

# ENERGY TRANSITION

KEY INFO IN

**10**

POINTS

# 1

## ▶ #2 PRODUCER IN EUROPE

In 2016, France was Europe's second largest producer of renewable energies (23.9 million tonnes of oil equivalent), preceded by Germany (39.5 million), but ahead of Italy (23.8 million). (Eurostat)

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# 2

## ▶ ABUNDANT RESOURCES

In 2016, France was the EU's second biggest hydropower producer (Eurostat). France has Europe's second largest wind potential, fifth longest hours of sunshine and fourth most extensive woods, as well as the world's second largest maritime exclusive economic zone. Moreover, France has many geothermal resources; Ile de France (Paris region) is home to the highest density of geothermal doublets in the world, with around 40 sites. (French renewables association SER; French government figures, 2017)

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# 3

## ▶ SMART GRID INVESTMENT

France is ranked second in Europe for financing pilot projects, investing €550 million. Four French regions have launched major projects: Provence-Alpes-Côte d'Azur (Flexgrid), Brittany and Pays de la Loire (Smile), and Hauts de France (You & Grid) (Joint Research Center, 2017). In 2017, Occitanie signed a three-year partnership with EDF to become Europe's leading positive energy region by 2050.

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# 4

## ▶ ACTIVE CLUSTERS

Ten innovation clusters in the energy and ICT sectors came together in 2012 to form SmartGrids France, as part of a collective effort to promote the French smart grids sector. Similarly, the Think Smartgrids association seeks to unify the sector, topping €3 billion in export revenues, and promote its expertise internationally. (Think Smartgrids, 2015)

## 5 ► FOREIGN INVESTMENT IN FRANCE

Japanese company Toshiba has developed the Lyon Smart Community project in partnership with Lyon City Council. American network equipment giant Cisco has invested US\$200 million in French startups, with a particular focus on smart grids. Another US firm, Itron, specializing in technology solutions for energy and water companies, has seven manufacturing sites in France.

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## 6 ► EXPORTING FRENCH EXPERTISE

Key players in the French energy sector, from major companies to startups, are now exporting their expertise around the world. Two prime examples are Schneider Electric, with its thermodynamic micro power station Microsol, and the startup Optimum Tracker, with its solar panels that track the sun's course throughout the day. Both are seeking to break into the African market.

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## 7 ► DIGITAL ENERGY SAVINGS

Parisian startup Deepki has developed software that prepares energy efficiency plans based on customer data. The many talented companies in the French smart grids sector also include Steadysun, which provides solar power forecasting services, and Qualisteo, specializing in measuring energy consumption.

# 8

## ▶ 20-MILE HEATING NETWORK

Work started in 2017 on Toulouse's 36-kilometre-long urban heating and cooling network Plaine Campus, which will be the largest to have been established in France in the last five years. It will be powered by the Mirail household waste incineration plant, using 70% renewable and recovered energy. The network will supply 15,000 homes and reduce carbon dioxide emissions by 19,000 tonnes per year. (Dalkia; EDF)

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# 9

## ▶ €20 BILLION FOR THE ECOLOGICAL TRANSITION

In 2017, the French government announced that it will be investing €57 billion between 2018 and 2022, with €20 billion to be spent on the ecological transition. The government aims to further reduce France's carbon footprint by introducing thermal renovation for buildings, developing more renewable energies, and creating a sustainable transport system.

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# 10

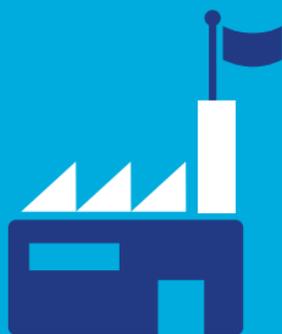
## ▶ WORLD'S #3 GREEN BOND ISSUER

'Green bonds' help companies and public entities finance their environmental projects. In 2017, France was the world's second country to start issuing sovereign green bonds, worth €9.7 billion. It was the world's third largest issuer of green bonds in 2017 with US\$22.1 billion, or 14% of a global market worth US\$155.5 billion, after the United States (US\$42.4 billion) and China (US\$22.5 billion). (Climatebonds.net)



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**FRANCE: EUROPE'S**

**#1**

**DESTINATION  
FOR FOREIGN INVESTMENT  
IN INDUSTRY**

**(EY, 2017)**

# #2 PRODUCER OF RENEWABLE ENERGIES IN EUROPE



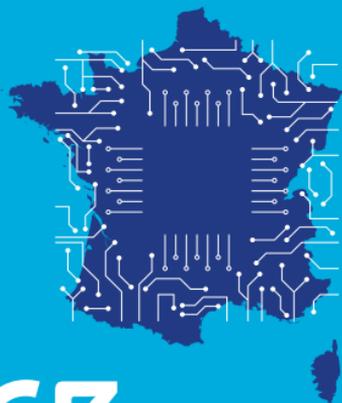
(EUROSTAT, 2017)

ACCESS TO A MARKET OF  
**67**  
MILLION CONSUMERS  
AND GATEWAY TO THE EMEA



(INSEE, 2018)

# FRENCH SMART GRIDS SECTOR



**€3 billion**  
IN REVENUES  
INCLUDING HALF  
FROM EXPORTS

(THINK SMARTGRIDS, 2015)



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