Project Name: Transmission Grid Enhancement and Modernization Project

Tentative Scope of works

i. Central Region:

Table-1: List of New Transmission Line

SN	Name of the Transmission Line	Bay Extension
1.	Kaliakoir- Kaliganj 400 kV double circuit line: 50 km (Conductor: Quad ACSR Finch)	400kV AIS Bay Extension at Kaliakoir: 2 nos
2.	Kaliganj – Bhulta 400kV double circuit line: 35 km (Conductor: Quad ACSR Finch)	400kV AIS Bay Extension at Bhulta: 4 nos
3.	Bhulta - Meghnaghat 400kV double circuit line: 25km (Conductor: Quad ACSR Finch)	400kV AIS Bay Extension at Meghanaghat: 2 nos

Table-2: List of New 400/230kV & 230/132kV Substations with Capacity, Connection Details

SN	Name of Substation	Proposed Land	Capacity (MVA)	Interconnection Details	Bay Extension
1.	Munshiganj 400/230/132 kV AIS & GIS Mixed	25 Acres	2x750 MVA (400/230kV) & 2x325 MVA (400/132kV) Bus Reactor =125 MVAR at 400kV	▪ LILO of existing Gopalganj– Aminbazar 400kV line: 3.5 km (Quad ACCC Finch) ▪ Munshiganj – Keraniganj 230kV double circuit line: 9.0km (OH: 6 km+ UG: 3.0km) (Conductor: Twin ACSR Mallard + 2500 mm^2) ▪ LILO of Keraniganj – Nawabganj 132 kV double circuit line at Munshiganj: 1.0 km (Conductor: ACSR Grosbeak)	230kV GIS Extension at Keraniganj: 2 no's
2.	230/132 kV	Existing	3x450 MVA	▪ Aminbazar- Kallayanpur	2x230kV

SN	Name of Substation	Proposed Land	Capacity (MVA)	Interconnection Details	Bay Extension
	GIS: Kallayanpur,	Land	(230/132kV) & 3x80/120 MVA (132/33kV)	230kV double circuit O/H line: 2.5 km (Conductor: Twin TACSR Mallard)	AIS Bay at Aminbazar
3.	230/132 kV GIS: Bandar	Existing Land	2x450 MVA (230/132kV) & 2x80/120 MVA (132/33kV)	▪ Meghnaghat-Bandar 230kV double circuit (Quad ACSR Mallard) line: 10 km.	2x230kV AIS Bay at Meghnaghat
4.	230/132 kV GIS: Sanarpar	1.0-2.0 Acres	2x450 MVA	▪ Siddhirganj – Sanarpar 230kV double circuit XLPE 2500 mm^2 U/G Cable. Length: 5 km.	230kV (GIS/AIS): 2 nos' at Siddhirganj

Table-3: List of Existing Substations for Upgradation & Extension works with Capacity

SN	Name of Substation	Present Capacity (MVA)	Proposed add/replacement Capacity (MVA)	Addition/ Replacement
1.	Aminbazar 400 kV AIS Extension	3x520 MVA (400/230kV)	2x750 MVA (400/230kV)	Addition
2.	Hasnabad 132/33kV AIS to GIS Upgradation	3x225 MVA (230/132kV)	3x450 MVA (230/132kV)	Replacement
		3x66/100 MVA (132/33kV)	3x80/120 MVA (132/33kV)	Replacement
3.	Maniknagar 230/132 kV Outdoor GIS Extension	2x300 MVA (230/132kV)	1x450 MVA (230/132kV)	Addition
4.	Hairpur 230 kV Upgradation	-	6 nos 230 kV AIS diameter up-gradation (one & half breaker scheme)	-

ii. Southern Region:

Table-4: List of New 400/230/132kV & 230/132kV Substations with Capacity, Connection Details

