

# Promoting Competition and Investment in Energy Market

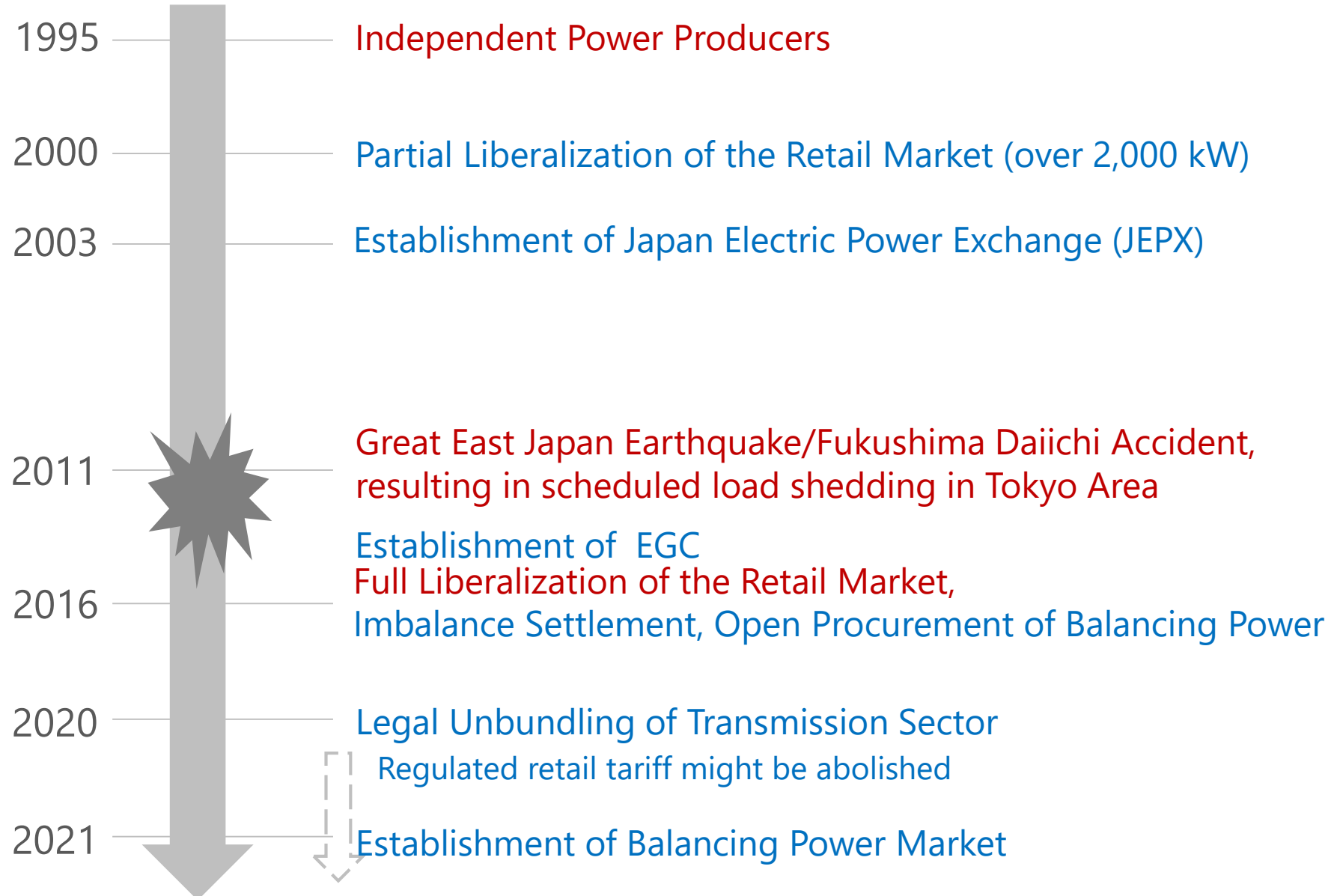
**November 2018**

# Outline

1. Purpose of Energy System Reform
2. State of Competition in the Electricity Market
  1. Retail market
  2. Wholesale market
3. Past Initiatives to Promote Competition
  1. Setting up and Revision of various Guidelines
  2. Implementation of various Recommendations
  3. Examples of Initiatives to Stimulate the Spot Market
4. Future Challenges
  1. Retail market
    1. Criteria for Abolishing the Regulated Tariff
  2. Wholesale market
    1. Ensuring investment in Electricity Supply in competitive markets
  3. Ensuring neutrality of network sectors
    1. Legal Unbundling

