

Risk allocation of H₂ infrastructure ramp-up

Outline of position for EFELA

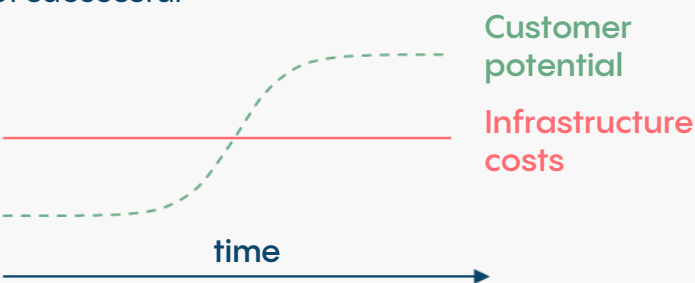
H₂ infrastructure is politically endorsed but risk allocation remains unclear

WECOM currently supports TSOs regarding realisation of H₂ transport infrastructure

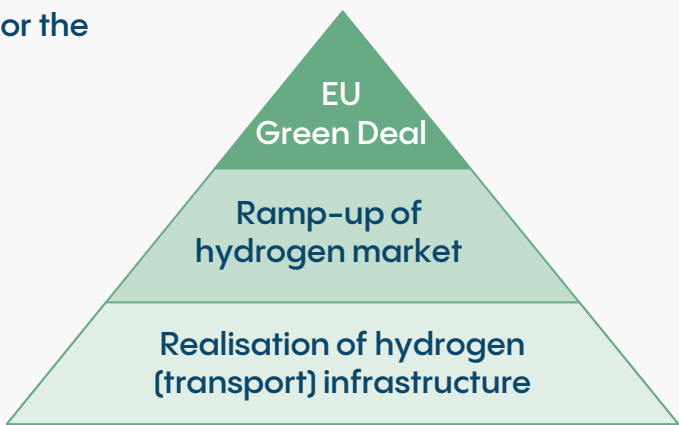


Significant investment required for European Hydrogen Backbone (dimension: 100 bn €) but market demand is uncertain

→ Risk that costs cannot be covered if H₂ market ramp up is not successful
→ “Ramp-up risk”



Hydrogen transport infrastructure is a necessary enabler for the politically envisioned hydrogen economy



Discussion: Where to allocate H₂ ramp-up risk?
To Transmission System Operators (TSOs)? To states?



Perspective 1: Economic

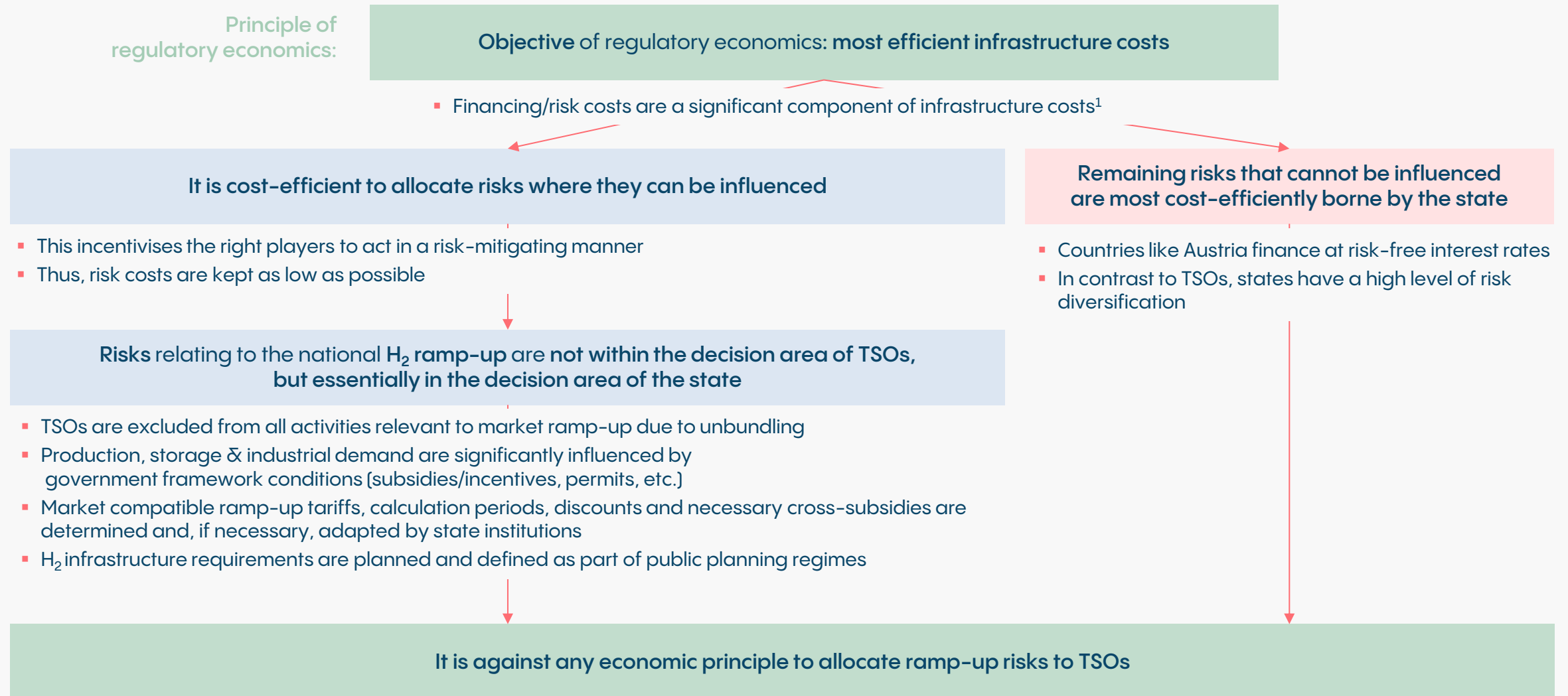
1. Allocation of ramp-up risk to TSOs is contrary to regulatory economics



