

Reforming Ukraine's household electricity PSO:

A pragmatic path to stronger price signals, market liquidity and targeted support

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Structure

- 1. Why reform the household electricity PSO?**
Incentives, market liquidity, debt and fiscal risks
- 2. How does the current PSO work?**
Legal framework, physical and financial flows
- 3. How large is the intervention?**
Household consumption, tariff subsidy and market impacts
- 4. A pragmatic reform pathway**
Short-term block tariff and fully financial PSO
- 5. Towards the target model**
Cost-reflective pricing and targeted support for vulnerable households



Why reform the household PSO? Incentivising savings and increasing market liquidity

The household electricity PSO creates two main problems:

1. Low (marginal) price of electricity for households
 - **low incentives for electricity savings**, energy efficiency investments, and distributed renewable generation
2. Special PSO supply arrangements from Energoatom to Universal Service Suppliers
 - **reduces liquidity** in DAM/IDM and other competitive market segments

A **PSO reform** should **address both issues**, while **protecting vulnerable consumers** from disproportionately higher electricity price burden



The current PSO also creates cash-flow, settlement and fiscal risks

- **Cash-flow and settlement risks:** USSs pay Energoatom upfront at market-linked prices but receive compensation later via the Guaranteed Buyer, financed primarily by Energoatom and Ukrhydroenergo; delays quickly spill over into arrears to DSOs and the TSO.
 - **Complex circular payment flows:** the mechanism routes funds through multiple actors, increasing transaction costs, opacity and payment-delay risks.
- **Exposure to wholesale price volatility:** rising market prices automatically increase the subsidy burden, relying on Energoatom's ability to generate and transfer sufficient revenues.
- **Political adjustment lag:** delayed household tariff increases create large subsidy gaps and debt accumulation, as seen in 2022–2023.



Legal basis and reform commitments



Article 62 of the Law of Ukraine “On the Electricity Market”

- Allows temporary special obligations to protect the general economic interest
- Authorises the Government to define scope, participants, duration, financing and compensation arrangements



Cabinet of Ministers Resolution No. 483 of 5 June 2019

- Main regulation governing the household PSO.
- Defines participants, consumer categories, cash-flow logic and compensation arrangements
- Renewed and adjusted through Government amendments, usually every 6 months



NEURC Resolution No. 1177 of 5 October 2018

- Sets the procedure for forming universal-service prices
- Determines the benchmark price used to calculate universal suppliers (USS) compensation