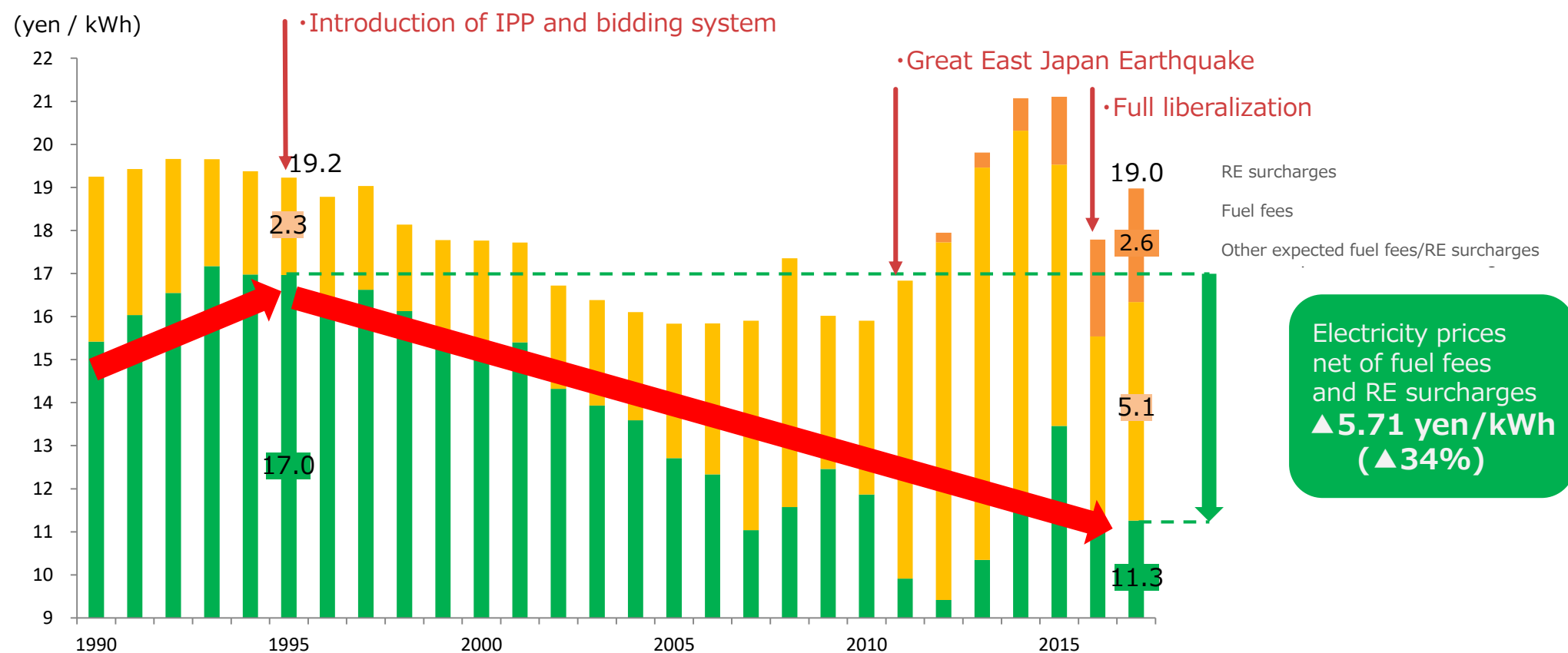
# 1. System Reform in Japan

- Main purpose of the reform from '95 was reduction of the electricity price.



# 1.Reductions in Electricity Prices

- Except a few years after the Great East Japan Earthquake, electricity prices net of Fuel Fee and Renewable Energy Surcharge gradually declined after the electricity system reform started.



# 1. Purpose of Energy System Reform (2011-present)

1

## **Secure stable power supply**

Promote the cross-regional exchange of electricity and improving measures to adjust supply and demand. Promote development and interconnections of gas pipeline networks.

2

## **Suppress tariffs to the maximum extent possible**

Encourage competition among energy operators and entry from other industries and areas for the maximum suppress of fees.

3

## **Expand Choices for Consumers and Business Opportunities**

Respond to customer needs with various options. Evoke innovation through entry from other industries and areas and the utilization of new technologies, etc.



