

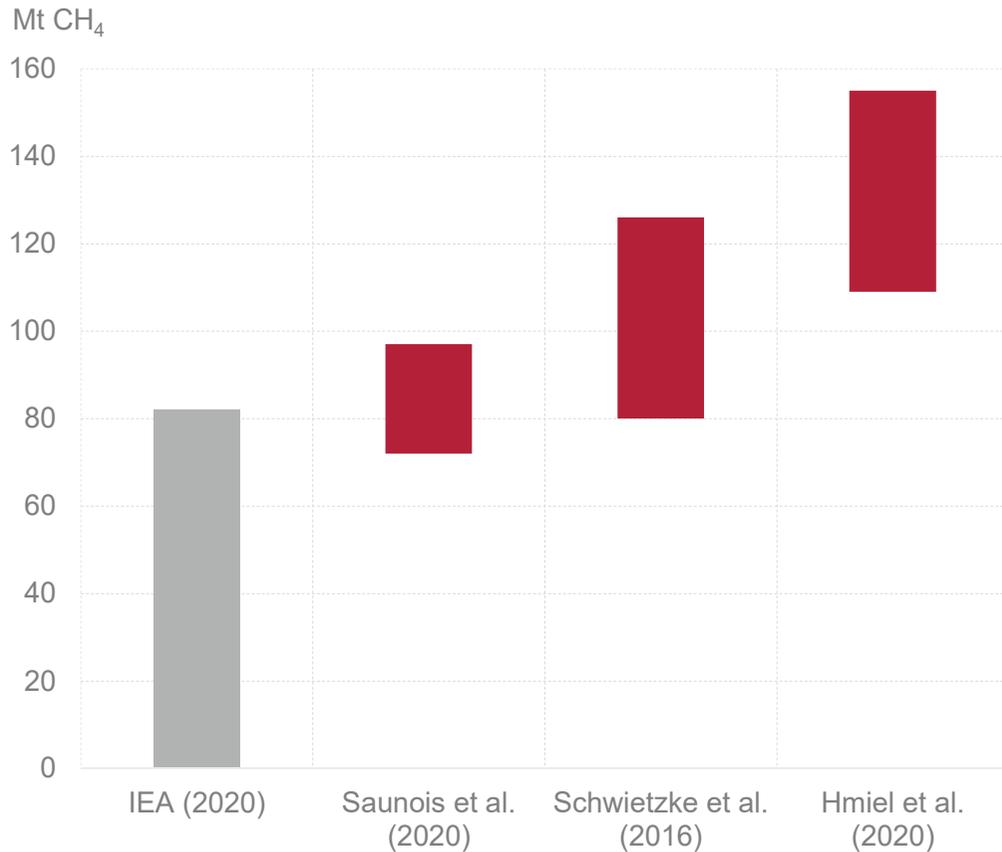
Scenarios, Effectiveness and Efficiency of EU Methane Pricing in the Energy Sector

EP Intergroup on "Climate Change, Biodiversity and Sustainable Development"

