Reply to EDS raised by MOEFC&C dated 02.02.2024 for Dhirauli Coal Block

SI.No	EDS Query	Reply
1	Calculated area of Shape file/ KML file of Forest land proposed for diversion within the mining lease is found 1601.058 Ha (software calculated). However, instant proposal has been submitted for diversion of 1397.54 ha forest land only.	The total mining lease area of this project is 2672 Ha, out of which 1397.54 Ha is Forest land and 1274.46 Ha is non-forest land. Modified KML file has been uploaded in Form-A (Part-1) of this proposal.
2	The Sanjay Dubri Wildlife Sanctuary is located at a distance of 10.07 Km from the proposed forest land for diversion. Moreover, the State Govt. informed that the proposed area is falling within the 1 km of the elephant corridor as per the prevailing working plan for the period 2019-20 to 2028-29. Further, movement of leopard (Tendua) reported in the SIR of the DFO, Singrauli. Therefore, the comments from CWLW along with proposed mitigation measures need submission.	The closest Protected area to the Dhirauli coal block is Sanjay Dubri wildlife sanctuary which is at a distance of more than 10 km. Thus, no wildlife clearance is required as per guidelines. Although, the proposed forest area is more than 10 km from Protected Area, but we have prepared a wildlife Conservation plan, which is duly approved by CWLW. The copy of the approval granted by CWLW is enclosed and uploaded in Part-1 Additional information Section at Serial no.21. Elephant corridor is outside the proposed forest area of the Dhirauli coal block, and the minimum distance of the block is 5 KM from the elephant corridor as per the new working plan "Shri Rajiv Mishra, I.F.S 2019-20 to 2028-29" of Singrauli forest division. Letter to APCCF (LM) by DFO, Singrauli " क्रंo / तकo / 2703 सिंगरौली, दिनांक 25.04.2024", Google Map showing the distance and Working plan of Singrauli forest Division showing distance of elephant corridor from proposed Dhirauli Coal Block has been uploaded in the Parivesh portal (Additional Information section "Letter from DFO on Elephant Corridor/pdf")

SI.No	EDS Query	Reply
		3. The wildlife conservation and management plan prescribe the "Man-leopard conflict mitigation measures and other habitat conservation measures". These measures have been prescribed as per the MoEF&CC guidelines for dealing with Man-leopard conflict (reference: moef.nic.in/downloads/public-informat. Accessed on, 01-08-2011). The guidelines suggest a three-pronged strategy to deal with man-leopard conflict as a means to their conservation: i. Awareness generation among local communities, media, and officials of various departments. ii. Establish trained teams at two levels: the primary response team and the emergency response team, and iii. Use of latest technology and scientific know-how to improve efficacy of capture, handling, care, and translocation of the animal.
3	The proposed forest land is having density of forests ranging from 0.4 to 0.6 density wherein 5,70,666 no. of trees are estimated to be affected from the proposed activities. The detail of the forest crops and diameter classes of valuable trees estimated needs to be elaborated and phase wise felling details should also be indicated	The trees getting affected has to be felled in phase manner within a time span of 40 years from the start of the mining and during this period reclamation of mined out area and plantation of trees will be carried out. It is estimated that approximately 36,38,165 trees will be planted against the felling of estimated 5,70,666 trees. The species wise and diameter class wise details are already uploaded by DFO Singrauli in online Part-II wherein out of 5,70,666 trees marked for felling 1,48,526 trees are of less than 30 cm diameter and 72,991 trees are of more than 90 cm diameter. In the proposed forest land, there are many compartments where density is even less than 0.4. Compartment wise density report is:-

SI.No	EDS Query			Reply	
		Range	Compartment No.	Density	
		Waidhan	354, 356, 353	0.5	
		Waidhan	361	0.3-0.5	
		Sarai East	377	0.2-0.4	
		Sarai East	363, 373, 359	0.3-0.5	
		Sarai East	337, 371, 372, 362, 360, 357	0.2-0.5	
		Sarai East	364	0.4-0.5	
		Sarai East	370	0.4-0.6	
	Parive land/	Parivesh portal (Adland/pdf") There are few min proposed forest late. Nigahi Expar Dudhichua Project	dditional Information secti es in Singrauli, having for nd of Dhirauli Coal block on nsion Open Cast (229 ha) t (467 ha) of NCL. These	on "Compartme est area and the & working by Op , Bina Kakri Am mines has alread	this report has been uploaded in the nt wise density of the proposed forest eir density are more than the density of sen cast mining method. Calgamation OCP Mine (390 ha), dy been approved by MoEFC&C.

