

**GOVERNMENT OF ANDHRA PRADESH  
FOREST DEPARTMENT**

From  
Dr. Mohd. Ilyas Rizvi, I.F.S.,  
Prl. Chief Conservator of Forests,  
(Head of Forest Force), Andhra Pradesh,  
"Aranya Bhavan", K.M. Munshi Road,  
Nagarampalem, Guntur -522004

To  
The Spl. Chief Secretary to Government,  
Environment, Forest, Science  
and Technology Department,  
Andhra Pradesh Secretariat  
Velagapudi, Amaravathi.

Rc.No. EFS02-15036/2/2018/FCA -SEC PCCF/FCA-3, Dated : 07.06.2019.

Sir,

Sub: - APFD - F (C) Act, 1980 - - Proposal for diversion of 365.66 Ha (i.e. 319.02 Ha for Lower Reservoir + 22.50 Ha for Power House & TRC Outlet + 6.96 Ha for Penstock + 8.02 Ha for Intake Structure + 2.43 Ha for Tail Race Channel and 6.73 Ha for Internal Roads) of forest land in Compt. Nos. 113,114,115, 116 & 117 of Gani RF, Kurnool Range, Kurnool Division for establishment of Integrated Renewable Energy Project, Pinnapuram in f/o M/s Greenko Energies Pvt., Ltd., Hyderabad - Submission of processed proposal U/s-2 of F(C) Act, 1980- Reg.,

- Ref:-
1. Proposals uploaded in the ministry's website No. FP/AP/HYD/35371/2018.
  2. PCCF's Rc.No.EFS02 -15036/2/2018- FCA- SEC PCCF/FCA-3, dated : 09-09-2018
  3. CCF/CF, Kurnool Rc. No. 2825/2018-TO, dated: 03.06.2019.

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It is to submit that, the Authorized Signatory, M/s Greenko Energies Pvt. Ltd., Hyderabad vide reference 1<sup>st</sup> cited has uploaded the proposal for diversion of 365.66 Ha (i.e. 319.02 Ha for Lower Reservoir + 22.50 Ha for Power House & TRC Outlet + 6.96 Ha for Penstock + 8.02 Ha for Intake Structure + 2.43 Ha for Tail Race Channel and 6.73 Ha for Internal Roads) of forest land in Compt. Nos. 113,114,115, 116 & 117 of Gani RF, Kurnool Range, Kurnool Division for establishment of Integrated Renewable Energy Project, Pinnapuram in f/o M/s Greenko Energies Pvt., Ltd., Hyderabad.

The proposal was sent to the Divisional Forest Officer, Kurnool Division vide reference 2<sup>nd</sup> cited for processing under F(C) Act, 1980 and amendments therein and submit the proposals through the concerned Chief Conservators of Forests/Conservator of Forests.

Accordingly, the Addl. Prl. Chief Conservator of Forests /Conservator of Forests, Kurnool vide reference 3<sup>rd</sup> cited has submitted the processed proposal for diversion of 365.66 Ha (i.e. 319.02 Ha for Lower Reservoir + 22.50 Ha for Power House & TRC Outlet + 6.96 Ha for Penstock + 8.02 Ha for Intake Structure + 2.43 Ha for Tail Race Channel and 6.73 Ha for Internal Roads) of forest land in Compt. Nos. 113,114,115, 116 & 117 of Gani RF, Kurnool Range, Kurnool Division for establishment of Integrated Renewable Energy Project, Pinnapuram in f/o M/s Greenko Energies Pvt., Ltd., Hyderabad.

The User Agency has furnished the following information in Part-I.

- An area of 365.66 Ha (i.e. 319.02 Ha for Lower Reservoir + 22.50 Ha for Power House & TRC Outlet + 6.96 Ha for Penstock + 8.02 Ha for Intake Structure + 2.43 Ha for Tail Race Channel and 6.73 Ha for Internal Roads) of forest land is required in Compt. Nos. 113,114,115, 116 & 117 of Gani RF, Kurnool Range, Kurnool Division for establishment of 1200 MW Integrated Renewable Energy Project, Pinnapuram in f/o M/s Greenko Energies Pvt., Ltd., Hyderabad
- Cost of the project is mentioned as Rs 5468.02 Crores.
- The user agency has furnished justification certificate and stated that, the pumped storage projects are placed much below the Minimum Draw Down levels because of technical requirement during pumping operations therefore the Main Access Tunnel to Power house becomes very long. With these long MAT and other tunnels, the overall construction time of project was affecting the financial viability to the project adversely. Keeping this in view, alternative sites were studied for



location of Pumped storage project and it was observed that two natural depressions are exist in the adjoining area of Gorakallu Reservoir, where artificial reservoirs can be created in very close vicinity. In this location, both reservoirs were to be constructed a new with low height embankments to created the storage for desired capacity. In this case, this appeared to be the best option technically as in this layout, the total length of water conductor system is minimum, which is the most important requirement for any pumped storage scheme.

