

# Scope of Public Service Obligations of Electricity Suppliers

## Turkish Case

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# What are Public Service Obligations (PSOs)?

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- **Public Service Obligations (PSOs)** are requirements placed on electricity suppliers to fulfill certain services or maintain certain standards that serve the public interest.
- **PSOs of Suppliers in Electricity:**
  - **Universal service:** Supplying electricity to all consumers.
  - **Price regulation:** Offering electricity at regulated or subsidized prices to protect vulnerable consumers.
  - **Renewable energy support:** Purchasing or supporting electricity from renewable sources to meet environmental goals.
  - **Security of supply:** Suppliers have to avoid falling into imbalance.
  - **Consumer protection:** Providing transparent billing, complaint resolution, and service quality standards.

# Supplier types in Turkish electricity market

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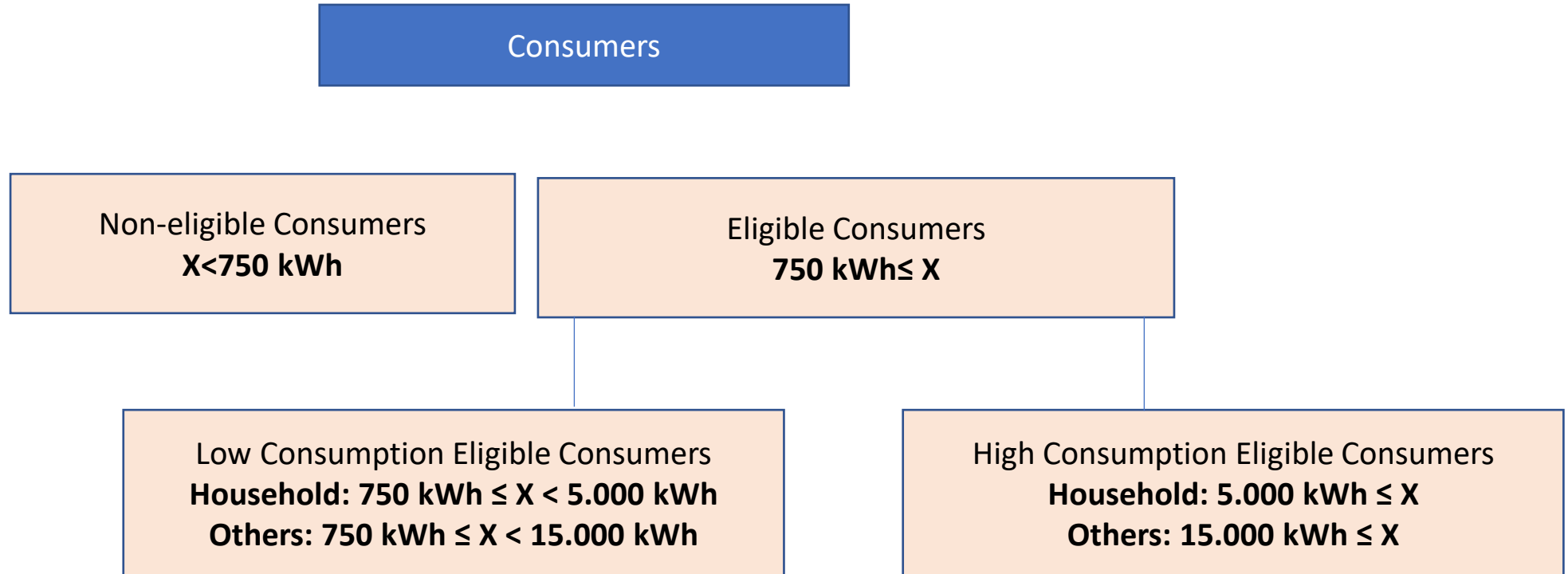
## Default Supplier/Last Resort Supplier

- Non-eligible consumers and eligible consumers who do not choose a supplier
- Tariff regulated by EMRA
- Standard Sales Agreement determined by EMRA
- Default supplier activity in its own region; private supply activity in whole country
- 21 companies

