or BMCC (our Tribe's affiliated institution of higher education). This program will help ensure that tribal members and other local workers are prepared to secure jobs constructing our solar farm, leverage our project as a launching pad to long-term clean energy careers, and position themselves to fully capitalize on the massive expansion of the utility-scale solar sector that is on the immediate horizon. As described in Section 5. Job Quality, our RFP and selection process for our turn-key solar installation contractor will emphasize using our WFD program as a pipeline for meeting the project's labor needs.

Key tasks to implement this component of our proposed GHG reduction measure include:

- Collaborating with BMCC leaders, our selected solar contractor, and state and regional WFD experts to design and implement our program, which will feature use of simulation software, hands-on training kits for solar and battery systems, and digital learning platforms.
- Publicizing the WFD program with our members via all BMIC and BMCC communications tools and platforms, and engaging community partners to build awareness of this opportunity with our target audience of prospective workers throughout the UP (with a focus on the EUP).
- Leveraging BMCC's career services capacities to create a formal link between program graduates, our solar farm project, and other regional renewable energy employment opportunities.

Community engagement and communications. Throughout the implementation of our project and into the future, BMIC will work to ensure that our members are well informed of our progress and the positive impacts it is delivering for our community and society. We will also share our experience with our fellow tribes in Michigan, the Great Lakes region, and beyond, as well as other governments and stakeholders who may wish to develop a similar project. This work and key tasks are described in detail in Section 4.b. Community Engagement.

Grant administration. At the foundation of all of the above features and tasks, BMIC will set up our CPRG grant in all relevant internal systems and implement our established grant intake, administration, and financial controls upon negotiating and executing our grant agreement with the EPA. The BMIC staff liaison to EPA on this grant will ensure that we fulfill all grant reporting requirements, as well as more informally sharing ongoing successes and raising any concerns/deviations from project plans with our agency contacts. From a financial management perspective, we do not consider our proposed grant particularly complicated, as most of the proposed funds will be expended through a relatively small number of agreements with subcontractors (primarily our turn-key solar contractor).

1.a.iv. Partners. The following organizations will play key roles in implementing our proposed project. Of course, our turn-key solar installation contractor—to be selected through competitive bidding—will ultimately be our most important project partner.

Cloverland Electric Cooperative. A not-for-profit, member-owned utility founded in 1938 to provide electricity across the rural communities of Michigan's EUP, Cloverland services 43,000 meters with 4,000 miles of line through five UP counties. It is BMIC's electric service provider. While it otherwise purchases the energy it delivers to its customers, Cloverland maintains local control of Sault Ste. Marie's historic hydroelectric plant, which generates 40-50% of the co-op's power. While it is prevented from doing so until 2029 by a prior contractual obligation, Cloverland intends to enter into a PPA with BMIC at that time to purchase the energy, capacity, and RECs from our solar farm and battery project (prior to that, we will sell to the market). In addition to providing much of the underlying utility data for the GHG

modeling performed for this application (see Section 2 and Technical Appendix), Cloverland will provide ongoing technical support throughout the implementation of our project. For example, as mentioned above, it will assist the project in securing permits and other authorizations related to the project's transmission infrastructure which will be installed off of BMIC trust lands.

Bay Mills Community College (BMCC). Chartered by BMIC in 1984 to meet the training needs of our growing workforce, BMCC is one of three tribally controlled colleges in the State of Michigan, and the only community college of any kind in the EUP. A fully operating Tribal College and Land Grant Institution with an open admissions policy for students of any race, creed, color, and national or ethnic origin, it is committed to providing affordable, culturally relevant, accessible, and high quality educational opportunities to all Tribal communities in Michigan (and their neighbors). BMCC is committed to delivering economic and community development leadership for BMIC and the EUP. It will provide leadership and be the home for our project's solar WFD program.

Inter-Tribal Council of Michigan (ITCMI). A 501(c)(3) non-profit based close to BMIC in Sault Ste. Marie, ITCMI represents and serves twelve federally recognized tribes in Michigan. It acts as a forum for member tribes and advocates for programs and policies to improve the economy, education, and quality of life for Michigan's Native Americans. It also provides technical assistance to support the development of tribal regulations, ordinances, and health and human services policies. As needed, ITCMI will help BMIC connect to statewide resources—solar contractor networks, State of Michigan officials, expert consultants on WFD and other project elements, etc.—that we will leverage to implement our solar farm and battery storage project successfully. It will also assist BMIC in sharing the story of our project with our fellow tribes in Michigan, across the Great Lakes, and beyond, as well as with clean energy policy and deployment leaders statewide.

Finally, BMIC maintains an ongoing consultancy relationship with Baker Tilley, which has provided feasibility assessment and project design services for several of our prospective energy projects. They played a lead role in developing the conceptual plans, specs, and cost/benefits estimates on which this application is based (which enabled BMIC to assess the feasibility/desirability of this project and shaped our decision to move forward). We intend to engage them for direct third-party project management support during construction.

1.a.v. PCAP and CPRG program alignment. The Bay Mills Indian Community Priority Climate Action Plan (PCAP) is attached to this application. Along with its other priority GHG reduction measures—building a new waste transfer station and strengthening our waste reduction program; weatherizing/retrofitting and electrifying tribal homes and buildings; and installing combined heat and power systems at our Health Care Center and Resort and Casino (by far our largest single energy users)—our proposed CPRG-implement project to develop a 11 MW solar farm is directly included (by name) in our PCAP.

Our proposed solar farm and battery storage project is also closely aligned with two of the 10 priority GHG reduction measures in the State of Michigan's PCAP:

- **Measure #1 - Drive clean energy deployment including improving siting for renewable energy and energy storage across Michigan...emphasizing equitable access for Michigan's LIDACs.** In addition to hailing the \$30M in technical assistance and incentives in the FY 2024 state budget to spur siting of utility-scale renewable energy and storage, this State's discussion of this measure noted that state legislation passed last year created a 50% by 2030 renewable energy standard that will require "a 200%+ increase in renewable energy generation in the state" this decade (given that Michigan starts with 15% of its electricity generated from renewable

sources). Projects like the BMIC solar farm is exactly what Michigan needs to meet these ambitious targets, especially since it will demonstrate that a major solar installation can be seamlessly sited in a rural area and generate significant community benefits (described throughout this application) via a public-private partnership like BMIC and Cloverland Electric propose.

- **Measure #2 - Invest in energy storage to...better integrate renewable energy into the electric grid.** In laying out its case for prioritizing this measure, the Michigan PCAP stated that energy storage “facilitates the integration of additional renewable energy sources” and that it “is necessary to widely deploy grid-scale energy storage to maintain energy security within the state and decarbonize the electric grid.” The State PCAP also emphasized that Michigan’s 2023 clean energy legislation “establishes a new energy storage standard of 2,500 megawatts (MW), making Michigan one of just a few states that require energy storage standards.” The battery storage elements of our proposed project will help the state achieve the target in its PCAP of adding 1,050 MW of storage per year this decade. As described throughout this application, BMIC will utilize the latest software and technologies to deploy the electricity stored in our proposed BESS in a manner that maximally meets the needs of the grid (and, of course, returns the best possible price to BMIC by timing our sale of the stored power to when the grid is paying the highest prices).

BMIC selected our proposed 11 MW solar farm and battery storage project as the priority measures for which we are seeking CPRG implementation funding because of its transformative capacity to offset all of the GHG emissions from our governmental and enterprise operations in a single, bold investment. As described in Sections 3 and 4, it will also deliver environmental and public health benefits, create local jobs and economic opportunities, and generate significant annual revenues that we can reinvest in vital services, including other BMIC decarbonization and climate resilience priorities.

In addition to its strong alignment with BMIC’s overall climate and sustainability priorities, our Tribal PCAP, and the State of Michigan’s priority climate pollution reduction measures, our proposed project will make major contributions to the goals of the CPRG program as stated in your Notice of Funding Opportunity (NOFO).