All these changes in the layout and capacity have improved the cycle efficiency of the plant which is the most dominant criteria in case of pumped storage projects and impacts the viability of the project directly. Therefore, the Reserve forest area is proposed for completion of the project to generate the green power to benefit the State and Country.

- The user agency has also certified that, the proposed layout of the project has been finalized after considering various alternatives from techno –economic considerations. The proposed Pinnapuram IREP envisages construction of Dam (for formation of upper & lower reservoir), Power Intake, Steel Lined Penstocks, Power House, Tailrace channel and Pothead yard.
- The user agency has furnished undertakings for payment of NPV, Addl. NPV, CA, Trees extraction charges etc.,
- Cost benefit analysis is enclosed herewith. The 1200 MW Standalone Pumped Storage Component of Pinnapuram IREP would contribute planned peak power generation, there would be direct revenue to the State and the Nation. Further, the overall improvement of the infracture like Roads, Industries, Eco-tourism, Communication etc., would boost up the economy of the State and improve the State and improve the standard of living of people. The project is proposed to generate Revenue of 960 Crores per year.
- Benefits due to direct employment, during the construction phase, employment will be generated for skilled and unskilled manpower. Approximately 2000 persons will be employed during the peak time of construction.
- Benefits from Compensatory Afforestation (CA) accruing over next 50 years and discounted to Present Value. Thus, the project gives positive Benefit/Cost Ratio. The monetary returns of the project are positive over the environmental losses.
- No human displacement involve due to construction of this project.
- No loss of public facilities involved in this project.
- Environment (Protection) Act, 1986 is required. The GoI, MoEF & CC (IA-I) Division, New Delhi vide No. J.12011/12/2018-IA.I (R), dated: 09.01.2019 has stated that, the EAC (Expert Appraisal Committee) has recommended the Environment Clearance for Pinnapuram IREP (1200 MW)- Pumped Storage Project in Kurnool in Andhra Pradesh and requested to submit a copy of Stage – Forest Clearance to process the recommendations of EAC with respect of Environmental clearance.
- Employment likely to be generated is the overall IREP –Standalone Pumped Storage Project is going to facilitate Employment creation of total of 3000 people during construction and 600 people during operation.

The Divisional Forest Officer, Kurnool Division has submitted the following information in Part-II.

- An area of 365.66 Ha (i.e. 319.02 Ha for Lower Reservoir + 22.50 Ha for Power House & TRC Outlet + 6.96 Ha for Penstock + 8.02 Ha for Intake Structure + 2.43 Ha for Tail Race Channel and 6.73 Ha for Internal Roads) of forest land is required in Compt. Nos. 113, 114, 115, 116 & 117 of Gani RF, Bethamcherla Section, Kurnool Range, Kurnool Division for establishment of 1200 MW Integrated Renewable Energy Project, Pinnapuram in f/o M/s Greenko Energies Pvt., Ltd., Hyderabad
- The Density of vegetation in the proposed area is 0.1 to 0.2 (Eco-class –III, open forest).

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- Legal Status of the forest is Gani Reserve Forest is notified U/s -16 vide G.O. Ms No. 19, dated: 01.02.1909.
- Regarding Species – wise (scientific names) and diameter class –wise enumeration of trees is enclosed herewith. As per 2.2 (ii) of Hand Book on FCA Species-wise and diameter class-wise abstract of trees to be felled should be furnished in the prescribed form. Total enumeration is necessary only upto 10 hectares. For larger areas, species-wise and diameter class-wise abstract of trees may be computed either from the working plans or by standard sampling methods. Accordingly, the Divisional Forest Officer, Kurnool has reported that there is 1879 trees are enumerated in 10% (i.e. 36 Ha) of the total area and the value of extraction of tree growth is Rs. 21,56,369.71/- (18790 trees is computed for total area for diversion i.e. 365.66 Ha and the value of extraction of tree growth is Rs. 2,19,02,624.81/- (Two Cores Nineteen lakhs Two thousand Six hundred Twenty Four rupees and Eighty One paise).
- Regarding brief note on vulnerability of the forest area to erosion, it has been stated that, the proposed Reserve Forest is not vulnerable for erosion.
- Approximate distance of the proposed site for diversion from boundary of forest is the proposed establishment of Integrated renewable Energy Project in Gani RF, Compt. Nos 113,114,115,116 & 117 an extent of 365.66 Ha in Bethamcherla Section, Kurnool Range in Kurnool with approximate distance is 0.0 Km.
- Regarding rare/ endangered/unique species of flora and fauna found in the area it is stated that, there are no rare/ endangered/unique species of fauna found in the proposed area.
- There are no protected archaeological heritage sites / defense establishment or any other important monument is located in the area.
- The requirement of forest land is proposed by the user agency is un-avoidable and barest minimum for the project.
- Regarding any work in violation of the Act has been carried out, it has been stated that, the user agency has not violated the provisions of Forest (Conservation) Act, 1980.

