

MP30/MoEF&CC-FCS-1/230112

Date: 12.01.2023

То

Divisional Forest Officer Neemuch Forest Division Madhya Pradesh Forest Department

- Sub: Diversion of 301.96 Ha of forest land from Neemuch Forest Division for establishment of MP 30 Gandhi Sagar Standalone Pumped Storage Project (1440 MW) in Neemuch District, Madhya Pradesh by M/s Greenko Energies Pvt. Ltd - Submission of Compliance Report to the Stage-I (In-Principal) Forest Clearance Stipulations-reg
- Ref: 1. MoEF & CC, New Delhi, In- Principal (Stage-I) Forest Clearance vide File No.8-18/2021-FC Dated: 24-08-2021.
  - 2. Govt of Madhya Pradesh, communication of In- Principal (Stage-I) vide letter No. S. No/H-4/23/2021/10/11/2902 dated 31/08/2021.
  - 3. DFO, Neemuch Demand Note dated 03/10/2022.

Dear Sir,

With reference to the above subject matter, the State Govt vide ref (2) above has directed to submit compliance report to the conditions stipulated in Stage-I Forest Clearance.

Accordingly, the necessary compliance report to the conditions stipulated in Stage-I Forest Clearance letter is herewith submitted for your kind consideration and processing of file for Stage II Forest Clearance.

Thanking You Yours Sincerely For **Greenko Energies Private Limited.** 

**Authorized Signatory** 

#### Encl: As above

CC: 1. Additional PCCF (Land Management), Madhya Pradesh Forest Department, Bhopal. 2. Chief Conservator of Forests, Ujjain, Madhya Pradesh Forest Department.

5.110	No Condition Reply			
A:	Specific Conditions imposed by Forest Ac	lvisory Committee		
	The Wildlife Conservation Plan shall be updated in consultation with WII and approved by CWLW, and the same shall be implemented at the cost of the user agency with an added focus on compensating the lost habitat of schedule species, (e.g Indian Rock Python, India especially Schedule-I reptilians Monitor Lizard, etc.) and avi- fauna, and their improvement in the adjoining forest areas. This plan shall also take into account the fact that the proposed area is a low rainfall area, and presence of a nearby PSP reservoir with sharply	State Government vide letter dated 14.09.2021 has entrusted Wildlife Institute of India (WII), Dehradun for updation of the Wildlife Conservation Plan. As per the work order an amount of Rs 73,38,251 towards 80% of payment was already paid to WII vide 29.07.2022. Copy of acknowledgment of WII is enclosed at <b>Annexure 01</b> at present the studies are under progress.		
II	Keeping in view the specific nature of the project, a CAT Plan is not required. However keeping in view the unique topography, edapho-climatic factors and vegetation of the area, a comprehensive plan regarding the protection, conservation and improvement of areas surrounding the reservoir, roads and other components of the project will be prepared and implemented at the cost of the user agency. In view of thin soil depth and sheet rock below, special treatments that might be required, including use of soil excavated during project construction, would be identified through a study by an specialised institute like ICFRE and their recommendation shall be taken into account for afforestation! regeneration in the adjoining areas. Further, this study shall also focus on regeneration/ plantation of vulnerable species found in the area, such as Pterocarpus marsupium which is in IUCN Red List of 'Near Threatened' species. Furthermore, such plan should also improve the drainage to augment water supply to the nearby village tank. In	State Forest Department has entrusted M.P. State Forest Research Institute (SFRI), Jabalpur (MP) vide dated 07.10.2021 for preparing a comprehensive plan regarding the protection, conservation and improvement of areas surrounding the reservoir, roads and other components of the project. SFRI, Jabalpur (MP) has completed the studies and submitted the report to the State Forest Department vide their dated 26.07.2022.		

MP30 Gandhi Sagar Off-Stream PSP

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S. No	Condition	Reply
	planted and maintained at project cost on either side of the roads and other areas, wherever possible;	
	The State govt. will submit a detailed plan indicating the manner in which the muck generated will be transported from different components of the project to the designated dumping site. State govt. shall also ensure strict implementation of the muck management plan;	A Detailed Muck Management Plan had been incorporated in EIA /EMP Report. Ministry while granting Environment Clearance date 01.12.2021 has <i>inter-alia</i> approved the Muck Management Plan. Mitigation Measures as approved in the EIA/EMP shall be implemented during construction phase. Copy of Muck Management Plan is enclosed at <b>Annexure-01</b> <b>A</b>
IV	State Government shall ensure that present cultivations visible in Google Earth imageries in the CA area shall be removed, and adequate arrangements are made to ensure that there is no resultant encroachment in the remaining adjoining forest area. Same principle shall be applied for forest land to be diverted;	Shall be complied by State Forest Department.
V	The detailed plan for evacuation and transmission of power so generated from this project will be submitted by the State government. It will be ensured that the evacuation and transmission system so proposed should pass through non-forest land or that the barest minimum forest land shall be used or existing infrastructure shall be used up to technically feasible extent. Further, it is made clear that the prior-approval of this instant project proposal shall in no way create a fate- accompli situation for a later evacuation/ transmission project proposal, and the Govt. of India shall be under no obligation to necessarily approve such a proposal whenever such a proposal for forest land diversion is submitted by the State Government;	Noted shall be complied accordingly.

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S. No	Condition	Reply			
В	Conditions required to be complied prior to	handing over of forest land by the State Fores			
	Department and compliance is to be submit				
	The cost of compensatory afforestation at the prevailing wage rates as per compensatory afforestation scheme and the cost of survey, demarcation and erection of permanent pillars if required on the CA land shall be deposited in advance with the Forest Department by the project authority. The CA will be maintained for 10 years. The scheme may include appropriate provision for anticipated cost increase for works scheduled for subsequent years;				
II	The State Government shall charge the Net Present Value(NPV) for the 301.96 ha forest area to be diverted under this proposal from the User Agency as per the orders of the Hon'ble Supreme Court of India dated 30/10/2002, 01/08/2003, 28/03/200, 24/04/2008 and 09/05/2008 in IA No. 566 in WP (C) No. 202/1995 and as per the guidelines issued by the Ministry vide letters No. 5-1/1998-FC (Pt.II) dated 18/09/2003, as well as letter No. 5-2/2006- FC dated 03/10/2006 and 5-3/2007-C dated 05/02/2009 in this regard	An amount of Rs 20,19,88,670 has been deposited in CAMPA account towards NPV Charges through RTGS UTR NO: ICICI252022120900492130.,Dated 9.12.2022 (Ref Annexure-02)			
111	The cost of felling of trees shall be deposited by the User Agency with the state Forest Department;	Noted Shall be complied accordingly.			
IV	The complete compliance of the FRA, 2006 shall be ensured by way of prescribed certificate from the concerned District Collector;	Complied as per MoEF&CC guidelines, necessary FRA certificates have been already obtained from District collector on dated 09.07.2021. The copies of the same were already submitted along with proposal at the time of processing Part-II. (Refer <b>Annexure-04</b> )			
V	The non-forest land proposed for CA shall be transferred and mutated in the name of Forest Department and notified as RF/PF prior to Stage-II approval. A copy of the original notification declaring the non-	Non-Forest land identified towards CA has been Transferred and Mutated in name of State Forest department and PF notification by State Govt is under process.			

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5. No	Condition	Reply
	forest land under Section4 or Section 29 of	
	the Indian Forest Act, 1927, or under the	
	relevant section of the State Forest Act as	
	the case may be, will be submitted by the	
	State Government prior to Stage-II	
	approval;	
VI	All the funds received from the user agency	An amount of Rs 20,19,88,670 has bee
	under the project shall be	deposited in CAMPA account towards NP
	transferred/ deposited in CAMPA	Charges through RTGS UTR NC
	account only through e-portal	ICICI252022120900492130., Dated 9.12.2022
	(https://parivesh.nic.in/). Amount	(Ref Annexure-02)
	deposited through other modes will not be	An amount of Rs 19,53,25,096 has been
	accepted as compliance of the Stage-I	deposited in CAMPA account towards C.,
	clearance	scheme through RTGS UTR NC
		ICICI252022120900492130., Dated 9.12.2022
		(Ref Annexure-02) and amount of R
		1,95,32,510 has been deposited with State
	r.	Forest Department towards Supervision
		charges through E Challan (Annexure 03)
VII	The State Government shall upload the	Shall be complied by The State Government.
	KML files of the area under diversion and	, , , , , , , , , , , , , , , , , , , ,
	the accepted area for raising compensatory	
	afforestation in the E-Green Watch portal	
	of FSI, before handing over forest land to	
	the user agency;	
VIII	The compliance report shall be uploaded	Noted, that the compliance report will be
	on e-portal (https://parivesh.nic.in/).	uploaded in e-portal.
С	Conditions which need to be complied on fie	eld after handing over of forest land to the use
	agency by the State Forest Department but	the compliance in form of undertaking shall be
	submitted and compliance is to be submitted	
1	Legal status of the diverted forest land shall	It is submitted that, the Legal status of the
	remain unchanged;	forest land proposed for the diversion shal
		remain unchanged. An undertaking in this
		regard is enclosed at Annexure-05
н	Additional amount of the NPV of the	Shall be complied. Necessary Undertaking for
	diverted forest land, if any, becoming	payment of additional amount of NPV, if so
	due after finalization of the same by the	determined, as per the final decision of the
	Hon'ble Supreme Court of India on	Hon'ble Supreme Court of India is enclosed at
	receipt of the report from the Expert	Annexure-06
	Committee, shall be charged by the State	

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S. No	Condition	Reply
1	User Agency shall furnish an undertaking to	
	this effect	
Ш	User agency shall restrict the felling of trees	Agreed,
	to minimum number in the	
	diverted forest land and the trees shall be	(Refer Annexure-07)
	felled under the strict supervision of the	
	State Forest Department;	
IV	The felling of trees shall be restricted to	Agreed,
	FRL-4 meter only and felling of trees	
	shall be carried out by the State Forest	(Refer Annexure-08)
	Department. Number of trees to be	
	removed shall be kept at barest minimum	
	during the execution of the project.;	
V	User agency shall undertake afforestation	Agreed,
	along the periphery of the reservoir;	(Refer Annexure-09)
VI	User Agency shall obtain Environmental	Environmental Clearance has been obtained
	Clearance as per the provisions of the	vide letter no. J-12011/22/2019-IA-I(R) dated
	Environmental (Protection) Act, 1986, if	01.12.2021.
	applicable	(5.6.4
		(Refer Annexure-10)
VII	The layout plan of the proposal shall not be	Agreed,
	changed without prior approval of Central	(Defer Appoyure 11)
N /111	Government	(Refer <b>Annexure-11</b> ) No labour camp(s) shall be established ir
VIII	No labour camp shall be established on the	forest land. An undertaking in this regard is
	forest land;	enclosed at Annexure-12
IX	Sufficient firewood, preferably the	Agreed, User Agency will provide alternate
173	alternate fuel, shall be provided by the User	
	Agency to the labour after purchasing the	
	same from the State Forest Department or	(Refer Annexure-13)
	the Forest Development Corporation or	
	any other legal source of alternate fuel	
Х	The boundary of the diverted forest land	Agreed
	shall be suitably demarcated on	
	ground at the project cost, as per the	(Refer Annexure-14)
	directions of the concerned Divisional	
	Forest Officer;	
M	No additional or new path will be	Agreed
XI		
XI	constructed inside the forest area for	
XI	constructed inside the forest area for transportation of construction materials	(Refer Annexure-15)