## Private Suppliers

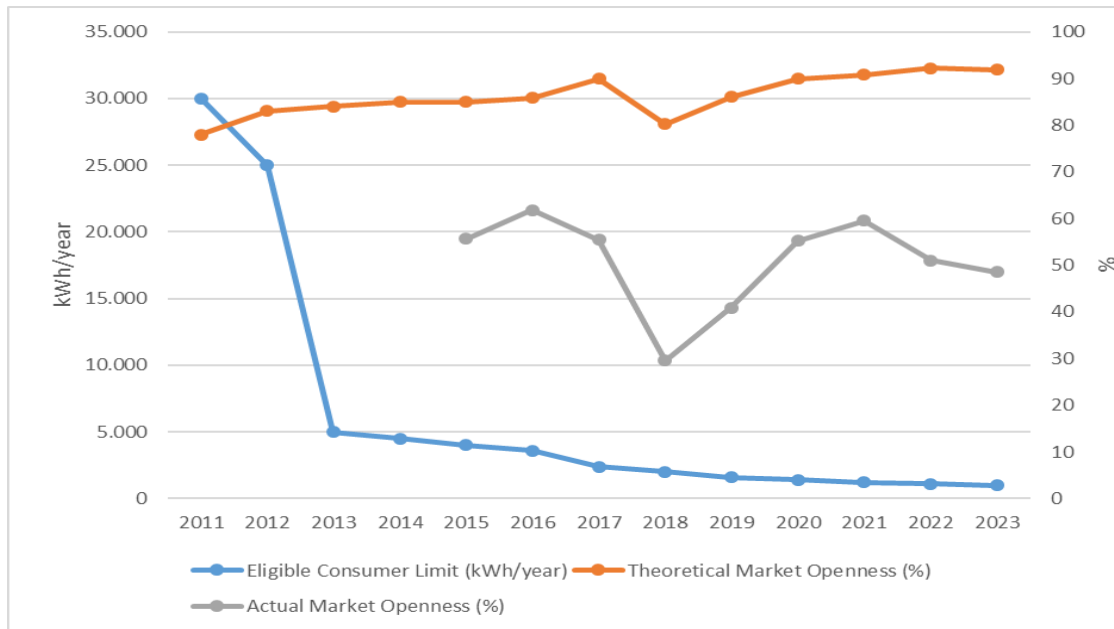
- Eligible consumers
- Unregulated market price
- Bilateral agreements, the provisions of which are freely determined by two sides
- Activity in whole country
- 406 companies

# Consumer types in Turkish electricity market

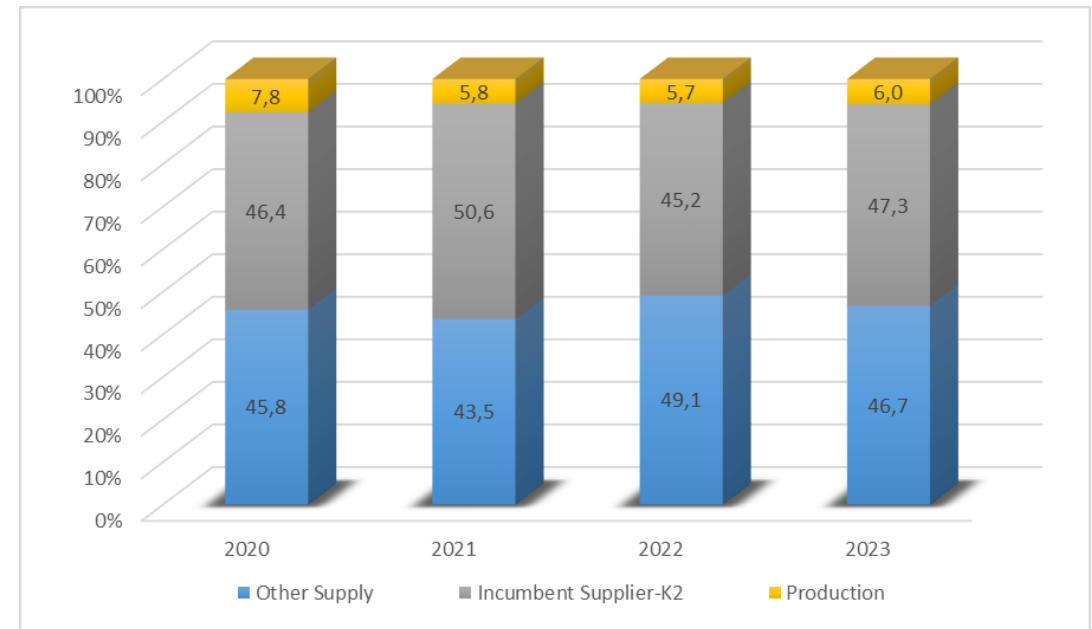


# Consumer and Supplier Types

Eligible Consumer Limit and Market Openness Ratio by Years (kWh-%)



Distribution of Eligible Consumer Consumption by Supplier Type (%)



# Default Suppliers or Last Resort Suppliers

- Default suppliers are responsible for supplying electricity to **eligible consumers who do not choose a supplier or non-eligible consumers. They are also responsible for LRS.**
- **These 21 suppliers have two different price for three different consumer types. (Next Slide)**
- Last Resort Supply (LRS) ensures that in cases of supplier failure or exit, eligible consumers continue to receive electricity.