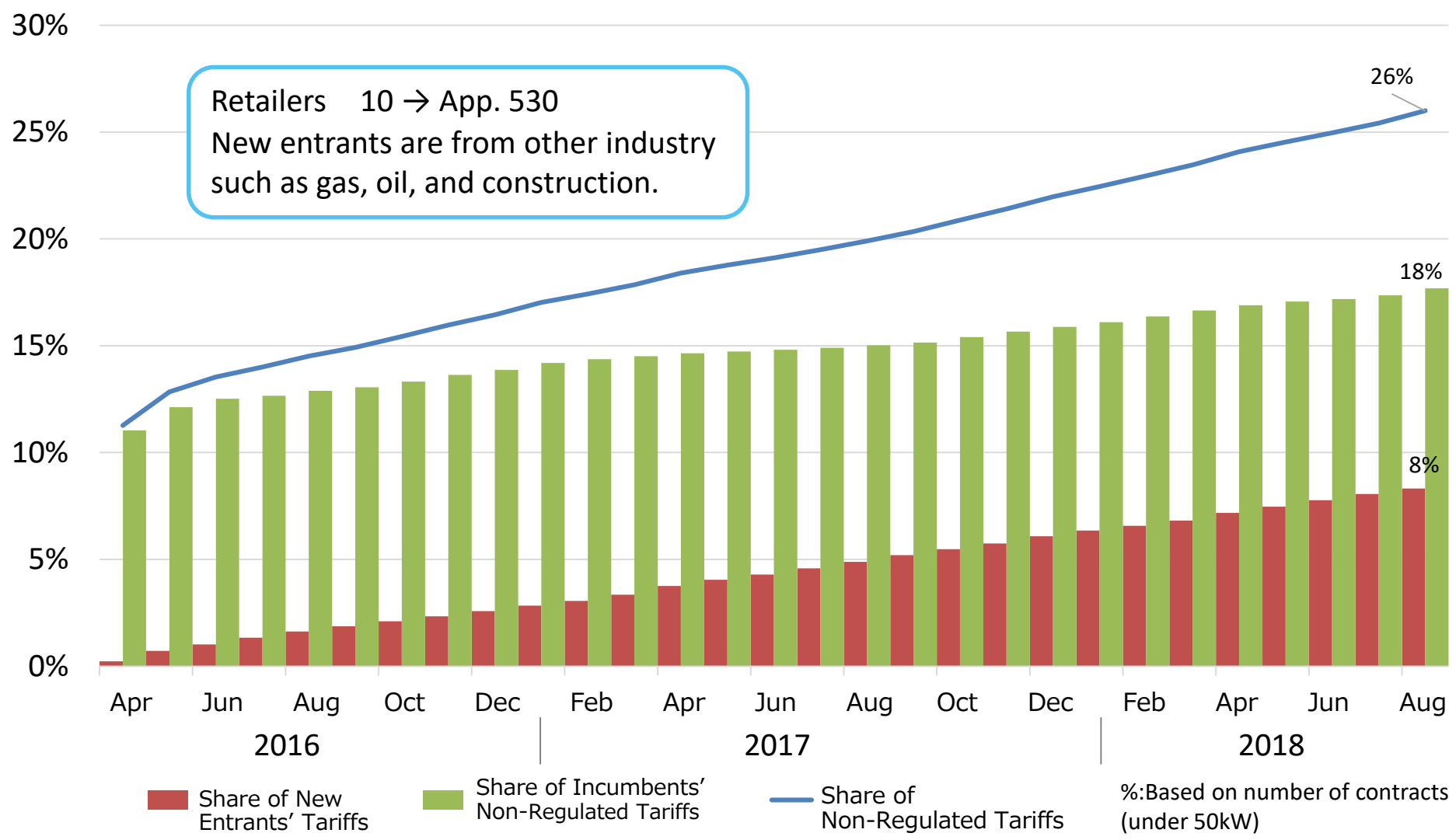
- “Democratization” of energy systems
  - Numerous and diverse participants
  - Application of market mechanisms
  - Regulations Ensuring These

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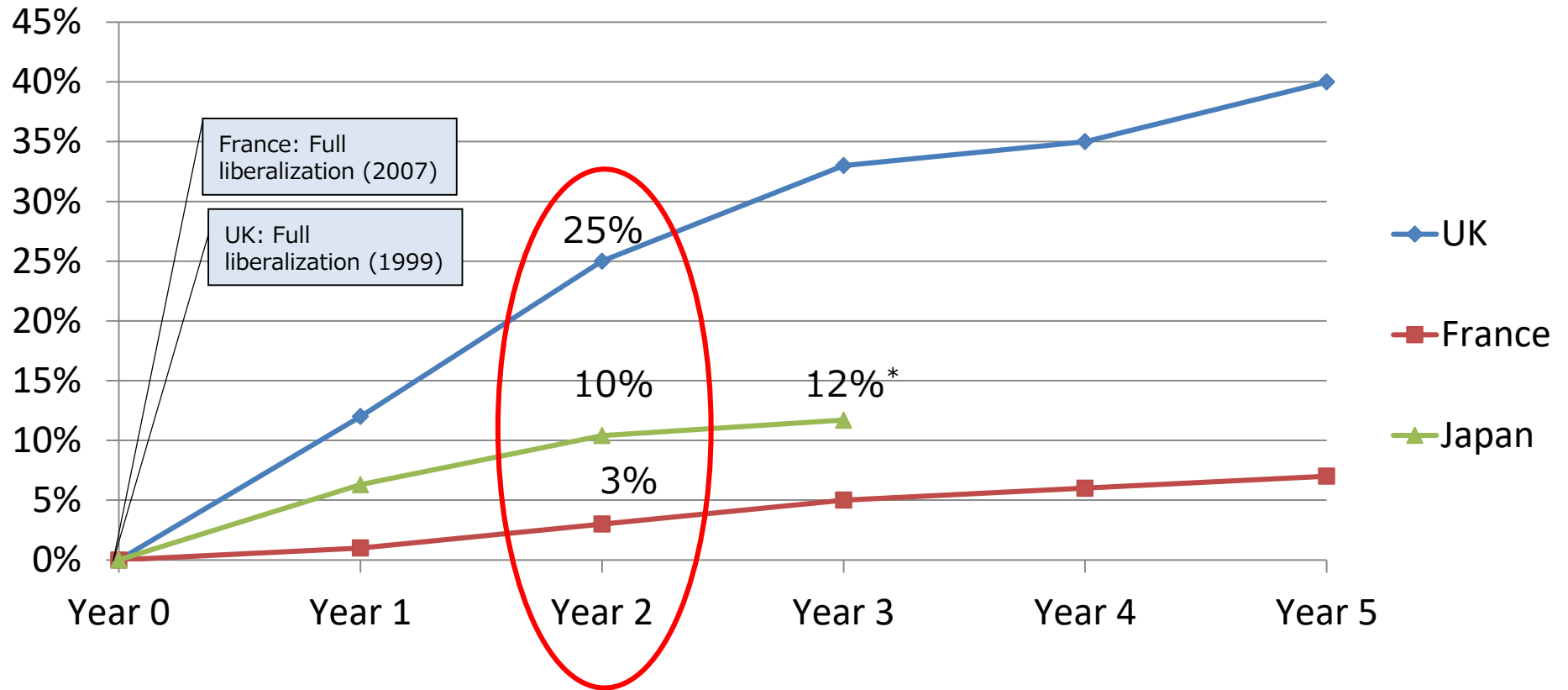
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## 2. Share of Non-Regulated ( Liberalised ) Tariffs