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The period of diversion under this approval shall be co-terminus with the period of lease to be granted in favour of the user agency or the project life, whichever is less The User Agency and the State Government shall ensure compliance of all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project; The forest land shall not be used for any purpose other than that specified in the project proposal; User agency shall provide free water for	Agreed. (Refer Annexure-16) Agreed. (Refer Annexure-17) Agreed. (Refer Annexure-18) Shall be complied as per the instructions of
lease to be granted in favour of the user agency or the project life, whichever is less The User Agency and the State Government shall ensure compliance of all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project; The forest land shall not be used for any purpose other than that specified in the project proposal; User agency shall provide free water for	Agreed. (Refer Annexure-17) Agreed. (Refer Annexure-18)
agency or the project life, whichever is less The User Agency and the State Government shall ensure compliance of all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project; The forest land shall not be used for any purpose other than that specified in the project proposal; User agency shall provide free water for	Agreed. (Refer Annexure-17) Agreed. (Refer Annexure-18)
The User Agency and the State Government shall ensure compliance of all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project; The forest land shall not be used for any purpose other than that specified in the project proposal; User agency shall provide free water for	(Refer Annexure-17) Agreed. (Refer Annexure-18)
Government shall ensure compliance of all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project; The forest land shall not be used for any purpose other than that specified in the project proposal; User agency shall provide free water for	(Refer Annexure-17) Agreed. (Refer Annexure-18)
the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project; The forest land shall not be used for any purpose other than that specified in the project proposal; User agency shall provide free water for	Agreed. (Refer <b>Annexure-18</b> )
regulations and guidelines for the time being in force as applicable to the project; The forest land shall not be used for any purpose other than that specified in the project proposal; User agency shall provide free water for	Agreed. (Refer <b>Annexure-18</b> )
being in force as applicable to the project; The forest land shall not be used for any purpose other than that specified in the project proposal; User agency shall provide free water for	(Refer Annexure-18)
The forest land shall not be used for any purpose other than that specified in the project proposal; User agency shall provide free water for	(Refer Annexure-18)
purpose other than that specified in the project proposal; User agency shall provide free water for	(Refer Annexure-18)
project proposal; User agency shall provide free water for	
User agency shall provide free water for	
	State Forest Department.
	Agreed.
	ABICCU.
	(Refer <b>Annexure-19</b> )
department or person without prior	
approval of Govt. of India;	
Violation of any of these conditions will	Agreed.
amount to violation of Forest	
(Conservation) Act, 1980 and action would	(Refer Annexure-20)
. ,	
	A mus a d
	Agreed.
	(Refer Annexure-21)
<i>i</i>	
T sl tr d a V a (() b C C (() V 2 A F r r r	brestry related activities/ projects; he forest land proposed to be diverted hall under no circumstances be ransferred to any other agencies, epartment or person without prior pproval of Govt. of India; iolation of any of these conditions will mount to violation of Forest Conservation) Act, 1980 and action would e taken as prescribed in para 1.21 of

Date: 09-01-2023 Place: Hyderabad

ergies p 23 Gopi Krushna Nikku eenko Authorised Signatory \*

MP30 Gandhi Sagar Off-Stream PSP



## भारतीय वन्यजीव संस्थान Wildlife Institute of India

(An Autonomous Institute under Ministry of Environment, Forest & Climate Change, Govt. of India) प्रत्येदेर संठ/Post Box No. 18, जन्द्रवनी, देहरादून/Chandrabani, Dehradun + 248001, जनराखण्ड, भारत/Uttarakhand, INDIA Azadi Ka Amrit Mahotsav

#### WII/HED/JAJ/2022/MP-30-G-SAGAR

19.09.2022

To

Shri Sunil Agarwal, IFS Principal Chief Conservator of Forests (Land Management) Bhopal - 462001 Madhya Pradesh

Sub: Diversion of 301.96 ha forest land for the construction of MP-30 Gandhi Sagar off stream pumped storage project (1440 MW) by M/s Greenko Energies Private Limited, Hyderabad in Neemuch Forests Division, Neemuch District of Madhya Pradesh State (Online Proposal No. FP/MP/HYD/116943/2020)-reg;

Ref: Letter no-4/23/2021/10-11/2202 dated 21-06-2022.

Sir,

With reference to the above letter, I would like to inform you that we have received Rs. 67,16,365/as 80% project cost (after deducting TDS) on 29<sup>th</sup> July 2022. Further, I would like to inform that we have initiated the project related activities including field survey w.e.f. 1<sup>st</sup> August 2022. This is for your kind information.

Thanking You;

Yours faithfully, (I.A. Johnson)

Principal Investigator – Gandhi Sagar Project- Conservation Plan



#### भारतीय वन्यजीव संस्थान Wildlife Institute of India



(An Autonomous Institute under Ministry of Environment, Forest & Climate Change, Govt. of India) पत्रपेटी संO/Post Box No. 18, चन्द्रबनी, देहरादून/ Chandrabani, Dehradun - 248001, उत्तराखण्ड, भारत/Uttarakhand, INDIA

#### WII/HED/JAJ/2022/MP-30-G-SAGAR

26.05.2022

То

Shri Sunil Agarwal, IFS Principal Chief Conservator of Forests (Land Management) Bhopal - 462001 Madhya Pradesh

Sub: Diversion of 301.96 ha forest land for the construction of MP-30 Gandhi Sagar off stream pumped storage project (1440 MW) by M/s Greenko Energies Private Limited, Hyderabad in Neemuch Forests Division, Neemuch District of Madhya Pradesh State (Online Proposal No. FP/MP/HYD/116943/2020)-reg;

Ref: Letter no-4/23/2021/10-11/1415 dated 21-04-2022.

#### Sir,

With reference to the above cited letter, I would like to express our sincere thanks for sectioning Rs. 91,72,814/- for preparing wildlife conservation plan for the impact zone of MP-30 Gandhi Sagar off-stream Pumped Storage Project (1440 mw). In order to initiate the project activities, you are requested to release 80% of the project money as the 1<sup>st</sup> instalment grant to the WII's account as indicated below.

Thanking You,

Yours faithfully, (J.A. Johnson)

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Principal Investigator – Gandhi Sagar Project- Conservation Plan

WII's account details:

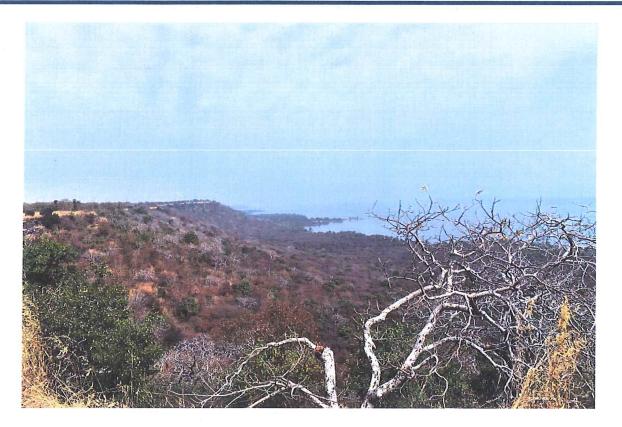
A/No. 518502010057793 M/S DIRECTOR WILIDLIFE INSTITUTE OF INDIA IFSC: UBIN0551856 Bank: Union Bank of India Branch: Wild Life Chandrabani.

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🔹 ई.पी.ए.बी.एक्स/EPABX :+ 91-135-2640114, 2640115, 2646100; फैक्स/ Fax : 0135-2640117 🐹 🛛 🗧 🕅 👘 Email: wil@wil.gov.in चेव/ Website www.wil.gov.in 🚺 Twitter: @wilofficial1

## **ENVIRONMENTAL IMPACT ASSESSMENT**

## MP 30 GANDHI SAGAR OFF-STREAM PUMPED STORAGE PROJECT (1440 MW)



April, 2021

Prepared for:

### GREENKO ENERGIES PRIVATE LIMITED, HYDERABAD

Greenk

Prepared by:



## **R S Envirolink Technologies Pvt. Ltd.**

403, BESTECH CHAMBER, B-BLOCK, SUSHANT LOK-I, GURGAON Ph: +91-124-4295383: www.rstechnologies.co.in Relevant Extract of Muck Disposal Plan of MP30 Gandhi Sagar Off-Stream Pumped Storage Project (1440 MW)

#### 10.4 BIODIVERSITY MANAGEMENT AND WILDLIFE CONSERVATION PLAN

The proposed project does not fall in any Protected Area like Wildlife Sanctuary/National Parks, etc. However, considering the proximity of Gandhi Sagar Wildlife Sanctuary and with reference to additional conditions of Term of Reference (ToR) issued by Ministry of Environment, Forest, and Climate Change (MoEF&CC) via letter No. F. No. J-12011/22/2019-IA-I dated 28th February 2020, a Wildlife Conservation plan has been prepared for the Schedule I species reported from the study area with financial provision of 166.90 lakh. The Wildlife convestion plan has been approved by PCCF (Wildlife) and Chief Wildlife Warden, MP vide letter no. क्रमांक/ व.प्रा./ मा.चि./ व.स.यो/GEN-270/ 4246 dated 21/06/2021.

A detailed plan with approval letter has been attached as Annexure VII.

#### 10.4.1 Budget

The total budget for the Biodiversity Management & Wildlife Conservation Plan would be **Rs. 166.90 lakh**. The breakup of the budget is given in **Table 10.5** below.

S. No.	Particulars	Total Amount (Rs. in lakh)
1	Afforestation and Enrichment along the periphery of the upper reservoir in the adjoining forest area (@88000/ha for 55 ha)	48.40
2	Farm forestry for fuelwood and timber (@70000/ha for 5 ha)	3.50
3	Sowing of Grass (lump sum)	8.00
5	Awareness Program @ Rs. 1 lakh/year for 4 years	4.00
6	Enforcement of Forest Protection by Project	10.00
7	Conservation and Management of Schedule-I Species	83.00
8	Monitoring and Evaluation	10.00
·	Total	166.90

#### Table 10.5: Budget for Biodiversity Management & Wildlife Conservation Plan\*

#### **10.5 MUCK MANAGEMENT PLAN**

The proposed scheme involves the construction of rockfill embankments of an average height of around 30m with a maximum of 35m height in the upper reservoir for the creation of an Off-Stream pumped storage component. The water is proposed to be diverted through six numbers of independent penstocks and one number of independent penstocks bifurcated into two. A surface Powerhouse is proposed equipped with five turbines and a pump/turbine having generating/pumping capacity of 240MW/251MW and two units of 120MW/135MW, respectively.

#### **10.5.1** Quantity of Material to be Excavated

The construction activities of the project would generate muck from the excavation of various project structures. The total quantity of muck likely to be generated from excavation including the construction of roads is about 4.56 Mcum. The component-wise quantity of muck to be generated is given in **Table 10.6** and the quantity of muck to be disposed of is given in **Table 10.7**. However, after the utilization of muck for different project components and considering the swell factor of 40% for excavated material, the total quantity of muck to be disposed of is

worked out as **3.19 Mcum**. The entire excavated material is proposed to be dumped at one location identified specifically for this purpose.