SI.No	EDS Query	Reply									
		Land Requirement (Ha) Plantation on Reclaimed Land (Ha)					Numb	Number of Tree Planted			
		Phasing of Land	Years from Start of Mining Operati on	Forest Land (Ha)	Tentati -ve no of tree to be felled	Plantati- -on area in Forest Land (Ha)	Plantation area in Non Forest Land (Ha)	Total Plantatio- n area (Ha)	Plantation on in forest land (Nos)	Plantati on in non- forest land (Nos)	Total Plantati- on (Nos)
		Phase I	1 to 3	345.33	141011	4	16	20	10000	40000	50000
		Phase II	4 to 5	300.17	122570	32	8	40	48000	12000	60000
		Phase III	6 to 10	237.06	96800	224	259.57	483.57	336000	389355	725355
		Phase IV	11 to 15	136.17	55603	150	76.94	226.94	225000	115410	340410
		Phase V	16 to 20	220.41	90001	150	74.77	224.77	225000	112155	337155
		Phase VI	21 to 30	108.66	44370	200	123.62	323.62	300000	185430	485430
		Phase VII	31 to 40	49.74	20311	200	210.45	410.45	300000	315675	615675
		Final Closure		0	0	437.54	245.22	682.76	656310	367830	1024140
		Total		1397.54	570666	1397.54	1014.57	2412.11	2100310	1537855	3638165
		over and and and. t is also to	bove the	CA planta	ation area	a @ 1000 stration p	plants/Ha	over 1400	ng the life of Ha CA are of proposed e table.	a in non-f	orest

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		Dhirauli Coal block (Carbon Footprint) CO2 emissions due to Mining Operations Loss of CO2 Sequestration due to cutting of trees CO2 Sequestration due to compensatory Afforestation CO2 Sequestration due to Progressive Reclamation Total CO2 Sequestration across mine life	tCO2 -5311121.00 -313208.64 5706152.90 4392256.00 4474079.26	
4	The method of mining has been reported in the online application as Opencast + Underground. However, the State Govt. in their reference letter has mentioned the same as open cast method of mining. The state govt shall therefore examine the same and report whether the proposal is for underground mining, open cast mining or both. The detail of area proposed for OCP and underground mining including the component wise KML file shall be submitted	In Singrauli district, there are more than 15 mines. All these mines are working even more than 200m deep Lworking 310m), Nigahi Expansion OCP (Max depth of Max. depth of working 230m), Suliyari Coal mine (Max. The Mining plan has been approved by Ministry of Coal Block. The Coal block is combination for O/C and UG to the Opencast mining. Details of seams considered by mining method is as been served.	ike- Dudhichua O working 300m) Ba depth of working al vide letter dated both, Underground	DCP Expansion (Max. depth of andha Coal block (Proposed 240m.). d 04.05.2021 for Dhirauli Coal

SI.No	EDS Query		Reply							
			Seam Extracta Reserves							
			Seam	Extractable eam Reserves (M						
			-	UG	ОС					
			VIII-Top	-	4.76					
			VIII- Comb.	-	63.46					
			VII-Top	-	21.72					
			VII-Bott.	-	2.58					
			VII- Comb.	-	93.53					
			VI	6.56	-					
			IV	35.08	-					
			III-Top	63.92	-					
			II	6.51	-					
		[Total	112.07	186.06					
		only a	nd remainin otal lease are on account o	g 37.6% (1 ² ea of openc f undergrou	I2.07 MT) w ast mining is nd, separate	MT), 62.4% (186.06 MT) is extractable by Open cast method ill be extracted by Underground method. s inclusive of underground mining and requires no additional ely. If in Parivesh portal .				
5	As per DSS analysis the proposed area is falling in Inviolate or In High conservation zone value (HCV) with majority area falling in Very Dense Forest category. The state shall		•	·		Order number NA-104/7/2020-NA on dated 03.03.2021 allotted Wineral Resources Pvt Limited through auction. Out of 1397.54				

