

SECTION 1: GENERAL INFORMATION

This section provides general information on the funded activity.

1. Funded Activity Title:	<i>Renewable Energy Program #1 - Solar</i>
2. Funding Proposal Number:	<i>(FP 046)</i>
3. Date of Board approval - Board Meeting Number:	10/2/2017 <i>B.18</i>
4. Accredited Entity:	<i>XacBank LLC</i>
5. Focal Point of the Accredited Entity for this Project:	<i>Tuul Galzagd, Director of Eco-Banking Department, XacBank /tuul.g@xacbank.mn /+976 7577 1888</i>
6. Executing Entity(ies):	<i>XaxBank LLC</i>
7. Implementation Period:	<i>From: 1/1/2020 To: 12/31/2020</i>
8. Current year of Implementation:	<i>Year 3</i>
9. Date of Submission of the Report:	<i>2/28/2021</i>
10. Annual Reporting period covered in this report:	<i>From: 1/1/2020 To: 12/31/2020</i>
11. Total Project Budget¹:	<i>Loan: USD 8,650,050 Equity: USD 8,906,870</i>
12. Total amount of GCF Proceeds Approved:	<i>Loan: USD 8,650,050</i>
13. Total amount of GCF Proceeds disbursed (cumulative) to the Accredited Entity:	<i>Loan: USD 8,650,050</i>

¹ Total project budget including co-financing as reflected in the relevant Funded Activity Agreement.

SECTION 2: IMPLEMENTATION PROGRESS

2.1 OVERALL (SUMMARY) PROJECT PROGRESS (*less than one (1) page*).

Implementation Achievements

The Sumber Solar Power Plant (SPP) has maintained consistent operations throughout 2020 and supplied 15,838 MWh of electricity to the central grid during the year, which is 3% higher than the target annual electricity supply stated in the FP. This amount of renewable energy generated during the year mitigated an estimated 13,795 tCO₂eq of GHG emissions and saved 160,000 tons of water. This is in spite of the challenges the sub-borrower faced in relation to the Covid-19 outbreak, which are presented in more detail in “Delays & Challenges” below.

However, the major project event that occurred at the end of 2020 was the full repayment of the project loan extended by XacBank as a result of the sub-borrower refinancing the existing project loan with a lower-interest arrangement provided by their equity co-investor. This arrangement has prematurely completed XacBank’s project loan period.

As a result, the project implementation period has ended in 2020 and the final targets have been adjusted accordingly. The SPP’s solar power generation may be monitored from annual publications of the Ministry of Energy, but the sub-borrower is no longer contractually obligated to provide us annual operating reports in the future as we are no longer their creditor.

Delays & Challenges

Although transmission of Covid-19 in the SPP area of Govisumber aimag has remained minimal due to its isolation from large urban centres, the SPP’s operations have been adversely impacted by government measures in response to the pandemic.

As a result of a decline in the energy demand of businesses in Mongolia during 2020, the government reduced the purchase of energy from producers with high feed-in-tariffs such as renewables producers, and has also made efforts to reduce the feed-in-tariffs of existing renewables PPAs. This has also led the government to further prioritize energy procurement away from high-tariff renewables towards cheaper sources. As such, the sub-borrower had diminished monthly revenues throughout 2020 and sought to reduce their expenses. Since their most significant expense item was the project loan with XacBank, they had opted to refinance the project loan with a lower-interest arrangement provided by their equity co-investor, and fully paid off their project loan from XacBank before maturity date.

Despite the challenges mentioned above, the SPP has generated 15,838 MWh of solar energy during the year, which is 3% above the annual target.

Lessons Learned

The Covid-19 pandemic, the resulting decrease in energy demand and the stringent measures taken by the hard-pressed government to alleviate the negative economic impact demonstrated that additional concessionality is required to maintain the resilience of renewables producers with higher feed-in-tariffs compared to traditional energy sources.

This was shown to be especially true in the case of Mongolia where the government is currently not only the regulator, but also the sole buyer of renewable energy in the country, and would maintain a policy to minimize its energy procurement costs in the event of an economic downturn.

2.2 Performance against the GCF Investment Criteria (summary) (max two (2) pages).

Overall, the project performed well across the GCF's investment criteria and the impact framework presented in the approved FP.

