GEPL/PCCF/FDP-SPSP/211210 **Dated 10.12.2021**

To

Add. Principal Chief Conservator of Forest
Cum FCA Nodal Officer
Aranaya Bhawan, Jhalana Institutional Area
Jaipur (Rajasthan)

Sub : Diversion of 540.1769 ha. forest land for the development of Shahpur (2520 MW) Pumped Storage Project by M/s Greenko Energies Private Limited (Online Proposal No. FP/RJ/HYD/121439/2021)

Ref : 1. Your Office Online EDS dated 25-08-2021

Dear Sir,

With reference to above mentioned subject, we have received the online EDS vide ref (1) directing to submit the technical viability of the project from Water Resources Deptt and Energy Deptt for further processing of the diversion proposal. In this regard, copy of technical viability issued by Energy Deptt and water allocation in-principle approval by Water Resources Deptt is attached herewith for your kind reference.

Thanking you,
Yours faithfully,
For M/s **Greenko Energies Pvt. Ltd.**

Authorized Signatory

Encl: As above

From: Bureau Of Investment Promotion <bip.raj@nic.in>
Sent: Friday, December 10, 2021 1:30 PM
To: Naveen Kumar L <naveen.k@greenkogroup.com>
Subject: tech. feasibility report

Dear Sir,

PFA letter received from the Energy Deptt. regarding Technical Feasibility Report of the PSP project of Greenko Energies, for your information.

Thanks & Regards

Bureau Of Investment Promotion
Udyog Bhawan,Tilak Marg,
C-Scheme Jaipur

Government of Rajasthan
Energy Department

No.F.20(10)Energy/2020 Dated: 07.12.2021
08

Addl. PCCF-cum-Nodal Officer (FCA)
Rajasthan Forest Department,
Aranya Bhawan
Jaipur (Raj.)

Sub:- Development of Shahpur (2520 MW) Pumped Storage Project, Baran (Raj.) by M/s Greenko Energies Pvt. Ltd.

M/s Greenko Energies Pvt. Ltd. is developing an Integrated Renewable Energy Storage Project in Rajasthan. The project includes 4500 MW Wind-Solar Hybrid Power Plant at Pali, integrated with Pumped Storage Plant of 2520 MW generation/storage capacity at Village Shahpur, District Baran. The project has been approved by Board of Investment of BIP and subsequently has been registered with RREC.

The proposed project requires around 540 Ha. forest land at Shahabad Tehsil, District Baran for which the company had applied for diversion of forest land. Forest Department sought some clarification through its online portal and RREC, being Nodal Agency for Renewable Energy Projects, sent reply to Forest Department directly.

Commissioner (Inv. & NRIs), Bureau of Investment Promotion (BIP) vide letter No.BIP/IP/1015 dated 10.09.2021 has informed this department that the Forest Department has indicated shortcoming in their proposal as the technical viability of the project from Energy Department is not uploaded as per essential details given previously. BIP has requested this department for sending necessary report to the Forest Department.

On the request of BIP made vide letter dated 10.9.2021, RREC was requested vide this department's letter dated 03.11.2021 to send clear report in the matter to this department. Director (Tech.), RREC vide letter dated 15.11.2021 has sent a detailed report about technical feasibility of the project to this department.

In view of above, I am directed to enclose herewith a copy of detailed report about technical feasibility of the project, as received from RREC, and request you to take necessary action in the matter.

sd/-

Encl: As above.

(Alok Ranjan)
Joint Secretary, Energy

Copy to Commissioner (Inv. & NRIs), Bureau of Investment Promotion, Udyog Bhawan, Jaipur in reference to their letter No.BIP/IP/1015 dated 10.09.2021 for information and necessary action.

Joint Secretary, Energy

OFFICE OF COMM. BIP
No .....
09 DEC 2021
AC
To DGM(CRR) Mgr (MC)

RAJASTHAN RENEWABLE ENERGY CORPORATION LIMITED

(A Government of Rajasthan Undertaking)
CIN No. U40101RJ1995SGC009847
E-166, Yudhisthir Marg, C-Scheme, Jaipur
Tel: 2221650 / 2229341/ 2229055 Fax: 0141-2226028

No. RREC/Hybrid/Greenko (H/0005/2019)/ 2020-21/D- 3523 Dated: 15/11/2021

Joint Secretary to the Government,
Energy Department,
Government of Rajasthan,
Jaipur.

