

**SECTION-3** *B*

**PROJECT DETAILS & GENERAL SPECIFICATION**

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**SITE INFORMATION**

|                 | Particular                   | Details                                                                                                                                                                                                                   |
|-----------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a)              | Owner                        | POWERGRID                                                                                                                                                                                                                 |
| b)              | Customer                     | POWERGRID                                                                                                                                                                                                                 |
| c)              | Project Title                | Substation Package – Substation Package -SS01 for Construction of 765/400/220kV Bhuj Pool (New) S/S and Extension of 765kV Banaskantha S/S under Green Energy Corridors: Inter-State Transmission Scheme (ISTS) – Part C. |
| d)              | Location                     | Bhuj, Gujrat<br>Banaskantha , Gujrat                                                                                                                                                                                      |
| e)              | Transport Facilities         | ROAD/TRAIN, For Bhuj Nearest Rail Head: Bhuj<br><br>ROAD/TRAIN, For Banaskantha Nearest Rail Head: Palanpur                                                                                                               |
| SITE CONDITIONS |                              |                                                                                                                                                                                                                           |
| a)              | Max. ambient air temp.       | 50°C                                                                                                                                                                                                                      |
| b)              | Min. ambient air temp.       | 0°C                                                                                                                                                                                                                       |
| c)              | Max. design ambient temp.    | 50°C                                                                                                                                                                                                                      |
| d)              | Design reference temp.       | 50°C                                                                                                                                                                                                                      |
| e)              | Average Humidity             | Max. 100%                                                                                                                                                                                                                 |
| f)              | Special corrosion conditions | No                                                                                                                                                                                                                        |
| g)              | Solar Radiation              | 1.2kW/sqmtr                                                                                                                                                                                                               |
| h)              | Atmospheric radiation UV     | High                                                                                                                                                                                                                      |
| i)              | Altitude above sea level     | Less than 1000meter                                                                                                                                                                                                       |

|                                    |                                                  |                                                                                                                 |
|------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| j)                                 | Pollution Severity                               | High Pollution level (31mm/kV) For BHUJ<br>High Pollution (25mm/kV) for Banaskantha                             |
| k)                                 | Seismic Zone                                     | As per the seismic zone defined in the relevant BIS /<br><b>IEC-62271-300</b> but not less than 0.3g horizontal |
| WIND DATA                          |                                                  |                                                                                                                 |
|                                    | Wind velocity                                    | As per IS                                                                                                       |
|                                    | Average No. of<br>thunderstorm days<br>per annum | As per IS                                                                                                       |
| <b>Main Electrical Parameters:</b> |                                                  |                                                                                                                 |
|                                    | <b>Fault Levels:</b>                             | <b>765kV: 50kA for 1 sec</b><br><b>400kV: 63kA for 1 sec</b><br><b>220kV: 40kA for 1 sec</b>                    |
|                                    | <b>Creepage Distance</b>                         | <b>31mm/kV for 765kV/400kV/220kV BHUJ S/S</b><br><br><b>25mm/kV for Extn. of 765kV Banaskantha S/S</b>          |

## SECTION-3

### PROJECT DETAILS & GENERAL SPECIFICATION

#### SITE INFORMATION

|                 | Particular                                 | Details                                                                                       |
|-----------------|--------------------------------------------|-----------------------------------------------------------------------------------------------|
| a)              | Owner                                      | POWERGRID                                                                                     |
| b)              | Customer                                   | POWERGRID                                                                                     |
| c)              | Project Title                              | 765kV/400kV/220kV Banaskantha (New) Substation and Extn. of 400kV Sankhari (GETCO) Substation |
| d)              | Location for Banaskantha site.             | Village – MUDETHA , Near BHILDI - 385530 Taluka – Deesa, Dist. Banaskantha (Gujarat)          |
| e)              | Location for Sankhari site                 | Village – VELODA, Near Melusan Dist. Patan (Gujarat)                                          |
| f)              | Transport Facilities                       | RAOD/TRAIN,<br>For both Site Nearest Rail Head: <b>Palanpur</b>                               |
| SITE CONDITIONS |                                            |                                                                                               |
| a)              | Max. ambient air temp.                     | 50°C                                                                                          |
| b)              | Min. ambient air temp.                     | 0°C                                                                                           |
| c)              | Max. design ambient temp.                  | 50°C                                                                                          |
| d)              | Design reference temp.                     | 50°C                                                                                          |
| e)              | Average Humidity                           | Max. 100%                                                                                     |
| f)              | Special corrosion conditions               | No                                                                                            |
| g)              | Solar Radiation                            | 1.2kW/sqmtr                                                                                   |
| h)              | Atmospheric UV radiation                   | High                                                                                          |
| i)              | Altitude above sea level                   | Less than 1000meter                                                                           |
| j)              | Pollution Severity                         | High Polution (25mm/kV)                                                                       |
| k)              | Seismic Zone                               | As per the seismic zone defined in the relevant BIS but not less than 0.3g horrrizontal       |
| WIND DATA       |                                            |                                                                                               |
|                 | Wind velocity                              | As per IS                                                                                     |
|                 | Average No. of thunderstorm days per annum | As per IS                                                                                     |

|  |                                    |                                                                                                                                                           |
|--|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>Main Electrical Parameters:</b> |                                                                                                                                                           |
|  | <b>Fault Levels:</b>               | <b>For Banaskantha</b><br>765kV: 50kA for 1 sec<br>400kV: 63kA for 1 sec<br>220kV: 40kA for 1 sec<br><br><b>For Sankhari</b><br><br>400kV: 40kA for 3 sec |
|  | <b>Creepage Distance</b>           | <b>25mm/kV</b>                                                                                                                                            |