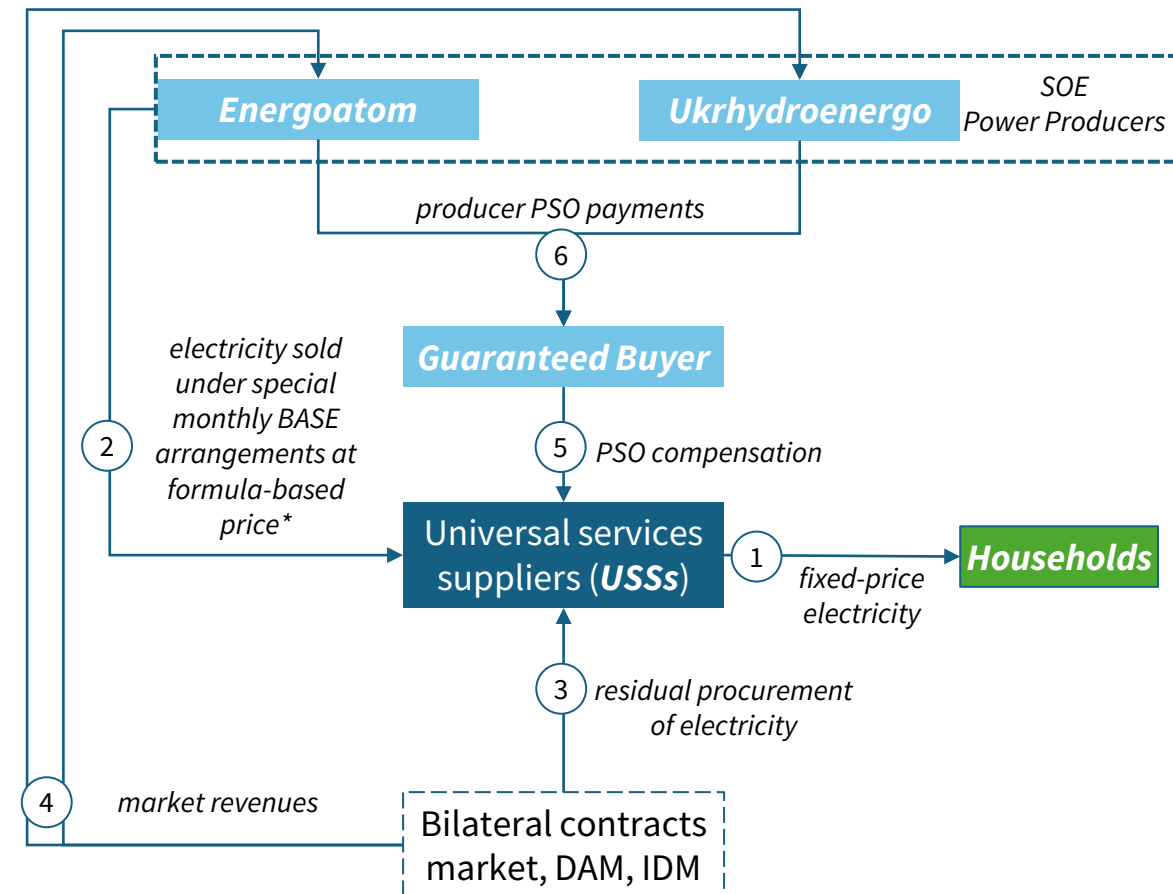


A roadmap for gradual liberalisation of gas and electricity markets, including PSO reform, remains under preparation. Originally due under the Ukraine Facility Plan by Q2 2026, final Cabinet adoption is now envisaged under the revised IMF programme **by end-December 2026**.



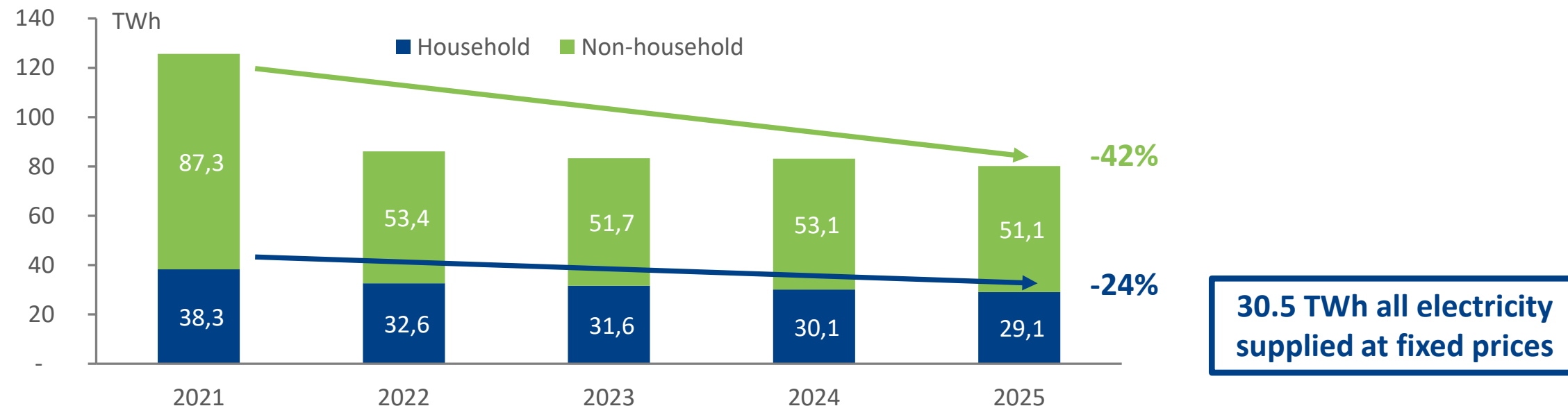
Current approach: a hybrid physical and financial PSO

- 1 Universal services supplier (USS) supplies electricity to households at fixed-price.
- 2 Energoatom is obliged to sell a defined BASE volume to USSs under special PSO arrangements:
 - **Volume:** minimum hourly household consumption of the relevant USS in the corresponding month of the previous year
 - **Price:** DAM BASE index for period M-3
- 3 USSs procure the remaining household demand through bilateral contracts, DAM and IDM purchases
- 4 State-owned power producers Energoatom and Ukrhydroenergo operate on all market segments
- 5 The Guaranteed Buyer compensates USSs for the difference between the market-reference price and the fixed household price. The market-reference price includes the formula-based procurement cost, transmission and distribution tariffs, and supplier markup.
- 6 The Guaranteed Buyer charges the PSO cost to Energoatom and Ukrhydroenergo





