PV Market Development with Future Outlook for France

SYNDICAT DES ÉNERGIES RENOUVELABLES

GROUPEMENT FRANÇAIS SOLER DES PROFESSIONNELS DU SOLAIRE PHOTOVOLTAÏQUE

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1. SER-SOLER : Presentation

SER-SOLER : photovoltaic branch of the french renewable energy industry association

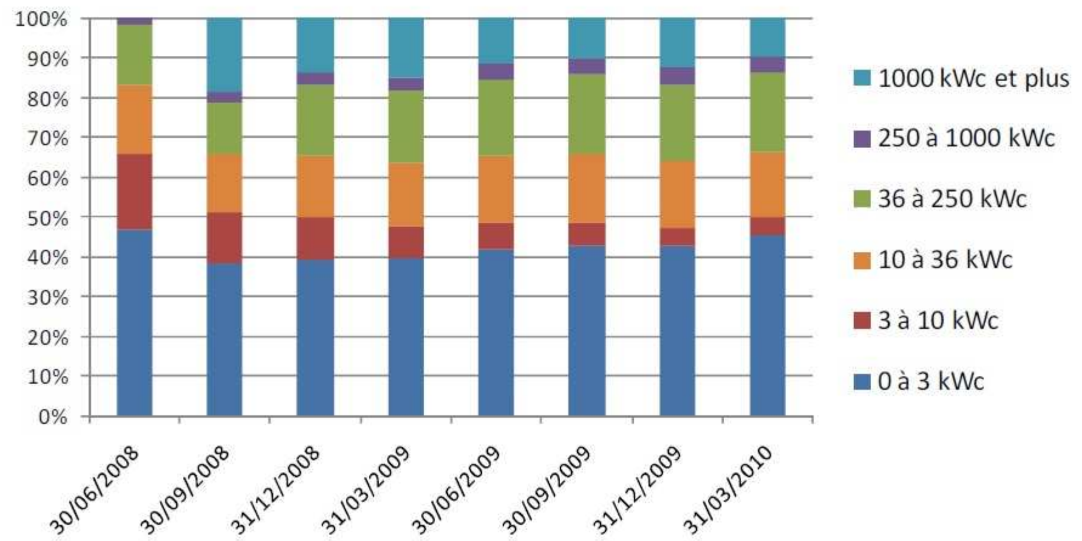
- 250 members (cells , modules, structure, inverter producers, installer, …)
- 8 committees : standardization, regulation, industry developpement, network connexion, BIPV, ….

- Represent more than 80 % of french photovoltaic industry

2. PV Market Development : Key data on march 31th, 2010

Connected installations :

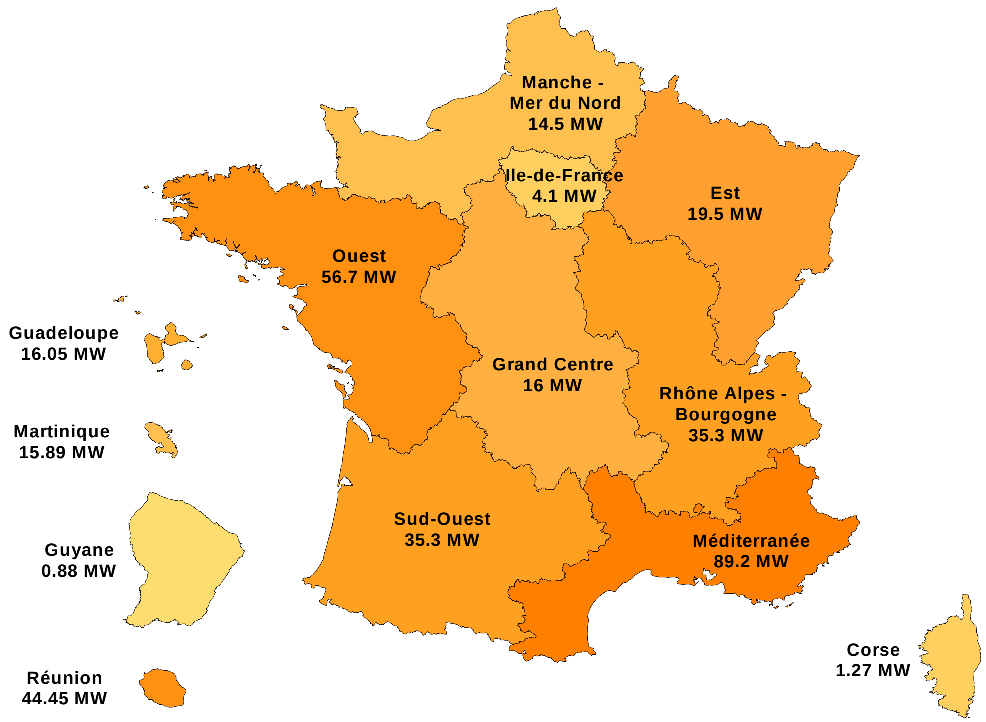
- 349 MW are connected, with 271 MW in Continental France and 78 MW in Corsica and overseas
- 45% of those PV installations are small domestic ones (P < 3 kWc), 45% are medium sized (3 kWc < P < 1000 kWc), 10% are big sized (P>1MWc)
- These percentage have been more or less the same for the last 5 trimesters :