Sub: Regarding development of integrated Renewable Energy Storage Project by M/s Greenko Energies Pvt. Ltd. in Rajasthan.

Ref :i) Your office letter dt. 3.11.2021 – Page 95/c
ii) This office Letter dt. 15.06.2021

With reference to above correspondence on the subject cited above, it is brought to your kind notice that vide your letter dt. 3.11.2021 you have intimated to send a report on the matter related to development of integrated Renewable Energy Storage Project by M/s Greenko Energies Pvt. Ltd. in respect of BIP Letter dt. 10.09.2021.

2. In this connection, it is to inform that RREC has registered 4500 MW Wind Solar Hybrid Project with Pumped Hydro Storage Plant vide registration No.H/0005/2019w.e.f. 15.1.2021 (Copy or Registration enclosed) under clause 22.4 of Rajasthan Wind and Hybrid Energy Policy, 2019.

3. The Project registered with RREC is in line with the provisions of the said Policy after examination of the criteria of Storage Systems and Pre-Feasibility Report submitted by the Developer. The Pre-Feasibility Report of the project has been examined and found to be in order for implementation by an independent global engineering and consultancy firm M/s Tractebel Engineering Pvt. Ltd. vide letter dt. 8.10.21.

4. RREC vide letter dt. 15.06.2021 (Copy enclosed) has replied regarding clarification sought by Forest department regarding development of Pumped Hydro Storage Project integrated with RE Power.

5. The Project has been granted Customized Package by Board of Investment in the meeting held on 19.04.21 under the chairmanship of Hon'ble Chief Minister on recommendation of State Empowered Committee.

6. Regarding technical feasibility of the project, a detailed note is enclosed herewith for clarification to Forest Department/BIP.

7. In above context, it is to mention here that this hybrid project is unique in nature, it will provide the power from Renewable Energy Sources and with the help of Pumped Storage Hydro Plant, variable renewable energy will be stored and utilized to supply firm power to grid as per requirement of Power. This will optimize RE Power and also help to absorb infirmness of RE Power. Looking to these advantages of such project should be promoted in the State.

In view of the above, the project should be facilitated by the respective departments for allotment of land and water in time bound manner.

Encl: As above.

(Sunit Mathur)
GM (Solar)

Copy to the following for information and necessary action:

1. The Commissioner, Bureau of Investment Promotion, Dept. Of Industries, Government of Rajasthan, Jaipur.
2. M/s Greenko Energies Private Limited, Plot No. 1071, Road No.44, Jubilee Hills, Hyderabad-500 033, Telangana.

GM (Solar)

Note on 4500 MW Solar-Wind Hybrid Project integrated with Pumped Hydro Storage Plant proposed by M/s Greenko Energies Pvt. Ltd.

1. M/s. Greenko Energies Pvt. Ltd. has proposed for the development of 2520 MW of Pumped Storage Plant at Shahbad Tehsil, Baran District, which would be integrated with their proposed 4500 MW Wind-Solar Hybrid Renewable Energy Plant at Jaitaran Tehsil, Pali District. The Project has been registered with RREC vide Registration No.H/0005/2019w.e.f. 15.1.2021 under clause 22.4 of Rajasthan Wind and Hybrid Energy Policy, 2019.

