

Presenter: Lucía Dólera
Organization: ASIF



PV LEGAL



The Spanish experience

Reducing bureaucracy for PV deployment

Athens, 22nd October 2010

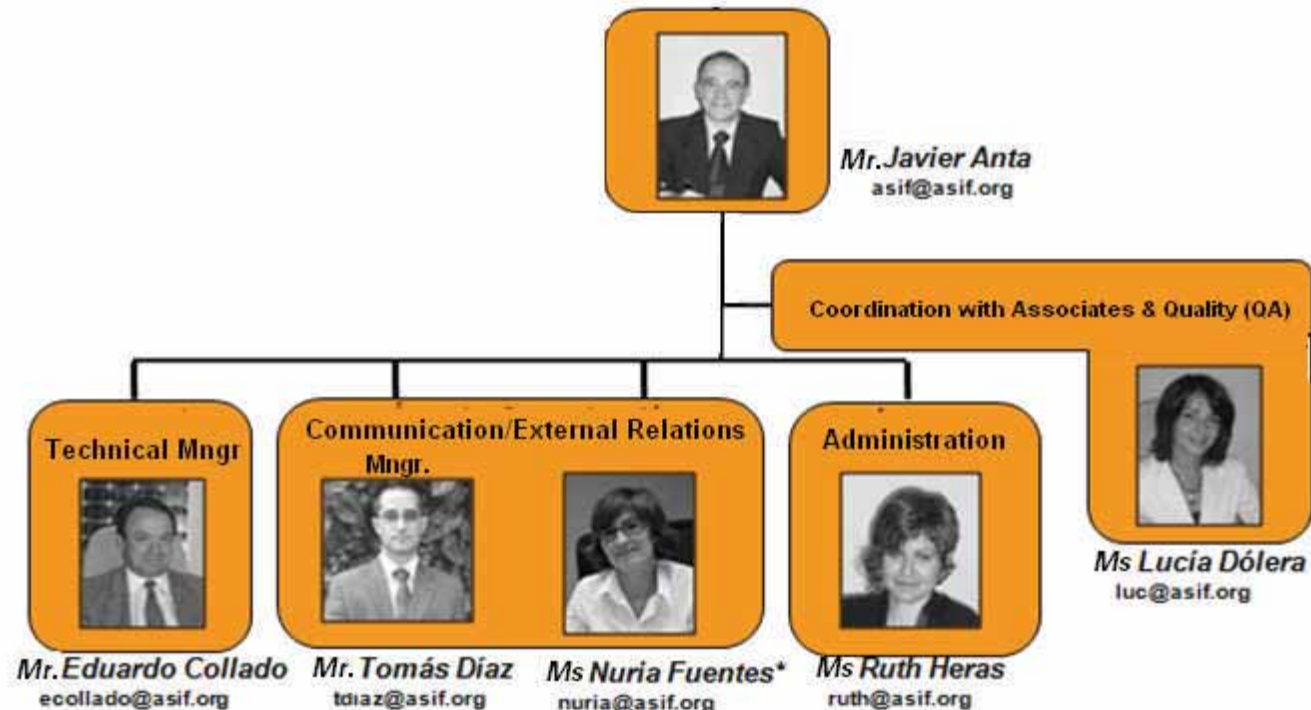
ASIF



An Independent, Democratic Industry Association, Open to all PV Spanish Companies, in permanent contact with peer PV European associations. Providing services to 475 PV Spanish Companies

TheOffice Holding
Centro de Servicios y Negocios S.A.

Doctor Arce 14
Madrid 28002
Tel: +34 915 900 300
Fax: +34 915 612 987
www.asif.org
asif@asif.org





- ✓ The boom. Market evolution
- ✓ Bureaucratic barriers for PV development, recommendations. Upcoming feed-in tariff revision
- ✓ Quo Vadis?



