1

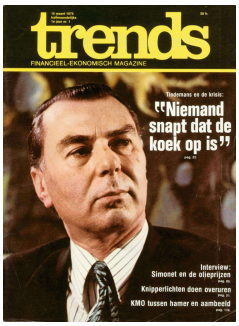
EU legislative train

https://www.consilium.europa.eu/en/policies/green-deal/timeline-european-green-deal-and-fit-for-55/

2

https://www.politico.eu/article/vladimir-putin-war-ukraine-accelerates-eu-fossil-fuel-detox/

3



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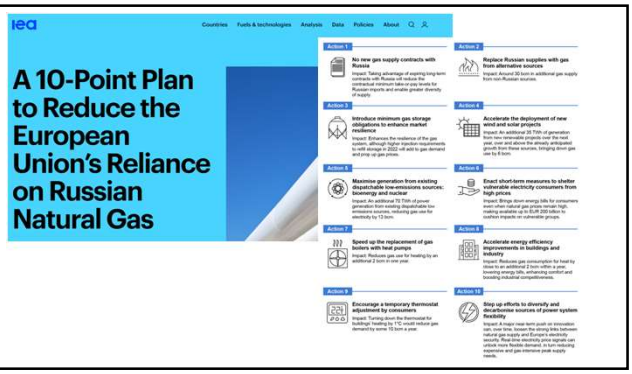
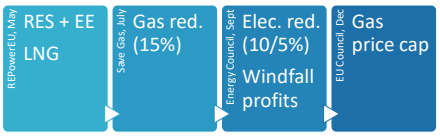


5

EU crisis response steps



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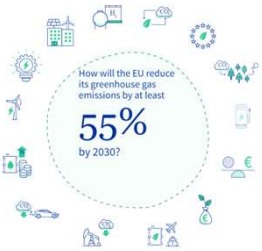
7

Green Deal

8

Fit for 55

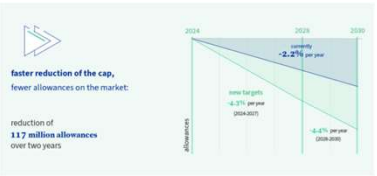


https://www.consilium.europa.eu/en/policies/green-deal/fit-for-55-the-eu-plan-for-a-green-transition/

9

Emissions Trading

- Power sector effectively decarbonises by 2035
- Phase out free allocation
- Expanded scope to maritime, buildings, road transport



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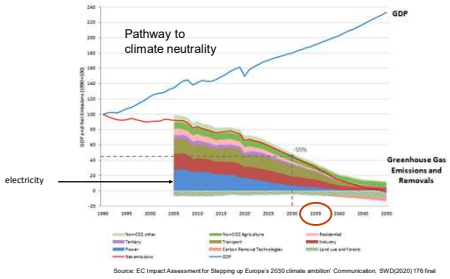
Electricity decarbonises first



11

Effort Sharing

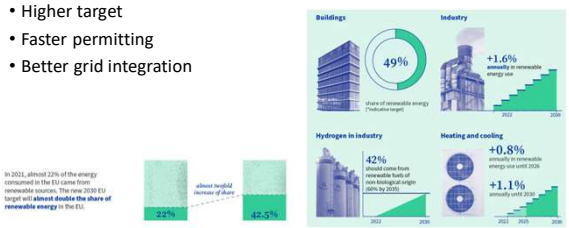
12

Carbon Border Adjustment Mechanism

13

Renewable Energy

- Higher target
- Faster permitting
- Better grid integration



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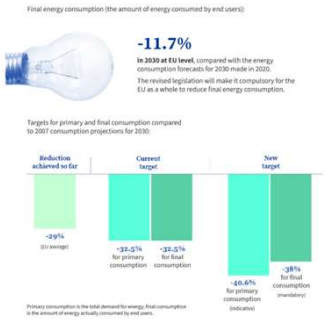
Energy Efficiency