Perspective 2: Legal

2. Risk allocation to TSOs is conflicting with European legal framework

1. Allocation of ramp-up risk to TSOs is contrary to regulatory economics



¹ Investments in infrastructure & operational costs are lowest when managed by network operators, as they have the relevant expertise

2. Risk allocation to TSOs is conflicting with European legal framework

Adequate risk premium for H₂ TSOs (i.e. WACC markup) regarding H₂ ramp-up is incalculable

Allocating ramp-up risk to TSOs does ...

Conflicting with ...

- ! ... not ensure actual cost reflection and an appropriate return on investment
Art 17 Gas Regulation*
- ! ... not create an investment climate for network operators that supports the Union's decarbonisation objectives
Rec. 10 Gas Regulation, Art. 17 Gas Regulation
- ! ... not sufficiently incentivise investments in decarbonised and sustainable natural gas and hydrogen networks for decarbonisation
Art. 3 k Gas Regulation, Art. 17 (1) Gas Regulation, Rec. 4 Gas Regulation
- ! ... not cover hydrogen network costs over time
Art 5 (3) Gas Regulation

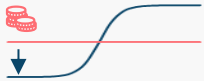
EU regulation provides instruments to shield TSOs from H₂ ramp-up risk



Three instruments from EU regulation to enable H₂ market ramp-up and shield TSOs from H₂ ramp-up risk

1. Intertemporal cost allocation

- ramp-up tariffs that are initially lower than actual costs
- lower tariffs enable H₂ market ramp-up

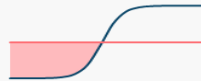


Art. 5: Member States may allow hydrogen network operators to spread the recovery through network access tariffs of hydrogen network costs over time [...]

Recital 10: As an alternative to [...] higher network tariffs that would [...] have to be charged to early hydrogen network users, it should be possible [...] that future users pay part of the initial costs, by way of an inter-temporal cost allocation.

2. State Guarantee

- to cover financial risk of H₂ network operators from initial cost recovery gap

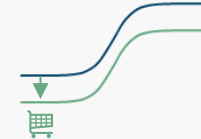


Excerpts EU-VO 2024/1789

Art. 5: Member States may put in place measures, such as a State guarantee, to cover the financial risk of hydrogen network operators associated with the initial cost recovery gap arising from the application of inter-temporal cost allocation

3. Cross-subsidies

- e.g. financial transfer from natural gas to hydrogen network
- lower H₂ tariffs enable H₂ market ramp-up



Art. 5: Member State may allow financial transfers between regulated services that are separate [... *note: regulated services for natural gas, hydrogen or electricity* ...], provided [...] that the financing of networks through network access tariffs paid by its network users only is not viable.

WECOM has developed a detailed model for H₂ infrastructure financing that is the 1:1 implementation of EU regulation

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weCOM

Tuchlauben 8, 1010 Vienna, Austria

+43 664 849 58 00

admin@wecom.at