Special PSO supply may withdraw 12–15 TWh/year from competitive wholesale markets



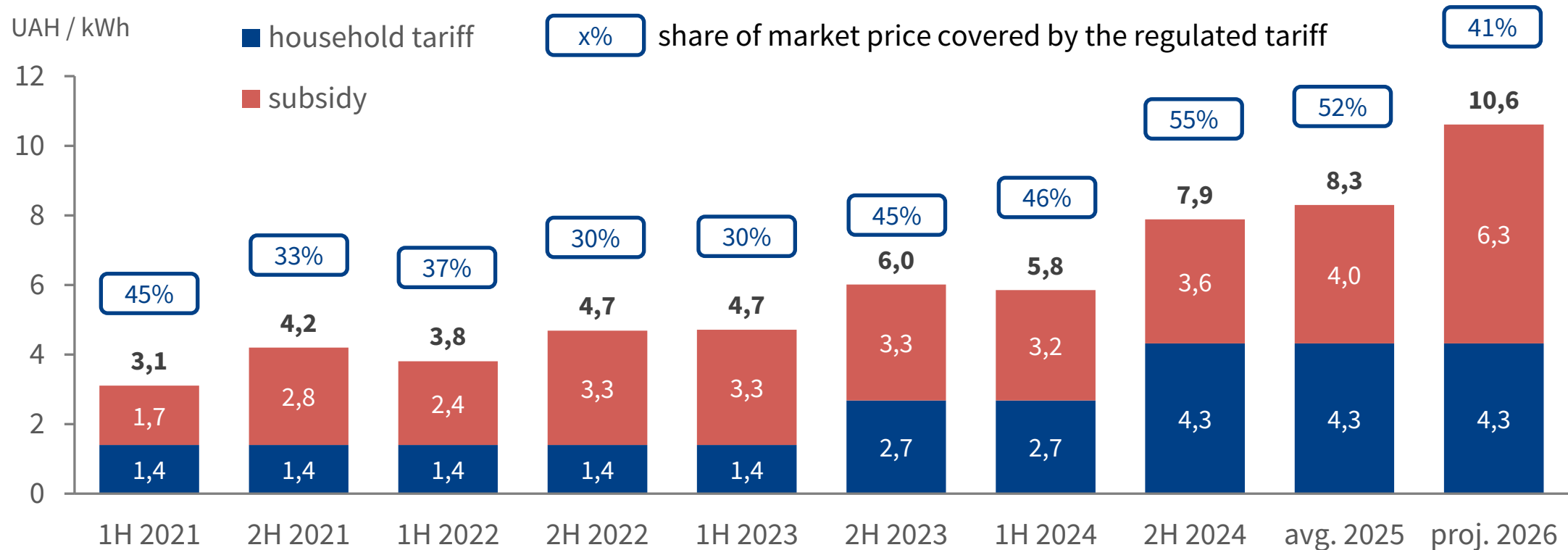
- Household electricity consumption was ~**29 TWh** in 2025 (-24% vs. 2021)
 - now makes up ~36% of total electricity demand
- No published data on the **volume** supplied under Energoatom's **special PSO arrangements**
 - Illustrative estimate: **40–50%** of household demand ≈ **12–15 TWh/year** → **Volume drained from competitive market segments**
 - based on representative household demand profiles*

* Illustrative estimate based on representative European household standard load profiles; the PSO volume corresponds approximately to household baseload because it is determined by minimum hourly consumption in the corresponding month of the previous year.