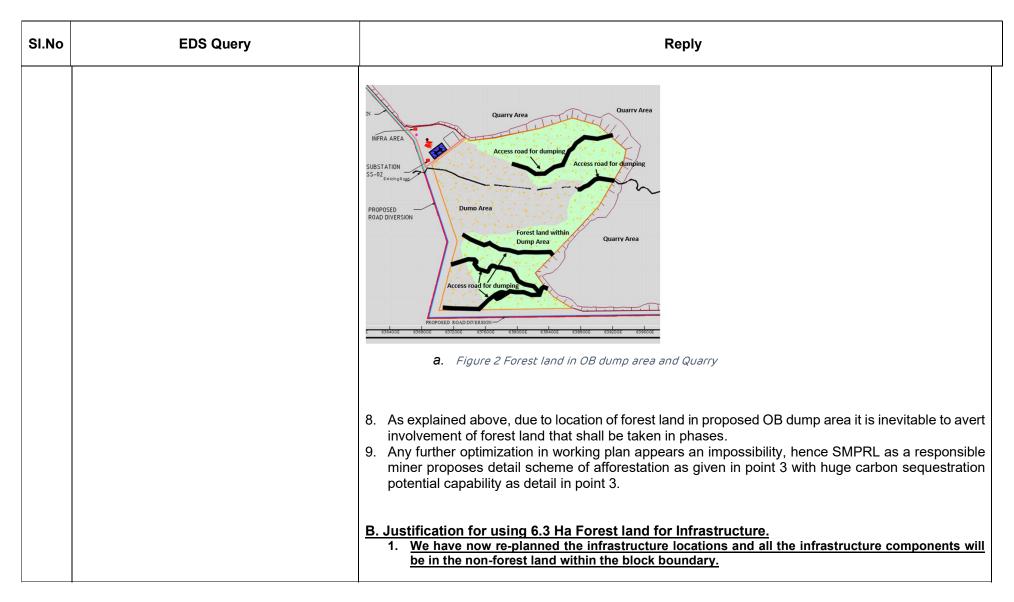
SI.No	EDS Query	Reply
	submit the justification for proposing such pristine area 8-01/2024-FC 1/64348/2024 for mining. Further, keeping in view the conservation value of the area, the state shall intimate whether any impact assessment/biodiversity study taking into account the impact of mining has been carried out or not. If so the details be provided.	Ha forest land required for this project, an area of 1172.14 Ha is coal bearing area and it is a site-specific project, where location of the project can't be changed. Also, the proposed area lies in the Singrauli Coalfield which forms the northern most part of Son Mahanadi basin and occupies a prominent position on power map of India due to its vast Quarriable coal resources. Therefore, no alternative is available except the proposed land. The plantation will be taken up as a part of reclamation activity over the non-forest land within the total mining lease area and same will be maintained as a green cover till the mining is carried out over forest land in order to mitigate the ecological loss and this is over and above the CA carried out in the instant proposal. With evolved concern on sustainability and as a sustainable miner, PP has conducted following studies like: Carrying Capacity, Ecosystem studies, Carbon sequestration Social Impact Assessment, Cumulative impact assessment, Subsidence study,

