Major Elements of 7th Strategic Energy Plan

- While S+3E principles maintained, stronger focus on energy security reflecting geopolitical situation
- Higher power demand due to DX and GX → Secure CO2 free power sources by maximum use of both RE and nuclear → Eliminate “reducing dependence on nuclear as low as possible” since 2014
- Integrate energy policy and industrial policy (“GX2040 Vision”).
- Maximum introduction of RE while avoiding excessive dependence on specific power sources or fuel types.
- NPS restart with safety. Next-generation innovative reactors replacing existing ones. R&D of innovative reactors (e.g. fusion)
- Acknowledging uncertainties and range-based forecast

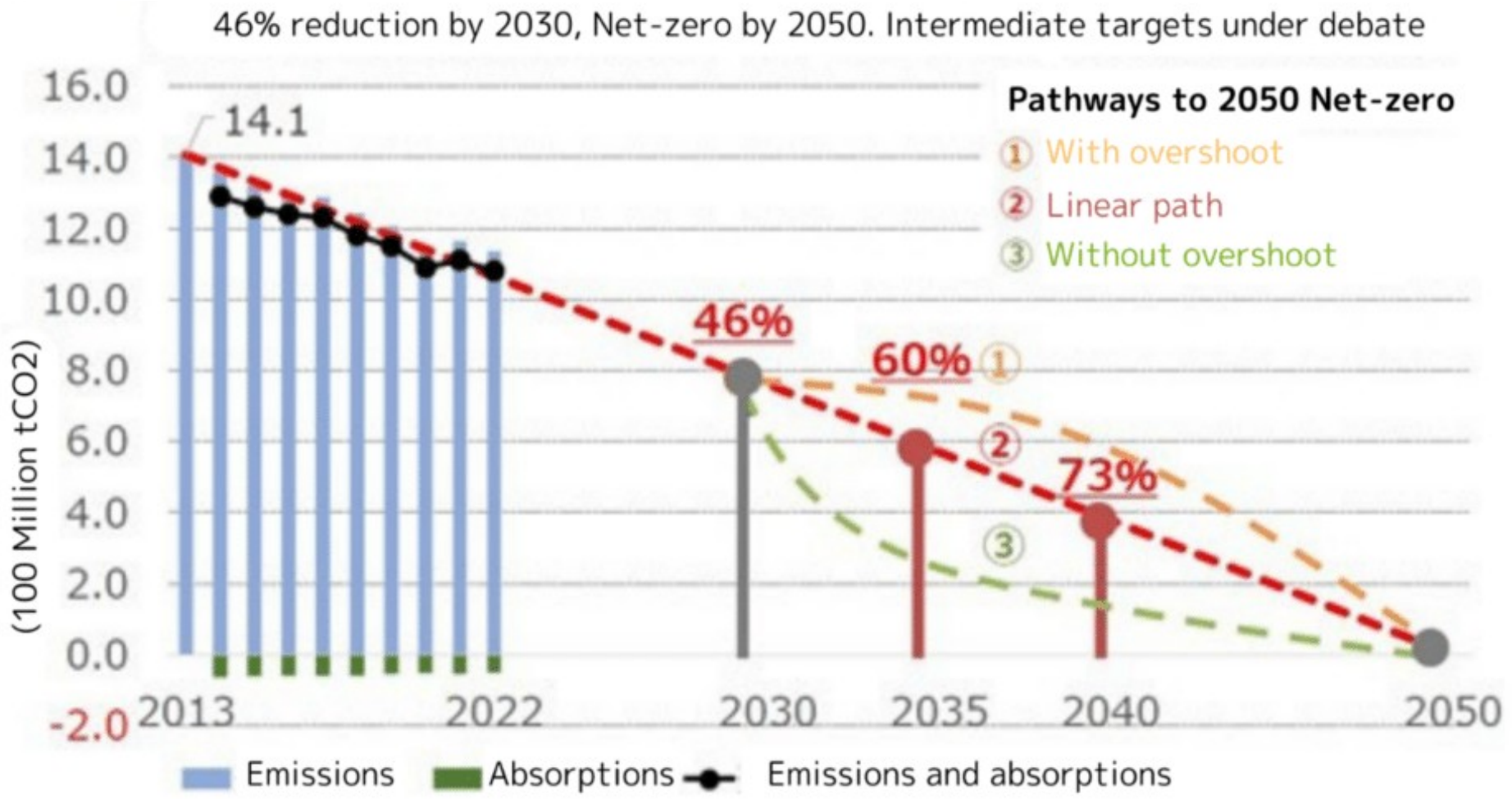
→ A scenario of underachieving NDC due to slower penetration of clean technologies in addition to “all goes well” scenarios.

