



JAPAN NRG WEEKLY

DEC. 27, 2022

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- East and West Japan have 40% chance of cold winter, forecaster says

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UK govt. to provide subsidies for Octopus Energy to buy failed rival. Scotland confirms onshore wind power target. Russia begins gas extraction for China export. Malaysia made many new hydrocarbon discoveries this year. Details on these and more in our global wrap.

JAPAN NRG WEEKLY

Events

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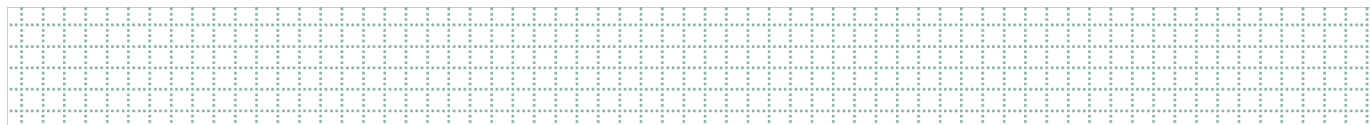
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OFTEN USED ACRONYMS

METI	The Ministry of Energy, Trade and Industry	mmbtu	Million British Thermal Units
MOE	Ministry of Environment	mb/d	Million barrels per day
ANRE	Agency for Natural Resources and Energy	mtoe	Million Tons of Oil Equivalent
NEDO	New Energy and Industrial Technology Development Organization	kWh	Kilowatt hours (electricity generation volume)
TEPCO	Tokyo Electric Power Company	FIT	Feed-in Tariff
KEPCO	Kansai Electric Power Company	FIP	Feed-in Premium
EPCO	Electric Power Company	SAF	Sustainable Aviation Fuel
JCC	Japan Crude Cocktail	NPP	Nuclear power plant
JKM	Japan Korea Market, the Platt's LNG benchmark	JOGMEC	Japan Organization for Metals and Energy Security
CCUS	Carbon Capture, Utilization and Storage		
OCCTO	Organization for Cross-regional Coordination of Transmission Operators		
NRA	Nuclear Regulation Authority		
GX	Green Transformation		

NEWS: ENERGY TRANSITION & POLICY



Kishida promises to draft GX laws to trigger ¥150 trillion in investments

(Government statement, Dec. 22)

- PM Kishida told the GX Council that his Cabinet will submit new law proposals to the next Diet session to spur a “green transformation” (also known as GX) of the Japanese economy. Kishida expects this to fuel new investments amounting to ¥150 trillion.
- To get the investment flow started, the state will provide the initial ¥20 trillion.
- Also, Kishida promised to accelerate work to find a domestic location for the final storage of high-level nuclear waste, noting that while a couple of candidate areas are under an initial review for suitability, more potential sites are likely needed. The matter will be scaled up within the minister-level frameworks.
- CONTEXT: Kishida referenced actions overseas to justify the need for Japan to move quickly with its GX strategy. He specifically mentioned a major U.S. clean energy support legislation (i.e., the IRA) and EU’s recent agreement on a Carbon Border Adjustment Mechanism.

A rough breakdown of PM Kishida’s ¥150 trillion investment vision (¥ trillion)

Biotech and related manufacturing	3
CCS	4
Next-gen road vehicles	17
Constructions	14
Energy systems of manufacturing plants	8
Digital transformation of energy systems	12
Storage batteries	7
Shipping and aviation	7
Renewables	31
Next-gen nuclear R&D	1
Hydrogen and ammonia	7
Carbon recycling	3

- TAKEAWAY: Kishida has touted “GX” as his vision for a decarbonized Japan since the summer. Aside from top-tier energy companies, however, general business awareness of the GX program is still fairly low. The few details that have regularly made the headlines are the top ¥150 trillion figure and state backing for nuclear restarts. GX is supposed to be much more than this, but it will take time for the government to communicate other details to the public and to make sure private financing follows public funds. The latter will be especially important because so many national strategies are essentially dependent on state largess.

