SECTION I:
PROJECT DESCRIPTION
132KV Jigna-Dadarkala(Vijaypur) DC Transmission line

1.0 BACKGROUND:

(i) Energy demand has been increasing steadily along with the development of the state. In view of limited conventional energy sources and their limited exploitation and increasing environmental pollution, production of energy based on new and renewable energy sources and is being given high priority and promotion. New and greater chances are becoming apparent to participate in the mainstream of energy production.

Efforts are being made to develop the capacity in renewable energy sources such as solar energy in the state. Various capacity solar power plants are being installed for electricity generation from solar energy.

In order to that a power plant having capacity of 75MW is under construction at Dadarkala (Vijaypur) under Sadar Tahsil of District Mirzapur. The generated power shall be evacuated through 132KV Double Circuit line and shall be connect with 132KV Sub Station Jigna.

1.1 BENEFITS OF THE PROJECT:

The physical and financial benefits of this project as per available statistics comprises of the following: -

(ii) Evacuation of total generated power of Solar Power Plant.

(iii) To meet out the demand of electricity.

(iv) Reliability and quality in supply of electricity.

Project Highlights

a)	Project Name	:	Construction of 132KV Double Circuit Transmission line from Proposed Solar power plant at Dadarkala(Vijaypur) to 132KV Sub Station Jigna in Mirzapur District
b)	Location	:	District- Mirzapur
c)	Beneficiary States	:	Uttar Pradesh
d)	Project Cost	:	INR Rs. 891.62 Lacs
e)	Length of Transmission line	:	7.439 Kms
f)	Length of transmission line in Revenue and forest land	:	2.425 Kms in forest area and rest 5.014Kms in Revenue land
e)	Total forest area involved	:	6.5475 Hectare

SECTION II: BASE LINE DATA

2.0 The project is located in the State of Utter Pradesh in India. The basic details of the area under project are given below:

2.1 UTTAR PRADESH:

PHYSIOGRAPHY: Uttar Pradesh is the biggest state of the country with a geographical area of 294411 Sq, Km. and a huge population of 13.91 Crores (as per census of 1991).

Climate: The climatic condition is generally Sub-Tropical wet and dry. UP state has three main seasons:

- Winter (October through February);
- Summer (March through June); and
- Monsoon season (July through September).

Temperature: During the winter average temperatures range from 10° to 27° C. Summers are hot, with an average temperature of 29° C and a high temperature that at times reaches 48° C. During the monsoon season temperatures average 19° to 30° C.

Rainfall: Annual rainfall tends to decrease from south to north and from east to west. The average rainfall in this region of the state ranges from 550 to 1200 mm.

Wind: The mean wind speed at Anpara is 10 km/hr though the wind speeds are normally recorded to exist between 4 km/hr to 20 km/hr.

Soil: Red, Yellow and black soils are generally available in this region of state.

Mineral Resources: Uttar Pradesh is deficient of major mineral produces . But this region is rich in minerals like Coal, Quartz reef, Felspar, Iron, Lime stone, Dolomite, Sulfides and Gold . It has large deposits of mainly Coal and Quartz reef as minerals.

Ecological Resources: The forest cover of the region based on the satellite data of October-December, 1999, is 1,42,052.24 Hectare which constitutes 56.42% of the geographic area 2,51,747.00 Hectare **(Map-1)**. Out of these dense forest accounts for 44,384 sq.km. having crown density of more than 40% and open or degraded forest of 32,881 sq.km. having crown density ranging between 10-40%. By legal status Reserve Forest constitutes 61.69%, Protected Forest 37.36% and unclassified Forest 0.95%. The forests are the main source of supply of fodder and fuel and subsistence for the poorest sections of the people and tribal population in the interior under-developed areas of the state. There are four forest types:

- Tropical Moist Deciduous
- Tropical Dry Deciduous
- Tropical Thorn and
- Sub Tropical Broadleaved Hill Forests.

Forests are largely distributed in central, southern and eastern parts of Uttar Pradesh. Teak, Tendu and Sal are the two most important forest formations of the forest range.The proposed transmission line is constrained in only region of Lalganj Forest range having forest cover ranging from 25 % to 30 %.

SECTION III: POLICY, LEGAL & REGULATORY FRAMEWORK

3.0 UPPTCL's activities by their inherent nature and flexibility have negligible impacts on environmental and social attributes. Indian laws relating to environmental and social issues have strengthened in the last decade both due to local needs and international commitments. UPPTCL undertakes its activities within the purview of Indian laws keeping in mind appropriate international obligations and directives and guidelines with respect to environmental and social considerations of Funding Agencies.

3.1 ENVIRONMENTAL

3.1.1 MANDATORY REQUIREMENTS (NATIONAL)

- **MOP order/sanction under The Electricity Act, 2003:**

  Sanction of MOP, GOI is a mandatory requirement for taking up any new transmission project under the section 68(1) of The Electricity Act, 2003. The sanction authorize UPPTCL to plan and coordinate activities to commission the new project. Electricity act does not explicitly deal with environmental implications of activities related to power transmission. However, UPPTCL always integrates environmental protection within its project activities.