- **Implement ambitious measures to achieve significant cumulative GHG reductions by 2030.** Per the dynamics outlined in the “underlying assumptions and risks” section below, there is high certainty that this project will be completed within 24 months of our grant award. And from the time the solar farm is installed and connected to the grid, it will immediately displace fossil-fuel-generated power on the MISO Zone 2 grid with clean, renewable energy. As unpacked in Section 2 and our Technical Appendix, this project will have a near-immediate impact and contribute to the ambitious and urgent state and national GHG reduction targets set for the remainder of this decade.
- **Pursue measures to achieve substantial community benefits...particularly in low-income and disadvantaged communities.** As described in more detail in Section 4, BMIC is a “low-income and disadvantaged community” by many measures and definitions. For the narrow purpose of meeting eligibility requirements for this grant opportunity, BMIC is a federally recognized tribe and the NOFO indicates that the “CPRG program considers that federally recognized tribes meet the definition of disadvantaged communities for the purposes of this grant program.” Starting with the substantial revenues it will generate to support tribal programs and services—and also

including the air quality, public health, job creation, and other positive impacts it will deliver for our tribal members and society as a whole—our proposed solar farm will return significant community benefits on EPA’s investment of CPRG funds.

- **Complement other funding sources to maximize these GHG reductions and community benefits.** Our proposed grant will enable BMIC to leverage federal elective-pay renewable energy investment tax credits (ITCs), thus stretching the per-dollar GHG reductions and community benefits our CPRG grant will yield. We conservatively estimate that ITCs will cover 40% of the total project cost, meaning that every 60 cents of CPRG investment in direct project costs will yield \$1 of clean solar power. And if we determine that the project will qualify for more adders that will bring our total ITCs to 50% or 60%, that ratio will only improve (and we will seek to amend our EPA grant agreement accordingly to account for that welcomed reality). In addition to the 30% base credit and the relatively straight-forward 10% energy-community adder, we hope to qualify for a 10% domestic-content adder and apply for a 10% low-income adder during an open window for that process (under the established tribal category).
- **Pursue innovative policies and programs that are replicable and can be “scaled up” across multiple jurisdictions.** Given that most of our fellow 12 federally recognized tribes in Michigan have available trust lands appropriate for solar installations and significant power needs that they want to meet/offset with clean energy—and that all qualify for direct-pay ITCs—BMIC believes that our proposed project will turn heads in Michigan’s inter-tribal community and create a model that others will want to duplicate. Additionally, there are 35 federally recognized tribes in EPA’s Region 5 who regularly meet through various meetings, conferences and councils. As detailed below, we will work through our networks and partner with the Inter-Tribal Council of Michigan (ITCMI) to share our experience and quantify the project’s direct and indirect benefits to our members. We hope to inspire our peers in other tribes across Michigan, throughout the Great Lakes region, and beyond.

1.a.vi. Assumptions and potential risks. Many of the potential risks that could threaten the effective and financially sound installation of a utility-scale solar farm do not apply to this project, including the following:

- **Land control and access.** As mentioned above, the 40 acres of land identified and positively evaluated for the project are part of BMIC’s trust lands. The property is immediately adjacent to Cloverland Electric Cooperative’s headquarters, across a major interstate from their substation connection to regional transmission. As such, this project will not require the purchase or lease of land from a third party or any complex site access negotiations that sometimes challenge utility-scale solar projects.
- **Permitting.** While the proposed solar farm would not be difficult to permit under state and federal programs on this straightforward site, those permits will not be necessary because the site is held in trust for BMIC and our sovereignty rights ensure that permitting will be local to the tribal government. Of course, given BMIC’s values and strong environmental ethic, we will take all steps necessary to protect natural resources and nonhuman beings in implementing the project. Cloverland and BMIC anticipate that State of Michigan permits will be required for right-of-way usage and extending the electric distribution system. However, based on its decades of experience, the utility anticipates no difficulties or delays in securing those permissions. Given that Governor Gretchen Whitmer’s administration has taken steps through executive directives and other actions to streamline permitting for infrastructure projects—and has put Michigan in

the top tier of states in its commitments to rapid economy-wide decarbonization—our project team expects the state to be highly motivated to expedite the process as much as possible while complying with applicable state and federal laws.

- **Public input and engagement.** Particularly in rural communities like the UP, public opposition to the siting of utility-scale solar projects has emerged as an obstacle to renewable energy deployment (thus, the State’s emphasis on renewable siting in Measure #1 of its PCAP). In the case of this project, the lines of political accountability run through our 2,300 tribal members to the BMIC tribal government. As mentioned throughout this application (including in Sections 3 and 4 below), BMIC has engaged our members and built their support for solar energy development; approval for moving forward with this project has been secured through our tribal government decision-making processes (please see Resolution_Bay Mills Indian Community in Other Attachments); and our sovereignty rights give us the authority to proceed. Additionally, we plan to partner with Cloverland to build broader public support for the project in the EUP. Given the benefits to the community that will come from adding a clean, home-grown, price-stable resource to the local utility’s portfolio, we believe we can inspire enthusiastic support for the project in the EUP.
- **Supply chains, contractors, workforce, and pricing.** This application assumes that the solar panels, racking, inverters, electrical components, and other materials required to install our proposed solar farm and battery storage project will be available when we are ready to break ground and that the cost of those materials and supplies will not dramatically change from the estimates that our consultants (Baker Tilly) used to price our proposed project. It also assumes that there will be healthy competition among prospective solar contractors during the bidding process, and that a sufficient workforce will be available to the winning bidder so that the project can be completed according to schedule. While implementing the project with deliberate haste—thus reducing the time between when our cost estimates were developed and when construction begins—will help mitigate the risk of significant supply chain disruptions and pricing changes, we are relying on the expertise of our consultants and other experts in our networks to assess this vulnerability. While emphasizing the possibility that unanticipated circumstances can always develop and the ability to predict market dynamics has its limits, those experts have not raised significant concerns related to supply chains and component pricing. On the contractor and workforce front, our project team has relationships with multiple high-quality solar contractors with proven track records on utility-scale solar who will be very anxious to bid on this project. Additionally, as described above in our summary of project measures, BMIC intends to mitigate the risk of a possible labor shortage by running a solar installation workforce development program for tribal members at our in-house Bay Mills Community College. We will collaborate with our selected contractor to employ workers from our community.
- **Financing.** Our proposed CPRG grant will virtually eliminate any risk that this project will be held up for delays in securing financing. The installation of solar generating assets owned by a tribal government unambiguously qualifies for the federal elective-pay investment tax credits (ITCs) that are factored in our proposed budget. We have conservatively estimated those ITCs at 40% of total eligible project costs (again, if we confirm that we will qualify for a higher percentage of ITCs, we will seek the opportunity to amend our grant agreement accordingly). Once the project is operating and the ITCs are secured, our CPRG grant and the credits will combine to cover the full amount of direct project costs. While we will need a financial “bridge” for the period between the completion of the project (and final payment to our contractor) and our

subsequent receipt of the ITCs, BMIC is highly credit worthy and has significant experience with such transactions. Additionally, there are many effective options in Michigan for bridge financing, and we may be able to access assistance (if needed) from the \$350 million Competitiveness Fund that the State of Michigan has established to help projects effectively secure and deploy federal infrastructure funding.

- **Partner agreement.** Some projects like we propose could falter on disagreements between the owner of the solar installation and the prospective purchasers of the electricity generated. However, we have analyzed the feasibility of this project with advance knowledge that Cloverland Electric Cooperative cannot purchase the electricity until 2029. Without the execution of a PPA between BMIC and Cloverland Electric Cooperative—with BMIC selling the energy and capacity directly to the market—this project still makes strong financial sense. While we expect to formally partner with Cloverland starting in 2029, our decision to move forward is not contingent on that relationship.