Non-eligible Consumers  
 $X < 750$  kWh

Low Consumption Eligible Consumers  
Household:  $750 \text{ kWh} \leq X < 5.000 \text{ kWh}$   
Others:  $750 \text{ kWh} \leq X < 15.000 \text{ kWh}$

High Consumption Eligible Consumers  
Household:  $5.000 \text{ kWh} \leq X$   
Others:  $15.000 \text{ kWh} \leq X$



Consumer Regulated Tariffs Groups	Tariff Until 5 April (TL*)
Industrial	3,71
Commercial (below 30 kWh per day)	3,86
Commercial (above 30 kWh per day)	4,46
Residential (below 8 kWh per day)	1,86
Residential (above 8 kWh per day)	2,76
Agricultural	3,10



Last Resort Supply Tariff (LRST)

\*1€=42 TL

Example for March;  
**Household:** 4,05  
**Others:** 4,46

# Last Resort Supply Tariiff



5.000 kWh for household consumers.

$$\text{LRST} = (\text{PTF} + \text{YEKDEM}) \times (\%5)$$



15.000 kWh for non-household consumers.

$$\text{LRST} = (\text{PTF} + \text{YEKDEM}) \times (\%9,38)$$

- **PTF (Market Clearing Price):**

- The price formed in Intra-Day Market operated by EXIST(market operator).

- **YEKDEM (Renewable Energy Support Mechanism Cost):**

- The cost reflected to consumers within the scope of support mechanism for renewable energy.

- **CFC (Coefficient Fixed by the EMRA Board):**

- Determined annually by EMRA.
- Reflects supply costs and market conditions.
- It can be increased to support free market conditions.

# Supply for Vulnerable Consumers

- There is a financial support for electricity bills.
  - It is funded by Ministry of Family and Social Affairs.
  - Default suppliers are responsible for deducting the support amount received from the fund from consumers' bills.
- Financial support is related to number of people living in the house.

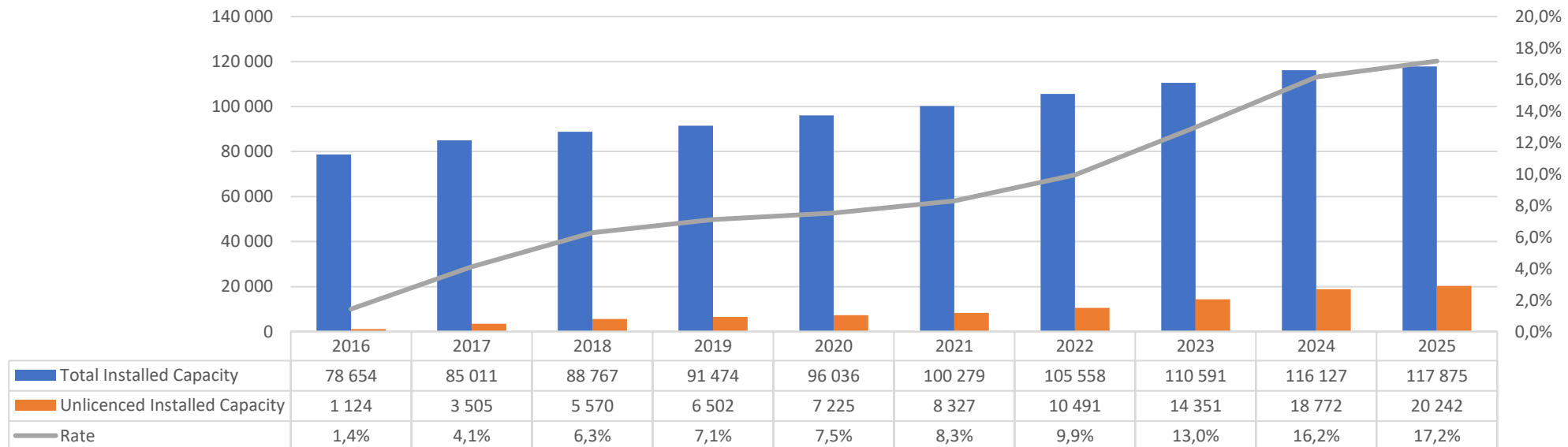
Number of Household Members	Maks. kWh
1-2 persons	75 kWh
3 persons	100 kWh
4 persons	125 kWh
5 persons	150 kWh



