



Sri Lanka's Electricity: Plants, Costs, Listed Companies and the World Benchmark

State-owned generation plant by plant, the cost of every unit,
the full blackout day, CSE-listed power companies, and how
Sri Lanka compares with the world | October 2026



Executive summary

52.9 GWh

Average daily generation, Oct 2026 (NSO forecast)

LKR 1.7 bn

All-in daily cost to supply the island (Q4 2026)

61%

Renewable share of Sri Lanka's Q4 2026 mix vs 34% worldwide

LKR 2.5–6 bn

Estimated economic cost of the full blackout day

Hydro is nearly free at the margin; oil is the cost driver. Furnace oil, naphtha and diesel give 13% of Q4 energy but 38% of the generation energy bill.

Capacity payments distort the picture. Lightly used IPPs cost LKR 86–254 per unit once fixed payments are included, against LKR 29 for coal.

Sri Lanka is cleaner and cheaper at the household tariff than the world average, but grid stability with 3,000 MW+ of rooftop solar is now the binding constraint.

Daily figures: monthly NSO forecast ÷ days. Blackout cost: modelled estimate (see blackout slides).

The CEB was unbundled in March 2026: who does what now

1

EGL

Electricity Generation Lanka

Owns and runs the former CEB hydro, coal, oil and wind plants

2

NSO

National System Operator (Pvt) Ltd

Runs the control centre, dispatches every plant and is the single buyer of all power

3

NTNSP

National Transmission Network Service Provider

Runs the 220 kV and 132 kV transmission network

4

EDL & LECO

Distribution licensees

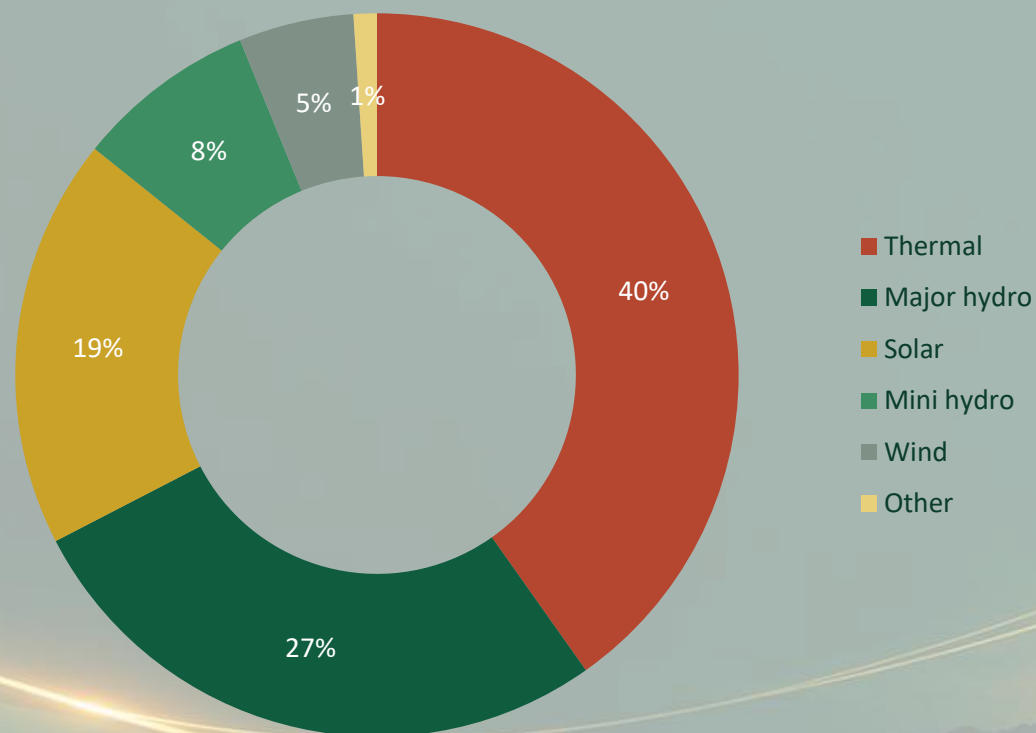
Sell to end users; EDL also carries CEB legacy loans

PUCSL regulates all of them and sets tariffs quarterly under the Sri Lanka Electricity Act No. 36 of 2024 (amended). In this deck, “CEB plants” means the state-owned fleet now operated by EGL.

Source: PUCSL Decision on Electricity Tariffs, May 2026 (acronym list); news reports on CEB dissolution effective 9 March 2026.

Installed capacity: 5,194 MW at end-2023, solar rising fast

Installed capacity by source, MW (31 Dec 2023)



Who owns it (end-2023)

- State (CEB, now EGL): 1,413 MW hydro, 1,701 MW thermal, 103.5 MW wind = 62%
- Private IPPs: 387 MW thermal plus mini hydro, wind, solar and biomass = 38%