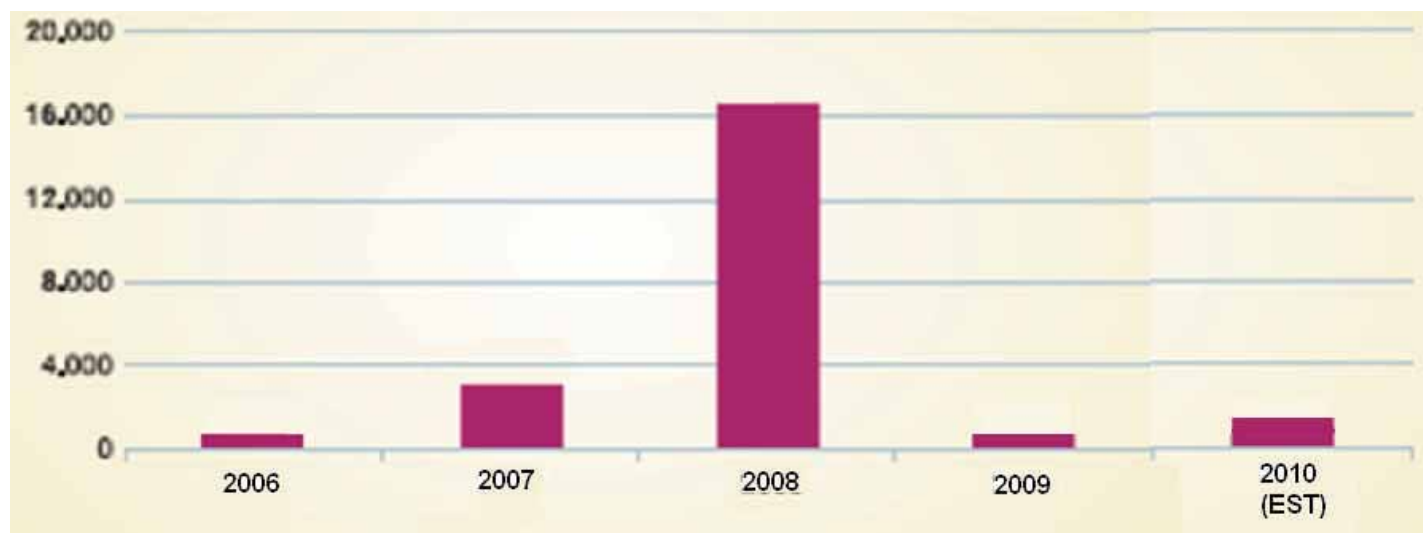
- ✓ The boom. Market evolution
- ✓ Bureaucratic barriers for PV development, recommendations. Upcoming feed-in tariff revision.
- ✓ Quo Vadis?

PV Market evolution in Spain

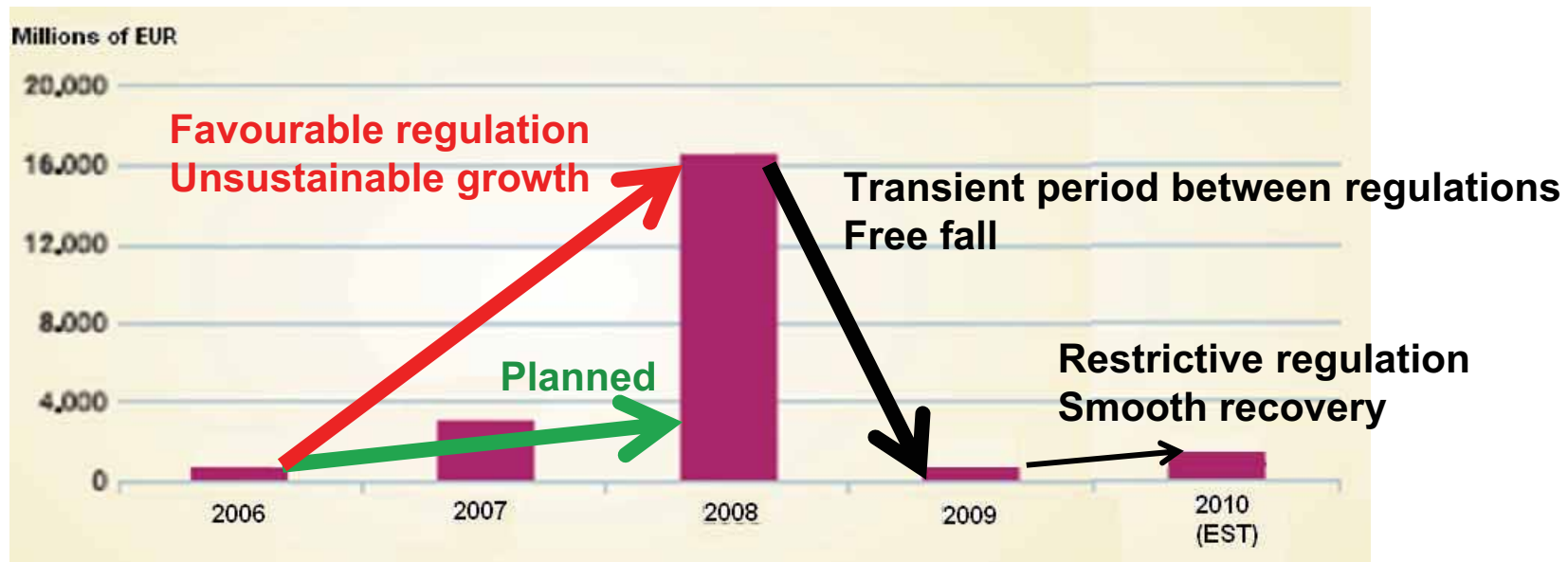


In 2008... the boom! (2,754 MW)

