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<b>Category</b>		<b>Title</b>
<b>NFR:</b>	1.A.3.e.i	Pipeline transport
<b>SNAP:</b>		
<b>ISIC:</b>		
<b>Version</b>	Guidebook 2023	

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# 1 Overview

This chapter covers the emissions of pipeline compressor stations.

This source category is only relevant for countries which are using gas or oil-fired compressor stations. The use of electrical compressor stations does not cause direct emissions.

This chapter provides emission factors for gas turbines. For engines, emission factors from source category 1.A.1.a can be used.

The main challenge is the acquisition of activity data since this sector is usually not covered by the national statistics and consequently not covered by the IEA data sets. All countries that are participating in emission trading can take activity data from ETS. Due to the threshold of the ETS system a full coverage is not possible. If there is no ETS system, you can use a factor of 0.5 - 1 % of your primary natural gas consumption. The factor is higher in the case of an important ingenious natural gas production or a significant transit.

## 2 Tier 1 emission factors

Table 2-1 Tier 1 emission factors for pipeline transport

Tier 1 emission factors					
	Code	Name			
<b>NFR Source Category</b>	1.A.3.e	Pipeline transport			
<b>Fuel</b>	Natural gas				
<b>Technologies/Practices</b>	Gas Turbines				
<b>Region or regional conditions</b>	NA				
<b>Abatement technologies</b>	NA				
<b>Not applicable</b>	PCB, PCDD/F, HCB				
<b>Not estimated</b>	SO <sub>x</sub> , TSP, PM <sub>10</sub> , PM <sub>2.5</sub> , BC, NH <sub>3</sub> , HM				
Pollutant	Value	Unit	95% confidence interval		Reference
			Lower	Upper	
NO <sub>x</sub>	175	g/GJ	18	332	UBA 2019
CO	45	g/GJ	1	88	UBA 2019
NM VOC	1.6	g/GJ	0.5	7.6	Nielsen et al., 2010

Notes: the table contains the main pollutants. SO<sub>x</sub>, PM and HM are not relevant for natural gas fired gas turbines. NH<sub>3</sub> is only relevant in the case of using SCR or SNCR.

## 3 References

UBA 2019: Umweltbundesamt 2019; Kristina Juhrich, Rolf Beckers; Updating the Emission Factors for Large Combustion Plants; [Updating the Emission Factors for Large Combustion Plants | Umweltbundesamt](#)

[Nielsen et al., 2010](#): Nielsen, M., Nielsen, O.-K. & Thomsen, M. 2010: Emissions from decentralised CHP plants 2007 - Energinet.dk Environmental project no. 07/1882. Project report 5

– Emission factors and emission inventory for decentralised CHP production. National Environmental Research Institute, Aarhus University. 113 pp. – NERI Technical report No. 786. <http://www.dmu.dk/Pub/FR786.pdf>.