



KERALA STATE ELECTRICITY BOARD Ltd

(Incorporated under the Companies Act, 1956)

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ABSTRACT

Clean Development Mechanism - Verification of Carbon Emission Reduction (CER) - Forward Agreement for sale of CERs - Voluntary Carbon market under Global Carbon Council (GCC) - Sanctioned - Orders issued.

CORPORATE OFFICE (SBU-G/C)

BO (FTD)No.754/2022(DGC/AEE I/CDM/2022)

Thiruvananthapuram, Dated: 05.09.2022

- Read: 1) 26th session of the Conference of the Parties (COP 26) to the UNFCCC held during November 2021.
- 2) B.O. (FM) No. 1136/2009/(FEMU/CDM/Hydro/2008) dated 29.04.2009.
- 3) B.O. (FM) No. 2661/2011/(FEMU/CDM/Hydro/2008) dated 15.11.2011.
- 4) Work Order No. 2/FEMU/2011-12 dated 16.11.2011 of the CE (Corporate Planning) issued to M/s. MITCON.
- 5) Letter No 5061170/NHA/2021/441 dated 04.01.2022 of M/S. SMEC.
- 6) Note of Chief Engineer (Civil-Investigation & Construction Central) vide No.CE (C-I & CC)/TA/GEN/2022/240 dated 03.06.2022.
- 7) Remarks of the Financial Adviser vide No. FA/Tender-I/63/2022 dated 13.07.2022.
- 8) Note of Chief Engineer (Civil-Investigation & Construction Central) vide No. CE-CI&CC)- AEE5/2022/1544 dated 19.07.2022.
- 9) Note No. DGC/AEE I/CDM/2022 dated 11.08.2022 of the Director (Generation-Civil) to the Full Time Directors (Agenda item No. 61/8/22).

ORDER

The Clean Development Mechanism (CDM) allows emission-reduction projects in developing countries to earn certified Carbon Emission Reduction (CER) credits, each equivalent to one tonne of CO₂. These CERs can be traded and sold and used by industrialized countries to meet a part of their emission reduction targets under the Kyoto Protocol. The mechanism stimulates sustainable development and emission reductions while giving industrialized countries some flexibility in how they meet their emission reduction limitation targets.

The following Small Hydro Electric Projects had been registered as a CDM project(s) under United Nations Framework Convention on Climate Change (UNFCCC). The Carbon Emission Reduction (CER) based on the generation from these projects is not verified/issued.

CDM Project #	Registration Date	Crediting Period	Estimated Annual CERs	Verification Period
9447- Vilangad SHEP	24/01/2014	12/08/2014 to 11/08/2021	18973	12/08/2014 to 31/12/2020

9448- Chathankottunada SHEP	24/01/2014	31/05/2016 to 30/05/2023	12373	31/05/2016 to 31/12/2020
9896- Perunthenaruvy SHEP	28/03/2014	31/05/2016 to 30/05/2023	18132	31/05/2016 to 31/12/2020
9853- Barapole SHEP	03/02/2014	30/09/2015 to 29/09/2022	25329	30/09/2015 to 31/12/2020
7435- Kakkayam SHEP	12/12/2012	31/05/2015 to 30/05/2022	8846	31/05/2015 to 31/12/2020

Out of the above, M/s. SMEC was the consultant for Vilangad, Chathankottunada and Kakkayam SHEPs whereas M/s. MITCON was the consultant for Barapole and Perunthenaruvy SHEPs. The scope of contract with the consultants includes issuance of CERs, among other items. Earlier the price of CERs was very less and as there were no potential buyers, verification process was not initiated.

The Chief Engineer (Civil-Investigation & Construction Central) as per the Note read as 6th above, reported that the CDM's 2nd Commitment period (CP2) had ended on December 31, 2020 and the decision on the extension of the CDM was discussed during the COP 26 meeting held during November 2021, in London, UK. The decision on this with change in clauses is expected in the coming months. There is an increase in the current market rate for CERs and it is prudent to proceed ahead with the issuance of CERs and the sale of the same since November 2021. There is a new procedure also in place to help buyers and sellers as detailed subsequently .