in M€



Evolution analysis



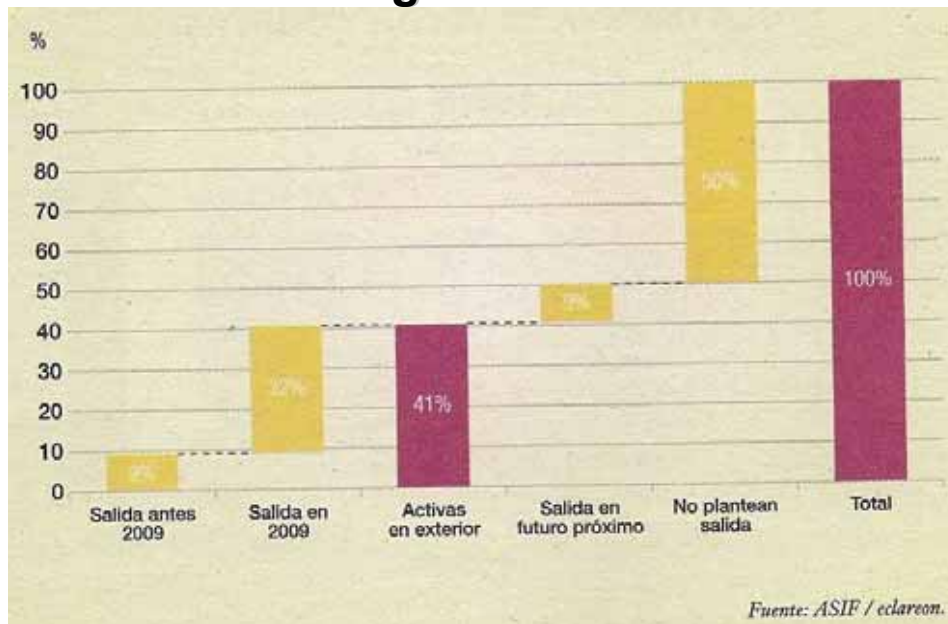
Plenty of credit (national & international)	Very limited credit
Big plants possible (P>10MW)	Plants with limit size (P<10MW)
No cap	Cap of 500MW p.a.
Generous PV Tariff (0,47€/kWh)	Adjusted PV Tariff (0,26/0,29/0,32 €/kWh ,now)
Moderate Acces to electrical network	More difficult access to el networks
Investor from others Sectors arriving to PV	Investors from other Sectors leaving PV
No previous registration	With Register as a precondition
Oil at high prices	Oil at medium prices