# Prosumers' Activities

- Prosumers (both consumers and energy producers) play an increasing role in the Turkish market. They are named as Unlicensed Producers.
- **Default suppliers** are obliged to buy excess electricity from prosumers even if consumers buy electricity from a different supplier.
- This shift empowers consumers and enhances grid decentralization.

**Distribution of Unlicensed Installed Capacity by Sources by the End of 2023 (%)**



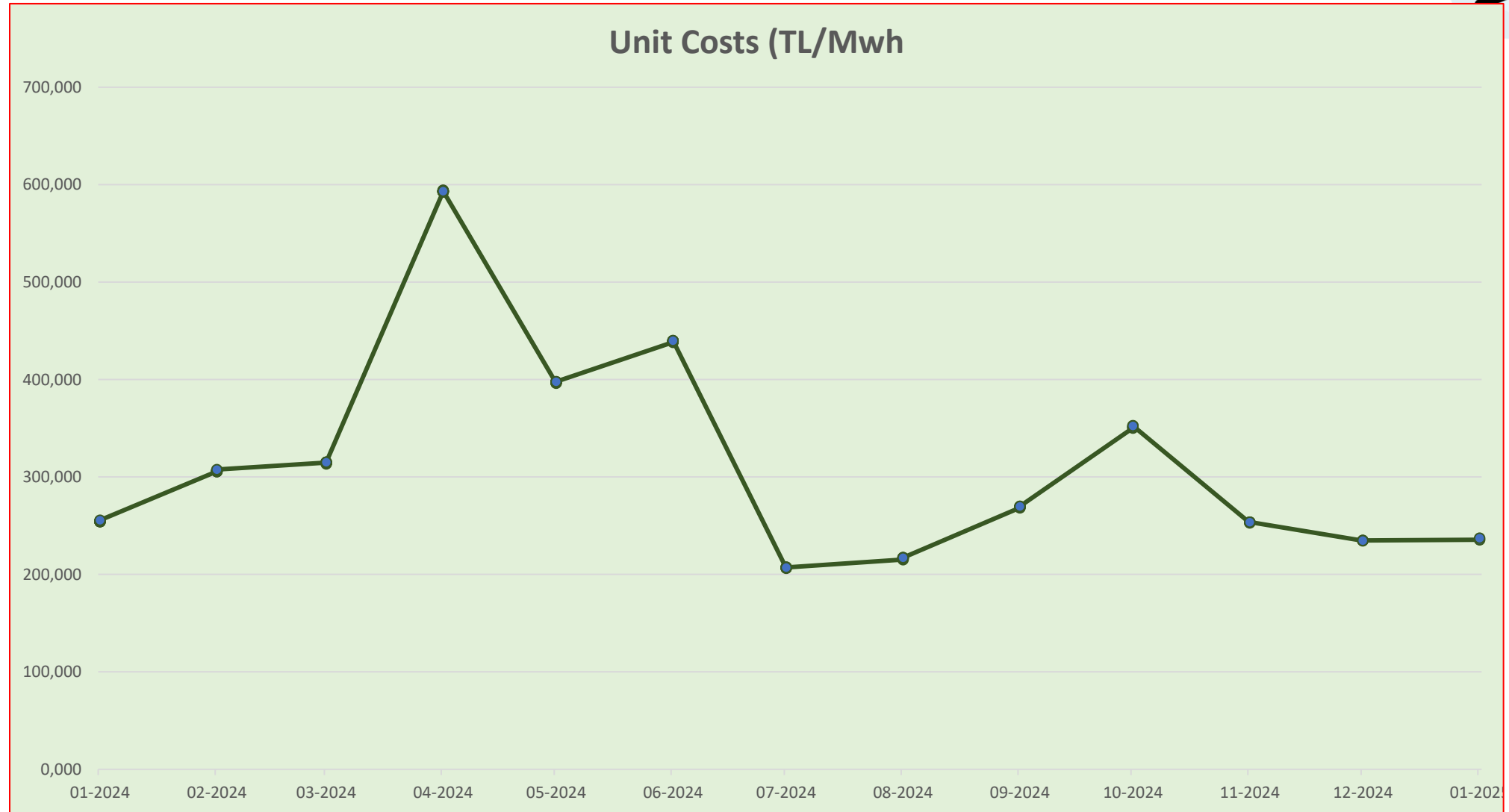
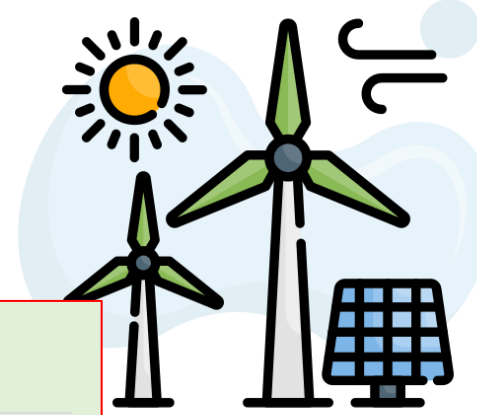
# Obligations Related to Renewable Energy

