



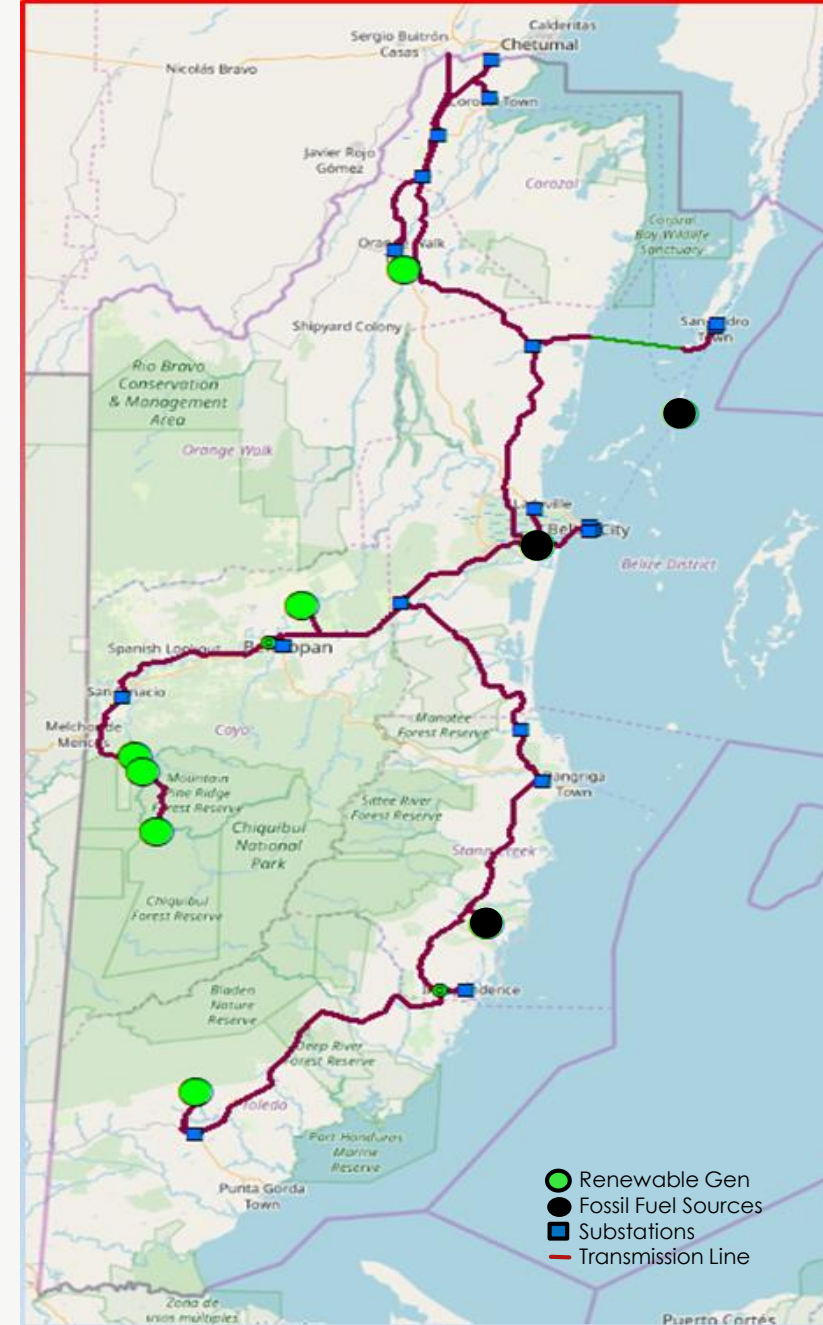
# GRID INTEGRATION OF RENEWABLE ENERGY

BELIZE ELECTRICITY LIMITED

NOVEMBER 18, 2020

# Belize Electricity Limited

- Primary distributor of electricity in Belize
- 2019 Peak power demand  $\approx$  111 MW
- 2019 Customer Base: 97,882
- All major municipalities are connected to grid except Caye Caulker
- Max electricity Import from CFE = 55MW
- Leading green electric utility in Caribbean
  - Top five in Western Hemisphere
- Available In-Country Capacity = 95MW
  - Hydro (57%)
  - Biomass (22%)
  - Solar Pilot Project (300kW )
  - Other fossil fuel sources (21%)
- 30 Substations , 44 distribution feeders





# Impacts and Challenges



## Background:

- ▶ Climate change / drought 2018-2019 (large hydro impact, seasonality of biomass)
- ▶ Volatility in Mexican market (prices)

## PV Penetration Study Scope:

- ▶ To evaluate multiple PV deployment scenarios on the performance and stability of BEL grid
  - ▶ cost impact, potential export, preferred generation portfolio

## Future Outlook:

- ▶ Variability of solar
- ▶ Mexico interconnection
- ▶ LPG project



**Thank You**