ScienceX

Battery Storage Market Notes, August 2026 issue

Science X Inc. Published November 5, 2026

A "grid-scale battery" (a large battery connected to the power grid that stores electricity and releases it) earns money by selling the "capacity" to fix surpluses and shortages of electricity, and from the price difference as electricity prices change through the day. These notes use published figures and our own records to show this month's movements in figures and tables. This issue is a back issue, prepared retroactively in November 2026. The grid connection study figures are as of the time of preparation (October 19, 2026).

1. The three income sources of a battery storage plant (how to read these notes)

A battery storage plant (grid-scale battery) earns income from three markets. ① The balancing market (EPRX) is the market where you sell grid operators the "capability" to correct surpluses or shortages of electricity. ② Wholesale electricity (JEPX) is the market where you buy and store electricity when it is cheap and sell it when it is expensive. ③ The capacity market (OCCTO) is the market where the country buys future electricity supply capability in advance. These notes present the figures in the order of these three markets. The ①, ②, ③ at the start of each section title show which market the section covers.

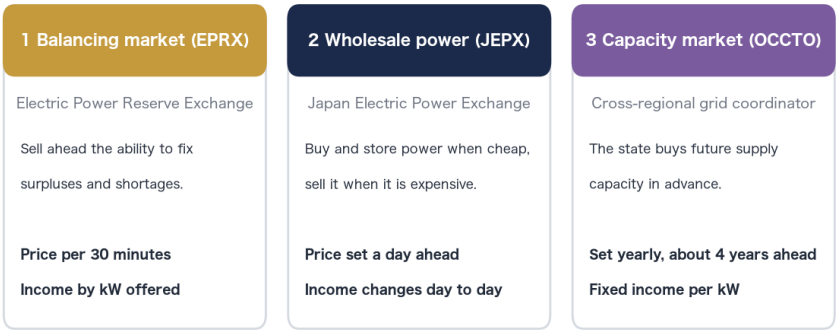


Figure 1 The three income sources of a battery storage plant

Source: Rules of the Japan Electric Power Exchange (JEPX), the Electric Power Reserve Exchange (EPRX) and the Organization for Cross-regional Coordination of Transmission Operators (OCCTO).

2. Three movements this month

From the figures for the three markets, we picked three movements this month.

- In the balancing market (EPRX), the bid-to-requirement ratio for Primary reserve (online) went above 100% in June 2026, at 106.8%. This month it was 116.0%, and the average winning price was 4.40 yen/kW per 30 min.
- In the balancing market (EPRX), 52.2% of Tertiary reserve 2 revenue in August 2026 was concentrated in the top 10% of 30-minute slots by revenue.
- In wholesale electricity (JEPX), the monthly average of the spread between the average of the 4 highest-price hours and the average of the 4 lowest-price hours in August 2026 was 11.94 yen/kWh in Tokyo and 18.82 yen/kWh in Kyushu.

3. ① Balancing market (EPRX) | Seven products, and prices by area

The balancing market is where grid operators buy, every 30 minutes, the "capability" to correct surpluses or shortages of electricity. Products are divided by how quickly output changes after a dispatch instruction. Primary reserve is the fastest, and Tertiary reserve 2 is the slowest. Primary reserve has two categories: "online", connected to the grid operator by a dedicated line, and "offline", which runs on the simplified dispatch system without a dedicated line. They are tendered and traded separately, so we show them separately. A Composite product is a bid that offers several products together. The price is set in yen per 1 kW of capability per 30 minutes. kW is a unit of power capacity, not to be confused with kWh, which measures the amount of electricity. One 30-minute trading unit is called a "slot". The figure shows the range of winning prices by area (by the area where the power source is located). The thin line runs from the cheapest to the most expensive winning bid in the month, the thick band is the price range covering 8 of every 10 slots with winning bids, and the dot is the average winning price. Nationwide figures are in the table in the "Market figures" section.

By the area where the power source is located, the highest average winning price in the balancing market was Primary reserve (offline) in Tohoku at 14.52 yen/kW per 30 min, and the lowest was Tertiary reserve 2 in Shikoku at 0.38 yen/kW per 30 min.



© Science X Inc. · https://www.scix.co.jp

Figure 2 Range and average of winning prices by area in the balancing market (August 2026 (1st to 31st), by area where the power source is located)

Source: Trading results (preliminary) published by the Electric Power Reserve Exchange (EPRX). Our tally.

Product	From instruction to output change	Duration
Primary reserve (online)	Within 10 seconds	5 minutes or more
Primary reserve (offline)	Within 10 seconds	5 minutes or more
Secondary reserve 1	Within 5 minutes	30 minutes
Secondary reserve 2	Within 5 minutes	30 minutes
Tertiary reserve 1	Within 15 minutes	30 minutes
Tertiary reserve 2	Within 60 minutes	30 minutes
Composite product	Requirements of the combined products	Requirements of the combined products

4. ① Balancing market (EPRX) | Grid areas and times where bids win more easily

The contract rate is the share of bid volume that won. The higher it is, the more easily bids win. The figure shows, for each grid area (the area where the power source is located), the contract rate of each product by time of day (every 30 minutes). Where a line breaks, there were no bids at that time.

