Proposal for the Reform of the Italian Electricity Market

Private summary
ACCELERATING THE TRANSFORMATION OF THE ITALIAN ELECTRICITY MARKET

Considering the challenging targets ahead, Confindustria has acknowledged that the current electricity market model can no longer meet some of its key principles and, in particular, the ability to:

- support the transition towards a more sustainable market
- protect consumers and competition
- ensure market affordability

This is the result of several causes, but two of them are certainly the most relevant and nowadays clearly understood also by public opinion:

- The energy dependance of the Italian system from imported energy sources – caused by the need to source fossil fuels (mainly gas) abroad as well as by the structural challenge to rapidly develop new renewable generation assets
- An obsolete market design that is ineffective in integrating renewable generation and does not allow end users to benefit from the low costs of renewables

Confindustria’s proposal aims at overcoming these critical issues and fostering the development of renewables through a market model capable of separating the value of their energy from fossil fuels costs. To achieve the aforementioned objectives, it is necessary to:

- build a new market platform to foster the development of renewable production and to “decouple” renewable technology value from costs of fossil-fuelled electricity production
- create it as a direct market for renewable energy from producer to consumer, capable of considering all additional costs for the flexibility needed to make demand and production profiles compatible

### MARKET STRUCTURE AND SUPPORT MECHANISMS – TODAY AND EXPECTED DEVELOPMENTS IN THE NEAR FUTURE

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**Legend**

- Energy markets
- Ancillary services markets
- Time-Shift market
- Auctions – RES
- Auctions – large storage

**Relevance level:**

- High
- Medium
- Low

- Developed
- To be developed
- Outdated

Assuming that the permitting problem is solved and that new auctions are launched shortly, a greater participation is expected compared to previous RES auctions.

Auctions – large storage²

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The identified reform proposals focus on three main areas of intervention:

1. **RES and Flexible Resources Development**
   - Creation of a free long-term market for RES (PPA Platform)
   - In a transitional phase, creation of a semi-regulated RES market (MAVER) for renewable energy trading
   - Creation of a flexibility market (Time-Shift)

2. **Existing Markets Reform**
   - The Capacity Market remains the mechanism for ensuring system adequacy in the case of a proven need and will be updated extending its scope and flexibility objectives
   - Evolution of ancillary services, in line with European and TIDE guidelines

3. **TSO-DSO Coordination**
   - Evolution of the networks and services management model on distribution networks according to clear, implementable and shared regulation principles
In order to ensure its cost-effectiveness, the market needs to be redesigned based on the characteristics of the electricity system envisaged by the green transition. The new market design shall consider, on the one hand, non-programmable (or intermittent) renewable generation, which is unable to adapt to consumer needs, and, on the other hand, technologies able to provide the flexibility required to adapt generation to demand.

To allow a proper integration of renewable sources, it is necessary to decouple RES from the short-term markets and from natural gas, by creating a “PPA Platform” where consumers can directly purchase renewable energy with profiles suitable to their needs with medium-long term tenures.

The PPA Platform will provide medium-long term price signals accounting for the evolution of technologies cost. Its added value will be to provide consumers with green energy with standard profiles, making it available even when not produced.

This will be possible only using flexible resources (e.g., hydroelectric storage and batteries). Therefore, it will be essential to immediately envisage the presence of a new flexibility market (Time-Shift market) to complement the PPA Platform and provide operators with the necessary medium-long-term tools to guarantee the sustainability of the products traded on the PPA Platform.

Since there is a substantial gap between the current market model and this new market model, Confindustria believes it is necessary to create a precursor to the PPA Platform, identified in the MAVER (Mercato di Acquisto e Vendita di Energia Rinnovabile, meaning market for the purchase and sale of renewable energy), capable of:

- adapting to current market design and renewables support mechanisms
- accelerating the energy transition
- efficiently leading the Italian electricity market to the new model.
THE NEW MARKET - TRANSITIONAL PHASE

MARKET STRUCTURE AND SUPPORT MECHANISMS – TRANSITIONAL PERIOD

EXISTING MARKETS

- Spot (MGP-MI)
- Forward
- PPA Bulletin Board¹/Bilateral PPA
- MSD spot
- Capacity Market