- Although the market share of New Entrants is rising steadily based on the number of contracts, the share is still low.



## 2. Switching from Incumbents to New Entrants



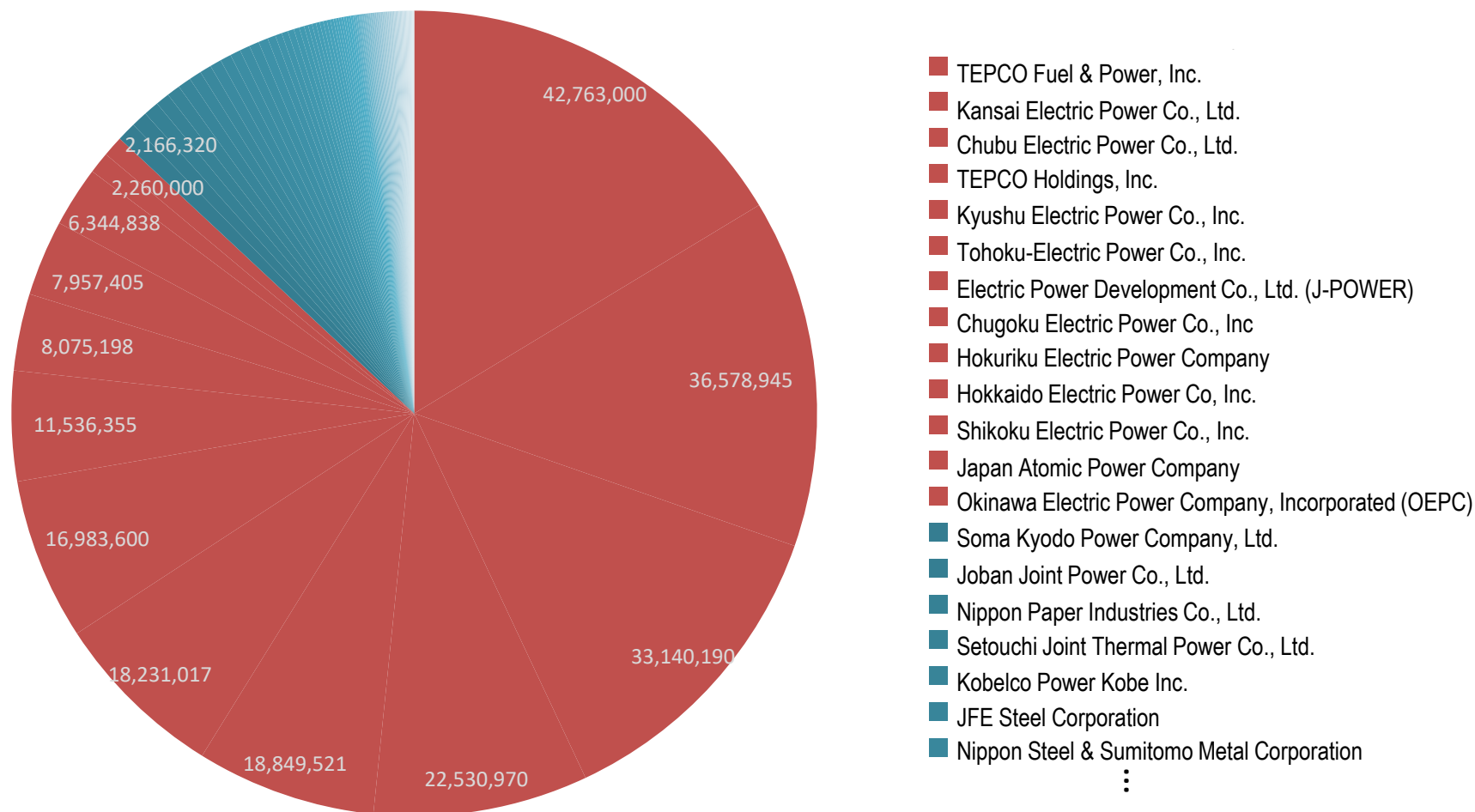
\*referring to the index of August, 2018.

