

Das Wasserstoff- und Gas-Paket der EU-Kommission vom 14. Dezember 2021



*Ein neuer Rechtsrahmen für die EU-Gas-
und Wasserstoffwirtschaft*

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Generaldirektion Energie
EU Kommission

Dieser Vortrag bringt ausschließlich die persönliche
Auffassung des Verfassers zum Ausdruck und bindet
in keiner Weise die EU-Kommission

Neue Regeln für Wasserstoff: Warum?

Gegenwärtige Gasregeln:

- *...sind nicht auf **separate Wasserstoffnetze** anwendbar*
- *...enthalten **Barrieren** für die Aufnahme lokaler/dezentraler Produktion erneuerbarer /low-carbon Gase*
- *...berücksichtigen unzureichend die Anforderungen der **Sektorintegration** (Strom/Wasserstoff)*
- *...enthalten noch nicht die Anpassungen des **"Clean Energy Packages"** – Verbraucherrechte, etc.*



Das EU „Wasserstoff- und Gasmarktdekarbonisierungspaket“

Ziel: Dekarbonisierung UND Versorgungssicherheit

- Rückbau des Geschäftsmodells Erdgas ...mit 10+ Jahren Zeitversatz?

Regulierung für einen *möglichen* Wasserstoffbinnenmarkt

- Bekenntnis zu Wasserstoff - Umfang des Wasserstoffnetzes aber unklar

Fairer Interessenausgleich

- Schneller Aufbau alternativer Gasinfrastruktur – wer trägt die Kosten?

Förderung der Dekarbonisierung durch Regulierer

- Neue – politische - Rolle für Netzregulierer?



A European Green Deal

1. Fit for 55 package

- a) **Revision of the EU Emissions Trading System (ETS), including maritime, aviation and CORSIA as well as a proposal for ETS as own resource** (legislative, incl. impact assessment, Q2 2021)
- b) **Carbon Border Adjustment Mechanism (CBAM) and a proposal for CBAM as own resource** (legislative, incl. impact assessment, Q2 2021)
- c) **Effort Sharing Regulation** (legislative, incl. impact assessment, Article 192(1) TFEU, Q2 2021)
- d) **Amendment to the Renewable Energy Directive to implement the ambition of the new 2030 climate target** (legislative, incl. impact assessment, Article 194 TFEU, Q2 2021)
- e) **Amendment of the Energy Efficiency Directive to implement the ambition of the new 2030 climate target** (legislative, incl. impact assessment, Article 194 TFEU, Q2 2021)
- f) **Revision of the Regulation on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry** (legislative, incl. impact assessment, Article 192(1) TFEU, Q2 2021)
- g) **Reducing methane emissions in the energy sector** (legislative, incl. impact assessment, Articles 192 and 194 TFEU, Q2 2021)
- h) **Revision of the Energy Tax Directive** (legislative, incl. impact assessment, Q2 2021)
- i) **Revision of the Directive on deployment of alternative fuels infrastructure** (legislative, incl. impact assessment, Article 91 TFEU, Q2 2021)
- j) **Revision of the Regulation setting CO2 emission performance standards for new passenger cars and for new light commercial vehicles** (legislative, incl. impact assessment, Article 192(1) TFEU, Q2 2021)
- k) **Revision of the energy performance of Buildings Directive** (legislative, incl. impact assessment, Article 194 TFEU, Q4 2021)
- l) **Revision of the Third Energy Package for gas (Directive 2009/73/EU and Regulation 715/2009/EU) to regulate competitive decarbonised gas markets** (legislative, incl. impact assessment, Article 194 TFEU, Q4 2021)



ETS

Effort Sharing

Energiepreiskrise

State Aid - CEEAG

LULUCF

Transport fuels directive

Methane Emissions

RFNBOS

EIB financing criteria

Taxonomy

Recovery Fund Criteria

RED II Delegated Act on Additionality

Energy Taxation Directive

CBAM

RED II Delegated Act on Forest Biomass

Geopolitik - NS2/Ukraine

Gas und Wasserstoff – welche Rolle ?



mdr
Wasserstoff
NACHRICHTEN & THEMEN
Vorlesen

Rettet Nord Stream 2 unser Klima?