NEW MARKETS

- MAVER
- PPA Platform
- Time-Shift
- MSD forward

SUPPORT MECHANISMS

- Auctions – RES
  - RES auctions will remain in force until the entry in force of the MAVER, which, only for a limited period and for limited volumes, will guarantee a gradual evolution of the auctions themselves, through the inclusion of pay-as-produced products²

- Auctions – large storage
  - Auctions on "low regret" volumes, which, at an early stage, will have to guarantee the coal phase-out, to facilitate the integration of RES and to contribute to the system security and adequacy

Legend

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Relevance level:

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1. In the MAVER scheme, a pay-as-produced product substantially reproduce the characteristics of the RES supply contracts envisaged by the Dlgs 199/2021 | MGP: Mercato del Giorno Prima (Day-Ahead Market); MI: Mercato Infra-giornaliero (Intraday Market); RES: Renewable Energy Sources; MSD: Mercato dei Servizi Ancillari (Ancillary Services Market); PPA: Power Purchase Agreement; MAVER: Mercato dell’Acquisto e della Vendita dell’Energia Rinnovabile (market for the purchase and sale of renewable energy)

2. Private and confidential document and data, not to be disclosed to third parties without the explicit consent of Confindustria and AFRY
IN THE TRANSITIONAL PHASE, NEW MARKETS WILL INTRODUCE KEY ELEMENTS OF THE FUTURE PPA PLATFORM, ...

KEY ELEMENTS OF NEW RES/ FLEXIBILITY MARKETS IN THE TRANSITIONAL PHASE

- Semi-regulated transitional market of financial products with standard profile
- Medium-long term price signals based on renewables LCOE
- Public central counterparty to manage its functioning and to manage counterparty risks
- Implementation of the system needs with sessions organised on a zonal basis and contingents set ex-ante
- Protection of consumer and producer through upper/lower price limits
- Last Resort Auctions in the event that the expected quotas are not fully awarded during MAVER sessions, with the corresponding extra-costs covered through general national and/or regional taxation, in the case of inefficiencies not attributable to the market (e.g. permitting delays)

- Complementary market to the MAVER (and in the future to the PPA last form), with financial products with underlying time-shiftable energy, essential for the management of the RES vs standard profile risk
- Medium and long-term price signals for geographical and temporal flexibility
- Access allowed only to qualified operators
- Central management system for guarantees and settlement

PPA: Power Purchase Agreement; MAVER: Mercato dell’Acquisto e della Vendita dell’Energia Rinnovabile (market for the purchase and sale of renewable energy); LCOE: Levelized Cost of Energy; RES: Renewable Energy Sources

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The new market design must ensure that existing markets could guarantee the security and adequacy requirements, in line with the objectives of decarbonisation, operators’ competitiveness and economic sustainability for the system.

To this end, it is necessary to ensure that:

- the Dispatching Services Market (MSD)
  - allows the TSO to have a better visibility over the available resources to ensure the system adequacy
  - provides clearer price signals for different network services
  - promotes the diversification of resources for services and the integration of all technologies

- the capacity market sustains, wherever needed, existing plants and new investments, to ensure the necessary conditions of electricity system adequacy
WHAT SHOULD THE SERVICES MARKET GUARANTEE?

- Allowing the TSO to have better visibility of the resources available for system security
- Providing clearer price signals and for different network services
- Promoting the integration of all technologies and diversification of resources for services
- Fostering the integration of services with the European balancing market

SUGGESTED ACTIONS

- Introduction of technology-neutral **forward auctions** (in addition to the spot market) and the contextual segmentation of services (e.g. primary, secondary, tertiary, inertia) to allow **greater transparency on network requirements and price signals for operators**. The introduction of this hybrid procurement system will have to be evaluated by the TSO and the Regulator, optimising the cost/benefit ratio for the system
- As already foreseen by TIDE, **full participation** of demand, RES and innovative resources (e.g. batteries, V2G) **adapting minimum requirements** while **preserving the effectiveness** of the service
- **Introduction of asymmetric services**
- **Explicit remuneration** for mandatory/unpaid services (e.g. primary reserve, voltage regulation), **to be coordinated with forward procurement mechanisms in order to avoid over-remuneration**
The capacity market will become the structural tool to support the capacity needed to ensure system adequacy, it will be updated in order to take advantage of technologies that will also respond to the growing demand for flexibility.