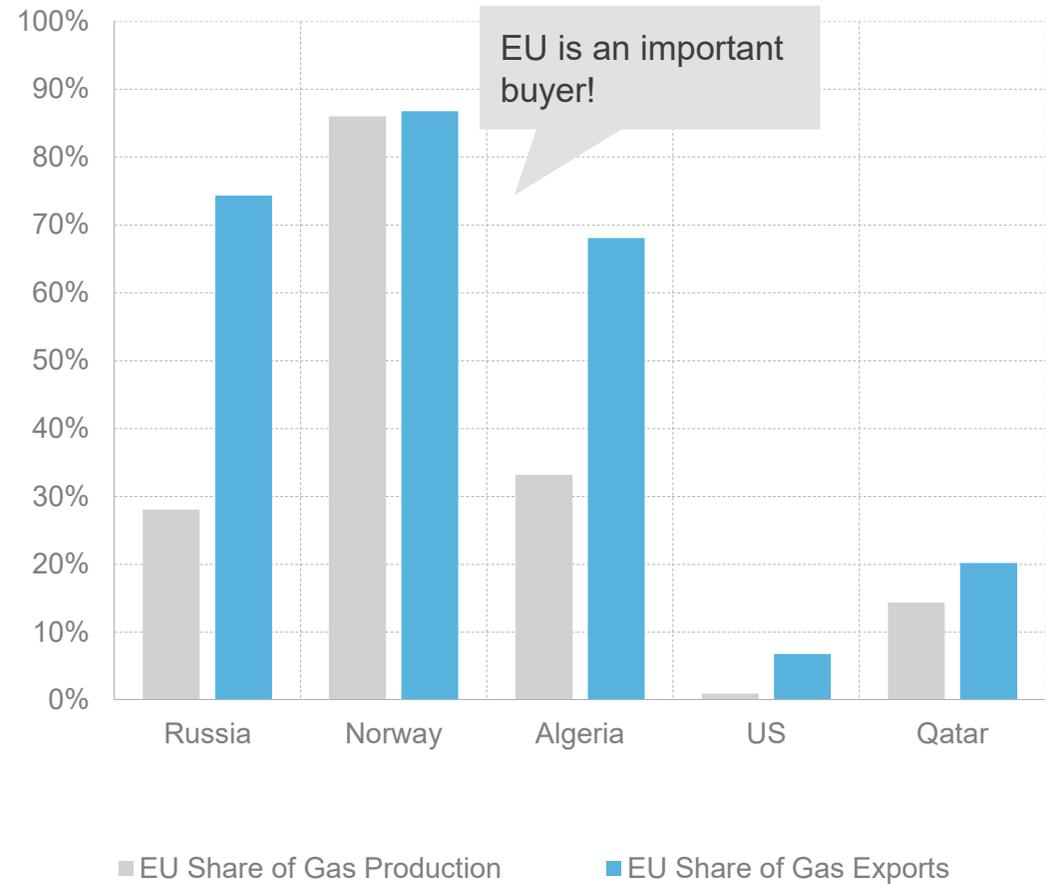
25.05.2021

Global Oil and Gas Methane Emissions & EU Natural Gas Supply Structure

Methane Emissions from the Global Oil & Gas Sector



EU Share of Gas Production and Gas Exports



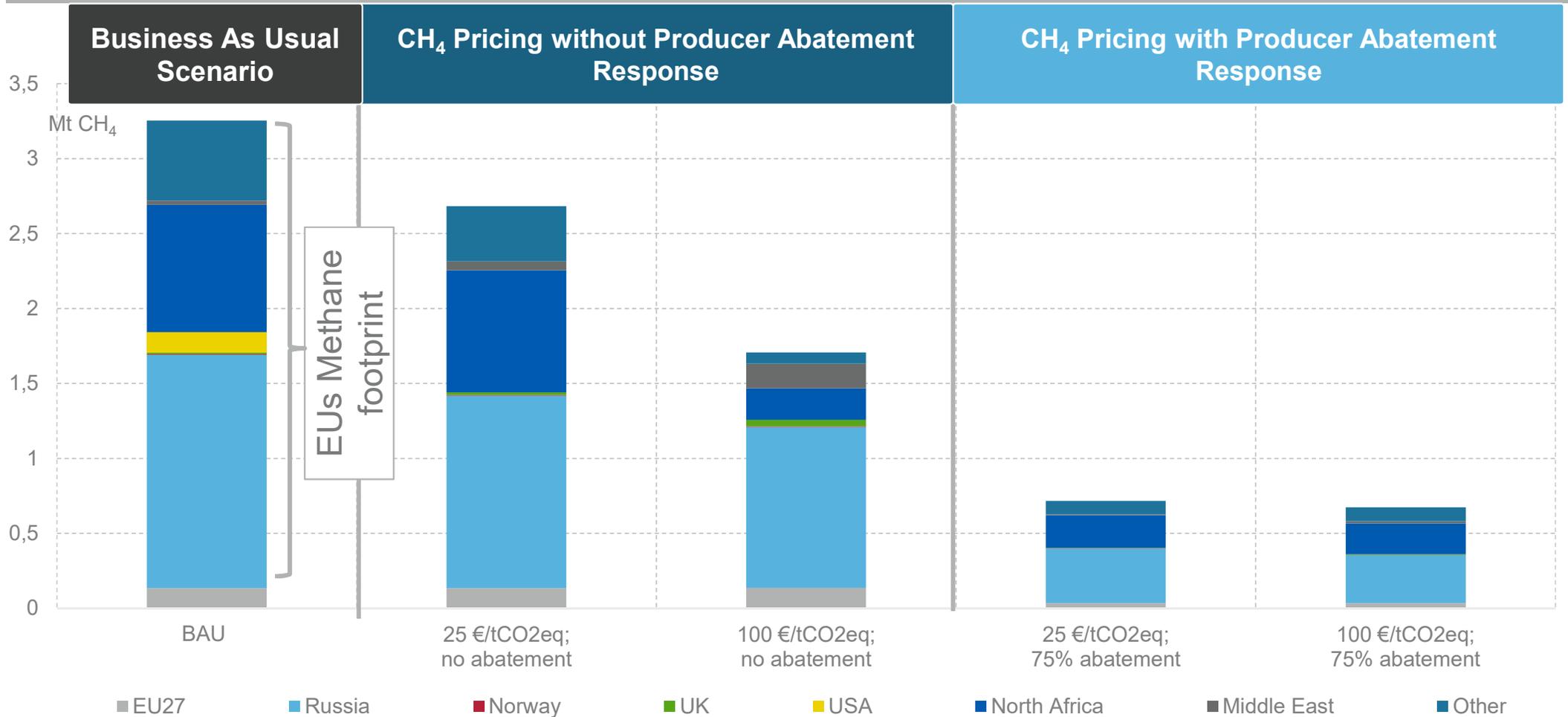
Methane Pricing Scenarios in this study

Additional sensitivities conducted to reflect large uncertainty in emission intensities in production countries

	Business As Usual Scenario	CH ₄ Pricing without Producer Abatement Response		CH ₄ Pricing with Producer Abatement Response	
