



Kyrgyz Republic:

Climate Finance, Energy Innovation and the Transition to Distributed Renewable Energy

2026 Energy Storage System Workshop & Learning Visit
CTCN · UNITAR CIFAL Jeju · KIER

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Climate Finance Center under the Cabinet of Ministers of the Kyrgyz Republic

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2026 Energy Storage System Workshop & Learning Visit • CTCN • UNITAR CIFAL Jeju • KIER

CLIMATE FINANCE CENTER

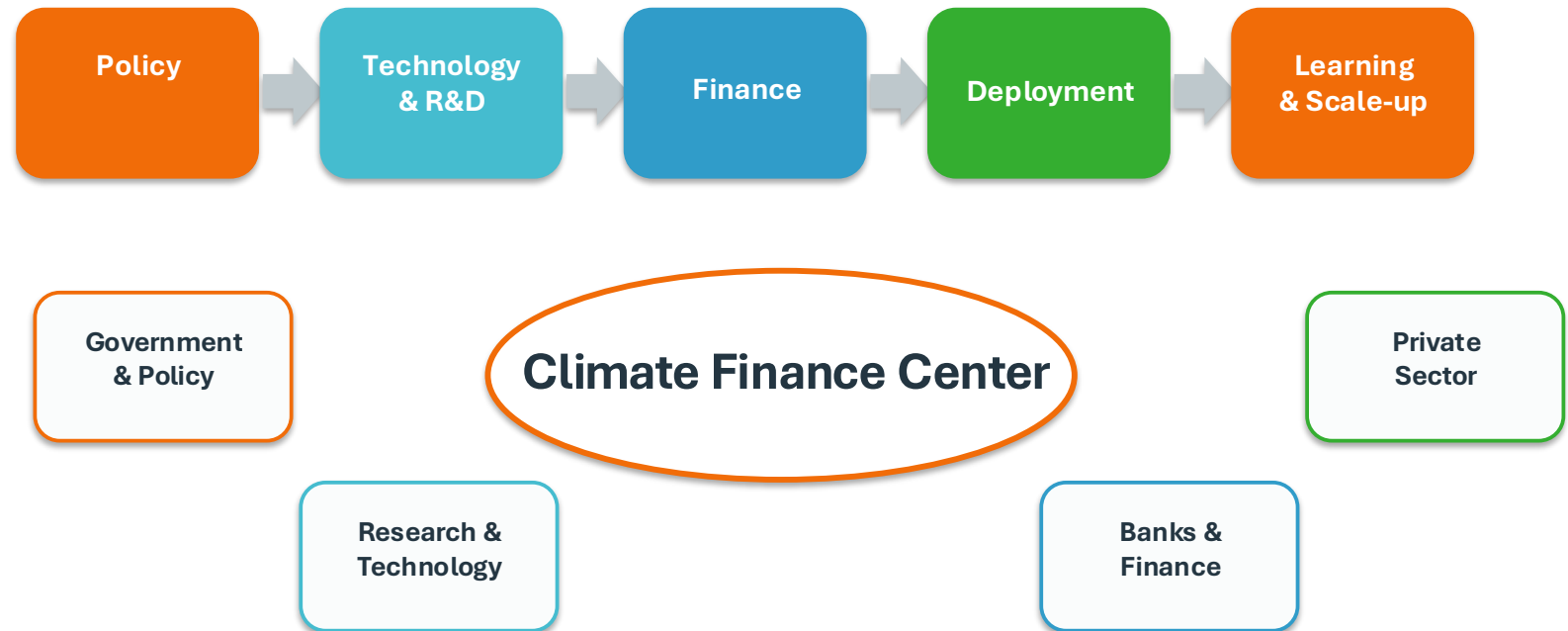
under the Cabinet of Ministers
of the Kyrgyz Republic

OUR MISSION

**Mobilize and coordinate
international and domestic
climate finance**

Kyrgyz Republic ↔ Korea

CFC as a connector in the National Innovation System



Connecting policy, technology, finance and implementation for scalable climate solutions



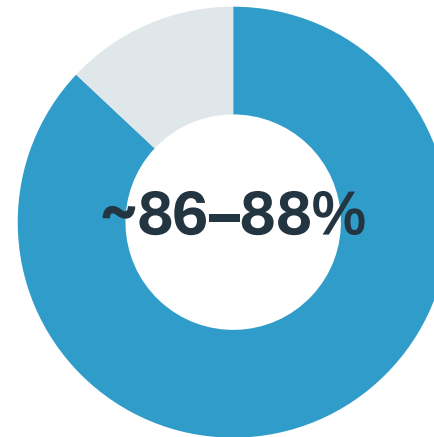
Energy System: Hydropower Backbone & Historical Structure

Kyrgyzstan's power system has historically developed around the Naryn River hydropower cascade.

