Energy Efficiency in Southeast Asia Opportunities and Challenges

Interventions beyond Standard Business under the Multilateral Fund

World Bank

Montreal, 9 December 2024

Outline

OVERVIEW OF CHALLENGES & OPPORTUNITIES

POSSIBLE INTERVENTIONS

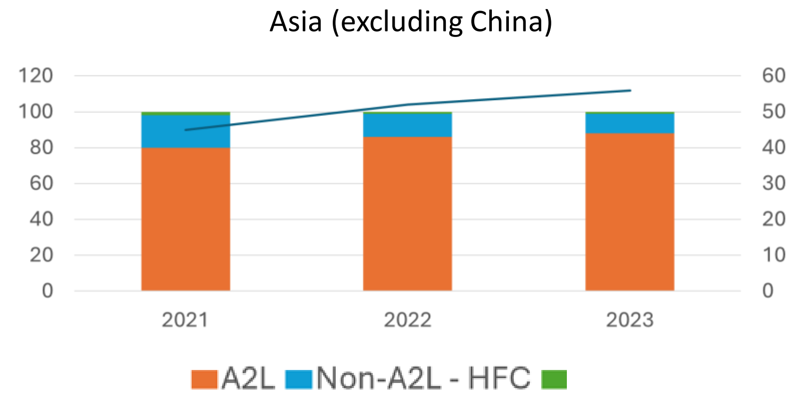
QUESTIONS FOR DISCUSSION

Overview of Challenges & Opportunities

Main challenges of energy efficiency (EE) improvement projects under current MP and MLF decisions:

1) Likely low number of eligible subsectors/manufacturers

- Dec. XIX/6 – Minimize environmental impacts: HCFC phaseout projects move from R-22 to low & lower GWP alternatives.



- Dec. XXVIII/2 – Maintain/enhance EE of low/zero GWP technologies & equipment when phasing down HFCs: Small group of enterprises that will qualify did not take early environmental/climate action…
- **Lost opportunity:** Residential AC – Global scale & growth rates offer most opportunity to increase benefits, impact. And, economies of scale & efficiencies at the enterprise and policy levels.

Example of Lost Opportunity in Residential AC Country X

Assumptions

- Total 1.7 million AC market, incl. locally-made
- Average size: 12,000 BTU
- Converted to lower GWP refrigerant before 2020
- Next conversion in 10 years
- 10% energy performance increase
- Operate 8 hours, 365 days
- First (vintage) year's saving is 1,648,048 tCO_2eq.savings.

Lost Opportunity over the 10-year period

9,064,264 tCO_2eq. emissions avoided

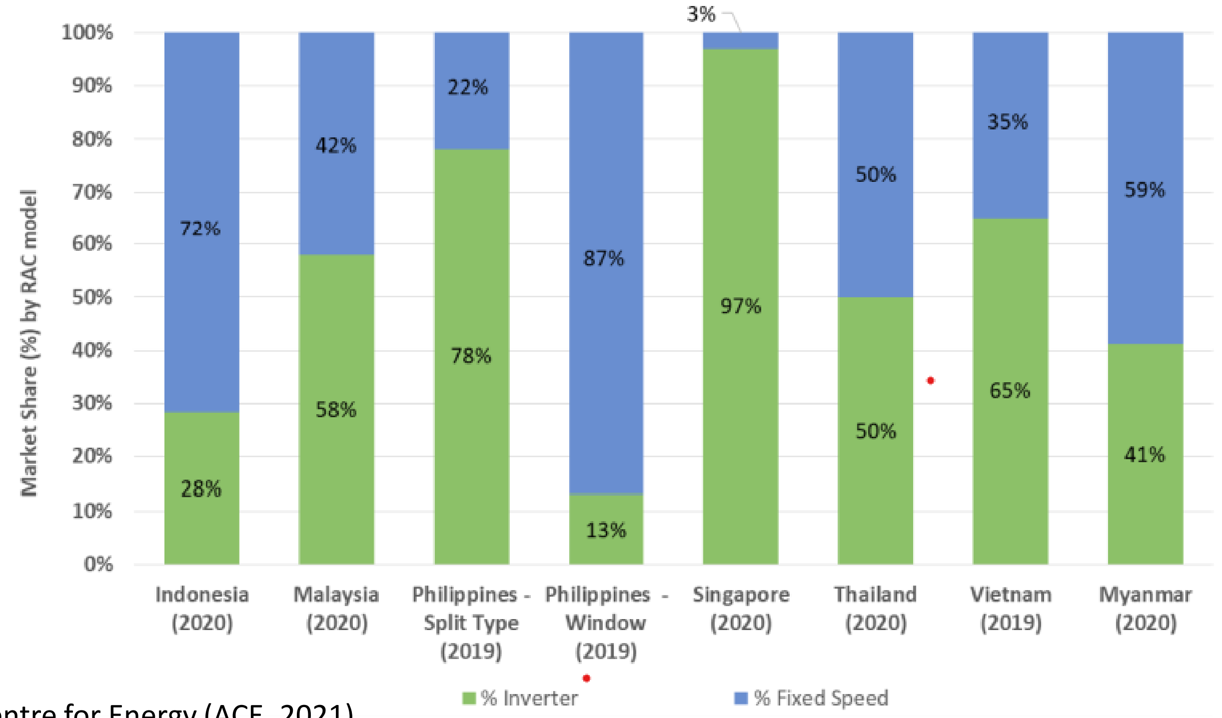
2) MEPS requirement for specific equipment targeted

- MEPS common for domestic refrigeration and AC appliances but not other equipment types.
- **Lost opportunity: potentially – commercial, industrial, transport refrigeration and light commercial AC.**

Possible Interventions

- Phase down HFCs at a sector + manufacturer level: Combine EE improvement of already converted applications/types in refrigeration and AC sector while converting a subset of manufacturing of RAC.

- Phase down HFCs at a sector level: Introduce HFC controls (GWP limit or ban) alongside EE improvement at manufacturers.



Asian Centre for Energy (ACE, 2021)

- Phase down HFCs at a national level: Phase down of the HFC of the sector/application for EE improvement through quotas.

- Integrate or align EE project implementation with KIP and any national cooling plans.

- Support development of the EE enabling environment to facilitate overall HFC phasedown efforts.

Questions for Discussion

1. How can the existing MLF support on Dec. XXVIII/2 on “maintaining/ enhancing EE of low/zero GWP technologies and equipment when phasing down HFCs” generate more proposals on EE?

2. What are some of the options for energy efficiency activities that also allow for measurable HFC reductions?

3. To what extent does an established standards and labeling program in place accelerate the introduction of a new MEPS?

4. Are there other policy or non-policy measures that can serve as a surrogate for MEPS for more customized/low volume equipment?