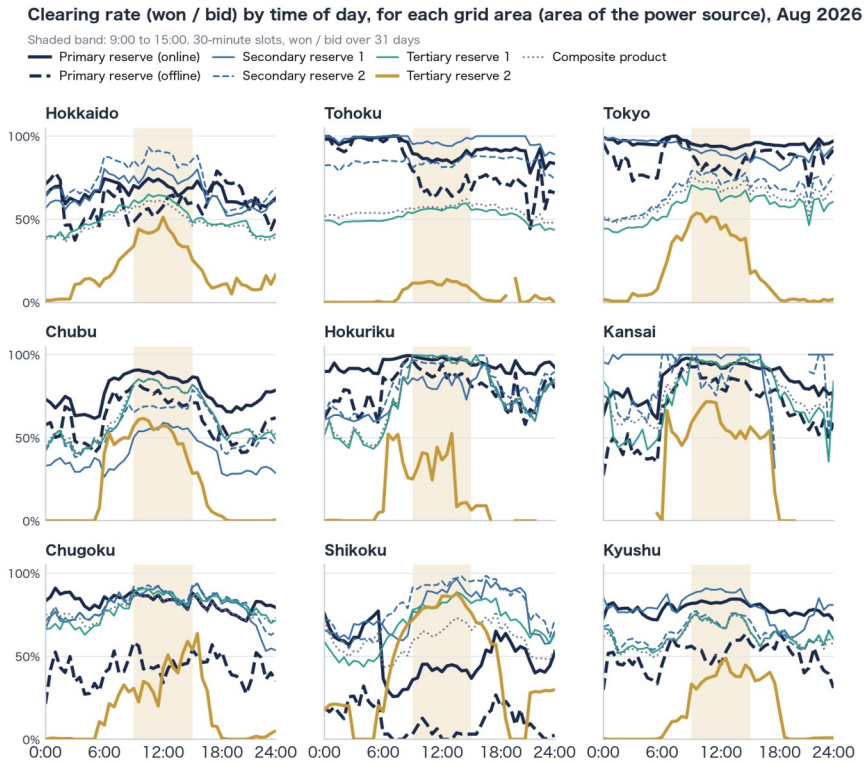


Figure 3 Contract rate in the balancing market (grid area (area where the power source is located) × time of day, August 2026 (1st to 31st))

Source: Trading results (preliminary) published by the Electric Power Reserve Exchange (EPRX). Our tally.

5. ① Balancing market (EPRX) | Primary reserve (online) became a competition for seats

Primary reserve is the fastest product, changing output within 10 seconds of an instruction, and batteries are often used for it. The left side is the online category, the right side the offline category. The bars show the bid-to-requirement ratio (bid volume ÷ volume tendered by grid operators). Above 100%, more bids came in than were tendered, so some bids lose. The bars rise both when bids increase and when the tendered volume falls. The line is the average winning price. These are the monthly figures we have, from April 2025.

The bid-to-requirement ratio for Primary reserve (online) in the balancing market went above 100% for the first time since April 2025 in June 2026, at 106.8%. This month it was 116.0% (tendered volume 3,066.1 MW in April 2025, 1,507.8 MW this month). The average winning price went from 2.89 yen/kW per 30 min in April 2025 to 4.40 yen/kW per 30 min this month. For Primary reserve (offline), this month's bid-to-requirement ratio was 73.4% (tendered volume 1,122.5 MW in April 2025, 497.4 MW this month), and the average winning price was 9.63 yen/kW per 30 min.

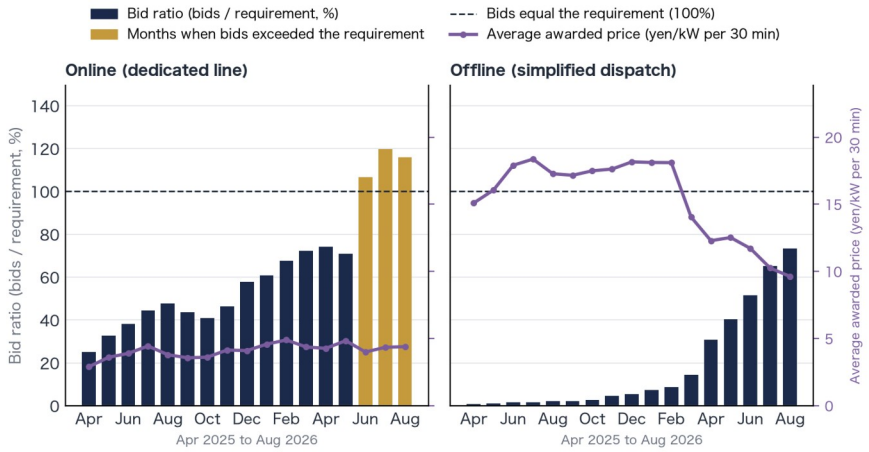


Figure 4 Bid-to-requirement ratio (bars) and average winning price (line) for Primary reserve (monthly. Left is online, right is offline. Gold bars are months when bids exceeded the tendered volume)

Source: Trading results (preliminary) published by the Electric Power Reserve Exchange (EPRX). Our tally.

6. ① Balancing market (EPRX) | How prices for each product have moved

These are the average winning prices for each product from April 2025 (monthly averages weighted by winning volume). From March 14, 2026, Primary through Tertiary reserve 1 and the Composite product moved from trading every 3 hours to trading every 30 minutes (Tertiary reserve 2 was already 30 minutes).

From April 2025 to this month, average winning prices in the balancing market (all in yen/kW per 30 min) went from 2.89 yen to 4.40 yen for Primary reserve (online), 15.10 yen to 9.63 yen for Primary reserve (offline), and 1.12 yen to 2.03 yen for Tertiary reserve 2. Their highest months were, in that order, February 2026 at 4.90 yen, July 2025 at 18.37 yen and May 2026 at 4.18 yen. For Secondary reserve 1, Secondary reserve 2, Tertiary reserve 1 and the Composite product, the highest month was July 2025.