DEFINITION	Baseline with no methane/sustainability policy for gas	Methane price proportional to upstream emission intensity on all gas sold in the EU (or comparable policy)			
EU METHANE PRICE / PENALTY	<ul style="list-style-type: none"> No methane penalty 	25 €/t CO ₂ eq (700 €/t CH ₄)	100 €/t CO ₂ eq (2800 €/t CH ₄)	25 €/t CO ₂ eq (700 €/t CH ₄)	100 €/t CO ₂ eq (2800 €/t CH ₄)
ABATEMENT RESPONSE	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> 75% abatement in gas supply regions (focus on EU share) 			

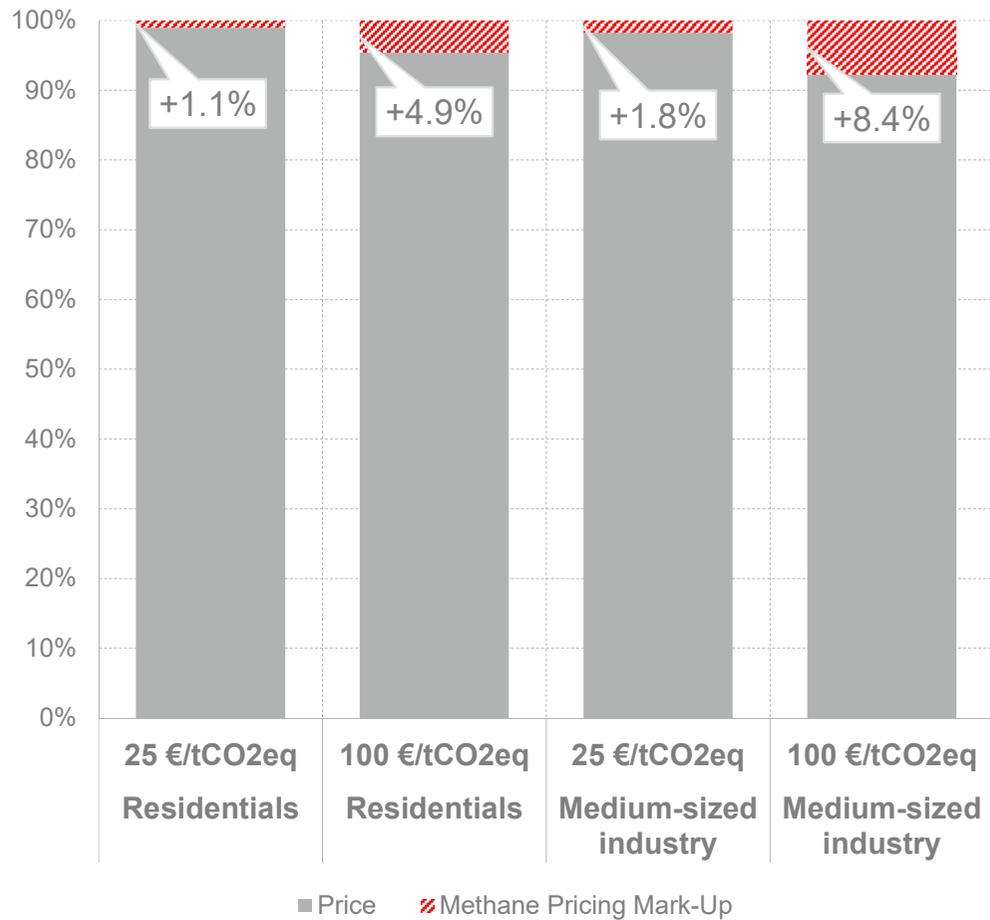
Impact on Global Methane Emissions from Oil&Gas (the EU methane footprint)

