# KAZAKHSTAN’S CLIMATE POLICY: THE LT-LEDS AND HOW IT IS DELIVERED

Kazakhstan’s climate commitments and its Action Plan — block by block, with deadlines

# A CARBON-INTENSIVE ECONOMY — AND A DELIBERATE CHOICE

**348.8 Mt**

GROSS GHG EMISSIONS IN 2022, $CO_2$-EQ, EXCL. LULUCF

**≈ 80%**

OF EMISSIONS COME FROM ENERGY — COAL IN POWER AND INDUSTRY

**#1 in CA**

THE REGION'S LARGEST EMITTER — AND LARGEST ABATEMENT POTENTIAL

## Why this is a competitiveness issue

- An export economy — steel, aluminium and cement go to markets with carbon requirements (EU CBAM).
- Access to capital — lenders tie the cost of financing to borrowers' climate plans.
- Physical risks — water stress and extreme weather already affect agriculture.

# THREE LEVELS, BUILT OVER THIRTY YEARS

### NDC

NDC 3.0:
−17% / up to −25% by 2035;
methane −42%.

### LT-LEDS · Strategy 2060

Carbon neutrality by 2060 — Presidential Decree No. 121 of 2 Feb 2023.

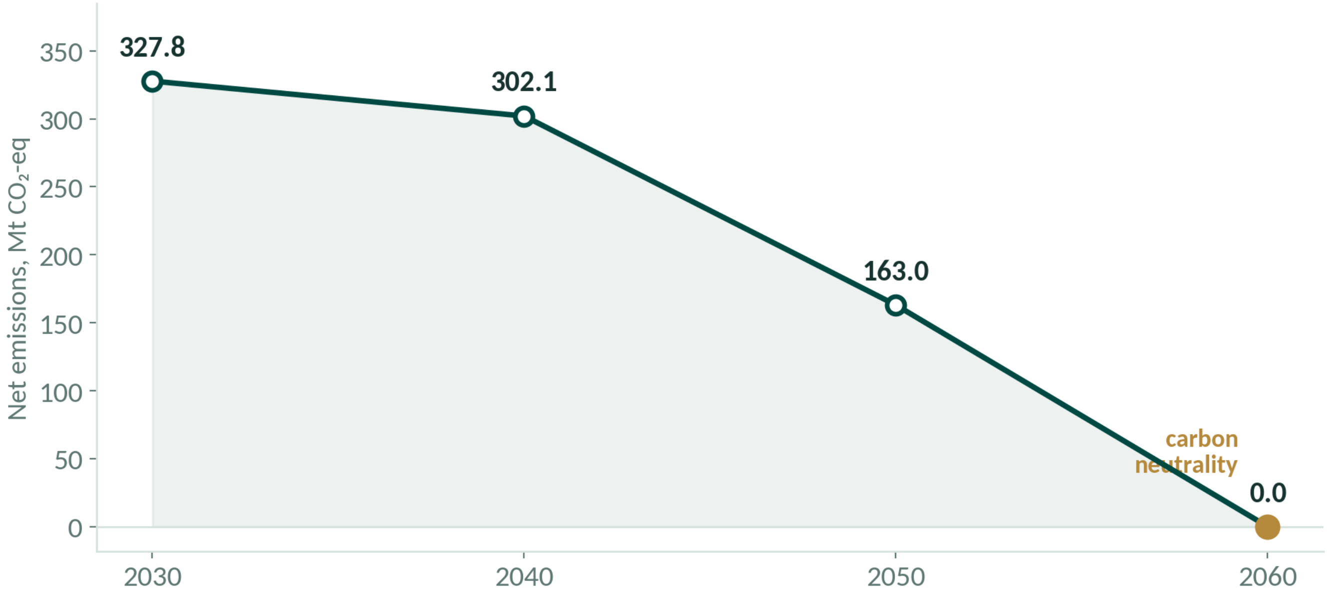
### Action Plan

~94 measures in 14 tracks;
Awaiting approval by PM directive.

| 1995 | 2009 | 2016 | 2020 | 2023 | 2025 |
|---|---|---|---|---|---|
| UNFCCC ratified | Kyoto Protocol | Paris Agreement, first NDC | Neutrality goal announced for 2060 | LT-LEDS — Decree No. 121 | NDC 3.0: −17% / −25% by 2035 |

# STRATEGY 2060 — THE LONG-TERM BACKBONE

Kazakhstan's long-term low-emission development strategy under the Paris Agreement, approved by Presidential Decree No. 121 of 2 February 2023. Its Action Plan fixes net-emission benchmarks for every decade — progress is checkable.