von Maxim Kireev, Sankt Petersburg
Stand: 18. Mai 2021, 23:56 Uhr

TEILEN VIA    

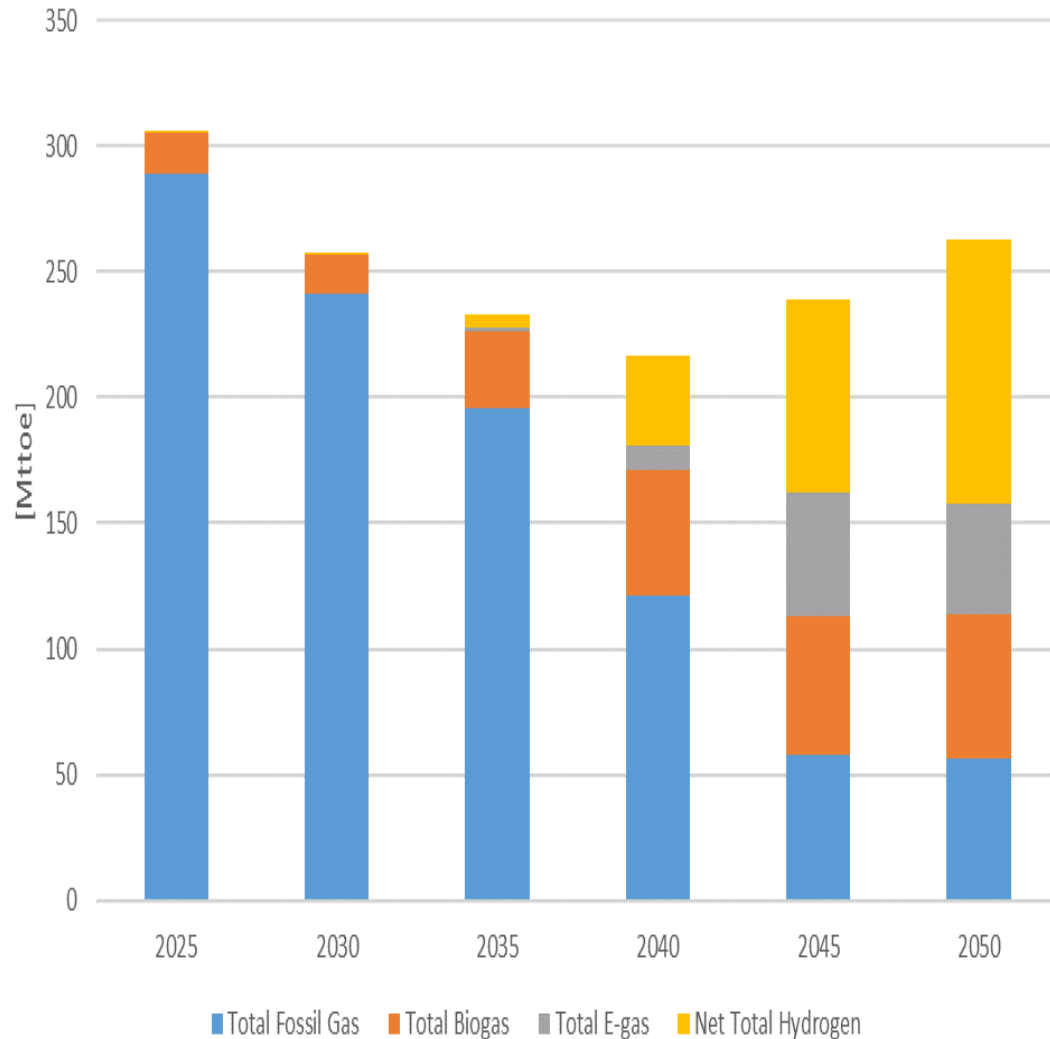
Die umstrittene russische Pipeline Nord Stream 2 könnte statt Erdgas auch klimafreundlichen Wasserstoff transportieren. Pläne dafür liegen längst nicht nur in der Schublade, sondern werden ernsthaft diskutiert.