Market focus evolution

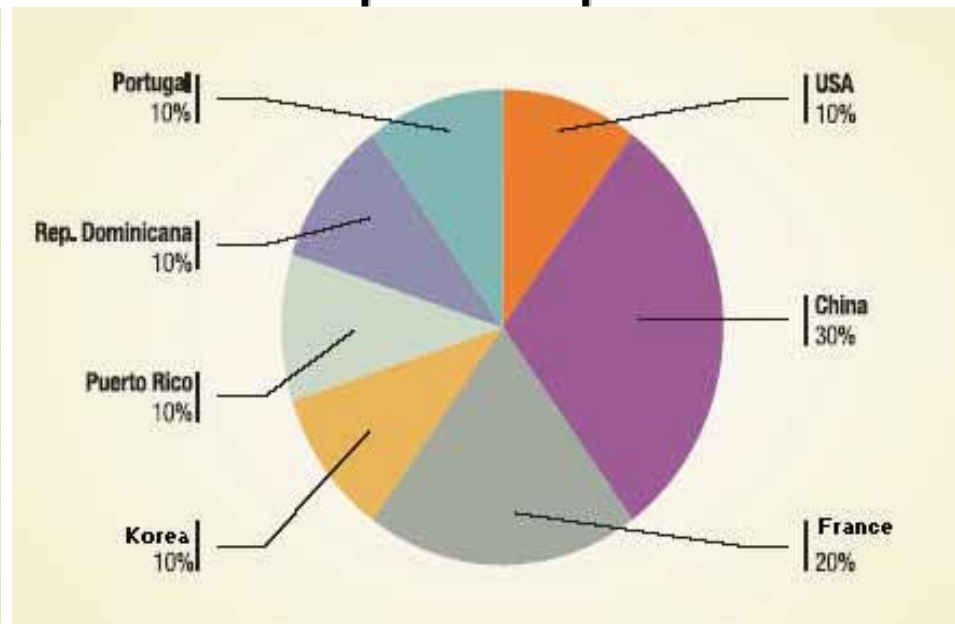


Foreign markets , a defence against PV weak domestic market

Spanish PV companies in foreing markets



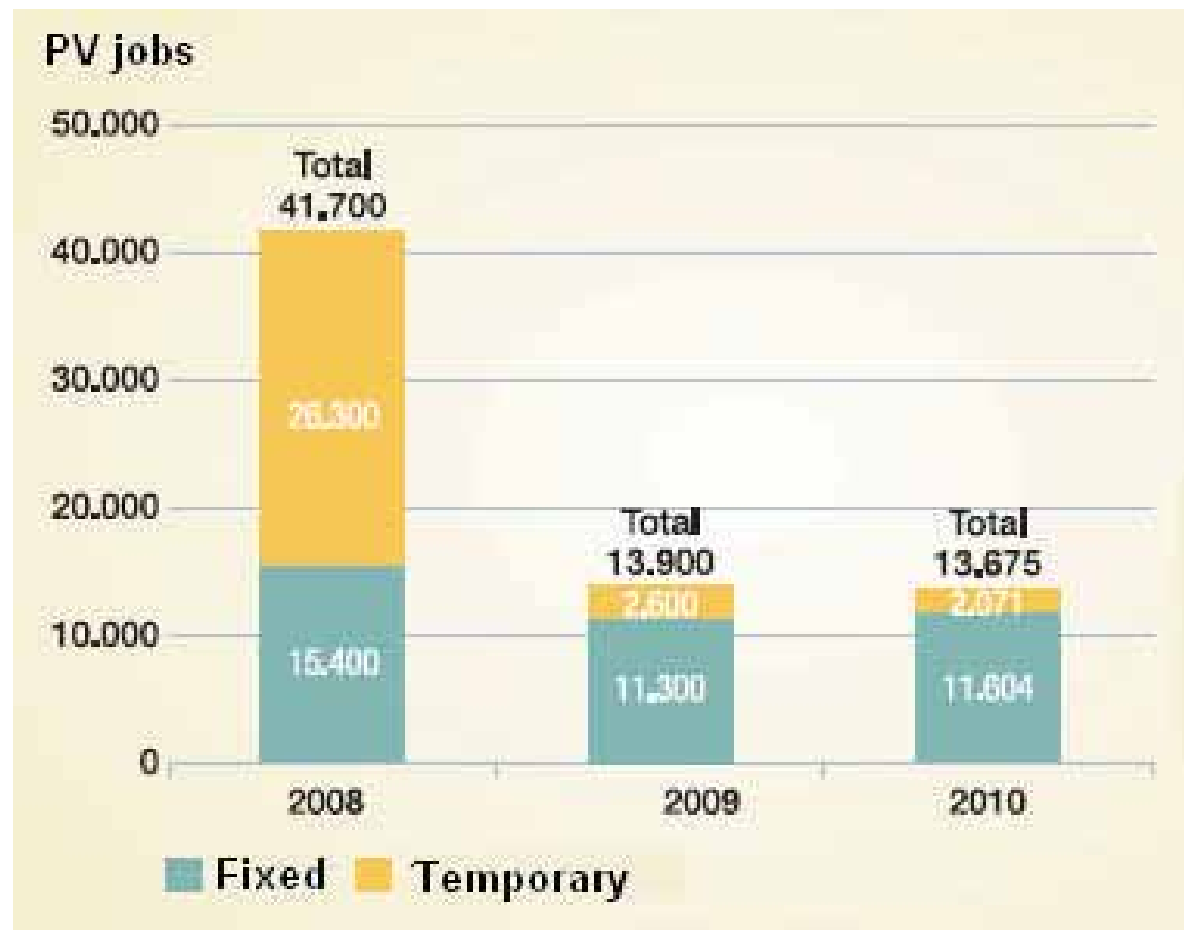
Countries with PV factories with Spanish capital



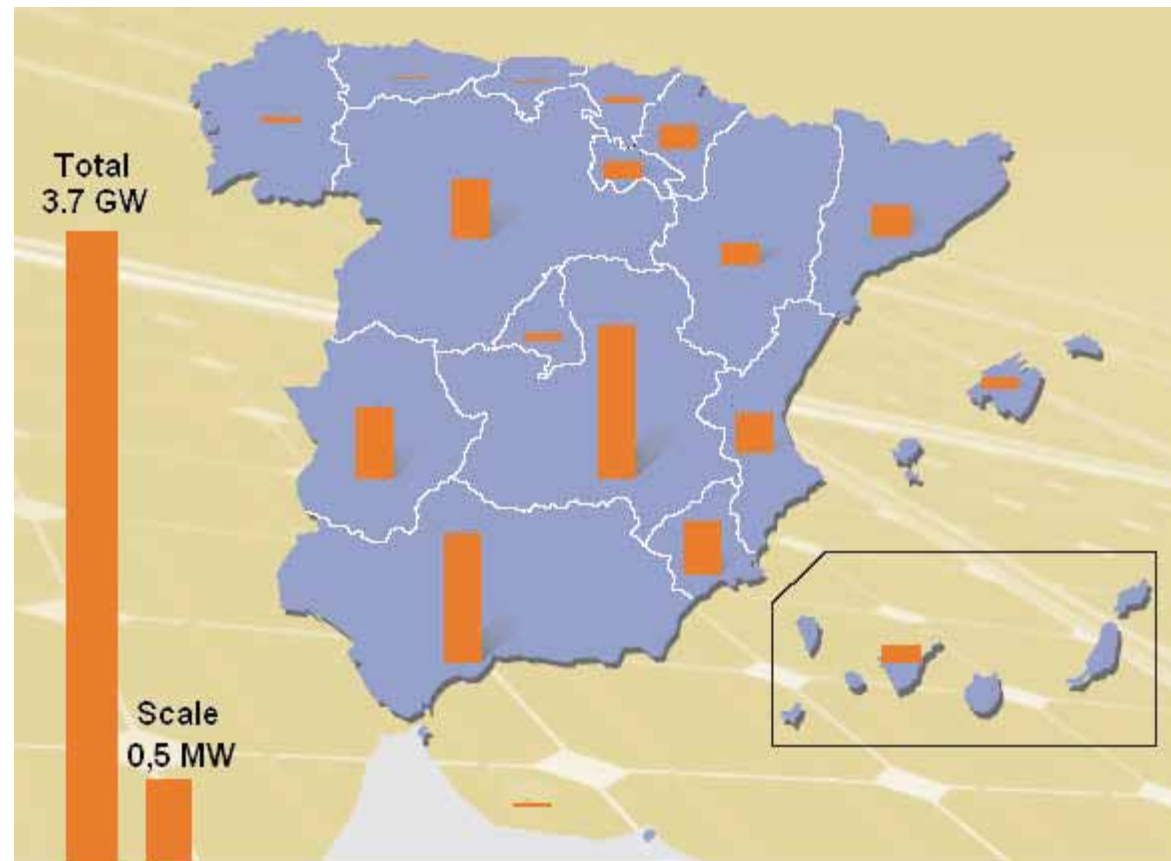
PV labour market evolution



PV jobs in PV in Spain



Fact: 3.7 GW installed (3.46 in Dec 2008)