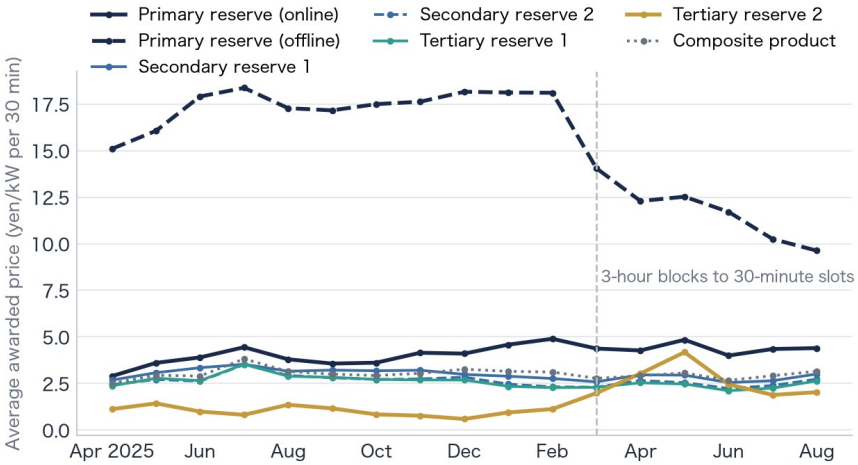


Figure 5 Average winning price by product in the balancing market (yen/kW per 30 min, monthly)
Source: Trading results (preliminary) published by the Electric Power Reserve Exchange (EPRX). Our tally.

7. ① Balancing market (EPRX) | Which hours of the day are expensive

These are the hourly average winning prices for each product in August 2026 (1st to 31st).

The average winning price for Primary reserve (online) in the balancing market was highest in the 18:00 hour at 5.53 yen/kW per 30 min and lowest in the 0:00 hour at 3.50 yen/kW per 30 min.

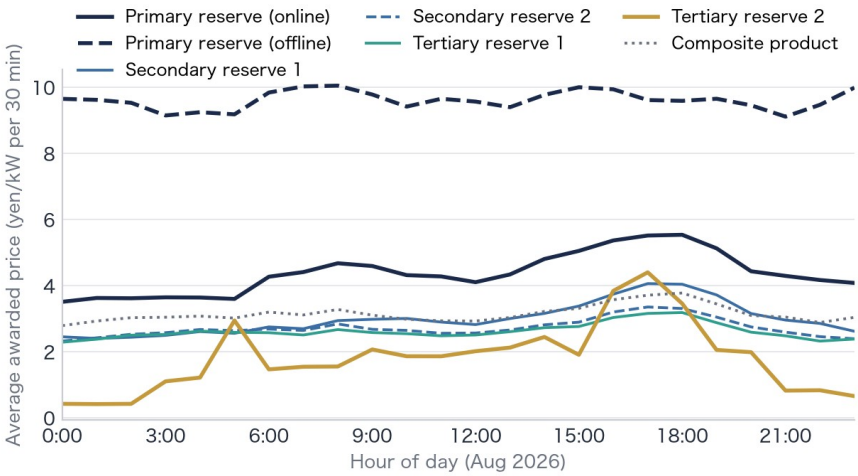


Figure 6 Average winning price by time of day in the balancing market (August 2026 (1st to 31st), yen/kW per 30 min)
Source: Trading results (preliminary) published by the Electric Power Reserve Exchange (EPRX). Our tally.

8. ① Balancing market (EPRX) | Which products batteries are used for

The figure shows the share of winning volume held by batteries. The table compares the average winning price of the volume won by batteries with the average winning price of the product as a whole.

For Primary reserve (online) in the balancing market, the battery share was 24.4%, and the average winning price of the volume won by batteries was 8.08 yen/kW per 30 min (4.40 yen/kW per 30 min overall).

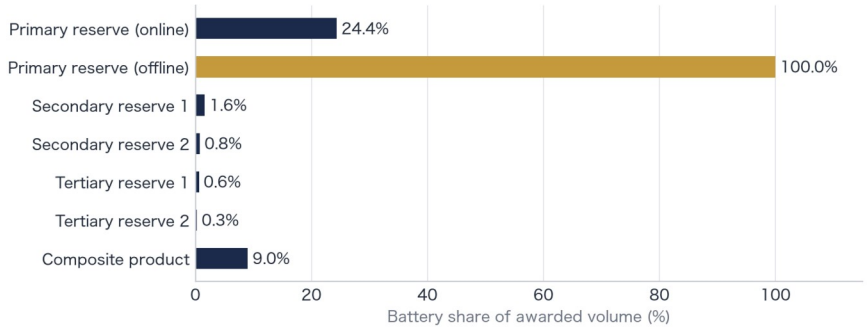


Figure 7 Share held by batteries in the balancing market (%)

Source: Trading results (preliminary) by power source type published by the Electric Power Reserve Exchange (EPRX). Our tally.

Product	Volume won by batteries (yen/kW per 30 min)	Whole product (yen/kW per 30 min)
Primary reserve (online)	8.08	4.40
Primary reserve (offline)	9.63	9.63
Secondary reserve 1	5.14	3.01
Secondary reserve 2	4.08	2.73
Tertiary reserve 1	4.03	2.63
Tertiary reserve 2	51.66	2.03
Composite product	8.02	3.15

Both are averages weighted by winning volume (August 2026, preliminary, nationwide). For Tertiary reserve 2, batteries account for only 0.3% of winning volume, and much of it was won in high-price slots, so their average comes out high.

