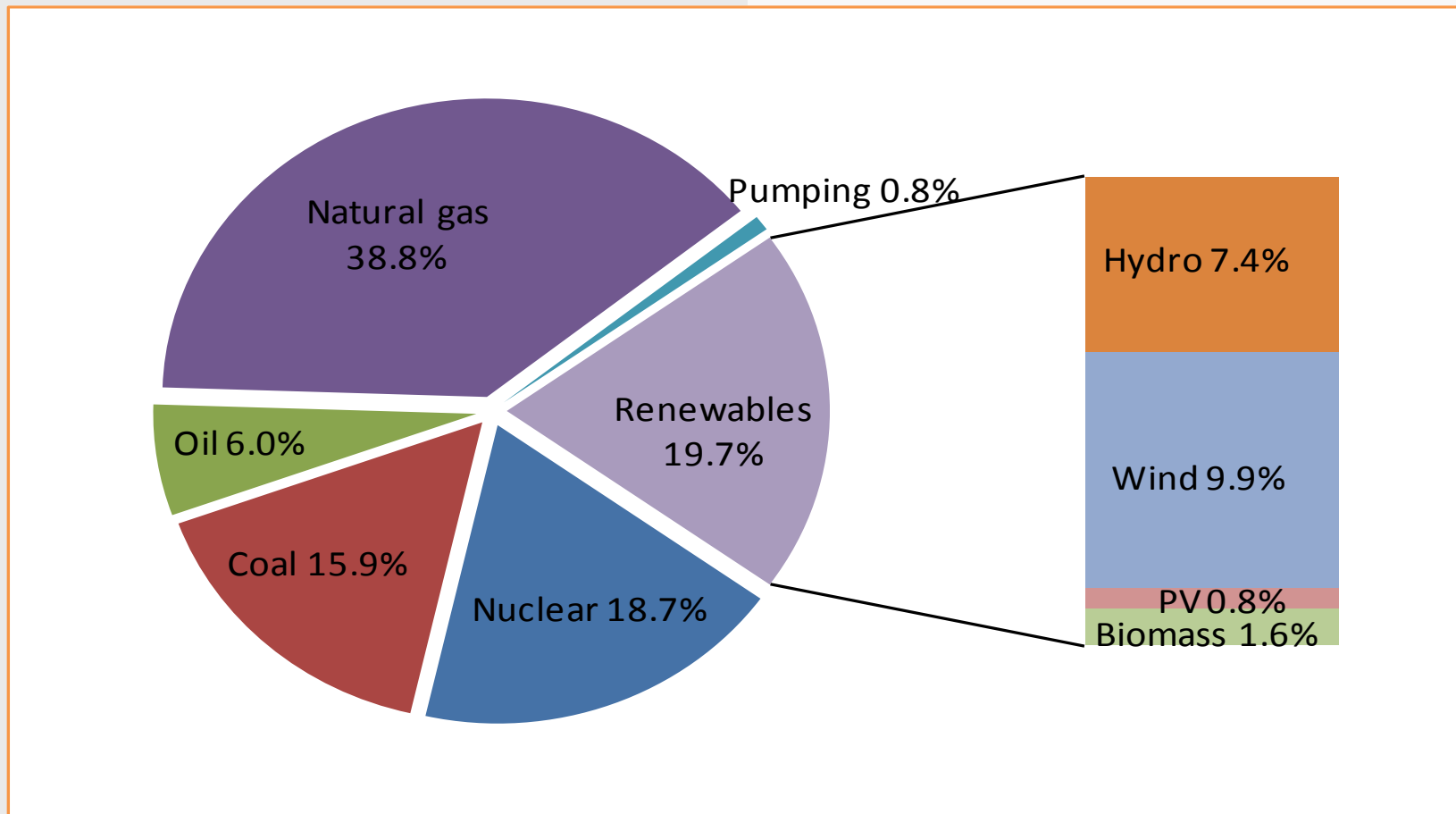


Royal Decree Act 6/2009, dated 30th April, approving measures in the energy sector