The Divisional Forest Officer, Kurnool has inspected the area proposed for diversion on 08.12.2018, 24.01.2019 & 29.01.2019 and stated that, the vegetation are found in the proposed diversion of 365.66 Ha of the forest area consisting species like Narayepi (Hardwickia binate), Chirumanu (Anogeissus latifolia), Chigara (Albizia amara), Maddi (Morinda tinctoria) etc., and the density of the proposed area is 0.1 to 0.2 under Eco-class-III open forest.

- The Location map in (S.I) Sheet in 1:50,000 scale, authenticated DGPS maps are furnished.

In column No. 13 of Part –II, the Divisional Forest Officer has “Recommended” the proposal for consideration.

The Addl. Prl. Chief Conservator of Forests /Conservator of Forests, Kurnool has inspected the area proposed for diversion on 03.06.2019 and verified the DGPS/GPS readings at points marked on the ground Nos 8,7,81,64 and 64. DGPS maps, readings with GPS (In WGS 84 Datum) decimal degrees verified in the filed.

The flora found the proposed diversion of 365/66 Ha of the forest area consisting of tree species like Narayepi (Hardwickia binate), Chirumanu (Anogeissus latifolia) etc. and shrubs like Kalivi (Carissa carandas), Danthi (Gymnosporia spinosa) etc., and the fauna noticed indirectly are Sloth bear (Melursus ursinus), Grey Jungle Fowl (Gallus - sonnerati), Jungle Cat (Felis chaus), Chowsingha (Tetracerus quadricornis) etc.

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Further, the Addl. Prl. Chief Conservator of Forests /Conservator of Forests , Kurnool has stated that, as per the Range Plantation Register produced by the FRO, Kurnool and as observed from the field, the following plantations are raised during the years noted below are overlapping the proposed area for diversion.

Sl. No	Year	Type of Planation	Compt. No	Area in Ha	Scheme
1	2003-04	Misc. Planation	115	6.00	FDA
2	2003-04	Misc. Planation	117	4.00	FDA
3	2004-05	Misc. Planation(ANR)	117	10.00	FDA
4	2004-05	Misc. Planation(ANR)	115	10.00	FDA
5	2014-15	Misc. Planation	115 & 116	20.00	CAMPA-NPV

The expenditure incurred towards raising of plantations is to be recovered from the user agency.

In part -III, the Addl. Prl. Chief Conservator of Forests / Conservator of Forests, Kurnool has agreed with the information furnished by the Divisional Forest Officer, Kurnool and Recommended the proposal for diversion of forest land.

As per the guidelines of Forest (Conservation) Act, 1980 in para 3.2-(i), non forest land for Compensatory Afforestation has been identified over an extent of 408.68 Ha (i.e. 20 Ha in Sy. Nos 02,162(P) to 166(P) in Bit -I and 346 Ha in Sy. Nos 03(P),04(P), 05 to 20, 24 to 29, 31 to 33, 35,36,107 to 110, 115 to 125, 127,130 to 134, 137, 138, 142 to 151, 152 (P), 155,157(P), 159(P),160(P), 161(P) &173(P) part in Bit -II) in Kamireddipadu and Mangupalli (V) , Ananthasagaram(M), Nellore Division.

Out of 408.68 an extent of 8.15 Ha. of Government land towards stream/cart track/old burial ground to be deducted and the total CA area to be handed over to the division is 400.53 Ha. As per para (ix) (a), Chapter -3 of FC Act, 1980 guidelines a scheme for raising Compensatory Afforestation have been prepared over an extent of 366 Ha with a financial outlay of Rs. 3592 lakhs for a for a period of (14) years commencing from 2020-21 to 2033 - 34(including Raising of Plantation& Advance Operations).

The Divisional Forest Officer, Nellore has inspected the area proposed for Compensatory Afforestation on 26.12.2018 and 15.02.2019 and stated that, out of 400.53 Ha identified by the user agency, an area of 366 Ha in two bits are suitable for raising plantation of NTSH & Red Sander Plantation under Semi Mechanical Method from management point of view and is free and all sorts of encumbrances and encroachments

The Divisional Forest Officer, Nellore has furnished the authenticated DGPS map of CA land along with location map.

