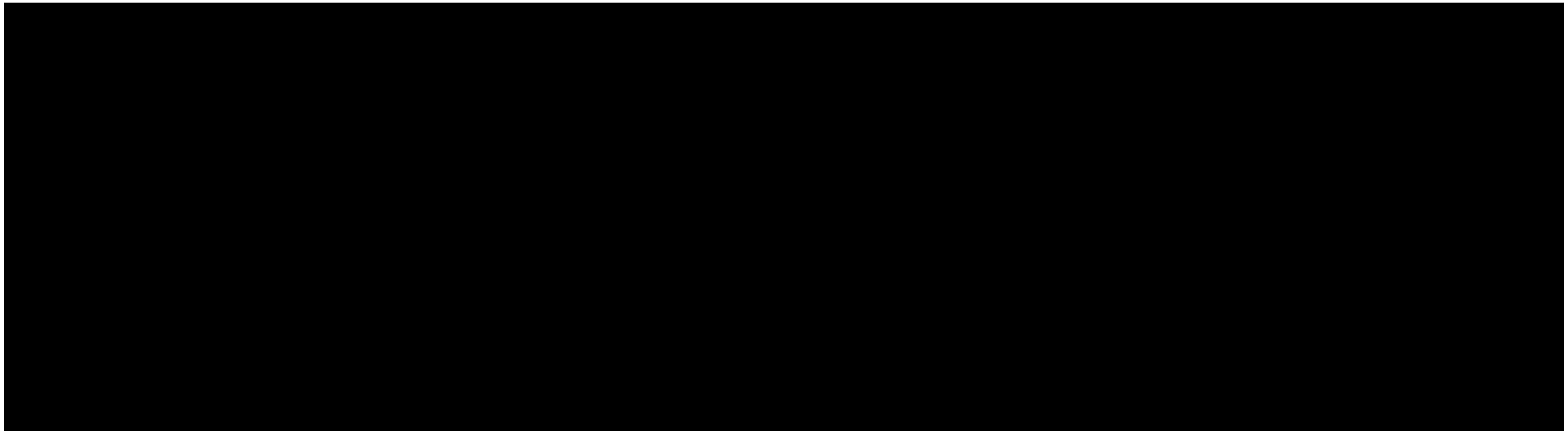
The Status and Role of CCS in Japan



1. Overview of Technological Measures

2. Economic Potentials of CCS toward Net-Zero Emissions in Japan

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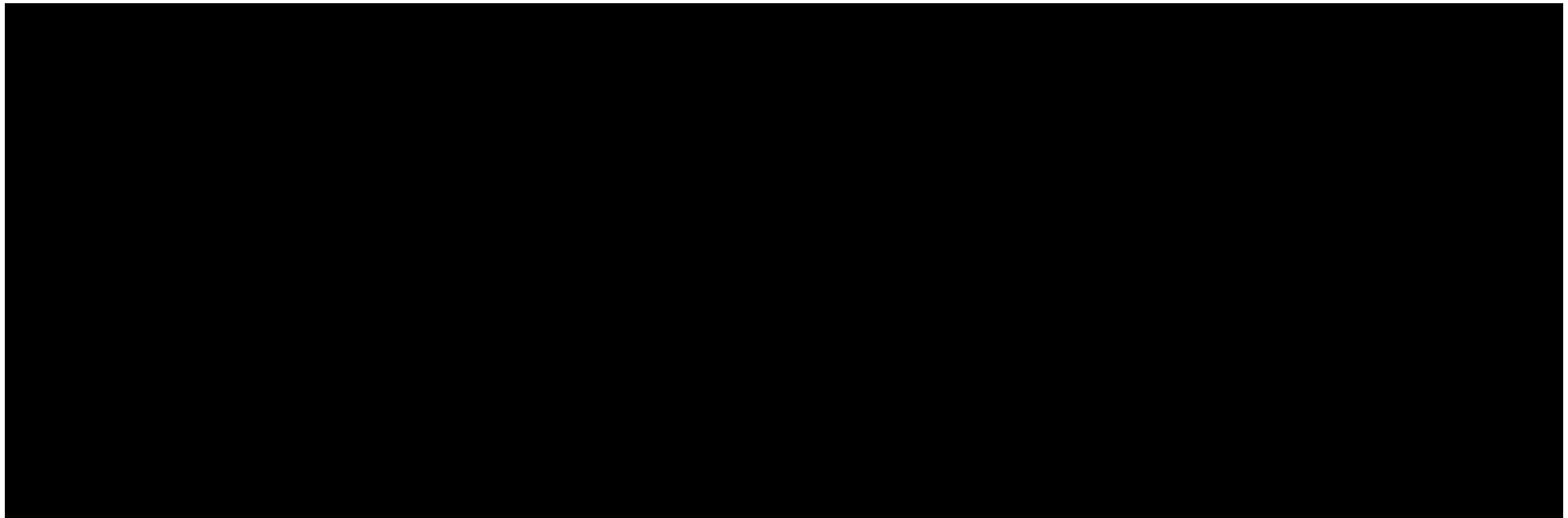
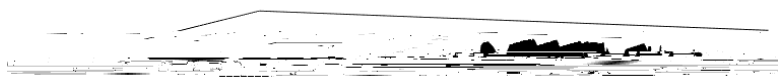


