

## General data

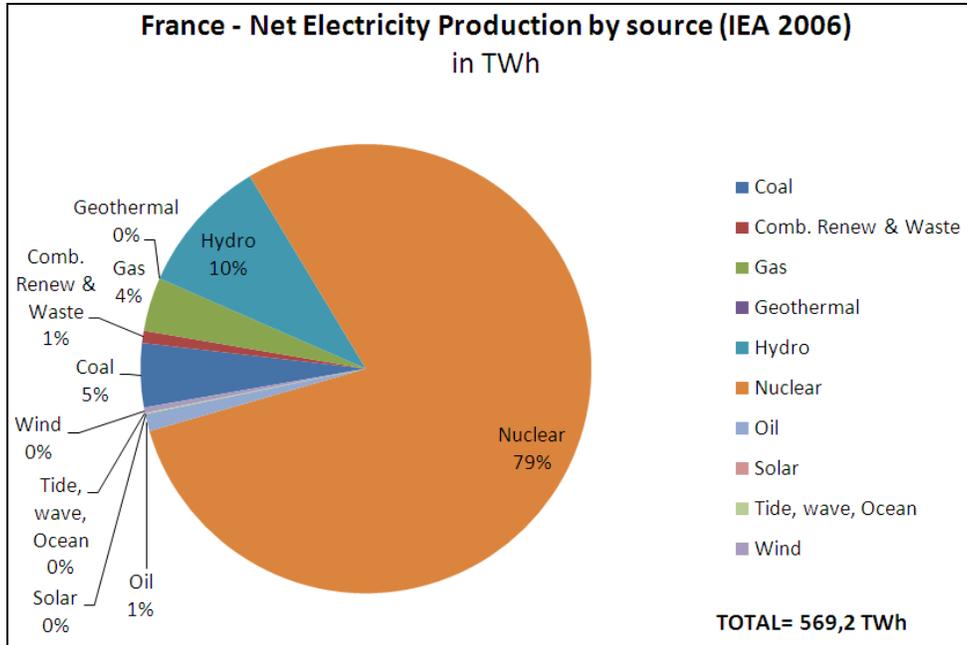
**Area:** 675 417 km<sup>2</sup>

**Population:** 63,000,000 Inhabitants

**Average electricity prices**

For households: 0.14-0.15 €/kWh