That said, a prospective PPA has been discussed and vetted by the parties. And, as discussed in more detail elsewhere in this Workplan, BMIC and Cloverland both have strong economic and other incentives to see the solar farm and battery storage project successfully completed and the PPA agreement executed and effectively implemented for decades to come. In addition to creating jobs and serving our environmental sustainability and climate goals, the installation is projected to generate \$636,488 in average annual revenue for BMIC. For Cloverland, the project will make a major contribution to meeting the aggressive renewable and clean energy standards—including benchmarks that must be met by 2030 and 2035—that were established in energy policy reforms that the State of Michigan adopted in 2023 (please see Section 3.c.i. Authorities). With two motivated parties, there is little risk that our prospective PPA will not transpire. Cloverland’s attached letter of support for this application reinforces that assumption.

b. Demonstration of Funding Need. BMIC is highly focused and active in pursuing government grants and other funding opportunities for our climate and sustainability initiatives. We have succeeded in funding and implementing smaller projects in our overall climate plan, such as the installation of rooftop solar on some of our government buildings and initial charging infrastructure at our casino. We were also recently awarded a \$970,000 EPA Solid Waste Infrastructure for Recycling (SWIFR) grant to implement elements of our comprehensive solid waste management plan. (Other recent federal grants are listed below in Section 6).

Reflecting our sustained engagement in fundraising, we have identified potential opportunities to fund the other priority measures in our PCAP (beyond the solar farm/battery storage project proposed here). For example, we plan to lead an application to the EPA Community Change grant program to deploy clean energy and climate resilience strategies at key tribal healthcare, childcare, and food security facilities, and add a modern waste transfer station and related programming to the measures we will adopt with our SWIFR grant. In addition, we will join a Community Change application that ITCMI is developing to weatherize, electrify, and decarbonize tribal residential buildings (another measure in our Tribal PCAP). However, despite applying to other large grant opportunities, we have not succeeded in matching our solar farm project with an appropriate funding source. For example, we applied but were not awarded funding to both of the opportunities, for which we are eligible, that the State of Michigan mentioned as prospects for its “electricity generation” PCAP measures:

- The Grid Resilience and Innovations Partnership (GRIP) grant program,
- The Powering Affordable Clean Energy (PACE) program.

Additionally, BMIC plans to participate in the State of Michigan’s prospective Solar for All program, but as we understand its likely design, that opportunity will be better tailored for an investment in residential or community solar arrays that will directly serve low- and moderate-income tribal members. A utility-scale solar farm, which intends to sell power to the market (and later to a utility via a PPA), is unlikely to qualify for that funding. For all of the above reasons—and because of its sizable grant amounts and straightforward emphasis on GHG reductions which our project will deliver—we consider CPRG the ideal program for our proposed project.

1.c. Transformative Impact. Among others, there are three primary ways in which BMIC’s proposed solar farm and battery storage project has the “potential to create transformative opportunities or impacts that can lead to significant additional GHG emission reductions.”

- **Mitigating resistance to utility-scale solar siting in rural communities.** Particularly in cold-weather climates, where people discount the power of the sun, public opposition to the siting of major renewable energy projects, including solar, has bubbled up in rural communities like the EUP (generally following today’s persistent political dividing lines).

Against this backdrop, however, Michigan’s UP is somewhat unique. Nearly one third of all UP census tracts are above the 90th percentile nationally for “energy burden” (the percentage of disposable income spent on energy), according to the Climate and Economic Justice Screening Tool (CEJST). In addition to that high energy burden, UP residents are highly dependent on delivered fossil fuels to heat their homes. For example, Michigan consumes the most propane for residential uses in the nation, and the UP plays a big role in earning that distinction with nearly 19% of the peninsula’s households using delivered propane for heat, compared to about 8% statewide and 5% nationally. Given its heavy reliance on propane and the fact that most of that fuel delivered to the UP travels through a single pipeline—the controversial Line 5 running along the bottomlands of the Mackinac Straits—the UP is highly vulnerable to price shocks when supplies are disrupted or demand spikes during the region’s long, frigid winters. Those dynamics caused harrowing challenges during the severe polar vortex of 2019, which, in part, spurred Governor Gretchen Whitmer to form the UP Energy Task Force to “assess the UP’s overall energy needs” and “formulate alternative solutions...with a focus on security, reliability, affordability, and environmental soundness.”

Additionally, as mentioned above, the EUP’s primary electricity provider—Cloverland Electric Cooperative—is limited in its ability to purchase power and find the best price for its customers by a lingering contractual agreement with an out-of-state utility. For all these reasons and others, our proposed project sets up well to be characterized for our EUP neighbors as an exciting opportunity for the region to gain energy independence, address energy burden challenges, and reduce the vulnerability associated with its reliance on propane and other delivered fuels (especially as state and regional leaders increasingly work to “fuel switch” or “electrify” homes, which is another priority measure in Michigan’s PCAP).

By building and demonstrating strong community backing, our project has the potential to become a standard-bearer in recasting large-scale solar deployment as an opportunity for rural communities to enjoy home-grown, community-owned, price-stable and affordable power. BMIC will work with partners locally and statewide to promote that message.

- **Inspiring other federally recognized Tribes to consider major renewable energy projects.** The most straightforward and direct way this project will spur adoption of additional GHG reduction initiatives is by creating a playbook for other Tribes to follow. As mentioned above, many Tribes

in our state and region have the same combination as BMIC of a deep environmental ethic, financial and energy need, land assets, and tax-exempt status. In implementing this project, we hope to create a set of wise strategies and best practices, as well as hard-learned lessons, that will help our fellow Tribes successfully develop major solar projects on their reservations. Our team looks forward to telling the successful story of our project through our inter-tribal networks and at the variety of state, regional, and national gatherings that we attend.

- **Demonstrating the power of utility collaborations.** Finally, BMIC and Cloverland consider our planned partnership in developing and deploying an 11 MW solar farm as a model for others to replicate—a utility and one of its significant customers joining forces to create a project that benefits both partners and the community. In our view, this project represents the kind of problem-solving, creativity, and collaboration that we will need to adopt GHG emissions reduction strategies at the scale necessary to avoid the worst consequences of climate change.

2. IMPACT OF GHG REDUCTION MEASURES. The figures provided in this section for estimated GHG reductions—and those in Sections 3 and 4 for estimated environmental, health, economic, and other benefits/outcomes from the project—are based on the modeling detailed in our enclosed Technical Appendix. Key modeling assumptions and methods included the following:

- We used the NREL SAM PV Watts tool to generate one year of hourly energy production based on data provided by Cloverland Electric Cooperative, and the global warming potentials in the IPCC’s Fifth Assessment Report to calculate projected GHG emissions reductions.
- While the application guidelines suggest estimating reductions for seven different GHGs, the three on which we report—CO₂, N₂O, and CH₄—are the only GHGs that our proposed measures will reduce in significant amounts. They are also the gasses for which the tools described throughout the Technical Appendix provide reduction estimates (for this type of project).
- The figures presented in this section represent **62.9%** of our project’s total estimated GHG emissions reductions to reflect the share of the total project cost that will be provided by our proposed CPRG grant. BMIC intends to cover the remainder of the total project costs with ITCs.
- Non-GHG emissions were computed using emissions factors from EPA’s AP-42 database by fuel type and source, and health impacts were computed using COBRA economic impact factors for the significant Non-GHG pollutants.
- The modeling of the project’s financial benefits is conservative in several respects. For example, BMIC and Cloverland intend to enter into a PPA in 2029, but there is not sufficient detail/certainly yet to add that likely more lucrative option into the model five years into the project. The prices that Cloverland included in the data it provided for energy sales/RECs reflect are conservative. And we used Cloverland’s battery deployment algorithm to compute hourly charge and discharge of energy, which assumes the BESS will operate on a fixed daily schedule. By using a sophisticated software package to optimize charge/discharge cycles based on market conditions at shorter intervals, the BESS will yield more favorable financial impacts.