Latest oficial data of the PV installed

National Energy Commission (CNE)



AÑO	MONTH	Number installations	Power installed (MW)
2004	Diciembre	3.208	22
2005	Diciembre	5.300	46
2006	Diciembre	9.864	148
2007	Diciembre	20.284	690
2008	Diciembre	51.310	3.398
2009	Diciembre	51.859	3.403
2010	Enero	51.958	3.426
	Febrero	52.013	3.455
	Marzo	52.091	3.479
	Abril	52.137	3.486
	Mayo	52.186	3.492
	Junio	52.186	3.492

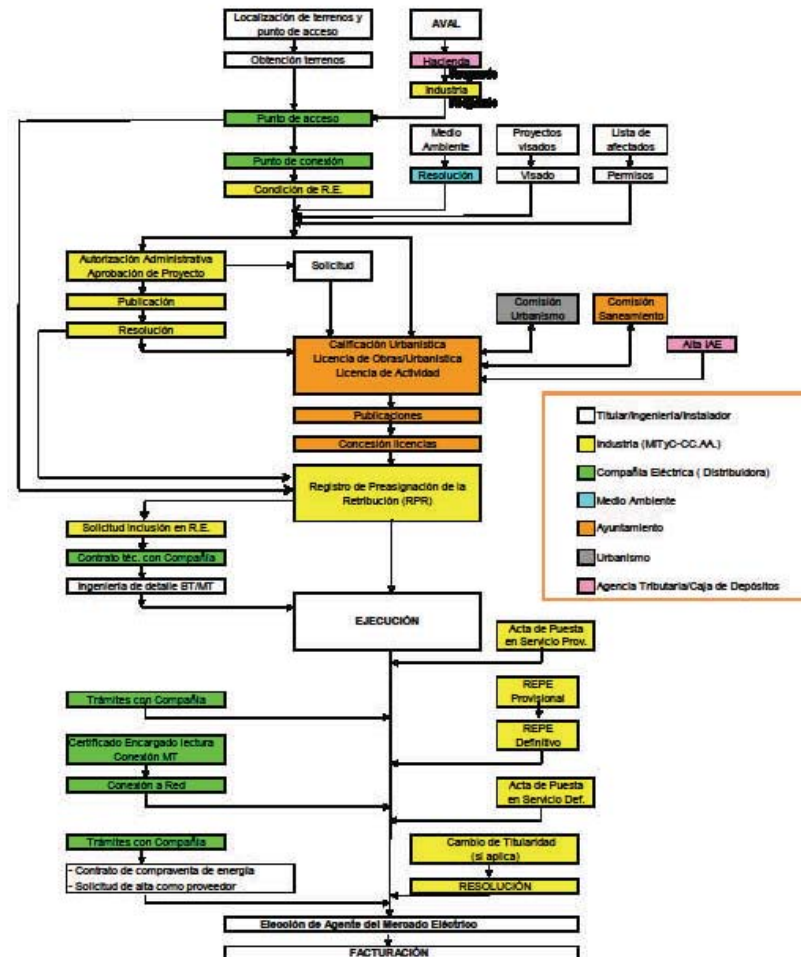


- ✓ The boom. Market evolution
- ✓ Bureaucratic barriers for PV development, recommendations. Upcoming feed-in tariff revision.
- ✓ Quo Vadis?

Administrative procedures



EN SUELO...
Tramitaciones según R.D. 1578/2008



Barriers. *PRE-REGISTER*



- The Royal Decree 1578/2009, establishes a new administrative register for electricity production installations, called Pre-assignment Remuneration Register (RPR)
- The RPR is a necessary condition to perceive the PV tariff.
- The total annual power planned is distributed in four calls
- In each call it is established the PV power cups and the PV tariff.

- **Documents required for the application in the RPR**
 - a) Having granted the access and the connection point to the grid
 - b) Administrative authorization of the installation
 - c) Building Permit (awarded by the competent administrative body)
 - d) Constitution of the deposit of the guarantee

- *Limiting power per quarter and per type of installation.*

- *Costs and bureaucracy prior to register (money and effort lost if not successful)*

- ***Proposal of PV legal.*** *The non-existence of the Register; use the register flexible feed-in tariff (as in Germany)*
- ***Perceived probability of success in the implementation of PV proposals: very low.***

Barriers. Administrative Procedures



Complicated and expensive Administrative Procedures

- **Complicated:** same procedures apply to a 2 kW installation than 2 MW. (for the case of small PV installations, these procedures are too long.)
- **Expensive:** Cost of permit and taxes high.