The regulated tariff covers only around half of estimated supply costs

Estimated market price and subsidy for regulated household tariff



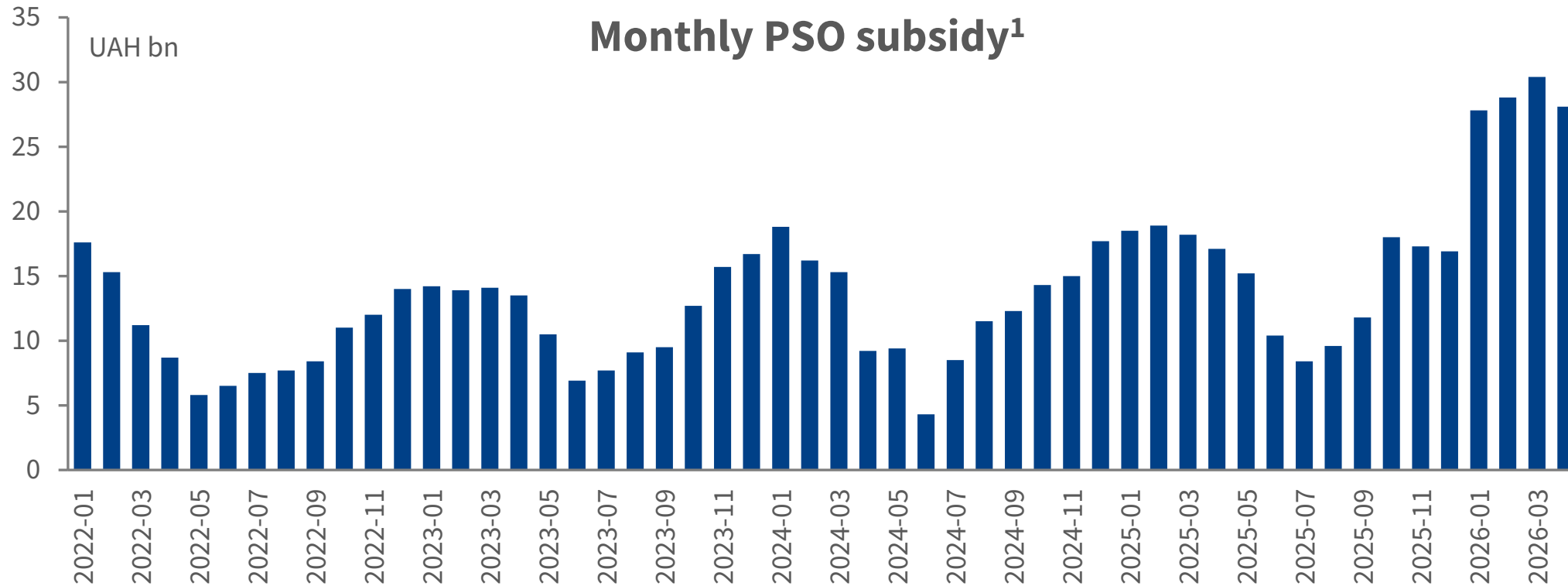
Note: The illustrated price gap is based on the average estimated cost-reflective supply price and is not directly comparable to aggregate PSO compensation, which is calculated using USS-specific monthly benchmark prices under the statutory methodology.

- **2025 cost-reflective tariff:** 8.3 UAH/kWh (18 EUR-ct/kWh)
- **proj. 2026*:** ~10-11 UAH/kWh (~20 EUR-ct/kWh)

* based on Jan-Apr year-on-year increase



The household electricity subsidy reached UAH 180 bn in 2025



¹ Payments to Universal Service Suppliers (UAH bn incl. VAT) from Energoatom (90.5%) and Ukrhydroenergo (9.5%) via Guaranteed Buyer;

