



**High Level Seminar - Capacity market: what's next?
Round Table - Capacity Markets: the Perspective of
European Regulators**

**THE ITALIAN CAPACITY MARKET
(IT CRM)**

Valeria Termini, Commissioner
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Rome, September 15th 2014



SUMMARY

- Milestones
- Aims and tools
- Structure of contracts
- Yearly auctions
- Contract parameters
- Adequacy target



MAILSTONES TOWARDS THE IT CRM

- Definition of principles by the law: competition, transparency, no discrimination, no market distortions | 2003
- Criteria proposed by AEEGSI: publicly consulted through five consecutive consultation documents, including a close examination of international experiences (New England, PJM and Spain) | 2005 to 2010
- AEEGSI defines criteria to be followed by the TSO in developing its detailed proposal | 2011
- Detailed proposal by the TSO for public consultation | 2012/13
- AEEGSI positive check of its compliance to the criteria | 2014
- Ministry of Economic Development final approval | 2014
- **Auctions** | 2015
- **Delivery period** | 2018/19





AIMS AND TOOLS

AIMS

- to ensure system adequacy at the minimum cost (medium and long term) by:
- fostering the coordinated development of generation and transmission network → risk hedging for private investors
- promoting competition on a long term perspective → efficient long term price signals

TOOLS

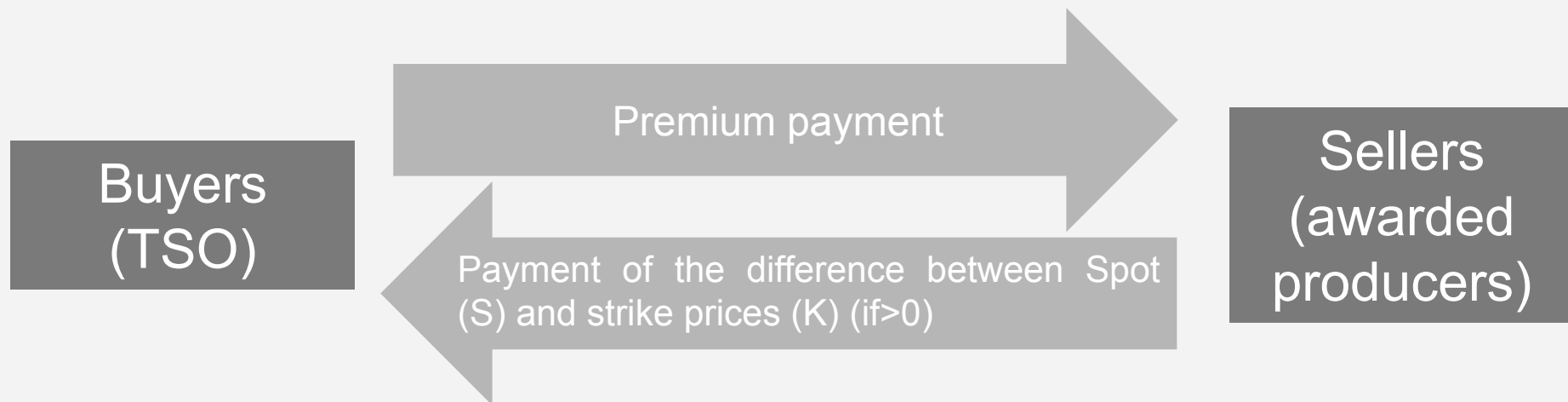
- the auctioned product is a reliability option contract

EXPECTED IMPACT

- reducing the effects of boom and bust cycles of investments, typical of the electricity sector (worsened by RES growth);
- more coherence and stability of the conduct of regulatory policy



STRUCTURE OF CONTRACTS



- Contract structure: reliability call option (1-way CfD)
- Real option - Sellers are obliged to submit offers in Day Ahead, Ancillary Services and Balancing Markets



YEARLY AUCTIONS

- Organized by Terna (TSO)
- Participation is voluntary
- Sellers submit their portfolio offers during a descending clock auction
- Both new (planned or under construction) and existing resources (generators and loads) are admitted to the CRM as long as these are:
 - programmable [for instance: thermal (fossil, biomass, solar), pumping storage, conventional hydro etc.];
 - not subject to any type of investment incentive scheme;
 - not subject to any dismantling measures approved by competent authorities.