%;based on the gross sum of switched contracts from incumbents (under 50kW)



## 2. Structure of Holders of Electricity Generators

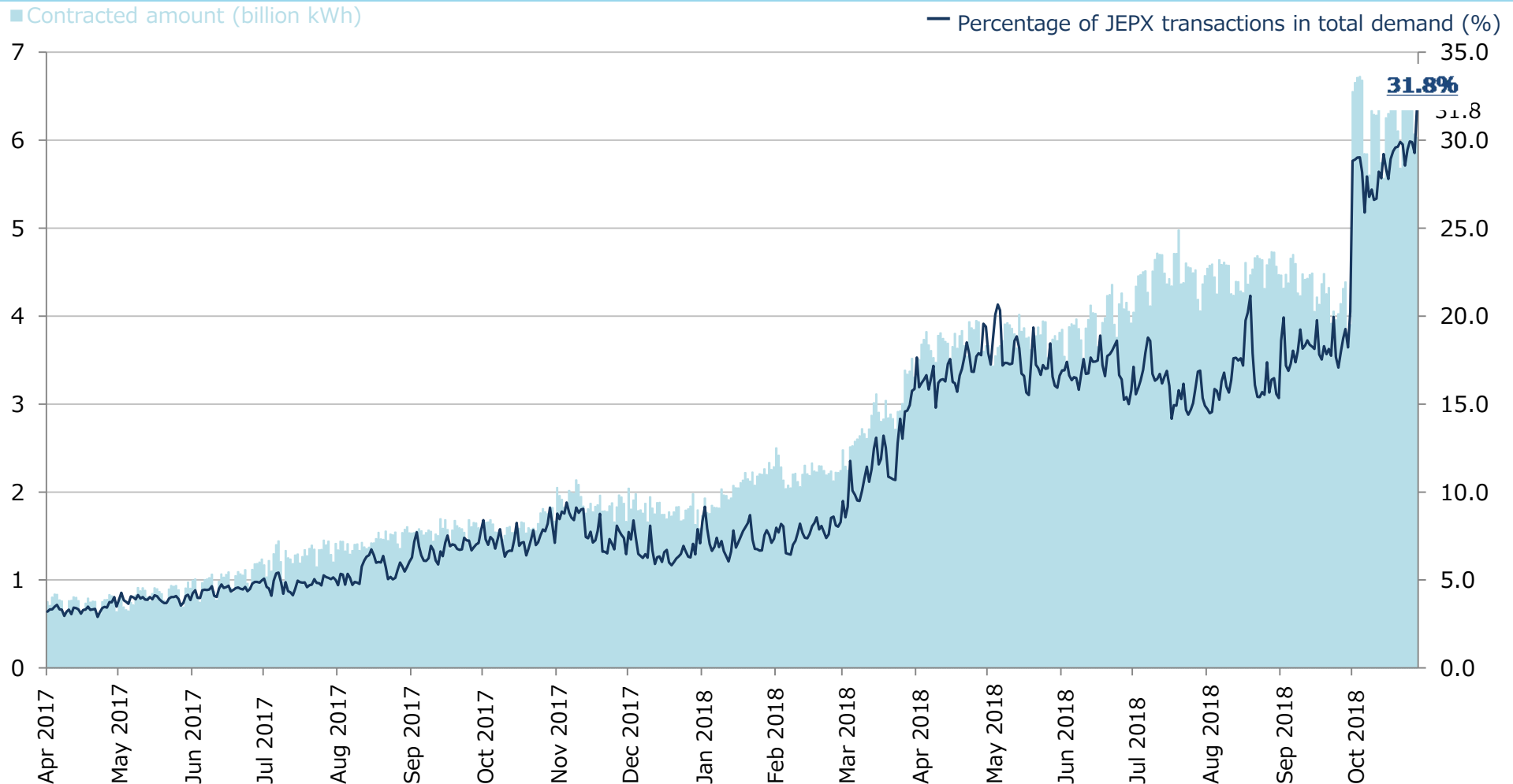
- Incumbent operators hold 83% of the capacity.
- Capacity of PV increased from 5,000MW (2010) to **47,000MW(2017).**



(Source) Based on "Electric Power Supply Survey Statistics" by the Agency for Natural Resources and Energy. Installed capacity (MW) of power supply sources held by 96 operators generating 100MW or more.