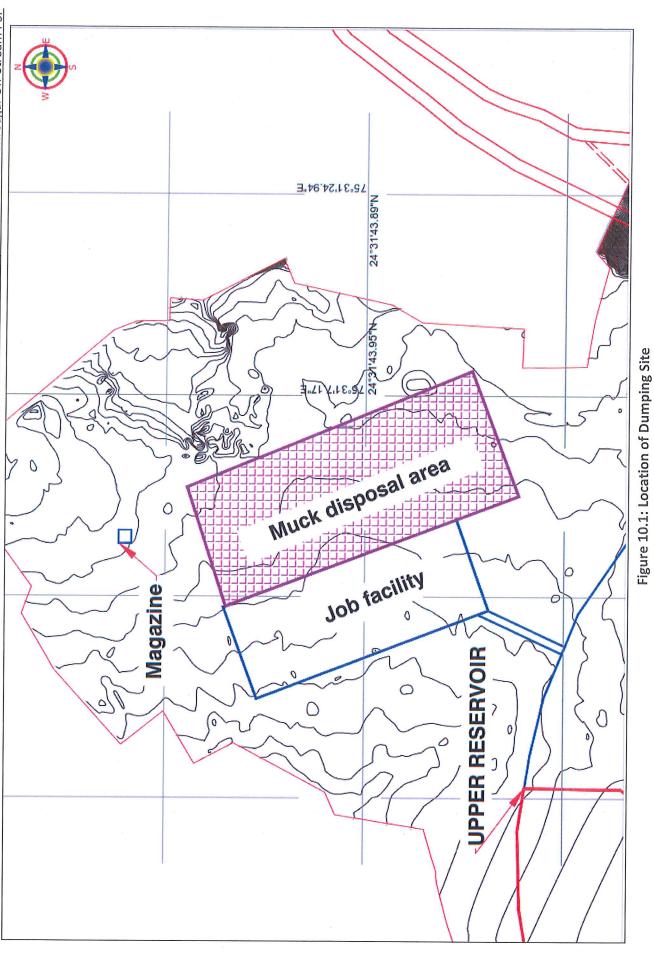
S. No.	Project Component	Total Quantity of Muck to be generated (Cum)
1	Upper Reservoir	608827.78
2	Concrete Power Block	110293.07
3	Power Intake	1284655.37
4	Pressure Shaft	415711.00
5	Powerhouse	1401434.85
6	TRT	41086.00
7	Approach Channel – Lower Reservoir	587955.89
8	Adit	76265.00
9	Roads	33296.00
	Total	4559525.86

Table 10.6: Muck to be generated from various components of the project

Table 10.7: Quantity of	muck to	be d	isposed
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S. No.	Description	<b>Quantity in MCum</b>
1	The total quantum of muck generated from the project (refer to Table 10.6)	4.56
2	Total quantity to be utilized in PSP (Considering 50% of the generated muck to be useful)	2.28
3	Quantity of muck to be disposed (1-2)	2.28
4	The total quantity of muck to be disposed of after considering the Swelling factor for loose muck (@40% of 3)	3.19





Final EIA Report of MP 30 Gandhi Sagar Off-Stream PSP

Greenko Energies Pvt. Ltd.

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#### 10.5.2 Muck Disposal Site

For the disposal of 3.19 MCum of muck an area of 25 ha having a capacity of 3.76 MCum has been identified. The disposal site was identified taking into consideration the availability of suitable area, minimum distance from generation sites. Chainage-wise area available and capacity of muck dumping site is given in **Table 10.8**.

#### 10.5.2.1 Criteria for Selection of Dumping Site

In MP 30 Gandhi Sagar Off Stream Pumped storage Project, a scientific approach and methodology were followed for the identification of the dumping site. All possible alternate sites were inspected and examined before rejecting or selecting any site. The dumping site is characterized by:

- i) no forest cover,
- ii) the populated /settlement areas are away from the dumping site and therefore will have the least impact on human settlements, and
- iii) the identified muck site is close to the area of generation to avoid hazards related to the transport of muck for long distances and minimizing traffic problems.

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S. No.	Chainage (M)	Area (Sqm)	Capacity (Cum)		
1	0	4864.13	0.00		
2	200	4830.23	969436.00		
3	400	4810.74	964097.00		
4	600	4755.73	956647.00		
5	784	4724.32	872164.60		
	TOTAL	23985.15	3762344.60		

#### Table 10.8. Details of the muck disposal site

#### 10.5.2.2 Methodology of Dumping

The muck that needs disposal would be piled at  $\emptyset$  (angle of repose) maximum of 30° at the proposed dumping site. The description regarding the stabilization of the stacked material along the proposed roads has been discussed in the following paragraphs.

The options like dumping muck in stages and allowing it to consolidate/settle through the monsoon, compacting the dumped muck with bulldozer movement, zoning of the dump judiciously to ensure the stability of 30° slope under all superimposed conditions will be explored and utilised. The plan and cross-sections of the proposed muck dumping site are given in **Figures 10.2 and Figure 10.3**.

The main objectives of the process of muck dumping and rehabilitation of the muck disposal site are:

- to control soil erosion;
- to create greenery in the muck disposal area;
- to develop the site into a recreational park;
- to ensure maximum utilization of muck for the construction purpose;
- to develop the muck disposal site/ dumping yard to blend with the surrounding landscape.

Greenko Energies Pvt. Ltd.

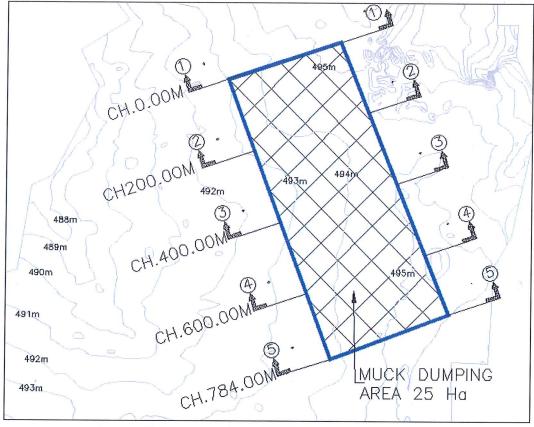
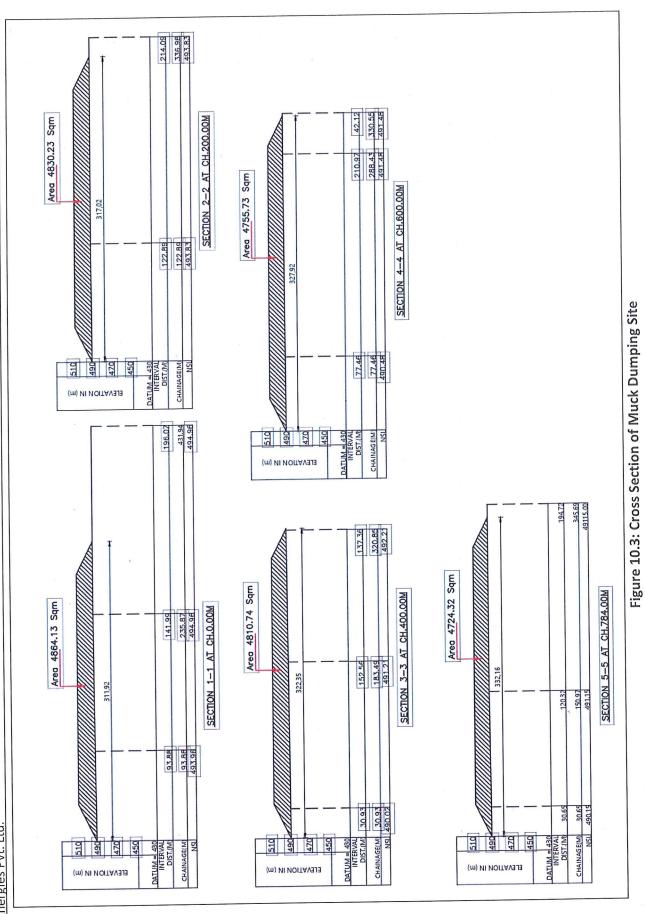


Figure 10.2: Plan of Muck Dumping Site

The generated muck will be carried in dumper trucks tightly covered in line with international best practices. All precautionary measures will be followed during the dumping of muck. All dumpers will be well maintained to avoid any chances of loose soil from being falling during transportation. All unpaved routes will be periodically wetted with the help of sprinklers before the movement of dump trucks. Dumping would be avoided during the high-speed wind, so that suspended particulate matter (PM<sub>10</sub>) levels could be maintained. After the dumping, the surface of dumps will be sprayed with water with the help of sprinklers and then compacted.

Greenko Energies Pvt. Ltd.

Final EIA Report of MP 30 Gandhi Sagar Off-Stream PSP



R S Envirolink Technologies Pvt. Ltd.

10.10

The capacity/volume of the muck dumping sites is more than the volume of the muck to be disposed i.e., for 3.19 Mcum of muck to be disposed of and area having a capacity of 3.76 Mcum has been identified (see Table 10.8). The spare capacity has been earmarked for the temporary storage of usable muck, traffic movement of dumpers and lifters. The spoil from various construction sites would be disposed of at the designated site in a controlled and orderly manner. All measures would be adopted to ensure that the dumping of muck does not cause injury or inconvenience to the people or the property around the area. The general topography of the disposal area has a very mild slope. The spillage of muck will be prevented by making concrete retaining walls to retain the piled muck. The top surface would be leveled and graded after the capacity of any dumping site is exhausted. The top surface will be covered with soil and grass seeding will be ensured to promote vegetation cover.

Suitable retaining walls shall be constructed before dumping of muck, and terraces would be developed to support the muck on a vertical slope and for optimum space utilization. Loose muck would be compacted layer-wise. The compacted muck will be ultimately covered with fertile soil, and suitable plants will be planted adopting suitable biotechnological measures (see Figures 10.4).

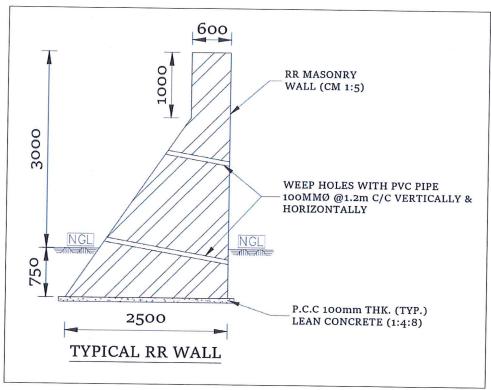


Figure 10.4: Cross-section of Retaining Wall

#### 10.5.3 Rehabilitation of Muck Disposal Site

The Rehabilitation plan of the muck dumping site includes engineering and biological measures. The project authorities would ensure that the dumping yards blend with the natural landscape to develop the site with patches of greenery in and around it.

The following engineering and biological measures have been proposed for the development of spoiled areas.

#### 10.5.3.1 Engineering Measures

For stacking of dumped material, the RR masonry retaining wall is proposed to be built before the dumping of any material on the site. The minimum length of the dumping site is 2198 m and the height of the retaining wall is proposed to be 3m. The retaining wall shall have an RCC base of 100m thick and a width of about 2.5 m. The masonry wall is proposed with weeping pipes with PVC pipes of 100mm for drainage. The leveling & Sloping would be done after dumping the material; after every cycle and simultaneously improving the drainage of the disposal site.

All the approach roads to various project structures will be constructed with minimal environmental damage. The methodology consists of developing the formation width is half cutting and half-filling, so that the materials obtained from cutting are utilized in filling. The excavation on the hillside will be done to get a stable slope for the materials encountered. At places breast wall, gabion walls shall be done in natural slope to retain filled material, particularly where there is a problem of retaining the slope.

#### i) Retaining Wall

The total area for the dumping of muck is 25.0 ha which can accommodate more than 3.78 Mcum though the estimated muck to be disposed of is 3.19 Mcum. The height of the retaining wall will be approximately 3m. A typical sketch of the retaining wall is given in **Figure 10.4**.

#### ii) Compaction

Compaction is an engineering measure, which would reduce the bulk density of the muck thereby optimizing the use of the muck disposal area and would make it suitable for the plantation and other biological measures. The top surface would be leveled and graded to make the alternative use. The muck will be spread in layers of 500-700mm thick layers. The top surface would be leveled and graded to make the alternative use. On top, a layer of soil would be spread to make the land suitable for plantation. The total cost for the process of compaction is **Rs. 125.00 lakh**.

