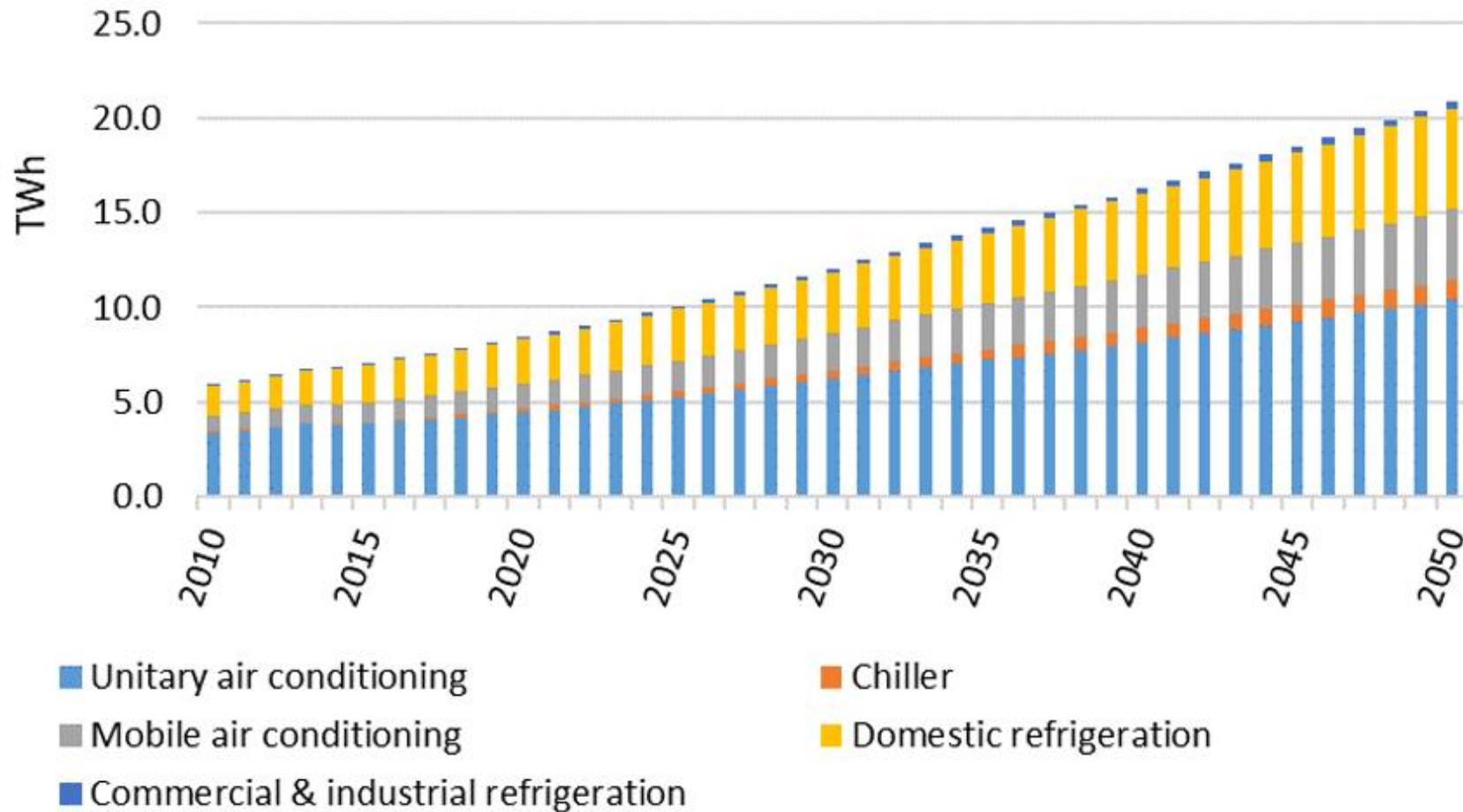


Ghana's Green Cooling Path

Ghana's current cooling policies

- Ghana ratified the Kigali Amendment in 2019 and it entered into force, for Ghana, on 2 August 2019.
- Ghana belongs to Group 1 of the A5 countries: the HFC freeze will start in 2024 and the first HFC reduction step will take place in 2029.
- Ghana has committed to phasing out HCFCs by 2030 with a 2.5% servicing tail.
- Abatement of fluorinated-gases (HCFC-22 and HFC-410A) from stationary air-conditioners is included in the NDC. NDC implementation chapter details measures to directly transition to R290 split-type air conditioners.
- Export and Import Act (Act 503), 1995: Act enables restrictions on the use of goods known to be injurious to human health or unfriendly to the environment, including appliances with ODS.
- LI 1812, 2005: Empowers Customs, Excise and Preventive Services (CEPs) to prevent imports of ODS equipment in order to meet obligations under the Montreal Protocol.

Ghana's RAC sector emissions



- Cooling accounts for **23%** of the country's total emissions (2016).
- AC in buildings make more than 50% of cooling-related emissions, dominated by single split type ACs with capacity up to 5 kW
- HCFC-22 and HFC-410A dominating refrigerants.

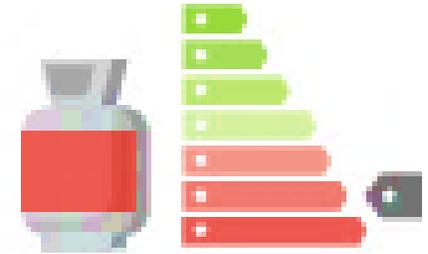
Current actions taken (beyond MLF activities)

- Successful demonstration of approx. 400 efficient R290 split type ACs in various fields of application.
- R290 well established refrigerant among technicians, used as drop in for R22 split type ACs
- Development of a certification scheme for RAC technicians (in cooperation with GIZ (IKI Green Cooling Initiative)
- Ecofridges program to promote more efficient domestic refrigerators and ACs (supported by UNEP), however no HFC-free ACs promoted due to lack of local supply.



Urgent need for action on Green AC

- Time frame from now until the first HFC reduction step in 2029 leaves enough room for massive lock-in of HFC-based inefficient split AC technologies
- Continuing practice in inefficient building design and cooling management adds to RAC GHG emissions lock-in
- Climate friendly (high efficiency with refrigerant GWP below 10) split AC alternatives still have negligible global market share, despite urgent need for upscaling to ensure proper Kigali amendment implementation and in tandem with Paris Agreement targets



NDC Green Cooling action

- Objective: accelerate the development of the nascent market for green air conditioning appliances, shifting market development away from HCFC / HFC based energy-inefficient split type ACs.
- GCF Green Cooling project seeks to support implementation of activities, including following outputs:

Enhanced AC
MEPS and low
GWP limit for
refrigerants in split
type ACs

Purchase price
rebate program in
combination with
consumer lending
to enhance market
share of efficient
R290 split type
ACs

Wide-scale
qualification,
certification and
registration of RAC
technicians

End-of-Life
management of
old replaced split
type ACs



Conclusions

- Ghana has high level of readiness to widely introduce Green Cooling technologies, especially in the split type AC sector. Urgent need to enhance local supply.
- Rebate program for efficient R290 split type ACs is considered an effective instrument to establish a robust market share and create acceptance, before the enforcement of a GWP limit regulations to ensure sustainable market development.
- Climate funds like the GCF can effectively complement MLF's financial support measures to help countries that are implementing ambitious green cooling paths.