Hugo Lucas
IDAE - Support to the Renewable Energy Directorate
Department

CONTRIBUTION OF RES TO ELECTRICITY GENERATION, 2008



Total Generation : 315 TWh

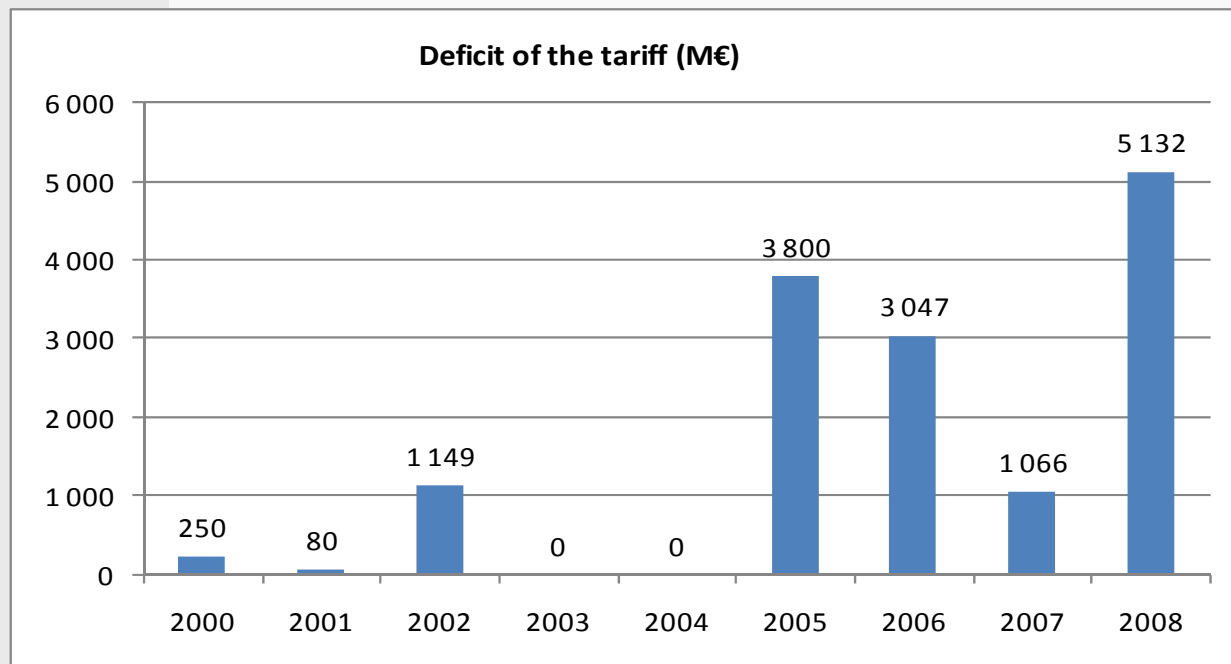
RREE Generation: 62,2 TWh

DEFICIT OF THE TARIFF

$$\text{Yearly average tariff} = \frac{\Sigma \text{foreseen costs}}{\text{foreseen demand}}$$

Component of the tariff

- Generation cost
- Permanent cost
- Transmission cost
- Distribution cost
- Comercialization cost
- RES & cogeneration**
- Export fees
- Ajudments



SUPPORT TO RES AND COGENERATION IN 2008

2008 Technology	Installed Capacity (MW)	Energy sold (GWh)	Total Retribution (10 ³ €)	Average price (cent€/kWh)	Support (10 ³ €)	Support (cent€/kWh)
Cogeneration	6 170	20 596	2 005 497	9.74	683 169	3.3
Solar	3 204	2 335	1 057 922	45.31	908 006	38.9
Wind	15 187	30 706	3 100 377	10.10	1 129 023	3.7
Hydro	1 949	4 446	427 862	9.62	142 452	3.2
Biomass	560	2 475	282 946	11.43	124 040	5.0
MSW	573	2 650	233 038	8.79	62 900	2.4
Other	546	3 027	334 613	11.06	140 298	4.6
	28 190	66 234	7 442 255	11.24	3 189 887	4.8

The 3.2 thousands million Euros are coming from the transport and distribution fee.

The transport and distribution fee is established by the Government in December of the previous year, for this it is necessary to forecast the amount of support to renewables for the next year.

In the last years short prediction on the support has created a deficit of the tariff.

