2030 Winter Package "pave the way for smart retirements?"

Christian Schaible, European Environmental Bureau ClientEarth /RAP Winter Package Symposium 1st March 2017

outdated & under-performing (coal) thermal generation on other pollutants (1/4)

- <u>54% of the EU coal-fired power stations not compliant with Industrial Emissions</u> <u>Directive (IED) Safety net limits (derogations to end mid 2020 / 2024)</u>
- The revised LCP Best Available Techniques Reference Document (revised LCP BREF) sets binding environmental performance (air/water) for next decade with Environmental Quality Standards (EQS) applying on top (~2800 LCPs)
- <u>81% of EU coal-fired power stations are not compliant with the revised LCP BREF</u> (upper limits) (2021: 111GWel out of 137GWel)
- bad net electrical efficiencies "performance"

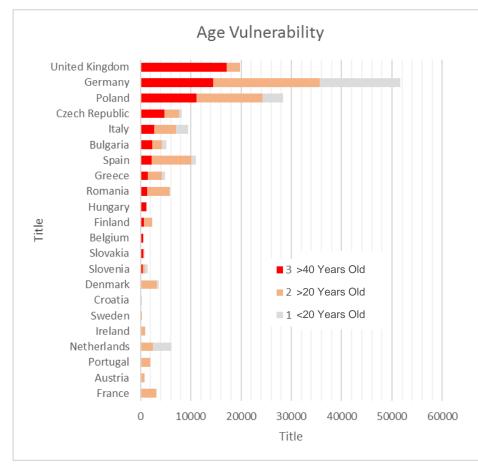
| Fuel type | EU average | BAT |
|-----------|------------|---------|
| Lignite | 35.4% | >42-44% |
| Hardcoal | 37.8% | >45-46% |

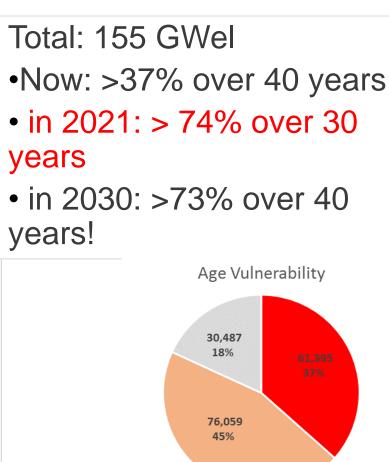
>1000MWthermal units baseload. Actual estimate from NGO/CAN-EU coal database





outdated & under-performing (coal) thermal generation (2/4) Outlook: Age Profile (coal/lignite)







EU has outdated & under-performing (coal) thermal generation on other pollutants (3/4)

 Permit reviews and stricter national laws (EEB focus) trigger investment decisions (2017-2021)

| Fuel type | OPEX (M €/yr) | CAPEX M € |
|-----------|---------------|-----------|
| Hardcoal | 1,321 | 8,617 |
| Lignite | 936 | 5,911 |

NOTE : lenient BAT range Source: ECF (DNV) study

Member States need to develop National Air
Pollution Control Programmes to meet 2030 NEC-D commitments



CLEARING THEAIR A CRITICAL GUIDE TO THE NEW NATIONAL EMISSION CEILINGS DIRECTIVE





Impact of Coal LCP retirement:

-BG, CZ, RO meet immediately SO2 NEC-D commitments -DE, IT, PT, ES, SK, SL significantly ease SO2 NEC-D commitments (>60% cut)

-**BG, CZ, POL** significantly ease NOx NEC-D commitments (>60% cut)



The missing link (environmental & health impacts) (4/4)

| Illustration 257 coal power plants only (43% of total fossil) | Premature deaths/year | Externalised costs in Billion €/year |
|---|--------------------------|---|
| Baseline (2013) | 22,900 | ~33.3-63.2 |
| BAT (lower range) | 2,590 (56/day) | 3.7 (154M/day) |
| BREF (upper range) | 8,900 | 12.8-24.3 |







HEALTH AND ECONOMIC IMPLICATIONS OF ALTERNATIVE EMISSION LIMITS FOR COAL-FIRED POWER PLANTS IN THE EU





GREENPEACE

Conclusions (1/2)

- Intervention by 2020 is too late, by 2020 the damage is done and overcapacity of coal is continued
- WARNING: Existing coal generation capacity is trying to receive money for retrofits to comply with 2021 IED-BAT norms to keep running

Possible entry points 2030 WP (in particular Electricity Regulation):

- Need for "performance based service delivery" principle v. "technology neutrality" (fake and misused principle)
- Require mandatory "transition plans" in European <u>resource</u> adequacy assessments (Art. 19) to organise replacement of unsustainable/unfit generation capacities & compability with EU Environment protection acquis (e.g. IED, NEC-D, EQS, SDGs, pre-conditionality of full implementation of RES-E and EE action plans/potential)
- Tighten significantly the Cap Payments provisions (Art. 23) to ensure coherence and synergies with climate ambition and environment protection acquis (priority for Energy conservation & RES-E, last choice combustion techniques with 'state of the art' standards e.g. 350g CO2eq/KWh, 60% net electrical efficiency and 85% net biomass fuel utilisation for CHP. Beyond BAT performance)
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Conclusions (2/2)

Other entry points (EU):

- "market based approach" to not undermine "command and control / performance based approach" (e.g. remove Art 9.2 of the IED, tighten EU safety net)
- Update the State Aid rules for environmental protection and energy (2014-2020)

Triple benefits of "transition plans / smart retirement":

- addressing climate imperatives
- high level of environmental / health protection
- set the path towards sustainable energy conservation & generation within the <u>Energy Union</u>



Thank you for your attention !

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