JCM Project Design Document Form

A. Project description

A.1. Title of the JCM project

14.5MW Mini Hydro Power Plant Project in Siguil River in Mindanao

A.2. General description of project and applied technologies and/or measures

This project aims to reduce CO2 emissions by constructing a run-of-river mini hydroelectric power plant 14.5 MW (14.5 X 1 unit) utilizing water resources in municipality of Maasim, southern Mindanao Island. This facility is equipped with a turbine manufactured by Zeco and a generator supplied by Gamesa. This project contributes to the reduction of greenhouse gas (GHG) emissions by replacing grid electricity with renewable energy and contributes to the realization of a sustainable society by addressing the growing demand for electricity necessitated by economy growth.

A.3. Location of project, including coordinates

Country	The Republic of the Philippines
Region/State/Province etc.:	Region XII / Sarangani Province
City/Town/Community etc:	Maasim
Latitude, longitude	5°57'43"N ,125°03'10"E

A.4. Name of project participants

The Republic of the Philippines	Alsons Consolidated Resources, Inc. Alsons Reneewable Energy Corporation Siguil Hydro Power Corporation
Japan	Toyota Tsusho Corporation

A.5. Duration

Starting date of project operation	14/2/2024
Expected operational lifetime of project	22 years

A.6. Contribution from Japan

The proposed project was partially supported by the Ministry of the Environment, Japan (MOEJ) through the Financing Programme for JCM Model projects, which provided financial support of less than half of the initial investment for the projects in order to acquire JCM credits. Further, implementation of the proposed project promotes technology transfer of low carbon

power generation technologies within the Philippines. Through the MOEJ program, knowhows on operation and monitoring of Hydro power generation are transferred to the project sites.

B. Application of an approved methodology(ies)

B.1. Selection of methodology(ies)

Selected approved methodology No.	PH_AM001
Version number	Version01.0

B.2. Explanation of how the project meets eligibility criteria of the approved methodology

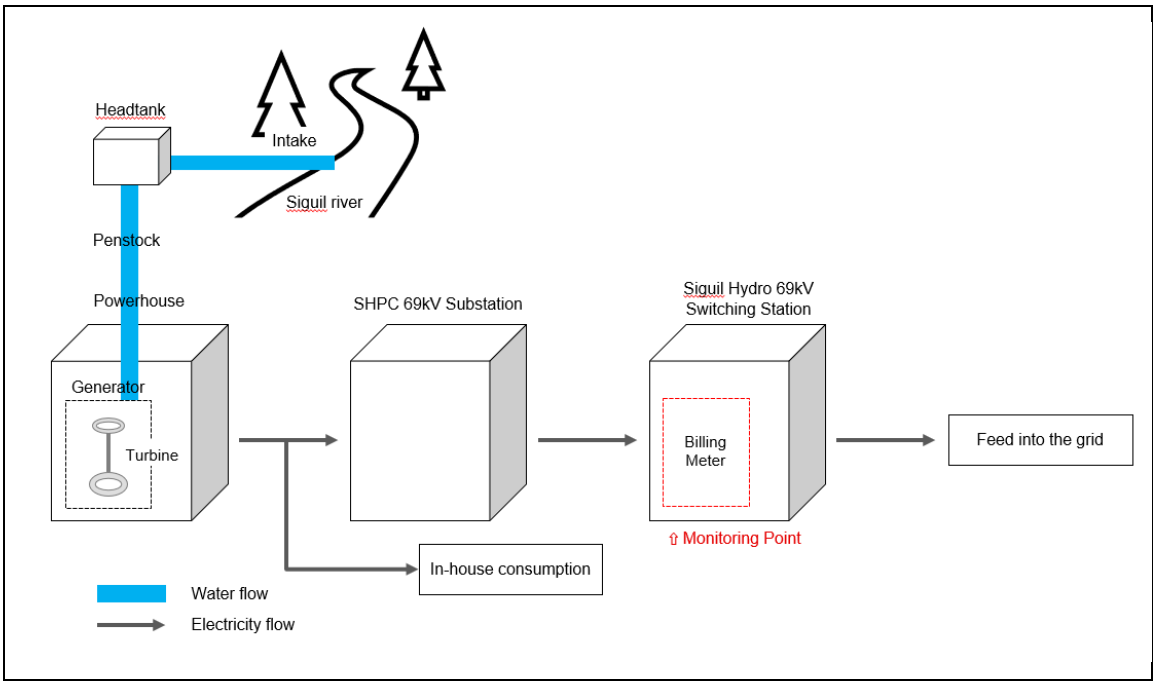
Eligibility criteria	Descriptions specified in the methodology	Project information
Criterion 1	The project installs a run-of-river hydro power generation system(s).	The proposed project installs a run-of-river mini hydroelectric power generation system.

