

Race to resilience: Avenues for opportunities to Moldovan energy security

Chisinau, 20 June 2024
Carolina Novac, State Secretary



Ministry of Energy



1

From Crisis and Resiliency...

2

...to Long-Term Independence

3

Support Opportunities



Moldova is under constant threat of 'hybrid' attack – in which the supply of energy is used as a critical weapon of attack

Chişinău, 23 octombrie 2022

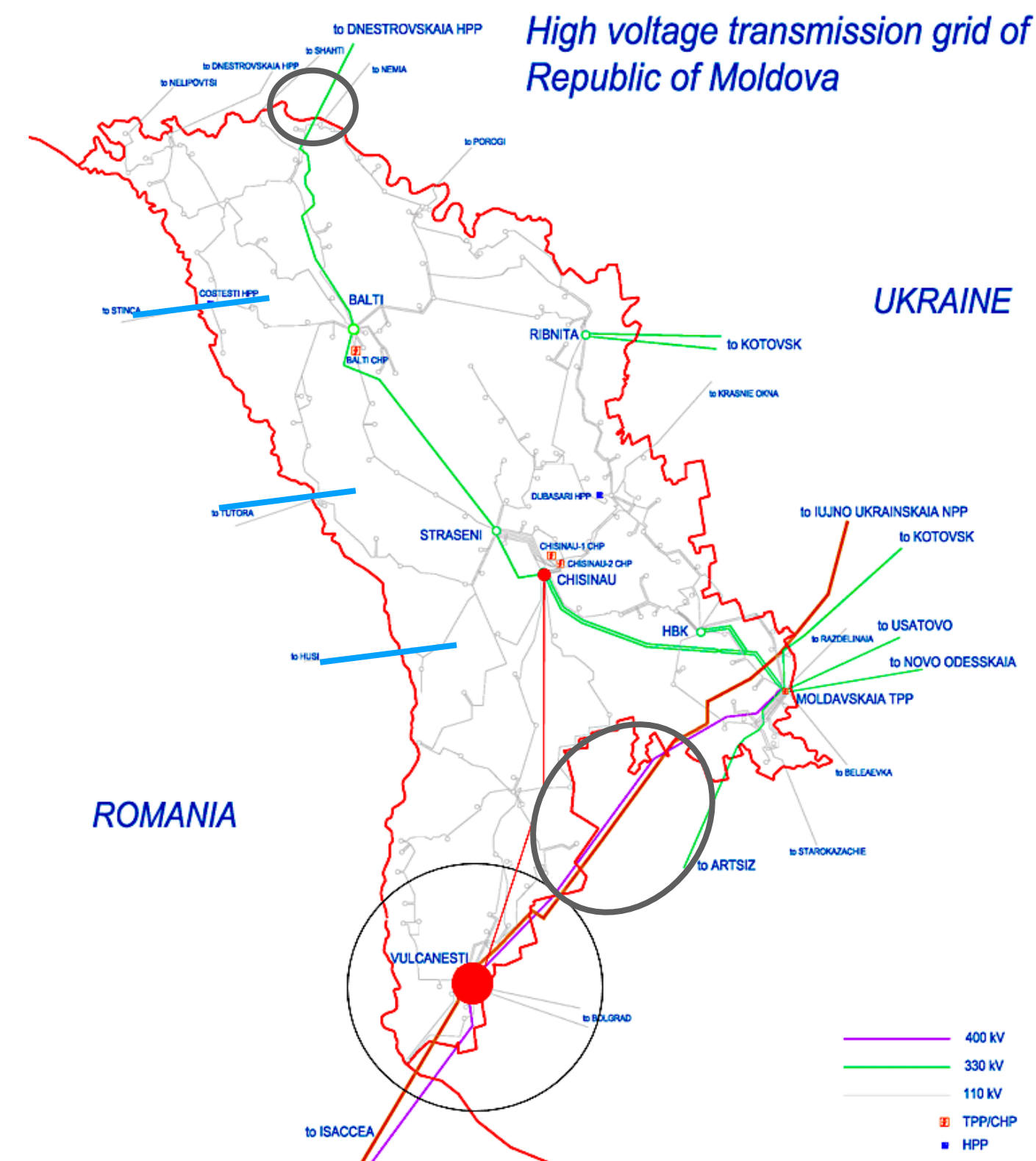
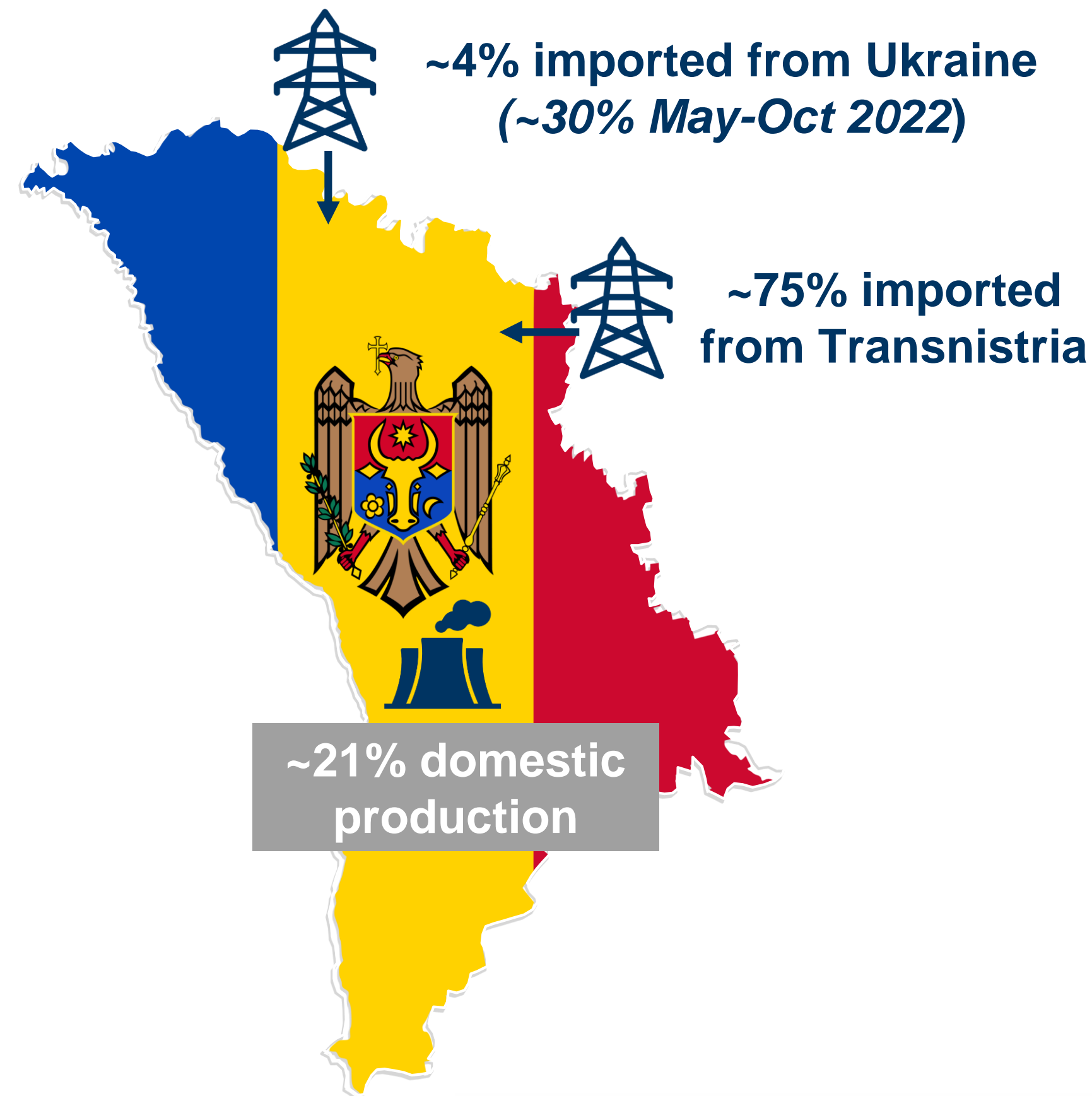


...we cannot, and will not, allow this threat to continue.