SI.No	EDS Query	Reply							
		 Wildlife Conservation, Pond de-siltation study, Hydrology and Hydrogeology study in the area to assess its impact with mitigative measure PP has prepared a robust plan under EMP/EIA (Copy enclosed) to address environmental and ecolo concerns as well as to restore the forest (under JFM) as renewable resources concurrently with progof extraction of the non-renewable mineral therein, in a sustainable manner. We have additionally studied the potential of carbon sequestration in Dhirauli area due to afforestate eco-restoration to be conducted those estimates to be creating a positive carbon sequestration capa in the arena during the entire span of mining. 							
6	Satellite imagery and Land use plan submitted by the user agency reveals that there are five (5) transmission lines which are passing through the proposed forest land for diversion. The copy of approvals granted under Van (Sanrakshan Evam Samvardhan), Adhiniyam, 1980 along with NoC from concerned agencies to shift the power lines from the proposed area have not been submitted. The state shall therefore submit the copy of approvals under Van (Sanrakshan Evam Samvardhan), Adhiniyam, 1980 and the copies of NOC from the concerned agencies. The state shall also intimate whether any additional forest land would be required for	Out of the five Transmission Lines (TL) passing through the Dhirauli Coal block, four Transmission Line belong to PGCIL and one belong to MPPTCL. A. MPPTCL 132KV Transmission Line: MPPTCL 132KV line was first diverted in the year 1969. Now again it is to be diverted. Final approval fix shifting the line has been granted by MoEFC&C on 22.01.2024 (FP/MP/TRANS/155291/2022; 21.37 Ha). The copy of the approval letter is enclosed. B. PGCIL Transmission Lines: Details of FC Granted of the four existing PGCIL Lines SI N Description of Transmission Line Diverted (Ha) Diversion of 114.724 Ha of forest land for route alignment of 765 KV s/c Sasan-Satna CK in Favor of Power Grid Corporation Of India PTP/MP/TRANS/98 6/2011 Stage-II Granted: 26.10.2012							

SI.No	EDS Query			Rep	ly			
	the shifting of transmission lines or not along with details		Ltd. in District Singrauli, Sidhi and Satna, Madhya Pradesh					
		2	Diversion of 128.553 Ha of forest land for construction of 765 KV S/C Singraulil-Sidhi-Satna Transmission line in favour of M/S Power Grid Corporation Of India Ltd, Madhya Pradesh.	128.553	FP/MP/TRANS/32 14/2011	Stage-II Granted: 07.03.2013		
		3 、	765 KV DC Vindhyachal Pooling to Jabalpur Pooling Transmission Line	241.099 5	FP/MP/TRANS/17 449/2016	Stage-II Granted: 18.09.2020		
		4	Diversion of 204.356 ha of forest land in favour of M/s Power Grid Corporation Limited for construction of 765 KV Vindhyanchal Poling Station to Satna Circuit-II Transmission Line in Satna, Singrauli, Katni and Sahdol districts, Madhya Pradesh.	204.356	FP/MP/TRANS/29 14/2013	Stage-II Granted: 31.12.2014		
		For the PGCIL Lines, a feasibility study was conducted to identify new alignments for shifting (rediversion) of the Transmission lines. In this regard, PGCIL wrote to Ministry of Coal, Ref letter: WRTS-II/ENGG/Stratatech Mineral Resources Pvt. Ltd/Diversion/607 dated 21.06.2021. The said letter is enclosed and uploaded as annexure of Form-A (Part-1) in Parivesh portal. The proposal for shifting (rediversion) of the four existing lines of PGCIL is under process. For shifting these Transmission lines outside of Dhirauli Coal Block, additional forest land may be						
		required based on the feasibility study. The project proponent has prepared "Hydrology Report" for management of Nala tributaries in & around						
7	Presence of water bodies like Nala/ Tributary are also visible in the proposed forest land. The state shall submit the detail of mitigation	Dhirau	roject proponent has prepared "Hydr uli Coal Block. The DPR has been 19.04.2022. PP has also obtained N	approved b	y WRD vide Memo	no. 2512/G/W/M	P/1-48 of 22	

