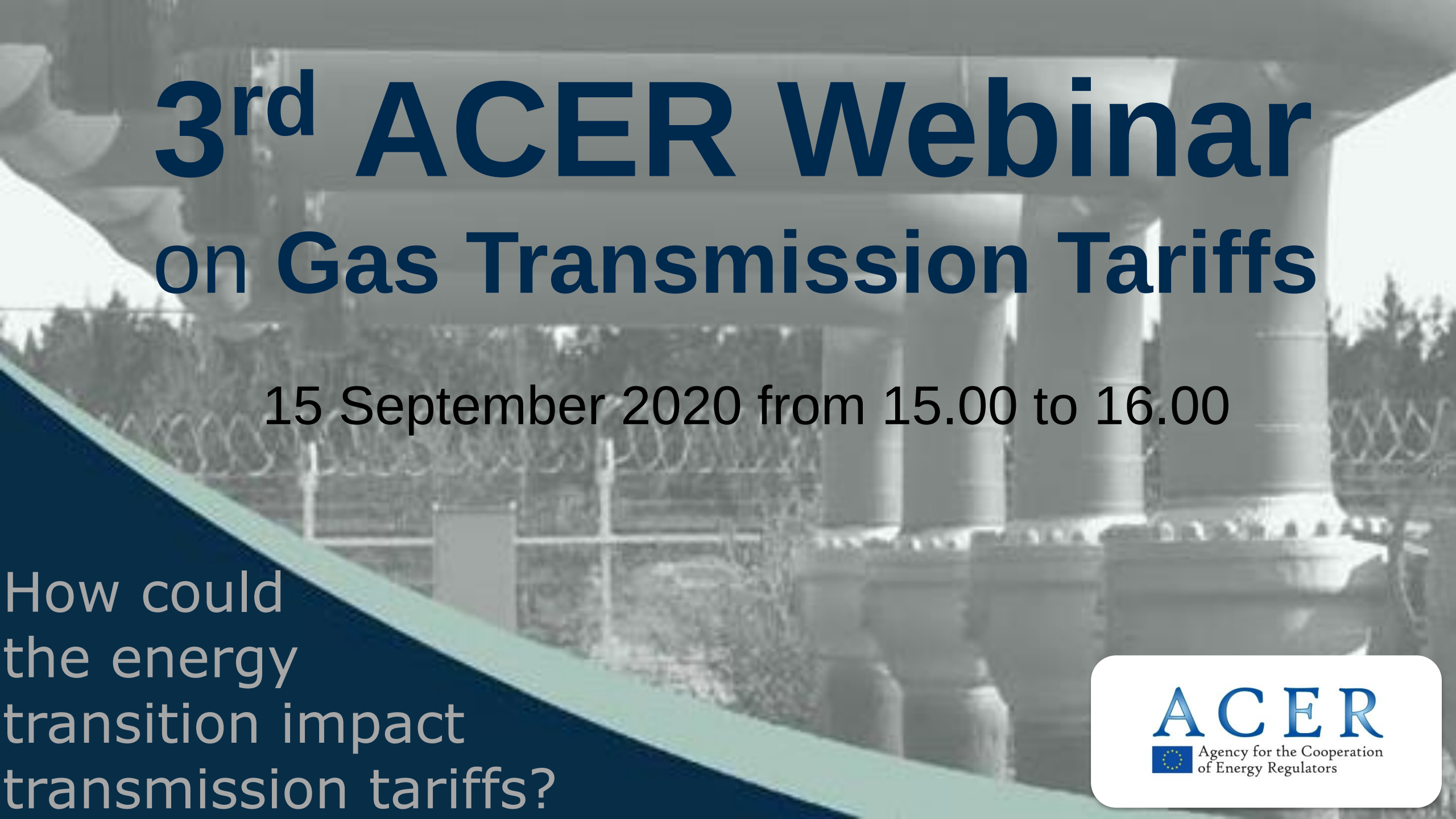


# 3rd ACER Webinar
## on Gas Transmission Tariffs

15 September 2020 from 15.00 to 16.00

How could
the energy
transition impact
transmission tariffs?