2. The Salient features of the proposed Project are as under:

   i. Greenko Group to develop this project, which is India's first of its kind integrated project of 3600 MW Solar and 900 MW Wind and 2520 MW Pump Hydro Storage Plant.

   ii. Total investment from Greenko Group to develop this hybrid project is estimated to be Rs 30,000 Cr. of which the pumped hydro storage project will be of approx. Rs 11,600 Cr.

   iii. This project from Greenko Group would be eligible for benefits and incentives under the prevailing policies of State Government and their application for Customized Package was recommended by Standing Empowered Committee chaired by Hon'ble Chief Secretary in its meeting dt. 08.02.2021 and subsequently approved by the state in its first meeting of Investment Promotion Board dt. 19.04.2021 under the chairmanship of Hon'ble Chief Minister of Rajasthan.

   iv. The surplus solar-wind hybrid plant generated electricity will be used to pump water in a reservoir at a designated height. The potential energy of water will be reclaimed using the same turbines, which will now operate in generation mode and inject the generated electricity into the grid at the designated connectivity point connected to the PGCIL owned Central Transmission Utility (CTU).

   v. Pumped Storage Projects are very site-specific projects because they require a particular type of Topographical and Geological conditions with availability of water source at close proximity to the identified project site. These locations of elevation difference shall be suitable to create reservoirs of required capacity. Both these reservoir locations shall be of acceptable geology, which is critical for storing water for long duration.

   vi. Since this project requires water as a means to store energy, a water source with sufficient capacity to fill up the reservoir one time at the beginning of its operation and to supply for losses during its operation (mainly evaporation loss, quarterly or semi-annually or annually) has to be available in close proximity of the water source from the one of

the reservoirs. However, larger distance would mean more cost in transporting water from the source to the intake reservoir and maintenance of same for the life of project thus adversely impacting techno-commercial viability of projects.

vii. These suitable conditions to establish large scale pumped storage projects are available at very few locations across the state. Our state being a water deficient state, it becomes all the more difficult to find suitable locations for implementing such projects.

3. Water Resources Department, Govt. of Rajasthan vide its letter dt. 04.02.2021 (Copy enclosed) has recommended allocation of the desired quantum of water from River Kunnu for this project upon meeting some basic conditions.

4. Also, there is a significant& important positive aspect linked to these Pumped Storage Projects by which they will help in preservation of environment in coming decades. These higher capacity Pumped Storage Projects help in making RE power firm and schedulable similar to electricity supplied by Thermal Power Projects as a result of which, it is possible to make RE energy as a source for meeting Base Load requirements of the state/country. As GOI has already planned retirement / de-induction of Thermal Power Projects in line with our commitments at COP-21(2015 Paris Climate Conference) and work on which has already started, these Mega Pumped Storage Projects will enable replacement of the polluting thermal power with environment-friendly RE power. Therefore, these projects have a much bigger role in preservation of Environment for generations.

5. M/s. Tractebel Engineering Pvt. Ltd., an independent global engineering and consultancy firm, have examined the Pre-Feasibility Report (PFR) submitted by Greenko and has found that the proposed Project in its present form is in order and could be cleared for its implementation vide its letter dt. 08.10.2021 (Copy enclosed). It is further mentioned that the technical details supplied in the proposal are best suited to the site conditions of the project area and is in line with Pumped Storage Projects being executed in the country.

6. Furthermore, upon further enquiries made by our team, it may be established that this particular site is very suitable for this size of pumped storage project and looking at the conditions in our state, it is felt that location of projects of this nature outside the forest area is not possible at all.As the project isbased on renewable and natural resources, it can be developed specifically on such sites where such resources are available and cannot be developed randomly at any site without specific study / survey of suitable availability of natural resources.

7. Rajasthan Government has set the target of 30,000 MW Solar Power projects by 2024-25 and this would only be possible if large scale Energy Storage Plants, specifically Pumped Storage technology such as the one proposed by Greenko is allowed to be set up in the state since large RE

plants would also need appropriate storage to minimize the negative impact of large-scale injection of intermittent RE power in the grid.

8. Also, the nature and size and scale of this project would be beneficial not only to the state of Rajasthan but also serves the need of the entire country towards achieving energy security and grid balancing and stability, which would not be possible without the intervention of the state administration by way of providing policy advantages as RRECL has shown the way and most importantly by clearing the hurdles and streamlining various procedures for the investors / project developers to implement projects that would further strengthen the investor friendly credentials and the number one destination of choice for renewable energy developers in the entire country.

9. Energy Storage Projects, such as the one proposed by Greenko, would be critical in supplying firm power round the clock (24x7) having the ability to meet the peak demand at any time during the day or the night. The need for such projects / energy infrastructure to be established has always been critical for achieving energy security, more so in the current context as we have seen the negative impact of shortage of coal on power generation, not only in the state of Rajasthan but elsewhere in the country as well.