- **Impact potential:** The Sumber SPP has supplied 15,838 MWh of solar power in 2020, 3% higher than the annual target. At a grid emission factor of 0.871 (according to the 2018 UNFCCC report), the Sumber SPP has generated 13,399 tCO₂ in carbon emissions reductions – 9.2% higher than the final annual target.
- **Paradigm shift potential:** In general, the project performed well in terms of enabling renewable energy scale-up in the region, generating substantial knowledge and learnings for both XacBank and country stakeholders, and serving as proof of concept that despite high up-front costs, renewable energy projects can be bankable with long repayment tenors and access to concessional capital and financing mechanisms.
- **Sustainable development potential:** Compared to coal energy plants, the SPP saved 160,000 tons of water this year by using water-free solar power and has very limited environmental impact on flora and fauna. The project aims to recruit locally and procure goods and services from women-led enterprises as much as possible. The SPP also engaged in activities to support the local community during the Covid-19 outbreak.
- **Needs of the recipient:** The project performed well in addressing the need of slowing the pace of climate change. However, the need for affordable financing for project developers was starkly highlighted by the pandemic, which led to the early repayment of the project loan. The decline in energy demand of businesses in 2020 and the government's prioritization of less-expensive energy sources led to reduced monthly revenues for the project developer, who then sought to refinance their XacBank project loan with more concessional financing.
- **Country ownership:** The project operates in line with Mongolia's State Policy on Energy (2015-2030), particularly the target of having 20% of total electricity capacity be comprised of renewable energy by 2023, and 30% by 2030. With Mongolia's total installed capacity of around 1,517 MW, the 10 MW plant represents 3.2% of the 303 MW of renewable energy capacity needed to achieve the 20% target. At the end of 2020, the share of renewable energy in the total installed capacity was 17.6%, or 267 MW. This figure was close to achieving the target of 20% share of renewables in the total energy capacity by 2020 as set in the Green Development Policy approved by the Mongolian Parliament in 2014.
- **Efficiency and effectiveness:** The project was financially viable with a financing structure that successfully blended equity and GCF senior debt. The annual energy supply of the SPP was 3% higher than the target, which although is lower compared to the previous year's performance of 19% higher than the target, has still provided cost efficiencies in tCO₂eq reduction despite the fall in energy demand.

2.2.1 Impact Potential (max one (1) page).

The Sumber SPP has supplied 15,838 MWh of solar power in 2020, 3% higher than the annual target. At a grid emission factor of 0.871, the Sumber SPP has generated 13,399 tCO₂eq in carbon emissions reductions, which is 9.2% higher than the final annual target.

Since connecting to the grid in March 2019, the Sumber SPP has supplied a cumulative total of 34,124 MWh of electricity (the annual amount of electricity supplied in 2019 was extrapolated from the plant's power generation from March to December 2019 as per the previous APR), which is 10.8% higher than the two-year FP target. At a grid emission factor of 0.871, the Sumber SPP has generated 29,722 tCO₂eq

in carbon emissions reductions – 21.1% higher than the two-year target. According to 2018 data from the Energy Regulatory Commission of Mongolia, the Sumber SPP produces enough clean energy to power 20,000 Mongolian households – a significant impact.

The sub-borrower has hired one new female employee while one male office worker left the company in 2020, maintaining the total employee count of the SPP at 15 (including the CEO). Of these 15 employees, 7 are now women. A total of 9 engineering technicians work at the SPP and 55.5% of these technicians are from the local Choir area. The SPP has therefore surpassed the gender-disaggregated local hiring targets of the FP, which was to hire a total of 8 employees with at least 4 female staff. Despite reduced electricity demand and monthly revenues faced in 2020 due to the Covid-19 outbreak, the plant operated throughout the entire year without interruptions.

2.2.2 Paradigm shift potential (max one (1) page).

Potential for scaling up and replication: The construction of the solar power plant and the 35kV of “Choir” 220/110/35kV high voltage electricity transmission line has provided the groundwork for further scale-up potential specific to the project site. If the developers wish, they can expand the plant while still utilizing components of the same transmission infrastructure built during the SPP’s construction.

The project is notable in that the technical drawing and construction of the SPP was completed by a domestic EPC contractor, with technical due diligence from external consultants (performed by a technical advisor hired by XacBank). The SPP was also the first renewable energy project in Mongolia to be financed by a domestic bank supported by the GCF. These are significant milestones for local renewables contractors and banks as well as international project developers/financiers in Mongolia, and the operational success of the SPP will serve to further catalyse the development of renewables projects across the country.

Potential for knowledge and learning: The demand-side shock of the Covid-19 pandemic has tested the resilience of various industries worldwide and the Mongolian renewables industry was no exception. Despite the favourable interest rate of the project loan offered by XacBank, under such extraordinary circumstances, the principal lesson learned was the importance of additional concessionality for project developers in their financing arrangements during times of reduced energy demand and falling revenues, although such situations are rare. In response to the financial pressures caused by the current environment, the sub-borrower opted for refinancing their project loan with a lower-cost alternative arranged by their co-investor, thereby completing the project period at the end of 2020.

For the project overall, there has been substantial knowledge learning, particularly in reference to project risk management and how international finance can be utilized to fund large-scale climate change mitigation projects.

XacBank has been diligent in ensuring that the contract between the sub-borrower and the EPC contractor clearly addressed potential risks and provided adequate protection for the sub-borrower by having the contract reviewed by the technical advisor as part of their technical due diligence. This has also successfully reduced the financial risk borne by XacBank in its role as creditor, and allowed the SPP to start operations without undue costs or delays. Going through this process provided substantial learnings for the bank, as it has ensured that the bank can take the lessons learned and apply them in other commercial-scale project development cases.

Contribution to the creation of an enabling environment: The project serves as proof of concept that despite high up-front costs, renewable energy projects can be bankable with long repayment tenors and access to concessional capital and financing mechanisms. The project also served as a testament to the technical capacity of domestic EPC contractors in constructing solar power plants.

2.2.3 Sustainable development potential (max one (1) page).

Environmental Benefits

Since the vast majority of energy generation in Mongolia comes from coal burning, the environmental benefits of a solar power plant are clear. Since connecting to the grid in March 2019, the Sumber SPP has generated 29,722 tCO₂ in carbon emissions reductions – 21.1% higher than the two-year FP target. Compared to coal energy plants (which use water to generate electricity), the Sumber SPP saved 160,000 tons of water in 2020 by using water-free solar power. The energy produced by the Sumber SPP is clean and renewable, with very limited environmental impact on flora/fauna due to its isolated location in a desert climate.