ACER
Agency for the Cooperation of Energy Regulators

# Agenda

- First part – 40 minutes
  - Introduction (by the Agency)
  - Presentation of ENTSOG on biogas
  - Presentation of IFIEC on hydrogen and risks of sunk costs
- Second part – 20 minutes
  - Q&A between the audience and the speakers
  - The audience is encouraged to raise questions in the chatbox from the start of the presentations onwards

# Context

- The energy transition was not embedded in the NC TAR. Yet, the transition is taking root and impacts national transmission tariffs (e.g. injection fees for bio-methane…).

- The EU and its Member States plan to put in place policies to speed up the transition:

  - Dec. 2019 and Jan. 2020: European Green Deal and European Green Deal investment plan

  - July 2020:  EU strategies for energy system integration and hydrogen

  - In the coming weeks: new EU 2030 climate plan (likely 55% emissions cut)

➔ Possible **impact on the gas sector** and the transmission tariffs:

  - Tariff settings for **new gas sources** have to be discussed

  - A potential consumption decrease could increase the risk of **sunk costs**

# New gas sources

- **What should be the objectives of tariffs for new gas sources (bio-methane, hydrogen)?**

  1. **Reflecting costs** and avoiding market distortions (NC TAR)

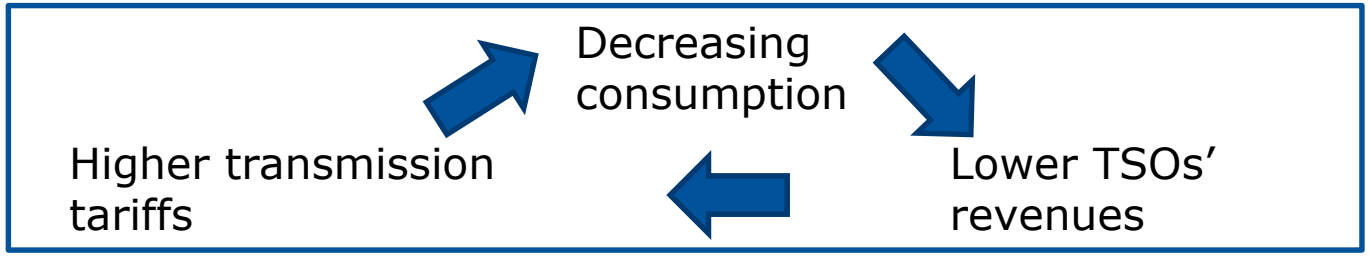
  **Or**

  2. **Facilitating their development** to contribute at the energy transition?

- In the second case, **tariff discounts could be justified by this positive externality**:
  - Where should the missing income be recovered? Who are the beneficiaries?
  - Tariff design needs to be embedded in a comprehensive EU regulatory and fiscal framework to ensure that new technologies deliver emission reductions (e.g. guarantees of origin, carbon price, carbon border tax…).
- **Regarding hydrogen, even more fundamental questions** need to be answered:
  - Mixed in current gas networks or in dedicated ones? Could this differ per geography and/or over time?
  - What will be the role of Third Party Access regulation?
- Both EC and NRAs are currently working on these issues.

# Manage the risk of network restructuring

- It is too early to predict what the evolution of consumption and its pace will be.
- However, the energy transition could trigger a **vicious circle** for the gas market:




- Under these circumstances, how should the **remuneration and the value of the assets** of the TSOs take this risk into account?
  - Development of biomethane and repurposing of existing pipes in hydrogen networks could mitigate this risk.
  - Until now, the risk of under-utilisation has been taken into account in the remuneration of TSOs (insurance logic). This reasoning does not work if the risk is too high.
  - Policies may need to work with long-term targets to inform on how the gas network may shrink during the transition and **allow to manage stranded assets in the long-run**. Policies need to be clear who bears the costs and why.