Integration Cost of VRES: integration with a



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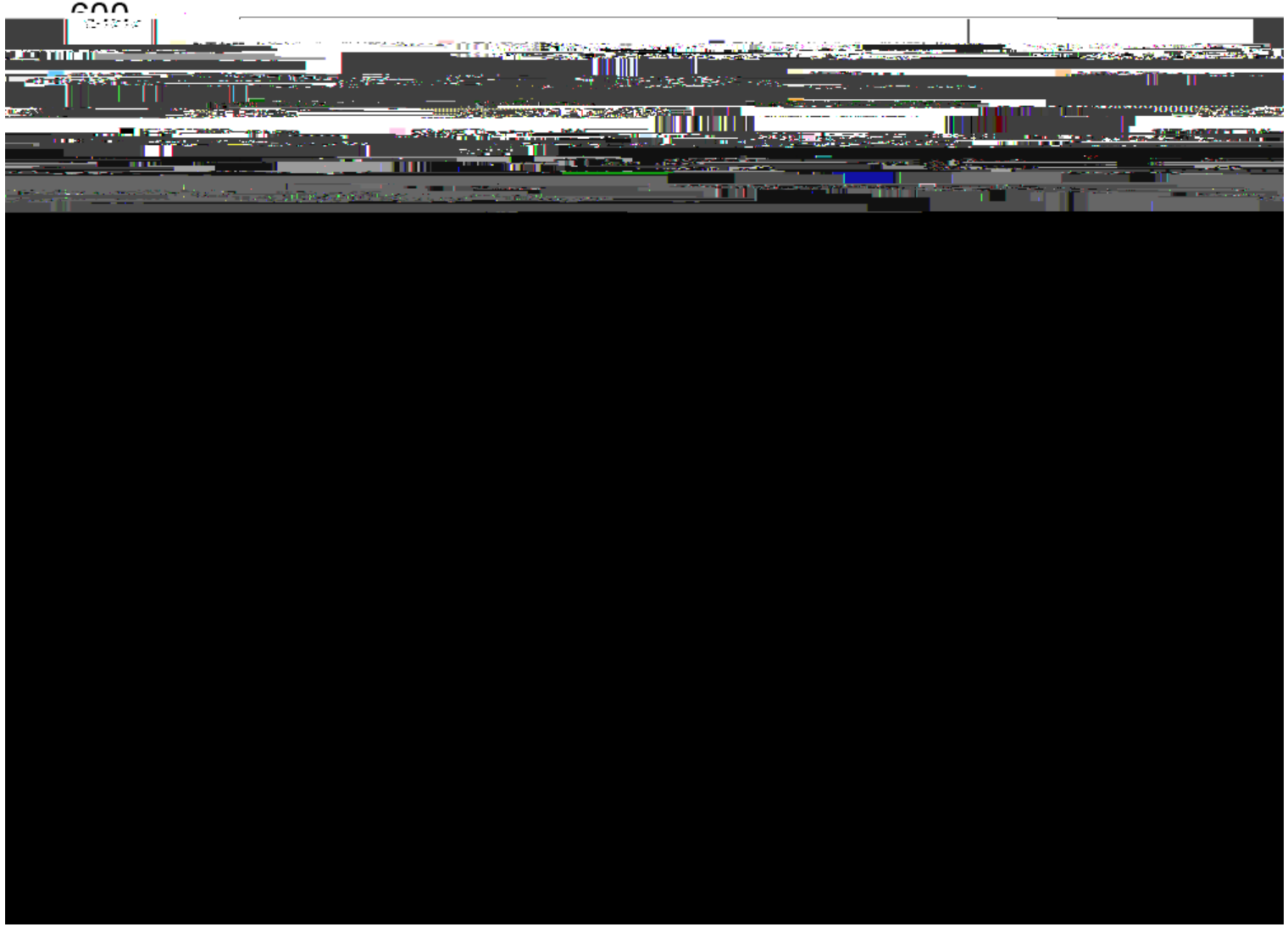
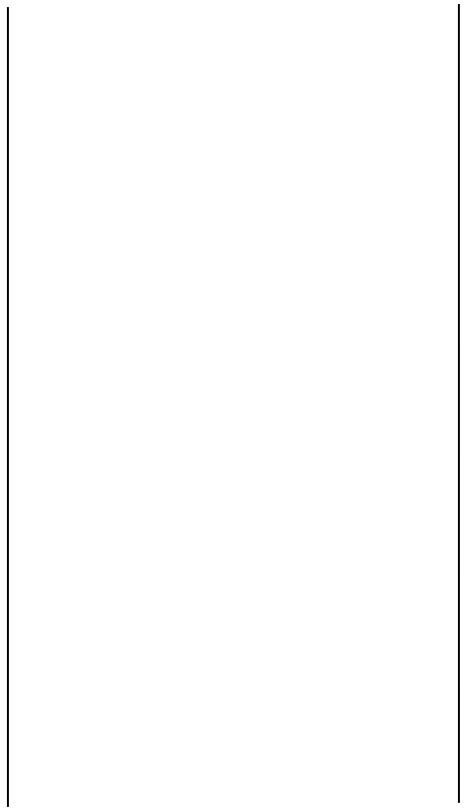