#### iii) Fencing

Fencing is a bio-engineering measure. After rehabilitation of muck, the dumping area needs protection for some time from disturbing by human and domestic animals. For this reason, fencing around the muck deposited is required. Barbed wire strands with two diagonal strands, clamped to wooden/ concrete posts placed at a 3 m distance are proposed around the dumping piles. Project authorities will establish temporary wind barriers around 3 sides of dumps close to the settlement area.

The estimated cost of engineering measures is given in Table 10.9.

S. No.	Particular	Volume	Rate in Rs. /cum	Cost in Rs. Lakh
1	Earthwork for foundation (Cum)	2720	200	5.44
2	RCC 100 mm Thick M10 Grade Concrete (Cum)	900	4200	37.80

Table 10.9: Estimated Cost of Engineering Measures

3	R.R. Masonry	12000	3000	360.00
4	Weep Holes with PVC Pipe 100 mmØ @1.5m C/C Vertically & Horizontally (Rmt)	11000	150	16.50
5	Compacting and land leveling, etc.	LS	LS	125.00
	Total			544.74

#### 10.5.3.2 Biological Measures

The top surface area of the dumping is about 25.0 ha. This area will be treated for plantation. Vegetation cover controls the hydrological and mechanical effects on soils and slopes. Therefore, biological measures to stabilize the loose slope are essential. To implement the biological measures in the dumping area the following activities would be considered. While some part of the site can be used as parking space for vehicles, a part of the site can also be developed later as a 'recreational park'. It will involve the creation of space for community members to congregate safely and a safe place for kids to play and parents to bring their families so that they can enjoy nature in the park built on reclaimed land. As air pollution from vehicular traffic during project construction will increase the planting of trees in recreation parks can help combat this problem. The recommended plant species for this have been given later under plantations. An initial allocation of **Rs.10.00 lakh** has been made in the budget.

The biological measures include the following:

#### i) Soil treatment

Muck dumped at various sites is not considered to be nutrient-rich as it is excavated from tunnels and other structures. To make it suitable for the plantation will be provided biotreatment.

#### ii) Plantation

The selected species will be planted after their nurseries have been developed. The dumping areas are very small; therefore, a separate nursery would not be required. Saplings for planation should be procured from the forest department nursery. Nearly 1-2 years old saplings would be used for the plantation. Grasses and herbaceous species would be used in the interspacing of tree and shrub species. They will help in providing the continuous chain of support in retaining debris, reinforcing soil, and increasing the infiltration capacity of the area.

After the process of compaction dumping site will be available for the plantation. In consultation with the horticultural department as well as the forest department.

The afforestation with indigenous plant species of high ecological and economic value which can adapt to local habitat will be undertaken with 400-600 plants per hectare depending upon the canopy cover required. Major tree species which would be planted are listed in the table below.

S. No.	Family	Family Scientific Name			
1	Anacardiaceae	Mangifera indica	Tree		
2	Anonaceae	Polyalthia longifolia	Tree		
3	Bignoniaceae	Jacaranda mimosifolia	Tree		

S. No.	Family	Scientific Name	Habitat
4	Combretaceae	Terminalia tomentosa	Tree
5	Combretaceae	Terminalia bellirica	Tree
6	Fabaceae	Albizia lebbeck	Tree
7	Fabaceae	Cassia fistula	Tree
8	Fabaceae	Dalbergia sissoo	Tree
9	Fabaceae	Dalbergia paniculata	Tree
10	Fabaceae	Acacia nilotica	Tree
11	Fabaceae	Acacia catechu	Tree
12	Lamiaceae	Tectona grandis	Tree
13	Magnoliaceae	Magnolia champaca	Tree
14	Meliaceae	Azadirachta indica	Tree
15	Meliaceae	Toona ciliata	Tree
16	Myrtaceae	Syzygium cumini	Tree
17	Rubiaceae	Neolamarckia cadamba	Tree
18	Rutaceae	Aegle marmelos	Tree
19	Sapotaceae	Madhuca longifolia	Tree
20	Acanthaceae	Justicia adhatoda	Shrub
21	Apocynaceae	Nerium indicum	Shrub
22	Euphorbiaceae	Jatropha curcas	Shrub
23	Poaceae	Dendrocalamus strictus	Shrub
24	Sapindaceae	Dodonaea viscosa	Shrub
25	Verbenaceae	Vitex negundo	Shrub

The estimated cost of these measures would be **Rs. 96.25 lakh**. This cost includes the cost of turfing of slopes, preparation of the ground, spreading of manure, etc., providing 5 cm of soil cover, and transportation and carriage. It also includes the cost of fencing, irrigation, watch and ward, etc. (see Table 10.10).

S. No.	Particulars	Quantity	Rate (in Rs.)	Amount (Rs. in lakh)
1	Site preparation (Levelling and spreading of fertile soil)	25 ha	10,000	2.50
2	Pitting (size: 0.45 m x 0.45 m x 0.45 m) @ Rs. 1200 per 400 pits	30,000 nos.	25.0	7.50
3	Manure and soil filling in pits including transportation	30,000 nos.	20.0	6.00
4	Cost of plant material	30,000 nos.	15.0	4.50
5	Transportation of Plant material from the nursery	-	Lumpsum	5.00
6	Cost of RCC fence post and B/Wire	25 ha	25000.0	6.25
7	Planting of entire Plants raised in P/bag	30000 nos.	15.00	4.50
8	Maintenance for 5 years			25.00
9	Misc. (watering, transport, etc.)	-	Lumpsum	25.00
10	Creation of part of dumping site into Recreation Park	-	Lumpsum	10.00
	Total			96.25

Table 10.10: Total financial outlay for the biological measures at dumping sites

#### **10.5.4 Financial Requirement**

The estimated cost of the relocation and rehabilitation of excavated material is given in **Table 10.11**. The total cost of these measures will be **Rs. 640.99 lakh.** 

S. No.	ltem	Amount (Rs.in lakh)		
1.	Engineering measures	544.74		
2. I	Biological measures	96.25		
	Total	640.99		

#### Table 10.11: Financial requirements for implementation of Muck Disposal Plan

#### **10.6 LANDSCAPING AND RESTORATION OF CONSTRUCTION SITES**

During the construction phase of the project, a number of temporary construction sites and working areas will come up. For the restoration of the proposed project affected areas to their original landscape as much as possible and retain their aesthetic values, various engineering and biological measures have been suggested.

Setting up the infrastructure for construction including colonies for labor will lead to the clearing of vegetation. The forest land diverted for the construction of the project component will be cleared of vegetation. Part of this land on completion of project construction can be restored. Following measures would be adopted for the rehabilitation and landscaping of colony areas and construction sites.

- Proper roads and lanes would be provided inside the colony area. The open area will be covered with vegetation. Preferably native ornamental plants and trees will be planted in rows along the roads and lanes.
- Proper channels would be provided inside the colony to drain out the rain/ domestic water. Retaining walls will be built to avoid landslides and slips.
- Parks and playgrounds for staff and children would be developed in the colony in the project area.

The estimated cost of restoration of construction is 80.00 lakh (see Table 10.12).

S. No.	Item of work	Quantity	Rate/ unit (in Rs.)	Amount Rs. (in lakh)	
1	Leveling and development of the area around Powerhouse	4 ha	200000/ha	8.00	
2	Covering the slopes with geo-textiles like coir, etc.	4000 sqm	100/sqm	4.00	
3	Grass seeding	Lump-sum		3.00	
4	Plantation (Ornamental and avenue plantation)	Lump sum		35.00	
5	Fencing	Lump sum		10.00	
6	Maintenance	4 Years	500000/Year	20.00	
	Total		·	80.00	

Table 10.12: Cost estimates	for engineering and biological	measures for construction areas
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#### **10.7 SANITATION AND SOLID WASTE MANAGEMENT**

The solid waste generated from temporary and permanent colonies in construction as well as operation phase requires special management to dispose of as warranted under the Solid Wastes Management Rules (SWM) 2016. For that, an efficient waste management system will be required to put in place to keep the environment of the region clean and healthy. These colonies and temporary settlements will also require an adequate water supply for drinking and cleaning.

NEFT RTGS CHALLAN	
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	AGENCY COPY		BANK COPY
दूलिएन हैक <sub>अन्य</sub> क	(JJ) Union Bank	युनियम सँक ना क्रम	(f) Union Bank
	and a set	No.	
NEFT / RTGS ( Date : 05-12-2022	CHALLAN for CAMPA Funds	NEFT / RTGS C Date : 05-12-2022	HALLAN for CAMPA Funds
Agency Name,	GREENKO ENERGIES PRIVATE LIMITED	Agency Name,	GREENKO ENERGIES PRIVATE LIMITED
Application No.	56116943355	Application No.	56116943355
MoEF/SG File No.	8-18/2021-FC	MoEF/SG File No.	3-18/2021-FC
Location.	MADHYA PRADESH	Location.	MADHYA PRADESH
Address. Piot no-1071, Road No-44, Jubilee Hills, HyderabadHyderabad		Address:	Plot no-1071, Road No-44 Jubilee Hills, Hyderabad Hyderabad
Amount(in Rs)	397313766/-	Amount(in Rs)	397313766/-
Thirtsen Thousand Seve	y-Nine Crore Seventy-Three Lekh n Hundred and Sixty-Six Rupees Only e made as per following	Amount in Words :Thirt Thirtean Thousand Sover	L y-Nine Crore Soventy-Three Lakin h Hundred and Sixty-Six Rupees of
NEFT/RTGS to b	n Hundred and Sixty-Six Rupees Only	Amount in Words :Thirty Thirtean Thousand Seven	- Mine Crore Soverity-Three Lakh - Mindred and Sixty-Six Rupees of a made as per following
Thirteen Thousand Seven NEFT/RTGS to b details;	n Hundred and Sixty-Six Rupees Only e made as per following	Amount in Words :Thin Thirteen Thousand Seven NEFT/RTGS to be details;	
Thirteen Thousand Seve NEFT/RTGS to b details; Beneficiary Name:	e made as per following MADHYA PRADESH CAMPA	Amount in Words :Thin Thirtean Thousand Sover NEFT/RTGS to be details; Beneficiary Name:	- Mine Crore Soverity-Three Lakh n Hundred and Sixty-Six Rupees a made as per following MADHYA PRADESH CAM

Note:After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date and reference id to Email: fcsblr@unionbankofindia.bank , epurse@unionbankofindia.bank, ubin0903710@unionbankofindia.bank



# WTR; ICICR52022120900492130 INR: 39,73,13,766

<u>6</u>...