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- **Renewable Energy Support Mechanism (YEKDEM)** provides guaranteed pricing for renewable energy producers.
- Costs of YEKDEM are **charged to consumers by bills of all suppliers**.
- While it can be charged **directly to eligible consumers' bills of private suppliers**, it is charged **indirectly from non-eligible or LRS consumers** because it is calculated in tariff of default suppliers.
- Suppliers also must integrate renewables into their portfolios and comply with sustainability goals.

# Unit Costs of YEKDEM in 2024



# Market Stability & Security of Supply

- **Forecasting Consumption**

- Suppliers must accurately forecast their customers' electricity usage. If consumption deviates from the forecast, the supplier absorbs the imbalance cost.

- **Participation in the Intra-day Market**

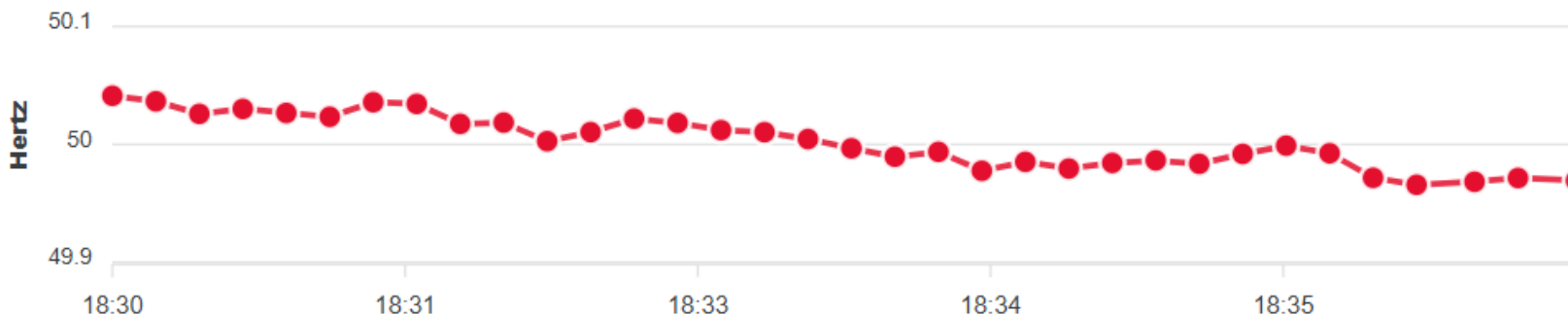
- Suppliers participate in the intra-day market to avoid imbalance costs.

- **Reporting and Transparency**

- Suppliers must report their forecasts, actual consumption, and any imbalances to Transmission System Operator to ensure market transparency.

## ⚡ System Frequency

(Hertz)



# Conclusion

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- In Turkish electricity market, **default suppliers** obligate to;
  - Supply electricity to non-eligible consumers at regulated prices,
  - Supply electricity to low consumption eligible consumers at regulated prices,
  - Supply electricity to high consumption eligible consumers at LRST prices,
  - Supply electricity to consumers who take electricity bill support and calculate their bills according to support amount,
  - Purchase the excess electricity from the prosumers and pay for it on time.
- **All suppliers** obligate to;
  - Providing transparent billing, complaint resolution, and service quality standards,
  - Act in accordance with security of supply requirements,

# Questions?

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