- **Forest Clearance Under The Forest (Conservation) Act, 1980**

  When transmission projects pass through forest land, clearance has to be obtained from relevant authorities under the Forest (Conservation) Act, 1980. This Act was enacted to prevent rapid deforestation and environmental degradation. State governments cannot de-reserve any forest land or authorize its use for any non-forest purposes without approval from the Central government. UPPTCL projects, when involving forest areas, undergo detailed review and approval procedures to obtain a Forest Clearance certificate from MOEF, Government of India before starting any construction activity in designated forest area.

- **Environmental Clearances under Environment (Protection) Act,1986**

  Since transmission line projects are environmentally clean and do not involve any disposal of solid waste, effluents and hazardous substances in land, air and water they are kept out of the purview of Environment (Protection) Act, 1986.

- **The Biological Diversity Act, 2002:**

  Under the United Nations Convention on Biological Diversity signed at Rio de Janeiro on the 5th day of June, 1992 of which India is also a party, MoEF has enacted the Biological Diversity Act, 2002 to provide for conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith. As per the provision of act certain area which are rich in biodiversity and encompasses unique and representative ecosystems are identified and designated as Biosphere Reserve to facilitate its conservation. All restrictions applicable to protected areas

like National Park & Sanctuaries are also applicable to these reserves. UPPTCL will abide by the provision of act wherever applicable and try to totally avoid these biosphere reserves while finalizing the route alignment.

3.1.2 FUNDING AGENCIES:

Uttar Pradesh New & Renewable Energy Development Agency are the funding agency of the project. Transmission line projects are categorized as category-B project having limited impact that can be further minimized through mitigative/management measures and would normally require only an environmental review. UPPTCL takes remedial measures to prevent, minimize, mitigate, or compensate for adverse impact and improve environmental performance. Environment Assessment will take account the natural environment, human health and safety, and social aspects and trans- boundary and global environmental aspects. During EA process public is also informed at every stage of project execution and their views are considered during decision-making process.

3.1.3 PRESCRIPTIVE FRAMEWORK (NATIONAL)

- Constitutional Guarantees
- Applicable Legislations

3.1.4 RELEVANT POLICIES

- National Conservation Strategy and Policy Statement on Environment and Development, 1992
- Policy statement for Abatement of pollution, 1992

3.2.0 *SOCIAL*

3.2.1 MANDATORY REQUIREMENTS (NATIONAL)

- **National Policy on Resettlement and Rehabilitation for Project Affected Families:** Ministry of Rural Development, Government of India has notified a National policy on R&R for Project Affected Families (PAFs) in Feb'04 applicable to all developmental projects where 500 or more families enmass in plain areas or 250 or more families enmass in hilly areas are displaced due to project activity. It essentially addresses the need to provide succour to the assetless rural poor, support the rehabilitation efforts of the resources and provide a broad canvas for an effective consultation between PAFs and authorities responsible for their R&R. It has also listed R&R measures and entitlements for different category of PAFs. Though the National policy as such is not applicable to UPPTCL because transmission projects do not involve displacement of such a large numbers of families since land required for substations is quite small. However, the entitlement benefits listed in the National policy for PAFs have been adopted by UPPTCL in its "Social Entitlement Framework" that is being implemented wherever land acquisition for substations is undertaken.

- **Rights of Way And Compensation Under Electricity Act,2003:**

  The act has a provision for notifying transmission company under section 164 (B) to avail benefits of eminent domain provided under the Indian Telegraph Act, 1885. MOP, GOI vide gazette notification dt 23rd Dec'03 had already notified UPPTCL under this section of said act. Therefore, for the purpose of placing of any wires, poles, etc., UPPTCL has all the powers that the telegraph authority possesses. Thus, UPPTCL can erect and construct towers without actually acquiring the land. However, all damages due to UPPTCL activity are compensated at market rate. Power transmission schemes are always planned in such a way that the power of eminent domain is exercised responsibly.

- **Provisions Under Land Acquisition Act, 1894, as amended in 1984:**

  When land is acquired for sub-stations, UPPTCL will follow procedures laid down under the Land Acquisition Act (LA Act), 1894. UPPTCL sub-stations have never resulted in large scale displacement or loss of livelihoods. There have been only marginal impacts due to flexibility exercised by UPPTCL in selecting sites. The LA Act specifies that in all cases of land acquisition, no award of land can be made by the government authorities unless all compensation has been paid.

3.2.2 PRESCRIPTIVE FRAMEWORK (NATIONAL)

- Constitutional Guarantees
- National and State-wide Laws and Policies Relating to Land Acquisition and Issues of R&R
- Uttar Pradesh Pariyojana Ke Karan Visthapit Vyakti (Punsthapan) Adhiniyam, 1985