



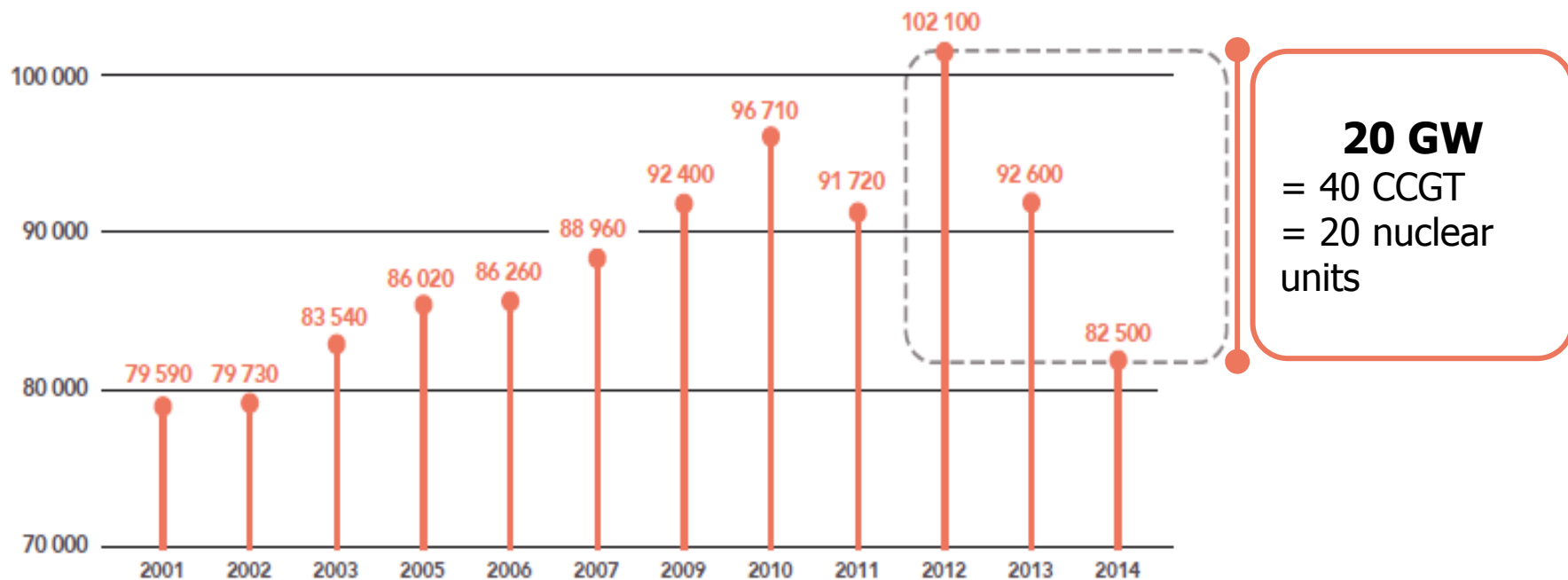
The French capacity market design

Capacity mechanisms in Europe – September 28th 2015

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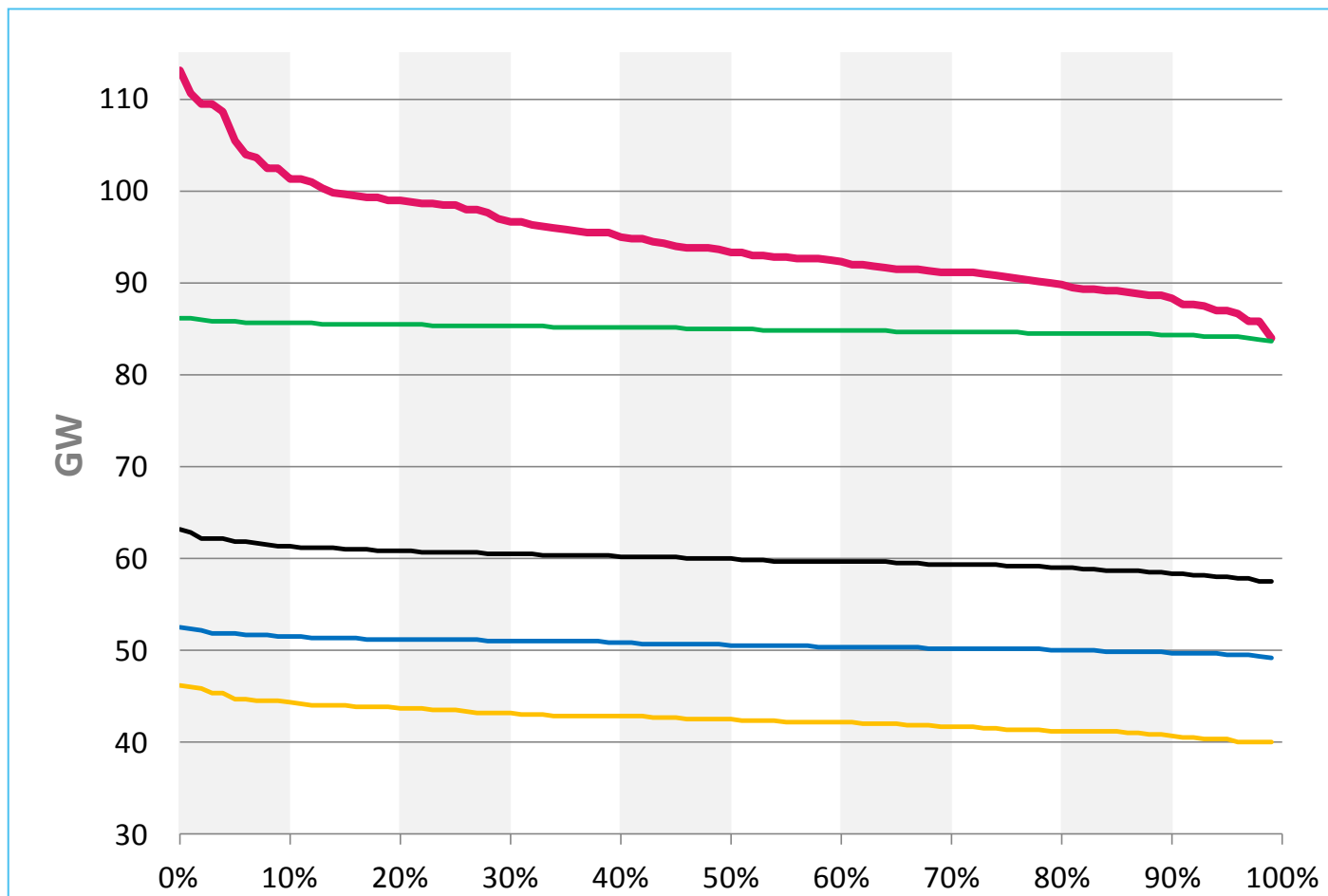
Security of supply in France: a real peak-load issue...

- The French electrical demand increases drastically during cold waves
→ **need to ensure adequacy (and not “generation adequacy”)**
- Extreme volatility of the French peak load
→ **need to provide adequate economic signals to ensure investments and retirements (generation and demand response) according to system needs**



Evolution of the peak load in France since 2001

... specific compared to other EU countries



Peak power load duration curve expectations (one-in-ten indicator) for all major EU countries