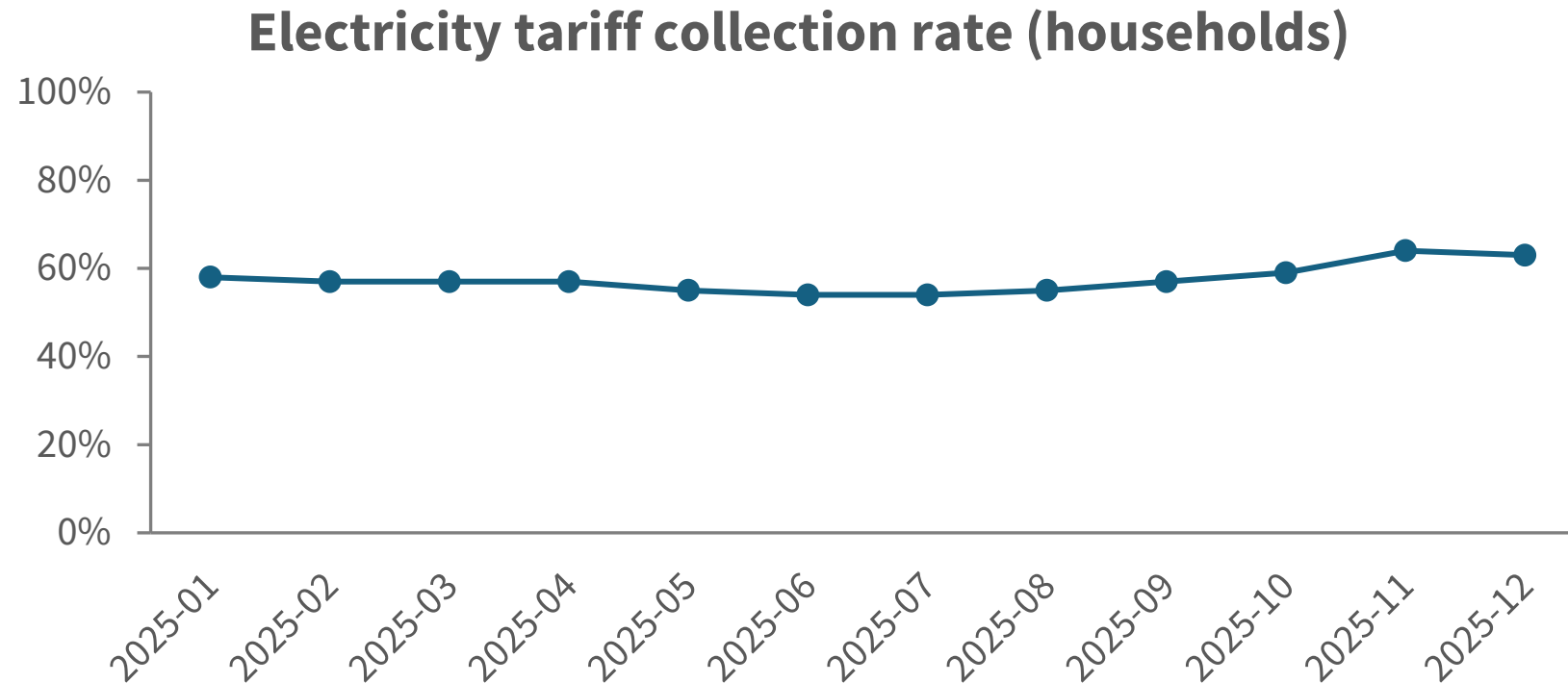
Note: Energoatom and Ukrhydroenergo shares for 2025. Source: Green Deal UKraïna based on Guaranteed Buyer and NEURC (2026)

- **2025 subsidy volume:** UAH 180 bn (EUR 3.8 bn)
- **Early 2026 yoy increase:** +58% (Jan-Apr 2025 to Jan-Apr* 2026)

* April 2026 is marked as forecast in the Guaranteed Buyer source (status as of 22 April 2026)



Higher tariffs require stronger payment collection



Source: NEURC (2026)

- Tariff **collection rate** sits at around **60%**
- With future tariff increases, **tariff collection** would have to be **strengthened** in order to maintain cashflow and avoid debt accumulation



Short-term reform: combine a block tariff with a fully financial PSO

1. 80/20 block tariff based on last year's consumption:

- Currently, uniform household electricity tariff of 4.32 UAH/kWh applies
- We propose a block tariff with:
 - subsidised rate for 80% of each household's 2025 invoiced consumption
 - *if desired*: slightly lower than current rate, to keep reform roughly revenue neutral
 - cost-reflective tariff for every additional kWh, based on applicable market-reference price
- **marginal incentive to save energy**, invest in energy efficiency and distributed renewable generation

2. Fully financial PSO: End Energoatom → USS special supply arrangements

- Financial compensation* for the gap between the market-reference price and the subsidised household tariff via current channel (EA/UHE → GB → USS) or, better, from government budget.
- **Increases liquidity and competition** on organised market segments (DAM, IDM) as USS source their energy on the market

