

# The French energy transition law for green growth

*March 2016*



# A broad consultation and a rich democratic process

- **S1 2013:** national debate on energy transition
- **S1 2014:** stakeholders consultations on the draft law
- **July 2014:** presentation of the draft law the Council of ministers
  - Transition to a low carbon society with a focus on energy efficiency and renewables
  - Mobilize stakeholders, seize the opportunities for green growth, job creations and competitiveness
- **S2 2014 - S1 2015:** successive readings in Parliament and final adoption during summer 2015
  - ✓ 150 hours of public discussion
  - ✓ 212 articles

August 2015  
The act has been promulgated



# An integrated approach

- **Title I – Define targets** to achieve the energy transition, reinforce energy independence, competitiveness and fight against climate change
- **Title II – Renovate buildings** to save energy, cut bills and create jobs
- **Title III – Develop clean transports** to improve air quality, protect health and fight against climate change
- **Title IV – Develop waste prevention and valorization** and promote circular economy
- **Title V – Promote renewable energy** to create a balanced mix and optimise local resources
- **Title VI** – Reinforce **nuclear safety** and public information
- **Title VII – Simplify & clarify procedures** to increase efficiency and competitiveness
- **Title VIII** – Provide citizens, companies and territories with the **tools to act together**

## Clear and ambitious targets



40% less greenhouse gas emissions in 2030 compared to 1990



30% less fossil fuel consumption in 2030 compared to 2012



Increase the share of renewable energy sources to 32% of the final energy consumption in 2030 and 40% of the electricity production



Reduce final energy consumption by 50% in 2050 compared to 2012



- 50% less waste in landfill by 2025



Diversify electricity production and reduce the share of nuclear power to 50% by 2025

### Non-ETS carbon price targets : 56 €/tCO<sub>2</sub> in 2020 and 100 €/tCO<sub>2</sub> in 2030

- for the carbon component of the domestic tax on consumption of energy products (TICPE)
- gives a long-term perspective for investments and behaviours
- offset by a tax reduction for products and services contributing to the energy transition

# Consistency with EU policies

## Energy Union

- **2030 climate and energy framework:** quantitative targets for GHG emission reduction, renewable energies and energy efficiency
- **Internal market :** feed-in premium / competitive bidding for renewable, promotion of demand response, dynamic network tariffs, protection of vulnerable consumers ("chèque énergie")
- **Energy efficiency:** building renovation, promotion of clean transports
- **Decarbonisation:** carbon tax, promotion of renewable energies
- **5-years rolling plans** for energy and climate
- **R&D and competitiveness:** overall limitation of the administrative burden and simplification, development of a national energy R&D strategy

## Environment policy

- **Air quality:** strategy for clean transports, national plan for air quality
- **Circular economy :** prevention of waste, recycling targets

## Euratom

- Link with the **safety directive** reviewed in 2014



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# Energy efficiency and decarbonation

## Decrease energy consumption

- -20% in 2030 compared to 2012
- -50% in 2050 compared to 2012

## Decrease fossile fuels consumption

- -30% in 2030 compared to 2012

## Challenge 1 : buildings

## Challenge 2 : transports



## Building challenge 1/2

- renovate buildings to save energy, cut bills and create jobs
- largest energy-consuming sector with 44% of national energy consumption in 2012
- significant opportunities for energy savings !

### AMBITIOUS GOALS

- Target of 500,000 deep renovations per year with the priority of addressing fuel poverty
- 100% of buildings renovated to the low-energy standard by 2050
- 75,000 jobs creation

### Immediate actions

**Tax credit for energy transition:** refund of 30% of the total cost of energy renovation work, up to of 8,000€ per person

**Interest-free loans:** property owners can access interest-free loans of up to 30,000 € for energy renovation works

**Energy renovation platforms:** local one-stop shops to support private individuals regarding renovation works

→ *Local-rate telephone number (No. Azur Eco Rénov): +33 (0) 810 140 240*

**Upgraded energy savings certificates:** savings targets doubled for 2015-2017, and new obligations for actions dedicated to modest households

## Building challenge 2/2

### New buildings: improve energy and environment performance

- **New public buildings shall be exemplary on the energy and environmental levels** and, whenever possible, shall conform to positive-energy or "high environmental performance" criteria.
- **Creation of a digital monitoring and maintenance record for housing**

### Existing buildings: speed up renovation

- **Removing barriers to energy renovation of buildings:** mayors can grant exemptions from urban planning rules that could hinder insulation projects
- **Major works shall be used as an opportunity** to significantly improve the energy performance of all buildings
- **Creation of an operational framework for third-party financing by public companies.** This allows for funds to be advanced to private individuals wishing to carry out works.
- **Aid for low-income households:** creation of a guarantee fund for energy renovation
- **Widespread provision of information to consumers:** rollout of smart gas (Gazpar) and electricity (Linky) meters improves the information given to users about their consumption.