With these assumptions in mind, the following table below provides our projections of GHG emissions reductions in metric tons for both required periods: 2025-2030 and 2025-2050. It also provides an absolute annual GHG reduction figure per the Technical Appendix guidelines from the first year of the project’s production, and the required cost-effectiveness calculation described below in Section 2c.

GHG Emissions Reductions - For share of total project cost to be funded by CPRG grant (62.9% of total project)	CUMULATIVE 2025-2030	CUMULATIVE 2025-2050	ABSOLUTE ANNUAL (Production/Year 1)
Change in CO2 Emissions (metric tons)	16,692.57	36,537.62	5,001.30
Change in CH4 Emissions (metric tons)	1.20	1.95	0.38
Change in N2O Emissions (metric tons)	0.17	0.26	0.05
Change in CO2e Emissions (metric tons)	16,770.42	36,661.78	5,025.85
Cost Effectiveness (CPRG grant dollars/mt)	\$ 1,032.56	\$ 472.33	

2.a. Magnitude of GHG Reductions from 2025 through 2030. Per the Technical Appendix, BMIC’s solar farm and storage project is estimated to cumulatively reduce GHGs from 2025 through 2030 as follows.

- **16,770.42 mt of CO2e.**
- 16,692.57 mt of CO2.
- 1.20 mt of CH4.
- 0.17 mt of N2O

In the project’s first year of production (2027), it is expected to reduce emissions by 5,025.85 mtCO2e. To benchmark our modeling, which again uses a geographic-specific grid factor and other nuances, the equivalent figure from the EPA Greenhouse Gas Equivalencies Calculator is 6,802.24 mtCO2e.

As mentioned earlier, respected Michigan solar contractors have estimated that it will take 24 months to complete the project installation. Given the NOFO’s “estimated project start date” of October 1, 2024, we are conservatively projecting that the facility will start production on January 1, 2027. As such, the emissions estimates summarized above are based on four years of projected production (2027, 2028, 2029, and 2030). If the 2025 through 2030 reductions are averaged across all six years, the project is estimated to reduce 2,795.07 mtCO2e per year. The average for the period from 2027 through 2030—the project’s first four years of actual production—is 4,192.60 mtCO2e.

In terms of the durability and/or permanence of these reductions, the performance of a ground-mounted solar array and BESS like BMIC proposes is highly reliable and its projected generation is based on well-vetted data rooted in many years of actual performance data and other established factors. So, there is a strong likelihood that the system will perform as projected during this period. In fact, given the conservation assumptions baked into the modeling (as described above and in the Technical Appendix), it is highly likely that the system will outperform projections.

Additionally, our work plan, budget, and modeling assume that ongoing maintenance will be provided by the turnkey solar developer and that equipment, such as inverters, will be replaced on schedule. While the expected lifespans of these systems continue to grow, a conservative estimate of the functional life of a solar installation—prior to the need for more significant replacements of panels and other parts—is 25 years. As such, there is every reason to believe that the GHG emissions projected in this application will endure through mid-Century (plans for beyond that point are described in the next section).

2.b. Magnitude of GHG Reductions from 2025 through 2050. Implementation of BMIC’s proposed solar farm and storage project is estimated to cumulatively reduce GHGs from 2025 through 2050 as follows.

- **36,661.78 mt of CO₂e.**
- 36,537.62 mt of CO₂.
- 1.95 mt of CH₄.
- 0.26 mt of N₂O

In considering these figures, it is important to note, as described in our Technical Appendix, that the grid optimization model used to profile the generating source of the energy that the project will displace factors in Michigan’s new aggressive renewable and clean energy standards, which require rapidly accelerated deployment of clean generating resources through 2040. As the grid gets cleaner, the GHG emissions associated with the grid energy that the BMIC project will displace also drop, despite producing roughly the same amount of energy throughout the analysis period.

The comments on durability and permanence provided in Section 2a. apply to this time period as well. The panels and other key components of the system will approach the end of their generally expected lifespan in 2050. However, as described in Section 4.a and elsewhere, the project will generate estimated average annual revenues for BMIC of \$636,488, thus serving as a powerful financial asset for our Tribe and giving us powerful incentive to carefully maintain the system and replace its components as they age to keep it operating as effectively as possible for as long as possible. The revenue that the project is expected to generate will provide us adequate resources to do just that.

2.c. Cost Effectiveness of GHG Reductions. Given BMIC’s requested grant of \$17,316,468, the above figures translate to the following cost-effectiveness results for the project over the 2025-30 period.

- **\$17,316,468 CPRG grant dollars / 16,770.42 mt of CO₂e = \$1,033 CPRG grant dollars/mtCO₂e**
- \$17,316,468 CPRG grant dollars / 16,692.57 mt of CO₂ = \$1,037 CPRG grant dollars/mtCO₂
- \$17,316,468 CPRG grant dollars / 1.20 mt of CH₄ = \$14,473,382 CPRG grant dollars/mtCH₄
- \$17,316,468 CPRG grant dollars / 0.17 mt of N₂O = \$103,473,482 CPRG grant dollars/mtCH₄

2.d. Documentation of GHG Reduction Assumptions. Our Technical Appendix has been uploaded along with this Workplan. It summarizes the assumptions made and methods employed to develop the GHG reduction projections described above. The Technical Appendix also includes an explanation and the results of the modeling and analysis we did of estimating the societal and community co-benefits that our project will deliver, including tribal revenue generation, air pollution reductions, public health benefits, avoided energy and capacity costs, jobs and economic opportunity created, and more.

3. ENVIRONMENTAL RESULTS.

3.a. Expected Outputs and Outcomes. Our proposed project will support three goals in the EPA 2022-2026 Strategic Plan: Tackle the Climate Crisis (#1), Take Decisive Action to Advance Environmental Justice and Civil Rights (#2), and Ensure Clean and Healthy Air for All Communities (Goal #4). In the following table, we summarize the outputs and outcomes that will contribute to those goals. Please see our accompanying Technical Appendix which describes these outcomes and how they were estimated in much greater detail.

Measure	Outputs	Outcomes
Installation of	● 11 MW ground-mounted	● GHG emissions reductions. Average annual

solar energy and battery storage system on Bay Mills Indian Community (BMIC) trust lands in the Eastern Upper Peninsula of Michigan.	<p>solar energy system constructed on 40 acres of BMIC trust land.</p> <ul style="list-style-type: none"> ● 5 MWh battery energy storage system (BESS) installed in tandem with the solar energy system. ● Deployment of industry-leading software package to optimize BESS charge/discharge cycles in response to actual hourly locational marginal pricing (LMPs). ● Implementation of solar installation workforce development program through partnership with Bay Mills Community College. 	<p>social financial benefit of reduction through 2050 valued at \$282,799 (see Technical Appendix).</p> <ul style="list-style-type: none"> ● Outdoor air quality and associated public-health benefits through reduced PM2.5, SO2, NOX, NH3, and VOCs emissions; average annual social benefit of reduction through 2050 projected via EPA's COBRA at \$195,426. ● Sustained revenue generation for BMIC that can be reinvested in its vital community services and further GHG emission reductions measures; average annual benefit projected at \$636,488 through 2050. ● Approximately 185 net jobs created and \$10,089,491 net income generated during the two-year construction period in an EJ community (see Section 4). ● Enhanced integration of renewable energy into the electric grid and support for improved grid performance (supports EPA Goal #1). ● Improved energy resilience and independence for BMIC and broader EUP region (Cloverland Electric Cooperative service territory).
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3.bi. Performance Measures and Plan. In addition to monitoring and discussing progress in the bi-weekly project meetings described in Section 3.b.ii., our performance in delivering the outputs and outcomes listed in the above table—and achieving the milestones described below—will be assessed by the BMIC leadership team described in Section 6 as we develop each of our semi-annual (and final) reports to EPA. Much of our performance measurement will involve a straightforward nominal analysis, asking questions such as: Is installation of the 11 MW solar installation and 5 MWh BESS proceeding according to schedule? (And, later: Was the project completed on schedule and budget?). Others will involve relatively simple quantitative measures, such as: Did 70 tribal members and other EUP residents participate in our workforce development program and did 70 actually secure employment on our project installation? Each of our reports will provide a straightforward assessment (and corresponding explanations for deviations from projected timelines) for each milestone listed below.