15

Efficient district heating and cooling

Heat	RES	Waste	RES + waste	Cogen	Combo
<31/12/2027	50%	50%		75%	50%
>1/1/2028	50%	50%	50%	80%	Network >5% RES & RES+waste+cogen heat >50%
>1/1/2035	50%	50%	50%		System RES+waste+cogen >80% & RES+waste>35%
>1/1/2040	75%	75%	75%		System RES+waste+cogen >95% & RES+waste>35%
>1/1/2045	75%	75%	75%		
>1/1/2050	100%	100%	100%		

https://data.consilium.europa.eu/doc/document/PE-15-2023-INIT/en/pdf

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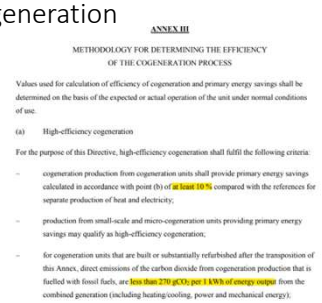
High efficiency cogeneration

- EED Annex III



ANNEX III

METHODOLOGY FOR DETERMINING THE EFFICIENCY OF THE COGENERATION PROCESS

Values used for calculation of efficiency of cogeneration and primary energy savings shall be determined on the basis of the expected or actual operation of the unit under normal conditions of use.

(a) High-efficiency cogeneration

For the purpose of this Directive, high-efficiency cogeneration shall fulfil the following criteria:

- cogeneration production from cogeneration units shall provide primary energy savings calculated in accordance with point (b) of at least 10 % compared with the references for separate production of heat and electricity;
- production from small-scale and micro-cogeneration units providing primary energy savings may qualify as high-efficiency cogeneration;
- for cogeneration units that are built or substantially refurbished after the transposition of this Annex, direct emissions of the carbon dioxide from cogeneration production that is fuelled with fossil fuels, are less than 270 gCO_2 per 1 kWh of energy output from the combined generation (including heating/cooling, power and mechanical energy);

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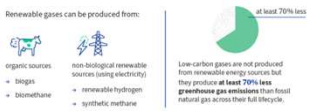
Renewable & low-carbon gases (not finalised)



- Create market for **hydrogen** (40GW electrolysis / 10Mt H2)
- Integrate renewable and low-carbon gases in network
- Engage & protect consumers
- Increase security of supply

Will it land < elections 2024??

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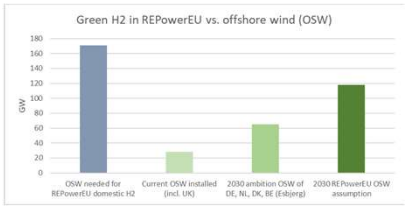

Ref: Bram Claeys, RAP

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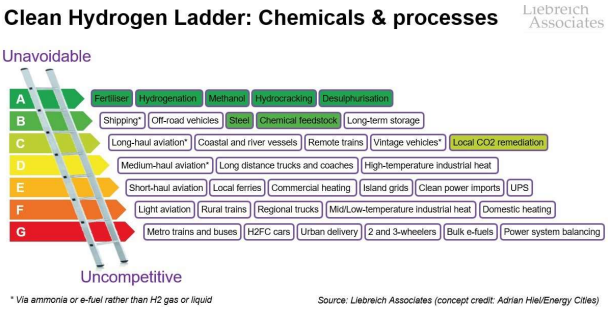

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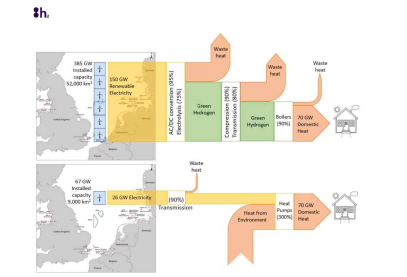

Fig. 1 Providing domestic heating in the UK using either Green Hydrogen or Heat Pumps. The colours of the arrows indicate the type of energy: electricity, green hydrogen or heat. The widths of the arrows are proportional to the power flows (in units of GW). The blue boxes show scaled areas of wind turbine farms on the maps. Red polygons on the maps are existing offshore wind turbine installations, which currently total approx. 10 GW.

https://h2scienceccoalition.com/blog/hydrogen-for-heating-a-comparison-with-heat-pumps-part-1/

