



# CCAC-Funded HFC Surveys Side Event



## HFC Inventory Work in Vietnam



The World Bank  
2 November 2015  
Conrad Hotel, Dubai



## Outline

- Introduction and context
- Preliminary mapping of current HFC use
- Factors impacting HFC consumption growth
- Future HFC uses
- Experience and reflections so far

Cover Pictures include two from:

- 1) Orlando FL Air conditioning
- 2) Lacoste Heating and Air

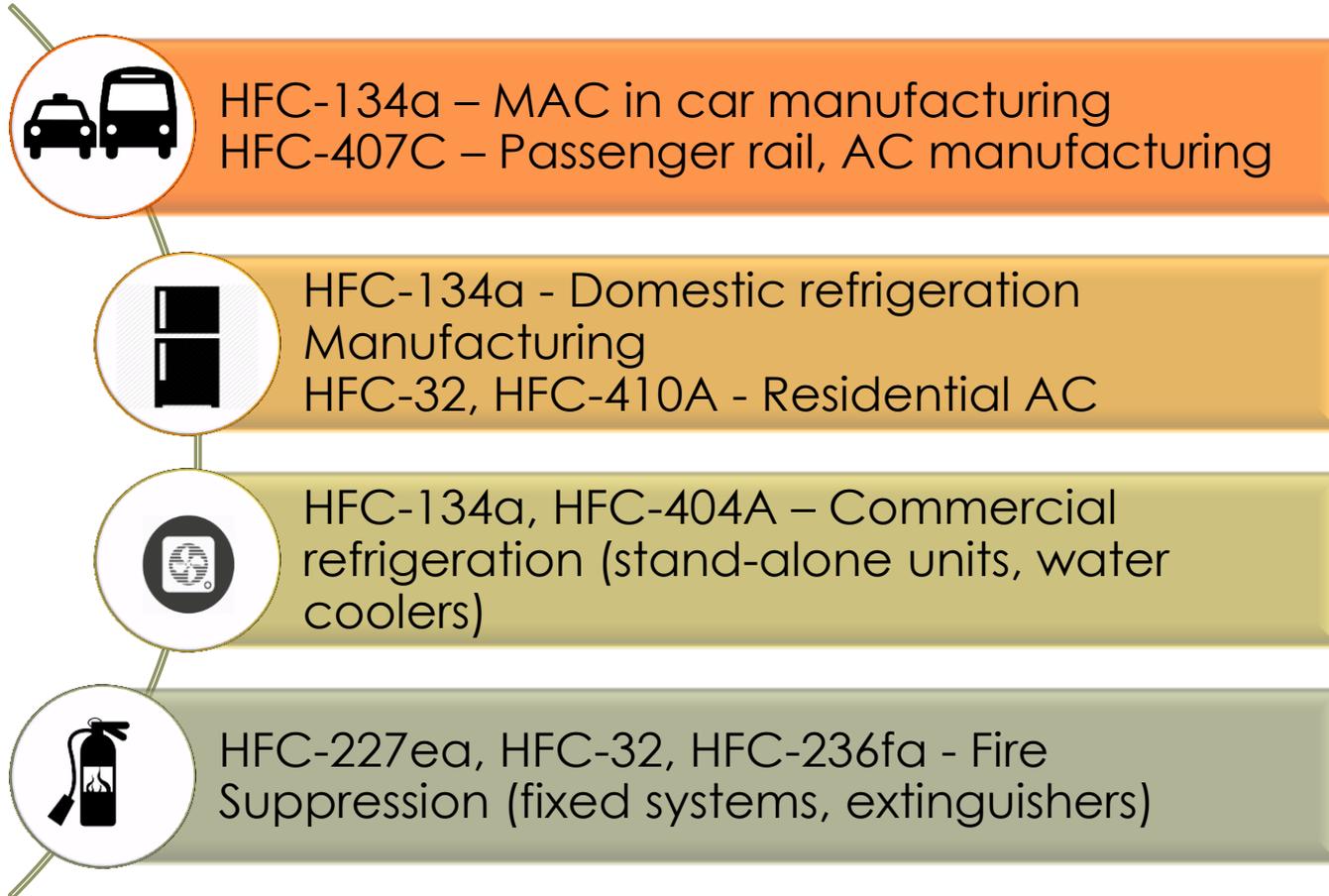


# Vietnam and HFCs

- Context: Vietnam is extremely vulnerable to climate change impacts (a member of the new “V-20”) and has made mitigation / adaptation a national priority. HFCs in use in Vietnam for some time.
- Vietnam is provided \$84,000 in funding under the second tranche of surveys supported by the CCAC in 2014.
- Lead Agency: Ministry of Environment and Natural Resources (MONRE) - also the country focal point for ozone and climate
- Objective: an inventory of HFCs that are imported, used and banked in Vietnam with projected levels of future HFC use.
- Scope of the inventory:
  - data collection and validation; review and analysis by substance; and, sector (in MT) and stakeholder consultations
  - assessment of the regulatory, institutional and technological context including identifying measures to monitor and better account for HFC use
  - estimation of HFC emissions (in CO<sub>2</sub> eq.),
  - growth scenario analyses and projections



# Current HFC Uses in Vietnam



*more to come...*



# Factors Impacting Growth in HFC Consumption

- Growth: Annual GDP growth averages more than 6% over the last decade while energy use per capita has tripled
- Food, seafood and fish processing make-up 26% of the GDP
- Households: domestic ref and AC (20% annual growth rates). In 2014, more than 1.7 million AC units imported (in addition to domestic manufacturing)
- Auto market – Fastest growing in SE Asia. 62% increase in car sales in 8 months of 2015 – More than a third of sales were cars made by Thaco (local OEM)
- Infrastructure development/construction (new subway in HCM City)



# Future HFC Uses

- Significant growth-potential sectors
  - Mobile air-conditioning (new vehicles and for service)
  - Insulation foam
  - Commercial refrigeration - ice making, stand-alone units, cold stores, cold transport, belt freezers, etc.
  - Chillers



## Experience and Reflections So Far

- Existing MP Program and synchronization with Stage II preparation has been key to initial understanding of HFC consumption and trends in Vietnam
- Although no direct controls on HFCs, MP infrastructure has served to put some checks in the market. Example: HFCs for fire Suppression where stakeholder has sought information from MONRE prior to import.
- Many HFC importers and users are the same as for HCFCs, however there are additional and new public and private sector stakeholders
- HFC penetration is accelerating, as are pressures for introducing new HFCs into the local market. These trends reflect new HFC controls in developed country markets, as well as EAP Regional market forces



## Experience and Reflections So Far

- Careful consideration of the speed and sectors targeted for HCFC phase-out is needed to avoid introduction of the most potent HFCs
- Potential for greater alignment between policy-making for MP and climate through HFCs
- Limited policies and standards governing HFCs and related aspects (a plus and a minus)





END