Perhaps, more importantly or impactfully, our team looks forward to carefully tracking and transparently sharing the energy generation and co-benefits delivered by our solar farm in practice. As the foundation of that performance measure, we will develop and maintain a dashboard on a webpage dedicated to the project on the BMIC site. Deploying online tracking systems and tools installed with the solar array and BESS, the dashboard will provide real-time data on the clean energy that the system is generating at the moment and the cumulative clean energy it has generated over time. Using the modeling methods described in our Technical Appendix—updated to reflect improvements and innovations in the field—we will translate for our members and the public the air quality, climate, public health, job creation, and other social benefits associated with that cumulative clean energy generation, as well as the income that the project has provided our community. In terms of the latter, we will benchmark or convert the energy revenue created to BMIC community service equivalents. For

example, we may express that revenue in terms of the number of free monthly daycare scholarships it would cover.

In summary, through holding regular project team meetings and following the EPA's semi-annual reporting cadence, BMIC will carefully and continuously track our achievement of the milestones listed in the next section relative to the corresponding timeline. While extremely important, that ongoing performance measurement should prove relatively straightforward, because our project is not particularly complex or multi-faceted from an implementation and project management perspective. With that rigorous and routine assessment of our own performance in implementing our project plan serving as the foundation, we will also place a heavy emphasis on how the solar and battery technologies are performing relative to our expectations. In both cases, our continuous performance monitoring will allow us to identify any concerns and promptly seek and deploy corresponding solutions.

3.c. Authorities, Implementation Timeline, and Milestones.

3.c.i. Authorities. The responsible parties for implementing these GHG reduction measures are BMIC, our eventual turnkey solar contractor, technical assistance consultants we add to the project management team, and Cloverland Electric Cooperative through our planned PPA. Particularly given BMIC's sovereignty rights, the fact that the project will be implemented on tribal lands, and Cloverland Electric Cooperative's legal authority/obligation to purchase electric power and provide service to its customers, there are no legal barriers that would prevent either party involved in the implementation of this grant-funded project from taking the actions proposed in this application.

In fact, State of Michigan law provides strong incentives for Cloverland to partner with BMIC in this project's success. Per amendments adopted in 2023 to the State's "Clean and Renewable Energy and Energy Waste Reduction Act," Michigan utilities, including cooperatives, are required to comply with the State's renewable energy standard of 50% by 2030 and 60% by 2035, as well as a clean energy standard of 80% by 2035 and 100% by 2040 (unlike the renewable energy standard, nuclear power and natural gas generation combined with carbon capture can be counted toward the clean energy standard). Building from its hydroelectric plant in Sault Ste. Marie, MI (not far from BMIC), which is capable in ideal conditions of producing 36 MW, our proposed 11 MW solar farm will make a major contribution to achieving those targets, while also contributing to local economic development in its home community/region (as opposed to purchasing that clean energy from an external generating resource).

As mentioned previously, the permitting for this project is local to BMIC as a sovereign entity, except for permits related to the siting/right-of-way of project infrastructure that will be installed off trust lands.

3.c.ii. Timeline and Milestones. The following summarizes the key milestones and timelines for the project tasks described in Section 1.

Grant administration.

Grant Year 1 (2025)

- Complete intake of CPRG award/contract into BMIC grant accounting, tracking, compliance, and reporting systems.
- Include CPRG award in all internal grant oversight meetings and reporting to BMIC leadership.
- Fulfill all semi-annual and final EPA reporting requirements prior to deadlines.

Grant Years 2-5 (2026-2029)

- Continue grant accounting, tracking, compliance, and reporting systems.
- Continue to include CPRG award in all internal grant oversight meetings and reporting to BMIC leadership.
- Continue to fulfill all semi-annual and final EPA reporting requirements prior to deadlines.

Solar farm and BESS installation

Grant Year 1 (2025)

- Form and launch internal project management team of relevant BMIC department leaders and staff (Deadline: October 30, 2024).
- Assess, identify and fill subcontractor project management and technical assistance needs (Deadline: December 31, 2024).
- Develop and widely distribute RFP for turnkey solar contractor to install solar energy system and BESS (Deadline: February 1, 2025).
- Complete turnkey solar contractor selection and sign contract (Deadline: March 15, 2025).
- Begin semi-monthly project meetings with solar contractor, internal BMIC project management team members, and technical assistance consultants (Starting: April 1, 2025).
- Complete BMIC internal environmental permitting and secure necessary governmental authorizations for siting infrastructure off trust lands (Deadline: August 31, 2025).
- Complete pre-permit site work (April 1 through August 31, 2025).
- Commence solar array construction and distribution system work (Starting: September 1, 2025).
- Begin ongoing work with Cloverland Electric Cooperative and technical assistance consultants to plan and implement processes and procedures for BMIC's sale of energy, capacity, and RECs to relevant markets (Starting: December 1, 2025).

Grant Year 2 (2026)

- Continue bi-weekly project meetings with solar contractor, internal BMIC project management team members, and technical assistance consultants.
- Complete solar array and BESS installation; connect to the electric grid (Deadline: December 31, 2026).
- Train BMIC facilities leaders in best practices for monitoring system and conducting regular site visits to identify any challenges that need to be addressed (Deadline: December 31, 2026).

Grant Years 3-5 (2027-2029)

- Trigger and implement O/M provisions in contract with turnkey solar contractor (Deadline: January 31, 2027).
- Establish and implement new cadence for meetings between solar contractor operations-and-maintenance (O/M) staff and BMIC facilities leads (Deadline: January 31, 2027).
- Carefully monitor system performance, identify and make needed adjustments/repairs (ongoing).
- Convene semi-annual meetings of contractor, consultant, BMIC leader project management team to review system performance and discuss/make adjustments (June 2027, December 2027, June 2028, December 2028, June 2029, December 2029).
- Resume discussions for reaching a PPA for the project between BMIC and Cloverland Electric Cooperative (Starting: June 2027).
- Execute and implement PPA between BMIC and Cloverland (Deadline: December 31, 2029).

Workforce development program

Grant Year 1 (2025)

- Design, launch, and implement WFD program planning process with leaders of Bay Mills Community College (BMCC) and solar contractor (Starting: May 1, 2025).

Grant Year 2 (2026)

- Complete implementation of two-semester solar installation WFD program at BMCC (Deadline: December 31, 2026).
- Graduate 25 BMIC members and other EUP residents from initial program and provide them job placement assistance focus on installation of proposed project (Deadline: December 31, 2026).
- Design solar system “maintenance” curriculum to add to the program in 2027.

Grant Year 3-5 (2027-2029)

- Continue program delivery, including both installation and maintenance curricula (ongoing).
- Graduate 15 BMIC members and other EUP residents each year from installation and maintenance programs and provide them job placement assistance (ongoing).

Community engagement and communications (Please see Section 4. for more detail on strategies).

Grant Years 1-2 (2025-2026)

- Build and launch project page on BMIC website.
- Coordinate public/media CPRG award announcement with EPA and State of Michigan partners.
- Publish an article announcing the project in *The Bay Mills News* with amplification on BMIC Facebook page.
- Give presentation with Q&A session on the project plan at a semi-annual General Tribal Council.
- Host a Lunch & Learn Series session for BMIC employees and members on the project plan.

