Capacity payment in Italy and the German case

Capacity payment mechanisms seem to be necessary in countries that input a good portion of renewable electricity in the market, such as Italy. Italy is heading towards the full implementation of a capacity payment model.

In Italy, like in most other EU Member States, the impact of the economic crisis and the resulting reduction of demand for electricity, combined with the growth of both conventional and renewable capacities, have led to the current situation of overcapacity and low wholesale market prices. Given the intermittent and uncertain volume of energy production from renewable source, there is growing concern in several EU Member States that electricity markets at some point may not be able to produce sufficient capacity to meet electricity demand unless a capacity payment model is implemented.

Italy has opted for an auction mechanism ensure capacity, and initially set a date for the first of such auctions in 2017.

Terna, however, recently proposed to the Ministry of Economic Development that the first auction be held earlier, by the end of September 2015, so that it could start produce its effects in 2017.

KEY ISSUES

- Capacity rather than energy needs will drive future investments.
- Security of the national electric system is the key objective.
- Italy's first capacity auction should take place by September 2015.
- In Germany, E.ON, HSE, Mainova, and N-ERGIE have announced plans to to shut down their combined-cycle gas turbine (CCGT) power plants by April 2016.

The Italian capacity payment market

The Italian capacity payment model was prepared by the Italian grid operator, Terna S.p.A (Terna) and was approved, on 30 June 2014, by the Italian Ministry of Economic Development with the endorsement of the Italian Regulatory Authority for Electricity Gas and Water (AEGW). The intent is to ensure a system that has the availability of electricity capacity over the long term, so as to be able to react promptly in case of changes in consumption, to manage any security issues and ultimately to ensure that final customers are not affectd by any risk-pricing.

The level of capacity to be made available will be determined by Terna on the basis of the expected consumption and reserve requirements, taking into account the effects of energy efficiency measures and renewable energy production. Terna will manage specific supply auctions where power producers who wish to do so can sell option contracts to Terna, covering the amount of back-up capacity that Terna estimates will be needed that year. Consequently, power producers will have to guarantee a certain availability capacity, in the options contracts, so that Terna can call on these plants if necessary, to ensure that the national electricity system is protected in case of energy production deficits or other critical events.

The system will include three different types of auctions, which will be organised and managed by Terna:

1. **Main Auction;**
2. **Complementary Auction;**
3. **Adjustment Auction.**

Main Auction

- Terna signs contracts with power producers for long-term supply;
- Performed on a yearly basis;
- Planning time horizon of 4 years and delivery period of 3 years.

Complementary Auction

- To provide additional capacity on the basis of the main auction's mechanism;
- Planning time horizon of 4 years and a delivery period of 1 and 2 years.

Adjustment Auction

- To modify the long-term positions whenever market conditions change after the long-term deals;
- Performed on a yearly basis;
- Planning time horizon up to 3 years and delivery period of 1 year.

Secondary Market

In addition to the three auctions described above, a "Secondary Market" will provide a higher degree of flexibility for the market, allowing power producers to trade the contracts they have entered into during a main auction or a complementary auction. Negotiations will take place on a continuous basis, with weekly sessions, and have a planning time horizon shorter than one year and delivery of one month.