## Annexure-03

		Department o Acknowled	dgeme	nce , Government of Madhya Prade nt Receipt for Online Tax Payment I.P. State Government	sh Fi		
TIN (Tax payment Identi / Registration No.	fication Numbe	r) / Enrollment					
Depositor/Dealer Name				nko Energies Pvt Ltd			
Address				, Near busstand rampura, Neemuch, N	eemuch, Madhya Pradesh - 458441		
District selected for Payment				nuch			
Unique Registration Num	ber (URN)		MPTU	RN101220220001066			
Department and Office N	ame		Comn	non Challan Entry, Forest			
Challan Payment Period				-2023			
				Purpose Details			
CRN	Assessment/ Concerning Period	Head of Accou	unt	Challan Identification Number (CIN)	Challan No.	Amount(Rs.)	
MPT040610122022000020	2022-12-10 to 2022-12-31	0406-01-800-0 ( Miscellaneous re )					
Total Amount(in figures)			50,00,000.00				
Total Amount(in words)	· · · · · · · · · · · · · · · · · · ·		Fifty Lakh Rupees Only				
Name and Code of the Ba	ank		ICICI BANK (229)				
Bank Reference Number	····		91819983				
Scroll No			000139				
Scroll Date			10/12/2022				
Date of Transaction / Tir (HH24:mm:ss)	ne of Transacti	on	10/12/2022 17:21:23				
(HH24:mm:ss) Transaction Status			Success				

		Department Acknowl	of Finance , Government of Madhya Pradesh edgement Receipt for Online Tax Payment to M.P. State Government				
TIN (Tax payment Ident / Registration No.	ification Numb	er) / Enrollment					
Depositor/Dealer Name				nko Energies Pvt Ltd			
Address				, Near Busstand Rampura, Neemuch	, Neemuch, Madhya Pradesh - 45844	1	
District selected for Payment				nuch	A	-	
Unique Registration Number (URN)				JRN101220220000977		· · · · · · · · · · · · · · · · · · ·	
Department and Office N	lame		Com	mon Challan Entry, Forest			
Challan Payment Period			2022	-2023	an ann an		
			L	Purpose Details			
CRN	Assessment/ Concerning Period	Head of Accou	unt	Challan Identification Number (CIN)	Challan No.	Amount(Rs.)	
MPT040610122022000015	2022-12-10 to 2022-12-31	0406-01-800-02 ( Miscellaneous re )		ICIC0000055040610122022000181	051/9999999/0406/12/22/000949	500000.00	
Total Amount(in figures)			50,00	,000.00		I	
Total Amount(in words)			Fifty Lakh Rupees Only				
Name and Code of the Ba	nk		ICICI BANK (229)				
Bank Reference Number			91819618				
Scroll No			000162				
Scroll Date			10/12/2022				
Date of Transaction / Tim (HH24:mm:ss)	e of Transactio	n	10/12/2022 17:21:43				
(HH24:mm:ss) 1 Transaction Status			Success				

		Department o Acknowled	dgeme	nce , Government of Madhya Prade nt Receipt for Online Tax Payment 1.P. State Government	sh F		
TIN (Tax payment Identi / Registration No.	fication Numbe	r) / Enrollment					
Depositor/Dealer Name				iko Energies Pvt Ltd			
Address			GEPL,	Near bus stand Rampura, neemuch,	Neemuch, Madhya Pradesh - 458441		
District selected for Payn	nent		Neem	uch			
Unique Registration Num	ber (URN)		MPTU	RN101220220001215			
Department and Office N	ame		Comn	non Challan Entry, Forest			
Challan Payment Period				-2023			
				Purpose Details		•••••••	
CRN	Assessment/ Concerning Period	Head of Accou	unt	Challan Identification Number (CIN)	Challan No.	Amount(Rs.	
MPT040610122022000024	2022-12-10 to 2022-12-31	0406-01-800-02 ( Miscellaneous re )					
Total Amount(in figures)			45,32	2,510.00			
Total Amount(in words)			Forty Five Lakh Thirty Two Thousand Five Hundred Ten Rupees Only				
Name and Code of the Ba	ink		ICICI BANK (229)				
Bank Reference Number			91820728				
Scroll No			000161				
Scroll Date			10/12/2022				
Date of Transaction / Tir (HH24:mm:ss)	ne of Transacti	on	10/12/2022 17:20:16				
Transaction Status			Success				

Department of Finance , Government of Madhya Pradesh Acknowledgement Receipt for Online Tax Payment to M.P. State Government							
TIN (Tax payment Identification Number) / Enrollment / Registration No.					· · · · · · · · · · · · · · · · · · ·		
Depositor/Dealer Name				Greenko Energies Pvt Ltd			
Address				GEPL, Near Busstand Rampura, Neemuch, Neemuch, Madhya Pradesh - 458441			
District selected for Payment				Neemuch			
Unique Registration Number (URN)			MPTURN101220220001140				
Department and Office Name			Common Challan Entry, Forest				
Challan Payment Period			2022-2023				
				Purpose Details			
CRN	Assessment/ Concerning Period	Head of Account		Challan Identification Number (CIN)	Challan No.	Amount(Rs.)	
MPT040610122022000022	2022-12-10 to 2022-12-31	0406-01-800-0229 ( Miscellaneous receipt )		ICIC0000055040610122022000164	051/9999999/0406/12/22/000951	5000000.00	
Total Amount(in figures)				50,00,000.00			
Total Amount(in words)			Fifty Lakh Rupees Only				
Name and Code of the Bank			ICICI BANK (229)				
Bank Reference Number				91820323			
Scroll No			000138				
Scroll Date			10/12/2022				
Date of Transaction / Time of Transaction (HH24:mm:ss)			10/12/2022 17:20:52				
Transaction Status			Success				

(जनजातीय कार्य एवं अनुसूचित जाति कल्याण विमाग) क./ आदिम-वन अधिनियम/2020-21/1294 नीमच, दिनांक 09,07.202)

प्रबंधक

मैसर्स ग्रीनको एनर्जिस प्रायवेट लिमिटेड, हैदराबाद (तेलंगाना)

विषयः—MP-30गांधीसागर ऑफ स्ट्रीम पंपिंग स्टोरेज प्रोजेक्ट (1440 मेगावाट) के विकास के लिये नीमच वन प्रभाग अंतर्गत 301.96 हेक्टेयर वन भूमि का एफ.आर.ए. प्रमाण पत्र भेजने बाबत।

संदर्भः-(1) आपका पत्र क. / GEPL/MP30GSPSP/FRA/202024 दिनाक 24.12.2020 (2) आपका पत्र क. / GEPL/MP30GSPSP/FRA/201230 दिनांक 30.12.2020

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आपके उपरोक्त विषयांकित संदर्भित पत्रों द्वारा MP-30 गांधीसागर ऑफ स्ट्रीम पंपिंग स्टोरेज प्रोजेक्ट (1440 मेगावाट) के विकास के लिये नीमच वन प्रभाग अंतर्गत 301.96 हेक्टेयर वन भूमि का एफ.आर.ए. प्रमाण पत्र चाहा गया था।

आपके द्वारा वांछित प्रमाण पत्र कलेक्टर महोदय, जिला नीमच द्वारा हस्ताक्षरित फार्म–॥ संलग्न कर आपकी ओर प्रेषित है। संलग्नः–उपरोक्तानुसार।

जिली संयोजक

जनजातीय कार्य एवं अनु.जा.वि. जिला–नीमच नीमच, दिनांक 09,07,202)

पृ० कं./आदिम-वन अधिनियम/2020-21/1295 प्रतिलिपिः–

अपर प्रधान मुख्य वन संरक्षक, भू–प्रबंध, भोपाल म०प्र० की ओर सूचनार्थ।

2. वन मण्डलाधिकारी, जिला नीमच की ओर सूचनार्थ।

जिलेगसयोजक जनजातीय कार्य एवं अनु.जा.वि. जिला–नीमच

#### FORM II

(For Projects other than Linear Projects) Government of Madhya Pradesh Office of the District Collector, Neemuch

NO.T-FRA/2021/-1286

Neemuch, Dated: 08.07.202 |

## TO WHOMSOEVER IT MAY CONCERN

In compliance of the Ministry of Environment and Forest (MoEF), Government of India's letter No 11-9/98-FC (pt) dated 3<sup>rd</sup> August 2009 wherein the MoEF issued guidelines on submission of evidences for having initiated and completed the process of settlement of rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 ('FRA', for short) on the forest land proposed to be diverted for non-forest purposes, it is certified that **301.96 Ha (Compartment no 438, 439, 440, 444, 446 and 447)** of reserved forest land proposed to be diverted in favor of M/s Greenko Energies Private Limited (GEPL) for construction of (1440 MW) MP 30 Gandhi Sagar off Stream Pumped Storage Project in Neemuch District falls within jurisdiction of Gram Panchayat (s) of Khemla Block, Amarpura, Barwadiya and Majiriya in Tehsil Rampura, Sub-Division Manasa, District Neemuch of Madhya Pradesh.

#### It is further certified that:-

- (a) The complete process for identification and settlement of forest rights under the Scheduled Tribes and Other Traditional Forest Dwellers Act, 2006 (FRA) has been carried out for the entire 301.96 Ha (Compartment no 438, 439, 440, 444, 446 and 447) of Forest area proposed for diversion. A copy of records of all consultation and meeting of the Gram Sabhas, Sub-Divisional Level Committee and District Level Committee are enclosed as Annexure-1 to 6.
- (b) The proposal for such diversion (with full details of the project and its implications, in vernacular/ local language) have been placed before each concerned Gram Sabha of forest- dwellers, who are eligible under the FRA.
- (c) The each of concerned Gram Sabha(s), has certified that all formalities/processes under the FRA have been carried out, and that they have given their consent to the proposed diversion and the compensation and ameliorative measures, if any, having understood the purpose and details of proposed diversion. A copy of certificate issued by the Khemla Block, Amarpura, Barwadiya and Majiriya Gram Panchayat (s) is enclosed as Annexure 1 to Annexure 4.
- (d) The discussion and decisions on such proposal had taken place only when there was a quorum of minimum 50% of the members of the Gram Sabha Panchayats present.

- (c) The diversion of Forest Land for facilities managed by the Government as required under Section 3(2) of the FRA have been completed and the Gram Sabhas have given their consent to it.
- (f) The rights of the Primitive Tribal Groups and Pre-Agricultural Communities, where applicable have been specifically safeguarded as per section 3 (1) (e) of the FRA.

Encl: As above

L Ma

(Mayank Agarwal, IAS) District Collector, Neemüch, (M.P.)

रालगाय-1

## जिला स्तरीय वन अधिकार समिति, जिला-नीमच

## कार्यवाही विवरण

प्रबंधंक, मैसर्स ग्रीनको एनर्जिज प्राइवेट लिमिटेड, हैदराबाद (तेलंगाना) के पत्र क्रमांक / GEPL/MP30GSPSP/FRA/202024 दिनांक 24.12.2020 द्वारा नीमच जिले के मनासा उपखण्ड की रामपुरा तहसील (वन रेन्ज) अंतर्गत प्रस्तावित MP-30 गांधीसागर ऑफ स्ट्रीम पंपिंग स्टोरेज प्रोजेक्ट (1440 मेगावाट) के विकास के लिये 301.96 हेक्टेयर वन भूमि हेतु वन (संरक्षण) अधिनियम 1980 के अंतर्गत वन भूमियों का गैर वानिकी प्रयोजन हेतु व्यपवर्तन एवं अनुसूचित जनजाति और अन्य परंपरागत वन निवासी (वन अधिकारों की मान्यता) अधिनियम, 2006 के अंतर्गत अनापत्ति प्रमाण जारी किये जाने हेतु जिला स्तरीय वन अधिकार समिति की अनुशंसा हेतु प्रस्ताव समिति के

MP-30 गांधीसागर ऑफ स्ट्रीम पंपिंग स्टोरेज प्रोजेक्ट (1440 मेगावाट) के लिये वन संरक्षण अधिनियम 1980 के तहत मनासा उपखण्ड की ग्राम पंचायत खिमला ब्लॉक, ग्राम पंचायत अमरपुरा, ग्राम पंचायत बारवाड़िया एवं ग्राम पंचायत मजीरिया के कक्ष कमांक 438, 439, 440, 444, 445 एवं 446 की 301.96 हेक्टेयर वन भूमि का ग़ैर वानिकी प्रयोजन हेतु व्यपवर्तन किया जाना है।