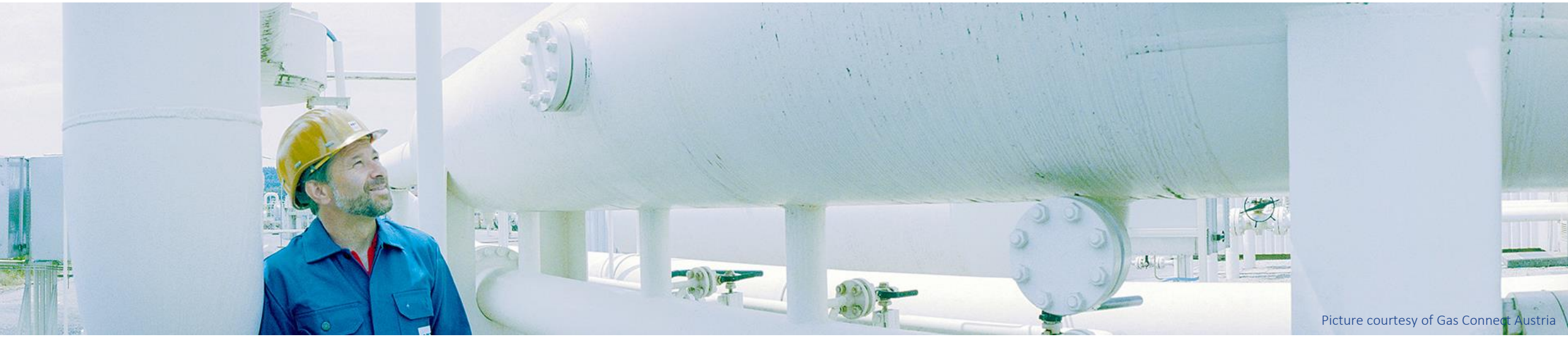
# Questions to the speakers

- The Agency would like to thank ENTSOG and IFIEC for accepting our invitation to contribute to this webinar.

- In a short-term perspective, ENTSOG will present how tariffs apply to biogas injections in Ireland, Germany and France.

- In a longer term perspective, IFIEC will share its views regarding the development of hydrogen networks, and more broadly regarding how the costs of the transition should be distributed between shippers, consumers and TSOs.

15/09/2020



Picture courtesy of Gas Connect Austria

# ENTSOG

## ACER Webinar: Impact of Energy Transition on Transmission Tariffs

ENTSOG

GRTgaz

# Biogas transmission entry tariff, Ireland

- Gas Network Ireland plan to have 20% Renewable Natural Gas (biogas) on the network by 2030.
- Single tariff for biogas entry points based on a single ‘notional entry point’.
- Two options considered:
  - 1. based on average of three geographically dispersed locations.
  - 2. location close to demand centre.
- Option 1, which was chosen, is more cost-reflective.
- Produces biogas entry tariff of €106/MWh, relative to Moffat entry tariff of €315/MWh.
- Supports this industry in its infancy - provides simplicity, stability and investor certainty.

# Biogas transmission entry tariff, Germany

- Entry tariffs for biogas and power-to-gas input driven by climate change policies.
- Entry tariffs from biogas and power-to-gas installations set to zero.
- Classified as a non-transmission service.
- Injection close to demand centres.
- Biogas charge applied to cover:
  - Costs associated with necessary infrastructure
  - A feed-in tariff of 0.007**€/kWh for biogas suppliers**
- Biogas costs borne equally by all network users using exit points - except IPs and storage points.


# The « right to inject » biogas in France

ACER Webinar - 15 September 2020

# Network adaptations required for biogas are subject to a cost/volume ratio

## When a project asks for an increase of the biogas inlet capacity that requires a network adaptation, the « I to V criterion » is used.

$$\frac{I}{V} = \frac{\text{Investment cost of the network adaptation (TSO+DSO)}}{\text{potential Volume of unlocked biogas}}$$

**Common work TSO/DSOs**.
Encompassing reverse flow stations, network meshing etc.
(The connection cost, payable by the project owner, is excluded)

**Medium-term view** (2028) **of biogas potential**, function of current production, maturity of projects (probabilized from 40% to 90%), plus an assessment of the remaining biogas potential (probability 20%)

**If $\frac{I}{V} \leq$ 4 700 € / (Nm3/h)**

**INVESTMENT OK**

The required network adaptation is financed by the transmission/distribution tariff.