Erwartete Zusammensetzung gasförmiger Energieträger



...bis 2050

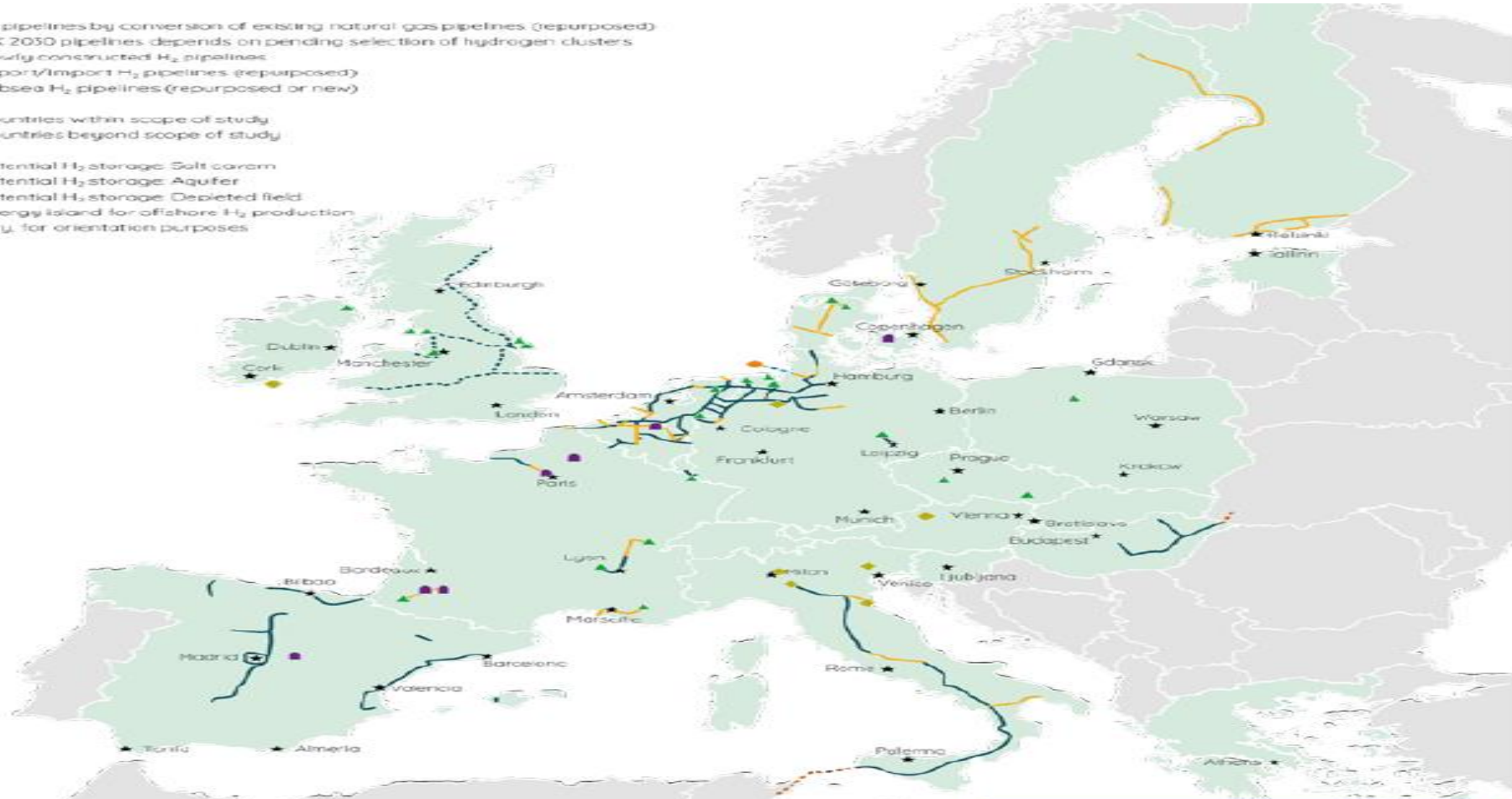


- **2050 noch 20% am Endenergieverbrauch**
- **Wechsel von von Erdgas zu Gas aus erneuerbaren und "low carbon" Quellen**
- **2050 hauptsächlich Biogas, Biomethan, Wasserstoff aus erneuerbaren und "low-carbon" Energien und synthetisches Methan**



Hydrogen Industry Projections for 2030

- H₂ pipelines by conversion of existing natural gas pipelines (repurposed)
- UK 2030 pipelines depends on pending selection of hydrogen clusters
- Newly constructed H₂ pipelines
- Export/Import H₂ pipelines (repurposed)
- Subsea H₂ pipelines (repurposed or new)
- Countries within scope of study
- Countries beyond scope of study
- ▲ Potential H₂ storage: Salt cavern
- Potential H₂ storage: Aquifer
- ◆ Potential H₂ storage: Depleted field
- Energy island for offshore H₂ production
- ★ City, for orientation purposes