अनुसूचित जनजाति और अन्य परंपरागत वन निवासी (वन अधिकारों की मान्यता) अधिनियम 2006 अंतर्गत जनपद पंचायत मनासा की ग्राम पंचायत खिमला ब्लॉक, ग्राम पंचायत अमरपुरा, ग्राम पंचायत बारवाड़िया एवं ग्राम पंचायत मजीरिया की ग्राम सभा में नियमानुसार 50 प्रतिशत सदस्यों के अनुमोदन एवं अनापत्ति प्रमाण पत्र सहित MP-30 गांधीसागर ऑफ स्ट्रीम पंपिंग स्टोरेज प्रोजेक्ट (1440 मेगावाट) के कियान्वयन से ग्राम सभा को किसी प्रकार की आपत्ति नहीं होने का लेख किया है। ग्राम सभा से प्राप्त अनापत्ति प्रमाण पत्र एवं अनुशंसा तथा अनुविभागीय अधिकारी (राजस्व) पदेन अध्यक्ष, उपखण्ड स्तरीय वन अधिकार समिति, मनासा के पत्र कमांक / 2337 / स्टेनो / विविध / 2021 दिनांक 21.06.2021 के संलग्न उपखण्ड स्तरीय वन अधिकार समिति मनासा के अनुशंसा प्रमाण-पत्र के आधार पर MP-30 गांधीसागर ऑफ स्ट्रीम पंपिंग स्टोरेज प्रोजेक्ट (1440 मेगावाट) के लिये 301.96 हेक्टेयर वन भूमि गैर वानिकी प्रयोजन हेतु व्यपवर्तन किये जाने के लिये जिला स्तरीय वन अधिकार समिति द्वारा अनुशंसा की जाती है।

(राबेश/क्रेमार राठौर)

जिला सयोजक आदिम जाति कल्याण विभाग, जिला नीमच Distt. Organiser S.C.& S.T.Welfare NEBNUCH (M.P.) (विजय सिंह) वन मण्डलाधिकारी सामान्य वन मण्डल, जिला नीमच

कल फण्डला किस्टरी सामान्य वन मण्डल, मीलंघ

ित्करलेक्टर जिला-नीमच

2105005-1

## जिला स्तरीय वन अधिकार समिति, जिला--नीमच

#### प्रमाण–पत्र

प्रस्तावित MP-30 गांधीसागर ऑफ स्ट्रीम पंपिंग स्टोरेज प्रोजेक्ट (1440 मेगावाट) के विकास के जिये नीमच वन प्रभाग के अंतर्गत मनासा उपखण्ड के रामपुरा तहसील (वन रेन्ज) के कक्ष कमांक 438, 439, 440, 444, 445 एवं 446 कीं 301.96 हेक्टेयर वन भूमि का गैर वानिकी प्रयोजन हेतु व्यपवर्तन प्रकरण में प्रिमिटिव ट्रायबल ग्रुप (पीटीजी) एवं प्री एग्रीकल्चर कम्यूनिटिज (पीएसी) के मूलभूत अधिकार प्रभावित नहीं होंगे। प्रस्तावित भूमि में अनुसूचितं जनजाति और अन्य परंपरागत वन निवासी (वन अधिकारों की मान्यता) अधिनियम 2006 के अंतर्गत उक्त क्षेत्र में वन अधिकार पत्र धारक नहीं है और न ही कोई दावा/आपत्ति शेष है।

यह प्रमाण पत्र प्रबंधक, मैसर्स ग्रीनको एनर्जिस प्राइवेट लिमिटेड, हैदराबाद की मांग पर उपखण्ड स्तरीय वन अधिकार समिति, मनासा की अनुशंसा के आधार पर दिया जा रहा है।

(राक्तेश्वे) केर्मार राठौर) जिला संयोजक आदिम जाति कल्याण विभाग, जिला—नीमच

> Distt. Organiser S.C.& S.T.Welfare NERMUCH (M.P.)

(मयुंक्वअग्रवाल) (जला-कृलेक्टर-) जिला-नीमच

(विजय सिंह) वन मण्डलाधिकारी सामान्य वन मण्डल नीमच . .....

सायान्य का म



## Certificate of Undertaking

M/s. Greenko Energies Private Limited hereby affirm and undertakes that the legal status of the diverted forest land shall remain unchanged.

Date: 09/01/2023

N. Gou fore Name: N. Gopi Krushna ergies Authorized Signatory



## Certificate of Undertaking

M/s. Greenko Energies Private Limited hereby affirm and undertakes that the additional amount of the NPV of the diverted forest land will be paid, on demand by the State Government if any, becoming due after finalization of the same by the Hon'ble Supreme Court of India on receipt of the report from the Expert Committee.

Date: 09/01/2023

N. Govi K

Name: N. Gopi Krushna





## **Certificate of Undertaking**

M/s. Greenko Energies Private Limited hereby affirm and undertakes felling of trees shall be carried out wherever necessary under strict supervision of the Forest Department.

Date: 09/01/2023

N. Gov Cor

Name: N. Gopi Krushna Authorized Signatory



N. Gow find

Name: N. Gopi Krushna

Authorized Signatory

## **Certificate of Undertaking**

M/s. Greenko Energies Private Limited hereby affirm and undertakes felling of trees will be restricted to FRL-4 meter only and felling of trees will be carried out by the State Forest Department. Number of trees to be removed will be kept at barest minimum during the execution of the project.

Date: 09/01/2023



### Certificate of Undertaking

M/s. Greenko Energies Private Limited hereby affirm and undertakes to take up afforestation along the periphery of the reservoir wherever possible.

Date: 09/01/2023

Name: Ne Gopi Krushna Nate 5 Authorized Signatory

ENVIRONMENTAL CLEARANCE		Government of India   Ministry of Environment, Forest and Climate Change (Impact Assessment Division)   To,   To,   The AGM   GREENKO ENERGIES PRIVATE LIMITED   Plot No. 1071, Road No-44, Jubilee Hills, Hyderabad, Telangana-500033
PARIVESH (Pro-Active and Responsive Facilitation by Interactive)	and Virtuous Environment Single-Window Hub)	Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding   Sir/Madam, This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/MP/RIV/124890/2019 dated 20 Jul 2021. The particulars of the environmental clearance granted to the project are as below.   1. EC Identification No. EC21A003MP159461   2. File No. J-12011/22/2019-IA-I (R)   3. Project/Activity including A   5. Project/Activity including 1(c) River Valley projects   5. Name of Project MP 30 Gandhi Sagar Standalone Pumped Storage Project   7. Name of Company/Organization GREENKO ENERGIES PRIVATE LIMITED   8. Location of Project Madhya Pradesh   9. TOR Date 28 Feb 2020   The project details along with terms and conditions are appended herewith from page no 2 onwards.   (e-signed) Yogendra Pal Singh Scientist E IA - (River Valley and Hydroelectric Projects sector)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH.Please quote identification number in all future correspondence.

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#### F. No. J-12011/22/2019-IA.I (R) Government of India Ministry of Environment, Forests & Climate Change (Impact Assessment Division) \*\*\*\*\*

Indira Paryavan Bhavar 2<sup>nd</sup> Floor, Vayu Wing Aliganj, Jor Bagh Road New Delhi - 110003

Dated: 01st December, 2021

To.

M/s Greenko Energies Private Limited Plot no-1071, Road No-44, Jubilee Hills, Hyderabad – 500 033 (Telangana) Email: envifor.gandhisagar@greenkogroup.com

Sub: MP30 Gandhi Sagar Off Stream Pumped Storage Project (1440 MW) in an area of 402.50 ha by M/s Greenko Energies Private Limited in village Khemla Block, Tehsil Rampur, District Neemuch, Madhya Pradesh - Environmental Clearances

Sir,

This has reference to your online Proposal No. IA/MP/RIV/124890/2019 dated 20th July, 2021 submitted to the Ministry for Environmental Clearance to the project cited in the

The Ministry of Environment, Forest and Climate Change has considered the 2. application. It is noted that the proposal is for grant of Environmental Clearance to MP30 Gandhi Sagar Off Stream Pumped Storage Project (1440 MW) in an area of 402.50 ha by M/s Greenko Energies Private Limited in village Khemla Block, Tehsil Rampur, District

The proposal was considered by the Expert Appraisal Committee (EAC) for River Valley & Hydroelectric Projects in its 15th EAC Meeting held on 27th July 2021. The comments and observations of EAC on the project may be seen in the Minutes of the meeting which are available on the web-site of this Ministry.

The details of the project submitted by project proponent and ascertained from the 4. document submitted are mentioned below:

- MP 30 Gandhi Sagar Off-Stream Pumped Storage Project is located in Neemuch (i) District of Madhya Pradesh. It envisages creation of upper reservoir which is located away from all existing natural systems. The project is about 78 Kms from district headquarters Neemuch via MP SH 31A. Nearest railhead and airport are located at Neemuch and Udaipur respectively. The nearest village to the project is Khemla block about 0.5Km, which comes under, Rampura Tehsil, Neemuch district.
- The MoEF&CC approved the ToR for the proposed project vide F. No. J-(ii) 12011/22/2019-IA-I (R) dated 28th February, 2020.
- This project envisages non-consumptive re-utilization of 1.22 TMC of water of the (iii) Gandhi Sagar reservoir by recirculation. The water in the Gandhi Sagar reservoir (existing lower reservoir) will be pumped up and stored in the proposed Pumped

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Storage component of MP30 Gandhi Sagar (upper Reservoir) and will be utilized for power generation.

- (iv) The Geographical coordinates of the proposed MP30 Gandhi Sagar Off-Stream Pumped Storage Project component of upper reservoir is at latitude 24°31'6.89"North and Longitude is 75°30'56.12"East and that of Gandhi Sagar lower reservoir (existing) are 24°31'5.40" North and 75°32'5.28"East. Proposed rating of Off-Stream Pumped Storage Project is 1440MW.
- (v) The Off-Stream Pumped Storage Project of MP 30 Gandhi Sagar, herein after referred as MP 30 Gandhi Sagar Off-Stream PSP, envisages construction of upper reservoir (proposed) located in Rampura Tehsil of Neemuch District. The Gandhi Sagar reservoir (existing) is under operation with a gross storage capacity of 258.47 TMC and MP 30 Gandhi Sagar Off Stream PSP is proposed for the live storage capacity of 1.22 TMC.

#### (vi) **Project Components details:**

- The project will involve construction of rock fill embankment of maximum height of 35m for creation of MP 30 Gandhi Sagar Off-Stream PSP upper reservoir of 1.80TMC gross storage and 1.22TMC live storage.
- The upper reservoir is located at EL 491m and the FRL and MDDL of this reservoir is at EL 523.00m & EL 508.00m, respectively.
- 6 nos. each of 683.48m long and 7.5m dia. surface circular steel lined Penstock / Pressure Shaft (i.e., consisting of 181.52m long surface penstock, 140.97m long vertical pressure shaft and 360.99m long Horizontal pressure shaft) in which 5 nos. will feed 5 units each of 240 MW and 1 no. will get bifurcated in to two of 5.3m dia. to feed 2 units each of 120 MW.
- A surface Powerhouse having an installation of Five nos. Reversible Francis turbine each of 240MW capacity (All units are fixed speed turbines) operating under a rated head of 121.70m in generating mode and 127.90m in pumping mode and Two nos. Reversible Francis turbine each of 120 MW capacity (All are variable speed turbines) operating under a rated head of 121.00m in generating mode and 128.70m in pumping mode.
- 85m wide and FSD of 6.0m Tail race channel of about 860.00m long connecting to the Existing Gandhi Sagar reservoir.
- The existing Gandhi Sagar reservoir will be utilized as a lower reservoir to enable MP 30 Gandhi Sagar Off-Stream PSP to operate as a peak station. The FRL & MDDL of existing Gandhi Sagar reservoir is at EL 400.00m & EL 381.00m, respectively. The Gross storage capacity of existing reservoir is 258.47 TMC. Water will be pumped to the proposed upper reservoir through TRC.