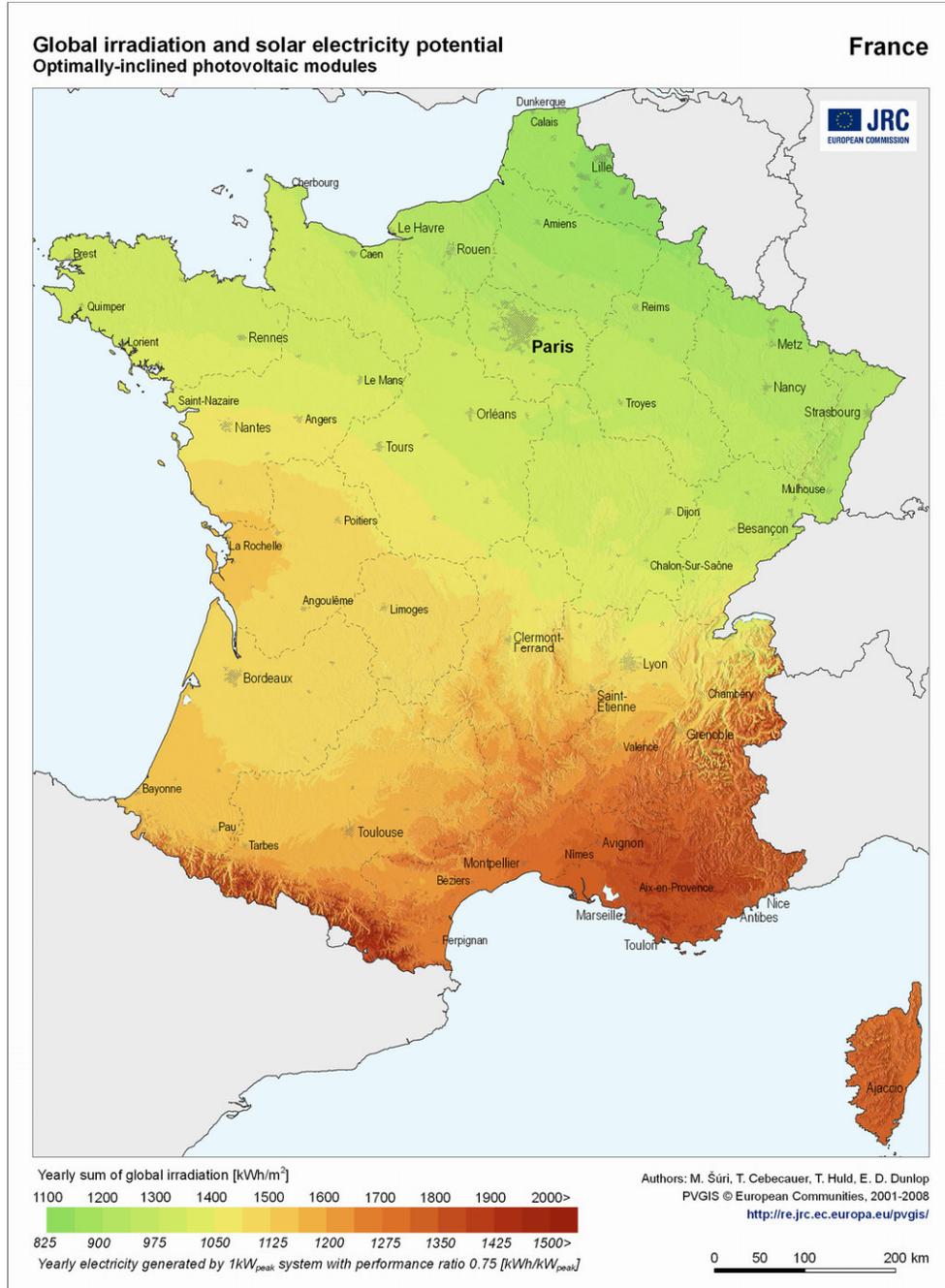
For industry: 0.09 €/kWh



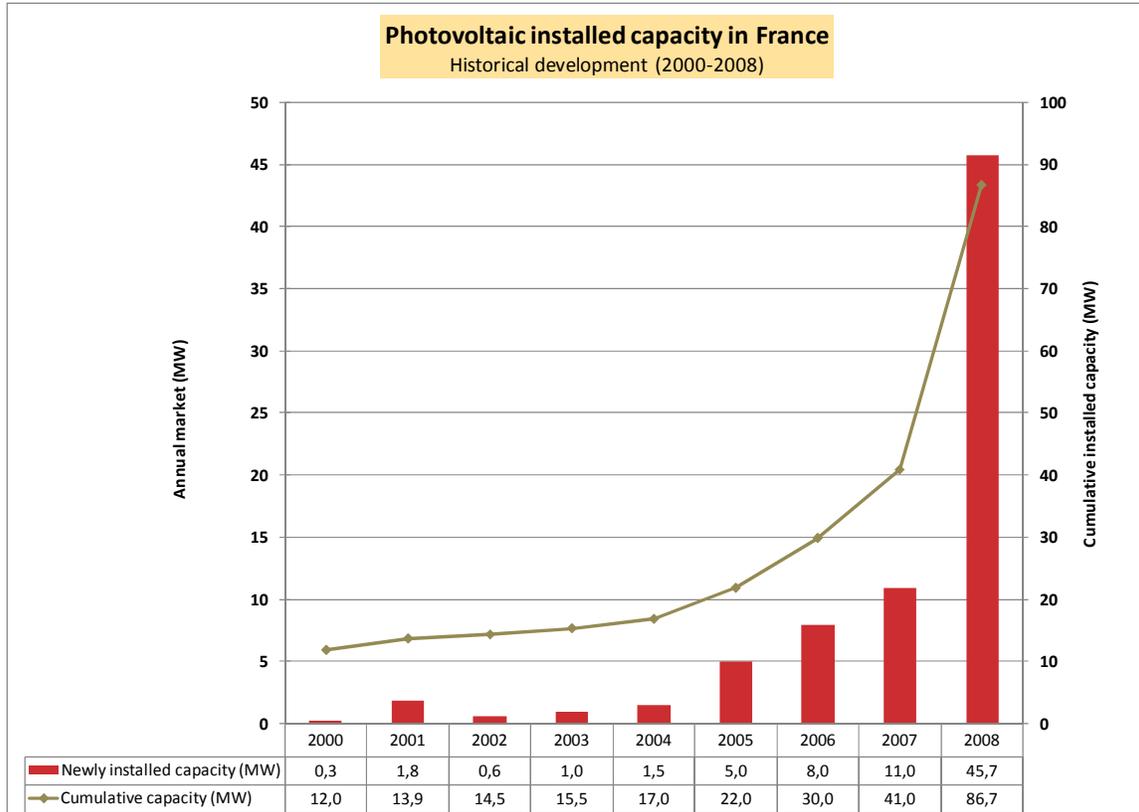
**Total capacity of main electricity producers:** 109,4 GW