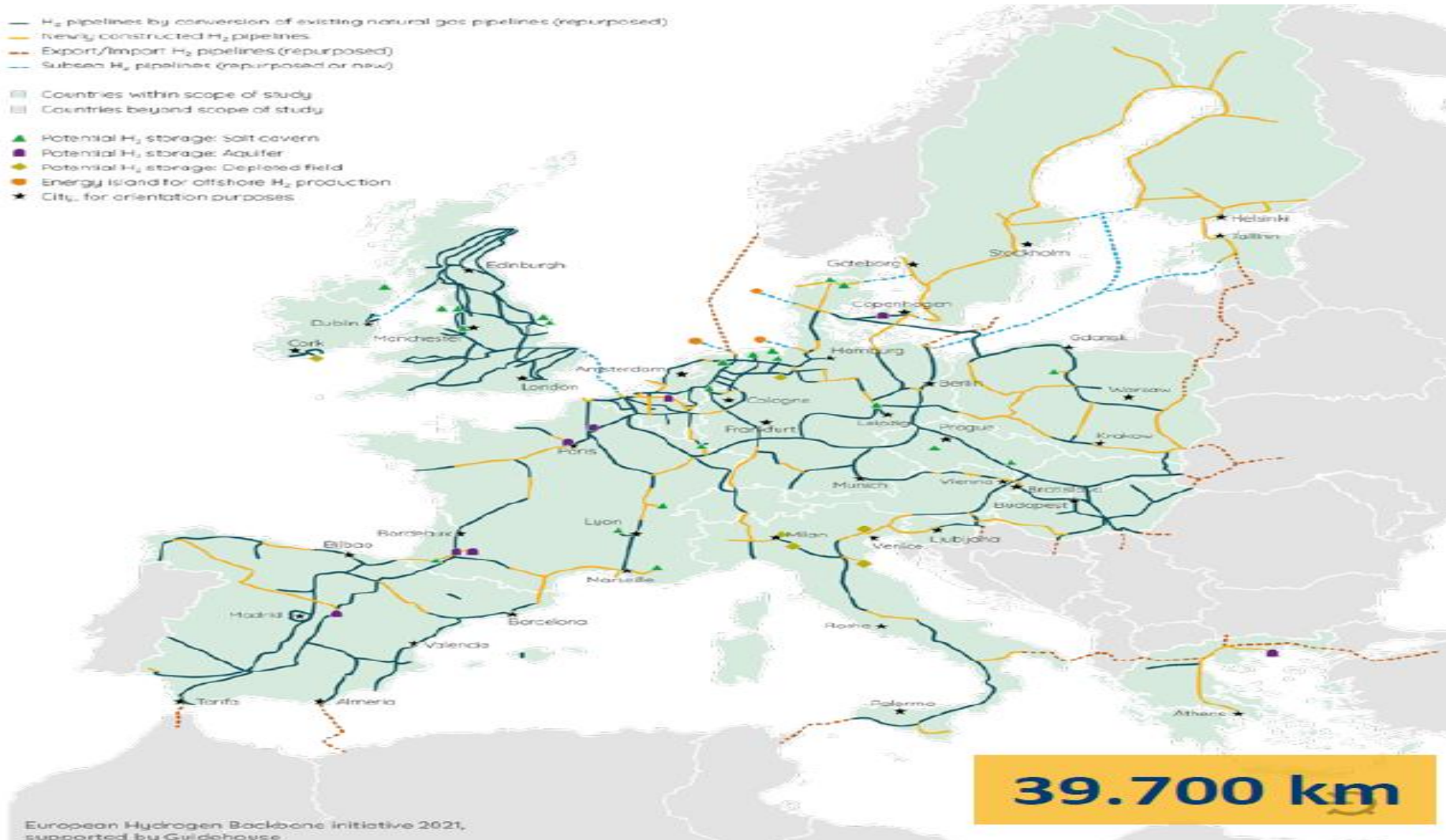


11.600 km



Hydrogen Industry Projections for 2040

- H₂ pipelines by conversion of existing natural gas pipelines (repurposed)
- newly constructed H₂ pipelines
- - - Export/Import H₂ pipelines (repurposed)
- - - Subsea H₂ pipelines (repurposed or new)
- Countries within scope of study
- Countries beyond scope of study
- ▲ Potential H₂ storage: Salt cavern
- Potential H₂ storage: Aquifer
- Potential H₂ storage: Depleted field
- Energy Island for offshore H₂ production
- ★ City, for orientation purposes



Der Gesetzesvorschlag vom 15.12.2021





Verordnung:

69 Artikel (vorher: 32) + 2 Anhänge + 12 S. Änderungen: ACER, SOS, TEN-E

Chapter 1 – Subject matter, scope and definitions

Chapter 2 – General rules for the organisation of the markets and infrastructure access