Economic Benefits

During procurement and construction, a total of 277 individuals were employed (205 individuals worked onsite during construction, and an additional 72 employees worked in Ulaanbaatar on procurement activities). When construction ended, the number of full-time SPP staff was 15. The workforce currently consists of 7 women and 8 men (47% of total staff are women). 55.5% of engineering technicians of Sumber SPP are from the local Choir area. The SPP aims to source its workforce locally at each hiring juncture.

Social Benefits

The SPP as a job provider aims to provide employment to local residents. In addition, the Sumber SPP's clean electricity helps reduce the reliance on coal and the ensuing PM_{2.5} particles that it generates. Since air pollution from coal is the largest health risk facing Mongolia, the Sumber SPP is helping to create a healthier, less polluted society.

Moreover, in response to the Covid-19 outbreak in 2020, the SPP donated 5 million MNT to aid the Govisumber aimag Emergency Management Department in combatting the spread of the virus. The SPP also provided hot drinks, vitamins and masks to police, hospital and emergency workers who were responsible for security and emergency response activities during the government-imposed lockdown in the area.

Gender-sensitive development impact

The sub-borrower currently has 15 full-time staff members, with 7 of them (47%) being women, and implements a gender-sensitive employment policy to maintain at least a 40% ratio of female staff members. The sub-borrower also aims to procure goods and services for the SPP from women-led enterprises as much as possible given the isolated project location. More details of performance against the Gender Action Plan are found in Section 4.2.

2.2.4 Needs of the recipient (max one (1) page).

The following needs were met through partnership with the GCF:

- **Government of Mongolia: Reducing the burden of energy demand on the national power grid and slowing the pace of climate change.**
 - The climate benefit of the fully operational SPP include adding 10 MW of renewable energy capacity to the central grid as opposed to coal-based energy. However, due to

the economic slowdown and decreased energy demand in 2020, this need was supplanted by the government's more immediate need of reducing its expenditures by prioritizing cheaper energy sources.

- **Borrowers – Project Developers: Access to affordable financing and technical expertise.**
 - The partnership and funding of the GCF met both of these needs as the ability to blend financing with the GCF provided affordable financing to the sub-borrower. However, the decline in energy demand from businesses across Mongolia in 2020 led the sub-borrower's sole buyer, the government, to reduce their monthly purchases of solar energy. Therefore, despite the affordability of the existing loan, the sub-borrower sought to refinance with a more affordable alternative provided by their co-investor. The pandemic has highlighted the need for additional concessionality during times of crises, especially in the case of Mongolia where the government is akin to a monopsony in the energy market and could prioritize cheaper sources of energy during periods of emergency and reduced energy demand.

- **Financial Intermediary (XacBank): Access to a new line of affordable credit for renewable energy projects.**
 - The partnership with the GCF allowed for XacBank to provide affordable financing for the SPP and also obtain valuable experience in successfully overseeing the full development of the plant with the help of external due diligence from the technical advisor. Additionally, the SPP had vast awareness benefits as the publicity surrounding the power plant raised interest in renewable energy.

- **Local: Access to a consistent energy supply and job security.**
 - The SPP meets these needs by providing energy stability to users. The SPP is estimated to be able to provide electricity to over 20,000 households and also has created high-pay, stable jobs at the plant.

From a country perspective, Mongolia experiences climate change at an accelerated pace, with rising temperatures, air pollution and land degradation. While the SPP's impact in this regard is hard to quantify, the completion of the SPP was a significant step forward in combatting climate change threats and provides an alternative source of meeting energy demand once economic activities return to their pre-pandemic growth trajectory.

2.2.5 Country Ownership (max one (1) page).

During the project implementation period, the Sumber SPP fulfilled the criteria set forth in terms of country ownership in the following ways:

Alignment with the country's national climate priorities

As stated in the approved Funding Proposal, this project is directly in line with a number of explicitly stated policy initiatives on the part of the Mongolian government, including the Intended Nationally Determined Contributions (INDC) of reduce greenhouse gas emissions and increased share of renewable energy production. Specifically, the construction of the plant represents progress toward renewable energy capacity totalling 20% of total electricity generation capacity by 2023, and 30% by 2030 according to the State Policy on Energy. Currently, with Mongolia's total installed capacity of around 1,517 MW, the 10 MW plant represents 3.2% of the 303 MW of renewable energy capacity needed to achieve the nation's 20% target. As at the end of 2020, the share of renewable energy in the total installed capacity of Mongolia was 17.6%, or around 267 MW. This figure was close to achieving the target of 20% share of

renewables in the total energy capacity by 2020 as set in the Green Development Policy approved by the Mongolian Parliament in 2014.

The project has performed well in terms of supporting Mongolia's other major national climate priority, the Nationally Appropriate Mitigation Actions (NAMA). The NAMAs relevant to this project include increasing renewable options, particularly solar power, as well as switching from coal-based heating to electricity-based heating for individual households. The Sumber SPP aligned with all of the aforementioned initiatives and policies set forth by the Government of Mongolia during the project period.