*Net-emission benchmarks, Mt $CO_2$-eq*

**37.1 Mt**

$CO_2$ CAPTURED ANNUALLY WITH CCUS BY 2060

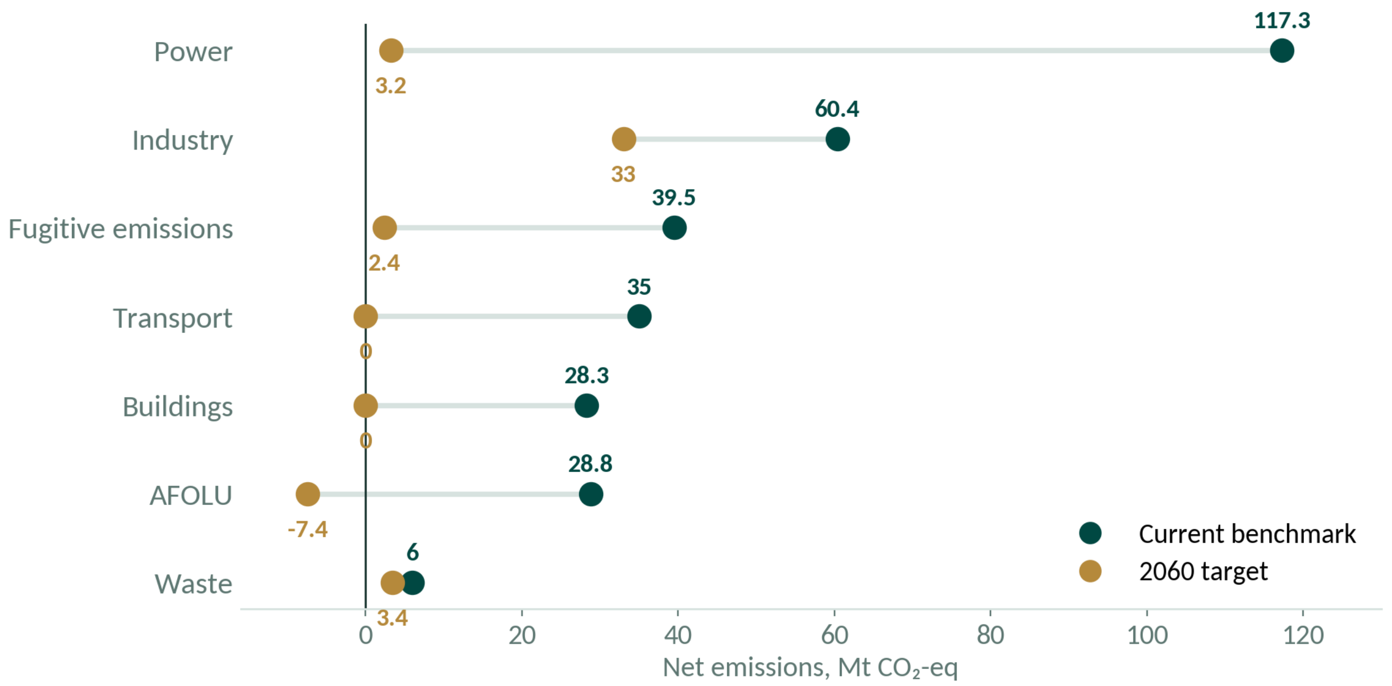
**−7.4 Mt**

NET AFOLU SINK — FORESTS OFFSET RESIDUALS

**≈ $610 bn**

NET INVESTMENT TO NEUTRALITY BY 2060

# EVERY SECTOR HAS A QUANTIFIED PATHWAY




*Net emissions by sector: 2030 benchmark → 2060 target, Mt $CO_2$-eq*

Power: 117.3 → 110.8 → 48.7 → 3.2 Mt — coal phase-down, gas, large-scale renewables.

Transport to zero by 2060 (35.0 → 17.2 → 0); buildings near-zero by 2050 (28.3 → 3.3).

Industry holds ≈ 61 Mt to 2050, then falls to 33 Mt — offset by CCUS and sinks.

Fugitive emissions: 39.5 → 2.4 Mt (−94%) — the methane programme.

