

CHECK LIST SERIAL NUMBER- 29

COST BENEFIT ANALYSIS CATEGORY OF PROPOSALS FOR WHICH COST BENEFIT ANALYSIS IS APPLICABLE


| S.No. | Nature of Proposal | Applicable/ Not Applicable | Remarks |
|-------|--|----------------------------------|---|
| 1. | All categories of proposals involving forest land upto 20 ha in plains and up to 5 ha in hills. | Not applicable | --- |
| 2. | Proposal for defense installation purposed and Soil prospecting | Not applicable | --- |
| 3. | Habitation, establishment of industrial units, tourist lodges complex and other building construction | Not Applicable | --- |
| 4. | All other proposals involving forest land more than 20 ha in plains and more than 5 ha in including hills transmission lines minor medium and major irrigation projects, hydel projects, mining activity, railway lines, location specific installations like micro-wave stations, auto repeater centers, TV towers etc. | Applicable | Cost benefit analysis enclosed in two succeeding sheets. This is 4MW SHEP being constructed in the hilly area of District Chamba (H.P.) for which barest minimum 8.0678ha forest land for various components of the project has been taken. Meticulous exercise has been carried out for the minimum use of the forest land and tree to be cut which has been accepted after the site inspection by the forest officers on dated 25/07/2017 of the area and keeping the public interest. |

Date 28/8/2020
Place Salooni


Friends H. S. Energies
Project Manager
M/s Friends H. S. Energies
Authorised Signatory

COST BENEFIT ANALYSIS
Estimation of cost of forest diversion

| S.No. | Parameter | Remarks |
|-------|--|---|
| 1. | Ecosystem services losses due to proposed forest diversion | Negligible because Siul-IV Hydro - electric project is essentially a run of the river development scheme on Siul nallah in Chamba District of Himachal Pradesh . The proposed scheme envisages diversion of Siul inflows at about 200 m downstream of confluence of Siul and Sangini through a trench weir and will be led to a surface de-silting tank . The silt free water from de-silting tank will be lead to forebay through a 1.455 km long headrace tunnel of size 3.0 m modified D – shaped. The water from forebay will be led to power house through a 1.75 m dia. approximately 124 m long penstock bifurcating near power house to feed two no. of horizontal axis Francis turbine driven generating units in a surface power house which causes no any Environment losses |
| 2 | Loss of annual husbandry productivity including loss of fodder. | Nil |
| 3 | Cost of human re-settlement | Nil ----- project involves zero displacement. |
| 4 | Loss of public facilities and administrative infrastructure (Roads, building, schools, dispensaries, electric lines railway etc) on forest land or which would require forest land if these facilities were diverted due to the project. | The development of the project will not hamper any public facilities and administrative infrastructure. Therefore no such losses will occur. On the contrary, Project proponent has provision fund @ 1% of project cost for Local Area Development under LADA and 1% of saleable unit per annum towards LADF after COD. |
| 5. | Possession value of forest land diverted .. | 5.90 lakh / 30% as per market circle rate in division Churah at salooni District Chamba. |
| 6. | Cost of suffering to oustees. | Nil |
| 7. | Habitat Fragmentation cost . | Nil |
| 8. | Compensatory afforestation and soil & moisture conservation cost. | 33.62 lakh |


23/3/20

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COST BENEFIT ANALYISS PARAMETERS FOR ECVALUATION OF BENEFIT NOT WITH STANDING OF LOSS OF FORESTS.

(ANNEXURE- V1 (b) OF Forest Conservation Act 1980)

| S. No. | Parameters | Nature of Proposal-Irrigation/Hydel Project and Others | Cost Benefit |
|--------|--|--|--|
| 1 | Increase in productivity attributable to the specific Project | a) Primary design energy per annum b) Net design energy (available at interconnection point after deducting Royalty& Free Power to State Govt. Consumption for auxiliaries & other losses) per annum - For first 12 years (0.5%+0.5%+0.7%+7%) - For rest of the period(0.5%+0.5%+0.7%+13%) | 20.75 MU 19.17 MU 17.95MU |
| 2 | Benefit to economy | a) Av. Cost of saleable net design energy @ Rs. 4.38 per unit per annum b) Development works to be done through LADA @ 1% of project cost c. 1% energy to be given against LADF. | $4.38(18.97 \times 12 + 17.75 \times 28) / 40 = 80.224 \text{ million Rs} = 8.0224 \text{ cr (Rs 8022.4 lakh)}$ 38 Lakh $4.38(19.17 - 18.97) = 0.876 \text{ million Rs}$ $0.0876 \text{ crore (Rs 8.76 lakh)}$ per annum for first 12 years and $4.38 (17.95 - 17.75) = .876 \text{ million Rs}$.0876 crore (Rs 8.76 lakh) per annum for rest of the period |
| 3 | No. of Population benefit | Assume that 150 families of villages Jaladi, Digori, Jalout, Ranjani and Sannoh will be benefited directly or indirectly. | --- |
| 4 | Employment potential | Assume that 50 persons will get employment for 2 years at minimum wage i.e. Rs. 6,300 p.m. | Rs. 6.30 Lakh |
| 5 | Cost of acquisition of facility on non-forest land wherever feasible | Nil | --- |
| 6 | Loss of | Nil | --- |

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28/3/20

| | | | |
|---|---|--|--|
| | a) Agricultural and b) Animal husbandry production due to diversion of forest land | | |
| 7 | Economic benefits due to compensatory afforestation | | The compensatory afforestation amount of Rs .33,62,894/-, will be deposited to forest department. Out of this 80% of cost amounting of Rs26,90,315 /- will expended as wages . which generates locl employment in the area |

Dated, 28/3/20
Place. Salooni


Nitin Ramishan
-28/3/20
Project Manager
M/S Friends Him Energies