9. ① Balancing market (EPRX) | Revenue is concentrated in a small number of slots

We ranked the month's 30-minute slots with winning bids by revenue (average winning price × winning volume, nationwide), from highest to lowest, and plotted for each product what % of the month's revenue the top slots account for. The more the curve bulges above the dotted line, the more revenue is concentrated in a few slots. Tertiary reserve 2 is a product that covers errors in forecasting renewable output caused by weather. Its price is low in most slots and high in only a few.

The share of balancing market revenue concentrated in the top 10% of slots was 52.2% for Tertiary reserve 2 and 15.5% for Primary reserve (online).

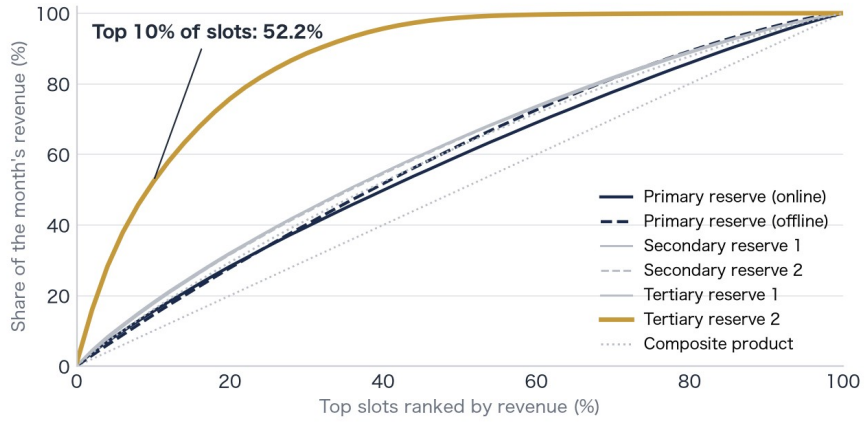


Figure 8 Share of balancing market revenue concentrated in the top slots (August 2026 (1st to 31st), nationwide)

Source: Trading results (preliminary) published by the Electric Power Reserve Exchange (EPRX). Our tally.

In August 2026, of the 1,345 slots with winning bids, the top 1% of slots by revenue (average winning price × winning volume) accounted for 8.4% of the month's revenue. There were 34 slots with a nationwide average winning price of 10 yen/kW per 30 min or more, and 143 slots with no winning bids.

Slots with the highest maximum winning price (by area where the power source is located):

Day	Time	Area	Maximum winning price (yen/kW per 30 min)
August 6	9:00	Tokyo	97.00
August 6	9:30	Tokyo	97.00
August 6	10:00	Tokyo	97.00
August 6	11:00	Tokyo	97.00
August 9	9:00	Tokyo	97.00

Source: Tertiary reserve 2 trading results (preliminary) published by the Electric Power Reserve Exchange (EPRX). Our tally.

10. ② Wholesale electricity (JEPX) | Average price

Wholesale electricity is the electricity that power companies and retailers buy and sell. Its price is set on the "spot market" of the Japan Electric Power Exchange (JEPX), where electricity for the next day is traded the day before. "System (nationwide)" is the price when all of Japan is treated as one market (the system price). When transmission lines between regions are congested, prices split by area from Hokkaido to Kyushu (area prices).

The monthly average System (nationwide) price in wholesale electricity (JEPX) was 19.14 yen/kWh in August 2026, against 11.98 yen/kWh in the same month last year (a difference of 7.15 yen/kWh).

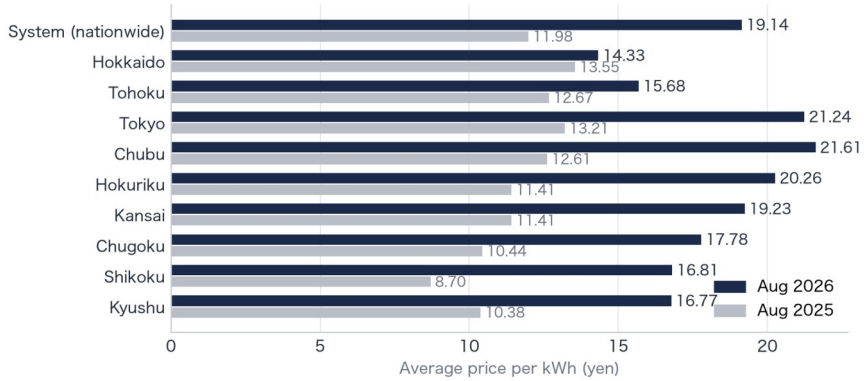


Figure 9 Average wholesale electricity price (yen/kWh). Navy is August 2026, grey is the same month last year

Source: Spot market trading results published by the Japan Electric Power Exchange (JEPX). Simple average of the 30-minute prices. Our tally.

11. ② Wholesale electricity (JEPX) | How the price moves through the day

The wholesale electricity price changes every 30 minutes. The figure shows the daily shape, averaging the prices at the same time of day across the month. If a battery charges when prices are low and discharges when they are high, the difference becomes its income.

The daily low and high in wholesale electricity were 17.32 yen/kWh around 6:30 and 28.06 yen/kWh around 17:30 in Tokyo, and 10.55 yen/kWh around 12:00 and 30.21 yen/kWh around 18:00 in Kyushu.