Several proposal of PV Legal to overcome this barrier:

- It is very important to implement a significant legal and administrative improvements to the grid connection for PV installations up to 20 kW
- The simplification of the administrative procedures is crucial if the PV roof systems want to be boosted.
- Legal and administrative improvements, eliminating the need to obtain official authorization for all connected low voltage PV installations . (Up to 100 kW).
- A legal and administrative improvements for the connection of photovoltaic installations located within the own grid of the consumer. Connecting the PV system to the internal low voltage grid. (For installations up to 10 kW).

14 **P. Probability of success:** low for installation of $P < 100$ kW, very low for higher power.

Barriers. *Payment of permits*



- Before having the RPR, and not even knowing whether it will be achieved, it is necessary to make payment of:
 - Administrative authorization of the installation (not required for installations in the sub-type I.1)
The payment of this permit for installations up to 100 kW should be eliminated
 - The Building Permit
The payment of this permit should be carried out when the PV installation is built.
Eliminating the Building Permit as a previous requirement for the application of the RPR. The exclusion of machinery and equipment item in the tax base and ICIO rates
 - The Guarantee
In some installations, due to the long waiting time in the RPR, the cost of this guarantee takes several years.

Barriers. Connection to the grid.



Complicated and expensive connection to the grid

- *Complicated: same rules apply to a 2 kW PV installation than a 2 MW*
- *Expensive: Cost of the study of the connection and the changes required to evacuate electricity to the grid are very high.*

- **Several proposal of PV Legal to overcome this barrier:**

For small installation the connection costs to the grid should be minimized for developing this distributed generation

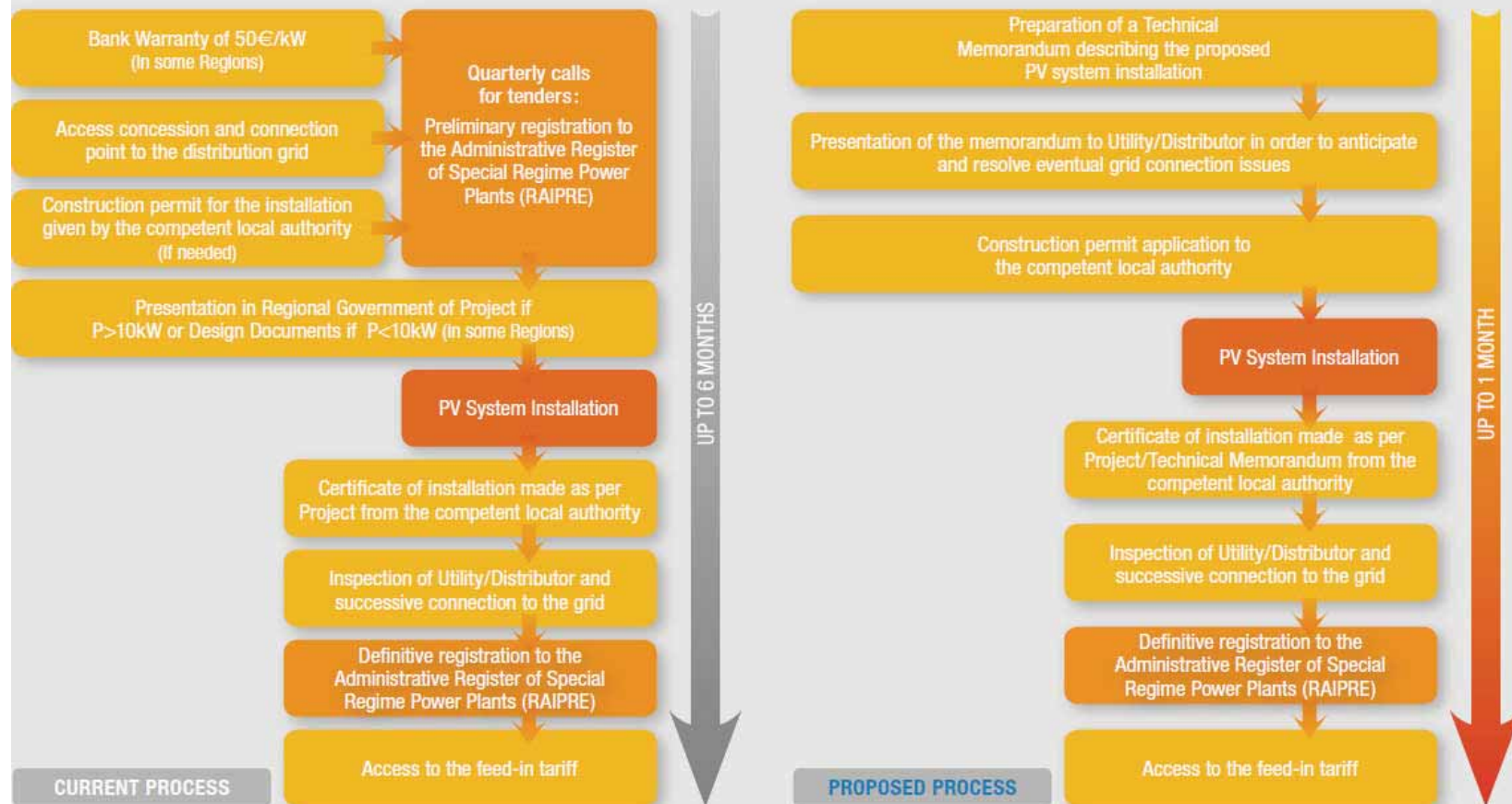
RD of Access and Grid Connection, preferably with the aim of reaching to evacuate 100% of the actual capacity of lines and transformers. In the case of transport lines it is possible to decrease the current electrical restrictions

- **P. Probability of success: very high for installation of $P < 100$ kW, low for higher power.**

Example to reduce waiting time in Spain.