SOCIALIZATION OF RES-e COST

Regulated cost	Assigned criteria	Parameter to distribute
Transmission & Distribution	According to a Model of Network	Peak capacity in each voltage level
Trading Management	Standard cost per client	Clients
Extras: Systems on the Islands SO, MO, Regulator Stranded cost Dismantling nuclear plants and management of nuclear waste	Steady charge on the T+D fee	%
Stranded costs Premiums RES+CHP	Steady charge on the T+D fee, indirectly proportional to the demand elasticity	%

To avoid the deficit of the tariff the new Act:

New formula for the calculation tariff (real cost, spot-forward, three months);

Established a new administrative procedure that will allow a better calculation of the cost of renewables for next year;

Nuclear cost is passed to the nuclear generator;

Extra cost of the insular systems is passed to the National Budget.

ROYAL DECREE ACT 6/2009 PRE-ASSIGNMENT

Similar to the Royal Decree 1578/2008 this Act establishes a register called pre-assignment register.

To be awarded with the feed-in tariff it is necessary to be included in the pre-assignment register.

Applicants must to prove to the State Secretariat for Energy to fulfill with the following requirements:

Concession from the TSO or DSO of the connection point;

Administrative authorization (regional administration);

Works License (local administration);

Bank guarantee for the access to the grid;

ROYAL DECREE ACT 6/2009 PRE-ASSIGNMENT

Applicants must to prove to the State Secretariat for Energy to fulfill with the following requirements:

To have disposal funding to cover 50% of the investment cost of the installation included the connection infrastructure;

To have signed contracts with suppliers for, at least, 50% of the equipment;

To have access to natural gas network by the gas transport or distribution company;

To have permission for water use by the competent body;

Bank guarantee in favour of the General Directorate of Energy and Mining Policy for the amount 20 €/kW. For Concentrated Solar Power the bank guarantee is 100 €/kW.

After the admission in the register promoters have 36 to start operation.

When reached the target for 2010 an annual cap could be implemented.

ROYAL DECREE ACT 6/2009 PRE-ASSIGNMENT

Conclusions:

A more sustainable development of renewable energy;

A better integration in a liberalized market.

Some concerns by stake holders:

Heavy administrative procedures that penalize small promoters.

RD 1578/2008 CATEGORIES

TYPOLOGY OF FACILITIES	
TYPE I	ROOFS OR WALLS: USES: RESIDENTIAL, SERVICES, COMMERCIAL, INDUSTRIAL, AGRICULTURAL (FARMING). PARKING (FOR THESE USES).
TYPE II	REST, NOT INCLUDED IN TYPE I.

		CAPACITY
TYPE	I.1	$P \leq 20 \text{ kW}$
	I.2	$20 \text{ kW} \leq P \leq 2 \text{ MW}$
	II	$P \leq 10 \text{ MW}$

RD 1578/2008 QUOTAS & TARIFFS

		BASE (MW)		EXTRA (MW)		TOTAL (MW)	
		2009	2010	2009	2010	2009	2010
TYPE	I.1	26,70	29,37			26,70	29,37
	I.2	240,30	264,33			240,30	264,33
	II	133,00	146,30	100,0	60,0	233,00	206,30
TOTAL		400	440	100	60	500	500

		QUOTA 1C (MW)	TARIFF (c€/kWh)
TYPE	I.1	6,675	34
	I.2	60,075	32
	II	58,25	32
TOTAL		125	

QUOTA 2011	QUOTA 2012
32,31	35,54
290,76	319,84
160,93	177,02
484	532

RD 1578/2008 EVOLUTION OF THE TARIFFS

- If 75 % of the quota is covered, the TARIFF DECREASES:

$$T_n = T_{n-1} [0,974 + 0,026 \times (Q_0 - Q) / (0,25 \times Q_0)]$$

- If 75 % of the quota is not covered, the TARIFF IS KEPT.

Q_0 = Quota of power for the call n-1, without including transfers of capacity

Q = Quota really registered in the pre-assignment register in the call n-1.