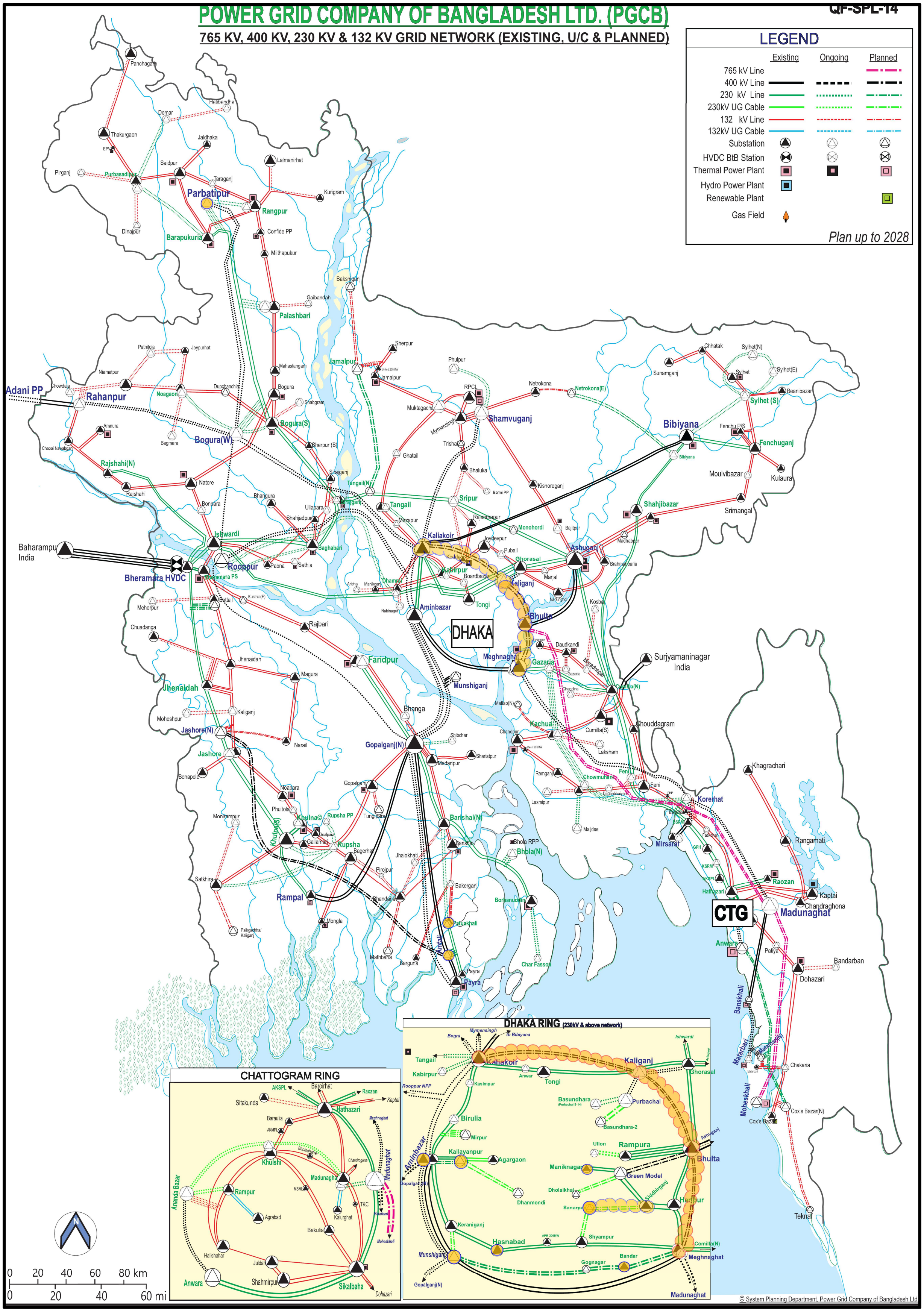
SN	Name of Substation	Proposed Land	Capacity (MVA)	Interconnection Details	Bay Extension
1.	Amtali 400/230/132kV AIS	50 Acres (Existing Land)	2x520 MVA (400/230kV) 2x325MVA* (400/132kV) Bus Reactor =2x125 MVAR at 400kV	▪ LILO of existing Payra – Gopalganj 400kV double circuit line: 5 km (Quad ACCC Finch) ▪ LILO of 230kV Patukahli-Payra double circuit transmission line: 5.178km (Twin ACCC Mallard)	-
2.	Patuakhali 230/132kV GIS	Existing Land	2x350MVA	-	230kV (GIS): 2 no's at Barisal(N)