Chapter 3 – Network access

Chapter 4 – Transmission, storage, LNG, and hydrogen terminal system operation

Chapter 5 – Distribution system operation

Chapter 6 – Access to dedicated hydrogen networks

Chapter 7 – Network codes and guidelines

Chapter 8 – Final provisions



Richtlinie: 91 Artikel (vorher: 56) – 4 Anhänge

Chapter 1 – Subject matter, scope and definitions

Chapter 2 – General rules for the organisation of the markets

Chapter 3 – Consumer empowerment and protection and retail markets

Chapter 4 – Third party access to infrastructure

Chapter 5 – Rules applicable to transmission, storage and system operators of natural gas

Chapter 6 – Distribution system operators of natural gas

Chapter 7 – Rules applicable to the dedicated hydrogen networks

Chapter 8 – Integrated Network planning

Chapter 9 – Unbundling of transmission system operators

Chapter 10 – Regulatory authorities

Chapter 11 – Final provisions

- 1. Erleichterter Zugang für Gas aus Erneuerbaren/low-carbon Quellen zum Gasnetz***
- 2. Aufbau eines eigenständigen Wasserstoffnetzes und -markets***
- 3. Verbesserte integrierte Netzplanung für Strom, Gas und Wasserstoff***
- 4. Verbraucherschutz und -engagement***
- 5. Versorgungssicherheit erhöhen***



H2- und Gaspaket: Komplexität – Beispiel Entflechtungsfragen

- **Vertikale Entflechtung:**
 - Dürfen H2-Produzenten Wasserstoffnetze besitzen?
 - Unbundling ohne "essential facility"-Probleme?
 - Ausschreibung statt Entflechtung?
 - ISO (or even ITO) auch für H2-Netze?
 - Dynamische Regulierung / befristete Ausnahmen?
 - Auswirkungen der (Über-)Regulierung aus Investitionsanreize?
 - Kohärenz mit anderen Bereichen, (e-Autos, Speicher...)
- **Andere Entflechtungsfragen:**
 - UNB als Betreiber von Electrolyseuren?
 - TSOs als Betreiber von Biogasproduktion?
 - TSOs als Betreiber von Stromspeichern?
 - TSOs als Betreiber von Wasserstoffnetzen?



Unverändert	Clean Energy Paket	Neu
Binnenmarktmodell des 3. Paketes im Grunde unverändert	Netzkodex-Verfahren; ACER-Rolle	Art. 4: H2-Quersubventionierung durch Gasnetztarife
<ul style="list-style-type: none"> • Drittzugang; • Tarifregeln, • Harmonisierung durch Netzkodizes • Ausnahme: Art. 4 	Art. 36 EU-DSO-Entity	Art. 16: Verpflichtender Netzentgeltabschlag für Biogas/Low-Carbon-Gas <ul style="list-style-type: none"> • 75% am entry-point (Abweichung mögl.) • 100% am Interkonnektor
		Art. 17 und Annex 1: Neue, detailliertere Tarifregeln
		Art 20: H2-Beimischung bis 5%
Infrastrukturausnahmen; 60b, neu: Dekarbonisierungsziel	NICHT: "RCCs" (ÜNB-Kooperation)	Art. 39: H2-Qualitätskoordination : "TCM"-ähnliches Modell ("all NRA"-Entscheidungen=> ACER-Entscheid)
		Art 40: ENNOH
		Art. 43: H2-TYNDP
		Art. 67: Änderung der SOS-VO : 7b) Speicherverpflichtungen 7d) Gemeinsamer Gaseinkauf



Unverändert	Clean Energy Paket	Neu
Binnenmarktmodell des 3. Paketes:	Art. 4: Zulässige Preisregulierung	Art. 8: Erneuerbaren- und "low-carbon"- Gas-Zertifizierung
Regeln für ÜNBs und VNBs, insbes. Gasentflechtungsregeln , etc.	Art. 7: Beschleunigte Genehmigungen	Art. 27: Keine Langfristverträge für Erdgas mit Laufzeiten jenseits 2049.
	Art. 10-25 Verbraucherschutz , Bürgerenergiegemeinschaften, Smart Meter	Art. 31: H2-TPA: Verhandelter Netzzugang möglich bis 2030
	Art. 70: Verstärkte regulatorische Unabhängigkeit	Art. 46-50; 62-64: H2-Netzregeln <ul style="list-style-type: none"> • 47: Ausnahmen f. bestehende Netze • 49: Drittstaatennetze nur mit "IGA" EU & Drittstaat • 62: H2-Entflechtung: Eigentumsentflechtung oder "ISO"