**What does the capacity market need to guarantee?**

Support, where necessary, existing plants and new investments, to ensure conditions of adequacy of the electricity system, in line with the decarbonization objectives.

**Suggested Actions**

- Evolution of the Capacity Market as **structural mechanism**, providing regular auctions (e.g. annual, even after 2024), **only if necessary**, in the case of:
  - **proven need for capacity for adequacy**, as a result of regular evaluation by the TSO and the Regulator
  - **the need to remunerate the requested capacity**, after the decision maker’s evaluation on the basis of current and expected market conditions
- Provide for a **safeguard mechanism for the final consumer** in case market conditions lead to a loss of benefit for the system (e.g. transfer of the lost benefit to the general taxation)
- Envisage the potential **increase in the frequency** of the **secondary market sessions** to increase the possibilities of coverage and adjustment of operators
- In case new capacity is needed (in addition to the one budgeted in 2024), take into account in the **selection process** of the technologies also the contribution to the energy transition
- Revision of the rules for **calculating the derating factor** to allow a **more active participation of technologies different from thermal ones** (e.g. storage)

TSO: Transmission System Operator; MGP: Mercato del Giorno Prima (Day-Ahead Market)
1. Prepared by GME in compliance with the provisions of Article 28 of Dlgs 199/2021. | AUI: Aste di Ultima Istanza (Last Resort Auctions); MGP: Mercato del Giorno Prima (Day-Ahead Market); MI: Mercato Infra-giornaliero (Intraday Market); RES: Renewable Energy Sources; MSD: Mercato dei Servizi Ancillari (Ancillary Services Market); PPA: Power Purchase Agreement; MAVER: Mercato dell’Acquisto e della Vendita dell’Energia Rinnovabile (market for the purchase and sale of renewable energy)
The new market design must also ensure the development and integration of distributed resources (renewable and/or flexible), as they are also necessary for the energy transition.

For this to happen, there must be an **evolution in the operational management of networks and services**, preserving:
- network security, i.e. ensuring that there is no security risk for the national electricity system or for the electricity grid to which these resources are or will be connected
- cost-effectiveness for the system, i.e. ensuring that this development and integration takes place at minimum cost
- competitiveness on the markets, i.e. limiting distortions and inefficiencies
AN EVOLUTION OF THE MANAGEMENT OF NETWORKS AND SERVICES WILL BE NECESSARY, GOING THROUGH THE RESOLUTION OF KEY POINTS

KEY POINTS FOR DEFINING THE BEST LOCAL RESOURCE MANAGEMENT MODEL - SUGGESTIONS

| SECURITY | Suitable for managing local services (e.g. congestion resolution) ensuring synergies with transmission grid services
Compatibility of the model implementation timing with the decarbonization and RES development objectives
Compatibility of the model with the investment plans of system operators, especially in network digitalisation
Adequacy of the system operator’s skills and tools
Feasibility of data sharing and management |
| COST-EFFECTIVENESS | Best trade-off between sourcing local resources and other possible alternatives (e.g. upgrading of electricity infrastructure), that guarantees cost-effectiveness for the system, and at the same time promotes the efficient and safe operation of the distribution system
Interaction of 'local' and 'global' markets |
| COMPETITION | In line with EU directives, a necessary condition for the DSO to have an active role in the management of network services in coordination with the TSO is that adequate guarantees are provided regarding decision-making autonomy, operational independence and transparency on the activities carried out. In particular, it is necessary to ensure:
- The system operator’s neutrality in the activation/selection of resources, according to principles of safety and economy (economic merit criterion) for the system
- Transparency of the system operator regarding the activated services (e.g. resources activated, reason for activation, prices awarded) in order to provide the correct signals to operators and allow the control of the correct functioning of the markets
- In order to ensure neutrality and transparency, provision of monitoring mechanisms by the regulator and / or institutions for the ex-ante and ex-post verification of the correct activity of the system operator
- Sufficient liquidity, e.g. local markets also open to small resources (kWs) and with medium-term procurement, such as to increase the number of resources available in typically small markets
- Elimination of barriers (technical/operational, regulatory and financial) for the activation of local resources |


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