As KSEBL has not done the issuance of CERs, a forward agreement can be made with potential buyers to buy the CERs, anticipated to be issued to KSEBL. The forward/future agreement (also known as Emission Reduction Purchase Agreement (ERPA)) is an agreement between the seller (KSEBL) and the buyer, for the sale of CERs which are yet to be generated from the above projects. An ERPA is a legal contract between entities who buy and sell carbon credits. In a type of trade-off, a buyer of carbon credits pays cash for the right to emit more than the level of CO2 allocated by the Kyoto Protocol, and the seller receives cash for the obligation to produce less CO2. In order to transact this agreement, both the parties must sign an ERPA document. The standards for ERPAs are outlined by the International Emissions Trading Association (IETA), a non-profit business Organisation created in 1999 to serve businesses engaged in trading carbon credits. In the ERPA, no upfront cost needs to be borne by KSEBL. All the costs/fees such as issuance fee payable to CDM, Auditor/DOE fee etc., will be borne by either the consultant or the buyer, and the net amount after deduction of all the costs/fees will be credited to KSEBL.

The Chief Engineer (C-I&CC) has further reported that M/s. SMEC had indicated that they are agreeable to foreclose their consultancy contract without any financial commitment on either side. However, M/s. MITCON can be addressed to take up the job of issuance and trading of the CERs generated from the Vilangad, Chathankottunada and Kakkayam SHEPs, with the

same terms and conditions agreed with M/s. SMEC, in addition to the two the projects, viz. Barapole and Perunthenaruvi SHEPs, entrusted to them.

The projects which have been completed within 2 years and those likely to be completed / commissioned within two years can be bundled/ aggregated together and registered under the Global Carbon Council (GCC) platform, which is a voluntary carbon mechanism, and earn Approved Carbon Credit (ACC). The price of ACC is equal to CER and may even fetch a slightly higher, the price of CER being \$2/-.

The approximate financial benefits likely that KSEBL would be able to generate per annum is as detailed below.

CDM Project# & Name	Crediting Period	Estimated Annual CERs	Approximate amount likely to be generated per annum @ \$2/- per CER (in lakhs) (₹)
9447- Vilangad SHEP	12/08/2014 to 11/08/2021	18973	28.50
9448- Chathankottunada SHEP	31/05/2016 to 30/05/2023	12373	18.50
9896- Perunthenaruvi SHEP	31/05/2016to 30/05/2023	18132	27.20
9853- Barapole SHEP	30/09/2015 to 29/09/2022	25329	38.00
7435- Kakkayam SHEP	31/05/2012 to 30/05/2022	8846	13.30

\$ value conversion at ₹ 75/- per Dollar.

It is also reported that as per the prevailing market scenario, if the crediting period is after 2013, the value fetched is to the tune of approximately \$2 per CER and prior to 2013 would fetch only less than \$1.30 per CER.

Hence KSEBL needs to take an urgent call on the above said recommendations to reap maximum benefits out in the present market condition and enter into a legal arrangement with the approval of the competent authority.

The remarks of the Financial Adviser were obtained as per the Note read as 7th above and clarifications on remarks of FA were submitted by the CE(C-I&CC) as per the Note read as 8th above.

The matter was placed before Full Time Directors as per Note read 9th above.

The matter was considered in detail by the Full Time Directors in the meeting held on 16.08.2022. The Chairman and Managing Director expressed that KSEBL should study and be part of UNFCCC and we should have a long term strategy to showcase our initiatives at international level. It was resolved to accord sanction for the following.

1. To foreclose the agreement with M/s. SMEC and to return the BG to M/s. SMEC, without any financial commitment on either side.
2. To direct M/s. MITCON to carry out the balance work with respect to CDM of Vilangad, Chathankottunada and Kakkayam SHEPs with the same terms and conditions agreed with M/s. MITCON, after foreclosing the contract with M/s. SMEC.
3. To take action to register under Global Carbon Council (GCC), to get Approved Carbon Credit, the projects under construction and which are nearing completion through selection of suitable experienced agency in the field through a transparent bidding process (e-tendering).

Orders are issued accordingly.

**By Order of the
Full Time Directors**

sd/-

**LEKHA G
Company Secretary**

To:

The Chief Engineer (Civil- Investigation & Construction Central)

Copy to: The Chief Engineer (IT,CR&CAPS)/ Company Secretary/ Financial Advisor/ LA&DEO/
RCAO/RAO
The TA to the Chairman & Managing Director/ Director (Generation-Civil)/
Director (Generation-Electrical)/ Director (Distribution, IT & SCM)/ Director
(Transmission, SO, P & S)/ Director (REES, SOURA, Nilaavu Projects, S & W).
The PA to the Director (Finance & HRM).
The CA to the Secretary (Administration)
Stock File

Forwarded / By Order

[Signature]

Assistant Executive Engineer