

# Journée OFATE

## Renewable heat for the energy transition

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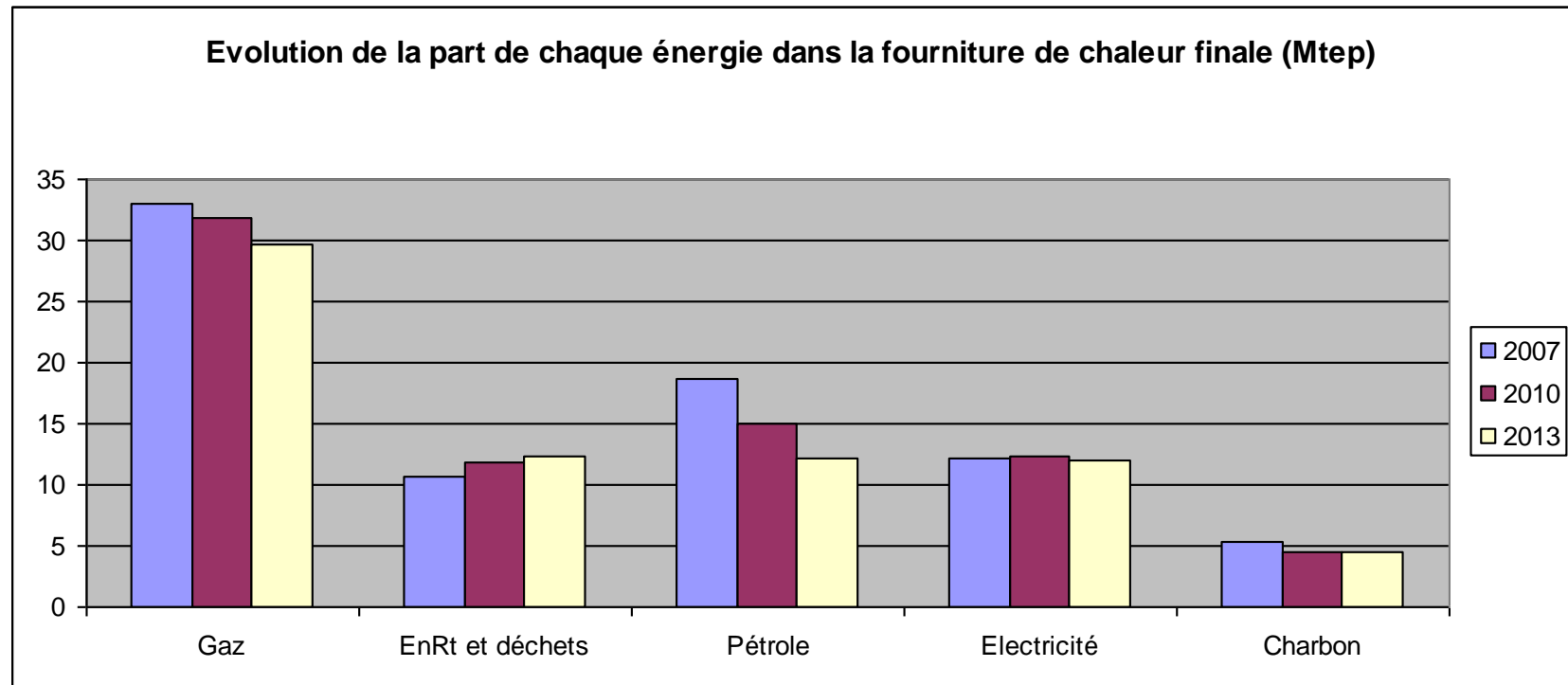
**General Directorate for Energy and Climate Change**  
**Ministry of Environment, Energy and the Sea**



# Current situation in France – key figures

Share of total heat in final energy consumption = 47%.

Share of RES in total heat consumption = 18%.