Engagement with NDAs, civil society organizations and other relevant stakeholders

At the time of the project commencement, XacBank had, and continues to have, an established and positive working relationship with the NDA. The NDA was present at both the 5th construction monitoring site visit and the opening ceremony for the Sumber Power Plant in December 2018 and January 2019, respectively. Details of stakeholder engagement in relation to the Gender Action Plan are found in Section 4.2.

2.2.6 Efficiency and Effectiveness (max one (1) page).

Co-financing, leveraging and mobilized long-term investments

The total project funding amount of USD \$17,556,920 was provided in the form of USD \$8,906,870 in equity by the co-investor and debt funding of USD \$8,650,050 (49% of funding) from XacBank via GCF. As of December 31, 2020; the sub-borrower has fully repaid this loan amount through proceeds from refinancing arranged by their equity co-investor due to reasons mentioned previously in this APR.

Financial Viability

The combination of GCF senior debt and outside equity allowed for the project to be bankable and financially viable.

Cost Efficiency

Estimated cost per tCO₂eq is calculated by dividing the total project finance cost by the reduced CO₂ emissions. The same applies for GCF cost per tCO₂eq removed. Since the project implementation ended in 2020 and the exact future power generation amounts of the SPP is difficult to estimate at this time due to the ongoing pandemic, the annual cost per tCO₂eq for 2020 may provide a more relevant figure (as was the case for 2019). The lifetime of the SPP is estimated at 25 years and as such, the annual project financing amount will be calculated by dividing the total financing amount by 25 and this figure shall be used when calculating cost per tCO₂eq reduced. The calculation is shown below:

Cost per tCO₂eq

(a) Total project financing (equity + loan)	US \$17,556,920
(b) GCF contribution	US \$8,650,050
(c) SPP lifetime	25 years
(d) Annual total project financing	US \$702,277
(e) Annual GCF contribution	US \$346,002
(f) Emissions reduction for 2020	13,795 tCO ₂ eq
(g) Estimated cost per tCO ₂ eq removed in 2020 (g=d/f)	US \$50.90/tCO ₂ eq
(h) Estimated GCF cost per tCO ₂ eq removed in 2020 (h=e/f)	US \$25.08/tCO ₂ eq

Although the cost per tCO₂eq removed is 15% higher than the previous year due to reduced monthly power purchases by the government (total cost at \$44.09 and GCF cost at \$21.72 per tCO₂eq removed in 2019), this amount is still lower than the FP target of \$57.24/tCO₂eq and \$28.19/tCO₂eq for total costs and GCF costs respectively, indicating that even if the reduced operating performance of 2020 were to be repeated each year over the course of the 25-year SPP lifetime, the SPP would still generate cost efficiencies above the FP target.

For the cumulative two-year implementation period, with total emissions reduction at 29,722 tCO₂eq, total cost and GCF cost per tCO₂eq removed averaged at \$47.49 and \$23.4 respectively.

2.3 PROJECT OUTPUTS IMPLEMENTATION STATUS¹			
Project Output	Project Activity	Status²	Implementation progress³ (%)
Component 1: Program implementation and monitoring			
Output 1: Disbursement of the sub-loan	Project Activity 1.1: <i>Conclusion of the Sub-Loan agreement (conducted by Corporate Banking division and Credit Administration department)</i>	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed</i>	
	Project Activity 1.2: <i>Financial close and disbursement of funds from GCF to XacBank</i>	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed</i>	
	Project Activity 1.3: <i>Disbursement of the loan to sub-borrower in the proportions outlined in the model.</i>	Completed	100%
	<i>100% of total allotted disbursement has been made.</i>	<i>All disbursements have been made.</i>	
Output 2: Monitoring, evaluations, and reporting	Project Activity 2.1: <i>Credit Monitoring by Corporate Banking division, in accordance with department policies and procedures</i>	Completed	100%
	<i>Credit monitoring completed due to full repayment of project loan by the sub-borrower.</i>	<i>Credit monitoring completed due to full repayment of project loan by the sub-borrower.</i>	
	Project Activity 2.2: <i>Emission reduction monitoring by Eco Banking Department</i>	Completed	100%

¹ Outputs and Activities reported here should be aligned with the Activities in the Logic Framework and Implementation Timetable of the project.

² Activity Not Yet Due; Activity Started -ahead of schedule; Activity started – progress on track; Activity started but progress delayed; Activity start is delayed.

³ Implementation progress on a cumulative basis as of the date of the report.

