



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



Expected Timeline



Activities	2020												21	22	23	24	25
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					Jun
Bid Release and newspaper)	█																
Site visit		█															
Pre-bid		█															
Bid Submission					█												
Technical Bid opening					█												
Financial Bid opening								█									
Award of											█						
Construction												█	█	█	█	█	█

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.