## Current situation in France – objectives

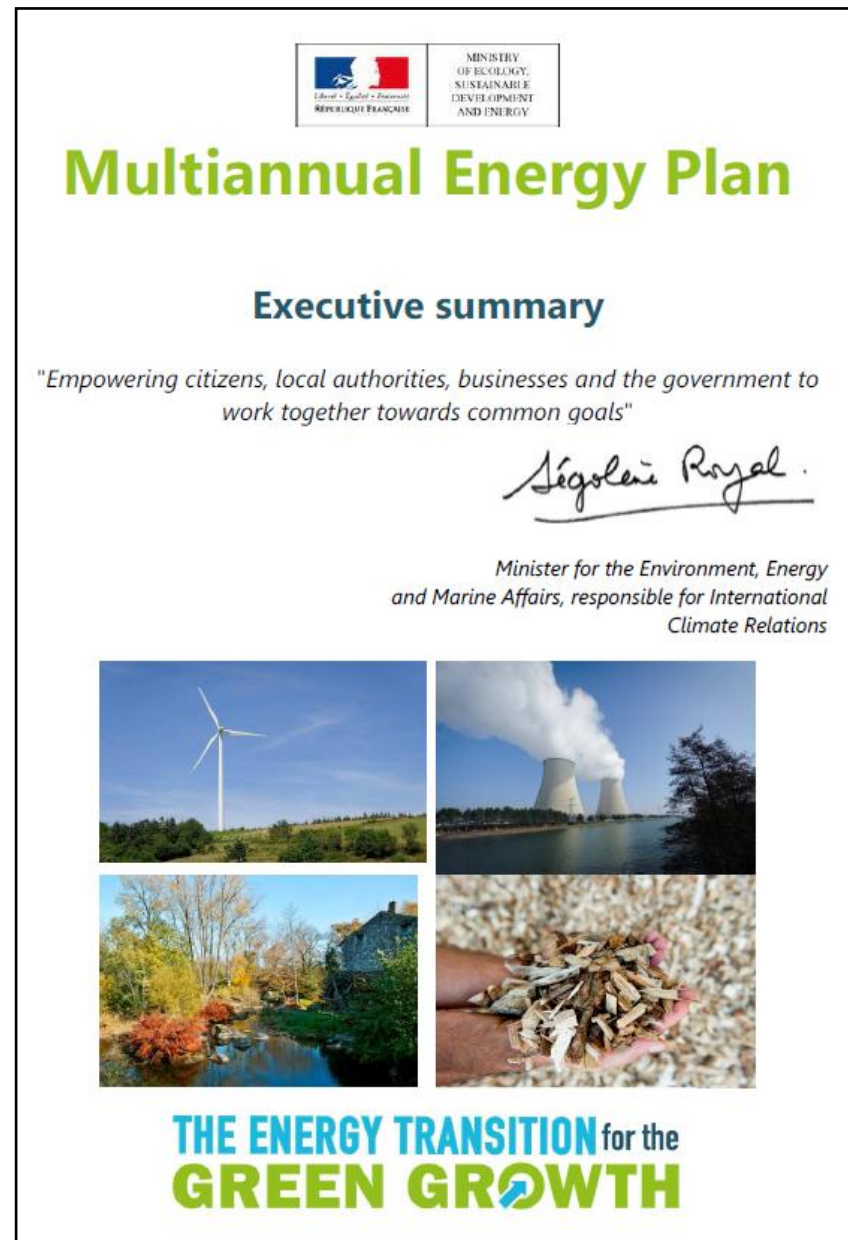
The law on energy transition for green growth sets out ambitious objectives for the development of renewable energies :

- Increasing the contribution of renewable energies to total final energy consumption to 23% by 2020 and 32% by 2030.
- By 2030, renewable energy sources will account for 38% of final heat consumption (18% in 2014).
- Increasing the amount of renewable (and waste) heat / cold distributed by district heating and cooling (DHC) networks five-fold by 2030.