TOKTOGUL HPP

1,440 MW

after modernization • commissioned in 1975



of electricity from hydropower

TOKTOGUL AVERAGE OUTPUT

5.5–6.0

billion kWh / year

A low-carbon strength — and a seasonal vulnerability

Hydropower backbone

Large HPPs on the Naryn River remain the core of national electricity generation.

Seasonal exposure

Winter demand is high while water inflows are lower, increasing system pressure.

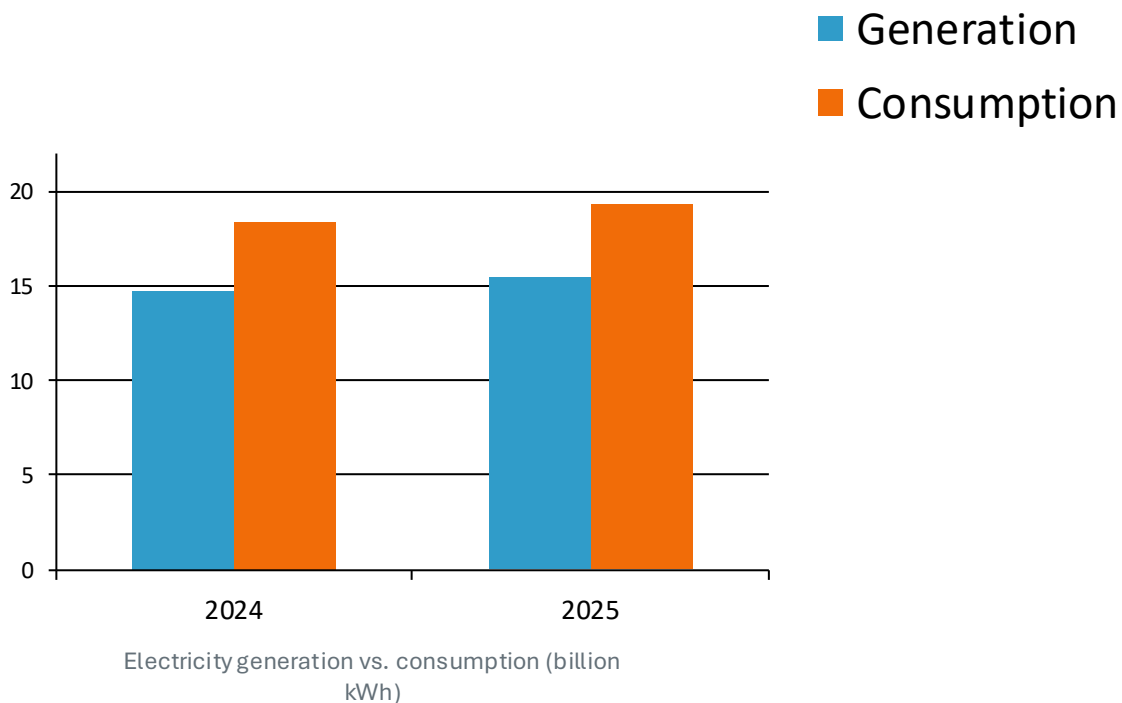
Balancing role

Thermal generation supports the system in winter; CHP output in 2025 was about 2.01 billion kWh.



Electricity Balance, Demand Growth & Tariff Policy

Demand is growing faster than domestic generation, maintaining the need for imports.



2025 IMPORTS

3.8

billion kWh

HOUSEHOLD TARIFF

1.64 KGS

per kWh • from 1 May 2026*

WINTER DEFICIT

Diversification + stronger grids + ESS

Why tariff reform matters for the energy transition

Growing demand

Consumption rose from 18.42 to 19.3 billion kWh between 2024 and 2025.

Cost recovery

The 2025–2030 tariff policy gradually moves toward economically justified levels.

