Strengthening infrastructure and technical capacity in A5 countries to handle low-GWP refrigerants and blends in SMEs

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Structure of Presentation

1. Overview of the SME market in India
2. Industry structure on HFCs
3. Key issues/challenges in HFC phase-down in A5 Countries for SMEs
4. Suggested follow up steps/actions

Overview of the SME market in the country

- In India, Micro, Small and Medium Enterprises (MSME) are defined based on the investment criteria in plant and machinery and turnover.
- The MSME sector contributes around 30% of GDP comprising 6.11% of the manufacturing GDP and 24.63% of the GDP from service activities.
- MSMEs have 46% share in the All-India Export

- 63.4 million MSME units operate in the country and spread across the country, employing around 100 million people, with 49% in urban areas and 51% in rural areas respectively catering to wide range of products including Refrigeration and Air conditioning (RAC) products
- The number of MSMEs in the country is growing at a projected CAGR of 2.5%

HFCs Industry structure

Overview of current Indian Hydrofluorocarbons market

Production Sector

HFCs:
HFC-134a, HFC-32, HFC-125

Blends containing HFCs

R-410A, R-407C and R-467A

Consumption Sector

HFCs:

HFC-32, HFC-41, HFC-125, HFC-134a, HFC-227ea, HFC-152a, HFC-245fa, HFC-236fa, HFC-365mfc, HFC-43-10mee

Blends containing HFCs:

R-404A, R-407C, R-410A, R-426A, R-438A, R-448A, R-449A, R-454B, R-454C, R-508B, R-513A, (blend of HFC-365 mfc/HFC-227ea)

- Around 80% of the HFC consuming enterprise are SMEs, including tiny/micro enterprises.
- HFC Production growing at a CAGR of 20% and consumption at a CAGR of 15% respectively since 2016
- Data reporting on HFCs commenced since 2021 after ratification of Kigali Amendment during September 2021. Licensing System is in place
- National Strategy for HFC phase down in consultation with industry stakeholders and line Ministries/departments is under finalization

Key issues/challenges in HFC phase-down in A5 Countries in the context of SMEs

Supply Chain issues of equipment/components and low GWP refrigerants

Lack of infrastructure and capacities for:

- Equipment calibration and testing new low GWP refrigerants including emerging blends
- End-of-life safe decommissioning of equipment and destruction of refrigerants
- Quality control and testing of recovered and recycled refrigerants

Certification processes and E-based training and capacity building tools for RAC service technicians

Mechanisms for promoting use of certified service technicians including public procurement of certified technicians

Suggested follow up steps/actions

- Action Plan for holistic approach integrating HCFC phase out, Implementation of Cooling Action Plans and Strategy for HFC phase down for economic growth and environmental sustainability
- Establishment of Centres of excellence to enable SMEs for effective handling and adoption of low GWP energy efficient technologies
- Enhanced support for SMEs for sustaining HFC phase down
- Framework for promoting synergies with energy efficiency authorities, standards bodies, nodal line ministries/departments, industry associations for sustainable HFC phase down
- Global outreach programmes and technology roadshows highlighting low GWP highlighting and pathways for adoption.

Additional funding support/costs for the above could be worked out by the TEAP/RTF

DISCUSSION