# Current situation in France – MEP

The Multiannual Energy Plan (MEP)\* sets out the government's strategic priorities in terms of energy policies, and interim targets in 2018 and 2023.

\* *Programmation pluriannuelle de l'énergie (PPE)*



The image shows the cover of the 'Multiannual Energy Plan Executive Summary' report. At the top left is the French Republic logo with the motto 'Liberté - Égalité - Fraternité'. To its right is the logo of the 'MINISTRY OF ECOLOGY, SUSTAINABLE DEVELOPMENT AND ENERGY'. The title 'Multiannual Energy Plan' is written in large green letters, with 'Executive summary' in smaller blue letters below it. A quote in italics reads: 'Empowering citizens, local authorities, businesses and the government to work together towards common goals'. Below the quote is the signature of Ségolène Royal, followed by her title: 'Minister for the Environment, Energy and Marine Affairs, responsible for International Climate Relations'. The cover features four small images: a wind turbine, a nuclear power plant, a river with autumn foliage, and a hand holding a pile of wood chips. At the bottom, the text 'THE ENERGY TRANSITION for the GREEN GROWTH' is displayed in blue and green.

MINISTRY OF ECOLOGY, SUSTAINABLE DEVELOPMENT AND ENERGY


## Multiannual Energy Plan

### Executive summary

*"Empowering citizens, local authorities, businesses and the government to work together towards common goals"*

*Ségolène Royal*

Minister for the Environment, Energy and Marine Affairs, responsible for International Climate Relations



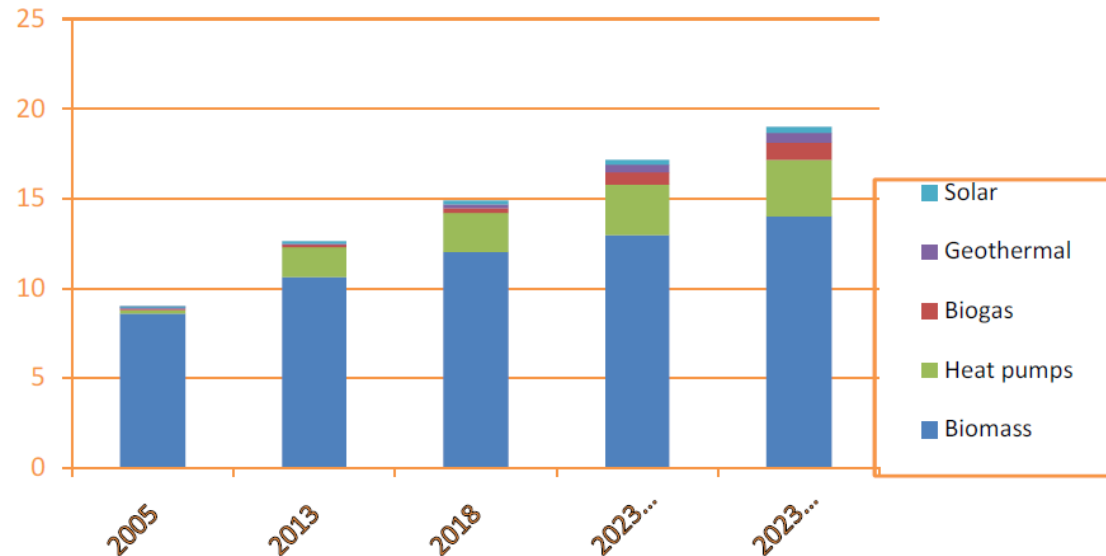
THE ENERGY TRANSITION for the GREEN GROWTH