2. PV Market Development : Key data on march 31th, 2010

Connected installations :

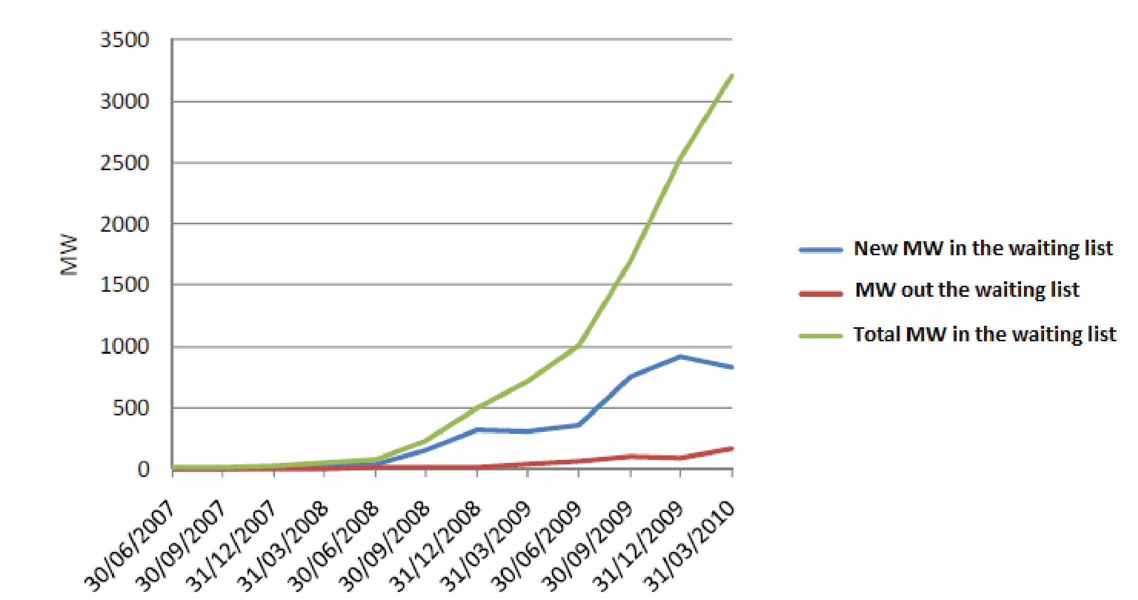
- Quite naturally, with a tariff PV that was not regionally differentiated, PV is developing mainly in South and West regions :



2. PV Market Development : Key data on march 31th, 2010

Waiting list :

- On march 31th, 2010, the total capacity on the waiting list was 3 992 MW, with 3 207 MW in France mainland and 785 MW in Corsica and overseas
- Some projects on this waiting list are highly unlikely : in overseas territories, there is a technical limit of around new 250 MW for renewable projects and in mainland, some projects don't have their administrative authorizations yet.



3. The recent tariff evolution

Chronology:

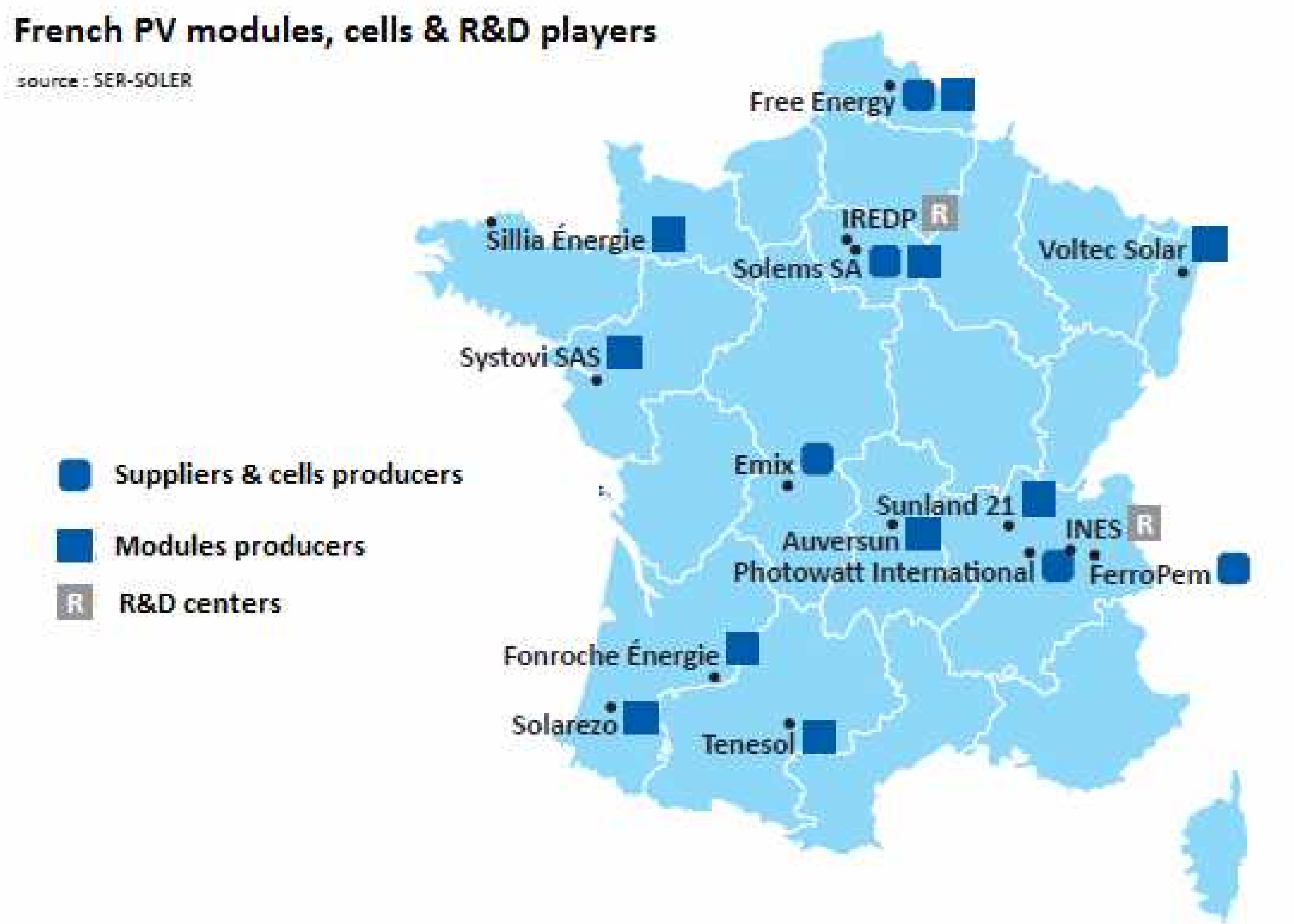
- The government opened the discussion in january 2009.
- A first tariffs draft was submitted in september 2009. This draft included very high tariff.
- During november and december, 2 000 MW applied for the tarriff. The government stated that this volume of project will have an impact of more than 10% on the electricity average bill of each individual consumer.
- In january, a new tariff was designed and inforced, even for projects in the waiting list.
- In march, some flexibility was introduced and some projects in the waiting list could benefit from the past feed-in tariffs.
- … The economics context is more and more strained. The governement puts more and more the emphasizis on renewable cost.

3. The recent tariff evolution

New tariffs:

- **4 tariff levels :**
  - « strong » BIPV for domestic, education and health buildings (P<250 kVA) : 58 ct€ / kWh
  - « strong » BIPV for other buildings (P<250 kVA) : 50 ct€ / kWh
  - « light BIPV » : 42 ct€ / kWh
  - Ground mounted tariffs : from 31.4 ct€ to 37.7 ct€ / kWh (depending on the localisation)
- Degressivity of 10%
- « Strong » BIPV refers to modules that can ensure exactly the same functions as a roof tile, « Light » BIPV refers to systems that cas ensure exactly the same functions as a roof tile
- Tracking systems can apply to the new tariffs (they could not apply to the previous ones)

4. French Industry : The overall picture

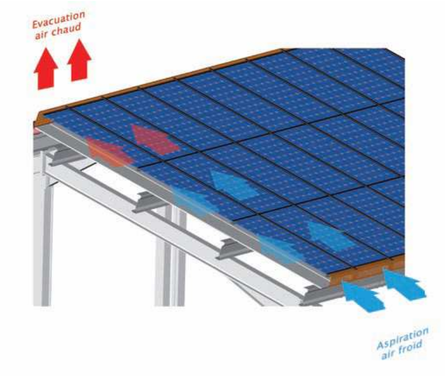


4. French Industry : The overall picture

	2006	2009	2010 (end of year)
Photowatt	40 MW	60 MW	70 MW
PV alliance	/	/	25 MW
Free energy	1 MW	1 MW	1 MW
Tenesol	15 MW	100 MW	170 MW
Fonroche	/	26 MW	90 MW
Sunland 21	/	8 MW	35 MW
Sillia Energie	/	20 MW	20 MW
Auversun	/	/	22 MW
Francewatt	/	5 MW	5 MW
Solarezo	/	10 MW	50 MW
Voltec Solar	/	/	20 MW
Solaire direct	/	36 MW	36 MW
Others	/	/	30 MW
	/	/	
Total France	56 MW	266 MW	574 MW

4. French Industry : BIPV specialists

- Since 2006, the feed-in tariffs has given a premium to « BIPV » products. A lot of development have been made on those products in France, especially on the following questions :
  - Modules cooling
  - Fire safety
  - Water-proof systems….
- A directory of all those French specialist, as well as their suppliers, is available on SER-SOLER website (http://www.enr.fr)



SER-SOLER: Groupement français des professionnels du solaire photovoltaïque

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