Japan officially pledges to revive nuclear policy

(Yomiuri Shimbun, Sankei Shimbun, Japan NRG, Dec. 22)

- The GX Council held its 5th meeting at which a roadmap for energy security and decarbonization for the next ten years was announced.
- With reference to nuclear policy, the Council pledged to return Japan to a more proactive stance. Existing nuclear power stations will once again be used “as much as possible” through the restart of facilities idled since the 2011 Fukushima accident and through a commitment to developing and building new, advanced reactors.
- Nuclear and renewable energies will both contribute to improving the energy security of Japan, which is challenged by the current global situation.
- *CONTEXT: There were two major state decisions on nuclear power in the past week, one from the government / METI and another from the nuclear industry regulator, the NRA. While details differ somewhat, the end result is that existing reactors will be allowed to operate for an initial 40 years (as per original permit) and then an additional 20 years. Years spent idling post-Fukushima will not count as part of the 60-year operating life.*
- NRA’s policy says nuclear facilities will need to be checked for safety every 10 years starting from 30 years in operation. Technically, the NRA does not give an end-limit for reactors.
- GX / METI policy specifies that reactors cannot operate for more than 60 years (excluding the post-Fukushima closure period). This policy carries the most weight and means that nuclear operators will need to abide by the limit.
- NRA’s policy is open to public comment for one month as of Dec. 22.
- The govt’s policy will be introduced as draft legislation to the Diet’s next regular session.
- *TAKEAWAY: The above decisions were flagged in the past month via expert advisory panels and govt statements, so they are not a surprise. They are also consistent with Kishida’s calls since the summer for more nuclear reactor restarts. Technically, the govt cannot force restarts. That’s the remit of local authorities and the NRA. However, a strong govt policy can give municipalities more confidence in approving reactor restarts.*
- That said, many reactors in Japan face challenges that are not dependent on political will. Therefore, it is hard to imagine a real acceleration of the restart program. The real litmus test will be what happens to the sole operable nuclear plant owned by TEPCO.

Nissan Motor to buy “green” steel and aluminum from Kobe supplier

(Nikkei Asia, Dec. 19)

- Nissan Motor said it will use “green” steel and aluminum supplied by Kobe Steel in its domestic car brands so as to cut CO2 in the supply chain.
- SIDE DEVELOPMENT:

[Subaru to halt development of hybrids to focus on EVs](#)

(Nikkei Asia, Dec. 19)

- Automaker seeks to cut costs of developing new clean-energy vehicles.

Nissan, Mitsubishi to hike EV prices on higher raw materials, transport costs

(Company statements, Dec. 22)

- Nissan Motor and Mitsubishi Motors plan to raise prices of EV models Leaf, Sakura, Outlander and EK X by 3-24% on higher raw material and transport costs.
- Nissan model prices will rise with immediate effect on Dec 22, while Mitsubishi Motors' will see a rise from February.
- *CONTEXT: The automakers are likely to have been negotiating prices with battery suppliers, as they're not direct buyers of raw materials. Japan NRG could not confirm, but talks involving Nissan may have stalled for a long time, which could explain the significant price hikes taking immediate effect. Models Ariya and Delica D:5 were excluded from the hikes.*
- **TAKEAWAY:** The model with the highest increment is Nissan's 60 kWh Leaf. It will be hiked by ¥1.02 million, or roughly ¥17,000/ kWh, provided that increases in steel, copper cables and resin costs are marginal. METI's guidance is to realize EV battery costs below ¥10,000/ kWh before 2030. The question is: Will the vehicles still sell despite the price hike and possibly more increases in the near future.