CASE STUDY OF SPAIN: REDUCING LEAD-TIMES TO CONNECT A PV SYSTEM



>> This work towards simplifying and streamlining the legal administrative procedure necessary for installation of small rooftop-mounted and building integrated PV systems is very appropriate to exemplify what the PV LEGAL consortium intends to do at European level over the next 3 years.

PRE-REGISTER 2009



SUMMARY

Año 2009	Type	Cups (MW)	MW Registered	Non Registered 4th call (MW)	New projects will be registered in	Non accepted 4th Call (MW)	Feed in Tariff (c€/kWh)	Decrease of the feed in tariff during 2009
	1.1	26,72	12,76	0	2010-1 ^a	5,73	34,00	0,0%
	1.2	240,32	148,31	8,66	2010-1 ^a	186,83	31,17	2,7%
	2	327,93	341,19	908,48	2015-1 ^a	374,79	28,10	13,9%
TOTAL			502,26 MW	917,15 MW		567,34 MW		

** Fuente MICyT (Diciembre 2009)

PRE-REGISTER 2010



1st Call 2010	Type	Cups (MW)	MW Registered	Non Registered 4th call (MW)	New projects will be registered in	Non accepted 4th Call (MW)	Feed in Tariff (c€/kWh)	Decrease of the feed in tariff regarding last call	Number of Applications	Number of Applications registered
	1.1	6,68	6,02	0	2010-2ª	24,74	34,00	0,0%	817	430
	1.2	61,64	62,52	54,24	2010-2ª	162,08	31,17	2,6%	1.315	480
	2	49,94	50,89	994,73	2015-2ª	434,98	28,10	3,5%	1.439	70
TOTAL		118,25 MW	119,43 MW	0,00 MW	0,00 MW					

2nd Call 2010	Type	Cups (MW)	MW Registered	Non Registered 4th call (MW)	New projects will be registered in	Non accepted 4th Call (MW)	Feed in Tariff (c€/kWh)	Decrease of the feed in tariff regarding last call	Number of Applications	Number of Applications registered
	1.1	6,65	5,76	0	2010-3ª	4,19	33,47	1,6%	871	411
	1.2	61,44	61,48	62,11	2010-4ª	844,95	30,31	2,8%	1.277	348
	2	51,34	52,38	974,63	2015-2ª	432,82	27,32	2,8%	1.390	88
TOTAL			119,62 MW	1036,74 MW		1281,97 MW		2438,33 MW		

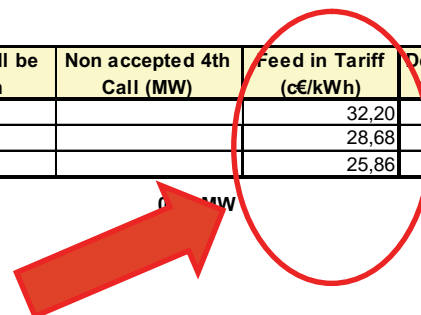
Presentados

3rd Call 2010	Type	Cups (MW)	MW Registered	Non Registered 4th call (MW)	New projects will be registered in	Non accepted 4th Call (MW)	Feed in Tariff (c€/kWh)	Decrease of the feed in tariff regarding last	Number of Applications	Number of Applications
	1.1	6,68	6,68177	1,59	2010-4ª	10,52976	33,06	1,24%	965	439
	1.2	61,64	58,84	101,29	2011-2ª	862,71	29,52	2,67%	1.674	333
	2	52,11	52,11	1.002,49	2015-4ª	405,09	26,55	2,90%	1.313	76
TOTAL			117,64 MW	1105,38 MW		1278,33 MW			3952	848

Presentados

4th Call 2010	Type	Cups (MW)	MW Registered	Non Registered 4th call (MW)	New projects will be registered in	Non accepted 4th Call (MW)	Feed in Tariff (c€/kWh)	Decrease of the feed in tariff regarding last	Number of Applications	Number of Applications
	1.1	6,54					32,20			
	1.2	60,40					28,68			
	2	52,29					25,86			
TOTAL		119,23 MW	0,00 MW	0,00 MW		0,00 MW				

