

Kazakhstan: Towards Net Zero by 2060

BMU IKI "Supporting Green Economy in Kazakhstan and Central Asia for a Low-Carbon Economic Development"

Dana Yermolyonok | 13-10-2021 | Green Action Task Force Annual Meeting

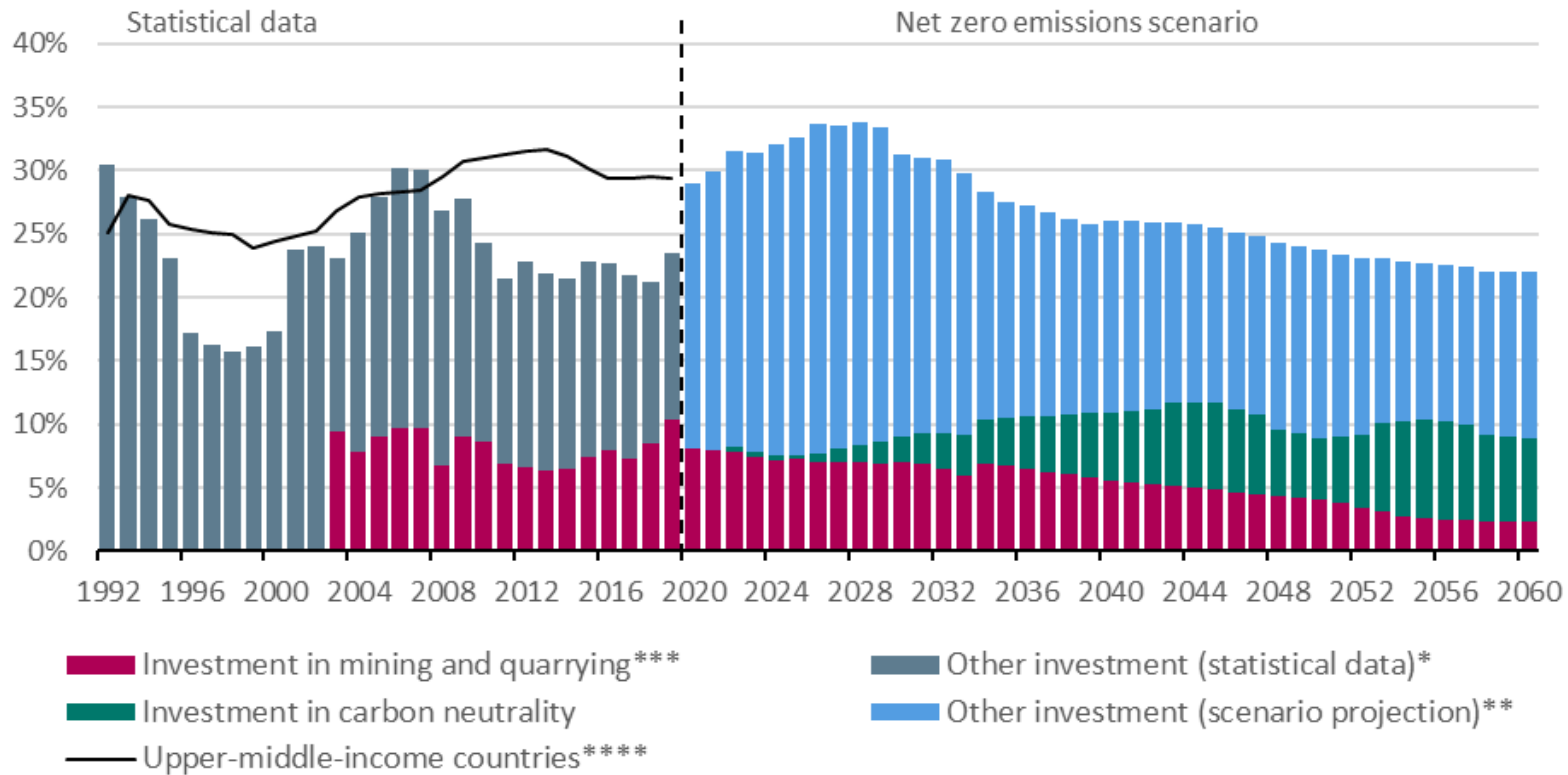
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On behalf of:



Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety

of the Federal Republic of Germany



* Until 2003, total investment including mining and quarrying

** NZE scenario data can slightly differ from World Bank data due to different accounting of reinvested profits

*** Statistical data until 2019, scenario projection from 2020

**** Countries with GDP per capita between USD 4096 and USD 12695

2021
No new coal power plant projects are approved

2025
Start of coal phase-out
Afforestation programme of 2 bn trees completed & LULUCF turns into carbon sink

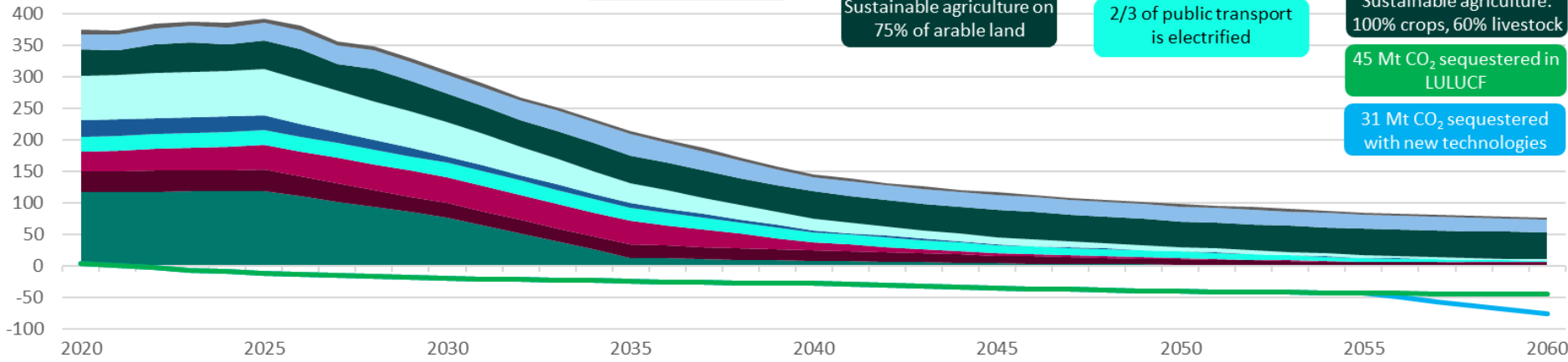
2030
50 % reduction of coal-fired power generation
Share of renewables in power generation doubles
Introduction of direct reduction of iron (DRI) in ferrous metallurgy
Buildings: thermal retrofit lowers energy consumption for space heating by 33%

2035
CCS captures 54 Mt CO₂ in power generation and 4,6 Mt CO₂ in industry
46% of steel produced with DRI / EAF
2040
100% sorting of municipal solid waste
100% electrification of decentralized heating in buildings

2045
End of coal-fired heat generation
50% electrification of centralized heating
Electricity covers 45% of industry energy demand
Less than 8% of waste stored in landfills
100% electrification of individual passenger transport
Sustainable agriculture on 75% of arable land

2050
End of coal-fired power generation
Buildings are almost carbon-neutral
Only "green" hydrogen is used
2055
LULUCF sink for 100% of agricultural emissions
2/3 of public transport is electrified

2060
83.2% renewables in power generation
CCS captures 99.5% of remaining GHG emissions in power generation & 82.3% of remaining industry emissions
100% of steel produced with H₂-DRI / EAF
90% reduction of emissions from fossil fuel extraction
Sustainable agriculture: 100% crops, 60% livestock
45 Mt CO₂ sequestered in LULUCF
31 Mt CO₂ sequestered with new technologies



- Heat and power generation
- Transport
- Agriculture (incl. energy)
- Other carbon sinks
- Other energy industries
- Buildings
- Industrial processes
- LULUCF
- Manufacturing and construction (fuel combustion)
- Other fuel combustion
- Waste

Contacts



Dana Yermolyonok
Senior Advisor (Kazakhstan)

dana.yermolyonok@giz.de
M +7 777 551 53 60



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