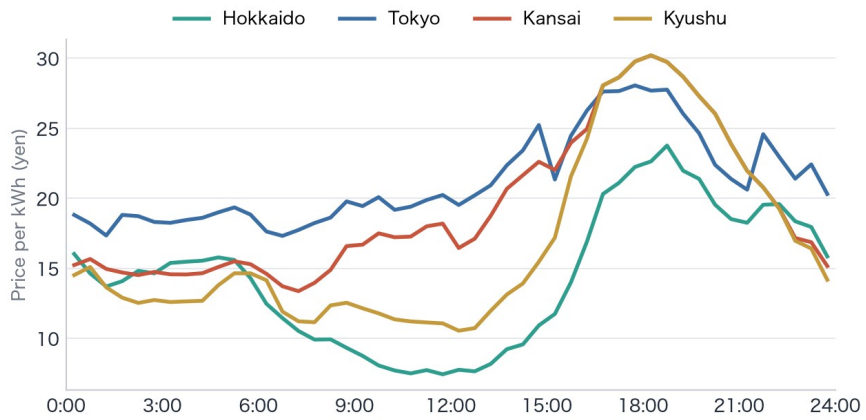


Figure 10 Daily peaks and troughs of the wholesale electricity price (average for August 2026, yen/kWh)

Source: JEPX spot market. Our tally.

12. ② Wholesale electricity (JEPX) | How large is the spread per kWh

For each area, we took the average price of the 4 highest-price hours of each day, subtracted the average price of the 4 lowest-price hours, and show the monthly average. This equals the difference per kWh if you buy 1 kWh in the 4 cheapest hours and sell it in the 4 most expensive hours. It is a simple difference: it does not subtract electricity lost in charging and discharging or fees, and it ignores the order of the cheap and expensive hours.

By area, the monthly average spread between the average of the 4 highest-price hours and the 4 lowest-price hours in wholesale electricity was largest in Shikoku at 19.67 yen/kWh and smallest in Tokyo at 11.94 yen/kWh.

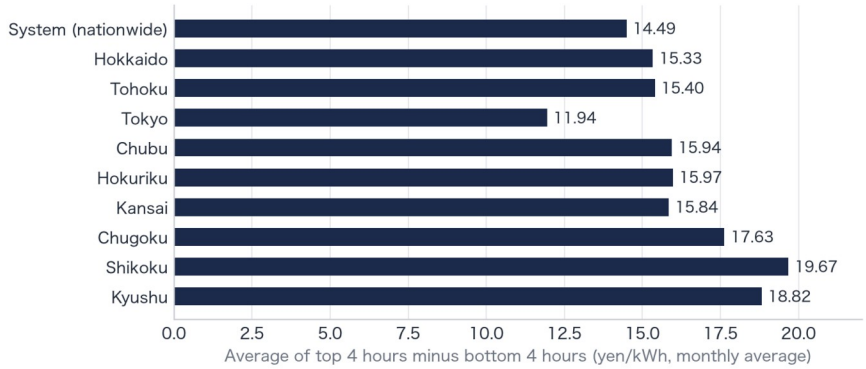


Figure 11 Wholesale electricity spread: average of the 4 highest hours − average of the 4 lowest hours (August 2026, yen/kWh, monthly average)

Source: JEPX spot market. Our tally.

Area	2-hour spread (yen/kWh)	4-hour spread (yen/kWh)	Days with a 4-hour spread of 10 yen or more
System (nationwide)	16.09	14.49	26
Hokkaido	17.04	15.33	25
Tohoku	17.10	15.40	25
Tokyo	13.58	11.94	21
Chubu	17.46	15.94	29
Hokuriku	17.89	15.97	24
Kansai	17.56	15.84	23
Chugoku	19.62	17.63	24
Shikoku	22.29	19.67	27

Area	2-hour spread (yen/kWh)	4-hour spread (yen/kWh)	Days with a 4-hour spread of 10 yen or more
Kyushu	20.53	18.82	24

The spread is the monthly average of the daily spreads. August 2026 covers 31 days.

13. ② Wholesale electricity (JEPX) | There is a spread every day

We show the same 4-hour spread day by day. The larger the spread on a day, the more room a battery has to earn from it.

Days with a 4-hour spread in wholesale electricity of 10 yen/kWh or more numbered 26 of 31 days for System (nationwide), 29 days in Chubu and 21 days in Tokyo.

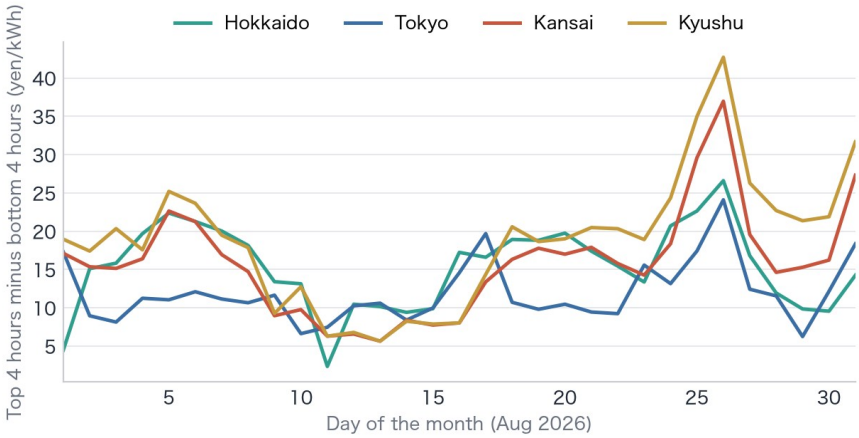


Figure 12 Daily wholesale electricity spread (average of that day's 4 highest hours − average of the 4 lowest hours, yen/kWh)

Source: JEPX spot market. Our tally.