Chişinău, 26 octombrie 2022

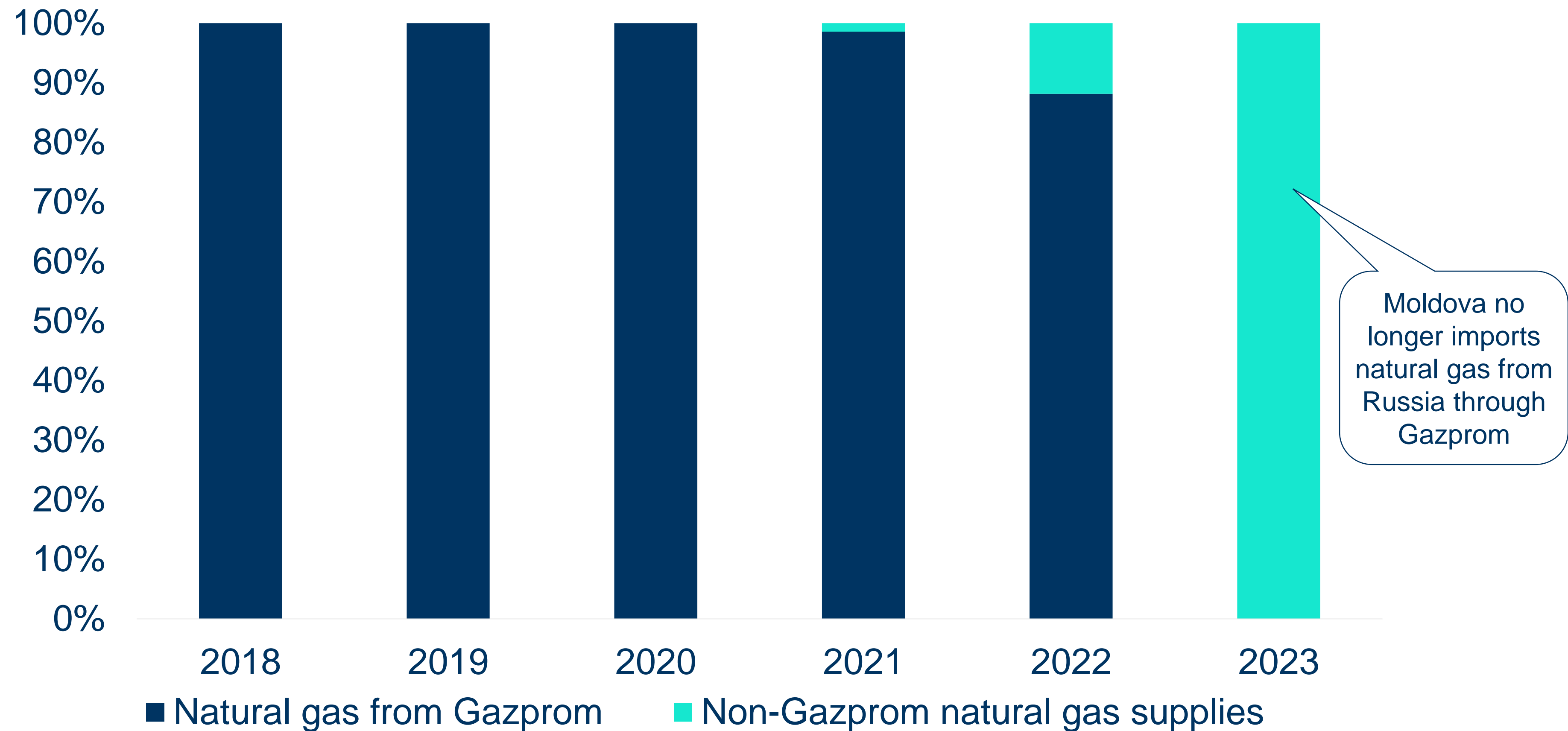
The war in Ukraine exposed the vulnerability of Moldova's electricity grid...

Moldova's grid was highly reliant on two importers subject to vulnerability from the War in Ukraine...



...and the dependence on Russian natural gas supplies was made abundantly clear

Moldova's natural gas purchases – 2018 to 2023



Reliance on Russian natural gas exceeded 98% in 2021 - demonstrating a significant supply-side risk in that Moldova and its partners have been tackling head-on through the Moldova Support Platform.

