

F-gases in Georgia's IPPU sector Inventory/BUR: requirements and reporting

**GHG Inventory and MRV of GHG emissions from industrial installations
for officials and representatives of industry**

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Ministry of Environment
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Protection of Georgia

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შინაარსი Outline

- ფტორირებული გაზები მრეწველობის სექტორში
F-gases in IPPU sector
- ფტორირებული გაზების ინვენტარიზაცია საქართველოში
F-gases inventory in Georgia
- გამოწვევები სექტორის ინვენტარიზაციის სფეროში
Challenges in inventory of IPPU Sector

ფტორირებული გაზები მრეწველობის სექტორში

F-gases in IPPU sector

Chemical	Refrigerant	Fire suppression	Aerosols Propellants	Aerosols Solvents	Solvent Cleaning	Foam Blowing	Other Applications
HFC-23	✓	✓					
HFC-32	✓						
HFC-125	✓	✓					
HFC-134a	✓	✓	✓			✓	✓
HFC-143a	✓						
HFC-152a	✓		✓			✓	
HFC-227ea	✓	✓	✓			✓	✓
HFC-236fa	✓	✓					

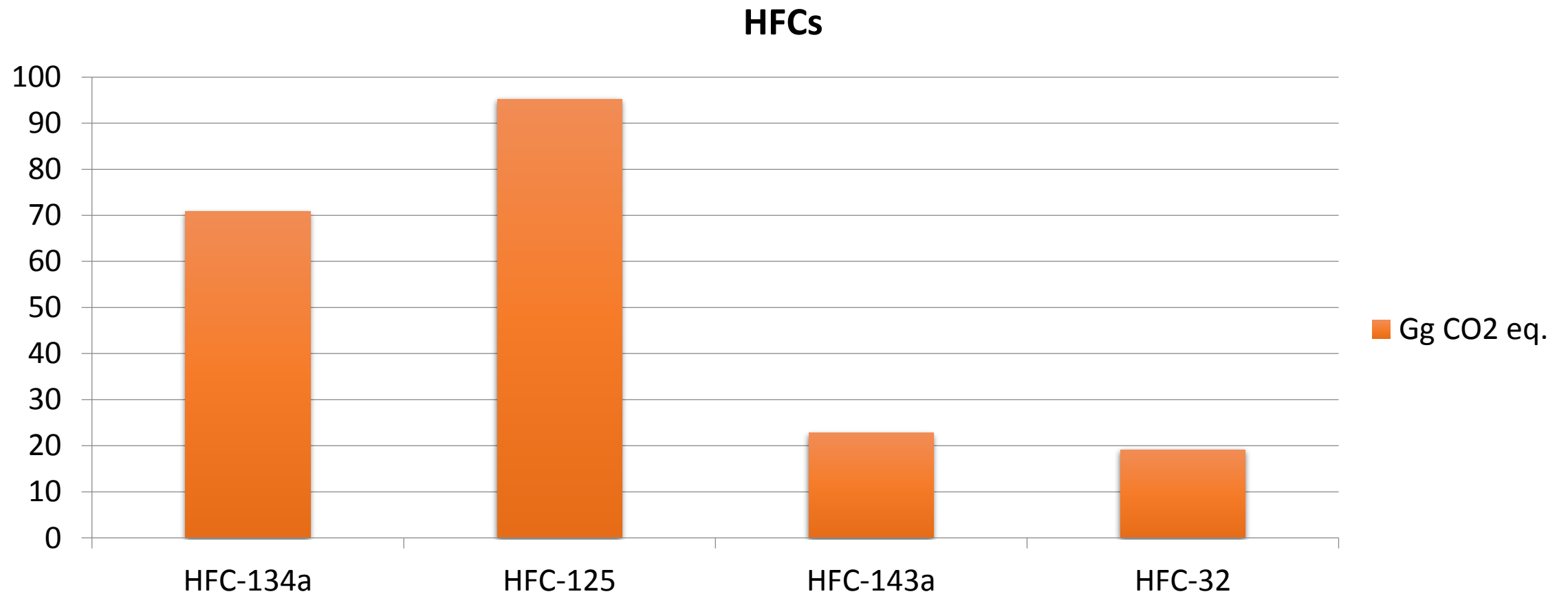
ფტორირებული გაზები მრეწველობის სექტორში

F-gases in IPPU sector

Chemical	Refrigerant	Fire suppression	Aerosols Propellants	Aerosols Solvents	Solvent Cleaning	Foam Blowing	Other Applications
HFC-245fa				✓		✓	
HFC-365mfc				✓	✓	✓	
HFC-43-10mee				✓	✓		
PFC-14 (CF ₄)		✓					
PFC-116 (C ₂ F ₆)							✓
PFC-218 (C ₃ F ₈)							
PFC-31-10 (C ₄ F ₁₀)		✓					
PFC-51-14 (C ₆ F ₁₄)					✓		

ფტორირებული გაზების ინვენტარიზაცია საქართველოში

F-gases inventory in Georgia



გამოწვევები სექტორის ინვენტარიზაციის სფეროში

Challenges in inventory of IPPU Sector

	Approach A (emission-factor approach)	Approach B (mass-balance approach)
Tier 2 (emission estimation at a disaggregated level)	<ul style="list-style-type: none"> • Data on chemical sales and usage pattern by sub-application [country-specific or globally/regionally derived] • Emission factors by sub-application [country-specific or default] 	<ul style="list-style-type: none"> • Data on chemical sales by application [country-specific or globally/regionally derived] • Emission factors by application [country-specific or (composite) default]
Tier 1 (emission estimation at an aggregated level)	<ul style="list-style-type: none"> • Data on chemical sales by application [country-specific or globally/regionally derived] • Emission factors by application [country-specific or (composite) default] 	<ul style="list-style-type: none"> • Data on chemical sales by application [country-specific or globally/regionally derived] • Data on historic and current equipment sales adjusted for import/export by application [country-specific or globally/regionally derived]