November EV sales in Japan (number of passenger vehicles)

Nissan	762
Toyota	95
Honda	28
Subaru	20
Mazda	6
Mitsubishi	0
Imports	2,357
Total	3,268

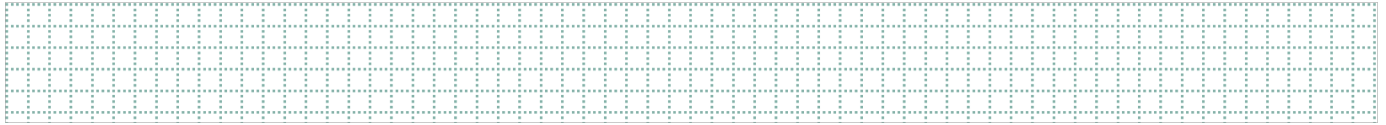
Source: Japan Automobile Dealers Association

Shipper Kawasaki signs charter contract with Norway CCS project

(New Energy Business News, Dec. 23)

- Kawasaki Kisen Kaisha signed a time-charter contract with Northern Lights JV DA of Norway for two 7,500m3 liquefied CO2 vessels. The new vessels will be delivered in 2024 and will be engaged in the world's first full-scale CO2 capture and storage (CCS) value chain project.
- "K" Line LNG Shipping (UK), a subsidiary of London-based Kawasaki Kisen Kaisha, will manage the vessel, which will move cargo from several CO2 capture facilities in Norway, including Norcem Brevik and Hafslund Oslo Celsio to a receiving terminal in Oygarden, Norway.
- Northern Lights, a one-third JV between Equinor, Shell, and Total Energies, is developing the infrastructure to receive CO2 from customers, transport it by ship to a receiving terminal in western Norway, and inject it via pipeline into a reservoir 2,600 m below the seabed. Operations are scheduled to begin in 2024, and related facilities are currently under construction. With growing interest in CCS from the European industrial sector, the company also plans to expand its transport and storage capacity as demand increases.

NEWS: POWER MARKETS



Osaka local court rejects lawsuit to stop Mihama NPP Unit 3

(Mainichi Shimbun, Dec. 20)

- Osaka's court rejected a temporary injunction to stop operation of Kansai Electric's Mihama NPP Unit 3 that was filed by nine residents of Fukui, Shiga and Kyoto prefectures.
- Unit 3 was stopped for more than 10 years after the Fukushima disaster, but it restarted in June 2021. It is the first reactor in operation to pass its original 40-year license.
- The chief judge noted that the utility took action to prevent the age of the facility from affecting operations and that these won approval from the NRA. Thus, there are no safety issues that require a shutdown of the facility.
- **TAKEAWAY:** The residents are expected to file an appeal, but that court challenge is also likely to fail because Kansai Electric has invested heavily in improving safety and management at the Mihama NPP.

Vietnam Power Development gets 25% investment from TEPCO

(Asia Nikkei, Dec. 24)

- A TEPCO unit invested ¥4.6 billion (\$34.6 million) in a Vietnamese operator of three hydroelectric power plants. TEPCO Renewable Power now owns a nearly 25% stake in listed Vietnam Power Development.

Sumitomo aims to develop offshore wind plant in Niigata area

(New Energy Business News, Dec. 26)

- Sumitomo Corporation released the Environmental Assessment Methodology for a 700 MW offshore wind power project offshore Murakami City and Tainai City, Niigata Prefecture. The 53 landing-type turbines will take up a project area of approximately 9,190 hectares.
- The project will require 36 months of construction.