	<i>Emission reduction monitoring completed due to full repayment of project loan by the sub-borrower.</i>	<i>Emission reduction monitoring completed due to full repayment of project loan by the sub-borrower.</i>	
	Project Activity 2.3: Annual Performance Report	Completed	100%
	<i>11 APRs were originally due for the project, however early repayment of the project loan reduced this number to 3.</i>	Completed	
	Project Activity 2.4: Produce Interim Evaluation report	Activity Not Yet Due	0%
	<i>XacBank has requested guidance from GCF on the Interim Evaluation, PCR and Final Evaluation reports in light of the early completion of the project.</i>	Awaiting GCF guidance	
	Project Activity 2.5: Produce completion reports in accordance with GCF standards	Activity Not Yet Due	0%
	<i>XacBank has requested guidance from GCF on the Interim Evaluation, PCR and Final Evaluation reports in light of the early completion of the project.</i>	Awaiting GCF template	
	Project Activity 2.6: Produce Final Evaluation report in accordance with GCF standards	Activity Not Yet Due	0%
	<i>XacBank has requested guidance from GCF on the Interim Evaluation, PCR and Final Evaluation reports in light of the early completion of the project.</i>	Awaiting GCF template	
Component 2: Project implementation (solar power plant)			
Output 3: GoM-related documentation: licenses, tariff agreements	Project Activity 3.1: Finalization of Documentation period from State organizations	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All relevant documents received.</i>	
Output 4: Construction of plants	Project Activity 4.1: Stage of Tendering for Engineering and Procurement Contract	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed.</i>	
	Project Activity 4.2: Getting approval of Starting construction work	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed.</i>	
	Project Activity 4.3: Purchase and transport of equipment I to Project site	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed.</i>	
	Project Activity 4.4: Earthwork	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed.</i>	
	Project Activity 4.5: Works for foundation of solar panels	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed.</i>	
	Project Activity 4.6: Installing Solar Panels	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed.</i>	

	Project Activity 4.7: Purchase and transport equipment II to Project site	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed.</i>	
	Project Activity 4.8: Building and construction engineering: Beginning construction and building work /office building inverter house, 35kb substation, extension of Choir substation	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed.</i>	
	Project Activity 4.9: Construct and install road and fence	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed.</i>	
	Project Activity 4.10: Electrical connection	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed.</i>	
Output 5: Technical Commission review	Project Activity 5.1: Transferring to State Technical Commission	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed.</i>	
	Project Activity 5.2: Examination of solar power plant	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed.</i>	
	Project Activity 5.3: Conducting test of the system by the technical commission	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed.</i>	
Output 6: Final Documentation Received	Project Activity 6.1: Getting approval and permission from State Technical Commission	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed</i>	
	Project Activity 6.2: Getting permission and approval from Energy Regulatory Commission administration. This is comprised of the licence for permission to produce energy, which is issued after successful tests.	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed</i>	
	Project Activity 6.3: Final documents issued (3 major documents: electricity production license, permission/approval, dispatching agreement)	Completed	100%
	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed</i>	
Output 7: Site enters operation	Project Activity 7.1: Enter solar power plant into commercial operation	Completed	100%

	<i>As of this reporting period, this activity is complete.</i>	<i>All deliverables and outcomes completed</i>	
Output 8: Developed capacity	Project Activity 8.1: Conduct capacity building for new staff on solar maintenance (from construction to operation phase)	Completed	100%
	<i>Regular capacity training is ongoing.</i>	<i>Regular training ongoing.</i>	
Output 9: Completed gender mainstreaming	Project Activity 9.1: Report on gender mainstreaming efforts to XacBank	Completed	100%
	<i>The sub-borrower reported their gender mainstreaming efforts to XacBank on a regular basis.</i>	<i>All deliverables and outcomes completed</i>	
Output 10: Transmission line for grid connection built	Project Activity 10.1: 2.2km transmission line in operation	Completed	100%
	<i>The 2.2km transmission line was constructed and is in operation.</i>	<i>All deliverables and outcomes completed</i>	
Output 11: Power generation delivered to grid	Project Activity 11.1: 15,395 MWh of power delivered to grid	Completed	100%
	<i>15,838 MWh of power was delivered to the grid between in 2020, exceeding annual goals by 3%.</i>	<i>All deliverables and outcomes completed</i>	

2.4 PROGRESS UPDATE ON THE LOGIC FRAMEWORK INDICATORS⁴

2.4.1 PROGRESS UPDATE ON FUND-LEVEL IMPACT INDICATORS OF THE LOGIC FRAMEWORK

Fund-level impact Core indicators⁵ (Mitigation)	Baseline	Current value⁶	Target (mid-term)	Target (final)	Remarks (including changes⁷, if any)
Mitigation Core Indicator 1 <i>Tonnes of carbon dioxide equivalent (tCO₂eq) reduced as a result of Fund-funded projects/programmes</i>	0	13,399 tCO ₂ eq (annual)	6,135 tCO ₂ eq (annual)	12,270 tCO ₂ eq (annual)	
	0	29,722 tCO ₂ eq (lifetime)	12,270 tCO ₂ eq (lifetime)	24,540 tCO ₂ eq (lifetime)	<i>Although the initially planned emissions reduction target was 306,745 tCO₂eq spanning the 25-year lifetime of the SPP, the mid-term and final targets have been adjusted to reflect a 2-year plant operation period as a result of the project being concluded due to early loan repayment by the sub-borrower.</i>

⁴ Per the approved methodology in and the Logic Framework in the Funding Proposal, please provide an update on the relevant indicators.

⁵ As per the relevant indicators established in the Funding Proposal and the Performance Measurement Framework, including all indicators approved by the Board and relevant updates agreed with GCF, if applicable.

⁶ As of 31 December of the relevant year.

⁷ Related to the approved indicators and targets in the Logic Framework.