C. Calculation of emission reductions

C.1. All emission sources and their associated greenhouse gases relevant to the JCM project

Reference emissions	
Emission sources	GHG type
Consumption of national grid electricity and/or captive electricity	CO_2
Project emissions	
Emission sources	GHG type
Generation of electricity from the hydro power generation system(s)	N/A

C.2. Figure of all emission sources and monitoring points relevant to the JCM project



C.3. Estimated emissions reductions in each year

Year	Estimated Reference emissions (tCO_2e)	Estimated Project Emissions (tCO_2e)	Estimated Emission Reductions (tCO_2e)
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			
2023			
2024	38,109	0	38,109
2025	41,574	0	41,574
2026	41,574	0	41,574
2027	41,574	0	41,574
2028	41,574	0	41,574

2029	41,574	0	41,574
2030	41,574	0	41,574
Total (tCO_2e)			287,553

D. Environmental impact assessment	
Legal requirement of environmental impact assessment for the proposed project	Presidential Decree No.1568

E. Local stakeholder consultation

E.1. Solicitation of comments from local stakeholders

To solicit comments from the local stakeholders, the project participant conducted a local stakeholders consultation meeting as follows:

- Date/ Time: 23 October 2024, 14:11-14:56 PST
- Venue: Maasim Municipal Hall (Sarangani, Philippines), Web conference
- Attendees (total 21 representing the following organizations):

  Local stakeholders
  - Local Government Unit Maasim (LGU Maasim)
    - Municipal Environment & Natural Resources Officer (MENRO)
    - Municipal Administrative Officer (MADO)
    - Municipal Information Officer (MIO)
    - Municipal Planning and Development Officer (MPDO)

  Project participants
  - Alsons Consolidated Resources Inc. (ACR)Alsons Renewable Energy Corporation (AREC)
  - Siguil Hydro Power Corporation (SHPC)
  - Toyota Tsusho Corporation (TTC)
  - Toyota Tsusho Philippines Corporation (TTPh)

  Others
  - Mitsubishi UFJ Research & Consulting (MURC)
- Meeting agenda
  - Opening remarks
  - Introduction of the project participants from Philippines and Japan
  - Summary of the project and technology introduced

- Questions and answers
- Closing

Received comments from the local stakeholders, along with the responses/action to the comments, are listed in the following section.

E.2. Summary of comments received and their consideration

Stakeholders	Comments received	Consideration of comments received
Officer of MADO	The project has a great number of benefits to the municipal community: not limited to reforestation, zero pollution, worker employment and other medical missions but also the income generation for the municipality of Maasim.	No further action required
Officer of MENRO	The significant support by SHPC on the reforestation program is very appreciated. Furthermore, the project will embark on generating income to the municipality and in effect this will help on constituting additional services and support to the community.	No further action required

F. References
N/A

Reference lists to support descriptions in the PDD, if any.

Annex
N/A

Revision history of PDD		
Version	Date	Contents revised

1.0	27/11/2024	First edition