14. ③ Capacity market (OCCTO) | A market that buys future supply capability

The capacity market buys electricity supply capability 4 years ahead through an annual auction. The price is set in yen per kW per year. The left figure shows the clearing prices of the main auctions so far. The right figure shows the battery and pumped hydro capacity contracted in the Long-Term Decarbonization Power Source Auction (a separate auction that supports new builds such as batteries and pumped hydro). These are published once a year, so they do not change every month. The latest is for delivery FY2029 (published January 2026).

The Tokyo clearing price in the capacity market main auction was 14,137 yen/kW for delivery FY2024, 3,495 yen/kW for FY2025, 5,834 yen/kW for FY2026, 9,555 yen/kW for FY2027, 14,812 yen/kW for FY2028 and 15,111 yen/kW for FY2029. In the Long-Term Decarbonization Power Source Auction (FY2025 auction), contracted battery and pumped hydro capacity was 819 MW for lithium-ion and 886 MW for non-lithium. Both are the latest annual publication, so they do not change every month.

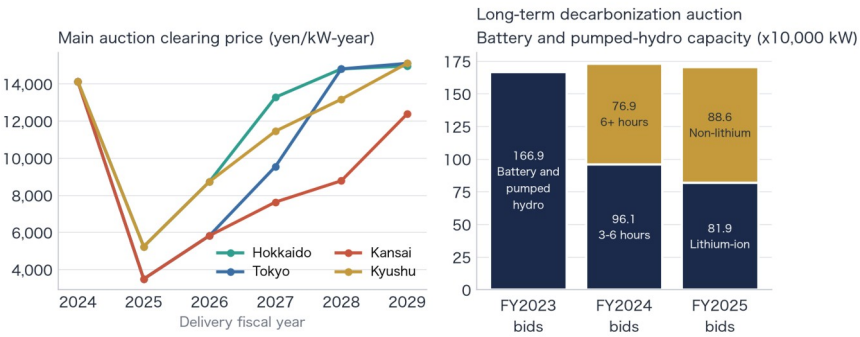


Figure 13 Capacity market clearing price (left, yen/kW) and battery and pumped hydro capacity contracted in the Long-Term Decarbonization Power Source Auction (right, in units of 10,000 kW)

Source: Clearing results and capacity securing contract documents published by the Organization for Cross-regional Coordination of Transmission Operators (OCCTO) (sources in the last section (Assumptions and terms)). As published.

© Science X Inc. · https://www.scix.co.jp

15. Our records | Where battery storage projects are increasing

We counted, by grid area of the grid operator, the projects newly listed this month on our DealRoom (our data room for buyers, a site where we list battery storage projects). These are figures for projects we handled, not counts for the whole market. Transfer of rights is a sale that transfers the land and grid rights. Completed-build handover is a sale that hands over the facility once it is built.

New listings on our DealRoom in August 2026 were 17 projects, 175.6 MW. By grid area: Kyushu 6 projects, 105.6 MW; Chugoku 5 projects, 10.0 MW; Chubu 4 projects, 8.0 MW; Tokyo 1 project, 50.0 MW; Kansai 1 project, 2.0 MW.

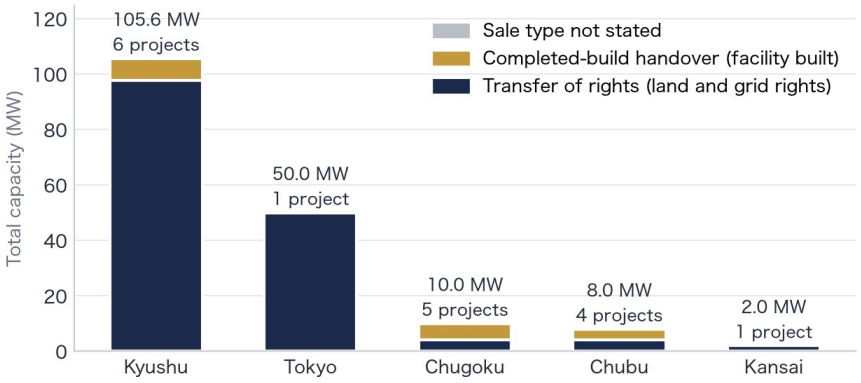


Figure 14 Output of projects listed on our DealRoom in August 2026 (MW)

Source: Our DealRoom records (project locations are shown only down to grid area; prices and parties are not listed).

16. Our records | How many months and how much it costs to connect to the grid

A grid connection study is the procedure of asking the grid operator to check "whether we can connect at this location, and how much the works will cost". The grid connection cost contribution is the part of the connection works paid by the applicant. Of the response letters we received, we tallied only the high-voltage ones (connecting to 6,600 V distribution lines) by grid area. Extra-high voltage is not included. Grid areas with fewer than 5 cases are not shown.

Median values from grid connection study responses (high voltage only, as of October 19, 2026) range from 8.0 months in Tokyo (n=48) to 17.0 months in Tohoku (n=5) for the construction period, and from ¥3.02 million in Tokyo (n=50) to ¥32.35 million in Tohoku (n=8) for the grid connection cost contribution.