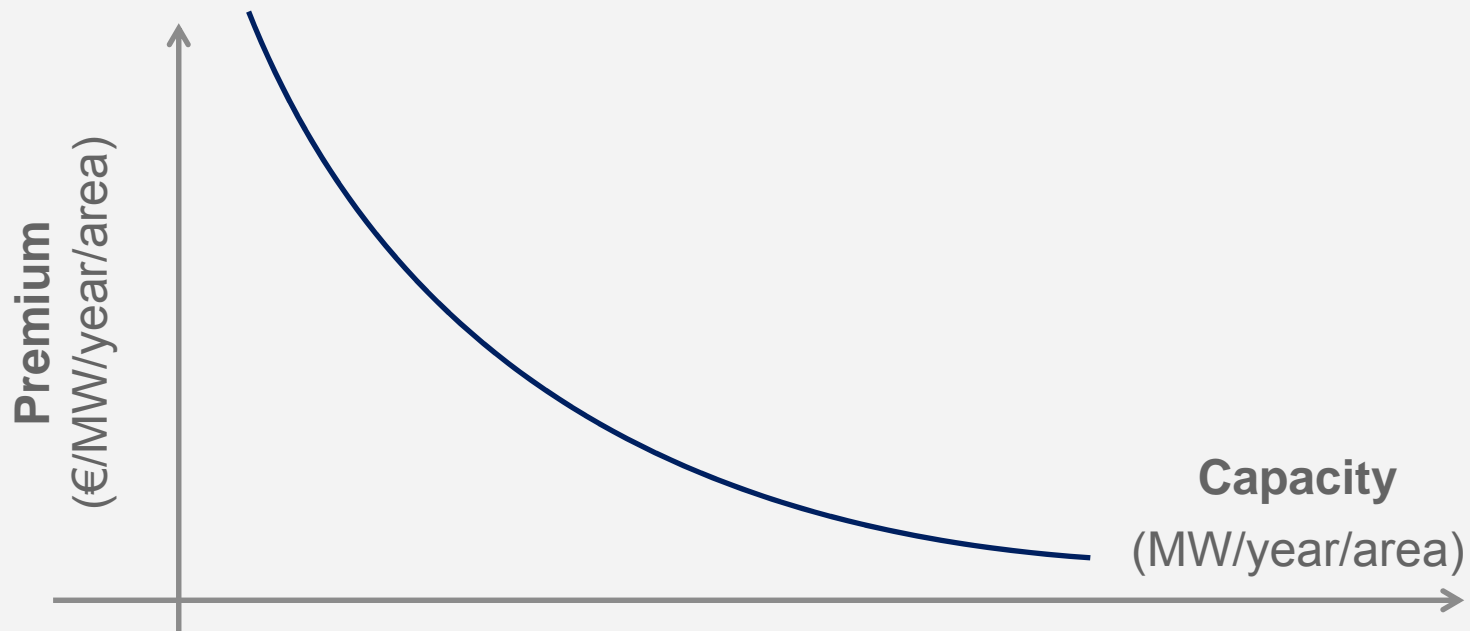
CONTRACT PARAMETERS

Planning period	4 years	To promote competition between existing and new capacity
Delivery period	3 years	To mitigate sellers investment risks
Location	Grid area where the resource is located	To give proper locational signals
Strike price	Standard variable cost of an efficient peak plant	To be efficient and non distortive with respect to the generation mix



ADEQUACY TARGET

- Terna (TSO) defines, on annual basis, the adequacy target as a function of VOLL, LOLP, Variable Cost margtech. An elastic yearly demand curve to be defined for any relevant area (areas to be identified according to transmission limits)





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THANK YOU!

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REFERENCES

- Fred C. Schweppe, Michael C. Caramanis, Richard D. Tabors and Roger E. Bohn - *Spot pricing of electricity* , Kluwer Academic Publishers (1988)
- Steven Stoft - *Power System Economics*, IEEE/Wiley (2002)
- Fabien Roques, David M. Newbery, William J. Nuttall - *Generation Adequacy and Investment Incentives in Britain: from the Pool to NETA*, University of Cambridge (2004)
- Peter Cramton and Steven Stoft - *A Capacity Market that Makes Sense*, Electricity Journal, 18, 43-54, August/September 2005.
- Fabien A. Roques - *Technology Choices for New Entrants in Liberalized Markets: The Value of Operating Flexibility and Contractual Arrangements*, International Energy Agency, 2007
- William W. Hogan - *Electricity Wholesale Market Design in a Low Carbon Future*, Harvard University (2010)
- Benedettini S., Buglione G., Cervigni G. – *Do Capacity support schemes work? An empirical assessment across OECD countries*, IEFCE Center Bocconi University
- Cervigni G. – *Generation Capacity Adequacy in Europe: What Economic Rationale for Capacity Remuneration Mechanisms?*, CERRE 2013