Phasing out coal in the French energy sector

The decarbonisation perspective of the French power sector and its possible social and employment effects.

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Phasing out coal in the French energy sector

- In August 2015, the French Parliament has adopted the Energy Transition for Green Growth Act which establishes the French National Low-Carbon Strategy (SNBC).
  - GHG emissions reduction of 40% by 2030 compared with 1990
  - GHG emissions reduction of 75% by 2050 compared with 1990 (“factor 4” scenario)

- This plan has been backed by the newly elected President Emmanuel Macron. In July 2017, Nicolas Hulot, Minister of the Ecological transition has presented a new 5-year climate plan, which sets out even more ambitious objectives:
  - Carbon neutrality by 2050
  - Deep decarbonization of the French energy mix by 2040

- In this context, the government has decided to shut down the 4 remaining coal-fired power plants (+2 oil-fired power plants) by 2022.
  - Cordemais, Le Havre (EDF), Gardanne & Saint-Avold (German Uniper)
  - Installed capacity: 5x600 MW – Annual production capacity: 3 GW/h (1,2% of French electricity production)
  - According to “Union Française de l’électricité”, the coal sector represented, in December 2017, a total 1200 of jobs (direct + indirect jobs, production, maintenance, supply-chain).

- The French government has announced the implementation of “Just Transition” measures for workers who are going to be affected (Ecological transition contracts)
Coal-fired power plants in France (2016)
France GHG emissions, TPES & electricity generation by source

GHG emissions by sector - France (2015)

- Energy; 9%
- Agriculture; 17%
- Residential; 16%
- Industry / construction; 22%
- Transport; 29%
- Waste; 4%
- Other; 4%

TPES & electricity generation by source (France, 2015, IEA)

- Energy; 9%
- Agriculture; 17%
- Residential; 16%
- Industry / construction; 22%
- Transport; 29%
- Waste; 4%
- Other; 4%

- Coal
- Oil
- Gas
- Hydro
- Nuclear
- Biofuels
- Wind
- Geothermal
- Solar
CO2 emissions per KWh of electricity produced
Coal consumption by sector (1970-2015)
The French National low-carbon strategy (SNBC)
The French National low-carbon strategy (SNBC)

The strategy is based on reference scenario, which includes 22 cross-cutting recommendations and 45 sectoral ones

- **Examples of cross-cutting recommendations**: systematic consideration of carbon footprint issues in the decision-making process (legislation, public funding, etc.), awareness-raising, redirecting investment, price and tax incentives, support for R&D and innovation, favour regional planning...

- **Sectoral recommendations and concrete objectives set for 7 sectors**:
  - transport
  - Residential – tertiary
  - Agriculture
  - Forest - Timber – Biomass
  - Industry
  - Waste
  - Energy production

- **Strategy based on 4-5 years carbon budgets** – monitoring, evaluation and policy review at the end of each period

- **Participative process & strong regional dimension**

- **Positive impacts expected over GDP & employment over the cycle**
The National Council for Ecological Transition (CNTE) is the forum for dialogue on ecological transition and sustainable development.

- The council, chaired by the minister in charge of ecology, is composed of 6 colleges and brings together 50 members (NGOs, unions, business organisations, experts, regional authorities and parliamentarians).
- It is consulted on draft legislation relating to environment and energy as well as on national strategies (sustainable development, biodiversity, low-carbon transition).

The council meets approximately once every two months in plenary session.

- It may set up specialized committees, which purpose is to deal with a specific topic, within a mandate approved by the Board in plenary.
The fight against global warming is one of the main priorities of the new French presidency (“Make our planet great again”).

Nicolas Hulot climate plan aims at speeding up the low-carbon transition. More ambitious measures have been announced, in terms of:
- energy efficiency of building
- circular economy
- transport
- renewables, etc.

In the energy sector, the climate plan targets:
- the closure of all remaining coal-fired power plants by 2022
- the end of fossil fuel extraction by 2040
- a decrease of the share of nuclear power to 50% of the total electricity production.
- **Cordemais (EDF, 1983)**
  - Coal (2x600MW) + oil (700 MW)
  - 25% of total electricity consumption of the Pays de la Loire region
  - 411 employees + 250 employed by subcontractors
  - Modernized in 2015
  - Biomass co-firing project

- **Le Havre (EDF, 1963)**
  - Only coal
  - 600 MW (1200 MW decommissioned in 2013)
  - 250 employees
  - Modernized in 2015
- **Gardanne (Uniper, 1984)**
  - Coal
  - 297 m. high chimney
  - 180 employees
  - Biomass project

- **Emilie – Huchet (Uniper, 1981)**
  - Gas + coal
  - 250 employees (100 jobs suppressed since 2012)
Ecological transition contracts

- Global operational approach aimed at linking the environmental, economical and social aspects of the low-carbon transition

- Objective: favouring and speeding the transition towards the low-carbon economy, ensuring a just transition for regions and workers affected.

- Contracts signed between the regional authorities and the State

- All stakeholders can join (NGOs, cities, universities, trade unions, companies, etc.)

- Pilot phase to be launched in 2018 (20 experimental contracts, including 4 for the coal power plants to be closed)

- 15 bln of public investment