EDS Query	Reply
measures in this regard along with the NoC/permission from the concerned department.	from WRD for Nalla diversion (Memo no. 2512/G/W/MP/1-48 of 22, dated 19.04.2022) is uploaded in parivesh portal as an annexure document.
The proposal involves diversion of 1397.54 ha forest land out of which 225.4 ha has been proposed for external dumping and 6.3 ha has been earmarked for infrastructure which are non-site specific. The details of total overburden area in the proposal involving both forest as well as non forest land has not been submitted, which is required to be done. The state shall also explore the possibility of shifting of these components on non-forest land.	 A.Justification for using 225.4 Ha Forest land for External Dump (OB): Dhirauli Coal block has been envisaged as combination of both, Opencast and Underground mine. Dhirauli coal block has very high stripping ratio (10.55 Cum/t) and to extract 186.06 Mt coal, 1963.55 MBCM OB shall have to be removed. The OB dump area is in combination of Private, Govt and Forest Land available in the Dhirauli block. The Proposed OB dump can accommodate 259 MBCM (13 %) OB, dump height has been planned 90–100 meter height from ground level which is maximum possible elevation on grounds of DGMS safety stipulations. 225.4 ha of land is an absolute requirement for external dumping because: The in-crop seam that need to be touched to develop a working face is at 60 meters depth from surface. To touch it and cut a trench (longitudinally) because of hilly terrain has a compelling initial stripping ratio of 9:1 (Cum/t)
	590 RL 500 RL
_	measures in this regard along with the NoC/permission from the concerned department. The proposal involves diversion of 1397.54 ha forest land out of which 225.4 ha has been proposed for external dumping and 6.3 ha has been earmarked for infrastructure which are non-site specific. The details of total overburden area in the proposal involving both forest as well as non forest land has not been submitted, which is required to be done. The state shall also explore the possibility of shifting of these components on non-forest

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		 Internal dump can accommodate 1704.54 MBCM OB(87 %) which is planned by keeping 100 m lag distance from working bench of quarry with approx. 90 m height from the ground level, which has been best optimized on reasons of its safety and stability. Forest land under proposed OB dump is coming between quarry and dump area (private Land) in linear extension surrounded by quarry and OB dump. During the mine operation, OB removed from quarry shall be accommodated in OB dump area and multiple accesses will be required. As the area is hilly forest, in order to make access road for initial mining operation and consequent dumping there of; most of the land will be affected by cut and fill activities, as an operational compulsion.



SI.No	EDS Query			Reply				
		C. The r	evised component wise brea	akdown of land is	s given below.			
		S		e (in Ha)	Total			
		N o	Component Name	Forest	Non- Forest	Area (Ha.)		
		1	Excavation Area	1068.51	1028.0 8	2096.59		
		2	Safety Zone	10.46	9.27	19.73		
		3	Green Belt Area	30.97	15.83	46.80		
		4	Rationalization Area	51.82	20.29	72.11		
		5	Infrastructure Area	0	30.05	30.05		
		6	OB Dump Area	225.4	162.15	387.55		
		7	Other uses (Garland Drains)	2.75	2.59	5.34		
		8	Other uses (Road Diversion)	2.56	1.57	4.13		
		9	Other uses (Embankment)	5.07	2.43	7.50		
		1 0	Other uses (Setting Pond)	0	2.20	2.20		
			Total Area	1397.54	1274.46	2672.00		
9	As per the component wise breakup an area of 67.11 ha is designated as undisturbed area. The purpose and reason for including	These are scattered small patches inside the lease area. These scattered patches shall be used for						
3	the same in the instant proposal has not been submitted	The tota	and plantation. Il Rationalized area is 72.11 Ha Ha) will be in non-forest area.	a. Out of 72.11 ha	a, forest land is 5	1.82 Ha and the b	oalance area	
10	Compensatory Afforestation has been proposed in total 45 patches comprising an area of 1397.523 ha wherein two CA patches	1. [arding CA patches in village DFO Shivpuri provided the site sompartment maps, the said kh	suitability certificat	te stating that bas	•		