**If $\frac{I}{V} >$ 4 700 € / (Nm3/h)**

**INVESTMENT NOT OK**

- Either an alternative investment program that frames in the I/V criterion is considered.
- Or a contribution that fills the gap with the I/V cap is sought from project owners, local authorities…

# An injection tariff has been created by CRE

- **Aims** :

  - biogas plants contribute to the adaptation of the network.
  - a location signal is given to project owners

- **Levels :**

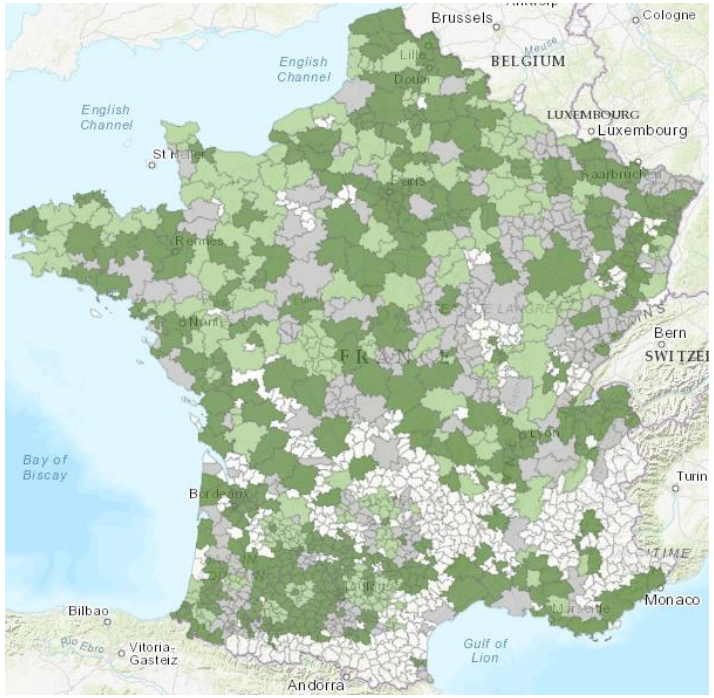
| Tariff level | Area | Tariff (€/MWh) |
|---|---|---|
| **Level 3** | Areas that require a reverse flow station | 0.7 |
| **Level 2** | Areas that require meshing and/or pipeline extension | 0.4 |
| **Level 1** | Other areas | 0 |

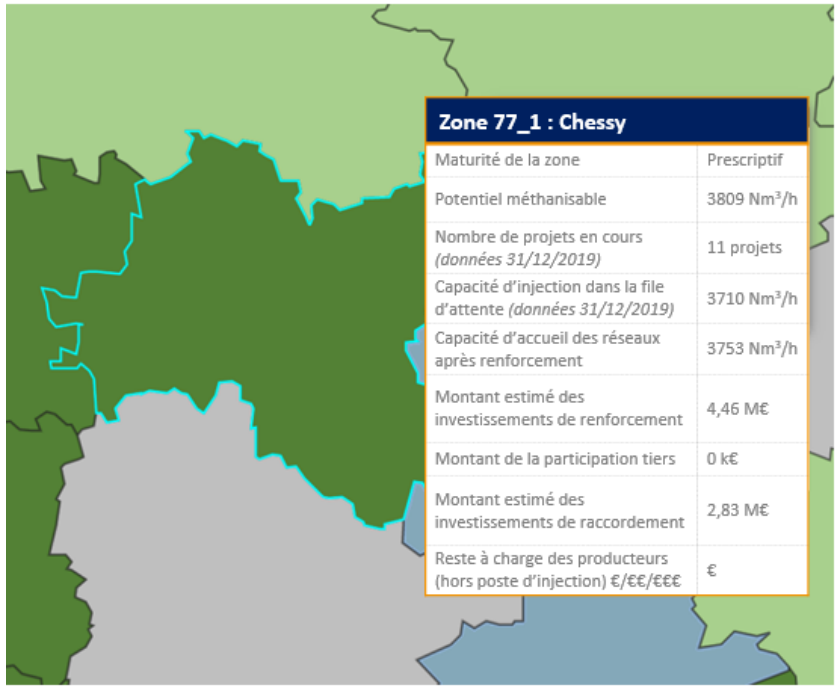
  - Tariff is payable by the biogas shipper
  - Tariff is collected by the DSO/TSO
  - Tariff is shared by DSO and TSO. For instance, in level 3 areas, 0.65 €/MWh out of 0.7 €/MWh is transferred from the DSO to the TSO for reverse flow station financing.