**Peak load:** 86,3 GW

## PV irradiation map



**Market figures**



**National action plans, renewable energy targets, PV targets**

FRANCE	Share of RES in final energy consumption
<b>2005 Share of RES</b>	<b>10,30%</b>
Indicative RES target 2011-2012	12,84%
Indicative RES target 2013-2014	14,11%
Indicative RES target 2015-2016	16,02%
Indicative RES target 2017-2018	18,56%
<b>Binding RES target 2020</b>	<b>23,00%</b>

Source: EU Directive on the promotion of the use of Renewable Energies, Dec. 08

**Targeted share of energy from renewable electricity in 2020**

To be decided in upcoming national action plan

**Estimated trajectory for the share of energy from renewable electricity**

To be decided in upcoming national action plan



### Existing renewable energy action plan

Energy policy measures were adopted by France with the law n° 2005-781 on 13 July 2005. It sets orientations for the French energy policy, including a target of 21% of renewable electricity by 2010 and an objective to pursue R&D in particular to reach a leading position in the photovoltaic sector.

Quantitative objectives for each renewable energy sector were set in the 'Arrêté of 7 July 2006' on "Programmation Pluriannuelle des investissements de production d'électricité" (PPI). A target of 500 MW PV installed capacity by 2015 was set in this framework. The PPI will be revised in 2012.

France adopted a Climate Plan in July 2004. It defines a set of actions by 2010 enabling France to reach its objectives in terms of emissions reduction under the Kyoto Protocol. This Plan is reviewed every two years and was reviewed in Nov. 2006.

Source: France RES Directive National Implementation report, 2007

[http://ec.europa.eu/energy/renewables/electricity/ms\\_report\\_directive\\_2001\\_77\\_en.htm](http://ec.europa.eu/energy/renewables/electricity/ms_report_directive_2001_77_en.htm)

### PV capacity targets

Source	Year	Target (in MWp)	Source
<b>Official</b> (set by the government)	2012	1100	Grenelle de l'environnement
	2020	5400	
<b>Industry</b> (set by a professional organization representing the PV sector)	2020	13 500	Enerplan
	2020	7 000	Ser-Soler

The objectives set in the Grenelle can be revised in 2012.

