

# Paris Session 2022



## Power system operating rules for introducing a large amount of renewable energies

C1 - PS3

Question.3.3.4 Many papers introduce new rules or operation strategies to assist in accommodating renewable integration. From international experience, which new power system operating rules have been successfully introduced to meet renewable integration targets towards a carbon-free future

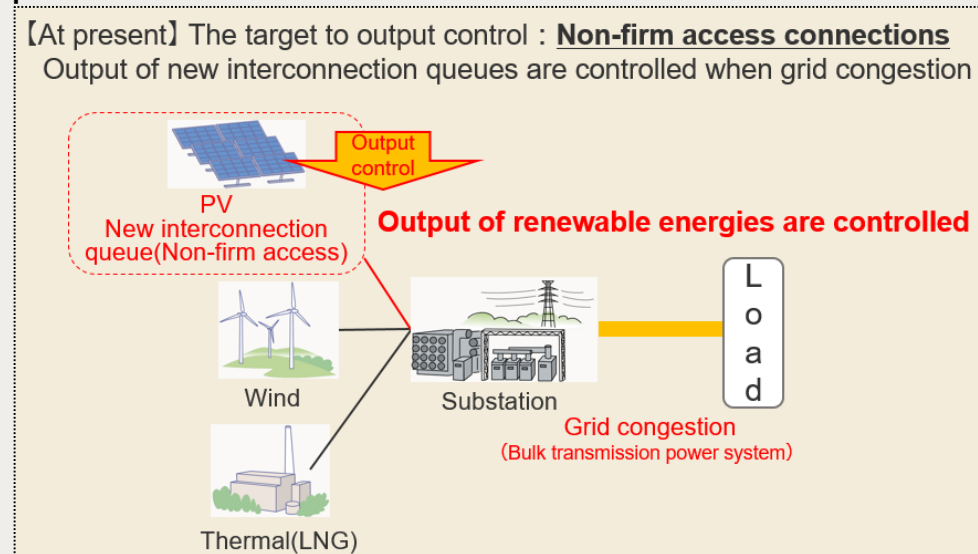
Y.Kawasaki (Japan)



# The target to controlling the power generation output on Non-firm access

The target to controlling the power generation output : All Non-firm access connection (at present)

- Non-firm access connections have been applied to new interconnection queues with output control when bulk transmission power system is congested.
- The targets to output control are all Non-firm access connections **even if these are renewable energies such as solar power generations** and firm access connections like thermal generations aren't applied to output control.
- The cost relating to processing congestion will be covered by a power generation companies that have the Non-Firm access connected power sources.



# Change the target of output control to maximize the use of renewable energies

The target to controlling the power generation output : **An adjustable power**\* (Re-dispatching method)

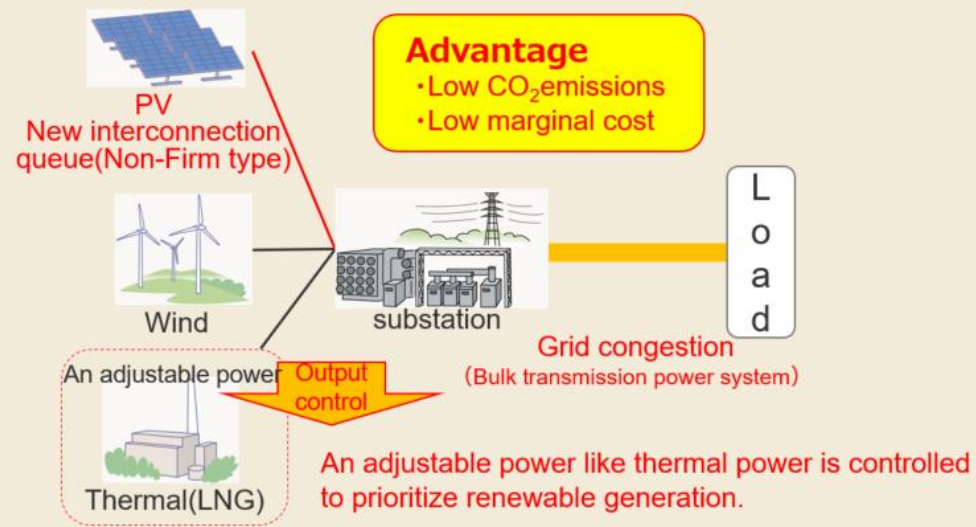
【from the end of 2022】

\*Power generation having a contract with TSO to adjust a balance of supply and demand

- Output of an adjustable power that has well-established environment(system and contract) will be controlled.
- A renewable energy generation will be prioritized because of lower CO2 emissions and marginal cost.
- The cost relating to processing congestion will be covered by TSO.

The target to output control : **An adjustable power** (the end of 2022)

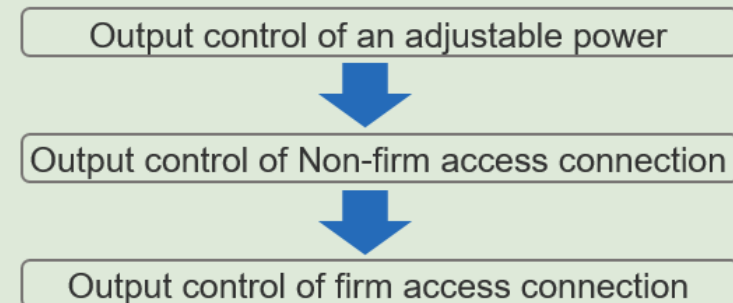
Output of an adjustable power is controlled when grid congestion.



Future

【 **Output control based on predefined order**】

The rule to control power generations with expensive marginal cost is under consideration.



Group Discussion Meeting