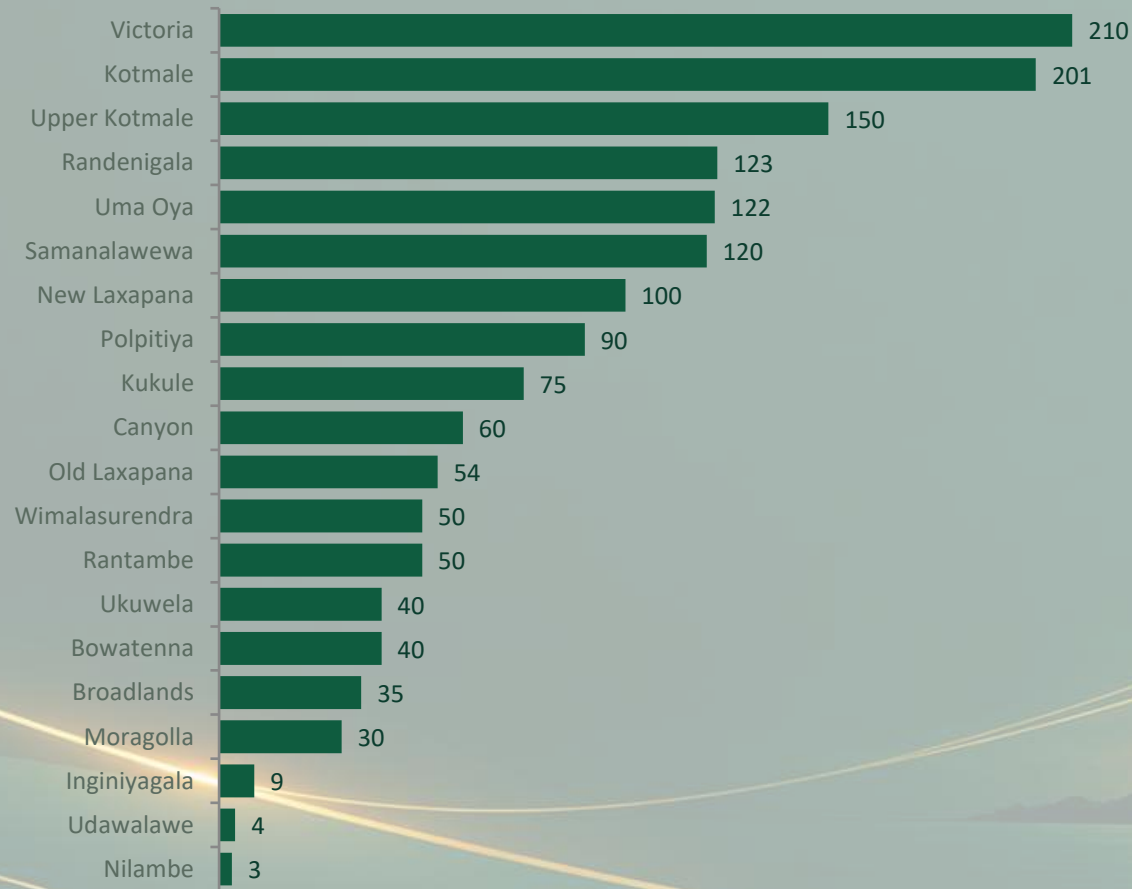
What changed since

- Uma Oya (122 MW) and Moragolla (30.2 MW) hydro added in 2024–25
- Installed solar is now just over 3,000 MW, above daytime demand of 2,000–2,500 MW
- 160 MW of battery storage due on the grid in Q4 2026

Sources: CEB LTGEP 2025–2044, Tables 2.1 and Sec. 2.2; AFP (Oct 2026) for solar capacity; PUCSL Q4 2026 consultation for BESS.

State hydro: 20 stations, 1,566 MW, near-zero fuel cost

Installed capacity by station, MW



Mahaweli complex 816.8 MW • 8 stations

Multi-purpose: drinking water and irrigation releases take priority over power

Laxapana complex 388.8 MW • 6 stations

Kelani river cascade, mainly dedicated to power

Samanala complex 207.8 MW • 4 stations

Samanalawewa reservoir plus Kukule run-of-river

Uma Oya + Moragolla 152.2 MW • 2 stations

Newest additions (2024–25)

**Q4 2026: 1,551 GWh (32% of energy) for about 3% of energy cost.
All-in ≈ LKR 2.6/kWh (capacity charges only).**

Sources: CEB LTGEP 2025–2044 Sec. 2.2.1; PUCSL Q4 2026 consultation. NSO reports hydro output by complex, not by station.

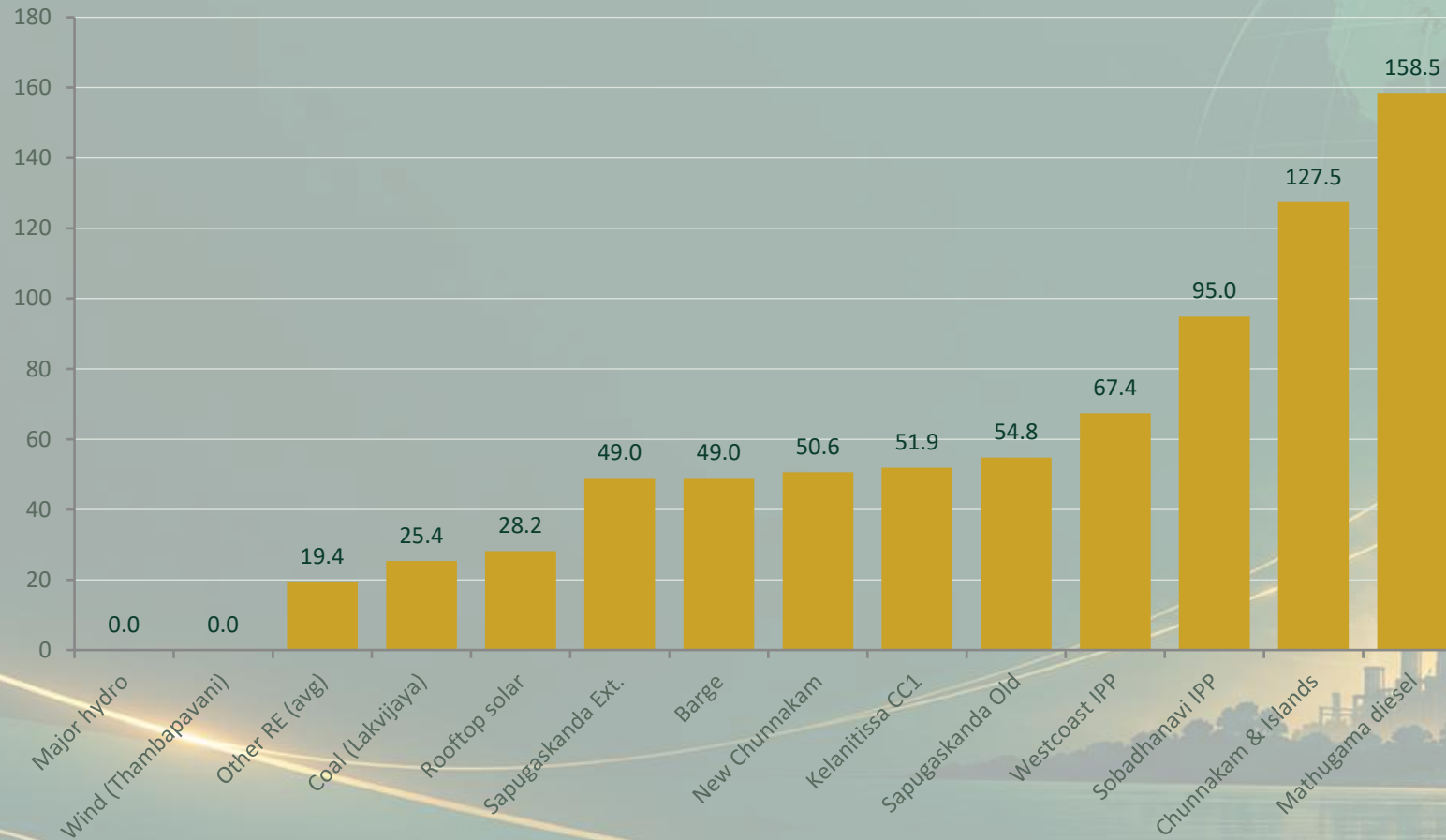
Thermal and wind plants: capacity, Q4 2026 output and unit cost