RTE, 2015

A CRM designed to specifically address this situation

A capacity-wide mechanism to avoid distortions

Strategic reserves would not have been a small adjustment (many GW of capacity under contracts with the TSO) → fears of important distortive impacts on the energy market and risk of slippery-slope effect

A specific role for demand-response to select the most efficient solutions

DR is an efficient way to address high-magnitude, low probability peak load events. Design embedded in a comprehensive policy to promote DR: many aspects (product characteristics, timetable, role for DR operators) have been settled accordingly.

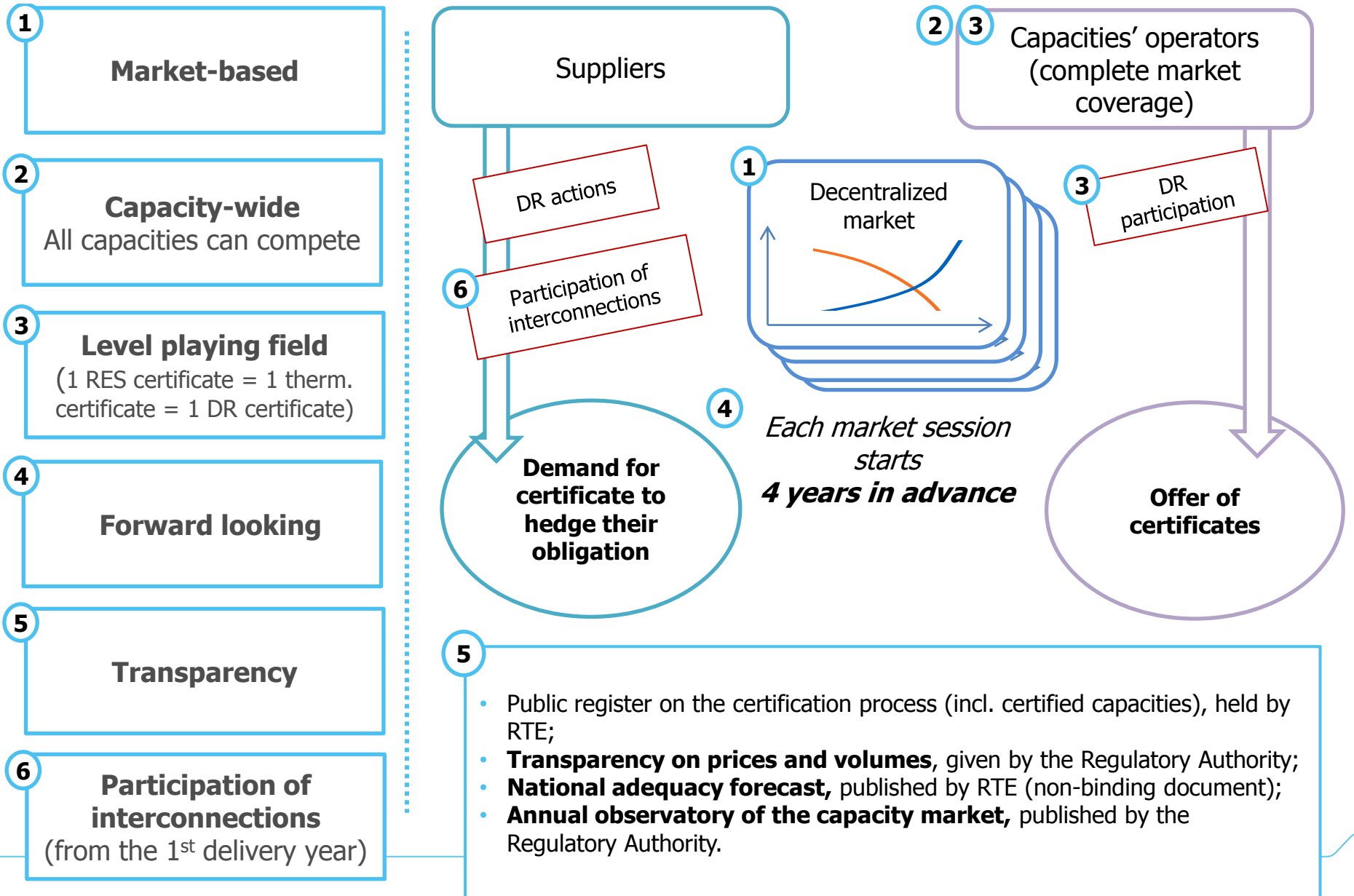
A decentralized mechanism to avoid over-procurement