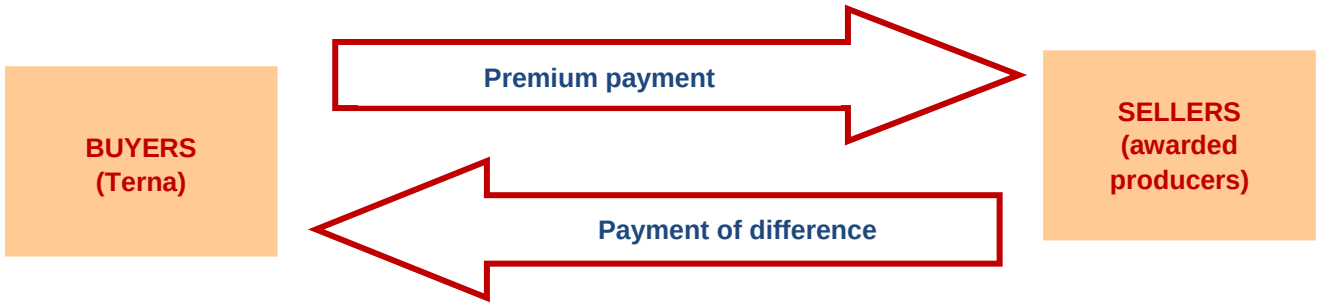
RELEVANT ZONES

Moreover, the three auctions will be organized for each relevant zone. Considering the significant transmission grid constraints within Italy, auctions for the provision of capacity include a geographical element, whereby Italy is divided into zones. Therefore, Terna will assess the system adequacy for the entire national territory, as well as for each zone. Terna will also be responsible for ensuring that assets in one zone contribute to the security of supply for another zone to the maximum extent possible.

VOLUNTARY PARTICIPATION

The decision to join the capacity market can be made by each power producer voluntarily, whereby each producer can decide whether, or not, to participate and to trade available generation capacity and future generation capacity. Specific characteristics must be met by the participants to the capacity market: the participating power plant must be located on the national Italian territory (although criteria for the participation of "beyond the borders" plants are expected) and must have a pre-defined capacity.

For each megawatt of capacity sold, operators will receive an annual premium (in Euro per MW), but will have to repay to Terna any positive differences between the spot price (the current market price) and the price set in the auction contracts. The AEGW will redistribute the money to consumers in the form of discounts on utility bills.



Market trends

Given the current production overcapacity of the Italian market, we are starting to see different reactions from those operators that have invested in traditional power plants. In Italy, some operators believe that mergers among them to be a solution, whilst other have instead decided to sell part of their businesses.

The trends that we are currently witnessing on EU markets could influence the different governments and accelerate the adoption of all those measures necessary to guarantee an effective implementation of the proposed mechanism.

The German case

Despite most European countries having started to implement capacity payment mechanisms to overcome the difficulties encountered by energy producers with traditional power plants and to ensure a secure national electrical system, Germany has decided not to do so just yet; however it has been holding discussions to implement capacity markets or, alternatively, a so-called strategic reserve for several years. Moreover, the coalition agreement of the current German government since December 2013 provided for a section dealing with capacity markets which permitted the conclusion that such mechanisms were to be implemented as an element of the German energy turnaround ("*Energiewende*"). In contrast, latest statements of German government representatives seem to rather go into the opposite direction, i.e. that no capacity markets will be introduced.

As a result, several German operators, amongst them E.ON, HSE, Mainova, and N-ERGIE have announcedthey will shut down their CCGT power plants by April 2016, because they can no longer supply power to the market at profitable terms.

Moreover, these operators have also announced that they will considering legal action if the government prohibits the shutdown of the plants. This could be the case if the German grid operator believes that these CCGT plants are necessary for the operations of the grid, in which case it could ask the German Federal Grid Agency to declare these power plants are material for the system for up to 2 years, thus preventing decommissioning for that period. A plant that is declared material for the system will receive compensation for its actual energy output (price per MWh), and also a demand rate. Operators have already stated, however, that the demand rate will not be sufficient to ensure profitability of the plant.

Conclusion

Depending on when the first main auction takes place and if and to what extent this mechanism affects those operators who have invested in traditional sources, the Italian market could experience further concentrations. Germany's situation should not be underestimated, because a similar scenario could occur in most EU markets unless effective capacity payments mechanisms are implemented in the short term.

Our contacts

To discuss any of the issues in this publication, please contact one of our experts below:

Umberto Penco Salvi
Partner

Giuseppe De Cola
Associate

If you would like additional information on the German case please contact:

Björn C. Heinlein
Partner

Steffen Knepper
Associate