

EWG 107 / 2026A

Promotion and Deployment of High-Efficiency, Low-Carbon Room Air Conditioners in the APEC Region

Policies, Standards, and Best Practices

LIU Ren|China National Institute of Standardization

Why This Project Matters

Room air conditioner (RAC) ownership is surging across APEC economies — driven by rising living standards and rising temperatures — bringing two urgent challenges and one structural obstacle.

ENERGY

Power Demand Surge

Millions of RACs operating simultaneously push regional electricity consumption sharply higher, straining grids during peak summer months.

CLIMATE

HFC Refrigerant Emissions

HFC refrigerants commonly used in RACs release greenhouse gases during operation, directly contributing to global warming.

OBSTACLE

Divergent MEPS & Labels

Wide divergence in Minimum Energy Performance Standards, labeling schemes, and incentive policies blocks efficient-tech penetration.

Result: The most efficient and climate-friendly RAC technologies struggle to enter APEC markets at scale.

What We Will Do and How

OVERALL GOAL

Accelerate the deployment of high-efficiency, low-carbon RACs across the APEC region.

THREE SPECIFIC OBJECTIVES

01

Comparative Analysis

Benchmark MEPS, labeling, and incentives across APEC economies.

02

Knowledge Exchange

Facilitate cross-economy learning on efficient cooling technologies.

03

Policy Alignment Network

Build a regional network to close the efficiency gap among members.

APPROACH — BUILD CAPACITY THROUGH 3 PILLARS

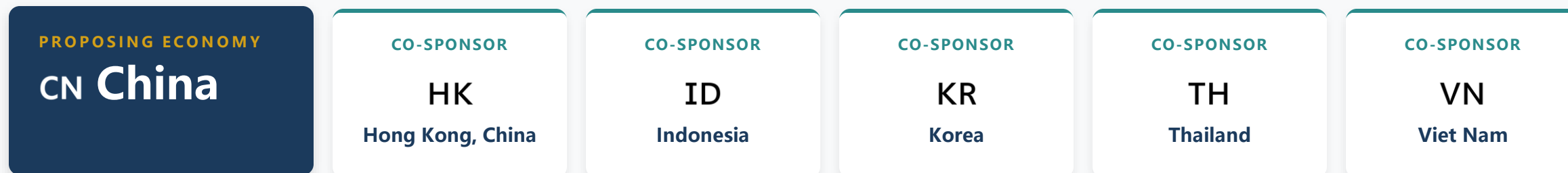
Policy Research — analyze frameworks

Standards Comparison — MEPS benchmarking

Experience Sharing — case study workshops

Co-sponsors & Resources

1 PROPOSING ECONOMY • 5 CO-SPONSORS



Three Concrete Outputs

OUTPUT 01

Research Report on RAC Policies, Standards & Best Practices

60–80 pages

Comparative analysis across APEC economies

- MEPS, labeling, incentives benchmark
- Market trends & HFC emissions data
- 4–5 in-depth case studies
- Policy recommendations

OUTPUT 02

Capacity-Building Workshop (with Case Studies)

1.5–2 days

Hybrid format · 40–50 participants

- IEA & industry expert panels
- Case study deep-dive sessions
- Priority to developing economies
- ≥10 APEC economies represented

OUTPUT 03

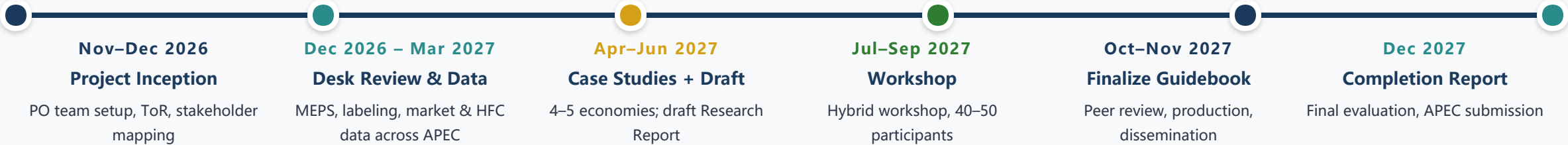
Guidebook on Promotion of High-Efficiency RACs

40 pages

Practical handbook for policymakers

- Step-by-step guidance
- Templates & checklists
- Best practice playbook
- Published on APEC website

14-Month Timeline • Nov 2026 → Dec 2027



THREE CRITICAL MILESTONES

Jun 2027: Draft Research Report ready with 4–5 case studies

Aug 2027: Capacity-building workshop hosted

Nov 2027: Final Guidebook published on APEC website

Expected Outcomes & Closing

≥75%

of workshop participants report enhanced capacity to develop RAC efficiency policies

≥6

economies express intent to strengthen MEPS following project completion

45%

contributes to APEC's energy intensity reduction goal by 2035

ALIGNMENT

Putrajaya Vision 2040 · Aotearoa Plan of Action · EWG priorities on energy efficiency & resiliency

— END —

Thank You

I welcome your questions and collaboration.

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