# Visibility and timely replies to project owners are keys for biogas development.

Légende : critère technico-économique [€/Nm3/h]

- inférieur à 3 300
- entre 3 300 et 4 700
- supérieur à 4 700
- donnée non disponible à ce jour




http://www.grtgaz.com/acces-direct/clients/producteur/raccordement.html

# The impact of energy transition on gas transmission tariffs

*ACER webinar*

Network Code on Tariffs

End Users perspective

**IFIEC WP Gas**

*15 September 2020*

# Tariffs should be based on efficient cost coverage

- Market trust starts with **transparency**:
  - (Regulated) costs should be transparent;
  - Tariffs including its methodology should be simple and transparent;
  - Methodology should contribute to stimulate cross border trade.
- Only focusing on the allocation of costs is not the holy grail to improve competition and efficiency, better services and lower prices.
- And regulation of costs for gas transport capacity is relevant:
  - **cost reflective**, based on actual cost of (efficient) network operators;
  - provide optimal **incentives** for investments:
    - Fair 'return on equity' (RAB), including a Weighted Average Cost of Capital (WACC);
    - RAB; based on historical depreciation, preventing customers to pay more than once for the same steel;
    - TSOs fear the risk of under-recovery;
    - Shippers will mitigate risks by transferring stranded costs to end-consumers.

# Climate challenge and policies

- Paris Climate Goals (2015):
  - Carbon emissions reduced with 80-95 percent in 2050
  - 2030-target: 40 (55) percent by 2030 (compared to 1990)
  - End users will have to meet the targets for their license to operate and competitive edge
- Measures are focusing on:
  - Energy efficiency, greening processes and products
  - Renewable energy production:
    - electricity: wind, solar, water and
    - molecules: biomass, **biomethane**, **hydrogen** → energy AND feedstock
  - CC(U)S
- Hydrogen:
  - add hydrogen to natural gas could harm end-users appliances. (mixing percentage very limited) → short term solution
  - Preferable to high end applications like feedstock
  - Create a dedicated hydrogen supply system → backbone as a long term solution
    - New gas infrastructure
    - Retrofit of existing natural gas supply systems

# Regulation and tariffs

- There is no regulation for hydrogen supply yet
- IFIEC advocates for
  - a dedicated hydrogen supply backbone, cross border, using Energy Intensive Industries as a starting point and kick start a carbon neutral, reliable and efficient supply system;
  - that is regulated comparable to existing electricity and natural gas supply systems;
  - efficient costs that should be charged through tariffs → retrofit existing gas supply assets (costs based on actual RAB-values of transferred assets);
  - Tariffs that are not a barrier for the required development, and support market development.
- Volume risks and stranded costs of the natural gas supply system:
  - Assign to the TSO and its shareholder(s): depreciation of inefficient asset value?
    - How do we deal with generated confidence in investments of the past?
  - Degressively write-down the RAB+WACC in increasing tariffs?
    - Is this fair to the end-users in charging them with inefficient costs?
    - Is it fair that risks are unilateral charged to grid users where benefits go to shareholders of grid operators?

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Q&A session

ACER
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# Q&A session

- Please submit your questions in the chat.
- To the extent possible, we will group similar questions.
- We will distribute them to the speakers.