Upstream Methane Emissions

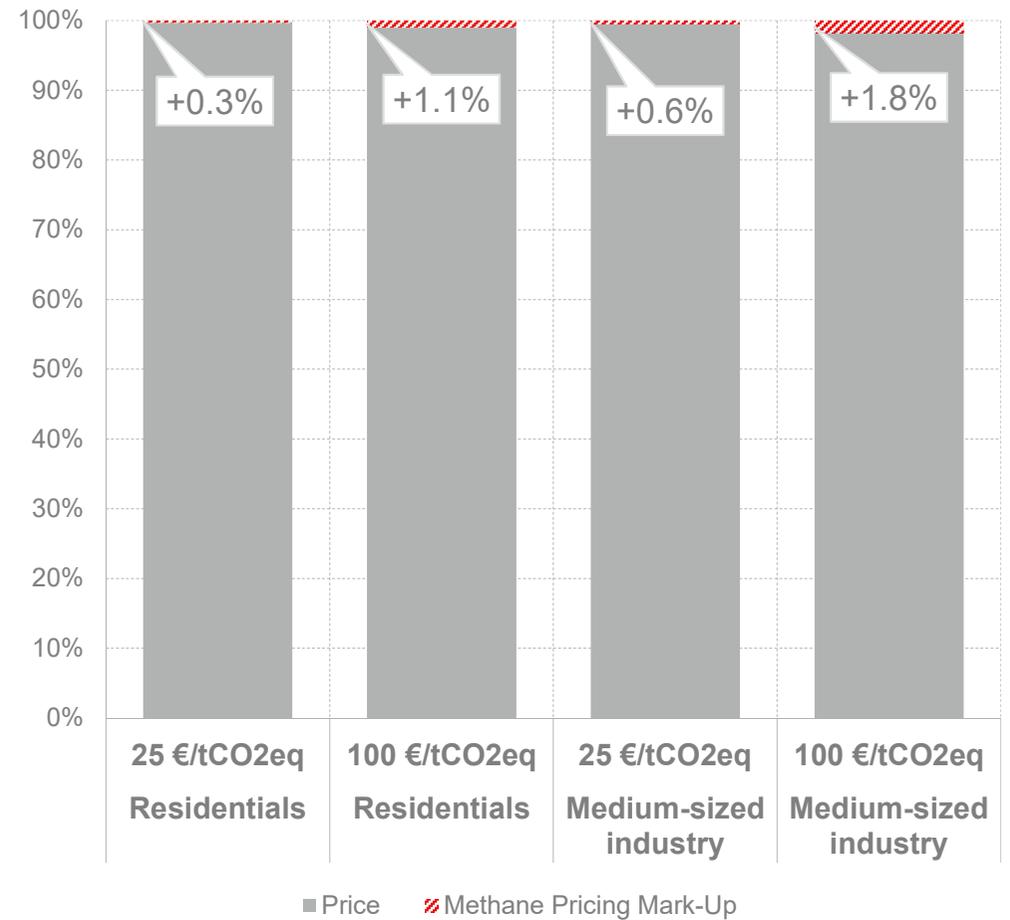


Impact on Natural Gas Prices for different Consumer Categories

CH₄ Pricing without Producer Abatement Response



CH₄ Pricing with Producer Abatement Response



Key Takeaways

The study analyzes the impacts of a methane emissions price penalty implemented on all natural gas imported or produced in the EU and proportional to the methane emission intensity of gas production. Results show that an **EU methane price penalty on natural gas:**

1

- **can significantly reduce the EU's methane footprint due to emissions from gas production in countries supplying gas to the EU;**

2

- **can have a significant impact on global oil and gas methane emissions if it creates sufficient incentives for EU gas suppliers to implement methane abatement measures;**

3

- **will be most effective if also other key global gas import markets implement methane policies to incentivize gas producers to mitigate their methane emissions;**

4

- **is likely to have a small impact on EU household gas prices.**

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JULIUS ECKE
julius.ecke@enervis.de
+49 (0)30 695 175 17