## Transports challenge 1/2

- transport sector is the first producer of GHG with 28% of France's total emissions in 2013
- road transports accounts for 56% of national NOx emissions and 15% of PM (particulates) emissions

### AMBITIOUS GOALS

- Step up efforts to combat air pollution and reduce dependency on hydrocarbons
- Speed up the replacement of car, lorry, coach and bus fleets with low-emission vehicles.
- Offer 7 million recharging points for electric vehicles by 2030.
- Reach 10% of the energy consumed by all modes of transport from renewable sources in 2020, rising to 15% by 2030.

### IMMEDIATE ACTIONS

**Car conversion bonus** : up to 10,000 € bonus for purchasing an electric vehicle when scrapping a polluting vehicle

**Aid for the installation of charging points for electric cars**: a 30% tax credit has been available for the installation of recharging terminals for electric cars by private individuals from september 2014 to 31<sup>st</sup> december 2015

**Call for projects « breathable cities in 5 years »** : this call for projects launched in June 2015 will encourage cities to volunteer to implement exemplary measures with a view to restore air quality, within a five-year period. In September 2015, 20 cities were selected.

## Transports challenge 2/2

### A strategy for vehicles...

- **Minimum share of vehicles with low CO2 and air pollutants emissions, when renewing fleets**
  - 50% for the State and its public bodies, 20% for local authorities
  - 10% for car rental or taxi companies
  - 100% of buses and coaches for public transport services (from 2025 onwards)

### A strategy for infrastructures...

- **Electric vehicles charging points** installed in new car parks and when existing car parks are renovated
- **Restricted traffic areas:** restriction measures can be implemented by local authorities in areas affected by poor air quality
- **New road uses:** differentiated subscriptions proposed by motorway concession-holders for user of car-pooling and car-sharing ; privileged access for car-sharing users.

### A strategy for economic actors...

- **Travel expenses for bike:** employers contribute to their employees' travel expenses for journeys made by bicycle or electric bicycle between home and the workplace.
- **Mobility plans for companies above 100 employees :** such plans may be compulsory in areas suffering from poor air quality.



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Diversify electricity  
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to **50%** by 2025

## Renewable energy

Promote renewable energy to create a  
balanced mix



## Renewable energy 1/2

- renewable energies account for 14,3% of the gross final energy consumption in France (2014)

### AMBITIOUS GOALS

- Reach 23% of RES in 2020 and 32% in 2030: doubling the share in 15 years
- Integrate more RES in electricity, heating and cooling, fuels and gas

### IMMEDIATE ACTIONS

- **Increased target for solar PV from 5,400 MW to 8,000 MW in 2020**
- **New calls for tenders: biomass and biogas, small-scale hydroelectricity**  
Call for 1,500 biogas production projects in three years to allow for the production of energy from agricultural waste.
- **Two new call for projects for ocean energy**  
Launched in August 2015 by ADEME to boost the development of promising technologies: floating wind turbines, wave energy, etc.

## Renewable energy 2/2

### Upgrade the support schemes for renewable energies: implementation of the Commission's State aid guidelines

- **Improved RES integration in electricity markets**
- **Switch to feed-in premium** will expose RES generation to short term market signals
- **Broader use of competitive tendering** to determine the level of support

### Simplification of procedures

- **Acceleration of grid connection for electric renewable energy production sites**

Grid connection delay limited to 18 months in general. In case of longer delay, penalties to be paid

- **Widespread implementation throughout France of a single permit process** for wind turbines, biogas plants and installations governed by the Water Act, including dams and hydroelectric plants
- **New measures help to reduce the costs of procedures and preliminary studies and reduce the periods of appeal**, but simplification of procedure does not reduce the level of environment protection



- 50% less waste  
in landfill  
by 2025

Environment  
Circular Economy  
Nuclear Safety



# Tackle waste and promote circular economy 1/2

**Our economy's linear system – extract, manufacture, consume and discard – has reached its limits.**

## AMBITIOUS GOALS

- Progressively dissociate economic growth from the consumption of raw materials.
- Reduce household waste and similar products produced by 10% between now and 2020.
- Recycle 55% of non-hazardous waste by 2020 and 65 % by 2025.
- Recover 70% of construction and civil engineering waste by 2020.
- Halve the amounts of waste disposed of in landfill sites by 2025.