Plant	Fuel	MW	Q4 GWh	Energy LKR/kWh	All-in LKR/kWh
Lakvijaya (Norochcholai)	Coal	900	1,231.9	26.73	29.47
Kelanitissa CC1 (KPS)	Naphtha/diesel	165	174.9	49.12	50.44
Kelanitissa CC2 (KPS-2)	Diesel	163	0	—	standby
Kelanitissa GT7	Diesel	115	0	—	standby
Sapugaskanda Station B (Ext.)	Furnace oil	72	99.6	48.73	50.66
Sapugaskanda Station A (Old)	Furnace oil	68	54.9	52.35	59.42
Barge-mounted plant	Furnace oil	62	65.2	48.46	50.11
Uthuru Janani (New Chunnakam)	Furnace oil	26.7	30.9	50.25	53.40
Hambantota / Mathugama	Diesel	30 / 20	1.2	114–115	187–211
Thambapavani wind (Mannar)	Wind	103.5	56.7	0	29.23
For comparison: Westcoast IPP	Furnace oil	300	178.3	61.05	85.86
For comparison: Sobadhanavi IPP	Diesel/LNG	350	26.2	99.57	253.70

Q4 2026 = NSO forecast Oct–Dec. All-in = energy cost + capacity charge ÷ GWh (PUCSL notes NSO's capacity breakdown does not fully tally). Capacities: LTGEP 2025-2044 gross MW.

Cost per unit by plant, October 2026: a 0 to 159 rupee range

Generation energy cost, LKR per kWh (NSO forecast, Oct 2026)



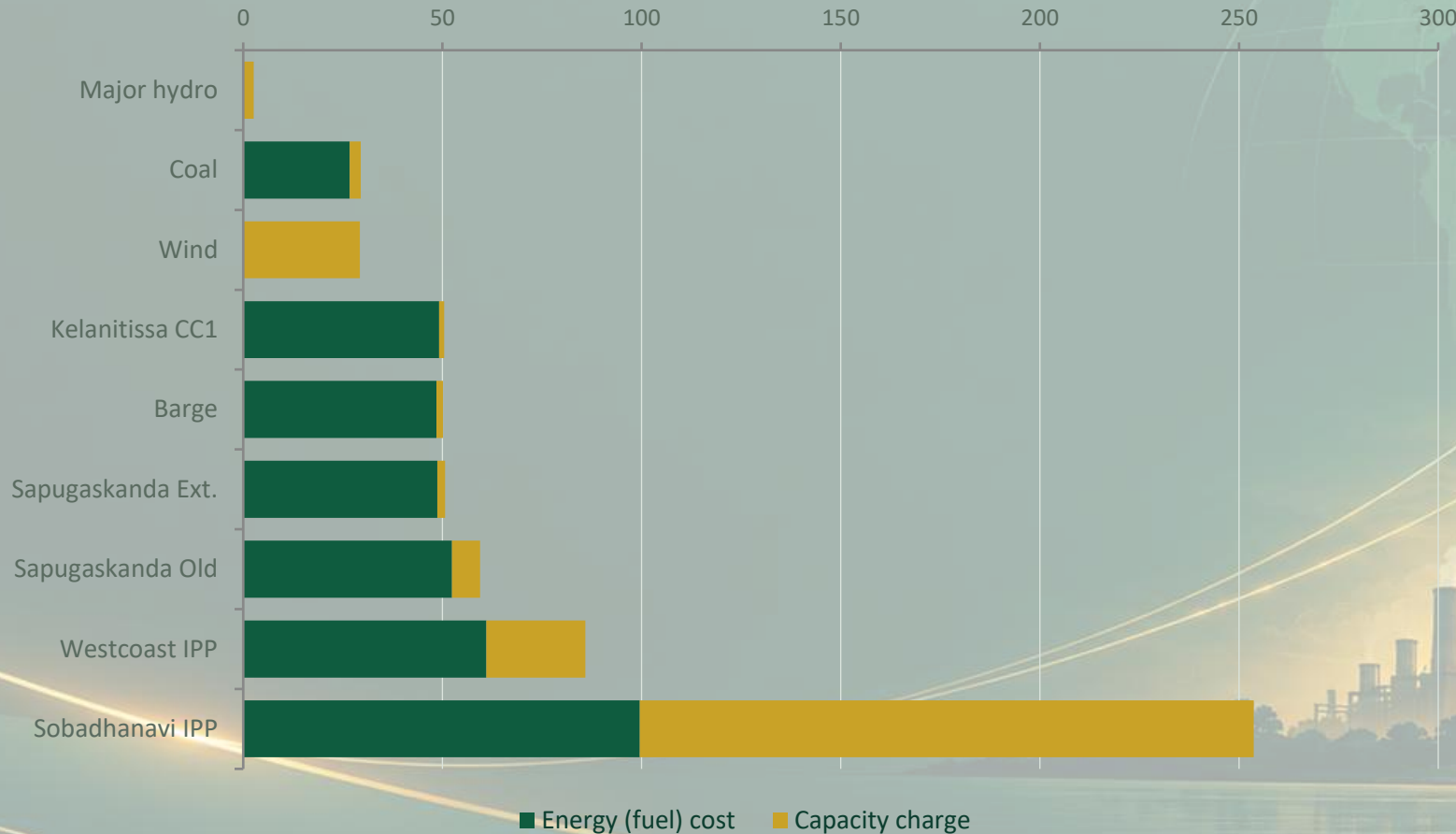
Reading the merit order

- Hydro and wind have no fuel cost, so they are dispatched first
- Coal is the cheapest firm thermal plant even after coal rose to LKR 61/kg
- Each oil unit costs about twice a coal unit
- Small diesel sets cost 5–6× coal and run only for local or emergency needs

Source: PUCSL Consultation Document, Q4 2026 Tariff Review (Table 4). Hydro/wind energy cost shown as zero; their fixed costs appear on the next slide.