Grant Years 3 (2027)

- Coordinate ribbon cutting and public announcement event with EPA and State partners.
- Publish an article announcing that the project is now generating power in *The Bay Mills News* with amplification on BMIC Facebook page.
- Give a presentation with Q&A session on the project’s operations at a General Tribal Council meeting.
- Host a Lunch & Learn Series session on the project’s operation.
- Begin offering tours of the facility to tribal members and the public.
- Develop a presentation on the project to share the project’s story at inter-tribal and other gatherings that BMIC leaders attend.
- Produce an annual impact report on the project for BMIC leaders and members.

Grant Years 4-5 (2028-2029)

- Continue to give internal and external presentations, produce and distribute project impact reports, maintain project website, and give site tours.

Measurement and evaluation (EPA reporting covered under Grant Administration/Project Leadership)

Grant Year 1 (2025)

- Carefully track and assess timely and effective achievement of the milestones listed here and report on progress, successes, and challenges in semi-annual EPA reports.

Grant Years 2-5 (2026-2029)

- Continue tracking and reporting to EPA on achievement of the milestones listed here in semi-annual (and final) EPA reports.

- Once the system is selling power to the grid, continually track its renewable energy production and revenue generation; model the GHG emissions, air quality, economic, and other co-benefits; and produce/promote annual project impact reports.

4. LOW-INCOME AND DISADVANTAGED COMMUNITIES. As mentioned in Section 1, the CPRG program “considers that federally recognized tribes meet the definition of disadvantaged communities for the purposes of this grant program.” Our community also “meets that definition” by almost any other measure. BMIC is an economically underserved Native American reservation with a history of high unemployment and low per-capita income compared to state and national rates. According to the latest Bureau of Labor Statistics and American Community Survey data, BMIC has an unemployment rate of 7.8%. That is twice the national average of 3.9% and significantly higher than Michigan’s statewide rate of 4.6%. The median household income in BMIC is \$55,568, slightly lower than our Chippewa County neighbors as a whole (\$58,408) and 18.9% lower than Michigan’s statewide average (\$68,505). Reflecting those figures, more than 55% of BMIC households earn less than the Michigan and U.S. Median Household Incomes. Additionally, 19.2% of our community’s families live under the poverty level, compared to 13.4% statewide and 12.6% nationally.

Chippewa County, again where BMIC is located and where our members have lower-than-average incomes, has a **Social Vulnerability Index (SVI) of .9756** out of a possible 1.000 according to the Centers for Disease Control/Agency for Toxic Substance and Disease Registry (CDC/ATSDR). The Index “uses 16 U.S. census variables to help local officials identify communities that may need support before, during, or after disasters” due to their social determinants of health like “socioeconomic status, household characteristics, racial and ethnic minority status, or housing type and transportation.” To put that .9756 SVI into perspective, only Wayne County, home to Detroit and rural Clare County has higher SVI scores than our county. Mackinac County, our EUP neighbor, is the other county in the UP with an SVI that CDC/ATSDR considers “high.”

Of course, tools like the CDC/ATSDR SVI cannot capture cultural or way-of-life factors unique to specific communities and are challenging to quantify and measure at a national scale. For example, with our greater dependence upon the natural environment for physical, mental, emotional, and spiritual health and well-being, tribal populations like the BMIC community are more susceptible to certain diseases than the general population. Because we are deeply connected to a particular place and its resources, Tribes are also particularly vulnerable to the climate crisis. Warmer average annual air and surface water temperatures, more volatile weather characterized by extreme precipitation events decreases in duration and extremity of winter temperatures, and increases in summer temperatures—all these changes are already impacting culturally and socio-economically important fish, wildlife, plant species, and other natural features; undermining our cultural activities and infrastructure/community development resources; and causing human health risks. These changes in climate and weather patterns are accelerating, with an expected increase in mean annual temperature of 5.5 to 6 degrees Fahrenheit by the mid-century (2041-2070; GLISA 2016). The urgency with which BMIC is responding to the climate crisis reflects the immediate and long-term risks it poses to our community’s survival and way of life.

Our attached list of U.S. Census Tracts that our proposed project will impact covers the Cloverland Electric Cooperative service territory because, as described below, all of that utility’s customers will benefit from our project. Zooming in closer to BMIC from a census tract perspective, our tribal lands are located in Climate and Economic Justice Screening Tool (CEJST) tract numbers 26033970600 and 26033970100, both identified as disadvantaged. All census tracts adjacent to BMIC are also identified as

disadvantaged, including in the nearby city of Sault Ste. Marie, because of the following factors which combine to make us a highly vulnerable EJ community:

- Legacy pollution and low income (CEJST tract number 26033970500);
- High rates of asthma, leaking underground storage tanks, low life expectancy, high unemployment, and low income (CEJST tract number 26033970200); and
- High energy cost, low income, and health impacts (CEJST tract number 26033970700).

Additionally, the lands of Sault Ste. Marie Tribe of Chippewa Indians are located nearby (CEJST tract numbers 26033971000 and 26033970800).

4.a. Community Benefits. Beyond the significant reductions in GHG emissions reductions forecasted in Section 2, our project will deliver the following benefits to our Tribe, the EUP, and society as a whole. Most of these benefits are described in greater detail in our Technical Appendix.

- **BMIC carbon neutrality.** Per the feasibility and design studies conducted for this project by Baker Tilly, the renewable energy generated by our proposed 11 MW solar farm will offset 100% of the GHG emissions associated with BMIC’s tribal government and business enterprise operations. Complementing the climate and sustainability initiatives we have already implemented and the other immediate priorities in our Tribal PCAP (see Section 1), our proposed project is the “big statement” of BMIC’s intent to demonstrate that bold and decisive action to “tackle the climate crisis” is entirely possible—for our fellow tribes and the rest of the world.
- **Revenue to reinvest in tribal services.** According to our modeling of data provided by Baker Tilly and Cloverland, BMIC’s sale of the electricity, capacity, and RECs generated by the proposed project will generate average annual revenues of \$636,488 for a total of \$15,275,713 between now and 2050. We will reinvest those resources in vital community services that benefit our members and address their socio-economic and health vulnerabilities described above. For example, BMIC provides cash assistance and self-sufficiency support to the unemployed, utility assistance to members struggling to pay utility bills, an emergency food pantry, and a parenting coaching program for families. We also will expand these services to changing needs, including providing childcare and transportation support for individuals with barriers to employment and complement our workforce development programs. This new revenue stream will also support implementation of other measures in our PCAP and broader sustainability plans that will yield “spin-off” GHG reductions from the initial CPRG investment.
- **Jobs and economic opportunity.** The modeling of this project indicates that it will add 185 net jobs (direct and indirect) to the economy during our project construction period and generate \$10,089,491 net income as a result (much of which will benefit our local EJ community as described above). As discussed further in Section 5, BMIC will take a variety of steps in the competitive bidding process for our turnkey solar contractor to ensure that “high-quality, family-sustaining jobs” are created through this transformative CPRG investment. That will start with the workforce development program that the Tribe will implement at Bay Mills Community College to leverage our investment to open high-quality career paths for our members and other EUP residents in the clean energy sector—a sector which will continue to grow rapidly as society ramps up efforts to decarbonize our economy.
- **Reduced energy vulnerability and greater independence.** While others among the UP’s 19 electricity service providers have higher residential rates than Cloverland (significantly so, in some cases), our local utility is currently bound by contract to purchase power from an out-of-

state company. And as mentioned above, our communities heavily depend on delivered fuels—including having among the nation’s highest reliance on propane—that are subject to price shocks, especially in frigid winters when we need those resources the most. Our proposed solar farm and BESS is a major response to that vulnerability and dependence, providing our region with a home-grown, locally-owned, price-stable source of electricity for years to come. With Cloverland’s relatively reasonable electricity rates—contrasted to the high costs of delivered fuels—our community is also an ideal place from an end-user, cost-effectiveness perspective to significantly ramp up building fuel-switching and electrification through the adoption of efficient air source heat pumps, heat pump water heaters, and related technologies (State of Michigan PCAP, Measure #4). By producing clean, renewable energy to power that transition, our project will anchor and support that vital decarbonization measure in our area.

