Energy Transition in France: What issue for a unique in depth debate?

June 16th, 2014

37th IAEE International Conference
New York City, USA
A political vision for a new energy system

► French President election: May 2012

► September 2013: nation’s Environmental Conference

► President François Hollande set an ambitious goal for the country:
  - to make France a nation of environmental excellence by signing up to the international and European frameworks concerning the environmental challenges:

  1. lever for economic and environmental development,
  2. job creation,
  3. increased spending power,
  4. competitive advantage for businesses.
The Environmental Conference was underpinned by the principle dialogue between multiple stakeholders

- NGOs,
- trade unions,
- employer organizations,
- local authorities,
- the State and a greater involvement of members of parliament.

Complemented by other governmental projects such as

- the social conference,
- the next phase of the decentralization process
- the competition policy
The energy transition strategy is based on 3 principles:

- energy efficiency and sobriety
- the priority given to renewable energies
- reducing the proportion nuclear holds in the energy mix, from 75% to 50% by 2025

Goal: to determine the most economically and environmentally sound and socially fair way to initiate the energy transition

Process: a nationwide debate in 2013 on the energy transition in view of introducing a programming bill in 2014
The National Debate on Energy Transition Challenge

Historical energy policies were decided for decades from Paris administrations.

From 2007 to 2010, a first debate on the environment was launched, a law on carbon tax was proposed but never passed.

In 2011, Energy Minister launched the 2050 Energy Commission under Jacques Percebois presidency: main findings on 2050 scenarios to decarbonize the energy mix.

The 2013 debate revealed social acceptation concerns.

The goal became during the debate:

\[
\text{how to accommodate energy economics and social acceptance?}
\]
National Debate on Energy Transition (DNTE): 4 scenarios

- **SOB**
  - NégaWatt
  - Greenpeace
  - WWF
  - Global Chance

- **EFF**
  - ADEME
  - GRDF
  - ANCREsob
  - ENCIOCARBrenf

- **DIV**
  - ANCREdiv
  - RTEenouvmix
  - DGECame

- **DEC**
  - Négatep
  - RTEmed
  - ANCREele
  - UFE

**Total final demand**
(except non energy consumption, except air and water heat)

Source: Carbon 4 consulting company
Methodology
Comparing the 4 debated scenarios

1. Energy demand evolution

2. Energy supply
   - Which energy vector to prioritize?
   - Which energy source for a vector?

Model assumptions
(exogenous variables)

Energy transition instruments
(public policies, technological development, etc)

Energy transition instruments’ impacts

Energy demand and supply evolution by scenario
(Priamary/final energy demand in Mtep by sector, energy mix)

Source: Carbon 4 consulting company
Scenarios for energy transition in France: Housing

Instruments impact and results

- Final energy demand for housing: scenario DEC
- Final energy demand for housing: scenario DIV
- Final energy demand for housing: scenario EFF
- Final energy demand for housing: scenario SOB

Source: Carbon 4 consulting company
Scenarios for energy transition in France

Transport

Final energy demand for transport: scenario DEC

Final energy demand for industry: scenario DIV

Final energy demand for industry: scenario EFF

Final energy demand for industry: scenario SOB

Instruments impact and results

Source: Carbon 4 consulting company
Final energy consumption and fossil fuel consumption decrease

Instruments impact and results

Final energy consumption decrease in 2030 and 2050 compared to 2010

Final fossil fuel consumption decrease in 2030 and 2050 compared to 2010

Source: Carbon 4 consulting company
Scenarios have been discussed. Key findings

- Many local initiatives are proposed
- The ways to reach the targeted share of nuclear in power generation are still debatable and involve solving lots of issues
- The regulation is challenged as the current market design may not fit with the proposed solutions.
- Finally, smart grids are likely to become the major degree of freedom

- Need to account for competitiveness, social acceptance and environmental concerns.

The National Council for Energy Transition (CNTE) is preparing the Bill to be voted by the Parliament
Today, according to the Debate agenda, the draft programming Bill should be discussed in the Parliament.

As of today (June 16th, 2014) no draft Bill has been proposed by the French Government.

Stakeholders are pushing for their privileged options, amongst which:

- Go/no-go for €50 billion to revamp and life extension of the nuclear fleet
- Update market design including high REN penetration (capacity markets, subsidies levels and extension, …)
- …

Concurrently another major reform is been prepared on a regional governance reshuffling.

Advice: please Google “energy transition” in French websites….
Active energy markets and policies discussions in French IAEE Affiliate conferences

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THANK YOU
END
The draft Programming Bill