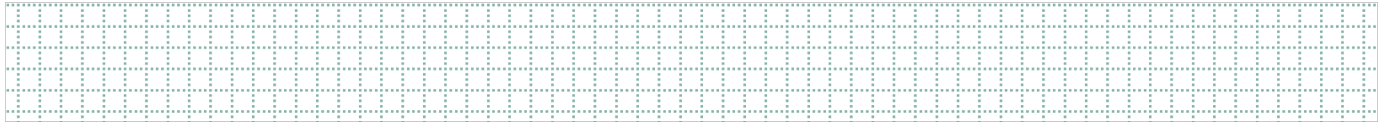
Kansai Electric admits that 197 employees illegally passed national license exam

(MNS News, Dec. 21)

- Kansai Electric admitted that 197 employees at 11 of its subsidiaries fraudulently passed the exam for the "Construction Managing Engineer" license.
- The subsidiaries forged years of experience for the 197 employees, which was requested as proof of qualification.
- The 197 employees worked on 56 construction projects, including 15 for nuclear power plants.
- **TAKEAWAY:** Kansai Electric has faced numerous scandals in recent years, including over improper payments, management bonuses, and accusations of involved in cartel-like anti-competitive behavior. This latest issue,

however, could prove even more serious it relates to nuclear facilities and involves a big number of people. It will be important to monitor the status of the company's response, especially as it faces a tough 2023 in terms of having to create a new strategy for nuclear waste disposal.

NEWS: OIL, GAS & MINING



Risk to Sakhalin-2 LNG cargos: Japanese insurers to stop coverage of vessels

(Nikkei, Dec. 25)

- Three of the top Japanese insurers plan to stop insuring ships for war damage in all Russian waters from Jan. 1. That could impact import of cargos from the Sakhalin-2 LNG project.
- The companies involved are Tokio Marine & Nichido Fire Insurance, Sompo Japan Insurance and Mitsui Sumitomo Insurance. They are struggling to get reinsurance on Russia-related cargos but will attempt to find a resolution with reinsurance firms through further negotiations in 2023.
- *CONTEXT: Almost all vessels take out travel insurance. Without it, the risk may be seen as too great for many operators. Shipowners have to sign up for extra war damage insurance before sailing through Ukrainian and Russian waters.*

LNG stocks fall to 2.44 million tons

(Government data, Dec. 22)

- LNG stocks of 10 power grids stood at 2.44 million tons as of Dec 18, down from 2.68 million tons a week earlier. The end-December stocks last year were 2.34 million tons. The five-year average for this time of year is 1.84 million tons.

Eastern and Western Japan have 40% chance of colder winter: JMA

(Bloomberg, Dec. 20)

- There is a 40% chance of colder-than-normal temperatures between January and March, according to a Japan Meteorological Agency forecast from Dec. 20.

GLOBAL VIEW

BY JOHN VAROLI

Below are some of last week's most important international energy developments monitored by the Japan NRG team because of their potential to impact energy supply and demand, as well as prices. We see the following as relevant to Japanese and international energy investors.

Australia/ Natural gas accident

After a "small fire" broke out Shell suspended production at its floating LNG facility, the world's largest, off the west coast of Australia. This facility has faced technical issues since it launched in 2019.

Bulgaria/ Nuclear power

State-owned nuclear power plant Kozloduy signed a deal with Westinghouse Electric Sweden for supplies of nuclear fuel for its Russian-built Unit 5. Bulgaria currently relies on Russian nuclear fuel for both units at the 2 GW Kozloduy plant.

Malaysia/ Natural gas

Petronas made a total of 10 domestic hydrocarbon discoveries in 2022. Eight oil and gas discoveries were made off the coast of Sarawak, and one each off the coast of Sabah and Peninsular Malaysia.

Russia/ Natural gas exports

Gazprom began extracting gas from its Kovykta field for exports to China, via the Power of Siberia pipeline, which has a capacity of 38 bcm per year. The supplies are part of a long-term deal between Gazprom and China National Petroleum Corp

Scotland/ Wind power

The government confirmed its target for a minimum 20 GW onshore wind capacity by 2030. This will require an additional 12 GW new generation capacity to complement the country's existing 8.7 GW fleet.

UK/ Electricity markets

The government will provide £4.5 billion to Octopus Energy to support its acquisition of failed power supplier Bulb. The funds will mostly go toward sourcing electricity and gas in wholesale markets for Bulb's 1.5 million customers.

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