- **Air quality and public health improvements.** As described in our attached Technical Appendix and outlined in Section 3, our modeling indicates that implementation of our proposed GHG reductions measures will generate a social benefit of \$4,690,229—or \$195,426 annually—between now and 2050 in the form of reduced health costs. That social benefit will accompany our project’s displacement of fossil-fuel generating resources on the grid and the corresponding decreases in emissions of harmful air co-pollutants. The above figures were calculated using EPA’s CO–Benefits Risk Assessment (COBRA) screening model for emissions of major co-pollutants: particulate matter (PM2.5), sulfur dioxide (SO2), nitrogen oxides (NOX), ammonia (NH3), and volatile organic compounds (VOCs). Using established factors that assign a dollar value to a variety of health impacts—from avoided deaths to reduced incidence of heart attacks and other ailments—COBRA estimates the benefit to society of reducing those co-pollutant emissions. The GHG emissions reductions that our project is expected to deliver will yield an additional average annual social benefit valued at \$282,7799.

The following table summarizes the projected co-benefits that BMIC’s proposed project will generate. These figures are based on the total BMIC project. In other words, they are not limited to the share of the total project cost provided by BMIC’s proposed CPRG grant. All told, through 2050, the project will deliver a net benefit—total benefits minus total costs—of \$11,805,190 for a cost/benefit ratio of 1.47.

COST/BENEFIT CATEGORIES	TOTAL: 2025 – 2050	ANNUAL AVERAGE: 2025 – 2050
PROJECT INVESTMENT CAPITAL EXPENSES (2% annual inflation)	\$ (25,037,415)	\$ (962,977)
PROJECT OWNER BENEFITS/ENERGY & RECS (2% annual inflation; 4.0% NPV annual discount rate)	\$ 10,368,289	\$ 432,012
PROJECT OWNER BENEFITS/CAPACITY (2% annual inflation; 4.0 % NPV annual discount rate)	\$ 4,907,425	\$ 204,476
SOCIETAL GHG BENEFITS (2% annual inflation; 2.5% NPV annual discount rate)	\$ 6,787,171	\$ 282,799

HEALTH BENEFITS (2% annual inflation; 2.5% NPV annual discount rate)	\$ 4,690,229	\$ 195,426
NET INCOME/ECONOMIC BENEFITS (2% annual inflation; 2.5% NPV annual discount rate)	\$ 10,089,491	\$ 388,057
TOTAL BENEFIT:	\$ 36,842,605	\$ 1,502,770
TOTAL COST:	\$ (25,037,415)	\$ (962,977)
TOTAL NET PRESENT VALUE :	\$ 11,805,190	\$ 539,793
BENEFIT/COST RATIO:	1.47	

b. Community Engagement. Since BMIC formally enacted its constitution in 1936, it has grown to include more than 2,300 enrolled members, more than half of whom are voting members who have reached the age of 18. These voting members are all part of the governance of the Tribe and help to carry out our mission. They select the five members of the BMIC Executive Council who serve two-year terms. The Council meets weekly to discuss tribal matters and provide members a regular forum to speak directly to BMIC leaders and make their voices heard on issues of importance to them. It sets priorities and makes critical decisions for the Tribe. As it relates to the content of this proposal, the Council formally approved the submission of this application (please see Resolution_Bay Mills Indian Community in Other Attachments)--as well as our Tribal PCAP--and authorized the full suite of sustainability and climate resilience efforts that BMIC has implemented in recent years (please see Section 1 for details). In addition, a General Tribal Council, which more than 200 members generally attend, is held twice per year. In addition to providing learning and information-sharing opportunities about tribal matters, these gatherings offer members opportunities to engage in direct democracy, pass resolutions, and take other actions to shape government decisions.

A central part of all tribal programs and initiatives, community engagement played a significant role in the development of our tribal PCAP. Among other strategies, BMIC held a public stakeholder meeting in December 2024 to gather member input and feedback. With support from ITCMI leaders who performed our GHG emissions inventory and did other background data and research work for our PCAP, the BMIC Biological Services team gave a presentation on the CPRG program, the associated priority climate action planning process, and how it would benefit the community. The event also featured opportunities for interactive discussions and registering opinions and priorities. The consensus top priorities expressed in this stakeholder meeting were:

- Updating and improving the performance of tribal homes and facilities to be more energy efficient; and
- Developing alternative sources of energy for the Tribe.

As detailed in Section 1, the BMIC PCAP ultimately included these strongly-backed ideas as two of its four listed priority GHG emission reduction measures. And, of course, this application centers on the latter of the two member priorities as the focus of our CPRG implementation grant request. BMIC conducts a regular census or community survey as another forum through which it takes its members' pulse on critical issues. In the most recent edition, 72.2% of members rated "prioritize sustainable practices, energy, and infrastructure" as either a 5 (43.8%) or 4 (28.4%) on a 1-to-5 scale in which one is

“not important” and five is “very important” (just 1.7% indicated that sustainable practices are “not necessary”). Notably, past feedback from the community has shown a relatively strong preference for solar over wind power because of concerns for the safety of wildlife accompanying the latter. This view has influenced BMIC’s decision to focus more exclusively on solar and our proposed project and combined heat and power (CHP), even though significant development of wind generating resources was included in its Tribal Utility Authority (TUA) feasibility study.

Rooted in this Tribal culture of engagement and inclusion, BMIC will ensure that our members are well-informed about our proposed solar farm and its positive impacts on our community and society. As detailed in Section 1, some of the highlights of that work will include:

- Establishing a project page on the BMIC website that will provide basic background information on the project; updates, photos, and videos documenting the progress of project construction and sharing stories of tribal members who are working on it; and eventually a real-time dashboard with data on the current and historic solar electricity generation and the corresponding environmental, health, and economic co-benefits.
- Giving presentations at the semi-annual General Tribal Council meeting which are generally attended by more than 200 members (likely one presentation laying out the plan for the solar farm/BESS, one reporting back after its completion, and periodic updates at future gatherings).
- Sending updates to the BMIC employee email listserv which reaches 300 individuals, most of whom are tribal members and serve as effective communicators to the rest of the community.
- Organizing a major ribbon-cutting event when the project is ready to connect to the grid, and sending out press releases—and posting on social media—at key junctures in the project (i.e., CPRG grant approval, project groundbreaking, etc.).
- Providing ongoing tours of the site to members of our community and other interested parties who want to visit and learn more about the project.

5. JOB QUALITY. In our own employment practices—and our subcontracting and other business relationships—BMIC strongly shares EPA’s commitment to “high road” labor practices and creating “high-quality, family-sustaining jobs.” For our own team, we offer salaries competitive for the UP’s public-service sector, as well as comprehensive benefits that include paid vacation, medical insurance, and retirement savings programs. We also maintain a strong commitment to behaving as an equal opportunity employer. As our Proposal Budget indicates, BMIC will invest a small percentage of our CPRG grant funds in subcontracts with partners who will provide our team project management support and other technical assistance as needed. In our past experience, the type of businesses, consulting firms, and organizations that we have engaged for that kind of work consistently compensate their employees generously in salaries and benefits and provide positive work environments. As part of the contracting that we will do with that share of our proposed grant, we will require prospective partners to provide us with a statement on their labor practices for review before executing any agreements (even if we have worked with them in the past) including following Davis Bacon Prevailing Wage requirements.

Our biggest opportunity to reflect Good Job Principles in the implementation of our project will lie in our competitive-bid selection process for our turnkey solar contractor. The selected firm will ultimately invest millions of CPRG grant dollars in the workforce required to install our 11 MW solar farm and 5 MWh BESS. According to one highly respected Michigan solar development, the project will require a minimum of 28,000 person-hours of labor to complete. That represents a massive opportunity to provide workers a strong income and career growth opportunities. And, because our project will present

such a large, lucrative business opportunity for developers, BMIC will have a strong hand and leverage in negotiating best practices with our preferred contractor.

