

# Performance Based Regulation of Philippines Electricity Distribution Companies

## REGULATORY TRAINING COURSE

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### SESSION 5B – CONVERTING THE PRICE-PATHS INTO TARIFFS



# Overview of the session

- This session will cover:
  - The procedure for converting the price caps into distribution rates

# Meaning of the price caps

- The price-caps are:
  - An average measure across all consumers
  - Based purely on cost per kWh
  - The maximum average rate allowed for distribution services in a year
- However, they are not distribution tariffs
  - Needs to be converted into a tariff structure
- The final tariff structure will be filed with the ERC
  - After consultation will be considered for approval

# How should the tariffs look?

- The RDWR is not prescriptive in this regard
- Utilities can structure the tariffs in the manner they consider most efficient
- Need to demonstrate to ERC that (under the expected demand and consumption conditions)
  - Price-caps would not be exceeded
  - Side constraints would not be breached
- Side constraints are additional limits that ensures that the rates for any particular customer segment does not change too much in any year

# What guidance exists for the tariff design?

- None in the RDWR
- However DSOAR and Position Paper describes process to adapt existing rate structures
  - Calculate historical revenue from each Customer Segment  $i$  for historical year  $t$  ( $CR_{i,t}$ )
  - Calculate average historical rate for each customer segment over the previous 12 months
$$CS_{i,t} = \frac{CR_{i,t}}{CQ_{i,t}}$$
where  $CQ_{i,t}$  is the energy consumed by each customer segment  $i$  (kWh), during historical year  $t$ .
  - Compute the projected revenue for the next year per customer segment based on the historical rate and forecast consumption

$$CR_{i,t+1} = CS_{i,t} \times FQ_{i,t}$$

## Tariff design guidance (cont.):

- Add projected revenue for each Customer Segment to calculate total projected revenue for the Application Year, based on historical rates

$$CR20YR = \sum CR_{i,t+1}$$

- Determine the proportion of revenue to be recovered for each customer segment based on the projected revenue  $\frac{CR_{i,t+1}}{CR20YR}$

- Compute total revenue (TR) for Application year by multiplying the  $MAP_t$  with forecast energy consumption for Application year

$$TR = MAP_t \times FQ_t$$

- Allocate total revenue requirement (TR) for Application Year to each Customer Segment ( $TR_{i,t}$ ) based on proportion of projected revenue from computed before

$$TR_{i,t} = TR \times \frac{CR_{i,t}}{CR20YR}$$

- New rate element for Customer Segment is based on revenue requirement allocation to that segment for the Application Year, using same rate design as before, as approved at the regulatory reset.

## This means the following:

- A rate structure can only be set at the start of the Regulatory Period
- During the Regulatory Period, only the rate values can be adjusted
- There is still no guidance on:
  - How the rate structure should look
  - How to convert the proportional revenue for each consumer group into rates
  - How to reflect consumer's actual contribution to costs
  - Converting energy-based prices to demand rates
  - What the appropriate customer categories should be

# Implication for First Entry Group

- Utilities could retain current rate structures, merely adapting rates  
or
- Can design new structure, taking into account principles such as:
  - Cost contribution of the customer categories
  - Consumption, load factor and load profiles of customer categories
  - Demand contribution (coincident) of the customer categories
  - Appropriate mix of energy or demand-based rates (or flat rates?)
  - Strategic factors (e.g. encouraging commercial or industrial settlement)
- ERC still intends to launch study into country-wide tariff framework
  - Will however not be in place for rate filings of First Entry Group
  - Will at this stage evaluate the rate filings based on the
    - Information and forecasts submitted by utilities
    - Strategic justification submitted by utilities
    - Demonstration that price-caps and side-bands will not be exceeded

# QUESTIONS