Including capacity payments changes the ranking

All-in cost per unit generated, LKR/kWh (Q4 2026 forecast)



LKR 29

All-in cost of a coal unit from Lakvijaya

LKR 254

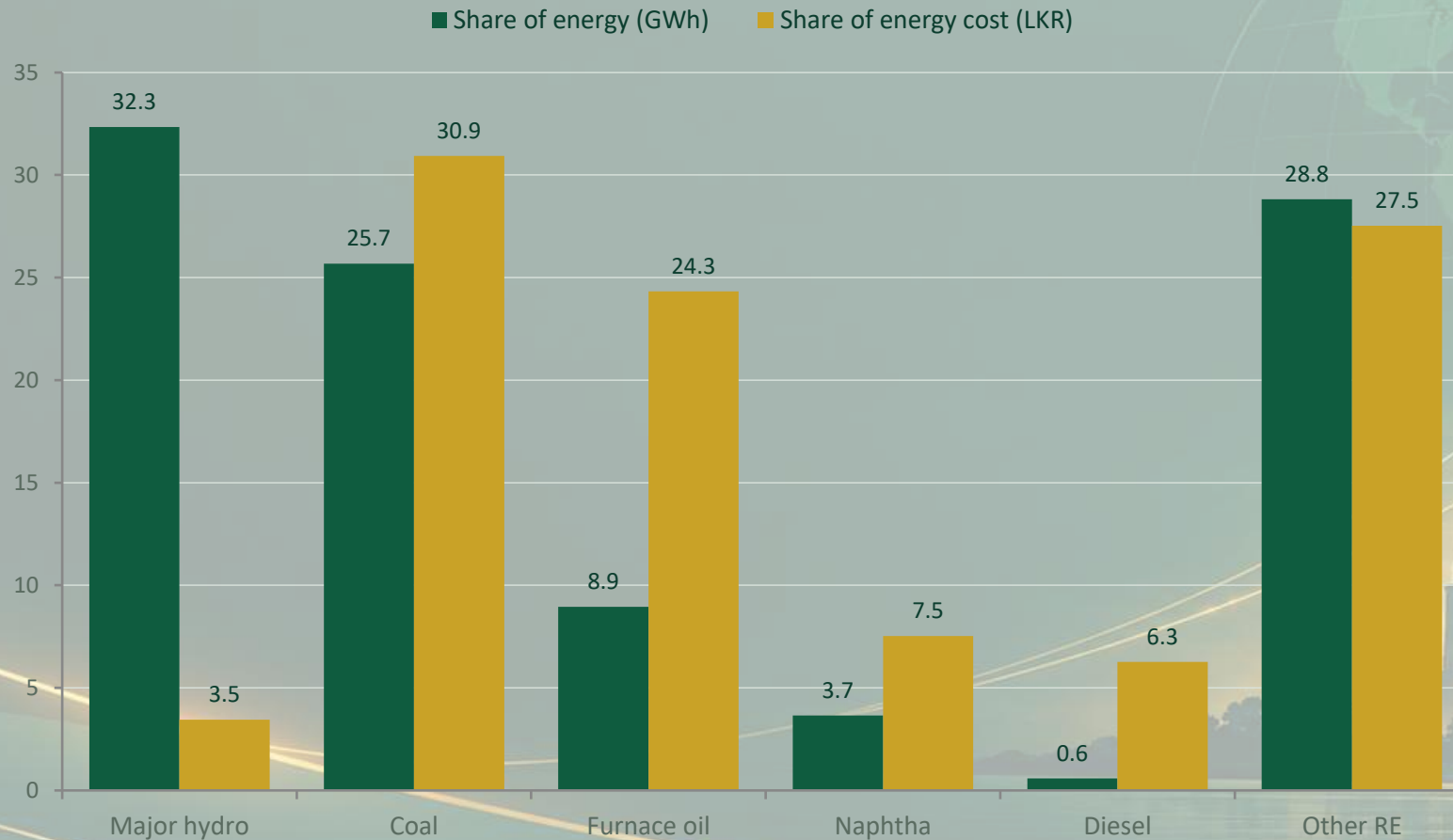
All-in cost of a Sobadhanavi unit: high fixed payments, little output

Plants run little still collect fixed charges. KPS-2, GT7 and the small GTs get about LKR 336 mn in Q4 while generating nothing.

Calculated from PUCSL Q4 2026 consultation Tables 4 and 6 (Oct–Dec totals). IPP figures vary strongly by month with dispatch.

Oil is 13% of the energy but 38% of the energy bill

Q4 2026 forecast: % of generation vs % of generation energy cost



Q4 2026 at a glance

- 4,796 GWh to be generated
- LKR 117.3 bn generation energy cost (source table)
- LKR 157.3 bn total supply cost incl. capacity, grid and distribution
- NSO seeks +2.88% tariff; PUCSL preliminary view +1.46%

Source: PUCSL Q4 2026 consultation, Tables 3 and 9. Comments close 5 Nov 2026.

Furnace oil, naphtha and diesel: the three oil fuels

Naphtha

Light refinery liquid, close to petrol; a by-product of refining (incl. Sapugaskanda)

Used in: Kelanitissa Combined Cycle (KPS)

NSO price: LKR 175/litre

Cost of electricity: LKR 49–52/kWh

Diesel

Middle distillate, same as road diesel; clean and fast-starting but the dearest fuel

Used in: Peaking & emergency units: GT7, small GTs, Hambantota, Mathugama, islands; Sobadhanavi, KPS-2

NSO price: LKR 382/litre

Cost of electricity: LKR 95–159/kWh

Furnace oil (HFO)

Thick heavy residue from the bottom of refining; cheap per litre, must be heated to flow

Used in: Sapugaskanda A & B, Barge, Uthuru Janani, Westcoast IPP

NSO price: LKR 210/litre

Cost of electricity: LKR 49–67/kWh

Why it matters: every oil unit costs about twice a coal unit (LKR 25/kWh), all of it is imported and paid in dollars, and there is still no transparent fuel supply agreement. PUCSL has told the NSO to plan oil out of the mix by 2030.

