

NEA/HS/6.6

3 Nov 2023

To: All HFC Licence Holders

Dear Sir/Madam,

HYDROFLUOROCARBONS (HFC) PHASE-DOWN MANAGEMENT PLAN IN SINGAPORE

This circular seeks to inform all local traders and importers of HFCs on the implementation of a quota system for Singapore's HFC phase-down management plan.

Background

2. Singapore ratified the Kigali Amendment (KA) to the Montreal Protocol on Substances that Deplete the Ozone Layer ("Montreal Protocol") on 1 Jun 2022. As part of the obligations to the KA, the National Environment Agency (NEA) will progressively reduce national HFC consumption ¹ according to the following phase-down schedule.

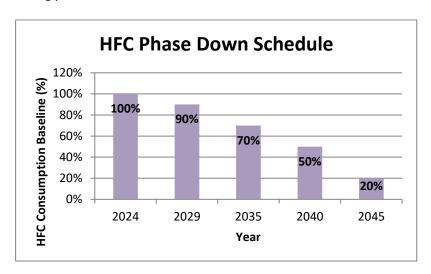


Fig. 1: Phase-down schedule² for Singapore's consumption of HFC under the Montreal Protocol

¹ "Consumption" means production plus imports minus exports of controlled HFCs

² The HFC consumption will be frozen at 100% baseline level from 2024 till 2028, followed by step-wise reductions from 2029 till 2045, when the HFC consumption will be capped at 20% baseline level. The 100% baseline level (in CO2-eqv) is computed based on 2 components:

i. Average HFC consumption (production + import – export) in years 2020-2022; and

ii. 65% of average HFC consumption in years 2009-2010



Quota System to Reduce HFC Consumption

- 3. NEA will introduce an HFC quota allocation system from 1 Jan 2024 to fulfil Singapore's obligation to the KA and progressively reduce HFC consumption according to the phase-down schedule in Fig. 1.
- 4. Under this quota allocation system, NEA will impose mandatory annual consumption quota on companies importing and/or exporting any of the 18 types of HFCs, including their mixtures/blends (see Annex 1). Companies will be informed of their individual quotas for the upcoming year by the end of each year (e.g. by Dec 2023 for 2024 consumption quota). Your 2024 HFC consumption forecast submitted to NEA, which will be kept confidential, will be taken into consideration in the allocation of 2024 HFC quotas.
- 5. Companies can approach NEA to request additional quota or transfer of quota between different types of controlled HFCs, subject to NEA's approval. Requests for additional quota should be submitted between <u>1 30 Jun</u> of each year. Requests for transfer of quota should be submitted between <u>1 30 Apr</u> or <u>1 31 Oct</u> of each year. Please refer to Annex 2 for Frequently Asked Questions (FAQs) regarding the quota allocation system.
- 6. In view of the need to adhere to the phase-down schedule and with the expected drop in local HFC demand in the coming years, licensees should not stockpile HFC more than what is necessary and provide a large forecast that deviates significantly from the past years' consumption figures. Should this be the case, NEA will approach your company to request justification and may eventually moderate the quota allocated to your company to ensure that Singapore does not exceed the baseline cap.
- 7. Should you have any enquiries, please contact:
 - i. Mr Darren Tay @ 6731 9278 or email at darren tay@nea.gov.sg
 - ii. Mr Marvin Ong @ 6372 7816 or email at marvin_ong@nea.gov.sg
 - iii. Ms Felicia Lim @ 6708 6236 or email at felicia lim@nea.gov.sg

(This is a computer-generated circular and requires no signature.)



Annex 1: List of HFCs and its common mixture/blends

(A) HFCs listed in the Second Schedule of the Environmental Protection and Management Act (EPMA)

Trade Name	Chemical Name	Chemical Formula	CAS No.
HFC-134	1,1,2,2-Tetrafluoroethane	CHF ₂ CHF ₂	359-35-3
HFC-134a	1,1,1,2-Tetrafluoroethane	CH₂FCF₃	811-97-2
HFC-143	1,1,2-Trifluoroethane	CH ₂ FCHF ₂	430-66-0
HFC-245fa	1,1,1,3,3-Pentafluoropropane	CHF ₂ CH ₂ CF ₃	460-73-1
HFC-365mfc	1,1,1,3,3-Pentafluorobutane	CF ₃ CH ₂ CF ₂ CH ₃	406-58-6
HFC-227ea	1,1,1,2,3,3,3-Heptafluoropropane	CF₃CHFCF₃	431-89-0
HFC-236cb	1,1,1,2,2,3-Hexafluoropropane	CH ₂ FCF ₂ CF ₃	667-56-5
HFC-236ea	1,1,1,2,3,3-Hexafluoropropane	CHF ₂ CHFCF ₃	431-63-0
HFC-236fa	1,1,1,3,3,3-Hexafluoropropane	CF₃CH₂CF₃	690-39-1
HFC-245ca	1,1,2,2,3-pentafluoropropane	CH ₂ FCF ₂ CHF ₂	679-86-7
HFC-43-10mee	1,1,1,2,2,3,4,5,5,5- decafluoropentane	CF₃CHFCHFCF₂CF₃	138495-42-8
HFC-32	Difluoromethane	CH ₂ F ₂	75-10-5
HFC-125	Pentafluoroethane	CHF ₂ CF ₃	354-33-6
HFC-143a	1,1,1-Trifluoroethane	CH ₃ CF ₃	420-46-2
HFC-41	Fluoromethane (Methyl Fluoride)	CH₃F	593-53-3
HFC-152	1,2-Difluoroethane	CH₂FCH₂F	624-72-6
HFC-152a	1,1-Difluoroethane	CH ₃ CHF ₂	75-37-6
HFC-23	Trifluoromethane	CHF ₃	75-46-7

(B) Common Blends/ Mixtures that contain one or more of the above listed HFCs (Please note that the list is not exhaustive)

R-401A	R-407F	R-438A	R-452A
R-404A	R-410A	R-444B	R-507A
R-407A	R-417A	R-446A	R-508B
R-407C	R-422A	R-449A	R-513A



Annex 2: Frequently Asked Questions (FAQs)

Q1: Will my company be given the full quota based on my forecast?

A1: NEA will take your company's forecast into consideration in allocating quotas. We seek your understanding that there may be a need for NEA to moderate your company's quota if the aggregated consumption forecast exceeds the national baseline cap. For forecast which is significantly higher than your company's past consumption, please provide your justification(s) in the excel provided in NEA's email on 3 Nov 2023.

Q2: When will I know my quota for the year ahead?

A2: NEA will update your company's HS licence with the allocated quota in December.

Q3: I am not able to provide my forecast for the year ahead.

A3: We suggest that you consider the demand and business needs of your company for the year ahead and provide an estimated forecast. You can also use your past consumption as a reference. If a forecast is not provided to NEA, NEA will assign your company's quota based on past consumption.

Q4: Can I request additional quota?

A4: Yes, however the granting of additional quota will be evaluated by NEA on a case-by-case basis. Requests for additional quota should be submitted to NEA between <u>1 - 30 Jun</u> of each year. Please provide justifications and supporting documents during your request.

Q5: Is transfer of quota between substances allowed?

A5: Yes, you will need to seek NEA's approval prior to doing so. Any request for transfer of quota should be submitted between <u>1 - 30 Apr</u> or <u>1 - 31 Oct</u> of each year for NEA's approval.