აეროზოლები (პროპელანტები და გამხსნელები) AEROSOLS (PROPELLANTS AND SOLVENTS)

პროდუქცია/Products

- (i) Metered Dose Inhalers (MDIs);*
- (ii) Personal Care Products (e.g., hair care, deodorant, shaving cream);*
- (iii) Household Products (e.g., air-fresheners, oven and fabric cleaners);*
- (iv) Industrial Products (e.g., special cleaning sprays such as those for operating electrical contact, lubricants, pipe-freezers);*
- (v) Other General Products (e.g., silly string, tyre inflators, klaxons).*

მონაცემები/Data

quantity of HFC and PFC contained in aerosol products sold in year t , tonnes
quantity of HFC and PFC contained in aerosol products sold in year $t-1$, tonnes

მაცივარაგენტები

REFRIGERATION AND AIR CONDITIONING

პროდუქტის/Products

- (i) Domestic (i.e., household) refrigeration,
- (ii) Commercial refrigeration including different types of equipment, from vending machines to centralised refrigeration systems in supermarkets,
- (iii) Industrial processes including chillers, cold storage, and industrial heat pumps used in the food, petrochemical and other industries,
- (iv) Transport refrigeration including equipment and systems used in refrigerated trucks, containers, reefers, and wagons,
- (v) Stationary air conditioning including air-to-air systems, heat pumps, and chillers¹⁹ for building and residential applications,
- (vi) Mobile air-conditioning systems used in passenger cars, truck cabins, buses, and trains.²⁰

მონაცემები/Data

Chemical Contained in Factory-Charged Imported/exported Equipment, tonnes;
Chemical to Charge Domestically Manufactured Equipment that is not Factory-Charged, tonnes;
Disposal data, tonnes

ცეცხლმაქრობები FIRE PROTECTION

მონაცემები/Data

$Production_t$ = amount of newly supplied agent (i.e., excluding recycled agent) in fire protection equipment produced in year t , tonnes

$Import_{st}$ = amount of agent in fire protection equipment imported in year t , tonnes

$Export_{st}$ = amount of agent in fire protection equipment exported in year t , tonnes

$Destruction_t$ = amount of agent from retired fire protection equipment that is collected and destroyed, tonnes

გმადლობთ!
Thank you!

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