Assumed scenarios for the 2 C and 1.5 C goals

GHG emissions (Japan)

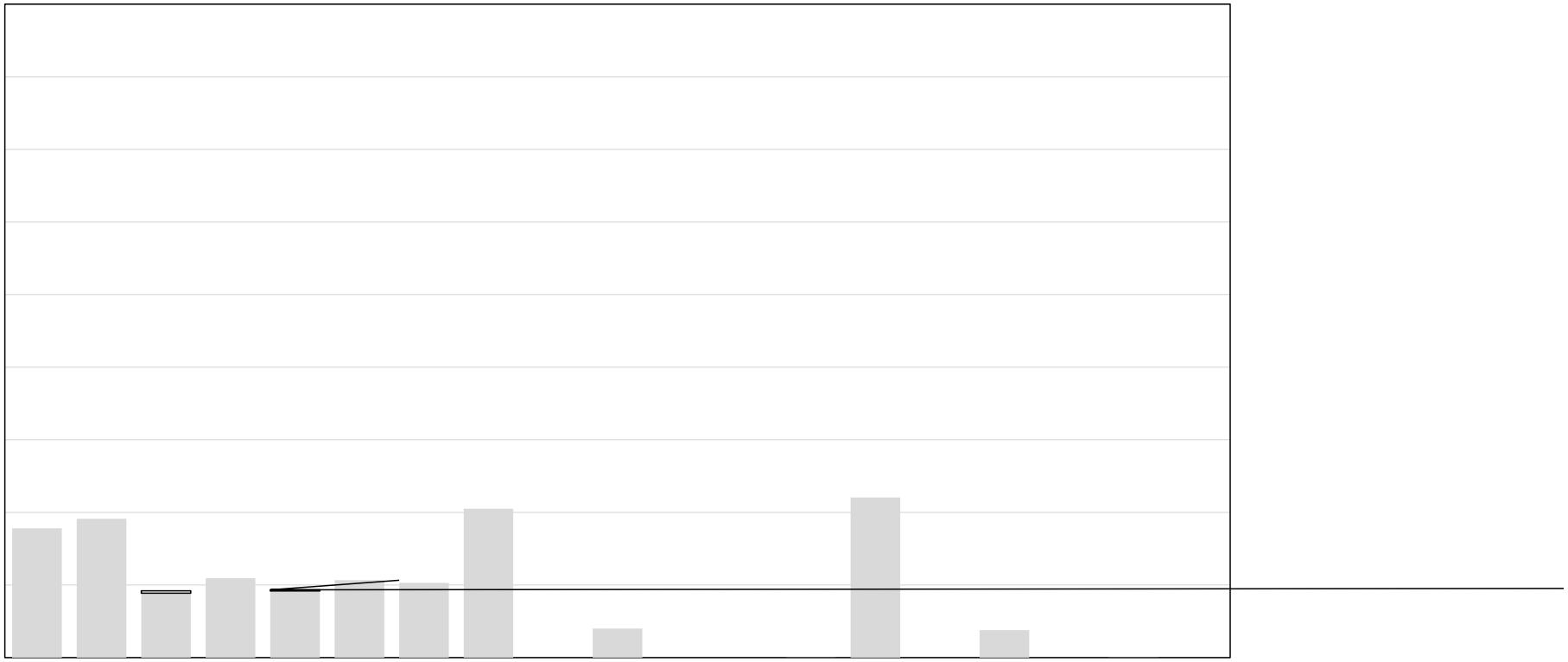
To achieve CN in GHG emissions in 2050, DACCS, CN

CO_2 balance (Japan)



CO_2 capture through fossil-fired power generation and BF process (Super COURSE50) are observed in 2040.
CO_2 capture through DAC and Biomass processes will be large in 2050.
Under 1.