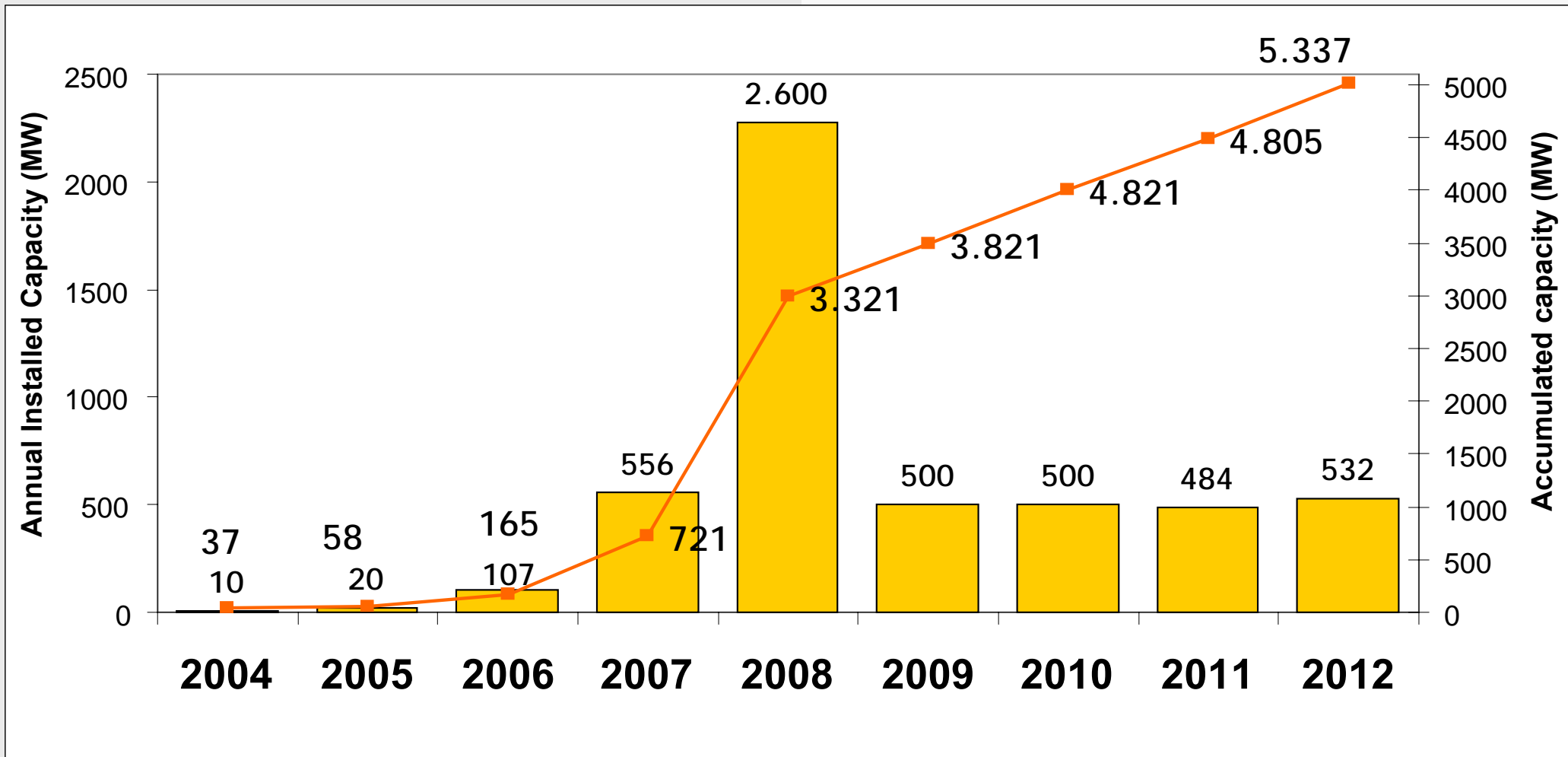
RD 1578/2008 EVOLUTION OF THE TARIFFS

TIPO I.1	1C	2C	3C (PROV)
Quota (MW)	6,7	6,7	6,7
Applications (MW)	3,1	6,1	6,6
Accepted (MW)	1,7	3,6	No data available
Tariff (c€/kWh)	34,0	34,0	34,00