## 2. Volume of Transactions in Spot Markets

- The volume of transactions at the Japan Electric Power Exchange (JEPX), an important means for new entrants to purchase electricity, has consistently increased.
- Further growth will be expected in the future as a result of the impacts of the new rule for use of interconnections, etc.



Note: figure for October 2018 is preliminary estimated

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# 3. Setting up and Revision of various Guidelines

## Guideline on Sales of Retail Electricity

### Examples of preferred actions

- Publication of standard menus and examples of average monthly fees
- Explanations of cancellation fee when switching etc.

### Examples of problematic actions

- Provision of misleading information to customers
- Failure of the compliance with requirements to explain and issue documents to customers

## Guideline on Proper Electricity Transactions

### Examples of preferred actions

- Clear specifications of transmission and distribution service fees on invoices for customers
- Proactive use of Electric Power Exchange and selling bids

### Examples of problematic actions

- Unfair bandling in set sales
- Setting unreasonably low prices for specific customers

## Follow-up surveys

- ◆ Five follow-up surveys have been conducted for business operators since April 2016.

### 3. Implementation of Recommendations

- Since April 2016, the electricity market was fully liberalized, recommendations have been made on 6 improper cases by four operators.

Date of Recommendations	Target Operators	Business	Details
October 11, 2018	<b>TEPCO Energy Partner, Inc.</b>	Electricity, Gas (retail)	Documents not delivered after contracts concluded
August 2, 2018	<b>F-POWER Inc.</b>	Electricity (retail)	Failure to provide required explanations
May 16, 2018	<b>Tohoku-Electric Power Co., Inc.</b>	Electricity (TSO)	Overcharged construction cost share
March 2, 2018	<b>TEPCO Energy Partner, Inc.</b>	Electricity, Gas (retail)	Documents not delivered before contracts concluded
November 17, 2016	<b>TEPCO Energy Partner, Inc.</b>	Electricity (retail)	Market manipulation at JEPX
June 17, 2016	<b>TEPCO Power Grid, Inc.</b>	Electricity (TSO)	Late notification of electricity usage

### 3. Examples of Initiatives to Stimulate the Spot Market

- EGC has been encouraging the incumbents that hold the bulk of power generation capacity to contribute equal footing of new entrants and incumbents.

#### **Supply of the Whole Surplus Electricity to the Market**

- ✓ The whole surplus electricity (surplus of the incumbents' demand, excluding power adjustment and bidding constraints) will be bid to the JEPX market in the price of marginal cost (from 2013).

#### **Gross Bidding**

- ✓ Internal trades between generation section and retailing section of the incumbents are supposed to be done through the JEPX market(from 2017)

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# 4. Criteria for Abolishing the Regulated Tariff

- Regulation tariffs remain to prevent unregulated monopolies.
- Standards to abolish regulations will be set through comprehensive assessments from three perspectives: (1) consumers' situations, (2) existence of adequate pressure of competition, and (3) sustained competition.

## Consumers' situations

- ✓ How much interest do consumers have in switching electricity?
- ✓ How will switching by consumers change in the future?

## Existence of adequate pressure from competitors

- ✓ Probability that there will be pressure from competitors on price increases by incumbent utilities?
- ✓ Is there any obvious pressure from competitors on price increases by incumbent utilities?