** Fuente MICyT (Julio 2010)



FEED IN TARIFF. Upcoming Revision

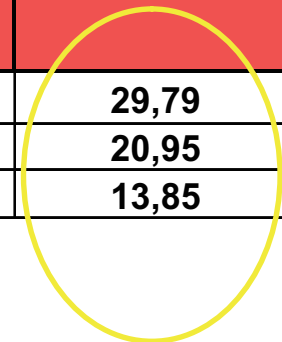


Type PV Installation	Current Feed in Tariff (c€/kWh). Last Call 2010	Supposed Feed in tariff (c€/kWh) for 1st Call 2011
1.1	32,20	31,36
1.2	28,68	27,94
2	25,86	25,19

Proposal of decrease
Draft RD (July 2010)



Type PV Installation	Decrease	Feed in Tariff 2011 (c€/kWh)
1.1	5%	29,79
1.2	25%	20,95
2	45%	13,85



SWOT Analysis of the PV's in Spain



Weaknesses

- Limiting, Complex and Expensive Administrative Procedures.
- Complex and Expensive Connection Procedures to the grid.
- Economic and financial situation of Spain and the electrical system*

Threats

- Unfavorable regulatory change.
- Opposition of gas and other displaced technologies by a strong entrance of PV in the system
- Other renewable technologies getting more share of EU 2020's target of Renewable than planned.

Strengths

- High sun irradiation.
- PV Industry with high experience and quality products
- Determination of the PV associates in ASIF to overcome existing and looming problems

Opportunities

- EU 2020's target of Renewable origin.
- Grid parity
- PV Legal.

**Spain within economic & financial difficulties (11%+ GDP deficit) + Within electric system difficulties (tariff deficit: 20k M€)*

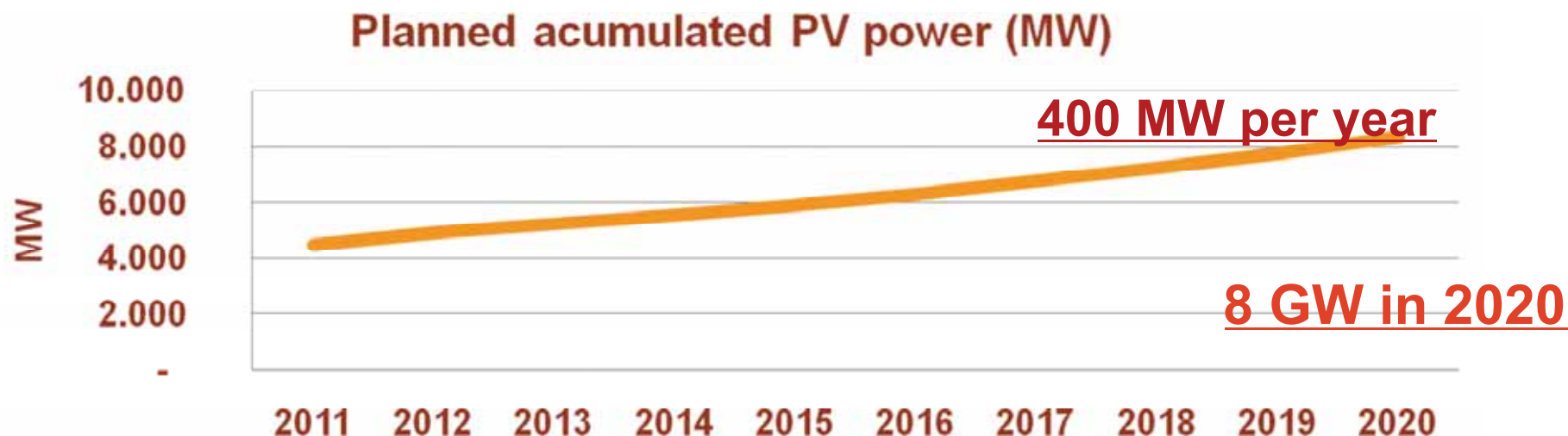


- ✓ The boom. Market evolution
- ✓ Bureaucratic Barriers for PV development, recommendations. Upcoming feed-in tariff revision.
- ✓ Quo Vadis?

Quo Vadis?



As per PANER 2011-2020, presented to the EU's Commission.



The future of the PV in Spain:

- Soon it will achieve the Grid Parity and this situation can cause a significant increase in installed PV capacity destined to self consumption.
- Photovoltaics have an important role in buildings (BIPV, roofing and facades), and also a role in the distributed generation of electricity.
- PV can have an important participation in other initiatives such as the electric vehicle.

Future



- ***Now, PV Market is at very low speed, at about 150 MW per annum, waiting the new regulation.***
- ***Short term, positives forces in the Spanish market (Strengths and Opportunities), will compete very strongly against negative forces (Weaknesses and Threats), in order to attain a favorable new regulation.***
 - *At present, a tough regulation, mainly for ground installations, is under discussion; for January 2011, the following tariffs are looming: 0,138 €/kWh for ground, and between 0,209 and 0,297 €/kWh for roofs.*
 - New regulation is expected to be approved by November 2010 .*
- ***Medium term, after the transient of 2010, in 2011 and onwards, PV market in Spain is expected to attain a sustainable growth in the range of 500 MW per annum.***
- ***Long term, attained grid parity and self consumption being regulated, the future will provide a stronger PV market.***

PV Legal comes to the right moment to contribute to this future.

Thank you for your attention!



More Information:

Lucía Dólera
ASIF
luc@asif.org
+34 915 900 300