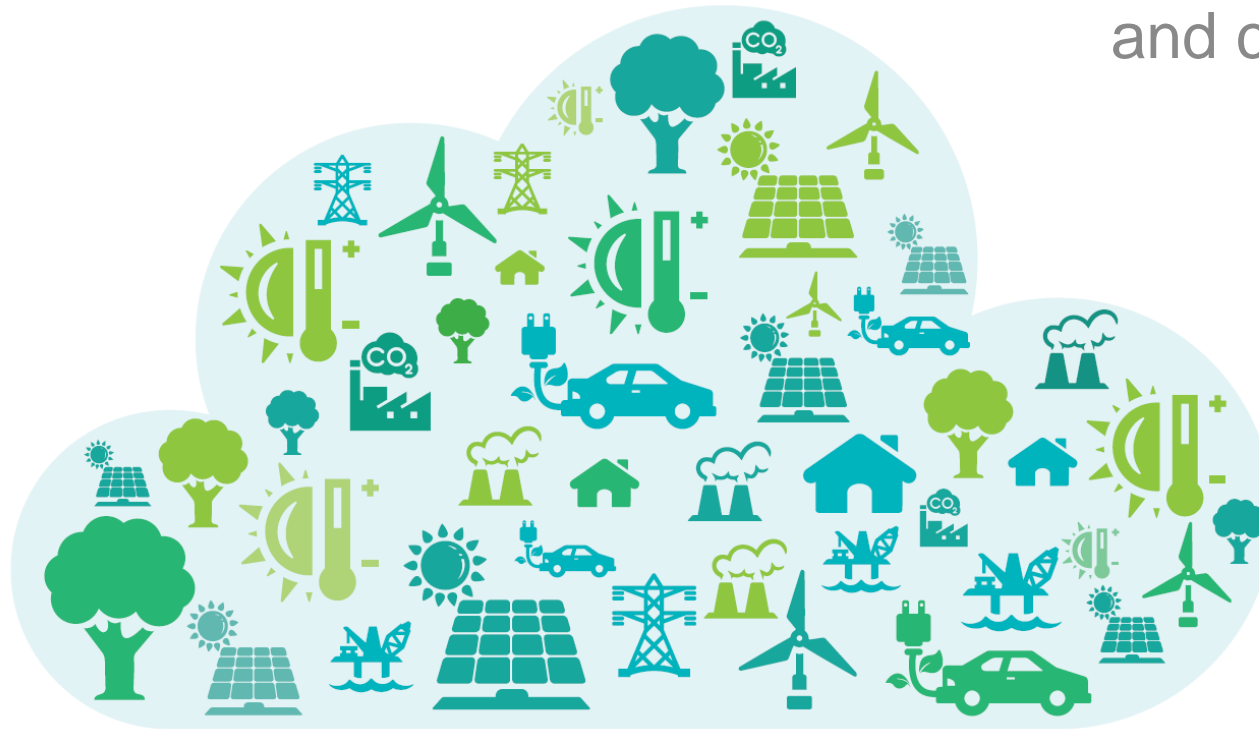


# Energy transition in France

and cooperation  
with Japan



Stéfan Le Dû | Embassy of France in Japan | Ministry of Ecological and Solidary Transition  
CCIFJ Energy seminar | 5th July 2018 | Tokyo

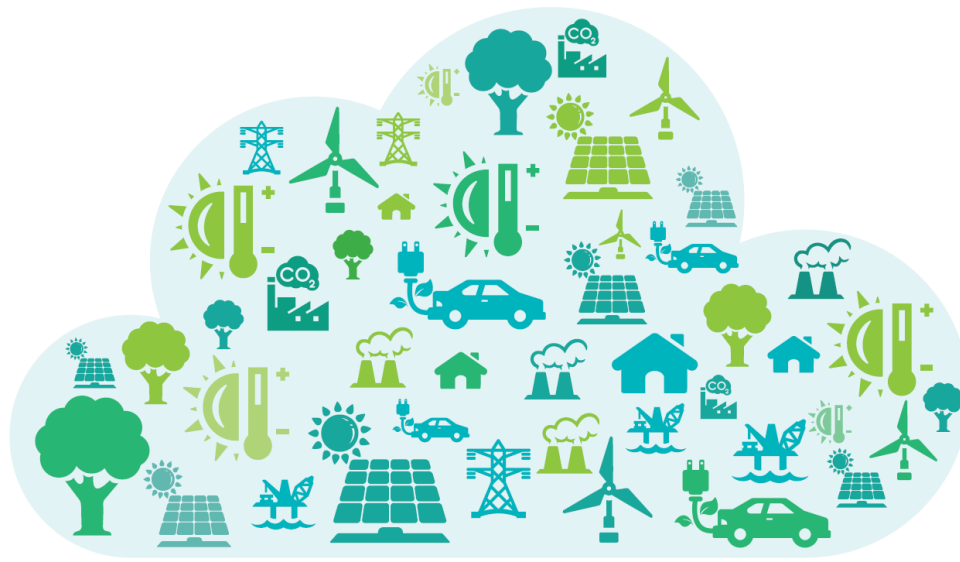


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# Energy situation in France