Mitigation Core Indicator 2 Cost per tCO2eq decreased for all Fund-funded mitigation projects/programmes		US\$47.49 / tCO2eq	US\$57.24 / tCO2eq	US\$57.24 / tCO2eq	
Mitigation Core Indicator 3 Volume of finance leveraged by Fund funding (Disaggregated by public/private source)	Public 0	Public GCF - \$8,650,050 USD	Public GCF - \$8,650,050 USD	Public GCF - \$8,650,050 USD	
	Private – 0	Private – \$8,906,870 USD	Private – \$8,906,870 USD	Private – \$8,906,870 USD	
Mitigation Impact Indicator 1 M1.0 Reduced emissions through increased low-emission energy access and power generation	0	29,722 tCO2eq (lifetime)	12,270 tCO2eq (lifetime)	24,540 tCO2eq (lifetime)	Although the initially planned emissions reduction target was 306,745 tCO2eq spanning the 25-year lifetime of the SPP, the mid-term and final targets have been adjusted to reflect a 2-year plant operation period as a result of the project being concluded due to early loan repayment by the sub-borrower.
Mitigation Impact Indicator 2 M6.0 Increased number of small, medium and large low-emission power suppliers	0	10 MW	10MW	10 MW	

2.4.2 PROGRESS UPDATE ON PROJECT/PROGRAMME LEVEL INDICATORS OF THE LOGIC FRAMEWORK⁸					
Project/Programme indicators (Mitigation/Adaptation)	Baseline	Current value⁹	Target (mid-term)	Target (final)	Remarks (including changes¹⁰, if any)
Indicator 1. (Mitigation): USD loan amount distributed to project	0	\$8,650,050 USD	\$8,650,050 USD	\$8,650,050 USD	Sub-loans disbursed according to tranches defined in original FAA, once specific project milestones are hit.
Indicator 2. (Mitigation) Number of project-related reports produced	0	3	3	6	Since the project was completed earlier than expected, after discussing with GCF, XacBank will now only provide interim, final and project completion reports after this APR. XacBank is currently awaiting guidance and templates for the reports.
Indicator 3. GoM-related documentation: licenses, tariff agreements					
Indicator 3.1: Number of licenses received	1	1	1	1	
Indicator 3.2 - Tariff/power purchasing agreements signed	1	1	1	1	

⁸ As per the relevant indicators established in the Funding Proposal and the Performance Measurement Framework, including relevant updates agreed with GCF, if applicable.

⁹ As of 31 December of the relevant calendar year.

¹⁰ Related to the approved indicators and targets in the Logic Framework or relevant FAA.

<i>Indicator 3.3 - Dispatch agreements signed</i>	<i>0 (granted after operation)</i>	<i>1</i>	<i>1</i>	<i>1</i>	
<i>Indicator 3.4 - Stakeholder agreements</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>Loan agreement between project developer and XacBank signed in 2018.</i>
Indicator 4. (Mitigation): <i>Number of plants constructed in compliant fashion</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>All procurement works, civil and site conditioning works, PV system works, mechanical assemble, PV modules installation, DC cable works, substation building works, inverter station work, and AC cable works were 100% completed.</i>
Indicator 5. (Mitigation) <i>Number of authorized agreements received</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>Mongolian State Commission approved the completion of construction of Sumber SPP in March 2019.</i>
Indicator 6. (Mitigation) <i>Number of sites feeding energy into the grid.</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>Special Permit to supply produced electricity to the general electricity grid granted in March 2019</i>
Indicator 7. <i>Number of people/institutions trained.</i>	<i>0</i>	<i>133</i>	<i>133</i>	<i>133</i>	<i>9 plant engineers were trained in 2020. Since the project period has ended, the current number of people/institutions trained at 133 has been set as the mid-term and final targets as this figure, achieved within 3 years, already exceeds 50% of the initial mid-term and final targets of 250 and 265 respectively.</i>
Indicator 8. <i>Number of gender mainstreaming plans designed and implemented</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>The sub-borrower developed and implemented a gender mainstreaming plan in 2019.</i>
Indicator 9. <i>KM of transmission line built</i>	<i>0</i>	<i>2.2km</i>	<i>2.2km</i>	<i>2.2km</i>	
Indicator 10 <i>Annual GW power delivered</i>	<i>0</i>	<i>15.8 Gwh/year</i>	<i>15.3 Gwh/year</i>	<i>15.3 Gwh/year</i>	<i>Power delivery has exceeded targets by 3% in 2019.</i>

2.5 REPORT ON CHANGES DURING IMPLEMENTATION (include actual and expected changes)

The material change that prematurely ended the project implementation period was the early repayment of the project loan by the sub-borrower. This has cut the implementation period of the project to 3 years and project outcomes related to reporting and amount of GHG emissions reduced have been adjusted accordingly in this APR.

Although the SPP is projected to exceed the initially planned final emissions reduction target of 306,745 tCO₂e_q spanning 25 years, the mid-term and final targets have been adjusted to reflect a two-year plant operation period due to early loan repayment by the sub-borrower.

The number of APRs to be submitted during the project period are inexorably reduced from 11 to 3 since The sub-borrower is no longer funded by the GCF or XacBank, and is no longer contractually obliged to provide reports on their operations to XacBank in the future.

