



Australian Government

Department of Sustainability, Environment,
Water, Population and Communities

CALCULATING THE EQUIVALENT CARBON PRICE ON SYNTHETIC GREENHOUSE GASES

Under the Australian Government's Clean Energy Future Plan an equivalent carbon price will apply to synthetic greenhouse gases covered by the Kyoto Protocol. This will be implemented through the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989*.

As a result, importers of these gases (in bulk or contained in products and equipment), will be required to pay an equivalent carbon price related to the global warming potential of these gases. These gases are not manufactured in Australia but any domestic manufacturer would also be required to pay the equivalent carbon price.

Calculating the equivalent carbon price

The equivalent carbon price is payable from 1 July 2012. It is determined by multiplying the number of tonnes of the carbon dioxide equivalence of the gas (calculated by multiplying the amount of gas with its global warming potential) by the carbon price.

Businesses will also be required to pay the existing cost recovery levy under the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989*. This is determined by multiplying the number of metric tonnes of the synthetic greenhouse gas by the prescribed levy rate (\$165 per tonne).

Step 1

Multiply the number of metric tonnes of gas by the global warming potential of the gas

Step 2

Multiply your answer from Step 1 by the applicable charge under the carbon pricing mechanism:

- \$23.00 in 2012-13
- \$24.15 in 2013-14
- \$25.40 in 2014-15

Step 3

Multiply the number of metric tonnes of the gas by \$165 (cost recovery levy).

Step 4

Add the answers from Step 2 and Step 3 together to get the total amount payable.

Paying the equivalent carbon price and levy

The equivalent carbon price and the cost recovery levy will be due and payable 60 days after the end of the quarter to which they relate.



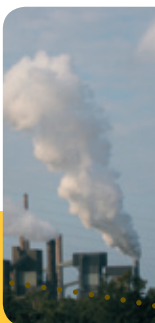


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Global Warming Potentials of Synthetic Greenhouse Gases covered by the Kyoto Protocol

Gas	Chemical Formula	Global Warming Potential
Hydrofluorocarbons (HFCs)		
HFC-23	CHF ₃	11,700
HFC-32	CH ₂ F ₂	650
HFC-41	CH ₃ F	150
HFC-43-10mee	C ₅ H ₂ F ₁₀	1,300
HFC-125	C ₂ HF ₅	2,800
HFC-134	C ₂ H ₂ F ₄ (CHF ₂ CHF ₂)	1,000
HFC-134a	C ₂ H ₂ F ₄ (CH ₂ FCF ₃)	1,300
HFC-143	C ₂ H ₃ F ₃ (CHF ₂ CH ₂ F)	300
HFC-143a	C ₂ H ₃ F ₃ (CF ₃ CH ₃)	3,800
HFC-152a	C ₂ H ₄ F ₂ (CH ₃ CHF ₂)	140
HFC-227ea	C ₃ HF ₇	2,900
HFC-236fa	C ₃ H ₂ F ₆	6300
HFC-245ca	C ₃ H ₃ F ₅	560
Perfluorocarbons (PFCs)		
Perfluoromethane (tetrafluoromethane)	CF ₄	6,500
Perfluoroethane (hexafluoroethane)	C ₂ F ₆	9,200
Perfluoropropane	C ₃ F ₈	7,000
Perfluorobutane	C ₄ F ₁₀	7,000
Perfluorocyclobutane	c-C ₄ F ₈	8,700
Perfluoropentane	C ₅ F ₁₂	7,500
Perfluorohexane	C ₆ F ₁₄	7,400
Sulfur hexafluoride	SF ₆	23,900
Please note the following gases are not covered by the Kyoto Protocol and will not attract the equivalent carbon price:		
HFC-152	CH ₂ FCH ₂ F	
HFC-161	CH ₃ CH ₂ F	
HFC-236cb	CH ₂ FCF ₂ CH ₃	
HFC-236ea	CHF ₂ CHFCF ₃	
HFC-245fa	CHF ₂ CH ₂ CF ₃	
HFC-365mfc	CF ₃ CH ₂ CF ₂ CH ₃	





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Example

On 4 July 2012, a company imports one tonne of HFC-134a into Australia. The total equivalent carbon price payable would be \$29,900, calculated as follows:

- $1 \text{ (tonne of HFC-134a)} \times 1,300 \text{ (global warming potential of HFC-134a)} = 1,300$
 $\times \$23 \text{ (applicable carbon price)} = \$29,900$

The cost recovery levy payable would be \$165, calculated as follows:

- $1 \text{ (tonne of HFC-134a)} \times \$165 \text{ (prescribed levy rate)} = \165

The total amount payable would be \$30,065, calculated by adding the equivalent carbon price and the cost recovery levy as follows:

- $\$29,900 \text{ (equivalent carbon price)} + \$165 \text{ (cost recovery levy)} = \$30,065$

More information:

For more information about the carbon price package visit the Clean Energy Future website: www.cleanenergyfuture.gov.au/clean-energy-future/our-plan/

For more information about the government's administration of synthetic greenhouse gases visit: www.environment.gov.au/atmosphere/ozone/sgg

or call the Department of Sustainability, Environment, Water, Population and Communities on 1800 803 772.