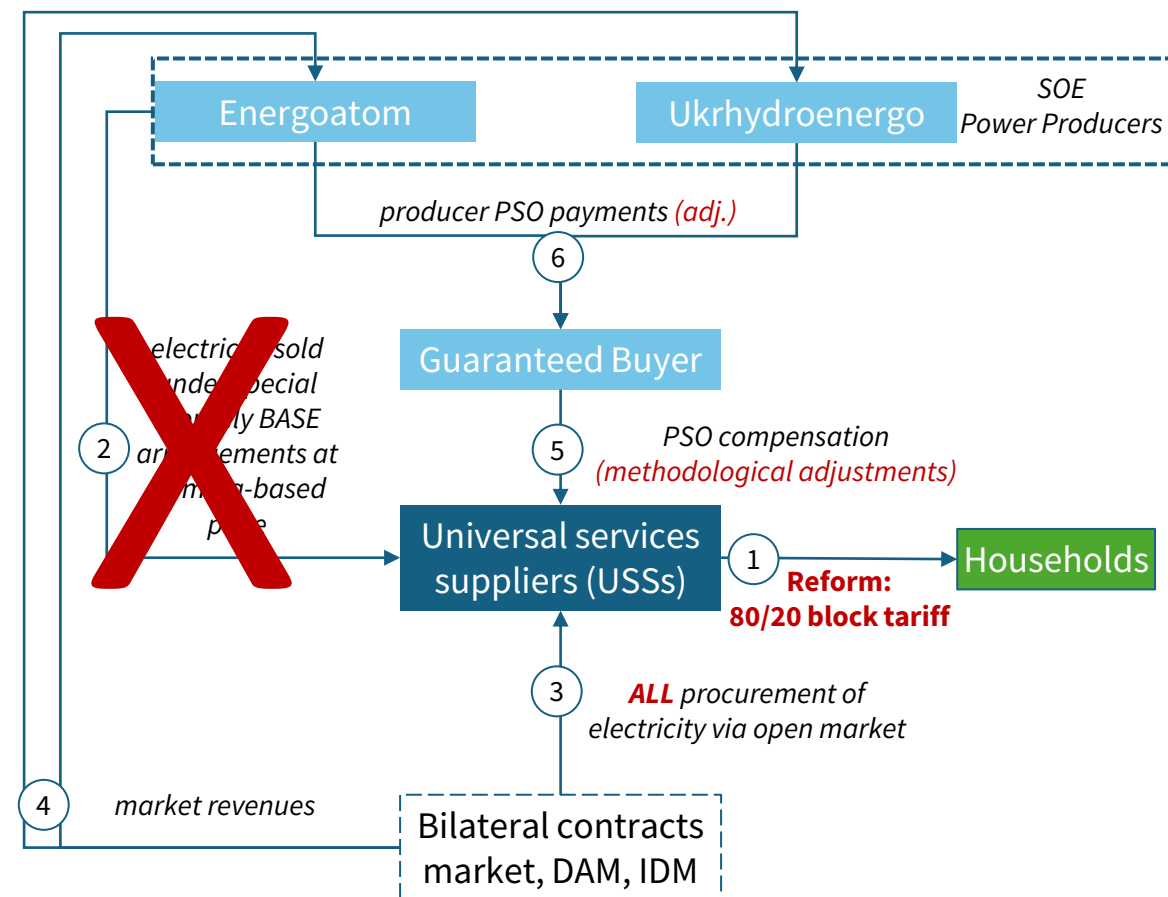
* financial compensation only; no physical supply obligation

Medium-term: Fully cost-reflective tariff and strengthened support for vulnerable households.



How the proposed short-term reform would work

- 1 Universal services supplier (USS) supplies electricity to households at a **block tariff**, instead of a flat fixed price.
 - 80% of each household's 2025 invoiced consumption could be supplied at a subsidised rate (current rate or even slightly lower, if desired to keep reform roughly revenue neutral).
 - Additional volumes at a **cost-reflective rate** – the same formula could be used as for the PSO payment's "market reference price"¹, but adjusted on an annual basis only
- 2 Energoatom → USSs special PSO supply arrangements **removed**
- 3 USSs procure **all** household demand through bilateral contracts, DAM and IDM purchases
- 4 State-owned power producers Energoatom and Ukrhydroenergo operate on all market segments
- 5 The Guaranteed Buyer compensates USSs **only for the subsidised volume** (80% of 2025 invoiced consumption), covering the difference between the market-reference price and the subsidised household tariff.¹
- 6 The Guaranteed Buyer still charges the PSO cost to Energoatom and Ukrhydroenergo.



Note: Illustrative short-term design retaining the current SOE financing source; medium-term transition to budget financing shown on the next slide.

¹ Market-reference price includes formula-based procurement cost, transmission and distribution tariffs, and supplier markup.