Neuer Forschungsschwerpunkt: „Gasqualität“

(1) **‘natural gas’** means all gases that primarily consist of methane, including biogas and gas from biomass, in particular biomethane, or other types of gas, that can technically and safely be injected into, and transported through, the natural gas system;

(2) **‘renewable gas’** means biogas as defined in Article 2, point (28) of Directive 2018/2001, including biomethane, and renewable gaseous fuels part of fuels of non-biological origins (‘RFNBOs’) as defined in Article 2, point (36) of that Directive’;

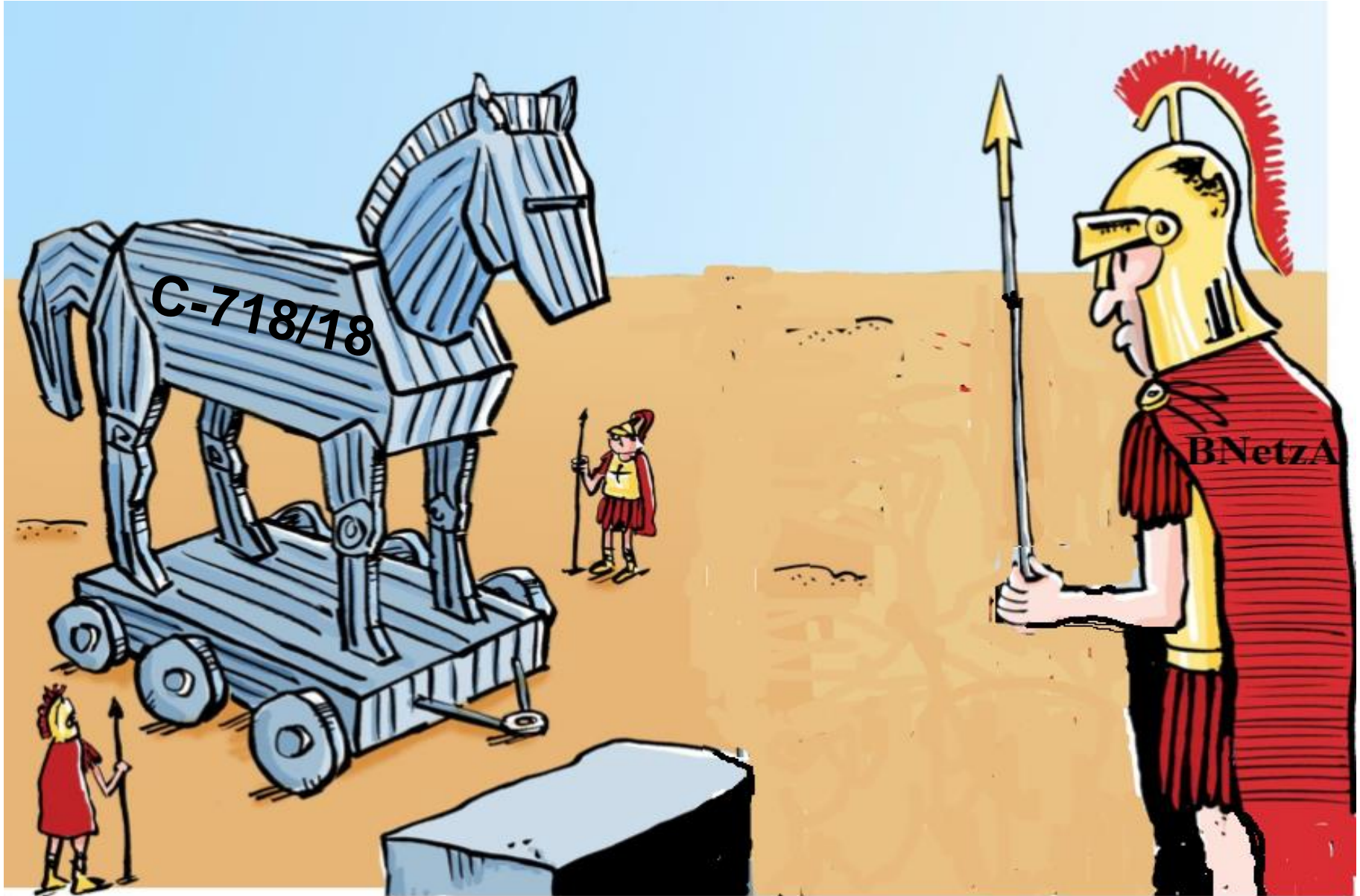
(3) **‘gases’** mean natural gas and hydrogen;

(10) **‘low-carbon hydrogen’** means hydrogen the energy content of which is derived from non-renewable sources, which meets a greenhouse gas emission reduction threshold of 70%;

(11) **‘low-carbon gas’** means the part of gaseous fuels in recycled carbon fuels as defined in Article 2, point (35) of Directive (EU) 2018/2001, low-carbon hydrogen and synthetic gaseous fuels the energy content of which is derived from low-carbon hydrogen, which meet the greenhouse gas emission reduction threshold of 70%.

