



Millennium Challenge Account Nepal (MCA-Nepal)

Electricity Transmission Project (ETP) Substation Activity

Outreach Event

New Delhi

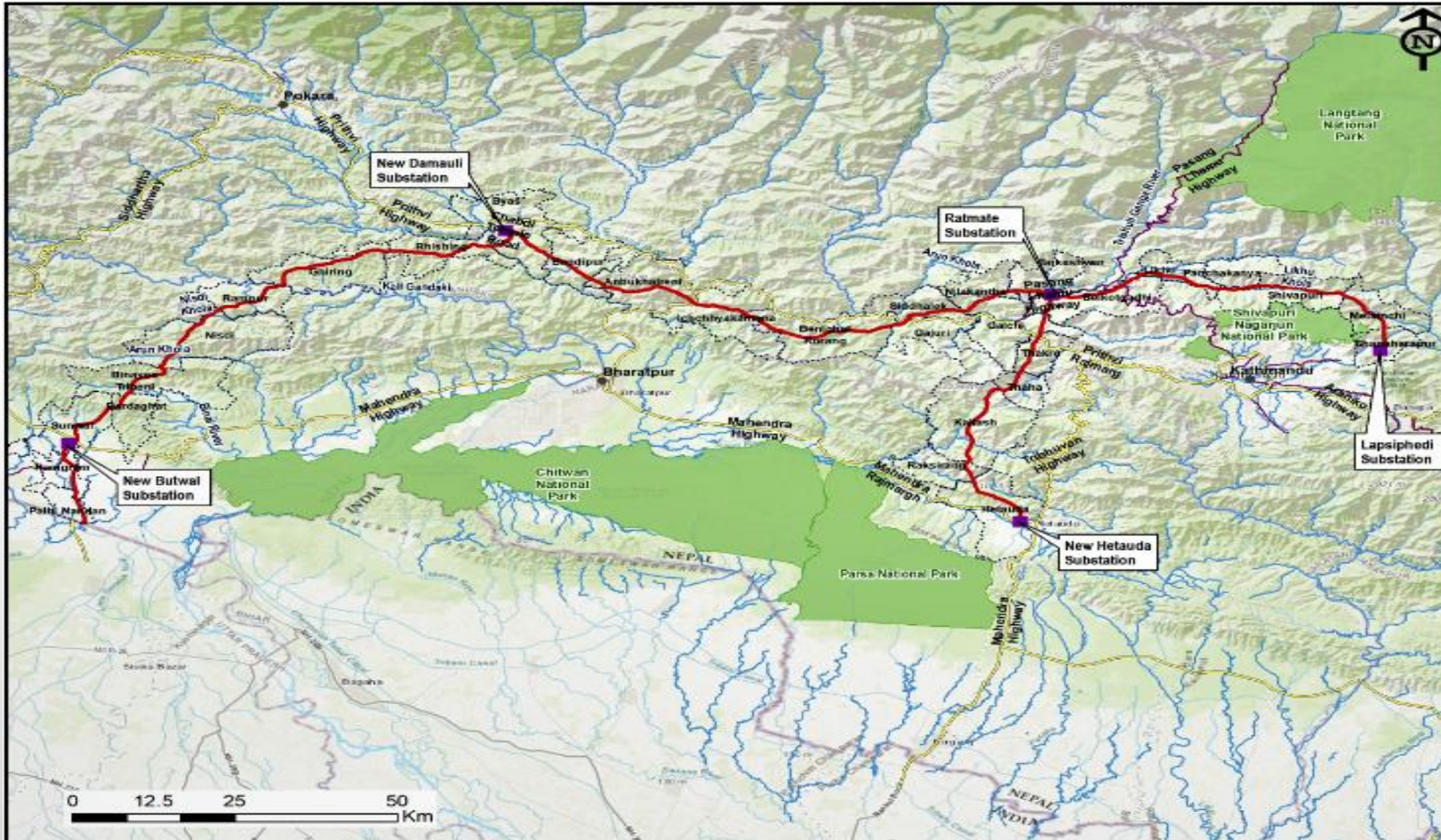
Electricity Transmission Project

Features:

- Project supports to increase in country per capita electricity consumption
- 3 x 400 kV major substations



Project Location(route map)