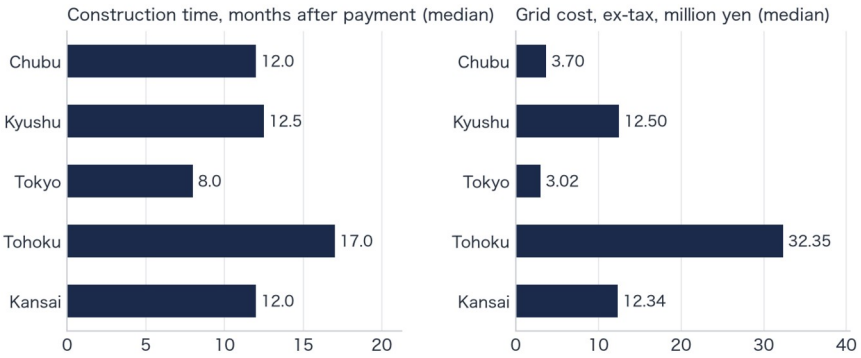


Figure 15 Median grid connection study responses (high voltage) by grid area (left: months of works, right: grid connection cost contribution, excluding tax)

Source: Our tally of the high-voltage grid connection study response letters we received from general transmission and distribution operators (as of October 19, 2026).

ScienceX

17. Market figures (tables ready to use in documents)

We put the figures behind the charts in the text into tables you can use in documents: ① nationwide figures for each balancing market product (bid-to-requirement ratio, contract rate, price, battery share), ② area figures and trading volume for wholesale electricity (JEPX), and ③ capacity market clearing prices.

Balancing market (August 2026, preliminary, nationwide)

Product	Tendered volume (MW)	Bid volume (MW)	Winning volume (MW)	Bid-to-requirement ratio (bids ÷ tendered)	Contract rate (won ÷ bids)	Average winning price (yen/kW per 30 min)	Battery share
Primary reserve (online)	1,507.8	1,748.3	1,417.9	116.0%	81.1%	4.40	24.4%
Primary reserve (offline)	497.4	365.0	238.2	73.4%	65.3%	9.63	100.0%
Secondary reserve 1	1,180.9	1,838.8	1,243.4	155.7%	67.6%	3.01	1.6%
Secondary reserve 2	973.0	3,690.2	2,501.1	379.3%	67.8%	2.73	0.8%
Tertiary reserve 1	2,963.3	5,474.0	3,279.9	184.7%	59.9%	2.63	0.6%
Tertiary reserve 2	484.1	1,422.5	459.0	293.8%	32.3%	2.03	0.3%
Composite product	3,783.2	6,207.0	3,871.6	164.1%	62.4%	3.15	9.0%

Volumes are averages per 30-minute slot. Products with a bid-to-requirement ratio below 100% did not receive enough bids to cover the tendered volume. The contract rate is the share of bid volume that won.

Source: Trading results (preliminary) and trading results by power source type published by the Electric Power Reserve Exchange (EPRX). Our tally.

Wholesale electricity, JEPX spot market (August 2026, by area, yen/kWh)

Area	Monthly average	Same month last year	Daytime (8:00–16:00)	Evening (16:00–20:00)	4-hour spread	Highest	Slots at 30 yen or more	Slots at 0.01 yen
System (nationwide)	19.14	11.98	16.72	27.60	14.49	50.01	127	0
Hokkaido	14.33	13.55	9.09	21.29	15.33	47.50	34	16
Tohoku	15.68	12.67	10.21	22.55	15.40	47.50	35	0
Tokyo	21.24	13.21	20.88	26.97	11.94	50.01	141	0
Chubu	21.61	12.61	20.00	30.10	15.94	55.23	253	0
Hokuriku	20.26	11.41	19.52	28.82	15.97	55.23	221	0
Kansai	19.23	11.41	18.72	28.42	15.84	55.23	179	0
Chugoku	17.78	10.44	14.41	28.39	17.63	55.23	145	0
Shikoku	16.81	8.70	12.12	27.65	19.67	55.23	141	10
Kyushu	16.77	10.38	13.01	28.33	18.82	55.23	143	0

Trading volume (August 2026, total for 31 days): total contracted volume 38,580 million kWh (same month last year 26,819 million kWh), sell bid volume 58,644 million kWh, buy bid volume 48,003 million kWh.

Source: Spot market trading results published by the Japan Electric Power Exchange (JEPX). Prices are simple averages of the 30-minute slots. Our tally.

Capacity market main auction area prices (yen/kW per year)

Delivery fiscal year	Hokkaido	Tohoku	Tokyo	Chubu	Hokuriku	Kansai	Chugoku	Shikoku	Kyushu
FY2024	14,137	14,137	14,137	14,137	14,137	14,137	14,137	14,137	14,137
FY2025	5,242	3,495	3,495	3,495	3,495	3,495	3,495	3,495	5,242
FY2026	8,749	5,833	5,834	5,832	5,832	5,832	5,832	5,832	8,748
FY2027	13,287	9,044	9,555	7,823	7,638	7,638	7,638	7,638	11,457
FY2028	14,812	14,812	14,812	10,280	8,785	8,785	8,785	8,785	13,177
FY2029	14,972	15,111	15,111	12,388	12,388	12,388	12,388	12,388	15,112

Battery and pumped hydro capacity contracted in the Long-Term Decarbonization Power Source Auction (10,000 kW)

Auction year	Category	Contracted capacity (10,000 kW)
FY2023 auction	Batteries and pumped hydro	166.9
FY2024 auction	3 to 6 hours	96.1
FY2024 auction	6 hours or more	76.9
FY2025 auction	Lithium-ion	81.9

© Science X Inc. · https://www.scix.co.jp

Auction year	Category	Contracted capacity (10,000 kW)
FY2025 auction	Non-lithium	88.6

Source: Clearing results and capacity securing contract documents published by the Organization for Cross-regional Coordination of Transmission Operators (OCCTO) (sources in the last section (Assumptions and terms)). As published.