To take advantage of this opportunity, BMIC will consult with our attorneys and others with labor law expertise to build Good Job Principles into our Request for Proposal (RFP) for our turnkey solar developer to the greatest extent possible. Our process will require bidders to complete a separate form that will ask them to address specific labor practices and principles, explaining if, how, and why/why not they have adopted them. Our internal BMIC contractor selection process will place great weight on the responses provided on that form. While we will push the boundaries in this regard—to the extent possible without making our project cost-prohibitive—our RFP will set minimum requirements, such as meeting all state and federal labor standards and requirements and paying all project workers the prevailing wage as directed in the Davis Bacon Prevailing Wage requirement. In areas where it is not appropriate or feasible to create a mandatory requirement, we will present our goals as “preferred.” For example, we will lean toward contractors who have participated in State of Michigan clean energy apprenticeship programs.

We will also work to ensure that BMIC members and other local EUP residents have equitable access to the jobs created by this project. As mentioned above, BMIC will invest in and stand up a workforce development (WFD) program through Bay Mills Community College or BMCC (our Tribe’s affiliated institution of higher education). This program will help ensure that tribal members and other local workers are prepared to secure jobs constructing our solar farm, leverage our project as a launching pad to long-term clean energy careers, and position themselves to fully capitalize on the massive expansion of the utility-scale solar sector that is on the immediate horizon. Our RFP and selection process for selecting our turn-key solar installation contractor—and our contract discussion with our preferred firm—will emphasize using our WFD program as a pipeline for meeting the project’s labor needs.

6. PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

6.a. Past Performance. BMIC has been working with grants since the 1970s and has a lengthy history of successfully administering federal awards, principally from the U.S. Departments of the Interior and Health and Human Services, for programs benefiting tribal members and the community. In addition to one-time projects that transpire throughout the year, the experienced staff at BMIC works collaboratively to administer an annual budget of more than \$30 million in grants and contracts that support a broad range of tribal member services and other priorities.

BMIC’s Accounting Department and our Grants and Contracts Department—which employs a Grants Manager, Assistant Grants Manager, two (2) Grants Administrative Specialists, and a Grants Administrative Assistant—collaborate to oversee contracts and compliance, monitor budgets, implement financial controls, and track/fulfill reporting requirements on all the Tribe’s grants, including many significant federal awards. They ensure adherence to the Office of Management and Budget regulatory objectives (i.e., bulletins, circulars) and grant-specific requirements. Along with other relevant skills, certifications, and expertise, that team possesses deep experience in Generally Accepted Accounting Principles. BMIC is independently audited annually and registered in the System for Awards Management (SAM).

The table below lists funded assistance agreements similar in size and scope to our proposed CPRG implementation project, which BMIC performed within the last three (3) years.

Project Title	Assistance Agreement Number	Funding Agency/ Assistance Listing Number	Agreement Description	Organization Contact
EPA PPG- Water Quality & GAP	BG-04E01004	EPA 66.605	Oversee and build capacity for the Tribe's GAP, Water Quality Monitoring Program, and Nonpoint Source Pollution Program	Dan Samardzich
EPA TRP/Brownfields	02-E01833	EPA 66.817	Oversee and build capacity for the Tribe's brownfields Tribal Response Program	Rosita Clarke
EPA Brownfields	00-E03308	EPA 66.817	Perform site specific environmental work and build capacity for the Tribe's brownfields Tribal Response Program	Rosita Clarke
USDH/Urban Development IHBG Program	20ICMI23020	HUD 14.867	Siting, engineering/ design, and construction of 8 new low-income Elder's homes on the Reservation	Josephine Greenfield
ICDBG BGC Building	21GC2623200	HUD 14.862	Siting, engineering/ design, and construction of a new Boys and Girls Club facility to serve youth on the Reservation.	Josephine Greenfield

6.b. Reporting Requirements. In Section 6.a., we summarized our history of meeting the reporting requirements under the five agreements listed there. As noted, in each case, BMIC “submitted acceptable interim and...final reports under those agreements;” and “adequately and timely reported on its progress toward achieving the expected outputs and outcomes under those agreements.”

6.c. Staff Expertise. BMIC staff have the knowledge, expertise, qualifications, and resources to successfully achieve our project's goals and the GHG reduction measures. The Project Manager for the proposed project is Brianna Gunka, the Bay Mills Indian Community Planning Manager. Ms. Gunka has a Bachelor of Arts degree from the University of Wisconsin-Madison, and a Master of Arts in Community Development degree from North Dakota State University. Over the past seven years, Ms. Gunka has served in various roles at BMIC, including: Grants Specialist, Policy Analyst, Land Office Coordinator, and Planning Manager. Brianna has written and co-written over 60 grants and has served as Project Director on over 35 grant projects. Ms. Gunka is heavily involved in tribal planning and development efforts. She is responsible for the development of a Bay Mills Indian Community Comprehensive Plan, is overseeing

the development of several feasibility studies, as well as a business and marketing plan, and recently completed a Green Community Assessment Report with members of the Green Infrastructure Committee.

She consistently works cooperatively with several departments and organizations internal and external to BMIC, including Maintenance, Public Works, Health Center, Grants/Grant Management, Accounting/HR, Commodity Foods, Child Development Center, History/THPO, Biological Services, Conservation, Housing Authority, Enterprise, Business Holdings, Bay Mills Community College, Inter-Tribal Council of Michigan, Indian Health Service, EUP Regional Planning and Development Commission, Superior Watershed Partnership, and many more. In addition, Ms. Gunka has led local community engagement efforts, including conducting a BMIC Census, community surveys, facilitating planning meetings, coordinating community workshops, and more. She also serves on several BMIC committees, including the Green Infrastructure Committee, Solid Waste Committee, Parks and Playgrounds Committee, and the Spirit Stone Trail Committee. These committees oversee a variety of planning and development of projects throughout BMIC.

Ms. Gunka has experience successfully coordinating and completing programs/projects similar to the proposed project and is considered BMIC Administration's point person on projects related to energy efficiency, electrification, and renewable energy systems. She served as a local project coordinator on the Tribal Utility Authority Feasibility Study in 2019 and a local project coordinator on the Combined Heat and Power Feasibility Study in 2022. She also previously provided or is currently providing project oversight for:

- The 2022 solar installation at the Bay Mills Boys and Girls Club,
- The 2023 solar installation at the Bay Mills Justice Center and Elder's Center, and
- The installation of EV chargers at the Bay Mills Resort and Casino.

Ms. Gunka worked hand-in-hand with a consulting firm to pursue grant funding for a Community-Scale Wind Feasibility Study and a Utility Scale Solar Feasibility Study. Should these grants be awarded, she will be a local project coordinator, serving as the BMIC point of contact, collecting and providing data and organizing stakeholder meetings, etc. Ms. Gunka's education and experience will be leveraged for this proposed project to ensure the project is completed successfully.

Rachel Lyons, Bay Mills Indian Community Tribal Manager, will be a key contact for the proposed project. Ms. Lyons oversees 26 departments of the BMIC. These include Education, EMS, Elders, Fire Management, Grants and Contracts, Health Services, Maintenance, Public Safety, Public Works, Social Services, Tribal Court, and many more. Her education includes a Bachelor of Science in Public Administration, an Associate of Science in Legal Studies, and a MA of Public Administration from Northern Michigan University. Additional key contacts include the following:

- Kimarie Manabat, Grants Manager, BMIC Administration; Technical assistance for grant financial administration; 10+ years of experience with grant management.
- Crystal Wilcox, CFO, BMIC Accounting; Technical assistance for grant administration; 10+ years accounting and grant experience.
- Jeff Gargoshian, Construction Manager, BMIC Administration; 10+ years construction management experience.

Resumes for project staff are included as attachments.