Risk of a self-fulfilling prophecy (an ever-increasing peak load) if a central buyer is responsible for assessing the need at French level. Choice to base each obligation supplier on its metered consumption.

A "BRP-like" mechanism to comply with the philosophy of EU single energy market

Compatibility with initial target models assessed from the start, with a desire to be faithful to the principles of EU regulations (= responsibility for market players). The French CRM means it is mandatory for suppliers to contract an insurance against peak loads. Market players are financially responsible: no public money to finance the CRM

Core design elements



Key questions on the French capacity market design

Is the capacity market designed to systematically address the “missing money” problem?

→ Generation and demand-response capacities will be remunerated for the effective service they provide to ensure security of supply. This remuneration is not a subsidy (the French capacity market will not prevent all capacities to be mothballed/decommissioned).

Is the French capacity market really decentralized?

→ The State defines a unique security of supply criteria which provides market players with the overall target in terms of security of supply. However, market players are trading certificates as a commodity and hedge against their risk. There is no capacity target.

Can the capacity market lead to a technology lock-in effect regarding the energy mix?

→ RES generation and demand-response are fully integrated in the capacity market and can compete on a level playing field with conventional generation. The French capacity market should increase the role of demand-response regarding system adequacy.

One policy for demand-response

2009
-
2010

DIAGNOSIS



2010
-
2014

STRUCTURAL SOLUTIONS

1. Target Model enhancement

- DR participation in all markets ✓
- Expansion of market coupling ✓
- Revision of RES support schemes ■■■

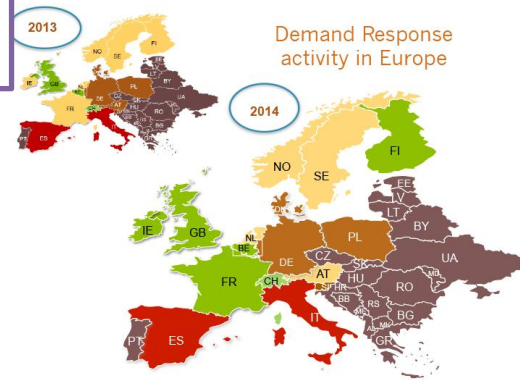
2. SoS oriented capacity market

- Designed to ensure security of supply
- Full DR participation
- Energy transition ready

2014

FIRST RESULTS

- DR is bouncing back (major role of capacity price signal)
- ~10 DR operators
- Up to 30% of "rapid reserve" provided through DR



Further on-going work on EU integration and assessment of the economic impact of the capacity market

April

May

June

July

August

Sept.

Oct.

Nov.

Dec.

1

What kind of evolutions for the French CRM?

Public consultation

White paper to propose short and long-term evolutions of the capacity market



Definition of a check-list to assess XB solutions

Assessment of XB solutions

2

Regional approach

Public consultation

Review of existing CMs

Key principles for regional approach

3

2nd range of economic studies on the French capacity market

Dynamic studies on long-term effects on consumers and EU energy market

Impact of XB solutions

Thank you for your attention



RTE's supporting document on capacity market's rules is available:

- [in French](#)
- [in English](#)