## True or false?

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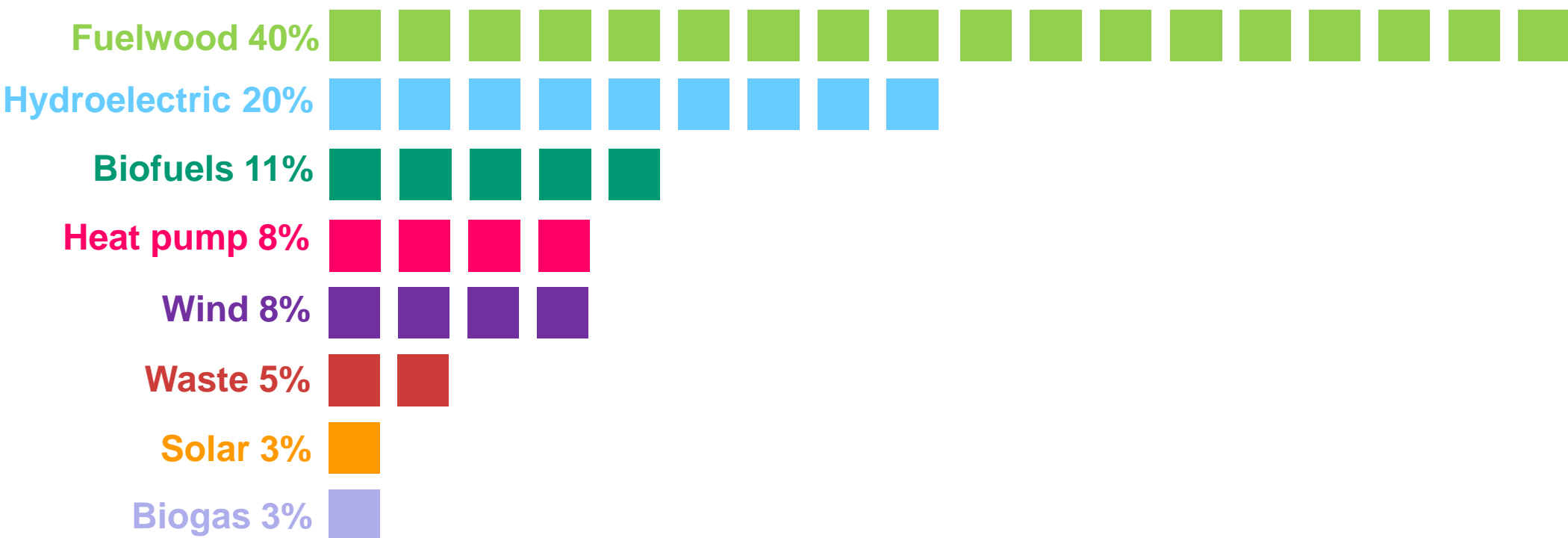
True or false?  
« Solar is the main  
renewable energy  
source used in  
France. »





« Solar is the main renewable energy source used in France. »

**FALSE**



Total : 23 Millions Tons Oil Equivalent, 2015



True or false?  
« **Nuclear covers  
most of the energy  
need in France.** »



# « Nuclear covers most of the energy need in France. »

**FALSE**

- Nuclear provides **72%** of French **electricity** mix
- Electricity covers **23%** of **total energy** demand


→ **nuclear covers 16% of total energy demand**



French energy mix (% of covered demand)







True or false?  
« Transport is the  
most energy-  
consuming sector  
in France. »