Investment case

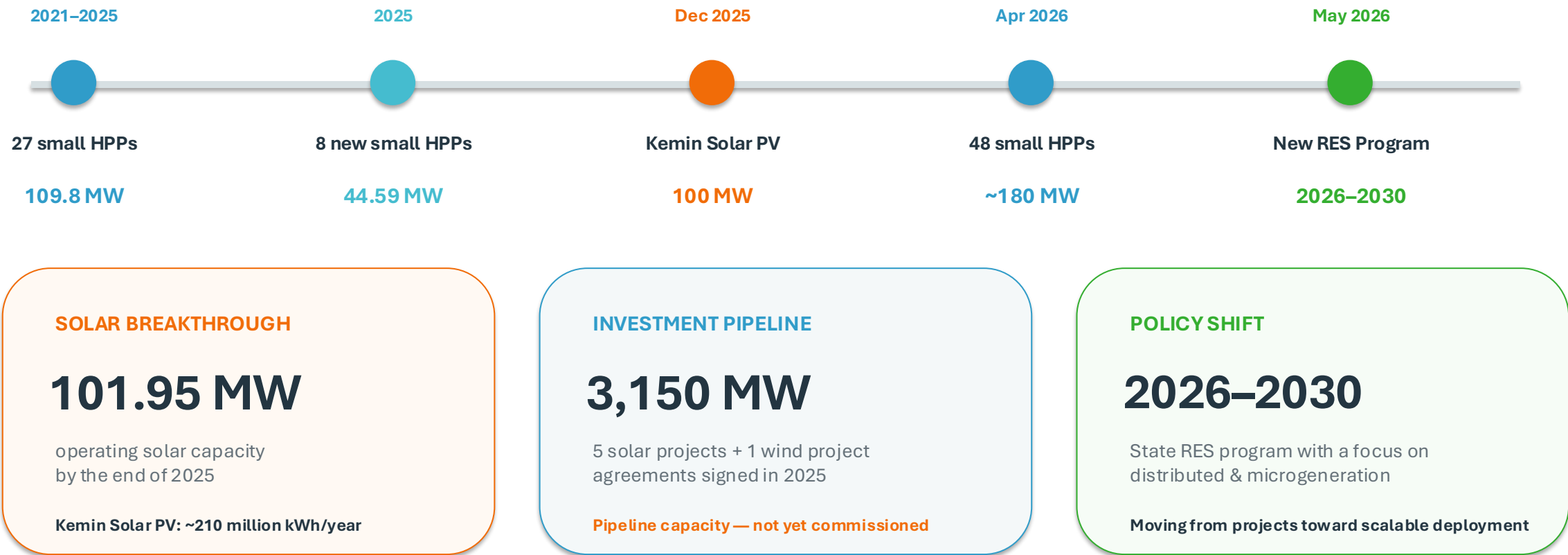
New technologies need sustainable business models, not only capital subsidies.

* Household consumption up to 700 kWh/month.



Renewable Energy: From Individual Projects to Accelerated Scale-up

2021–2026: rapid growth in small hydropower, utility-scale solar and the renewable investment pipeline.



Renewables are shifting from isolated assets to a diversified national growth pipeline.



Flagship Projects & Power System Modernization

New generation, rehabilitation and grid digitalization are advancing in parallel.

TOKTOGUL HPP

+240 MW

1,440 MW total

Rehabilitation completed across four generating units.

KAMBAR-ATA-1

1,860 MW

~5.6 bn kWh/year

Strategic regional project with Kazakhstan and Uzbekistan.

KAZARMAN CASCADE

912 MW

>3.75 bn kWh/year

Three HPPs; construction started in June 2026.

UCH-KURGAN HPP

+18 MW

by end-2025

Modernization continues after upgrades to two units.

Grid modernization & regional connectivity

CASA-1000

Kyrgyz section completed • Mar 2025

~500,000 SMART METERS

installed during 2025

GRID UPGRADES

substations • transformers • distribution



Household Microgeneration: Distributed Energy + ESS

From individual rooftop systems to a scalable, standardized and financeable model.

POLICY FOUNDATION

RES Development Program 2026–2030: distributed generation & microgeneration

A replicable household energy model



Why ESS is the logical next step

Higher self-consumption

Use more rooftop solar directly within the household.

Peak reduction

Reduce pressure on the grid during high-demand periods.

System resilience

Add flexibility and improve reliability of distributed energy.

PILOT → DATA → FINANCING PRODUCT → SCALE-UP

Potential area for joint pilots, research and technology cooperation with Korean partners.



Thank You for Your Attention

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