Medium-term target: budget-financed, targeted support

1. No cross-subsidisation:

- Ideally, Energoatom and Ukrhydroenergo should pay their profits as dividends to the public owner (government budget)
- PSO subsidies paid by the Guaranteed Buyer to USSs should be financed from the state budget.
- In line with **international standards** for **good governance** of SOEs

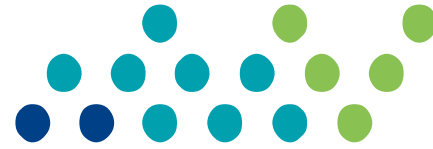
2. Target model: no price subsidy

- Gradual phase-out of subsidised volume (first block in proposed block tariff)
- Phase-in of a well-targeted lump-sum support for vulnerable households
- **Price subsidies are regressive**, targeted support **reduces fiscal burden** and **improves fairness**



Conclusions and Policy Recommendations

- **Reform the household PSO now:** the current design weakens price signals, reduces wholesale-market liquidity and creates complex circular payment flows.
- **Introduce a protected baseline block:** retain an affordable subsidised volume while applying a cost-reflective marginal price to additional consumption.
- **Move to a fully financial PSO:** abolish Energoatom → USS special supply arrangements and require USSs to procure electricity through competitive market channels.
- **Make subsidies transparent and predictable:** simplify settlement flows, improve reporting, strengthen payment collection as tariffs rise, and prevent new debt accumulation.
- **Shift financing towards the state budget:** separate SOE commercial operations from social-policy objectives.
- **Gradually replace universal price subsidies with targeted support:** move towards cost-reflective tariffs while protecting vulnerable households through well-targeted transfers.



Annex:

Detailed methodology for compensation price



Household electricity PSO: compensation price (1/2)

The PSO benchmark price for customers connected to a DSO is used as a compensation price.



PSO benchmark price = Forecast procurement price + Transmission tariff + DSO tariff + Supplier markup

Forecast procurement price is a weighted basket:



Energoatom PSO auction block

Forecast electricity purchases of minimum hourly household consumption of the relevant USS in the corresponding month of the previous year from Energoatom through special electronic auctions, priced at the DAM BASE index for period M-3



Small-business baseload block

Baseload volume corresponding to 50% of the historical consumption of small non-household consumers, priced at the bilateral-contract BASE index for period M-1



Residual DAM demand block

The remaining forecast supply volume, priced at the weighted-average DAM price and multiplied by a load-profile coefficient of 1.1

The procurement basket is then:

- increased by an imbalance-cost coefficient
- adjusted for the historical deviation between forecast and actual procurement costs.



Household electricity PSO: compensation price (2/2)

The official equation from NEURC Resolution No. 1177 of 5 October 2018 can be presented as follows:

$$\Pi_{\text{пп}}^{\text{Закуп}} = \frac{\left[\Pi_{p-3}^{\text{РДН,base}} \cdot W_{\text{пп}}^{\text{EA}} + \Pi_{p-1}^{\text{РДЛ,base}} \cdot W_{p-3}^{\text{MHC,base}} + \Pi_{p-1}^{\text{РДН}} \cdot k_{\text{гп}} \cdot \left(W_{\text{пп}}^{\text{УП}} - W_{\text{пп}}^{\text{EA}} - W_{p-3}^{\text{MHC,base}} \right) \right] \cdot (1 + k^{\text{БП}}) + \Delta C_{p-3}}{W_{\text{пп}}^{\text{УП}}}$$

Formula component	Meaning
$\Pi_{p-3}^{\text{РДН,base}}$	DAM BASE index for the month preceding the two months before the calculation month
$W_{\text{пп}}^{\text{EA}}$	Forecast volume purchased by the USS from Energoatom through PSO electronic auctions for the calculation month
$\Pi_{p-1}^{\text{РДЛ,base}}$	Monthly baseload index on the bilateral-contract market for the month preceding the calculation month
$W_{p-3}^{\text{MHC,base}}$	Baseload volume attributable to small non-household consumers, set at 50% of their actual consumption in period M-3
$\Pi_{p-1}^{\text{РДН}}$	Weighted-average DAM price over the regulatory reference period
$k_{\text{гп}}$	Load-profile coefficient, fixed at 1.1
$W_{\text{пп}}^{\text{УП}}$	Forecast useful supply volume to small non-household and household consumers
$k^{\text{БП}}$	Coefficient accounting for the volume and cost of electricity imbalances
ΔC_{p-3}	Historical reconciliation adjustment for deviations in procurement payments