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Current files

The race to the finish – ie. the 2024 elections

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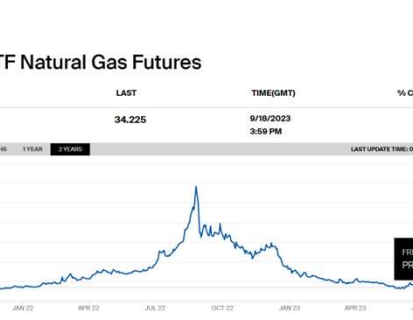
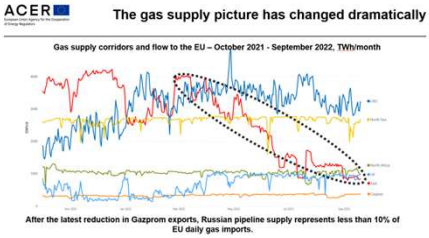


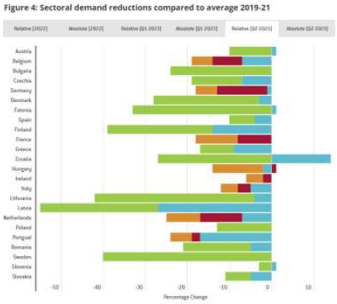
https://www.ice.com/products/27996665/Dutch-TTF-Natural-Gas-Futures/data?marketId=5614690&span=3

23



https://acer.europa.eu/sites/default/files/documents/Press%20releases/ACER-PR-04-22_Regulators-Vigilance_on_cross_border_flows.pdf

24



https://www.bruegel.org/dataset/european-natural-gas-demand-tracker

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Electricity market reform goals

Transition away from fossil gas

Demand side flexibility a **proper** resource + **More and faster** solar, wind = **Protected** basic consumer needs

Commission proposal in March 2023
Parliament opinion in July 2023
Council opinion pending…

https://www.euractiv.com/section/electricity/opinion/key-issues-at-stake-as-eu-electricity-market-reform-nears-finishing-line/

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Implement CE4ALL first

- Implement CE4ALL!
  - Require MSs to prioritise implementation of the CE4All before resorting to market interventions
  - Require MSs to impose appropriate efficiency or flexibility obligations on energy users and producers seeking crisis aid.
  - Increase public benchmarking of MS compliance with IEM legislation.

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Independent System Operation

- Develop an EU transition pathway from a national TSO to European ISOs within a transmission and set timeframe.
- Implement new entities on the distribution level and move or develop regional distribution operations as required by the network and ownership structure.
- Transition spot market operations to ISOs.

https://blueprint.raponline.org/independent-system-operators/

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Further reading

- Power System Blueprint https://blueprint.raponline.org/
- Joy of Flex https://www.raponline.org/knowledge-center/joy-flex-embracing-household-demand-side-flexibility-power-system-resource-europe/
- EU policy to accelerate the fossil gas phaseout https://www.raponline.org/knowledge-center/turning-off-gas-stronger-coherent-eu-policy-accelerate-fossil-gas-phaseout/
- Price Shock Absorber https://www.raponline.org/knowledge-center/price-shock-absorber-temporary-electricity-price-relief-during-gas-market-crisis/
- Key issues at stake https://www.euractiv.com/section/electricity/opinion/key-issues-at-stake-as-eu-electricity-market-reform-nears-finishing-line/

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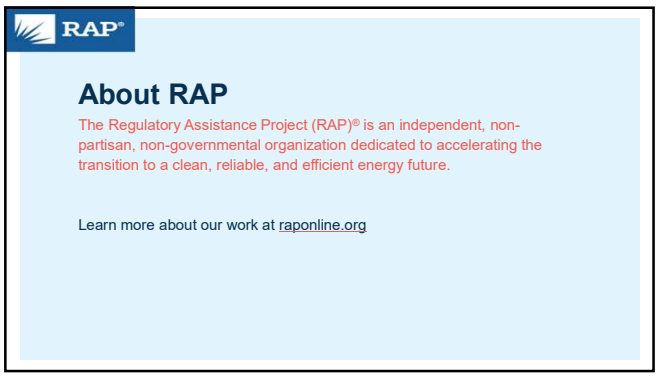
RAP
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