(vii) Salient features of MP 30 Gandhi Sagar Off-Stream PSP

S. No.		NAME OF THE PROJECT	MP30 GANDHI SAGAR OFF-STREAM PSP
1		Location	
	а	Country	India
	b	State	Madhya Pradesh
	С	District	Neemach
	d	Tehsil	Rampura
	е	Village near Power House	Khemla Block
2		Geographical Co-Ordinates	
	а	MP30 GANDHI SAGAR OFF- STREAM PSP Upper Reservoir - (Now Proposed)	
		Latitude	24°31'6.89"N

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		Longitude	75°30'56.12"E
	b	Lower	
		(Existing)	
	_	Latitude	24°31'5.4"N
		Longitude	75°32'5.28"E
3		Access To Project Site	
	a	Airport	Ideinur 171Km from project site
	b	- tournead	Udaipur, 171Km from project site. Neemach, 67Km from project site
	С	Road	Khemla block, around 5km from
			SH31A
	d	Port	Mandavi
4		Project	
	a	Туре	Off-Stream Pumped Storage Project
	b	Storage Capacity	10411.20MWH
	С	Rating	1440MW
	d	Peak operation duration	7.23Hours daily
5		MP30 GANDHISAGAR OFF-	
		STREAM PSP - Upper Reservoir	
	а	Live Storage	1.22TMC
	b	Dead Storage	0.58TMC
	С	Gross Storage	1.80TMC
			1.0011///
	d	Full Reservoir Level (FRL)	EL 1500.00
	е	Minimum Draw Down Level (MDDL)	EL +523.00 m
	f	Top Bund Level (TBL)	
		Foundation Level	EL +526.00m
		Max Height of Embankment	EL +491.00 m
	i	Length of Embankment	35.00 m
5		Gandhi Sagar Reservoir - Lower	5561.131 m
		Reservoir - (Existing)	
	a	Type of Dam	
		Full Reservoir Level (FRL)	Masonry Gravity Dam
	С	Minimum Draw Down Level (MDDL)	EL 400.00 m
	d	Height of Dam above deepest bed	
	1	level	63.70 m
		Length of Dam	514.00m
	f (	Gross Storage Capacity	258.47 TMC
	J	RCC intake Structure	250.47 TWIC
		Туре	Diff. sam The
1			Diffuser Type
	c E	Elevation of bell mouth bottom	EL +495.50 m
	F	Penstock / Pressure Shafts	EL +491.05 m
6			
		1 0.7	Finished steel lined - circular
			6 Nos. wherein 1 No. Independent
			Pressure shaft bifurcated in to 2 for smaller units



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			5.3 m – Branch Penstock
	d	Length of penstock/Pressure Shaft	For 5 nos. – 683.48 m each (Main Penstock) for 5 larger units For 1 no. – 607.23m long (Main Penstock) and 76.25m each Branch Penstock for 2 smaller units
9		Powerhouse	
	a	Туре	Surface Powerhouse
	b	Dimensions (Excluding Service Bay)	181.20m (L) x 25.50m (W) x 56.10m (H)
10		Tail Race Channel	4
	a	Type & Shape	Concrete lined & Trapezoidal
	b	Length of the channel	860.00 m
	С	Bed Width	85.00 m
	d	Full supply depth	6.0 m
	e	Bed slope	1 in 7000
11	-	Tailrace Outlet Structure	
11		Туре	Diffuser Type
	a b	Elevation of outlet Centre line	EL +370.71 m
10		Hydro-Mechanical Equipment	
12	-	RCC Intake Structure	
	a		Vertical with inclination of 15°
	i	Trash Rack	6 nos.
	ii	No. of Trash racks	2 nos. of 7.75m(W) x 10.97m(H) &
	iii	No. of bays in each trash rack	$1 \text{ no. of } 8.5\text{m}(W) \ge 10.97\text{m}(H) \text{ for eac}$ unit
	iv	Intake Service Gate	Size – 6.20m (W) x 7.50 m (H) – 6 Nos With Rope Drum Hoist
	v	Intake Stop log Gate	Size – $6.20m$ (W) x 7.50 m (H) – 1 No. with Moving Gantry
	b	Draft Tube Gates	High pressure steel type slide gates
	i	No. of Service gates per unit	5 Nos 7.0 m (W) x 8.5 m (H) for Larger Units & 2 Nos. - 5.1 m (W) x 6.2 m (H) for Smalle Units with Independent Hydraul Hoist
	ii	No. of Stoplog gates per unit	1 No. – 7.0 m (W) x 8.5 m (H) for Larger Units & 1 No 5.1 m (W) x 6.2 m (H) for Smaller Uni with Moving Gantry Crane
	с	Tailrace Outlet Structure	
	i	No. of Trash racks	7 nos.
	ii	No. of bays in each trash rack	2 nos. of 6.65m(W) x 10.87m(H) & no. of 6.70m(W) x 10.87m(H) for eac larger unit & 2 nos. of 5.20m(W) 6.73m(H) + 1 no. of 6.60m(W) 6.73m(H) for each smaller unit
		Electro Mechanical Equipment	

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	i Pump Turbine	Francis type, vertical shaft reversible pump turbine
i	i Total No of units	$7 \text{ pc}^2 (5 \text{ V} 0.40 \text{ MW} \text{ p} 0.4 \text{ V} 1.00 \text{ mm})$
i	ii Total Design Discharge (Turbine	7 no's (5 X 240MW & 2 X 120 MW) 1326.75 Cumec
	Mode)	1320.73 Cumec
i	v Rated Head in Turbine mode	121.70 m for larger unit & 121.00m
		for smaller unit
A		
i	- o tul tro of utility	5 Units (Fixed speed)
i		220.91 Cumec
ii	in randine mode	121.70m
iv	Pump Capacity	251 MW
v		127.90 m
V		183.86 Cumec
vi		136.36 rpm
Ι		
a		Three (2) allow the
		Three (3) phase, alternating currer
		synchronous generator motor sen umbrella type with vertical shaft
b	Number of units	5 Units
С	Rated Capacity	Generator – 240 MW; Pump Input –
		251 MW
d	Rated Voltage	18.00 KV
11	Main Power Transformer	
a	Туре	Three Single Phase Power transformer
		with Off- Circuit tap changer (OCTC)
b	Number of units	15 Numbers (ie. 3 Nos./Unit)
С	Rated Capacity of each unit	Single Phase, 18KV/400 KV, 100 MVA
d	Rated Voltage	Primary - 18 kV; Secondary - 400 kV
		adjustable range of the secondary
В	100 MW 75 1	voltage: - 10% to +10% (3kV/tap)
$-\frac{B}{i}$	120 MW Turbines	
	Total No of units	2 Units (Variable speed)
	Turbine Design Discharge	111.10 Cumec
iii	Rated Head in Turbine Mode	121.00 m
iv	Pump Capacity	135 MW
	Rated Pumping Head	128.70 m
vi	Rated Pump Discharge	98.16 Cumec
vii	Synchronous speed	187.50 rpm
I	Generator-Motor	
a	Туре	Three(3) phase, alternating current
		asynchronous generator motor semi
	NI	umbrella type with vertical shaft
b	Number of units	2 Units
	Poted O	
С	Rated Capacity	Generator – 120 MW Pump Input –
d	Potod Volto	135 MW
1 1 1	Rated Voltage	18 KV

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	II	Main Power Transformer	
	a	Туре	Indoor, 3-Ph transformers with Off- Circuit tap changer (OCTC)
	b	Number of units	2 Units
	с	Rated Capacity of each unit	Each 160 MVA, 18KV/400 KV rating power transformers.
	d	Rated Voltage	Primary – 18 KV ; Secondary - 400 kV adjustable range of the secondary voltage: -10% to +10% (3kV/tap)
14		400 KV Gas Insulated Switchgear	
	а	Type of GIS	Indoor Type
	b	No. of GIS units	One No.
	С	Location	Inside GIS Building above ground
	d	Scheme	Double Busbar Arrangement with bus coupler
15		Power Evacuation	
	а	Voltage Level (KV)	400 KV
	b	No. of Transmission lines	One 400 KV transmission line with double circuit.
	с	Total Length	400 KV Double Circuit Transmission Lines with Moose conductor of length 81 Kms (app) from PSP will be connected to 400/ 220 KV PGCIL substation at Kota of Rajasthan State for evacuation of generated Power and for Supply of power during pumping mode
16		ESTIMATED COST	
	a	Civil Works	2797.67 Cr.
	b	E&M Works incl. Transmission line	1930.50 Cr.
	с	IDC & Others	2263.08 Cr.
		Total Project Cost with IDC	6991.25 r.

- (viii) Ambient Air Quality: Ambient Air Quality Monitoring was carried out at 6 locations in the study area. The level of pollutant observed at various sampling stations sites are well within the Residential & Rural area permissible limits of the National Ambient Air Quality Standard notified by CPCB.
- (ix) Ambient Noise Levels: The sound levels on an average value of 45.0 59.8 dB (day time observations), 34.1 - 45.1 db (Night time observation), 44.7 -57.2 db (day and night time observation) at residential area, 58.8 - 60.3 dB (day time observations), 44.4 - 45.5 db (Night time observation), 57.6 - 60.3 db (day and night time observation) at Residential/ Commercial area which are within the Ambient Noise Standards ranging from 55 dB(A) during day time in residential area to 65 dB(A) during day time in commercial area.
- Water: Ground Water samples were collected 6 locations & Surface Water samples  $(\mathbf{X})$ were collected 3 locations in the study area. According to WQI all the ground water samples fall in excellent ground water quality class and surface Water quality of Gandhi Sagar Reservoir is under Class 'B' i.e., Outdoor bathing (Organised) & Besala Pond sample falls in Class 'D' i.e., Propagation of Wildlife and Fisheries according to Water Quality Criteria of Central Pollution Control Board, Based upon CPCB guidelines



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as well the WQI calculated above the water of Gandhi Sagar Reservoir and water bodies in the study area is safe for drinking only after conventional treatment and (xi)

Flora: Quadrat sampling was undertaken at 6 different locations for carrying out phyto- sociological surveys of the vegetation in the study area. Total numbers of plant species recorded were 207 including 53 species of trees, 60 species of shrubs, and 94 species of herb and grasses, according to the IUCN Redlist of Threatened Species (Version 2020-2), none of the plant species found in the study area falls under any Threatened category. Ziziphus jujuba is the only species recorded from most of the sampling sites in the study area Lantana camara, Calotropis gigantea, Carissa spinarum, Murrayakoenigii, Ipomoea carnea and Ziziphus nummulariawere the

(xii) Fauna: As per IUCN Red list of Threatened Species (Version 2018.2) all the mammalian and avifaunal species reported from the area are under Least Concern (LC) category. During field surveys Boselaphustragocamelu (Blue bull), Semnopithecus entellus (Common Langur), Herpestesedwardsii (Indian Grey Mongoose), Canis aureus (Jackal), and Funambuluspennantii (Five-striped Palm Squirrel) and a total of 46 species of bird belonging to 14 orders was compiled based upon sighting during the

(xiii) As per secondary Survey and information gathered from the officials of the Neemuch Forest Division and their forest working plan following faunal/avifaunal species were listed under Schedule-I of the Indian WildlifeProtection Act (1972), viz. Leopard (Panthera pardus), Crocodile (Crocodylus palustris), Indian Peafowl (Pavocristatus), White-rumped Vulture (Gyps bengalensis), Indian Monitor lizard (Varanus bengalensis), and Indian Rock Python (Python molurusmolurus). PCCF-Cum-Chief Wildlife Warden, Bhopal has approved Bio-diversity Conservation and Wildlife Management Plan vide letter dated 21.06.2021 with a budgetary provision of Rs

(xiv) Land Requirement: The total land requirement for the project is 402.50 Ha, out of which 301.96 Ha land would be forest land and 100.54 Ha is Non-Forest Land (71.96Ha - Private & 28.58Ha - Government).