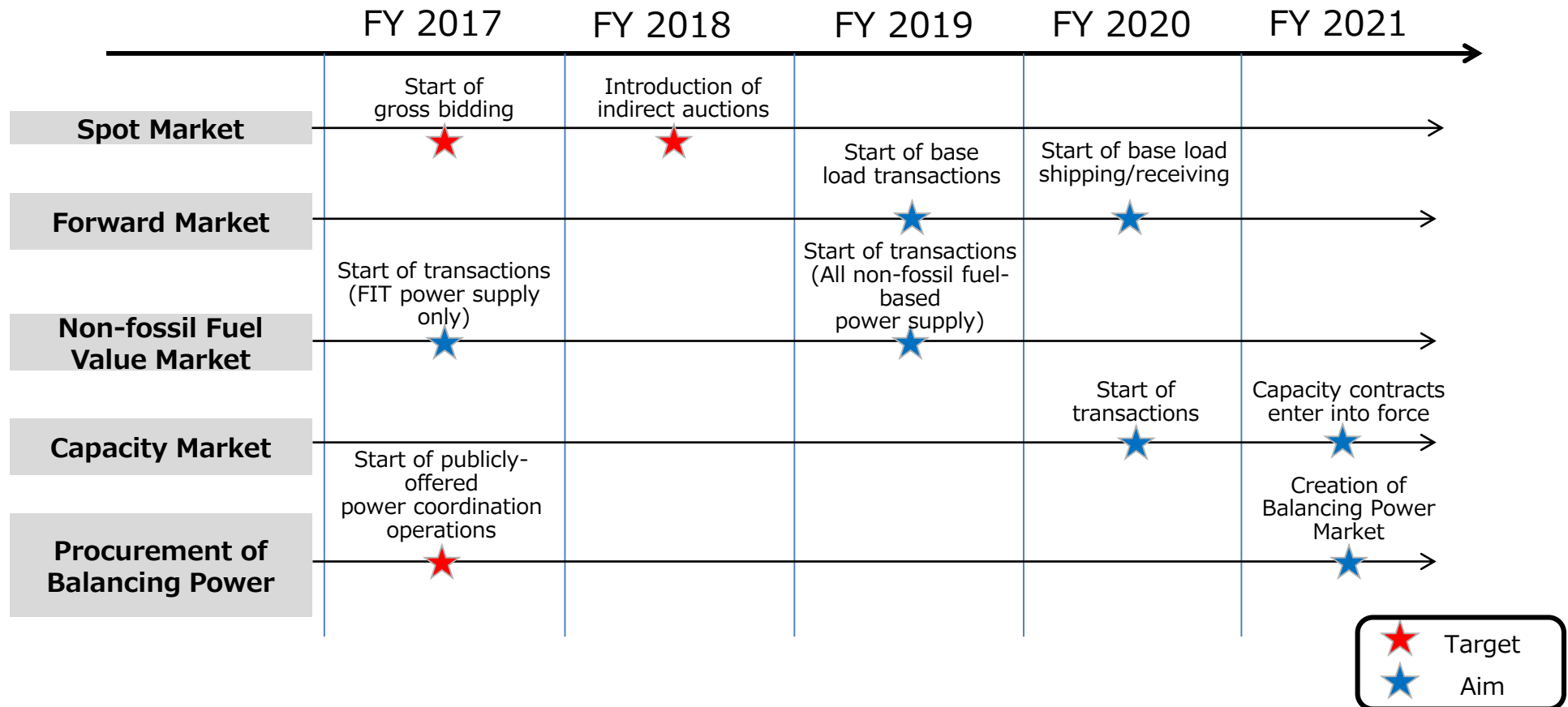
## Sustained competition

- ✓ Is a switching environment being developed?
- ✓ Is a sustained competitive environment being maintained?



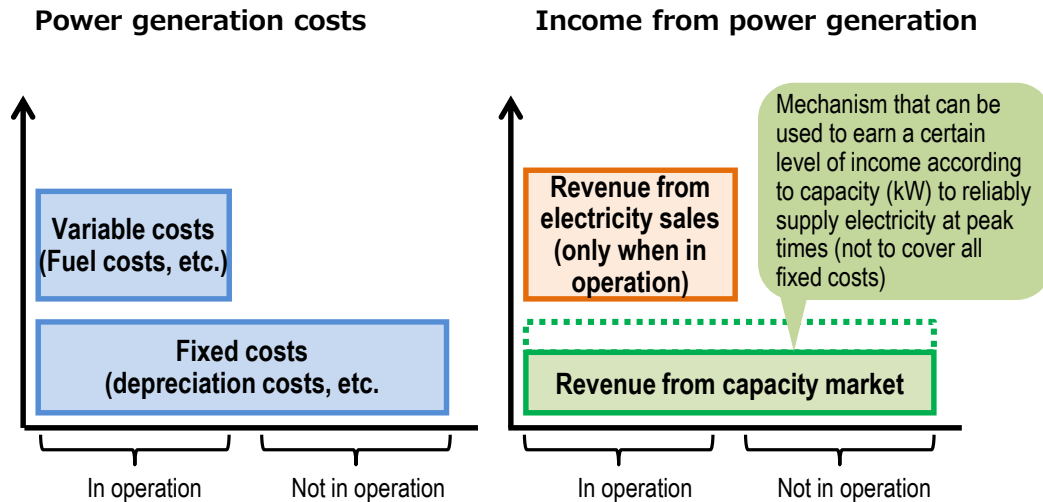
## 4. Securing Investment in Capacity in Competitive Markets

- The predictability of power supply investments declines due to expanded transactions in the wholesale power market and expanded introduction of renewable energy along with the FIT system, etc. In the medium- to long-term, there is concern that it will be difficult to newly establish and maintain facilities to secure the required supply and adjustment capacity throughout the entire country.
- Capacity market will be set from 2020 and EGC is expected to monitor new markets for appropriate trades.