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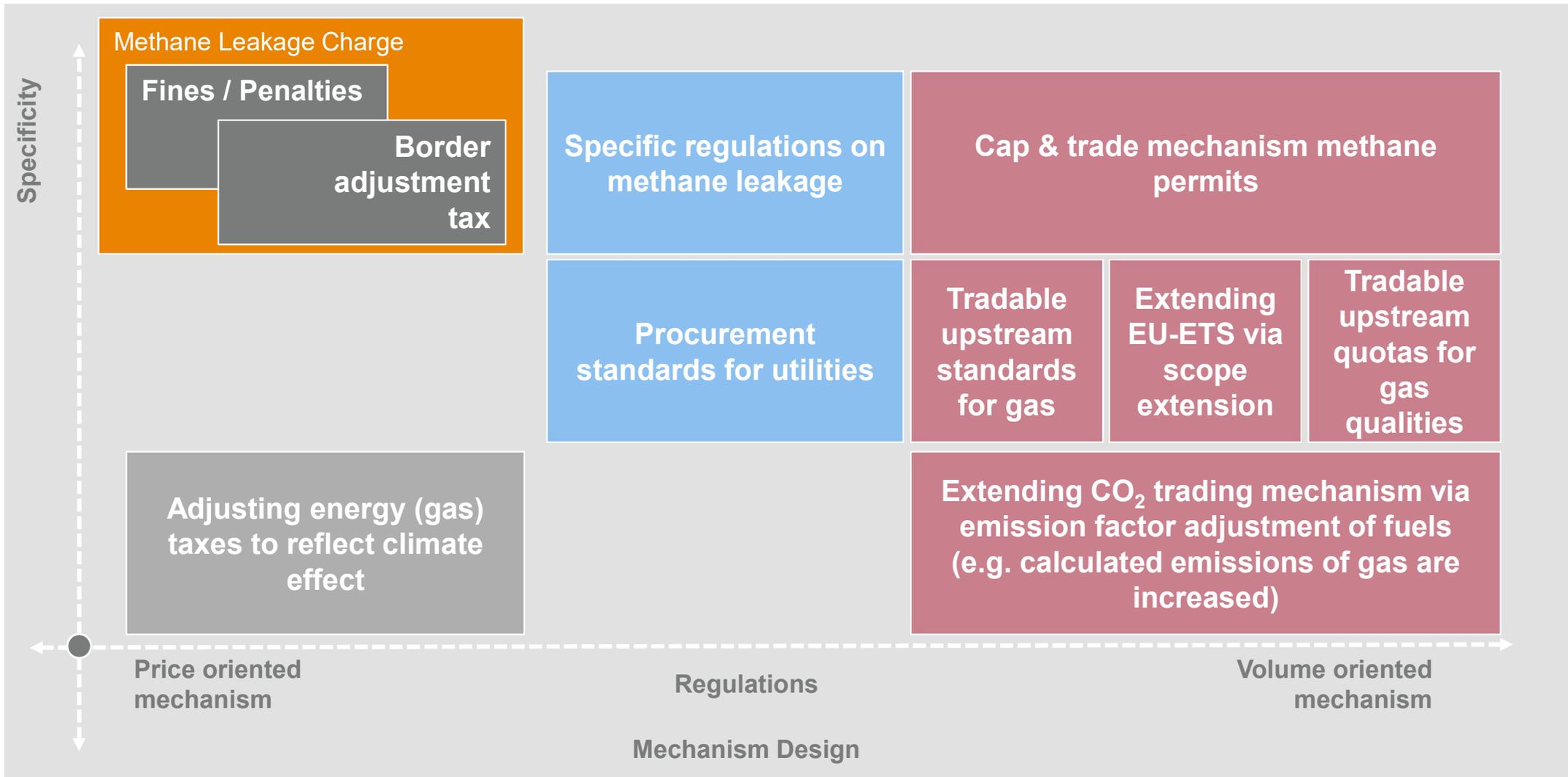
enervis energy advisors GmbH
Schlesische Str. 29-30
10997 Berlin
Germany
Fon +49 (0)30 695175-0
Fax +49 (0)30 695175-20

E-Mail kontakt@enervis.de

Overview of Possible Mechanisms

“Specificity” describes if the mechanism applies only to methane leakage of gas or includes other fuels

“Mechanism Design” is defined by the nature of the mechanism (price vs. volume)





enervis energy advisors GmbH
Schlesische Str. 29-30
10997 Berlin
Germany
Fon +49 (0)30 695175-0
Fax +49 (0)30 695175-20

E-Mail kontakt@enervis.de