A typical day on the grid in October 2026

52.9 GWh

Generated per day

LKR 958 mn

Fuel/energy cost per day (avg LKR 18.1/kWh)

LKR 1.16 bn

Per day incl. capacity charges
(≈ LKR 22/kWh)

Source	GWh/day	LKR/kWh	LKR mn/day
Major hydro	17.22	~0	~0
Lakvijaya coal	16.05	25.37	407
Other renewables	8.88	19.41	172
Rooftop solar	6.69	28.20	189
Wind (Thambapavani)	0.69	~0	~0
Kelanitissa CC1	0.76	51.89	39
Sapugaskanda Ext.	0.79	48.96	39
Westcoast IPP	0.59	67.35	40
Barge	0.43	48.97	21
Sobadhanavi IPP	0.25	95.04	24
Other oil & diesel	0.50	51–159	27
Total	52.87	18.12 avg	958

Daily = NSO October 2026 monthly forecast ÷ 31. For actual day-by-day dispatch see the PUCSL generation data portal (gendata.pucsl.gov.lk).

Full blackout day: total grid collapse and its cost

16 Oct	Technical fault at an Upper Kotmale unit (under investigation)
11:43	A unit trips; whole system collapses in under 30 seconds
12:11	Major hydro back; grid restarted in four sections
Afternoon	Colombo, Gampaha, Galle, Badulla restored; ~50% by mid-afternoon
~18:30	Full restoration announced; Norochcholai (810 MW) offline for days

Estimated cost to the economy

- Lost output: 8–15 GWh not served × value of lost load US\$0.663/kWh (CEB planning value, ≈ LKR 212) = LKR 1.7–3.2 bn
- Cross-check: 10–20% of Saturday output in the outage window = LKR 1.9–3.7 bn
- Coal outage: 3–5 days with part replacement by oil at +LKR 25–30/kWh = LKR 0.6–2.1 bn
- **Total ≈ LKR 2.5–6 bn (US\$8–18 mn); central case ≈ LKR 4 bn**

Timeline: NSO statements via Ada Derana, Daily Mirror, AFP. Cost is a modelled estimate at LKR 320/USD, not an official figure. Cause remains under NSO investigation.

Breaking down the blackout's cost: LKR 2.3–5.8 bn

Component	Method and assumptions	Low	Central	High
A. Output lost	Energy not served × CEB value of lost load (US\$0.663/kWh ≈ LKR 212). Low 2,000 MW × 4 h = 8 GWh; central 2,250 MW × 5 h; high 2,500 MW × 6 h = 15 GWh	1.7	2.4	3.2–3.7*
Cross-check (not added)	GDP ≈ LKR 95 bn/day → 6.75 h window ≈ LKR 27 bn → ×0.7 Saturday ≈ LKR 19 bn → 10–20% truly lost	1.9	–	3.7
B. Extra fuel while Norochcholai is off	Coal ≈ 16 GWh/day replaced by oil at +LKR 26/kWh. Low 3 days × 50%; central 4 days × 75%; high 5 days × 100%	0.6	1.25	2.1
Total (A + B), LKR bn		2.3	≈ 3.7	5.8

Not counted

Utilities' lost sales (~LKR 0.3–0.5 bn, a transfer offset by fuel saved); equipment damage; spoiled stock; backup diesel; hydro water drawn down early

Biggest uncertainties

How long Norochcholai stays off, and how much demand was actually cut during staged restoration

**High case of A uses the upper end of either method. All at LKR 320/USD. Earlier slides round the total to LKR 2.5–6 bn. Modelled estimate, not an official figure.*

Where power companies fit in the system

Company (CSE ticker)	Business	Key Sri Lankan assets	How it is paid by NSO
LTL Holdings	Thermal IPP, EPC and O&M	81.7% of Sobadhanavi (350 MW); built and maintains Yugadanavi/Westcoast (300 MW)	Capacity charge + fuel pass-through
WindForce (WIND)	Wind, solar, hydro IPP	27 plants; about 77% of capacity in Sri Lanka	Feed-in tariff per kWh
Vidullanka (VLL)	Hydro, solar, dendro IPP + EPC	76 MW group (63 MW in Sri Lanka); 229 GWh in FY26	Feed-in tariff per kWh
Panasian Power (PAP)	Mini hydro and solar	Manelwala Hydropower and others	Feed-in tariff per kWh
Vallibel Power Erathna (VPEL)	Mini hydro	Erathna, Denawaka Ganga, Kiriwaneliya	Feed-in tariff per kWh
Resus Energy (HPWR), LVL Energy Fund (LVEF), LAUGFS Power, Lotus Hydro	Renewable IPPs / funds	Mainly mini hydro and solar portfolios	Feed-in tariff per kWh

Ownership loop: the state is both LTL's customer (NSO pays its capacity charges) and its largest shareholder (CEB 27%, Treasury-linked West Coast Power 22% after the 2024 IPO).

Sources: LTL IPO prospectus and bulletins (2024); Simply Wall St CSE renewable energy list; company filings and annual reports; EMIS profiles.

Two business models: who carries grid risk



Thermal IPP (LTL / Sobadhanavi)

- Paid a fixed capacity charge whether dispatched or not: Sobadhanavi ≈ LKR 4.0 bn in Q4 2026 (≈ LKR 44 mn/day)
- Fuel is passed through to the NSO, so oil prices hit tariffs, not margins
- Blackout day: little revenue impact; Norochcholai outage may raise dispatch of oil/LNG plants
- Key risks: NSO payment delays, LNG timing, contract renewals



Renewable IPPs (WIND, VLL, PAP, VPEL, HPWR...)

- Paid only per kWh delivered (grid-scale 'other RE' ≈ LKR 19/kWh; ≈ LKR 172 mn/day sector-wide)
- No capacity payment, so blackouts and curtailment are lost revenue
- Blackout day: ≈ LKR 40–70 mn of sector-wide RE sales lost (midday outage hits solar hardest)
- Tailwinds: wet Q4 for mini hydro, BESS and new feed-in tariffs; headwind: solar oversupply curtailment

Calculated from PUCSL Q4 2026 consultation (Tables 4 and 6). RE lost-sales figure assumes 25–40% of a day's grid-scale RE output was lost; covers listed and unlisted producers. CSE reopens Monday 19 Oct.