# Current situation in France – MEP

## PPE

Gross final consumption of RES for heating and cooling

MEP targets for final RES consumption, by sector



Ktoe

Biomass

Heat pumps

Ssolar thermal

Biogas

Geothermal

Quantity of district heating and cooling delivered from waste heat and renewable energy sources

ktep	2014	2018	2023	2023
			bas	haut
<b>Biomasse</b>	<b>10 700</b>	<b>12 000</b>	<b>13 000</b>	<b>14 000</b>
<b>Pompes à chaleur</b>	<b>1 600</b>	<b>2 200</b>	<b>2 800</b>	<b>3 200</b>
<b>Solaire thermique</b>	<b>150</b>	<b>180</b>	<b>270</b>	<b>400</b>
<b>Biogaz</b>	<b>100</b>	<b>300</b>	<b>700</b>	<b>900</b>
<b>Géothermie</b>	<b>100</b>	<b>200</b>	<b>400</b>	<b>550</b>
<b>TOTAL</b>		<b>14 880</b>	<b>17 170</b>	<b>19 050</b>
<b>Energie renouvelable et de récupération livrée par les réseaux</b>		<b>1 350</b>	<b>1 900</b>	<b>2 300</b>

# Current situation in France – MEP

## General priorities

Boosting the **Heat Fund**, and expand the programme to waste heat and cold.

**Increasing by 50% the production of heating from RES with** more biomass plants, heat pumps and methanization, to achieve output of 19 Mtoe per year.

**Making better use of biomass resources without sacrificing the sustainable** management of forestry resources and agricultural land, with respect for sustainability criteria with regard to imports, and in synergy with the national biomass strategy and the National Forestry and Wood Programme.

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## Actions by sector

<http://www.developpement-durable.gouv.fr/programmations-pluriannuelles-lenergie-ppe>

## Current situation in France – support

**Several instruments** are in place to support renewable heat : regulation, funds, DHC networks, ADEME.

The total annual cost of renewable heat incentives is estimated to amount to about EUR 500 million (Heat fund, CITE, and VAT rate).

Some of these instruments are linked to EU Directives (RED, EED, EPBD).

Some other instruments are in place to ensure the performance of renewable heat systems :

- EU ecodesign regulation
- Qualification of the installers (RGE)
- Inspection of heat pumps

## Current situation in France – support (regulation)

The 2012 **Thermal Regulation** (2012 TR) requires all new single family homes to make use of some form of renewable energy production (it is most often heat with bioenergy, solar water heating or heat pumps, but can also be electricity from photovoltaics) : at least 5 kWh<sub>primary</sub> per square meter per year.

Streamlined procedures for **light geothermal** when it does not exceed 200 meters and 500 kW : declaration before drilling.

**Regional biomass committees** to prevent conflict of uses.



## Current situation in France – support (funds)

The **income tax credit for the energy transition (CITE**, 30% rebate from capital cost) and a **reduced VAT rate** (5.5%, both in new and existing dwellings) promote the purchase of equipment using renewable or recovered energy. Since 2009, the zero rate eco-loan (ecopret a taux zero) has supported thermal house renovation including some using renewable heat.

The **Fonds Chaleur (Heat Fund)** allocates EUR 220 million per year to heat projects (production and distribution). The Fund is managed through ADEME with a national call for projects and regional grants and call for projects. Over the period 2009-16, around 2 Mtoe renewable heat production per year was supported at an average public cost of around EUR 40 per toe over 20 years (~ EUR 4 per MWh over 20 years), with a total budget of EUR 1.7bn for the period.

# Current situation in France – support (DHC networks)

## Fonds chaleur (heat fund)

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For networks which supply heat mainly produced from renewable or recovered energy (at least 50%), a **reduced VAT rate** (5.5 %) is applicable to the supply of heat, and a local procedure (procédure de classement) can make mandatory to connect to the network new buildings and existing buildings undergoing significant refurbishment works where possible.

The government also aims to improve **information** on DHC networks, and better project **coordination** of a new urban area or major urban change, the mapping of existing DHC under the Energy, Air and Climate Schemes and carry out a **cost-benefit analysis for recovering waste heat**.

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**Thank you for your attention !**

