The French Energy Transition

Michel Colombier

michel.colombier@iddri.org

Institut du Développement Durable et des Relations Internationales
41 rue du Four – 75006 Paris - France
www.iddri.org

The French debate on the energy transition 2013

Context:

- -75% reduction of GHG emissions by 2050 (legally binding)
- EU energy and climate package 2020
- Reducing nuclear power's share in the power mix to 50% by 2025
- COP 2015 in Paris

Objectives:

- Define trajectories to achieve existing objectives in a sustainable, affordable and socially acceptable manner
- Provide specific orientations to policy makers regarding the required measures
- Societal consensus and awareness raising

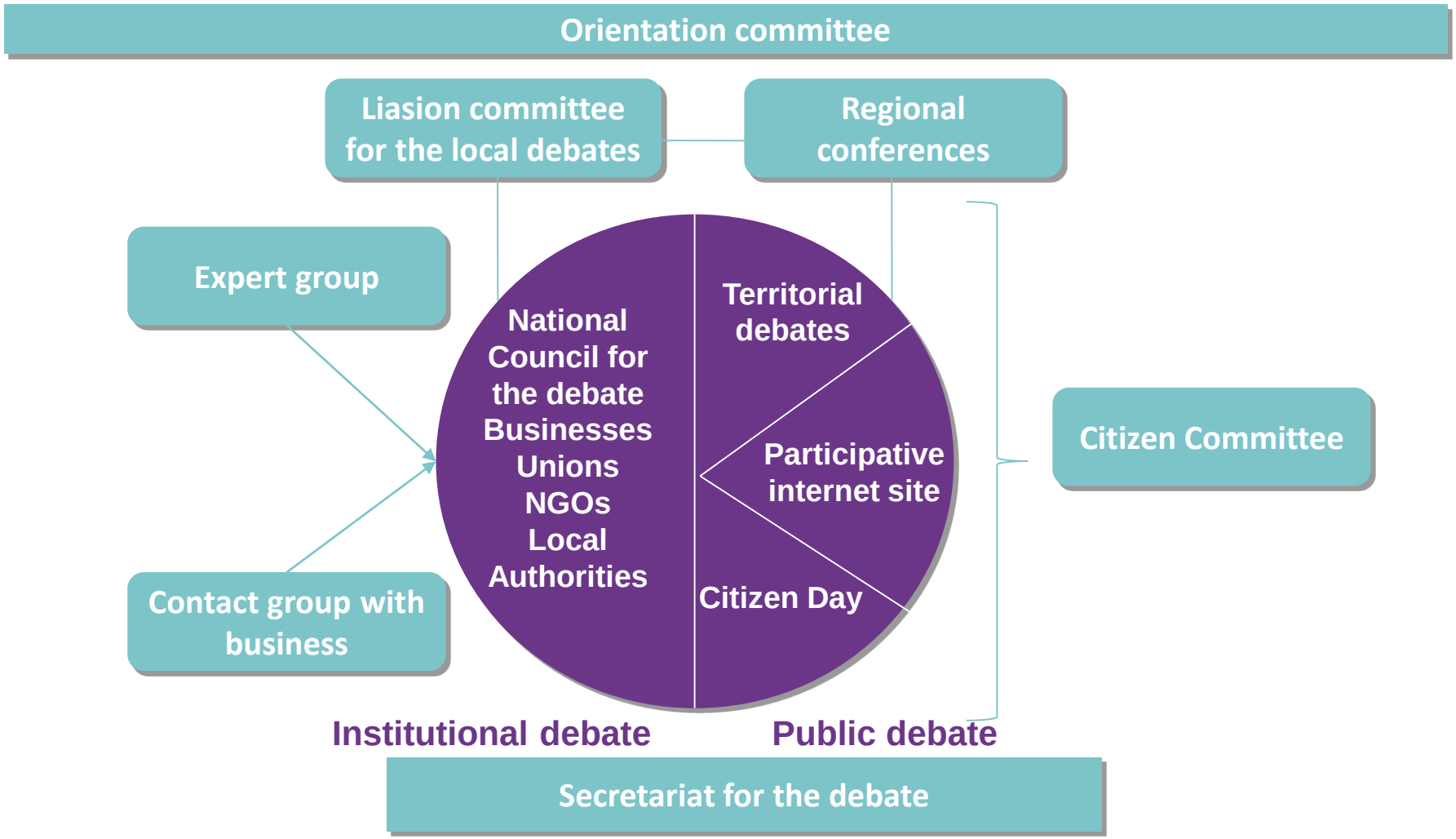
Structure and organization of the debate

- November 2012 – July 2013
- The National Council: multi-stakeholder configuration, 7 groups, 112 members
- 8 working groups (total of 200 participants)
- Expert committee : 60 members + associated experts

Public participation:

- 1000 « labelized » local debates, 200 000 participants
  - « Energy days »
  - Citizen day (World Wide Views method, Danish Board of Technology)
  - Citizen committee

The Debate on Energy Transition



4 Visions for the Energy Transition in France

Objectives:

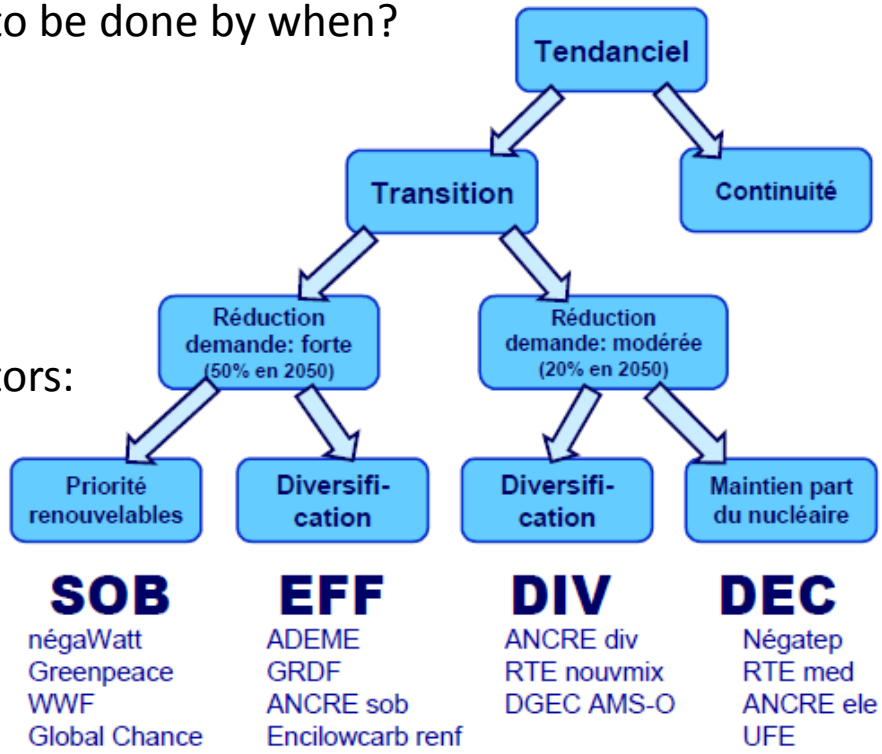
- clarify conditions of feasibility, uncertainties and impacts of different policy options and trajectories
- Dynamic visions and time horizons: what has to be done by when?

Methodology:

Focus on existing energy scenarios distilled into 4 trajectories

Development of a common template with indicators:

- ➢General vision, modeling tools and method
- ➢Energy supply & demand indicators
- ➢Demographic and economic evolution
- ➢**Socio-economic indicators**



Harmonized impact analysis (GHG, economic impacts)

Convergence, controversies,uncertainty

1. **Progressive convergence on key pillars of the transition**
   a) Increasing overall efficiency (industry, building transport)
   b) Changing the structure of final energy (energy carriers)
   c) An increasing role for renewables, no CCS
   d) The need for a diversified policy approach (price, regulation, incentives, etc)

2. **Controversies remain**
   a) Sufficiency / emerging behaviours
   b) Electricity demand (increase versus stable)
   c) Role of nuclear/strategy (reduced capacity?)
   d) The need for shale gas

3. **Uncertainties, unsolved controversies** : The need for a dynamic approach: periodic revision of medium term objectives, based on learning process (monitoring/evaluation)
   a) Boundary conditions (international prices, technologies…)
   b) Successes / failure of policies

WHAT ABOUT NEIGHBOURS IN THIS PROCESS?

Energy Transition Law and implementation

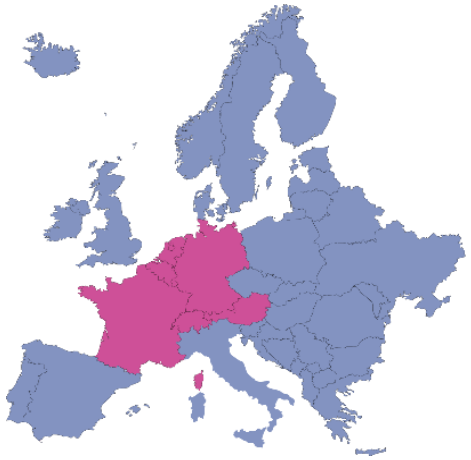
1. **Energy Transition Law** (July 2015)
   a) Long term and medium term objectives on emissions, total energy consumption, respective shares of renewables, fossil and nuclear
   b) A set of sectoral framework and institution

2. **National « Low Carbon » Strategy** (sept 2015)
   a) 15 year horizon, revised every 5 year
   b) Global Carbon budget, indicative sector /gas allocation
   c) Sectoral strategies (industry, buildings, transport, agriculture)

3. **Pluriannual Energy Plan** (currently under public consultation, tbp nov 2016)
   a) 5+5 year horizon, revised every 5 year
   b) Quantitative Energy sectoral/technology objectives
   c) Government mandatory framework, alignment of private decision making

The interdependance of power transitions

1. Common understanding of options, objectives, timeframe
2. Still local circumstances and politics, history, assets => different visions
3. Common ground on policy space (including C pricing, market design, etc)
4. Implementation / synergies and conflicts / sovereignty and co operation
   a) Flexibility, interconnexion, market rules, back up & storage capacity
   b) Exploring strategic decisions and their mutual implication



Transport : the need for a common language

1. « Domestic » objectives
   a) 2 l car
   b) Modal shift / aviation?
   c) Combi truck&train services

2. Transport is key
   a) Increasing E consumption and emissions + environement
   b) Competitiveness (freight and passengers) and social cost
   c) Car industry
   d) Market organisation

3. We can have different strategies, we need competition, but we need to build common ground on
   a) The « bricks » (innovation on fuels, cars, services)
   b) The systems
   c) The policy drivers

   TO MAKE IT POSSIBLE to eventually build common governance

Governance of the transition

- The 2050 vision is no « grand plan », it’s an indicative map (objectives, options) to guide short term policy decision
- But the policies may not bring us exactly where we were supposed to go (and in the meantime the map will be revised)
- Transition needs also ownership and engagement by all, not a marginal process
- Limits of a top down governance, at the same time we need to build concerted visions, cooperation and common instruments
- Need to exchange on visions (what, why?) and implementation.