(xv) Ecological Sensitive Area: Gandhi Sagar Wildlife Sanctuary is the nearest protected area located about 4km from the Project site. Chief Wildlife Warden, Govt of Madhya Pradesh has issued NOC vide dated 12-02-2021 that all project components are

located outside the Sanctuary and also away from eco-sensitive zone. (xvi) Muck Disposal Areas: The total quantity of muck generated from soil and rock excavation is about 4.56Mcum. About 2.28Mcum of excavated muck are expected to be utilized for Rockfill and aggregate for construction. It is proposed to dispose of remaining quantity, considering 40% swell factor of 3.19Mcum at a pre-identified

(xvii) Rehabilitation and Resettlement Plan: The entire private land identified for the project falls in one revenue village namely Khemla Block, under Tehsil Rampura, District Neemuch. The private land proposed for procurement belongs to a total of 138 land owners. All the 138 families will be losing their agricultural land only and none of the families will be losing any house or any other assets.None of them is getting displaced due to the project from the above land procurement. The private land to be procured is un-irrigated agriculture land. The R&R Plan has been prepared in line with The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCT\_LARR) and The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (Madhya Pradesh) (xviii) Environmental Management Plan: An amount of Rs. 11944.74 lakhs have been

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Capital Recurring Cost (Rs. in lakh) Total Cost S. Cost Component of EMP (Rs. in No. (Rs. in Yr 1 Yr 2 Yr 3 Yr 4 lakh) lakh) 1 **Compensatory** Afforestation 7376.89 7376.89 Biodiversity Conservation & 2 72.60 39.20 31.80 23.30 166.90 Wildlife Conservation Plan Muck Dumping and 221.8 223.8 3 Management Plan 7 7 168.75 26.5 640.99 Landscaping, Restoration of 4 Quarry and Construction Sites 14.00 27.00 24.00 15.00 80.00 Sanitation and Solid Waste 5 190.00 Management Plan 27.1428.14 29.14 27.14301.56 Public Health Delivery 6 System 70.00 39.00 39.00 39.00 39.00 226.00 **Energy Conservation** 7 Measures 67.00 42.00 42.00 42.00 42.00 235.00

55.00

809.00

200.00

8767.89

8.00

14.30

12.50

31.25

350.0

0

15.00

847.6

6

18.00

16.30

12.50

31.25

400.0

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20.00

897.2

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18.00

6.80

12.50

31.25

400.00

20.00

823.2

4

18.00

4.00

12,50

31.25

350.0

0

20.00

608.

69

117.00

41.40

50.00

125.00

809.00

1500.00

275.00

11944.74

allocated for the implementation of Environmental Management Plan and Local Area Development Plan for the project is summarized in table as below:

- (xix) Project benefit: The Project is a renewable green source of energy and helps to reduce carbon foot print and create direct and In-direct economic opportunities. It is estimated that project would employ a workforce of about 4800 persons during the 3.5 years construction period and thereafter during project operation, permanent staff of about 200 persons will be employed. The project will create opportunities for skill development, education, better medical and health care, improved local infrastructure, etc. In addition, there are proposals for green belt development, restoration and greening of the project and surrounding area.
- (xx) Public hearing: Public Hearing was conducted by the Madhya Pradesh State Pollution Control Board, on 30.01.2021 at Panchayat Parisar, Village: Khemla Block, Tehsil: Rampura, District: Neemuch, Madhya Pradesh.
- (xxi) Status of other statutory clearances: For diversion of 301.96 ha of forest land, online application has been submitted to MoEF&CC vide proposal No.: FP/MP/HYD/116943/2020 dated 24.12.2020. The Diversion proposal has been recommended by State Govt. and forwarded the same to MOEF&CC vide 28.06.2021 for FAC recommendations and grant of Stage I approval.

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Labour Management Plan

Environmental Monitoring

Local Area Development Plan

Disaster Management Plan

Total

Pollution Mitigation

Rehabilitation and

Resettlement Plan

Measures

Program

Green Belt Development Plan

R. pr.

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The sectoral Expert Appraisal Committee after detailed deliberations in its 15th 5. meeting held on 27th July 2021 through Video conferencing on the information submitted and as presented recommended the proposal for Environmental Clearance. Based on recommendation of EAC, Ministry, hereby accords approval for grant of Environmental Clearance to MP30 Gandhi Sagar Off Stream Pumped Storage Project (1440 MW) in an area of 402.50 ha by M/s Greenko Energies Private Limited in village Khemla Block, Tehsil Rampur, District Neemuch, Madhya Pradesh, under the provisions of EIA Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of applicable standard EC conditions and the following additional terms & conditions/specific conditions for environmental safeguards:

- (i) Safe and secured passage to empty the reservoir in case of leakage or any catastrophic events shall be carried out.
- Rain water harvesting shall be carried out. Surplus water and harvested rain water (ii) shall be used as irrigation in area
- (iii) Compensatory afforestation done by Forest Department, the survival rate of plants shall maintain more than 95%.
- PP shall ensure the Ambient Air Quality Monitoring Stations for real time data display (iv) and regularly submit to respective Ro, MoEF&CC.
- The Environmental Management Plan (EMP) shall be strictly adhered to as submitted (v) in the EIA/EMP report. The budgetary provisions for implementation of EMP, shall be fully utilized and not to be diverted to any other purpose. In case of revision of the project cost or due to price level change, the cost of EMP shall also be updated proportionately.
- (vi) The status of compliance will be submitted to the regional Office of the Ministry along with six monthly compliance report.
- (vii) A multi-specialty hospital to cater the need of people living within 10 km radius of the project shall be established.
- (viii) Solar lights and associated solar panels be provided to the families living in rural areas within 10 km radius of project
- (ix) Computer labs with internet facility shall be established in primary schools within 10 km radius of project.
- Sport complex with multi- sport facility shall be established. The children's from  $(\mathbf{x})$ economically weaker section shall be given free of cost sport facility.
- (xi) The Multi-Disciplinary Committee needs to be constituted and the meeting needs to be held at regular interval.
- (xii) PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground. A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis.
- (xiii) After 5 years of the commissioning of the project, a study shall be undertaken regarding impact of the project on the environment. The study shall be undertaken by an independent agency.
- (xiv) Solid waste generated, especially plastic waste, etc. should not be disposed of as landfill material. It should be treated with scientific approach and recycled. Use of single-use plastics may be discouraged.
- (xv) Necessary permission to be obtained for quarrying construction materials, if any required, for the project as per the EIA Notification, 2006 and as amended thereof.
- (xvi) Disposal of the excavated muck and its filling on the low-lying area with proper measures for the stabilization and greenery to minimize the impacts of the generated construction muck shall be taken up paripassu with construction work.

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- (xvii) After detailed geological study of muck, re-utilization of muck during the construction of dam is to be carried out.
- (xviii) A detailed ecological monitoring and survey covering forestry, fisheries, wildlife and its habitat shall be done once in two years. Monitoring report shall be uploaded on the Parivesh Portal and a copy of the same be submitted to the Regional Office of MoEF&CC.
- (xix) Land acquired for the project shall be suitably compensated in accordance with the law of the land with the prevailing guidelines. Private land shall be acquired as per provisions of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.
- This issues with the approval of the Competent Authority. б.

faithfully,

(Yogendra Pal Singh) Scientist 'E' Email id: yogendra78@nic.in Tele fax: 01124695365

#### Copy to:

- 1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi -110 001
- 2. The Secretary, Ministry of Water Resources, RD & GR, Shram Shakti Bhawan, Rafi Marg, New Delhi - 110 001.
- 3. The Principal Secretary (Water Resources Department), Government of Madhya Pradesh, Secretariat, Bhopal - 462 016.
- 4. The Secretary, Department of Environment, Government of Madhya Pradesh, Secretariat, Bhopal - 462 016.
- 5. The Chief Engineer, Project Appraisal Directorate, Central Water Commission, Sewa Bhawan, R.K. Puram, New Delhi - 110 066.
- 6. The DDG, Regional Office (WR), Ministry of Environment, Forest & Climate Change, Kendriya Paryavaran Bhavan, Link Raoad No-3, Ravi Shanker Nager, Bhopal - 462 016.
- 7. The Member Secretary, Madhya Pradesh State Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal - 462 016.
- 8. Guard File

(Yogendra Pal Singh)

Scientist 'E

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### Certificate of Undertaking

M/s. Greenko Energies Private Limited hereby affirm and undertakes that the Layout plan of the proposal shall not be changed without prior approval of the Central Government.

Date: 09/01/2023

N. Name: N. Gopi Krushna le ate Authorized Signatory



### Certificate of Undertaking

M/s. Greenko Energies Private Limited hereby affirm and undertakes that No labour Camp will be established in the Forest Land.

Date: 09/01/2023

N. Gow Name, N. Gopi Krushna ate Authorized Signatory



### **Certificate of Undertaking**

M/s. Greenko Energies Private Limited hereby affirm and undertakes to provide firewood preferably alternate fuel to labourers working at the site to avoid any damage/tree felling in the forest area.

Date: 09/01/2023

Name N Gopi Krushna Authorized Signatory



### **Certificate of Undertaking**

M/s. Greenko Energies Private Limited hereby affirm and undertakes that boundary of the diverted forest land will be suitably demarcated on ground at the project cost, as per the directions of the concerned Divisional Forest Officer.

Date: 09/01/2023

N. Gove proce Name: N. Gopi Krushna





#### **Certificate of Undertaking**

M/s. Greenko Energies Private Limited hereby affirm and undertakes that no additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work without prior approval of State Government.

Date: 09/01/2023

Name: N. Gopi Krushna Authorized Signatory



### Certificate of Undertaking

M/s. Greenko Energies Private Limited hereby affirm and undertakes that the period of diversion under this approval shall be co-terminus with the period of lease granted or the project life, whichever is less.

Date: 09/01/2023

Name: N. Gopi Krushna ate Authorized Signatory



#### **Certificate of Undertaking**

M/s. Greenko Energies Private Limited hereby affirm and undertakes to comply with all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project.

Date:09/12/2022

Name N. Gopi Rrushna 9 Authorized Signatory



### Certificate of Undertaking

M/s. Greenko Energies Private hereby affirm and undertakes that the Total Forest area diverted shall not be used for any purpose other than those shown in diversion proposal.

Date: 09/01/2023

N. Name: N. Gopi Krushna Authorized Signatory



## Certificate of Undertaking

M/s. Greenko Energies Private Limited hereby affirm and undertakes that the forest land proposed to be diverted shall under no circumstances be transferred to any other agencies, department or person without prior approval of Govt. of India

Date: 09/01/2023

Name: N. Gopi Krushna Authorized Signatory



#### Certificate of Undertaking

M/s. Greenko Energies Private Limited hereby affirm and undertakes that the violation of Stage-I conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019.

Date: 09/01/2023

N. Goli Gr Name: N. Gopi Krushna Authorized Signatory



## Certificate of Undertaking

M/s. Greenko Energies Private Limited hereby affirm and undertakes that the Ministry of Environment, Forests & Climate Change may stipulate any other conditions from time to time in the interest of conservation, protection and development of forests & wildlife.

Date: 09/01/2023

Nome: N. Gopi Krushna Authorized Signatory