# « Transport is the most energy-consuming sector in France »

**FALSE**



Agriculture: 3%

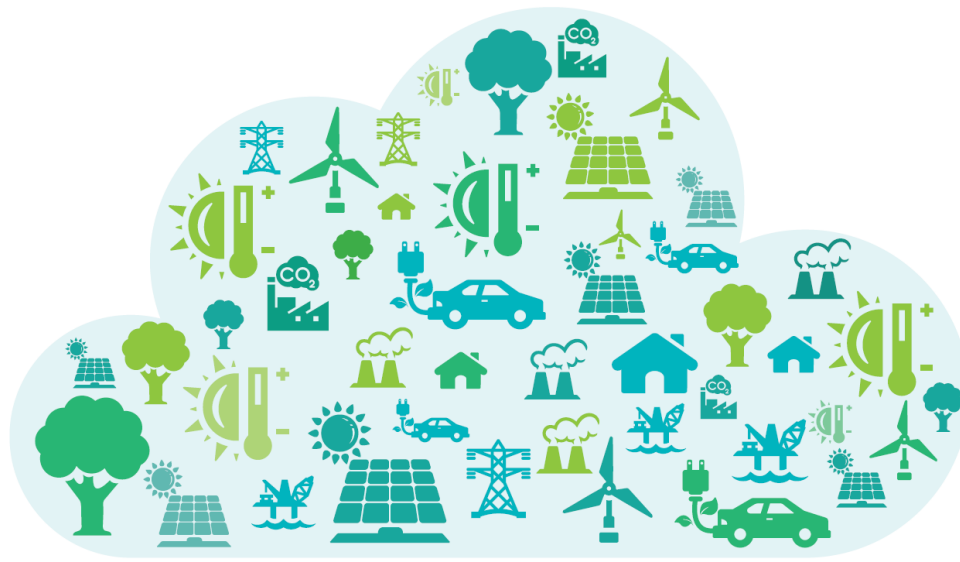
Industry: 19%

Transport: 33%

Housing and tertiary: 45%







# Energy transition in France

## Our targets and actions

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# Energy Transition for Green Growth act (2015)

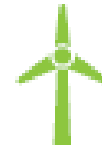
## Clear and ambitious goals



**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 energies to **32%**  
of final energy consumption  
by 2030 and to **40%** of  
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 energy to **50%**  
by 2025





# One Ministry for energy, environment, transport and construction

- **2007:** Creation of the **Ministry of Sustainable Development**  
Merger of Ministry of **Transport and Infrastructures** + Ministry of **Environment** + **Energy** division of the Ministry of Industry

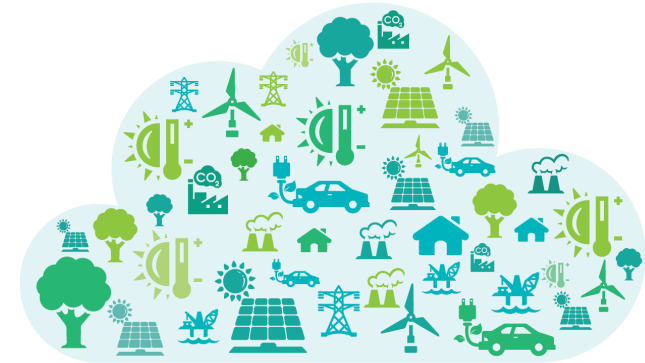


- **2017:** renamed into **Ministry for an Ecological and Solidary Transition**



# Providing long-term visibility

- **National Low Carbon Strategy** (2015, *review in 2018*)
  - French roadmap for low emission economy
  - Industry, Housing, Energy, Agriculture, Transport, Waste
  - Carbon budgets for five-years periods towards 2030
- **Multiannual Energy Plan** (2016, *review in 2018*)
  - Plans energy production and distribution in 2018 and 2023, for gas, electricity and heat
  - Energy efficiency, security of supply, renewable sources, demand side, grid developments
  - 2018 review will set new targets for renewables in 2028
- **Climate Plan** (2017)
  - Inter-ministerial plan to increase the ambition of the government on climate change
  - Set of actions that will be undertaken in the next 5 years



1planet, 1plan





# *Example action #1*

## Moving away from fossil fuels



- December 2017 : French National Assembly adopts a bill to **end fossil fuels exploration and eventually production on French soil**
- Objective : **progressive termination of hydrocarbons and coal production over the entire French territories by 2040**



# Empowering local stakeholders

- **Call for local initiatives**

### Examples:

- Call for Positive Energy Territories (422 territories)
- Call for Biogas projects (1500 projects)

- **New legal and planning tools for local governments**

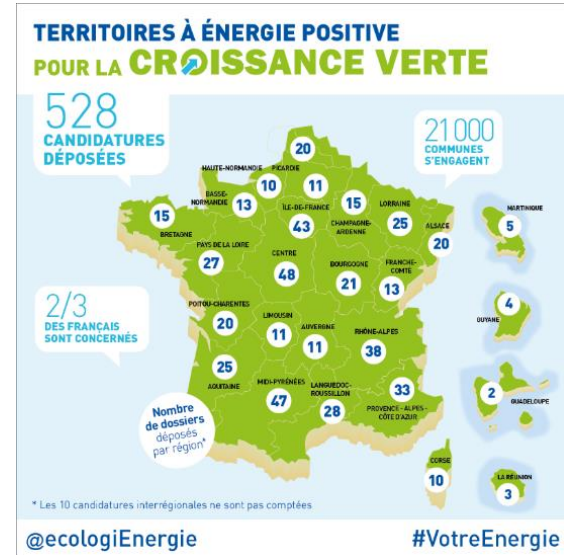
### Examples:

- Mandatory local plan for climate, air and energy
- Cities can impose a % of renewables used in new buildings, per district
- Crowdfunding for renewable energy projects is recognized by the law

- **Subsidies & Tax incentives**

### Examples:

- Renewable heat fund (for industry, district heating, etc.)
- Tax credit for energy transition





# Example action #3

## Improving energy efficiency in buildings

### ■ The Old: renovation

- 7 millions buildings with very bad thermal insulation
- Subsidies/tax reduction, guidelines, hotline and website
- Energy renovation will be made mandatory before 2030



### ■ The New: energy & carbon neutrality

- Reinforcement of an already strong regulatory framework for new constructions
- 2020: energy and carbon neutrality in the whole life cycle of the building

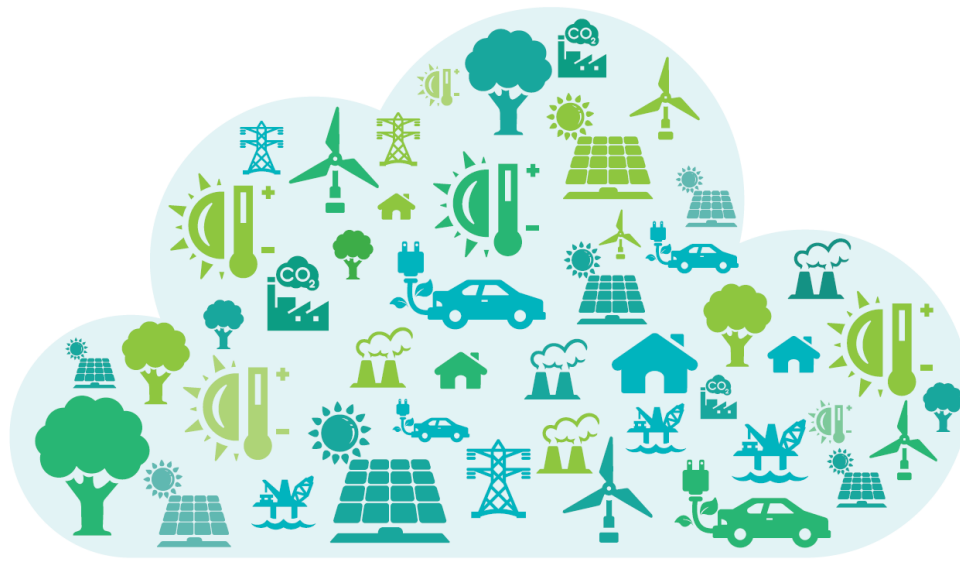


# Example action #4

## Hydrogen roadmap

- Announced by Minister N. Hulot in June 2018
- Essential to reaching **carbon neutrality**
- **Strongly coupled to renewable energy**
  - H2 needs to be produced from clean sources
  - H2 can be used to store intermittent energy
- Three main lines:
  - Creation of an industrial ecosystem for **decarbonized hydrogen**
  - Development of **hydrogen storage for renewables**
  - Development of **zero-emission** solutions for **transport**





# Cooperation between Japan and France for energy transition



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## ■ Between ministries/agencies

- MTES(DGEC)/METI(ANRE)  
Energy policies
- CEA/JAEA (+companies)  
Nuclear energy
- ADEME/NEDO  
Energy/Environment R&D policies
- DGE/METI(ANRE)  
Industrial cooperation for new energy systems
- MTES/MLIT and MTES/MOE  
Transport and mobility, sustainable cities, housing, low-carbon society...

## ■ Private sector

- French-Japanese energy projects in **third countries**, including Africa and South-East Asia
- French companies involved in **energy transition projects in Japan**, including hydrogen, smart-grids, energy efficiency, renewables



ADEME



Agence de l'Environnement  
et de la Maîtrise de l'Énergie



Ministry of the Environment

経済産業省  
資源エネルギー庁  
Agency for Natural Resources and Energy

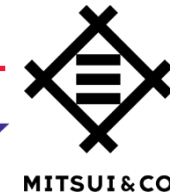


環境省



国土交通省

Ministry of Land, Infrastructure, Transport and Tourism



# French companies initiatives for renewables in Japan

- Since **2015**
- From **Hokkaido** to **Okinawa**
- **Solar, fuelwood biogas, wind, marine energy**
- In **partnership** with Japanese companies



Photos : Ciel&Terre, Ideol, Colas, Veolia, OpenHydro





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