**Support schemes (beneficiaries, level of support, duration, revision date, ...)**

Investment subsidy	x
Beneficial credit terms	x
Reduced VAT	x
Tax rebate on profit taxes	x
Feed-in Tariff (FIT)	x
Quota system	-
Net metering/net-billing	-
Accelerated amortization	x

**Investment subsidy**

There are no national investment subsidies but regional subsidies. A list of them can be found on the following website:

[http://sd1490.sivit.org/en5rplan8f4a/public\\_html/index.php?option=com\\_content&task=view&id=15&Itemid=36#aides](http://sd1490.sivit.org/en5rplan8f4a/public_html/index.php?option=com_content&task=view&id=15&Itemid=36#aides). There are regional investment subsidies for companies and for residential systems, generally depending on their financial means. Seeing the increasing number of applications and limited regional budgets, these investment subsidies tend to decrease or disappear.

**Beneficial credit terms**

The government does subsidize “green loans” through financial institutions. The exact terms of the green loans vary per institution but interest rates fall between 3 and 5% over 5-10 years (20 in some cases).

**Reduced VAT**

There a reduction from 19.6% to 5,5% on material and installation cost for residential customer if the accommodation is more than 2-year old and the PV system size lower than 3 kWp.

**Tax rebate on profit taxes**

There is a tax credit for residential customers for investments related to renewables and energy efficiency on their main residence. Residential customers get a tax credit of 50% of the material costs (not on the installation costs). The maximum tax credit amount cannot exceed 8000 € for a single person and 16000 € for a couple during the period 2005 to 2012.

The tax credit mechanism has been extended to the owner-landlord of an accommodation (more than 2 years-old) and if rented as main residence during at least 5 years to an external member of the (fiscal) family.

The tax credit is limited to PV systems below 3 kWp in order to be cumulative with the FIT. For further information: [www.industrie.gouv.fr/energie/developp/econo/textes/credit-impot-2005.htm](http://www.industrie.gouv.fr/energie/developp/econo/textes/credit-impot-2005.htm)

**Accelerated amortization**

Companies have the possibility to amortize PV investment costs on 12 months (Art 39 AB du code des impôts).



### Feed-in Tariff

A FIT scheme was established in 2006 according the level of building integration of the PV system (BIPV or not) and its location (mainland/Corsica and Overseas Departments). FIT are revised annually according to inflation for newly registered PV systems. FIT are granted for 20 years and are also adjusted annually according to inflation for systems already registered.

	2006 Original Tariff (€/kWh)		2009 Inflation-adjusted tariff (€/kWh)	
	Mainland France	Corsica and Overseas Departments	Mainland	Corsica and Overseas Departments
Non BIPV	0.30	0.40	0.32823	0.43764
BIPV	0.55	0.55	0.60176	0.60176

There is official target of 1100 MW cumulative capacity in 2012 and 5400 MW in 2020. If these targets are reached, the structure and level of the FIT can be revised.

Note that the state, regions and departments can apply for a FIT remuneration.

The government announced in November 2008 a new FIT segment for projects on supermarkets and other industrial and agricultural buildings with large roofs which would receive around 0,45 €/kWh. But, there is still a misunderstanding whether this tariff would be for BIPV applications or non-BIPV. This measure is under discussion and should enter in force in June 2009.

For further information: [http://www.industrie.gouv.fr/portail/politiques/index\\_devdurable.html](http://www.industrie.gouv.fr/portail/politiques/index_devdurable.html)

### Taxes

<b>On FIT revenues</b>	Yes, but not for residential systems below 3 kWp (max. 2 PV systems/pers.) [cf. Art. 83 Loi Finance 2008]
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### Administrative procedures

#### General administrative procedure

Procedure for all installations:

1. Apply to regional subsidies before beginning the construction
2. Obtaining a planning permission from the city hall
3. Contact ERDF for the connection contract (approx. 8 months)
4. Get purchase obligation certificate from DRIRE (proof that the owner has a right to sell the electricity he produces)
5. Inform DIDEME of the use of PV system (since July 2008, online registration possible for systems <450 kW)
6. Apply to EDF for a purchase contract
7. Connection of the PV system to the grid by ERDF
8. Finally, a document which confirms that the PV installation conforms to the required standards.