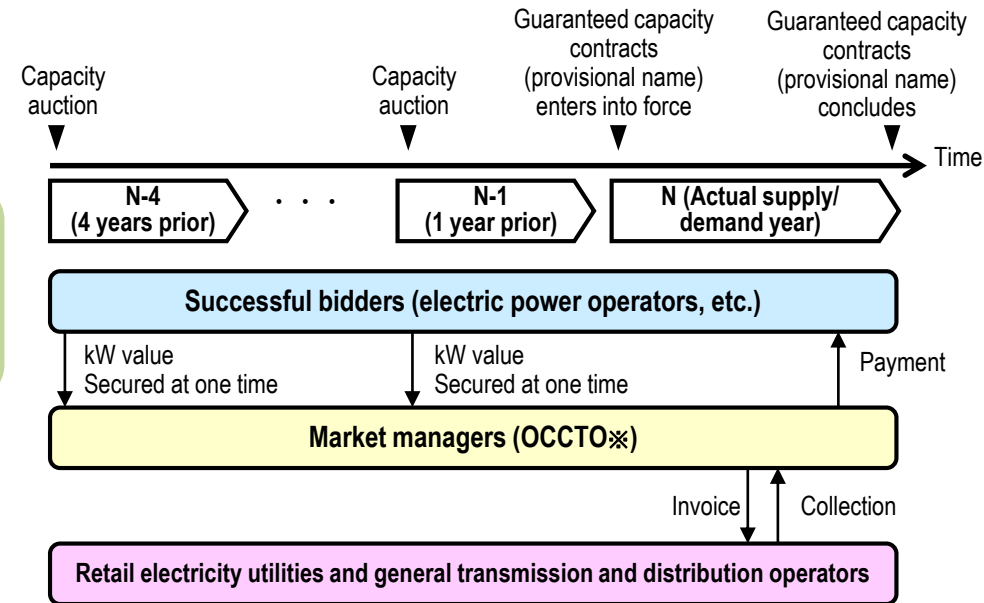


# 4. Overview of Capacity Market

Revenue after creation of capacity market (image)



Transactions in capacity market (image)

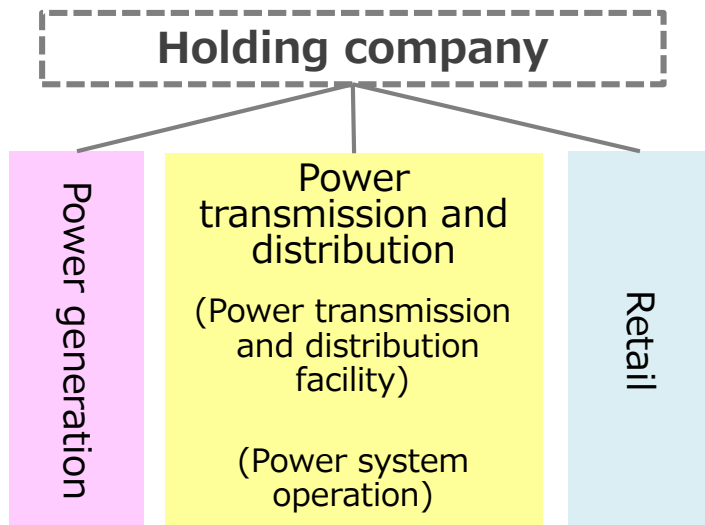


## 4. Secure Neutrality of Network Sectors: Legal Unbundling

- From April 2020, general power transmission and distribution operators need to be separated from generators and retailer (legal unbundling).
- Mainly, there are two methods that can be considered as ways to execute legal unbundling: (1) holding company and (2) power generation/retail parent company.

### ① Holding company

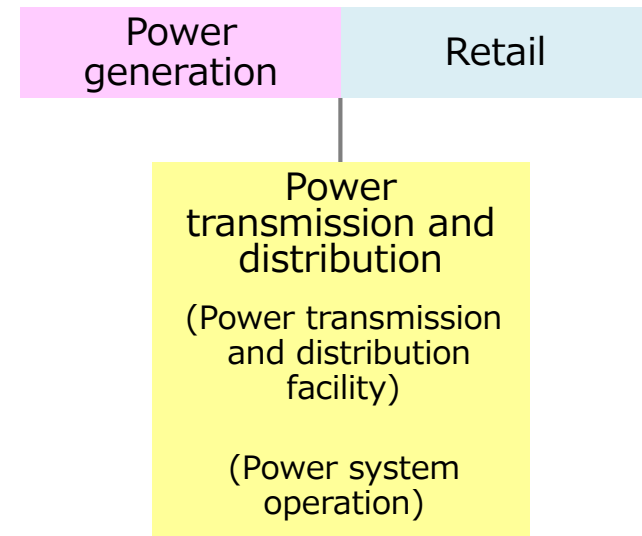
- Establishment of power transmission and distribution company and retail company under a holding company (TEPCO voluntarily implemented a spin-off using this system in April 2016)



\*Also possible to create a power generation company and retail company as the same company.

### ② Power generation/retail parent company

- Establish transmission and distribution company under a power generation company and retail company



\* Also possible to create a power generation company and retail company as separate companies, one of which becomes a subsidiary of another

**Thank you for your attention!**