10. It is also a fact that the location of the proposed projectis that of one of the most backward areas of Rajasthan, whose development by way of skilling, employment generation and other potential benefits would result in economic upliftment of the entire area. It is pertinent to note that over 6000 people would be employed during construction of the project andfor the regular operation of the project for the minimum project life of 40 years, employment will be provided to about 1410 persons (in-direct) and about 365 (direct). This, in addition to availability of cheaper and clean / green power from the proposed project would significantly enhance the value creation by the Govt. of Rajasthan in the overall development of the state.

In view of the importance of such projects to the state as well as our country and also on the strength of technical viability of the proposed project by M/s Greenko Energies Pvt. Ltd. being established as described earlier,setting up of such Projects in the State of Rajasthan should be encouragedas it is not only essential for assured supply of power round the clock to meet the increasing energy demands of the state but also helps in fulfilling the Renewable Energy targets of the state which in turn helps meet the green energy commitments of our country.

1432

ANNEXURE-2

409

Government of Rajasthan
Water Resources Department

No: F3(83)CEWR/SE(W)/Greenko Energies/ 218

Dated: 04/02/2021

Commissioner (Inv. & NRIs)
Bureau of Investment Promotion,
Udyog Bhawan, Jaipur.

Sub: Greenko's proposed Standalone Pump-Storage Project (2520 MW) at Shahpur, Baran district, Rajasthan.

Ref: Your office letter no. BIP/IP/962 dated 22.01.2021.

Kindly refer your above cited letter dated 22.01.2021 regarding request of M/s Greenko Energies Ltd. to increase water allocation from 1.795 TMC (50.82 MCM) to 1.87 TMC (52.96 MCM).

In this context, it is stated that while one time water allocation can be considered favourably due to local availability of water with certain set of basic conditions, on the other issue of annual recoupment quantum to be assessed & estimated by WRD, it is submitted that this exercise has to be done by the applicant company which can then be vetted by WRD upon submission of same.

4/2/21
(Naveen Mahajan)
Pr. Secretary, WRD

OFFICE OF COMM. BIP
No 1432
09/02
04 FEB 2021
A.C (CGM(RL))
AGM(RR) / Mgr(Inv)

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Government of Rajasthan
Water Resources Department

Sub:- Greenko's proposed Standalone Pumped-Storage Plant (2520MW) at Shahpur, Baran district, Rajasthan

Ref:- Commissioner (Inv. & NRIs), Bureau of Investment Promotion, Rajasthan office letter no. BIP/IP/1014 dated 10.09.21 and this office letter no.F3 (83)CEWR/SE(W)/Greenko Energies/218 dated 04.02.21

In connection to the above context, kindly refer Commissioner (Inv. & NRIs), Bureau of Investment Promotion, Rajasthan office letter dated 10.09.21 (copy enclosed) regarding M/s Greenko Energies Pvt. Ltd. proposed Pumped Storage Plant (PSP) of 2520 MW generation / storage capacity at Baran. Commissioner, BIP has requested WRD to send necessary report to Forest Department regarding technical viability of the project.

In this regard, it is stated that for the said project, Water Resources Department has been only approached for the limited purpose of providing water on one-time basis & annual recurring basis as per losses. Water Resources Department was approached by BIP in this regard and we have in-principle agreed to accomodate the water requirement with set of conditionalities (copy enclosed). It is primarily a hydro-power generation project and so, technical feasibility will be provided by RREC (Energy Department) or BIP (Industry Department) in their capacity as project proponent.

Encl: As above

(Dr. Prithvi Raj)
Secretary, WRD

Secretary,
Forest Department,
Rajasthan, Jaipur

UO Note no: F.3(83)CEWR/SE(W)/Greenko Energies/ 1786
Dated: 23 Sept. 2021

Copy to Commissioner (Inv. & NRIs), Bureau of Investment Promotion, Rajasthan Jaipur in reference to her office letter no. BIP/IP/1014 dated 10.09.21.

Secretary, WRD