**Relocation from Payra PGCB's Substation.*

iii. Northern Region:

SN	New Substation	Proposed Land	Capacity (MVA)	Interconnection Details	Bay Extension
	400/230 kV Parbatipur AIS	23 Acres (Nearer to the Existing Land)	2x750 MVA (400/230kV) Bus Reactor =1x125 MVAR at 400kV	▪ Re-routing Bogura(W)-Parbatipur 400kV line from 230kV bus to 400kV bus: 200 m	400kV GIS Extension at Bogura(W): 2 nos

The existing transmission network with the proposed project scope in the geographical map of Bangladesh is attached herewith in the next page.


POWER GRID COMPANY OF BANGLADESH LTD. (PGCB)
765 KV, 400 KV, 230 KV & 132 KV GRID NETWORK (EXISTING, U/C & PLANNED)
QF-SPL-14
LEGEND
Existing
Ongoing
Planned
765 kV Line
400 kV Line
230 kV Line
230kV UG Cable
132 kV Line
132kV UG Cable
Substation
HVDC BtB Station
Thermal Power Plant
Hydro Power Plant
Renewable Plant
Gas Field
Plan up to 2028
Panchagarh
Thakurgaon
Parbatipur
Rangpur
Barapukuria
Lalmanirhat
Kurigram
Palashbari
Jamalpur
Sherpur
Phulpur
Netrokona
Sunamganj
Sylhet
Sylhet (S)
Bibiyana
Fenchuganj
Kulaura
Moulvibazar
Srimangal
Shahjibazar
Adani PP
Rahanpur
Bogura(W)
Bogura(S)
Rajshahi(N)
Natore
Ishwardi
Rooppur
Baharampur India
Bheramara HVDC
Shamvuganj
Tangail
Sripur
Kaliakoir
Ashuganj
Ghorasal
Kaliganj
Tongi
Aminbazar
DHAKA
Bhulta
Meghnaghat
Gazaria
Munshiganj
Surjyamaninagar India
Rajbari
Faridpur
Jhenaidah
Jashore(N)
Jashore
Bhanga
Gopalganj(N)
Kachua
Chouddagram
Comilla(S)
Laksham
Khagrachari
Feni
Chowmuhani
Korerhat
Mirsarai
Barishal(N)
Bhola(N)
Khulna
Rupsha
Satkhira
Rampal
Mongla
Payra
Patuakhali
Borhanuddin
Char Fasson
Rangamati
Raozan
Kaptai
Chandraghona
CTG
Madunaghat
Anwara
Patiya
Bandarban
Dohazari
Banskhali
Matarbari
Moheshkhali
Cox's Bazar
Cox's Bazar(N)
Chakaria
Teknaf
CHATTOGRAM RING
Sitakunda
Baroirhat
Raozan
Kaptai
Hathazari
Baraulia
Khulshi
Rampur
Madunaghat
Agrabad
Kalurghat
Bakulia
Halishahar
Julda
Shahmirpur
Anwara
Sikalbaha
Dohazari
Ananda Bazar
DHAKA RING (230kV & above network)
Mymensingh
Bogra
To Bibiyana
Tangail
Kabirpur
Kaliakoir
Kaliganj
Ghorasal
Tongi
Purbachal
Basundhara
Basundhara-2
Biruliya
Mirpur
Kallyanpur
Agargaon
Aminbazar
Rampura
Maniknagar
Green Model
Ashuganj
Bhulta
Dhanmondi
Haripur
Keraniganj
Hasnabad
Shyampur
Munshiganj
Gopalganj(N)
Bandar
Comilla(N)
Meghnaghat
Madunaghat
0 20 40 60 80 km
0 20 40 60 mi
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