SI.No	EDS Query	Reply
	namely Village Imlipura, Khasra No 2 and 19, Shivpuri District are falling in the Forest compartment boundary as per DSS analysis. Moreover, these two patches are also located in Tiger corridor. The state shall examine the matter and ensure to provide NFL for CA as per guidelines. The CA sites namely Village - Dhandheda Kanad (Kh No 102,80,139,103), Village - Raipuriya (Kh No 78, 128 and 105) are located on the earthen dam, which may not be suitable for raising CA and the land may not be free from all encumbrances. Further, the documentary evidence of proposed CA site namely Village: Raghunathapura (Survey No. 3), Shivpuri District revealed that the ownership of land is with the Forest Department. The state shall examine the issues as above and ensure that all the CA areas are suitable, free from encumbrances and eligible for the purpose of CA as per prescribed guidelines.	 District Collector Shivpuri also provided a letter stating that the said khasras are revenue land and a No Objection Letter (NOC) to transfer the land to Forest Dept. for CA purpose has been obtained. The NOC and Khasra P-II are enclosed and uploaded as annexure in Form-A (Part-1) Regarding the CA sites in village Dhandheda Kanad (Kh No 102,80,139,103), Village - Raipuriya (Kh No 78,128 and 105) DFO report indicates that the said CA patches in Dhandheda Kanad, and Rajpuriya are suitable for plantation and encroachment & encumbrance free. In Rajpuriya village, in Khasra no 78, 128 and 105, for rainwater harvesting contour trenches, and small ponds were dug under PM Rojgar Yojana. In Dhandheda Kanad, due to rainwater flowing, fissures in the form of gullies got created. There are NO artificial earthen dam constructed in the proposed patches. Regarding CA land patch in village Village: Raghunathapura (Survey No. 3), Shivpuri District DFO Shivpuri got the area inspected by SDO Forest and Bairad Tehsildhar, and the said land is Not Forest owned land. In Forest maps the proposed CA area is outside the notified forest compartment The said CA patches are encroachment and encumbrance free. The Khasra P-II from 2009 to 2024 are enclosed and also uploaded in Form-A (Part-1) of Parivesh portal.
11	Mode of mineral/ coal transportation route and how the requirement of electricity and water will be met has not been given in the proposal. The state shall therefore submit the detailed mineral evacuation plan along with the details as to how the requirement of electricity and water would be met. The detail of additional forest land required for the purpose (if any) shall also be submitted.	 Coal Transportation Pathway: Coal that will be mined out from this block will be transported using the existing road of "Suliyari-KhanuaKhas-Rajmilan" To Gajra behra railway siding & also to Adani Power Plant (MEL) in Bandhaura. The KML and plan of the transportation route is attached with this letter. It is also proposed by Railway/Truck /Conveyor based on consumer location. The note on mineral (coal) transportation pathway is enclosed and uploaded in Parivesh portal. Also, a map showing coal transportation pathway is enclosed, and uploaded in the parivesh portal along with KML.

SI.No	EDS Query					Reply
12	In accordance with the Para 7.8(i) of Chapter 7 of the consolidated guidelines and clarification issued under Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 and Van (Sanrakshan evam Samvardhan) Rules, 2023, the State govt shall give the justification for the necessity of opening the new mining lease along with details.	them SMRI comp	as commerc PL (Stratate	sial coal bloo ch Mineral onsible Mine	cks and Dhir Resource F r and defore	inistry of Coal has identified several coal blocks and auctioned auli was one of them. Pvt Ltd) has been allotted the Dhirauli Coal block. SMRPL estation, and afforestation is planned parallelly while trying to
13	The Quantitative values on the parameters such as Cost of Human resettlement, Loss of public facilities has not be ascertained in the Cost-Benefit analysis, which is required to be done.					BA) report the Cost of human re-settlement in Forest land and d in the Project Cost (Approved R&R Plan).
14	As per the SIR of the DFO, Singrauli Division, rights of 49 leaseholder have been recognized in the proposed area. The state shall submit details of the same and status of R&R plan.	Reset	ttlement is	included in l lease hold	R&R plan an	n the Dhirauli Coal block and the cost of their Rehabilitation & and the R&R plan is approved by Competent Authority. are uploaded in the Parivesh portal (Additional Information
15	As per the 3-D subsidence prediction study report Maximum tensile strain reported in the proposed area is 17.47. The state shall examine the same and submit its comments in case the proposal is for underground mining only.	Block the O The to land o	. The Coal be pencast min otal lease are on account o	llock is com ing. ea of openc f undergrou	ast mining is nd, separate by mining me	linistry of Coal vide letter dated 04.05.2021 for Dhirauli Coal D/C and UG both, Underground mining is overlapping below inclusive of underground mining and requires no additional ely. ethod is as below.

SI.No	EDS Query		Reply				
		VII-Top	-	21.72			
		VII-Bott.	-	2.58			
		VII-Comb.	-	93.53			
		VI	6.56	-			
		IV	35.08	-			
		III-Top	63.92	-			
		II	6.51	-			
		Total	112.07	186.06	1		