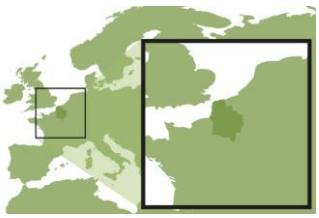
STATES & REGIONS

Partner region profile – Hauts-de-France

Energy Transition Platform | May 2016

Socio-economic facts



Hauts-de-France, France

Population: 5,973,098 (2016) | **Area**: 31,813 km^2

Landscape: mainly plains and 50% of French brownfield sites located there

GDP: US$174,2 billion (2015) | **GDP/capita**: US$26,570

Economic sectors: 75% services | 22% industry: automobile, manufacturing, metallurgy, textile and mining

Jurisdictional power: centralized

Key department: Department of Citizenship and Land, International and Regional Partnerships office

During the 20th century, Nord-Pas-de-Calais (a region that recently merged with Picardie to become Hauts-de-France) was known as the "factory of France" – characterized by the prominence of heavy industries and an economy based on coal mining, steel production and textile manufacturing.

Historically, the region is highly industrialized, with levels of employment in the industry sector above the national average[1]. However, some of the major industries disappeared in the late 1990s after the intensification of international competition and the structural shift of the economy towards services. The automobile industry remains strong today, employing 31,300 people and ranked second nationwide[2].

[1] http://www.lemonde.fr/elections-regionales-2015/article/2015/11/26/nord-pas-de-calais-une-region-defavorisee-et-en-tres-grande-difficulte_4818291_4640869.html

[2] http://www.insee.fr/fr/themes/document.asp?reg_id=19&ref_id=12847

Today, the majority of people are employed by the service sector, with only 19% still working for the industry sector. The level of employment in low-tech industry has fallen by 46% between 1993 and 2010, compared to 9.9% in the medium-tech industry (equipment, automobile and chemistry)[3].

Coal mining was slowly replaced by nuclear energy, with the last coal mines being closed in 1990. Today, nuclear power accounts for 80% of the electricity production in the region[4] but for only 15% of the overall energy consumption.

Following a French law reforming the administrative division of regions, Nord-Pas-de-Calais has merged with Picardie in January 2016 to form the new region of Hauts-de France.

Energy system and energy policy

Hauts-de-France is a highly energy-consuming region, due to its strong industrial background and intense road transport transit. Today, the region mainly generates nuclear power, but also operates oil refineries and constitutes a transit route for gas.

Renewable energy consumption is low compared to the national average (3.7% against 19% in France). This is explained by the fact that France has mainly developed hydropower and wood power since the 1970s, while hydro sources in Hauts-de-France are scarce and forests only account for 14% of the regional territory (compared to 28% for the national average). Hauts-de-France is nevertheless the second biggest producer of wind energy in France, with 2,183 MW of installed capacity[5].

Energy resources (in ground & production)	In-ground resources: large quantities of coal deposits (not exploited anymore), uranium, renewable sources (wind, solar, waste, biogas) Electricity production: nuclear power (80%); thermal power from coal and gas (16%); wind power (2.3%); thermal power from renewables (1%)
Energy mix: consumption by sources and sectors	Sources: gas (29%); petroleum products (28%); solid mineral fuels (22%); electricity (19%)[6] Sectors: industry is the most energy consuming sector (49% of regional consumption for Nord-Pas de Calais)
Renewable energy consumption	Renewable energy contributed to 3.7% of the electricity supply (2012): biomass, biofuels and wind energy[7]
Imports/exports	Imports: petroleum products and coal[8] Electricity exchanges between Hauts-de-France, Belgium and the UK
Energy market structure (privatized/monopolized)	Electricity and gas markets open to competition since 2007; result of EU Directives creating the EU Energy Market.

[3] http://travail-emploi.gouv.fr/IMG/pdf/NPdC_20_ans_de_recomposition_economique.pdf
[4] http://www.rte-france.com/sites/default/files/be_regional_2012_nord_pas-de-calais.pdf
[5] Atlas de la nouvelle région Nord-Pas-de-Calais – Picardie, Tome 8 Environnement
[6] http://www.nord-pas-de-calais-picardie.developpement-durable.gouv.fr/?Un-profil-de-consommation
[7] http://www.rte-france.com/sites/default/files/be_regional_2012_nord_pas-de-calais.pdf
[8] ibid

Third Industrial Revolution

The Third Industrial Revolution Master Plan was released in 2013, in collaboration with Jeremy Rifkin, to make the economy of Nord-Pas-de-Calais more resource-efficient, productive and sustainable. Actions include a shift towards renewable energy sources, large-scale retrofitting and refurbishing of buildings as well as land conversion, energy storage planning, smart grid development and clean transportation scale-up.