## Immediate actions

### "Zero waste, Zero wastage" call for projects

Identification of 58 successful regions in 2014, which will implement the pioneering actions recommended by the Act, in a participative and voluntary process. A new call for projects has since been issued, for which the successful applicants will be chosen in 2015.

### Tacking food waste

Implementation of a plan to tackle food waste in collective catering departments, including school canteens managed by the State and regional authorities.



# Tackle waste and promote circular economy 2/2

- **Proximity principle**

Strengthening the proximity principle so that waste is treated as close as possible to where it is produced. The target is to reduce distances travelled and energy consumption.

- **Reinforcement of the Producer's responsibility principle**

Broader scope of existing schemes (paper, textiles and clothes), new schemes (old leisure ships).

- **Improvement of product design to extend the service life**

"planned obsolescence" – meaning the act of deliberately designing a product to ensure that it has a shorter service life – becomes a punishable offence.

- **The end of disposable plastic bags**

- Ban on the distribution of disposal plastic bags at check-outs, from 1 January 2016.
- They will be prohibited in fruit and vegetable departments from 1 January 2017.
- Ban on the distribution of disposable cooking utensils in 2020.

- **Source separation of food waste**

Local authorities must generalize the source separation of the food waste produced by private individuals by 2025, so that it can be used as a new resource, e.g. compost

- **Construction and engineering waste**

Creating a network of professional waste collection centers for the construction and civil engineering sectors between now and 1 January 2017, by introducing a scheme requiring distributors to collect materials from professionals at (or near) sales outlets.



## Reinforce nuclear safety and public information

- additional steps in terms of providing transparency and public information regarding nuclear safety.
- clarification of operator responsibilities with regard to nuclear safety principles

- **Information and transparency**

Citizens who live close to nuclear plants will be regularly informed of risks and preventive and security measures

- **Regulation of subcontracting practices**

For certain activities with a significant impact on safety

- **Control and penalties**

More supervisory resources and powers for the Nuclear Safety Authority (administrative fines, daily penalties, possibility of seizing property...)

## New tools to reach our goals

- Modernisation of the market
- Upgraded governance process

## Modernisation of the energy market

- **Empower consumers by providing more information about consumption data**
  - rollout of smart meters for gas (Gazpar) and for electricity (Linky)
- **Tackle energy poverty : creation of an energy voucher for vulnerable consumers**
  - can be spent either on energy supply or on energy efficiency investments
  - experimentation will take place in 2016 and generalisation in 2018
- **Develop a comprehensive framework for demand response**
  - introduction of a dynamic element in network tariffs
  - opening of all markets (energy market, balancing market, system services) to demand response
  - development of a legal framework for demand response bundled energy supply, as well as for independent demand response operators



## Provide citizens, companies and territories with the tools to act together

Planning the energy transition with the involvement of all stakeholders.

### National low carbon strategy

- Overarching and sectoral policies orientation with long-term visibility
- Defines objectives for a rolling period (3 x 5 years)
- First strategy to be adopted for the 2015-2028 period