The process lasts between 6 to 9 months. For large scale projects, it can last 1 to 2 years due to grid connection works.

There is an important queue list to get the connection contract from ERDF (point 3).

### Simplified administrative procedure

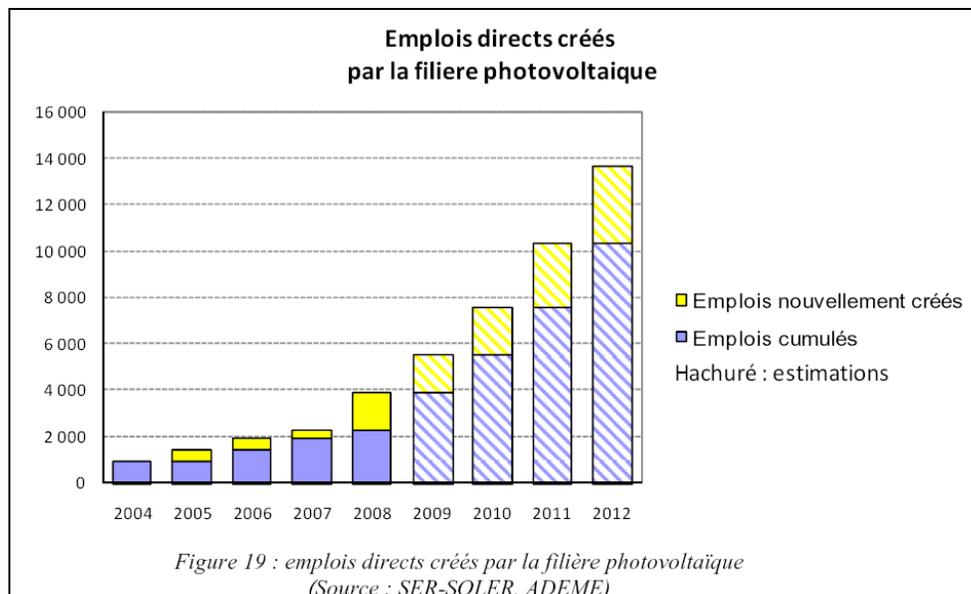
A simplified procedure for systems up to 36 kVA is expected at end of 2009. The ERDF part of the process could be shortened from 8 to 3 months.

### Required permits

Building permit	For all new buildings (not specific to PV) No building permit for ground mounted systems (if < 5000 m <sup>2</sup> ).
Renovation permit	For all PV systems on buildings
Urbanism permit	With building/renovation permit. Difficult to obtain if the PV system is installed at less than 500 m from a classified site. In this case, the project needs to get the approval from "Les architectes des bâtiments de France". 4-5% of the French territory is concerned by this measure.
Environmental impact assessment	Only for ground mounted (if > 1.9 Mio €)

### Employment

SER-SOLER estimated that the PV sector in France represented around 4000 direct jobs at the end of 2008. They forecast up to 13700 direct jobs by 2012.





### Training and certification

Official training program for installers	No
Certification program for installers	There is a voluntary quality system for installers: <a href="http://www.qualit-enr.org/qualipv">http://www.qualit-enr.org/qualipv</a>
Is any certification required to get public support?	No to get the FIT, but some regions require the installer to be QualiPV or equivalent to give regional subsidies.

### Contacts and general links of interest

#### National association contacts

Enerplan: [www.enerplan.asso.fr](http://www.enerplan.asso.fr)

SER-soler: [www.enr.fr](http://www.enr.fr)

#### Links of interest

ADEME: [www.ademe.fr](http://www.ademe.fr)

Hespul: [www.hespul.org](http://www.hespul.org)

Grenelle de l'environnement: <http://www.legrenelle-environnement.gouv.fr/grenelle-environnement/spip.php>

DGEMP: [www.industrie.gouv.fr/energie/renou/f1e\\_ren.htm](http://www.industrie.gouv.fr/energie/renou/f1e_ren.htm)