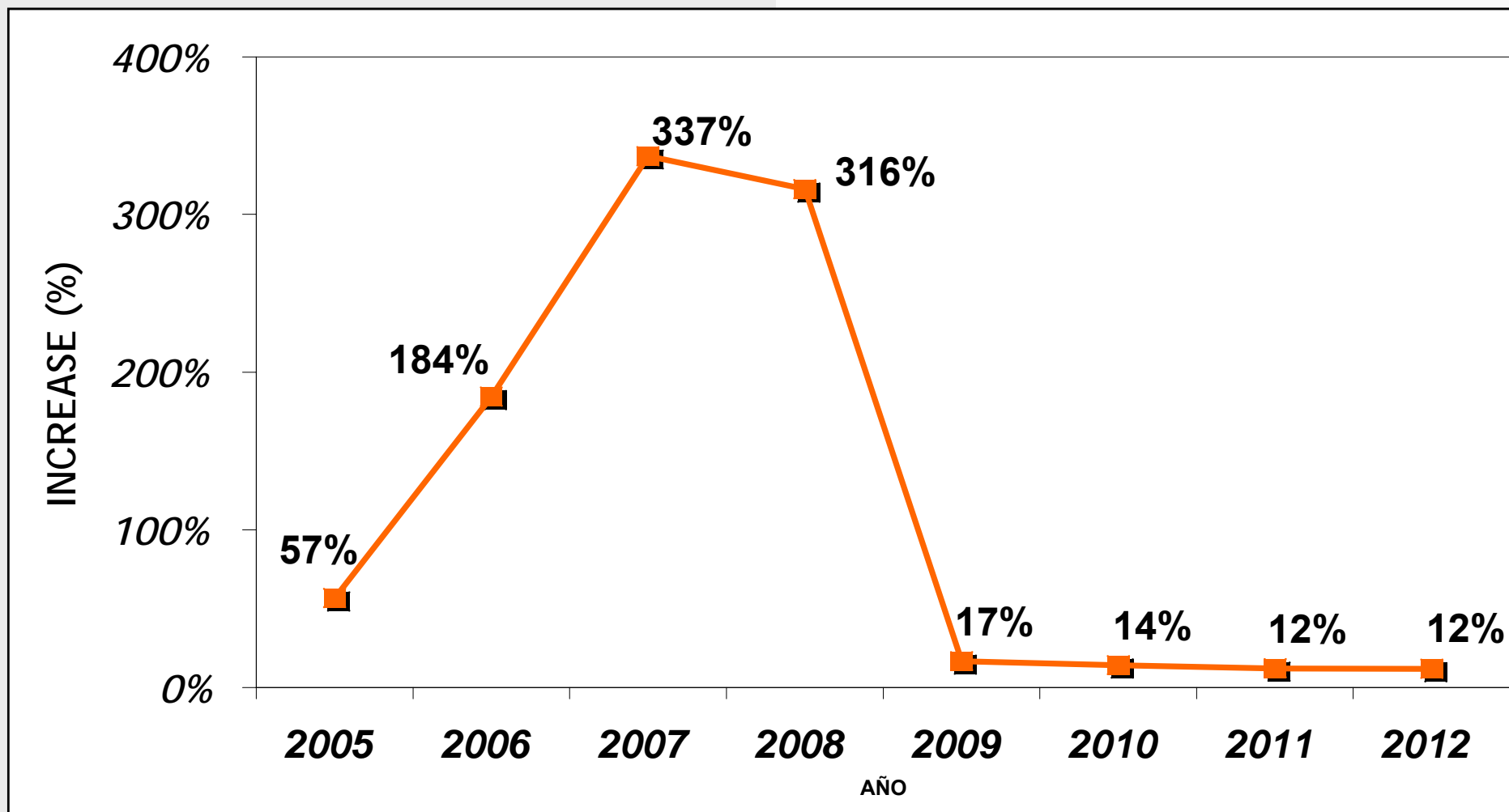
TIPO I.2	1C	2C	3C (PROV)
Quota (MW)	60,1	60,1	60,1
Applications (MW)	28,3	64,1	112,2
Accepted (MW)	20,9	31,7	No data available
Tariff (c€/kWh)	32,0	32,0	32,00

TIPO II	1C	2C	3C (PROV)
Quota (MW)	58,3	94,6	89,5
Applications (MW)	898,8	1.367,3	1.381,3
Accepted (MW)	66,1	94,7	No data available
Tariff (c€/kWh)	32,0	30,7	29,13

EVOLUTION OF THE INSTALLED CAPACITY



INCREASE OF THE ACCUMULATED CAPACITY



RD 1578/2008 SUMMARY

The need to redesign the PV feed-in tariffs is based in:

To optimize the FIT to guarantee a profitability more adapted for a regulated activity.

To give a longer term perspective.

To better control the cost of the FIT.

To design a tariff systems that internalizes the reduction cost due to technological development

To encourage the decrease of the cost of the installations, increasing competitiveness in the sector.

To encourage the installation on roof to profit from distributed generation.

Thank you for your attention

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