



# TECHNICAL SOLUTIONS

Parallel Session Report Out



# What are 3 key technical challenges/issues?

1. Reducing the cost of connecting last-mile customers (primarily to main grid but also using mini grids)
2. Cost implications of mini grid design
3. Prepaid smart metering
4. Integrating renewables into the main grid

# Possible recommendations to address challenges/issues

- Reducing the cost of connecting last-mile customers (primarily to main grid but also using mini grids):
  - *Competitive procurement*
  - *Good planning*
  - *More efficient distribution (including addressing losses)*
  - *Energy efficiency and demand-side management*

# Possible recommendations to address challenges/issues

## ■ Cost implications of mini grid design:

- *Context- and demand-appropriate design*
- *Allowing developers to build portfolios of mini grids through procurement*
- *Clear standards for developers that still allow for innovation*
- *Scalable and modular design coupled with placing generation near load center*

# Possible recommendations to address challenges/issues

## ■ Prepaid smart metering:

- *Bottom line: smart meter implementation should follow load growth*
- *Main pros:*
  - two-way communication
  - remote monitoring and disconnection
  - Reduces costs and errors of meter reading
  - facilitates connection verification for RBF
- *Main cons:*
  - More expensive per connection

# Possible recommendations to address challenges/issues

- **Integrating renewables into the main grid:**
  - *Planning – including power flow analysis and forecasting*
    - Continue existing work in this area
  - *Improve existing reserve capacity, including looking at operating profile of hydro and gas plants*
  - *Allow large customers to install rooftop PV and sell to main grid through net metering to help with transmission and distribution congestion*
  - *Need to carefully address technical and engineering aspects like harmonics*