2.6 IMPLEMENTATION CHALLENGES AND LESSONS LEARNED

<i>Challenge encountered</i>	<i>Type¹¹</i>	<i>Measures adopted</i>	<i>Impact on the project implementation¹²</i>	<i>Lessons learned and Other Remarks</i>
<i>Decrease in energy demand due to Covid-19 reduced the monthly purchase of solar energy by the government, leading to reduced monthly revenues for the sub-borrower</i>	<i>Financial</i>	<i>The sub-borrower opted to refinance their existing project loan with XacBank a lower-cost alternative arranged by their equity co-investor</i>	<i>High</i>	<i>Refinancing of the loan effectively completed the project implementation period earlier than planned. This reflects the need for additional concessionality during times of crises for renewable energy power plants in Mongolia since the sole buyer, the government, would prioritize less expensive sources of energy during an economic downturn.</i>

¹¹ Implementation; Legal; Financial; Environmental/Social; Political; Procurement; Other; AML/CFT; Sanctions; Prohibited Practices.

¹² Minor/Solved; Moderate; High.

4.1 IMPLEMENTATION OF ENVIRONMENTAL AND SOCIAL SAFEGUARDS AND GENDER ELEMENTS

In 2020, the sub-borrower conducted workplace health and safety trainings for its 9 engineers working at the SPP, of which 33.3% are women. The local government banned gatherings and social activities in response to the Covid-19 pandemic and therefore no stakeholder meetings were conducted during the year.

However, the sub-borrower engaged in corporate social responsibility activities in order to support the local community in combatting the Covid-19 outbreak. Such activities included donating 5 million MNT to the Emergency Management Department of Govisumber aimag in order to aid their efforts against the pandemic, as well as providing hot drinks, vitamins and masks to police, healthcare and emergency workers tasked with security and emergency response activities during the government-imposed lockdown period.

The sub-borrower strives for gender mainstreaming in their employment and procurement activities, but has mentioned that since the energy sector falls into the category of heavy industry where there are not a lot of female professionals and the SPP is located in a remote area, there are not a lot of opportunities for the sub-borrower to recruit women. Nevertheless, the SPP maintains a satisfactory gender balance in its workforce, which is comprised of 47% women (7 out of 15 employees are women). The sub-borrower also strives to procure goods and services from women-led enterprises as much as possible, and the SPP currently contracts a woman-owned security services company and procures drinking water from a woman-owned supplier.

(2) The information should include status of compliance with applicable laws and regulations of the country as well as the relevant conditions or covenants under the FAA. This can be captured in the table below:

Status of compliance with applicable laws and regulations and the conditions and covenants under FAA

Applicable laws and regulations/conditions and covenants	Status of compliance
The Renewable Energy Law (passed 2007)	Compliant
Law of Mongolia	Compliant
Sub-conditions of EIA Law:	
Survey of Site Environment Impact Assessment (EIA Law)/ Surroundings	Compliant
Survey of Potential Negative Impacts/ Consequences	Compliant
Recommended Mitigation Measures	Compliant
Risk Assessment on Human Health and Environment	Compliant
Risk Assessment concerning other potential impacts (cultural, etc.)	Compliant
Development of Environmental Management Plan (EMP)	Compliant

(3) Provide a report on the progress made in implementing environmental and social management plans (ESMPs) and frameworks (ESMFs) describing achievements, and specifying details outlined in the tables below.

Implementation of management plans and programmes

(i) activities implemented during the reporting period, including monitoring	(ii) outputs during the reporting period	(iii) key environmental, social and gender issues, risks and impacts addressed during implementation	(iv) any pending key environmental, social and gender issues needing accredited entity's actions and GCF attention

Mandatory workplace health and safety training conducted for SPP workers	- 9 SPP technicians participated in the training; - Women constituted 33.33% of the participants.	Gender mainstreaming efforts to build capacity and improve long-term employability of technicians.	-No key issues to address for this reporting period.
Actions taken to support the local community in combatting the spread of the Covid-19 virus.	- 5 million MNT donation to the Govisumber aimag Emergency Management Department; - Provided hot drinks, vitamins and masks to police, healthcare and emergency workers during the lockdown period.	Supporting community efforts to combat the spread of Covid-19	- No key issues to address for this reporting period.

Implementation of the stakeholder engagement plan

(i) activities implemented during the reporting period	(ii) dates and venues of engagement activities	(iii) information shared with stakeholders	(iv) outputs including issues addressed during the reporting period
No stakeholder meetings conducted in 2020 due to government restrictions concerning travel, gatherings and social activities	N/A	N/A	N/A

Implementation of the grievance redress mechanism

(i) description of issues/complaints received during the reporting period	(ii) status of addressing issues/complaints
-No complaints received	- N/A

No complaints were received by the sub-borrower or XacBank during the entire implementation period of the project. All grievances related to projects implemented or supervised by XacBank may be addressed to the bank's Complaints and Feedback service which can be reached through the 24-hour customer contact center, the bank's website (<https://www.xacbank.mn/page/contact>) or Facebook page (facebook.com/xacbank). The customer contact center compiles all complaints received through the aforementioned channels in the SAGA system and then assign them to the relevant unit or department to redress the complaints. The information customer provided to XacBank will be treated confidentially for internal use only.