- ***Bisher: strikte Kostenkontrolle (Netzregulierung)***
Ziel: Verhinderung von Zugangsbarrieren

 - ***Neu: erweiterter Zielrahmen***
Ziel: Wasserstoffförderung
- => Auswirkungen auf das Prinzip regulatorischer
Unabhängigkeit (EuGH 718/18)?***

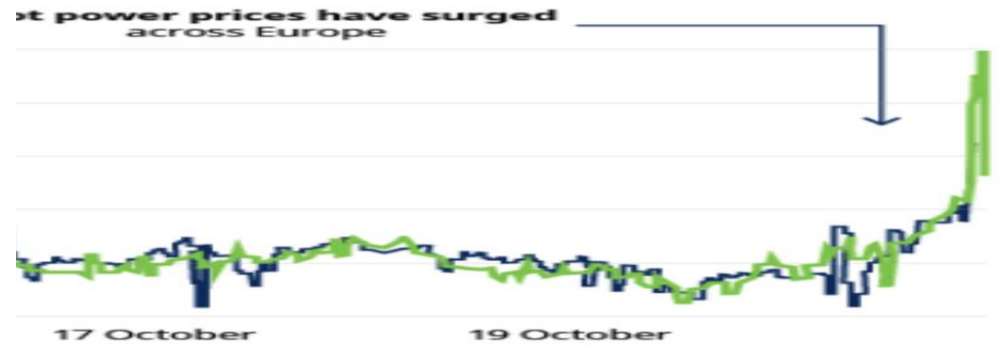


Ausblick:

***Ist das EU-
Binnenmarktmodell
zukunftsfest?***

Energy price surge:

Fundamental concerns... ...with EU energy markets



FINANCE

France asks the Eurogroup to decouple the price of electricity from gas

Le Maire said the crisis was “unfair, inefficient and costly” for citizens and businesses. He said he and his Spanish counterpart, Nadia Calviño, would ask the European Commission for better regulation of the bloc’s natural gas stocks and reform of EU rules to reduce price volatility.



European
Commission

Herzlichen Dank

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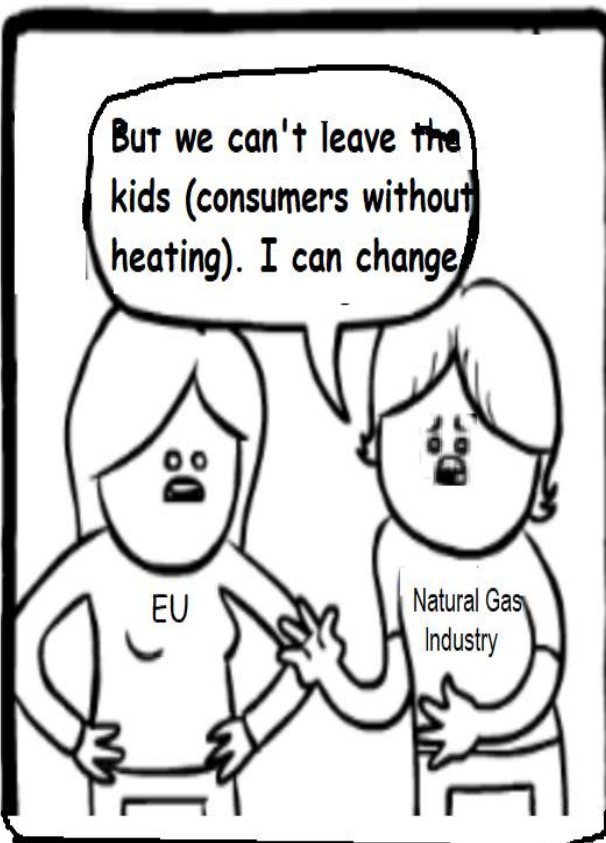
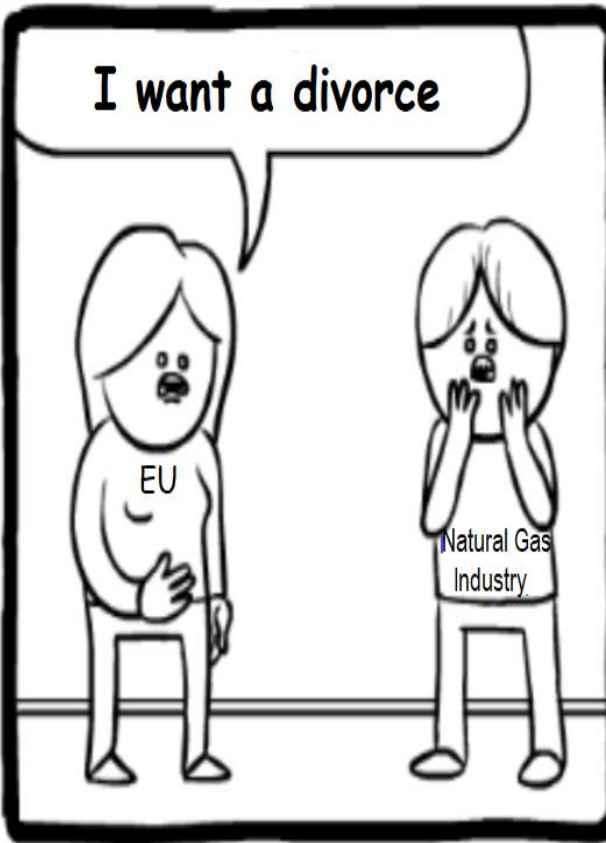
Energy

