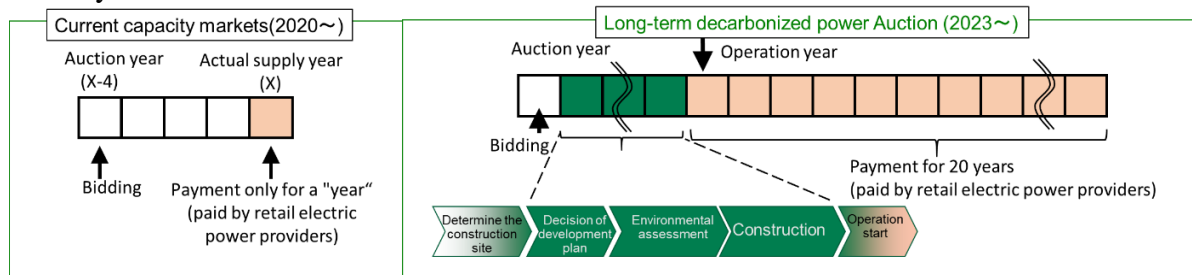


Long-term decarbonized power Auction

Because capacity markets assess supply capacity only for a "year" after 4 years, long-term revenue projections are difficult. The lack of predictability of long-term returns is considered to be the biggest factor that causes those who invest in power sources to hesitate in making a decision to invest in new power sources. Therefore, it is necessary to support the new construction of decarbonized power source by ensuring the predictability of fixed cost recovery.



As a mechanism to secure supply capacity (kW), there is already a capacity market, so this system is regarded as a type of capacity market and is named the "long-term decarbonization power auction". For this purpose, the cost will be paid by retail electricity providers as well as capacity markets. The detailed system design is advanced for the first auction in 2023.

Power generation companies that bid on projects before commencing operations and win contracts will receive revenue for 20 years after the start of supply. The target power source is a new investment in the power source which does not emit CO₂, and renewable energy and nuclear power are also applicable. In addition, LNG thermal power plants will be covered separately from the viewpoint of securing supply capacity as early as possible, however the way to exclusive combustion of ammonia, hydrogen, etc. will also be requested to the operators. In the case of mixed combustion, it should be at least 20% of ammonia and 10% of hydrogen initially.

In order to promote investment in various decarbonized power sources, it is necessary to consider sufficient construction lead time for each power source. On the other hand, from the viewpoint of securing supply capacity, it is set as the deadline for requesting the start of supply power for each type of power source.

In the current capacity market, the minimum bidding capacity is set at 1,000 kW (on an expected capacity basis), which enables participation of a wide range of power sources. However, since the long-term decarbonization power source auction is a measure to provide predictability of long-term income for the construction of large-scale power sources such as ammonia and hydrogen mono-fuel combustion, the initial capital investment is set at 100,000 kW, which is expected to exceed 10 billion JPY.

The renovation of existing thermal power plants was not expected to contribute to an increase in supply capacity in the short term, the amount should be reduced to about 1/4 of the total recruitment volume.