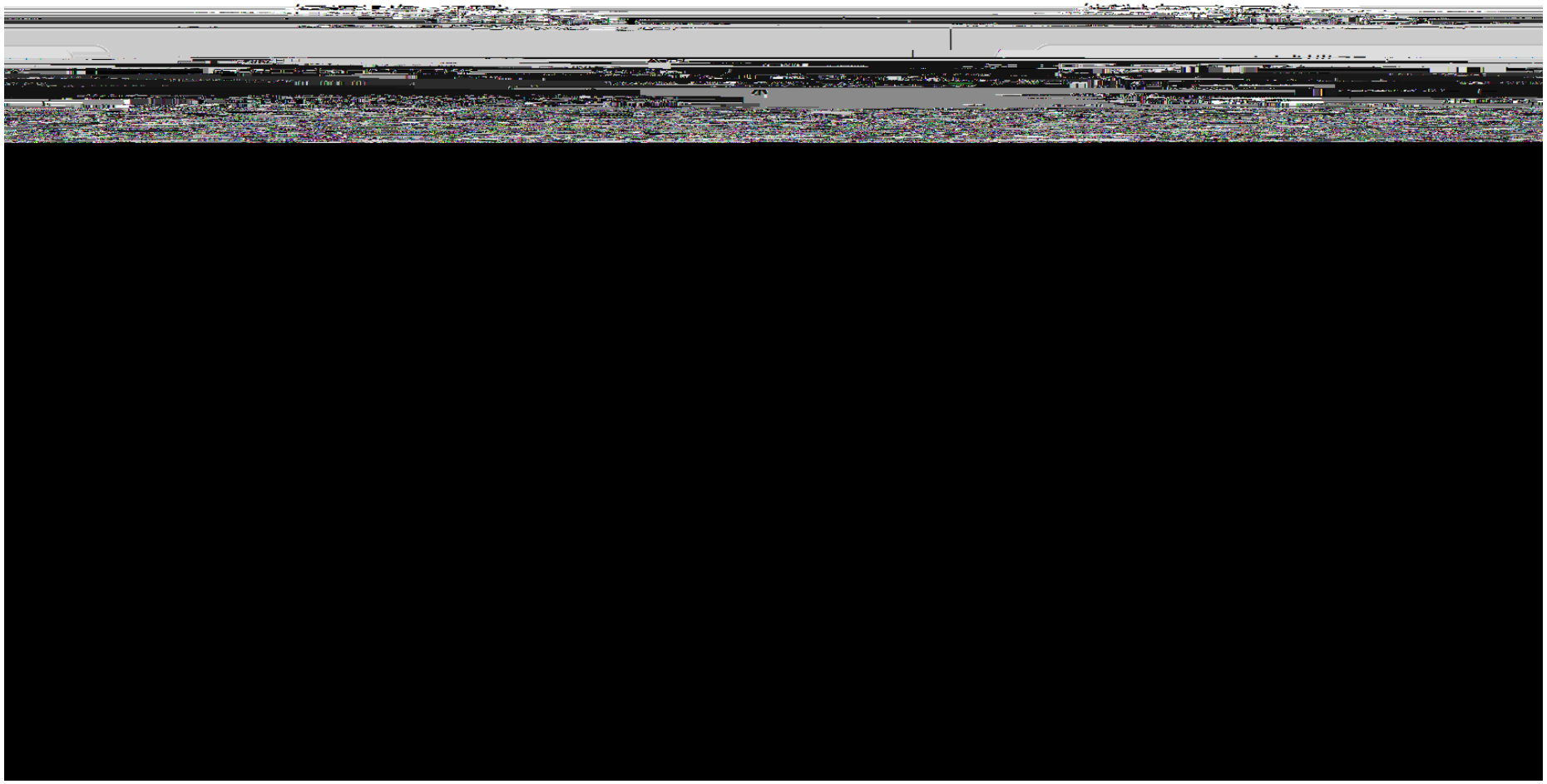
Electricity supply (Japan)



Electricity supply is in an

Long-term commitment to revenues for new decarbonized

Issues for investment **New scheme**



In the capacity market, the revenues for providing kW are uncertain in the future, and there can be large risks of investing in decarbonized power plants (including CCS) which are higher unit costs of kW in general.
A new scheme for new decarbonized power which commit the revenues for 20 years has been introduced from FY2023. Then, a certain part of the investment risks will be reduced.

Consideration in different lead time

Construction times are different among power sources

Conclusion

The Government of Japan decided the 6th Energy Strategic Plan,