4.2 GENDER ACTION PLAN

During the current reporting phase the workforce at Sumber SPP consists of 15 full time employees, of which 7, or 47%, are women. Moreover, from the 15 full time employees, 9 employees are engineer technicians, of which 55.5% were recruited locally from the nearby city of Choir. 33.3% of the engineer technicians are women from Choir. Therefore, the initial target of recruiting 8 employed has been successfully achieved, along with the requirement of hiring at least 30% local staff. The sub-borrower aims implements its gender-mainstreamed employment practices through widely posting job adverts at each hiring juncture.

These efforts demonstrate that despite the innate constraint of the project being located in a remote area with limited access to employment and procurement sources, the sub-borrower has managed to maintain gender parity among its staff thanks to their gender mainstreaming efforts in recruitment. Furthermore, in terms of procurement, the SPP currently hires a woman-owned security services company and procures drinking water from a woman-owned supplier.

It should be noted that several activities of the Gender Action Plan were completed during the pre-construction phase of the SPP as mentioned in XacBank's response to the GCF's comments on the 2019 APR. Now that the plant is built and operational, an adjusted Gender Action Plan containing only the gender-related activities that concern plant operations is shown below in Section 4.2.1. The activities in the adjusted Gender Action Plan are primarily ad-hoc in nature and are to be implemented on an as-needed basis throughout the lifetime of the SPP.

4.2.1 PROGRESS ON IMPLEMENTING THE PROJECT-LEVEL GENDER ACTION PLAN SUBMITTED WITH THE FUNDING PROPOSAL.

Activities/actions	Indicators	Baseline	Targets, including sex-disaggregated targets	Budget	Report on annual progress
Local hiring.	Number of positons offered: different on project to project basis Number of local positions offered: at least 30% local hires to benefit rural, vulnerable communities Number of women and men employed through jobs created from the project: at least 40% women hired	-	Recruit total of 8 employees. At least 4 female staff to be recruited	-	The workforce consists of 15 full time employees. 7 women and 8 men, (47% of total staff are women). 55.5% of Engineer technicians of Sumber SPP from the Choir city area. In total, 9 engineer technicians work in Sumber SPP.
Post job availability widely and in multi-gendered settings so as to recruit female applicants	Number of job ads placed: based on discretion of project development HR with emphasis on diverse locations of posting	-	-	-	Worked with the municipality of Choir to get skilled staff through job advertisements.
Provide technical training to improve long-term employability of local workers of all genders.	Every year of first 4 years of project operation, as well as additional trainings for temporary staff	-	Gender disaggregated data to be collected, training attendees to be 40% women, reflecting the hiring targets of the projects, allowing equal access to capacity building	-	- Mandatory workplace health and safety trainings have been conducted for our engineers and technicians. - 33.3 percent of attendees were women. - No other training possible due to Covid-19 restrictions.
Ensure ability of all genders to access information sharing sessions e.g. individuals with child-caring responsibilities, or individuals with work obligations.	Number of women and men who participated in town hall meetings: gender balance at least 40/60 either way	-	40/60 gender ratio either way	-	Due to Covid-19, it was not possible to organize social activities.
Liaise with municipality to obtain registry of women-owned businesses	Registry or informal list obtained (y/n)	-		-	List requested from local administration. Currently awaiting response.
Identify women owned business who can provide goods and services to the project	Number of targets identified: Absolute number dependent upon procurement needs, relational goal is that half of procurement targets are women-owned or majority women-employed businesses	-		-	- A woman-led company provides security services for the SPP. - A woman-owned company provides drinking water for the SPP.

4.3 PLANNED ACTIVITIES ON ENVIRONMENTAL AND SOCIAL SAFEGUARDS

The project period was completed earlier than planned due to the early repayment (refinancing) of the project loan by the sub-borrower. As such, their debt financing is no longer funded by the GCF or XacBank, and they are no longer contractually obligated to report on their 2021 operations to us in the coming year.

4.4 PLANNED ACTIVITIES ON GENDER ELEMENTS

The project period was completed earlier than planned due to the early repayment (refinancing) of the project loan by the sub-borrower. As such, their debt financing is no longer funded by the GCF or XacBank, and they are no longer contractually obligated to report on their 2021 operations to us in the coming year.

Please describe an overall impact on your project/programme by the COVID-19 pandemic:

The Covid-19 pandemic led to a decline in the energy demand of businesses across Mongolia and the government reduced their monthly purchase of solar energy in favor of cheaper, more traditional energy sources, thereby diminishing the revenues of the project developer throughout 2020. As a result the project developer (also borrower of the project loan) sought to refinance their project loan with XacBank for a lower-cost arrangement provided by their equity co-investor.

Select a type of the challenges encountered: Financing and Concessionality

Describe details of the challenge encountered:

The COVID-19 outbreak has caused a decrease in the energy demand of businesses in Mongolia. As such, nationwide adjustments to energy supply by the National Dispatch Center in 2020 have reduced the monthly supply of renewable energy to the central grid due to its high feed-in-tariffs. As a result, the borrower of the project loan had reduced monthly revenues from supplying renewable energy to the grid during 2020 and therefore sought to refinance their project loan with XacBank for a lower-cost alternative provided by their equity co-investor. This has led to the early completion of the project as the borrower is no longer contractually obligated to report their operations to us in the future since we are no longer their creditor.

Describe details of the corrective/mitigation measures taken as much as you can:

The early repayment of the project loan completed the project period before its completion date.