KTM-GALCHI-RATMATE
S/S : 62 km

KTM-MUGLING-NEW
DAMAULI S/S : 153
km

KTM-NARAYANGHAT-NEW
BUTWAL S/S :
239 km

Substation Details-Ratmate S/S



Parameter	
Location	Nuwakot District
Coordinate	27°51'3.89"N, 85° 3'11.79"E
Type	GIS
Nominal Voltage	400 kV and 220 kV
Bus Configuration	Breaker and half
Capacity	1,000 MVA

Substation Details-New Damauli S/S



Parameter	
Location	Tanahu District
Coordinate	27°58'3.57"N, 84°17'41.25"E
Type	GIS
Nominal Voltage	400 kV
Bus Configuration	Breaker and half configuration
Capacity	1,000 MVA

Substation Details-New Butwal S/S



Parameter	
Location	Nawalparasi-West District
Coordinate	27°34'25.63"N, 83°41'19.44"E
Type	GIS
Nominal Voltage	400 kV
Bus Configuration	Breaker and half configuration
Capacity	630 MVA

Substation Works Key Features



Substations

- 400 kV GIS Substation
- 3.5 years construction period
- Design-Build (FIDIC Yellow Book)
- Expected date of bid launch: Jan 2020
- Quality-Price Based Selection
- Expected contract signing date: Oct 2020



Project preparation and construction supervision



- Project preparation consultant in place to support project preparatory works
- Quality of Engineering as well as E&S related deliverables top priority
- As per FIDIC provisions, ENGINEER will be in place for reviewing design/drawings and ensuring quality of construction works during project implementation phase
- Project end date is already defined and under no circumstance the same may be extended

Resettlement and Land Acquisition



- Resettlement policy framework approved
- Entitlement Matrix approved



Project Status



- Land acquisition status for three main substations:
 - New Butwal Substation: Land acquisition and compensation related issues resolved
 - New Damauli Substation: NEA has initiated land acquisition process and is expected to complete in few months time
 - Ratmate Substation: it will be completed in advance of contractor mobilization just because of some uncertainties

Project Status Contd...



- Land acquisition status for other two substations(Only some interface activities)
 - New Hetauda Substation: Land acquisition and compensation related issues resolved
 - Lapsipedi Substation: Land acquisition and compensation related issues resolved
- Geotechnical investigation works at S/S locations mostly completed
- Draft EIA document in advanced stage of preparation
- Tender level Engineering Design/Drawing/Tech.Specs nearly complete

Challenges



- Transportation of heavy and bulky equipment
 - Design load bearing capacity of road, its condition and width
 - Design load bearing capacity of bridge and its condition
 - Land Acquisition for Ratmate S/S
 - it will be completed in advance of contractor mobilization just because of some uncertainties
- Active monsoon season of around three months in a year
- Major festival season affecting around one month of work per year
- Defined project completion date i.e. June 29, 2025



Response	Percentage
U.S. should take more action to reduce greenhouse gas emissions	85%
U.S. should take less action to reduce greenhouse gas emissions	15%

[illegible]

Possible adverse E&S impacts of substation construction



- Public and/or private land needs to be acquired for Substation and access roads.
- Pollution (Air, Water, Fuel, Lubricating Oil and Noise)
- SF₆ Gas Leakage possibility
- Pressure on community resources (e.g. existing roads, water, trees etc)
- Trafficking in person.

MCAN/MCC Policies



- Follow GoN rules and regulations including Land Acquisition Act, Environment Protection Act, and Regulations, Forest Acts.
- Follow MCC Environmental Guidelines and International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability.
- Follow MCC Gender Policy and Social and Gender Integration Guidelines.
- Follow **avoid**(settlements, cultural heritages, schools, health posts etc), **minimize**(land requirement by using GIS technology etc.) and **mitigate**(using good condition silent DG sets, water sprinkler etc) hierarchy.

Additional Employer's Requirements



Respect IFC
Performance
Standards

Respect
environment &
social clauses

Abide by health
& safety plans

Engage with
stakeholders

Gender &
Social Inclusion
Plan

For more information



- For MCC-funded business opportunities, please visit: www.mcc.gov/work-with-us
- For information on MCA-Nepal business opportunities, please visit: www.mcanp.org
- For Q&A regarding the procurement, please contact: info@mcanp.org



Thank you.