Green Deal
Phasing out a €100bn...

=>



New Regulatory Challenges
...business is not peanuts



ENTSOG-ENNOH transition period

Interim arrangements until ENNOH is set up and becomes

2023

ENTSOG

Infrastructure planning and development tasks under current TEN-E

Hydrogen Platform

(under EC lead with ACER and all stakeholders)

Scoping/developing topics, including:

- Market operation (e.g. capacity allocation, balancing, cyber security)
- Technical issues (e.g. interoperability, quality standards)
- Network codes scoping
- Security of supply issues

2024

ENTSOG

Infrastructure planning and development tasks under revised TEN-E

ENNOH

Network codes and technical specifications on:

- Market operation (e.g. capacity allocation, balancing, cyber security, data protection, energy efficiency)
- Technical rules (e.g. interoperability, quality standards)
- Security of supply
- Outlooks, monitoring/reporting and cooperation tasks

2026 onwards

ENNOH

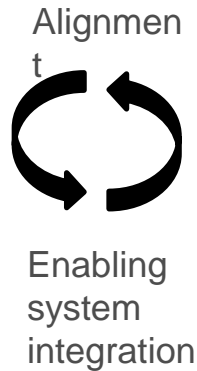
- Infrastructure planning and development tasks under revised TEN-E, hydrogen TYNDP
- Network codes and technical specifications (e.g. capacity allocation, balancing, cyber security, data protection, energy efficiency) and technical rules (e.g. interoperability, quality standards)
- Security of supply
- Outlooks, monitoring/reporting and cooperation tasks

Fostering integrated network planning

TEN-E/ EU TYNDP



- Joint scenario building
 - Electricity and gas(es)
 - 1.5°C Paris conform scenario
 - stakeholder involvement
- Separate plan ENTSO-E / ENTSOG
- H2 → PCI projects
- CH4 → **no** PCI anymore
- **All** TSOs involved
- Every two years



National Network Development Plan

current	proposed
Gas only scenario	Joint scenario
	1.5°C Paris conform
	Inclusion of relevant DSOs and other infrastructure operators
Investments only	information on decommissioning
	Location for P2G assets
Separate gas/elec plan	Separate gas/elec plan → enabling system integration plan
only ISO and ITO	All TSOs
Every year	Every two years

Challenges: Joint Asset Base - cross-subsidisation?

- **Current tariff control system:**
 - Addressing natural monopoly position
 - Strict criteria: Costs for gas network; efficient, non-discriminatory etc.; no cross-subsidisation
 - => Joint asset base *rather de lege ferenda*
- **Changes needed / opportune?**
 - Incentivises building up H2-networks
 - Repurposing gas pipelines is efficient
 - But: Departure from current regulatory model (no-cross subsidisation) justified?
 - Consequences for gas tariff control? Transparency needed.