Latest reported figures for the largest listed players

LKR 93 bn

LTL valuation at its Sept 2024 IPO (priced at LKR 14.50/share); 894 MW in Sri Lanka, Bangladesh and Nepal

LKR 63.1 bn

WindForce market capitalisation; revenue LKR 7.6 bn, net income LKR 1.8 bn, EBITDA margin $\approx$ 59%

LKR 1.55 bn

Vidullanka profit after tax, FY to Mar 2026; dividend LKR 670 mn; output up to 229 GWh

Reading the grid data as an investor

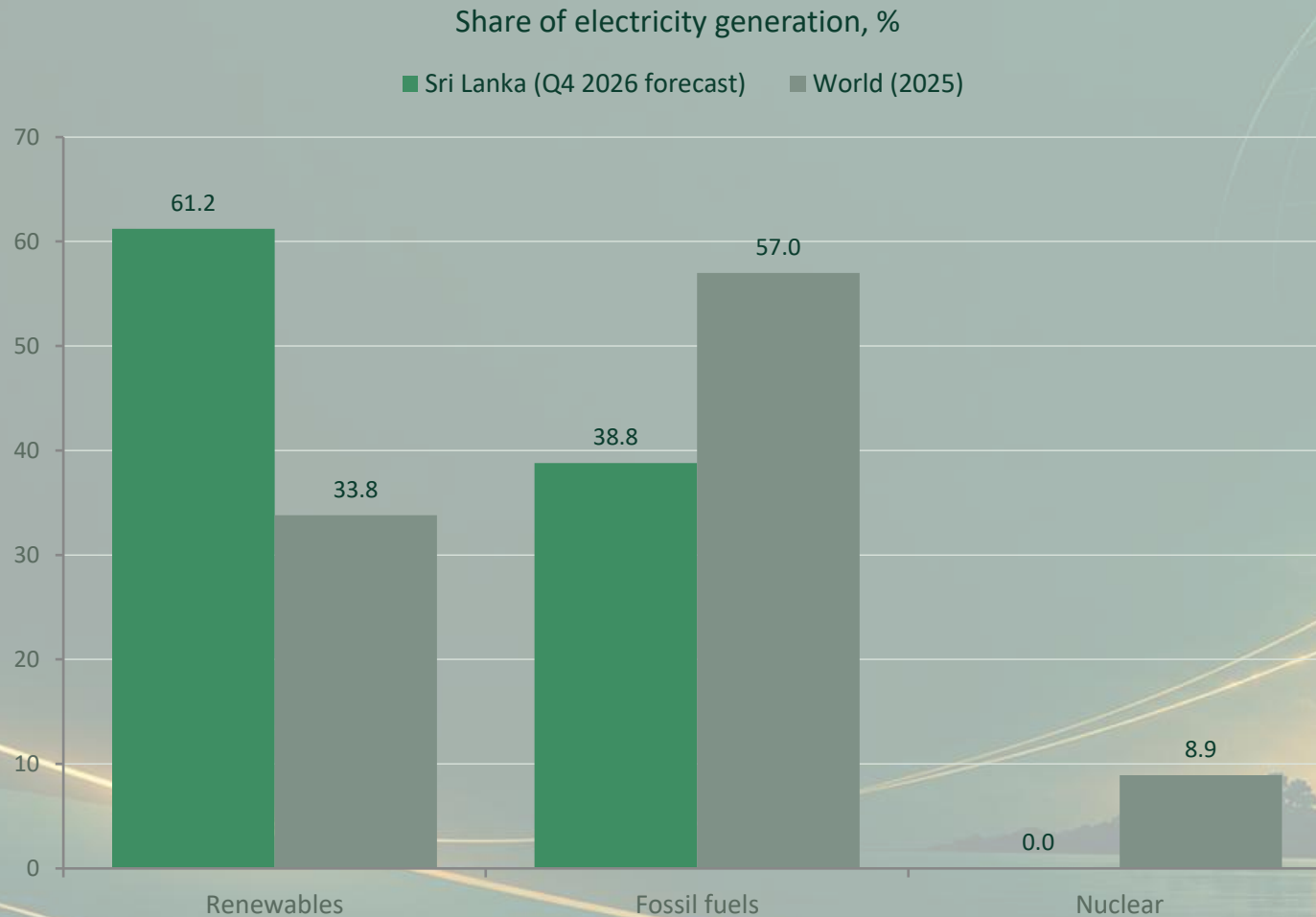
- Sobadhanavi was projected to supply over half of LTL's FY26 EBITDA, so its value rests on capacity payments from a state buyer
- Renewable IPPs earn steady feed-in tariffs but face growing curtailment as rooftop solar exceeds daytime demand, the same problem behind the full blackout day
- Grid work is a new business line: Vidullanka is lowest bidder (with Skipper) on a LKR 5.0 bn 132 kV transmission line

Sources: LTL IPO materials (2024); TradingView (WindForce); Vidullanka FY2025/26 annual report; MarketScreener. Different dates; not directly comparable.

Sri Lanka vs the world

Generation mix, prices, cost of supply, emissions and the economics of the clean-energy target

Sri Lanka already runs a greener grid than the world average



Coal

Sri Lanka 25.7% · World 33.0% · China 54%

Wind + solar

World 17% · US 19% · China 22%; Sri Lanka's rooftop solar alone ≈ 12% of Q4 energy