The District Collector, Kurnool District vide Ir., No. 1100/2018/H5 (DFO, Kurnool) dated: 07.12.2018 has issued certificate under RoFR Act, 2006, as stipulated by the MoEF, Gol, New Delhi vide Lr.No.11-9/1998-FC (pt), Dt.05.07.2013, in the prescribed format Annexure-II (Form-II) (for projects other than linear projects) for evidences for having initiated and completed the process of settlement of rights under the Scheduled Tribes and Other Traditional Forest Dwellers (RoFR) Act, 2006 is enclosed with the proposal.

Further, as per ToR (Terms of References) and amendments issued thereon in Government of India vide Lr. No. J-12011/12/2018-IA.I (R), MoEF &CC, New Delhi Dt. 25.09.2018, the Catchment Area Treatment (CAT) Plan for this project is not applicable, as the Government of India have deleted the same from the Original ToR Dt. 17.05.2018. As this area not typically River Valley Project as this is not located on any River course.

Further, it is informed that as per the guidelines issued by the Gol, MoEF, New Delhi this proposal has been uploaded in the Ministry's website ([www.forestclearance.nic.in](http://www.forestclearance.nic.in)) & a unique file number FP/AP/ HYD/35371/2018 has been generated for this proposal. A copy of the Acknowledgment slip generated by the Ministry's website is enclosed herewith.

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The Addl. Prl. Chief Conservator of Forests /Conservator of Forests, Kurnool & Divisional Forest Officer, Kurnool Division have recommended the proposal for an area of 365.66 Ha (i.e. 319.02 Ha for Lower Reservoir + 22.50 Ha for Power House & TRC Outlet + 6.96 Ha for Penstock + 8.02 Ha for Intake Structure + 2.43 Ha for Tail Race Channel and 6.73 Ha for Internal Roads) of forest land in Compt. Nos. 113,114,115, 116 & 117 of Gani RF, Bethamcherla Section, Kurnool Range , Kurnool Division for establishment of 1200 MW Integrated Renewable Energy Project, Pinnapuram in f/o M/s Greenko Energies Pvt., Ltd., Hyderabad

In view of the above, the statutory proposal along with necessary enclosures for an area of 365.66 Ha (i.e. 319.02 Ha for Lower Reservoir + 22.50 Ha for Power House & TRC Outlet + 6.96 Ha for Penstock + 8.02 Ha for Intake Structure + 2.43 Ha for Tail Race Channel and 6.73 Ha for Internal Roads) of forest land in Compt. Nos. 113,114,115, 116 & 117 of Gani RF, Bethamcherla Section, Kurnool Range , Kurnool Division for establishment of 1200 MW Integrated Renewable Energy Project, Pinnapuram in f/o M/s Greenko Energies Pvt., Ltd., Hyderabad duly recommended in Part-IV in triplicate is submitted herewith for onward transmission to the Government of India, MoEF, New Delhi for consideration of the proposal

Encl:- (3 ) sets of proposals

Yours faithfully,  
Sd/- Dr. Mohd. Ilyas Rizvi,  
Prl. Chief Conservator of Forests  
(Head of Forest Force)

Copy to Addl. Prl. Chief Conservator of Forests /Conservator of Forests, Kurnool and Divisional Forest Officer , Kurnool for information.

Copy to Conservator of Forests, Guntur and Divisional Forest Officer Nellore for information.

Copy to Authorized Signatory, M/s Greenko Energies Pvt., Ltd., Hyderabad for information and necessary action.

// t.c.b.o.//

  
Superintendent



Proposal for diurnal of 365.66 Ha of FL in caught Nos 113, 114, 115, 116 & 117 of Gani RF, Kurnool for establishment of ~~34~~ 1200 mco IREP, Pinnapuram in H/O Greenko Energies Pvt. Ltd.

**PART -IV**

**(To be filled by the Nodal Officer or Principal Chief Conservator of Forests or Head of Forest Department)**

17	Detailed opinion and specific recommendation of the State Forest Department for acceptance or otherwise of the proposal with remarks (while giving opinion, the adverse comments made by concerned Conservator of Forests or Deputy Conservator of Forests should be categorically reviewed and critically commented upon).	::	<i>Recommended</i>
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*Dr. Mohd. Ilyas Rizvi*

Date: 07-06-2019

Place: Kurnool Guntur

Name & Designation:

Official Seal:

Signature : **Dr. Mohd. Ilyas Rizvi IFS.,**  
**Pri. Chief Conservator of Forests**  
**(Head of Forest Force)**  
**Andhra Pradesh, Guntur**