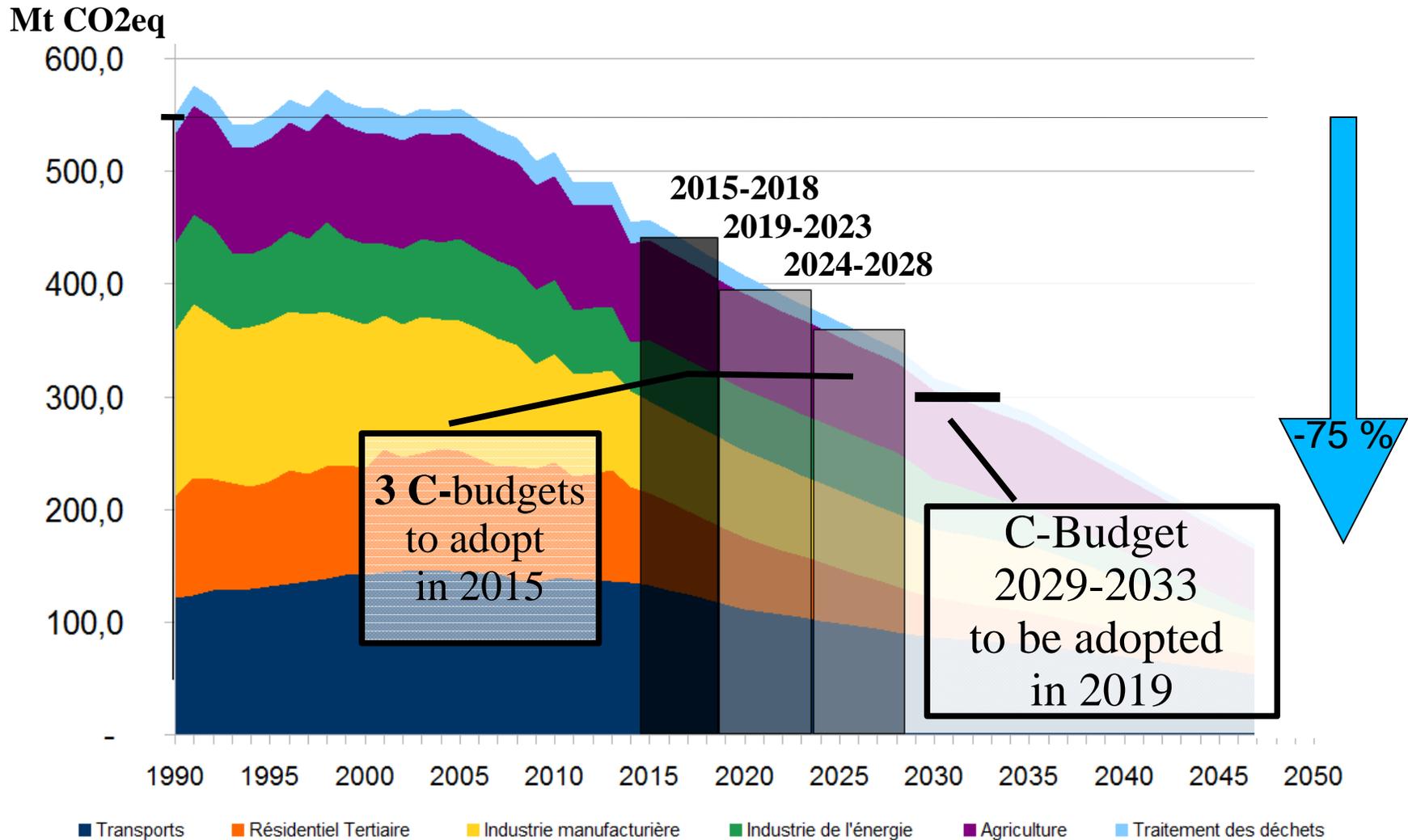
### Multi-annual energy planning

- covers electricity, gas and heating/cooling for a rolling period (2 x 5 years)
- deals with energy efficiency, security of supply, renewable energy, demand side and grid developments
- defines targets and indicates the necessary budget to achieve them
- First programme to be adopted for the 2016-2023 period

### Electricity mix management tools

- Investments must be compatible with the multi-annual energy plan
- Around 2025 nuclear energy will represent 50% of the French power generation

# Illustration of the Carbon budget approach



Source : 1990-2013 inventory, proxy inventory for 2014, example of trajectory consistant with the first 3 C-budgets and the long term target of France

## Provide citizens, companies and territories with the tools to act together

### National plan to reduce atmospheric pollutant emissions

- to improve air quality, taking account of its health and economic issues.
- reassessed and revised, if necessary, on a five-yearly basis.

### National energy research strategy

- taking into account national low carbon strategy and multi-annual energy programme

### A regional planning framework

- Regional climate, air and energy scheme accompanied by a regional energy efficiency plan
- Territorial energy, air and climate plans produced at the inter-municipal level, with the aim of covering the entire territory.

### Tools for regional authorities

- Assertion of inter-municipal authority for the distribution of heat
- Creation of a right of access to relevant information for energy transition actions, which will be provided by energy grid operators

### 500 positive-energy regions for green growth

- Regions of excellence in energy and ecological transition:
- The local authority undertakes to reduce the energy needs of its inhabitants, buildings, businesses, transport and recreational activities.





## Financing and supporting energy transition

- **Energy transition financing fund**
- 1.5 billion € to strengthen existing schemes (such as the Heat and the Waste funds) and support new projects,
- especially those of "Positive-energy regions for green growth" and "Zero waste, zero wastage" regions, "breathable cities".

### **Caisse des dépôts savings fund**

- Savings fund that supports key projects in the local public sector increased by 5 billion €  
→ Low rate loans for local authorities initiatives: energy renovations and positive-energy buildings, clean transport and renewable energy.

### **BPI France loans for renewables**

- BPI France grants loans to fund the investments of companies that generate renewable energy
- Total amount will be doubled between 2015 and 2017, rising to 800 million € per year.

### **Responsible investment**

- Major financial institutions and companies publish in their annual reports the social and environmental impact of their investment policy.
- They mention in particular how climate change related risks are taken into account and how greenhouse gas emissions are measured

*To find out more :*

[www.developpement-durable.gouv.fr](http://www.developpement-durable.gouv.fr)