Oil

Sri Lanka 13.2%: unusually high, and the main source of cost volatility

Nuclear

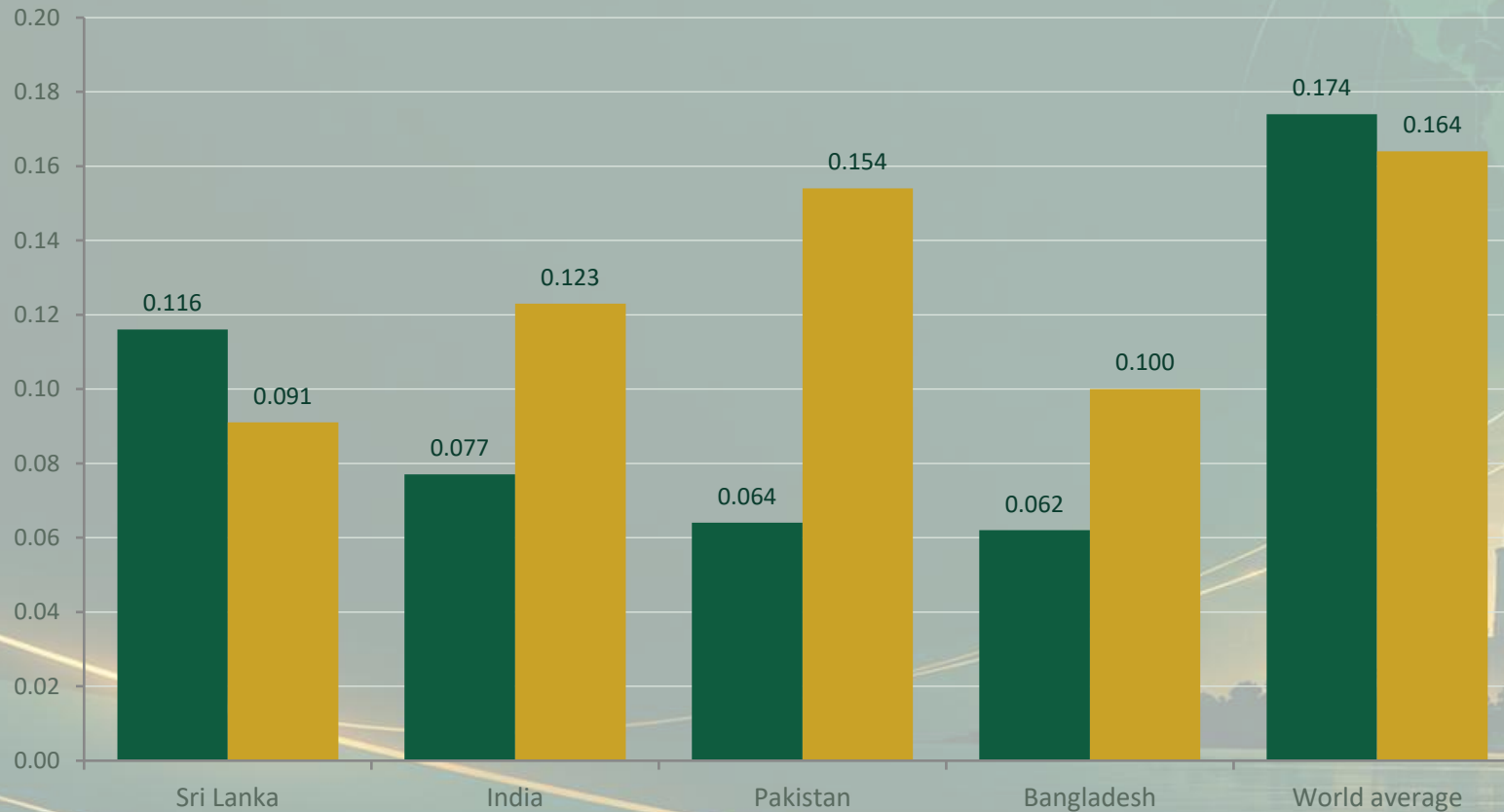
None in Sri Lanka; the LTGEP base case adds 600 MW in 2044

Sources: PUCSL Q4 2026 consultation (Sri Lanka); Ember Global Electricity Review 2026 (world, China, US). Sri Lanka renewables include major hydro.

Retail prices: households pay less than the world average

Average retail electricity price, US\$ per kWh

■ Households ■ Businesses



What it means

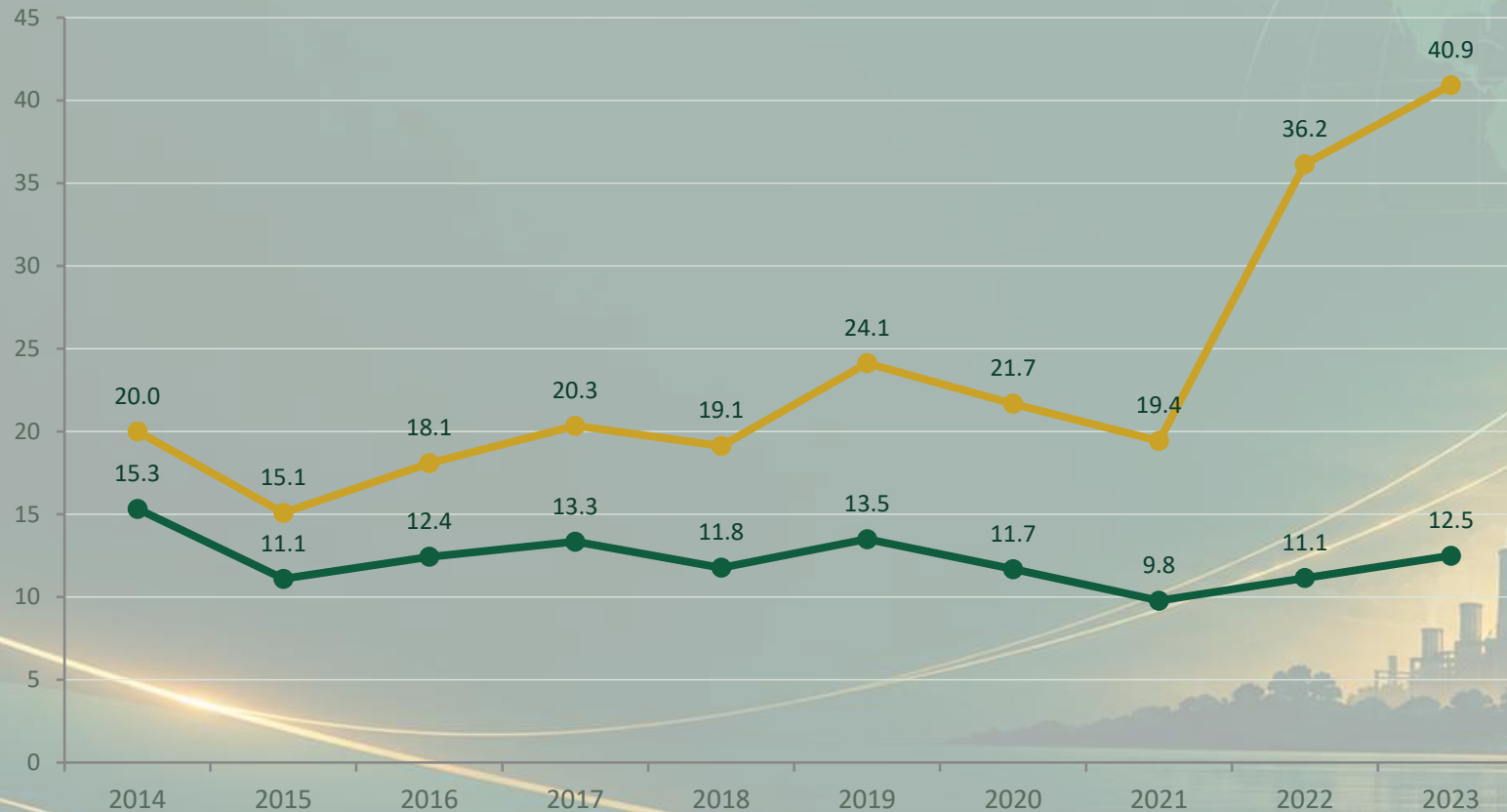
- Sri Lankan households pay more than South Asian peers but about a third less than the world average
- Business tariffs are the lowest in the group: a competitiveness plus for exporters
- Block tariffs mean small users pay far less; 95% of consumers were shielded from the May 2026 rise by a LKR 15 bn subsidy

Source: GlobalPetrolPrices.com, 2023–2026 country averages; world average as of Q1 2026. Prices include taxes; methodology uses average household use and 1 GWh/yr for business.