Electricity Mix: current and target

	Current (2023)	2030 Targets	2040 Outlook
Thermal power	**68.6%** Coal 28.4% LNG 32.9% Oil 7.2%	**42%** Coal 19% LNG 20% Oil 2% Ammonia/Hydrogen 1%	**30—40%** (no breakdown provided)
Renewables	**22.9%** Solar 9.8% Wind 1.1% Hydro 7.6% Geothermal 0.3% Biomass 4.1%	**36—38%** Solar 14—16% Wind 5% Hydro 11% Geothermal 1% Biomass 5%	**40—50%** Solar 23—29% Wind 4—8% Hydro 8—10% Geothermal 1—2% Biomass 5—6%
Nuclear	**8.5%**	**20—22%**	**20%**

Source: Prepared by Climate Integrate based on Comprehensive Energy Statistics, 6th and 7th Strategic Energy Plans

Japan’s New NDC

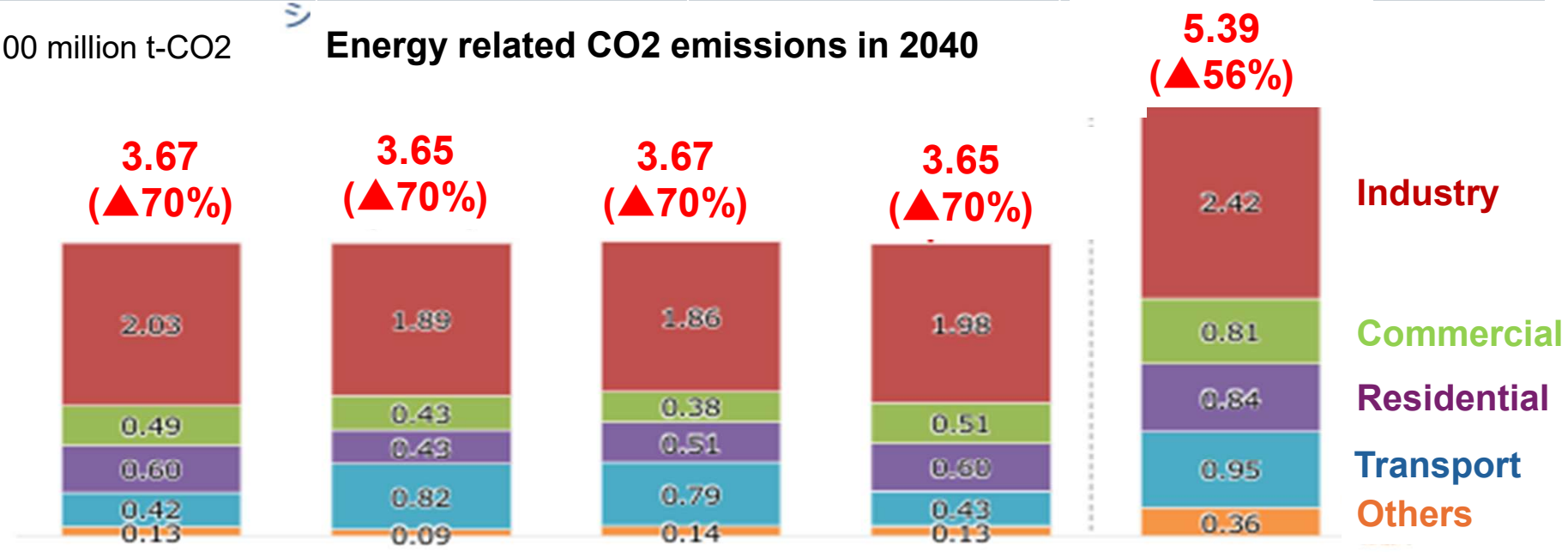


Source: METI Japan’s Energy 2024

	RE	H2	CCUS
1. RE Expansion	High	Low	Low
2. H2 and E-Fuel Use	Low	High	Low
3. CCUS Use	Low	Low	High
4. Use all the above	High	High	High
5. Risk Scenario	Low	Low	Low

100 million t-CO2

Energy related CO2 emissions in 2040



	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
kg CO2/kWh	0.04	0.03	0.00	0.04	0.13