These challenges will be addressed transversely; the Third Industrial Revolution platform is providing a single and integrated infrastructure for businesses and regional entities to participate in the transition to a more sustainable economy.

Regional Climate, Air and Energy Scheme

Road map supporting the region in the fight against climate change and the transition to low carbon and efficient energy systems. The document contains a list of 47 concrete guidelines, both transversal and sectoral, based on two premises:

- Energy efficiency: improvement of energy efficiency in buildings, change in consumption habits of households, switch from individual and energy intensive transportation modes to collective and low carbon ones; and
- Land use efficiency: limitation of urban development to protect agricultural lands and natural soils.

ERDF-ESF Fund (European Regional Development Fund and European Social Fund)

Investment fund created to follow up on the work of the Third Industrial Revolution plan and help the region achieve a low carbon economy. Businesses and Special Purpose Vehicles implementing projects with a link to the objectives of the Third Industrial Revolution will receive funding to support the development of new technologies among other things. 26% of the budget is dedicated to sustainable development and implementing a low carbon economy. Several other financial tools are available to implement the energy transition in the region.

Climate targets (Nord-Pas-de-Calais):

Reduce GHG emissions by 20% by 2020; divide them by 4 by 2050 (2005 levels)

Renewable energy sources to contribute to 12% of the energy mix by 2020

Reduce energy consumption by 20% by 2020, and 64% by 2050

Climate plan:

Climate Regional Strategy - SRADDT

Energy transition experience

With a strong industrial background, a currently small share of renewables, high levels of energy consumption and potential sources of energy savings, there is a significant opportunity for Hauts-de-France to start the energy transition. Additionally, the regional economic background is favorable: several innovative and proactive small and medium enterprises (SMEs) and powerful research & development laboratories are based in the region, and a significant number of jobs has been created in the energy sector. With 11,000 new jobs, it now counts 16,582 employees representing 7% of the industry sector[9].

Recognizing the region's potential to drive the energy transition, the Government of Hauts-de-France has engaged with regional businesses and the civil society to map out what a "Third Industrial Revolution" could look like. This initiative resulted in the publication of a Master Plan in 2013, providing guidelines to not only start the energy transition, but also to become a leader in the field[10].

Such a transition will require a significant investment of around €6 billion per year. It is expected to create more than 160,000 jobs[11]. To date, €500 million per year has already been invested, and impactful projects have been implemented including Zero Carbon University, Intelligent Electricity Networks, Smart Mobility etc.[12]

[9] http://energie2020.fr/lenergie-en-npdc/filiere-energie-en-nord-pas-calais/
[10] The Third Industrial Revolution
[11] Ibid
[12] http://rev3.fr/mieux-comprendre/

Other challenges include the involvement of citizens – that can be facilitated through increased communication around the energy transition, employment opportunities and financial benefits – as well as the mobilization of corporations and SMEs. Strengthening the implementation of regional energy and climate strategies at the local level is also a key priority to make the energy transition a success.

Climate policy and instruments

Hauts-de-France intensified its efforts to combat climate change with the adoption of an innovative regional plan bringing together climate, air and energy issues. A 20-year partnership with ADEME (French Environment and Energy Agency) helped the region develop the required expertise and capacity to create and implement impactful projects.

With greenhouse gas (GHG) emissions per capita reaching higher levels than the French average (30% higher) and mainly attributed to the industry sector, there is a strong opportunity for Hauts-de-France to develop strategies to reduce emissions in these areas[13].

Climate regional strategy – SRADDT (Stratégie régionale climat)

This document is laying down the region's strategy up to 2050 in Nord-Pas-de-Calais, and setting an overarching target to divide GHG emissions by 4 by 2050. This strategy is in line with the national commitments embedded in the legislation "Grenelle 2" from 2010. The strategy is currently under review.

This regional plan is organized around 4 pillars:

- Improvements of way of life and production methods;
- Continuation of the energy transition;
- Integration of mitigation and adaptation actions in territorial planning; and
- Enhanced governance and participation of local actors.

Contact

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Sources:
Climate Regional Strategy
Third Industrial Revolution
Region Hauts-de-France – Climate Change

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[13] Climate Regional Strategy