# ENERGY, EXTRACTIVES, INDUSTRY

## 15 Power & heat generation

- Coal-fleet condition and economics audit (2027)
- Phased coal retirement / BAT replacement, with owner compensation options (2030)
- District-heat network diagnostics (2027); heat-loss reduction incentives (2028)
- Hydrogen: coordination council (2026–27); market regulation (2026–30)
- Registry of low-carbon $H_2$ producers (2026–27)
- $H_2$ roadmaps: green steel, ammonia, methanol (2027–28); pilots (2028–30)
- Hydrogeothermal co-generation plan (2030–35); $H_2$ / storage for peaks (2035)

## 7 Mining, industry & transport

- Comprehensive oil & gas decarbonization plan (2028)
- Alternative coal-use vision (2027); annual coal-fire reporting (from 2027)
- CCU study: captured $CO_2$ as feedstock for materials (2026–27)
- Product carbon passports and lifecycle GHG accounting, green labelling (2027)
- Lifecycle regulation for green technologies (2026–27)
- Domestic EV-charging and CNG equipment manufacturing (2027–30)

# BUILDINGS, LAND USE, WASTE

## 7 Housing & utilities

- Long-term thermal-retrofit plan: passive-house pilots, ESCO and subsidy finance (2027–28)
- National heat-pump rollout programme (2026–2050)
- Rooftop solar and PV on homes and municipal buildings (2030–60)
- Mandatory A+…E energy labels for new and renovated buildings (2030–40)
- Building and street lighting modernization (2026–40)
- Housing-stock classification to target retrofits (2027)

## 12 Agriculture, forestry, land & waste

- Carbon polygons on main soil types to test carbon farming (2026–35)
- Soil-carbon offset certification methodology — with Zhasyl Damu (2027–28)
- Rice-methane reduction pilot, Kyzylorda region (2027–28)
- Climate-adapted crops (2026–30); cattle breeding and feeding (2026–40)
- Forest-fund carbon offsets (2026–30); soil-carbon database (2026–27)
- Waste: rural landfill rules, PPP recycling, separate collection

*Adaptation runs in parallel — 11 measures: regional climate-risk plans, resilient cities, early-warning coverage up to 90% of the population by 2060.*

# CARBON REGULATION, EFFICIENCY, METHANE

## 15 Carbon regulation & finance

- Tighter allocation benchmarks in regulated sectors
- Paid auctioning of allowances, incl. allocated volumes (2026)
- Market Stability Reserve; Carbon Fund (2028–29)
- Carbon-tax study for non-regulated sectors
- Automated accounting of emissions and removals
- Financial institutions admitted as market participants
- Fast taxonomy verification; regional net-zero strategies
- Reporting: voluntary 2026, mandatory 2027

## 11 Energy efficiency & methane

- National energy-efficiency situation centre, automated monitoring
- Monitoring of large consumers in the state energy registry
- Integrated permits for the TOP-50 energy-intensive enterprises
- Economy-wide methane modelling; mine-methane coefficient
- Leak-detection rules; aerospace monitoring of methane leaks
- Mine and coal-bed methane for power, heat and transport
- EU methane-regulation risk analysis for Kazakh exports

# VERIFIED DATA — AND THE FINANCE BUILT ON TOP OF IT

## Transparency

**BTR1 — early and reviewed.**

Submitted December 2024, in the “first wave”; passed the UNFCCC technical expert review.

**The next cycle is secured.**

9th National Communication and BTR2 — prepared with GEF and UNDP support.

**Business is joining.**

Corporate climate reporting: voluntary from 2026, mandatory from 2027.

## Financing

DBK — the first national Direct Access Entity of the GCF (nominated January 2024).

Carbon Fund — ETS auction revenues from 2026 co-finance decarbonization.

AIFC — issuing and verifying green and transition bonds.

Green taxonomy — fast, low-cost verification of project eligibility.

*The logic: concessional capital through national institutions, topped up with domestic carbon revenues — against ≈ $610 bn of needs to 2060.*

WHAT THIS MEANS FOR PARTNERS

# An architecture partners can build on

| | |
|---|---|
| **Predictability** | The goal sits in a Presidential Decree; benchmarks are quantified by decade — rules visible 35 years ahead. |
| **Verifiable data** | A decade of MRV and an internationally reviewed BTR — numbers, not declarations. |
| **A financing channel** | DBK with GCF access plus the Carbon Fund — ready rails for blended finance. |
| **A ready-made portfolio** | The corporate decarbonization inventory has produced a priced project portfolio — Report 3. |