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# Q&A on the Proposed Study Breakout Session



## Q&A on the Proposed Study

- 1) What do you think about the proposed scope of the study?
- 2) What do you think about the methodology?
- 3) Are the outputs adequate to inform policy and/or regulatory decisions?
- 4) Are the data requested available and/or accessible?

# Breakout Session

- Participants get into groups. Each group consists mostly of utility representatives.
- Non-utility participants disperse to join each utility table group.
- Each group brainstorms the answers to the Q1-Q3 and report back to the floor.

# Question 1: Grid Impact Mitigation

There are two main approaches to mitigating the impact of DPV on the distribution grid.

- **Distribution system upgrade:** utilities would upgrade equipment to accommodate greater penetration of distributed PV. The costs are typically borne by the utility and can be passed to all ratepayers.
- **Distribution grid code:** can specify additional equipment to be installed before the DPV system can be interconnected. The costs are typically borne by the DPV owners.

These two approaches are typically used together, but some utilities may place an emphasis on one option rather than the other.

1. What are the approaches your utility is using (either or both)?

1.1 If your utility uses distribution system upgrade. Explain **why** and **list** all the upgrade approaches.

1.2 **Rank** these approaches by some indicator, e.g., how often the upgrade is carried out or how costly the upgrade is.

1.3 If your utility uses distribution grid code, explain **why** and **what types** of grid code needs updating.

## Question II: Grid expansion or upgrade

- The increase in load typically requires the expansion or upgrade of the distribution grid. When DPV is introduced to the distribution grid, it can help lower grid utilization and hence defer the need for grid expansion or upgrades.

2. For your utility, what are the **criteria** for distribution grid expansion or upgrade? For example, a utilization factor (e.g., 80%) may be used to trigger distribution upgrade.

## Question III: Voltage Levels

To prevent overvoltage and to be kept connected to the grid, PV inverters may have to consume a lot of reactive power. This is one mitigation approach that DPV owner can use to prevent the voltage to rise above the standard.

3. Do the utilities in the Philippines have any **penalty** for these PV inverter's owners if their inverters consume reactive power?