18. Assumptions and terms

- The figures are our tallies of the values published by the sources. We do not add up several months or convert to annual figures. We do not show revenue amounts for any single battery storage plant.
- Months covered: the balancing market (EPRX) is August 2026 preliminary values (delivery dates up to the 31st); wholesale electricity (JEPX) is August 2026 (31 days). For the balancing market, the month may differ until the published values for August 2026 enter our tally.
- Balancing market: nationwide (total column) of EPRX preliminary values. Tendered volume is by grid operator (TSO); bid volume, winning volume and average winning price are by area where the power source is located. Volumes are averages per 30-minute slot. The average winning price is weighted by winning volume. Bid-to-requirement ratio = bid volume ÷ tendered volume; contract rate = winning volume ÷ bid volume. For the 3-hour blocks up to March 13, 2026, we counted one block as six 30-minute slots.
- Range of winning prices: the thin line runs, among the month's slots with winning bids, from the cheapest bid (minimum winning price) to the most expensive bid (maximum winning price) (published values by area where the power source is located). The published values for Primary reserve (online), Secondary reserve 1 and 2, and Tertiary reserve 1 also include Composite product bids (one price for several products bundled). So we removed from the thin line the bids that exceed the price cap of 15 yen (for delivery up to August 31, 2026) for Primary reserve (online) and Secondary reserve 1, or exceed 10 yen for Secondary reserve 2 and Tertiary reserve 1, and that can be explained by a Composite product bid in the same slot and area. For Primary reserve (offline), we removed from the thin line the bids above the price cap (15 yen this month) (the balancing market system also accepts bids above the cap and cuts them down to the cap at settlement). The thick band is the range from 10% to 90% from the bottom when the average winning prices of slots with winning bids are sorted from lowest to highest. The dot is the average weighted by winning volume.
- Contract rate by grid area × time of day: total winning volume ÷ total bid volume for slots at the same time of day across the month (by area where the power source is located).
- The time from instruction to output change and the duration for balancing market products are the FY2026 specifications. For Primary reserve, the online category connects to the grid operator by a dedicated line, and the offline category runs on the simplified dispatch system without a dedicated line.
- High-price slots for Tertiary reserve 2: slots with a nationwide average winning price of 10 yen/kW per 30 min or more. The top 1% is the top 1% of slots ranked by revenue (average winning price × winning volume). The maximum winning price is the published value by area where the power source is located.
- Average prices are simple averages of the 30-minute slots (not weighted by trading volume). Daytime is the slots from 8:00 to 16:00, evening the slots from 16:00 to 20:00.
- Spread: the day's 30-minute slots are sorted by price, and the average of the 8 cheapest slots is subtracted from the average of the 8 most expensive slots (4 hours) (4 slots for 2 hours). It ignores the order of the cheap and expensive hours, electricity lost in charging and discharging, and fees, taxes and transmission charges. It does not show actual revenue.

Sources (OCCTO, capacity market clearing results): delivery FY2024 https://www.occto.or.jp/iinkai/youryou/kentoukai/2020/files/youryou_kentoukai_27_05.pdf / delivery FY2025 https://www.occto.or.jp/iinkai/youryou/kentoukai/2021/files/youryou_kentoukai_35_03_1.pdf / delivery FY2026 https://www.occto.or.jp/iinkai/youryou/kentoukai/2022/files/youryou_kentoukai_43_03.pdf / delivery FY2027 https://www.occto.or.jp/market-board/market/oshirase/2023/files/240124_mainauction_youryouyakujokekka_kouhyou_jitsujukyu2027.pdf / delivery FY2028 https://www.occto.or.jp/market-board/market/oshirase/2024/files/250129_mainauction_youryouyakujokekka_kouhyou_jitsujukyu2028.pdf / delivery FY2029 https://www.occto.or.jp/assets/news/capacity-market/260120_mainauction_youryouyakujokekka_kouhyou_jitsujukyu2029.pdf

Sources (OCCTO, Long-Term Decarbonization Power Source Auction): FY2023 auction https://www.occto.or.jp/assets/260605_auction_keiyakujyoukyou_kouhyou.pdf / FY2024 auction https://www.occto.or.jp/market-board/market/jitsujukyukanren/files/longauction_keiyakukekka_2024.pdf / FY2025 auction https://www.occto.or.jp/assets/various/capacity-market/jitsujukyukanren/yoryokakuhokeiyaku/longauction_keiyakukekka_2025.pdf

- Capacity market clearing results are published in a different year for each delivery fiscal year (FY2024 in 2020, FY2029 in January 2026). The number of battery projects in the Long-Term Decarbonization Power Source Auction is not shown, because it is not in the published summary tables.

Sources: Japan Electric Power Exchange (JEPX) spot market trading results / Electric Power Reserve Exchange (EPRX) trading results (preliminary) and trading results by power source type / Organization for Cross-regional Coordination of Transmission Operators (OCCTO) capacity market main auction clearing results and Long-Term Decarbonization Power Source Auction capacity securing contract documents / our tally of grid connection study response letters we received / our DealRoom records.

Terms: System price (System, nationwide) = the wholesale electricity price when all of Japan is treated as one market. Area price = the price split by area according to transmission line congestion. The grid = the power companies' transmission network. Grid connection = connecting to the transmission network. MW = size of power (1 MW = 1,000 kW). MWh = amount of electricity that can be stored. yen/kWh = price per 1 kWh of electricity.

Science X Inc. https://www.scix.co.jp Contact: s@scix.co.jp

Newsletter "Japan grid-scale BESS: primary data":
https://www.linkedin.com/newsletters/7521830530569445376/

You may use the figures, tables and numbers if you credit the source (citation guide https://www.scix.co.jp/press).