Sri Lanka's cost of supply has doubled in rupees since 2021

Average cost per unit at the selling point

—●— LKR per kWh —●— US cents per kWh



≈ **LKR 35.6**

Q4 2026 supply cost per unit sold (LKR
157.3 bn ÷ ~4,424 GWh)

≈ **11 US\$**

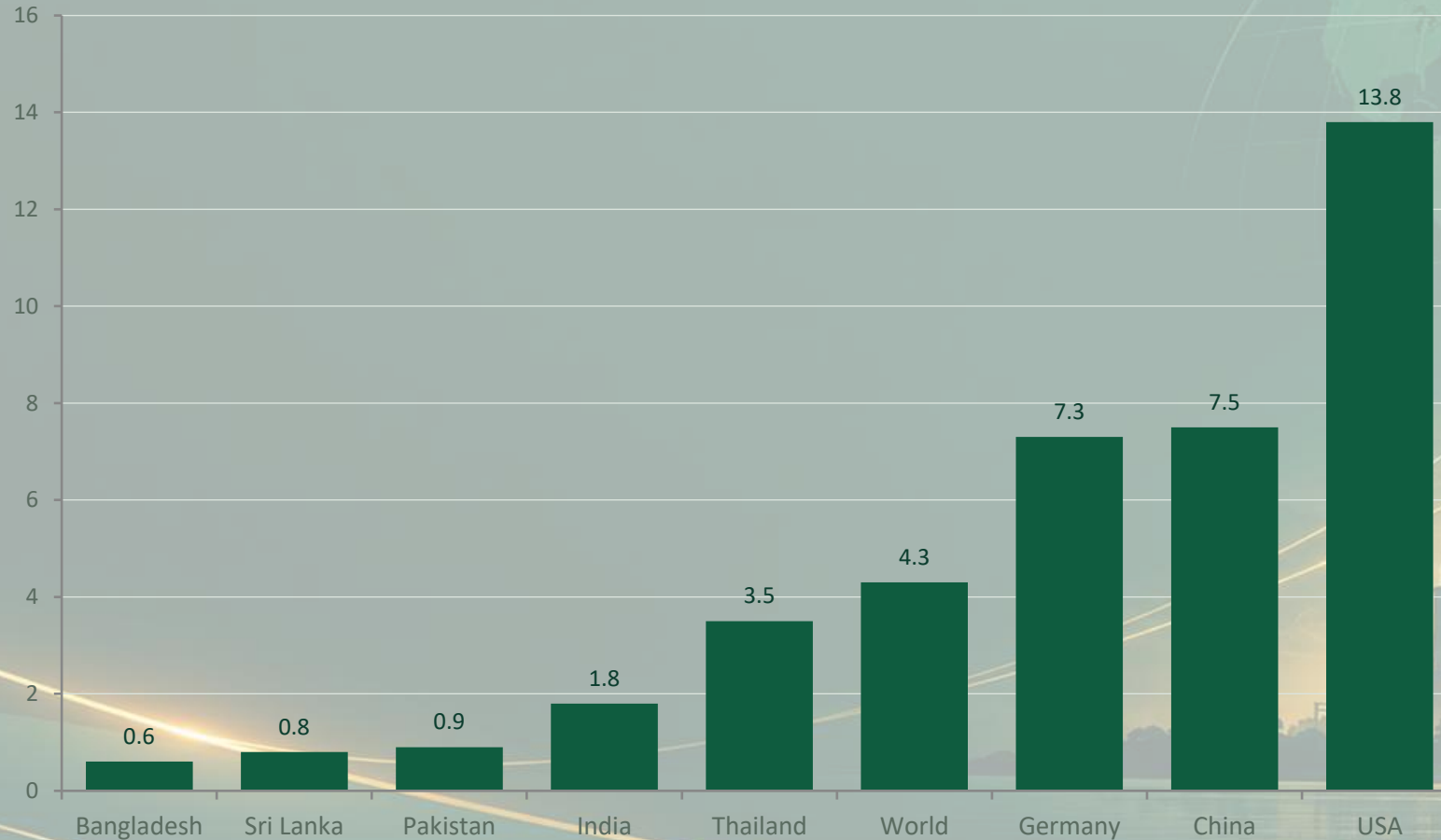
Same cost in dollars: in US\$ terms it is
flat for a decade

The rupee depreciation of 2022 explains most of
the jump: the dollar cost of a unit barely moved.

Sources: CEB LTGEP 2025-2044, Fig. 1.12 (2014-2023); Q4 2026 from PUCSL consultation, sales assume 7.76% network losses (LTGEP) and LKR 320/USD.

A small emitter: 0.8 t CO₂ per person vs 4.3 t worldwide

CO₂ from fuel combustion per person, tonnes (2022)



642 kWh

Electricity use per person in Sri Lanka (2023), down from 670 in 2019

0.1%

Sri Lanka's share of global fuel-combustion emissions

Transport, not power, is Sri Lanka's largest emitting sector (48% vs 42%).

Source: IEA statistics as reproduced in CEB LTGEP 2025-2044, Table 1.7, Fig. 1.11 and Fig. 1.18.

70% renewables costs ~US\$846 mn more than least-cost

Present value of system cost 2025–2044, US\$ mn (LTGEP scenarios)



Policy trade-offs

- Policy: 70% RE by 2030, no new coal, carbon-neutral power by 2050
- PUCSL has told NSO to plan to remove oil from the mix by 2030
- Storage, flexible gas and grid code changes are needed to avoid another full blackout day

Sources: CEB LTGEP 2025–2044 Table E2 (approved by PUCSL May 2025); PUCSL May 2026 decision, Annex 3.

Key takeaways

- Hydro is the system's economic backbone; a wet Q4 keeps costs down even without Norochcholai.
- Oil and idle capacity payments, not coal, are where the money leaks.
- Sri Lanka is greener and cheaper for households than the world average, but less reliable.
- Grid stability (storage, inertia, solar controls) is now worth more than new generation.



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