Moldova: Energy sector at a glance



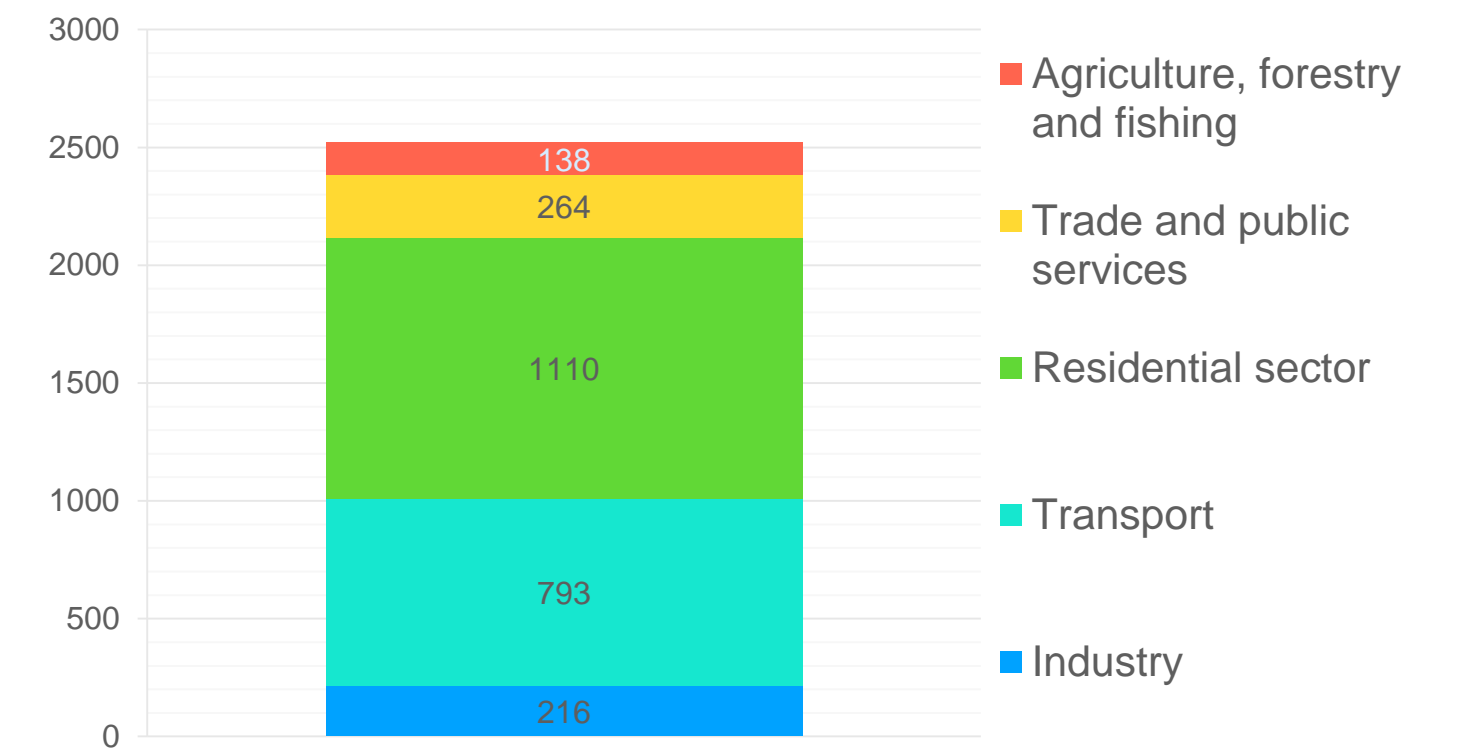
MINISTRY OF ENERGY
OF THE REPUBLIC OF MOLDOVA

The dependence of Moldova on the energy imports

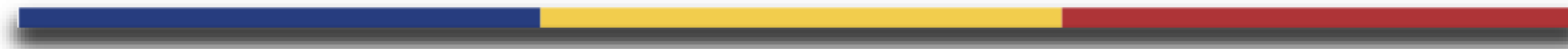
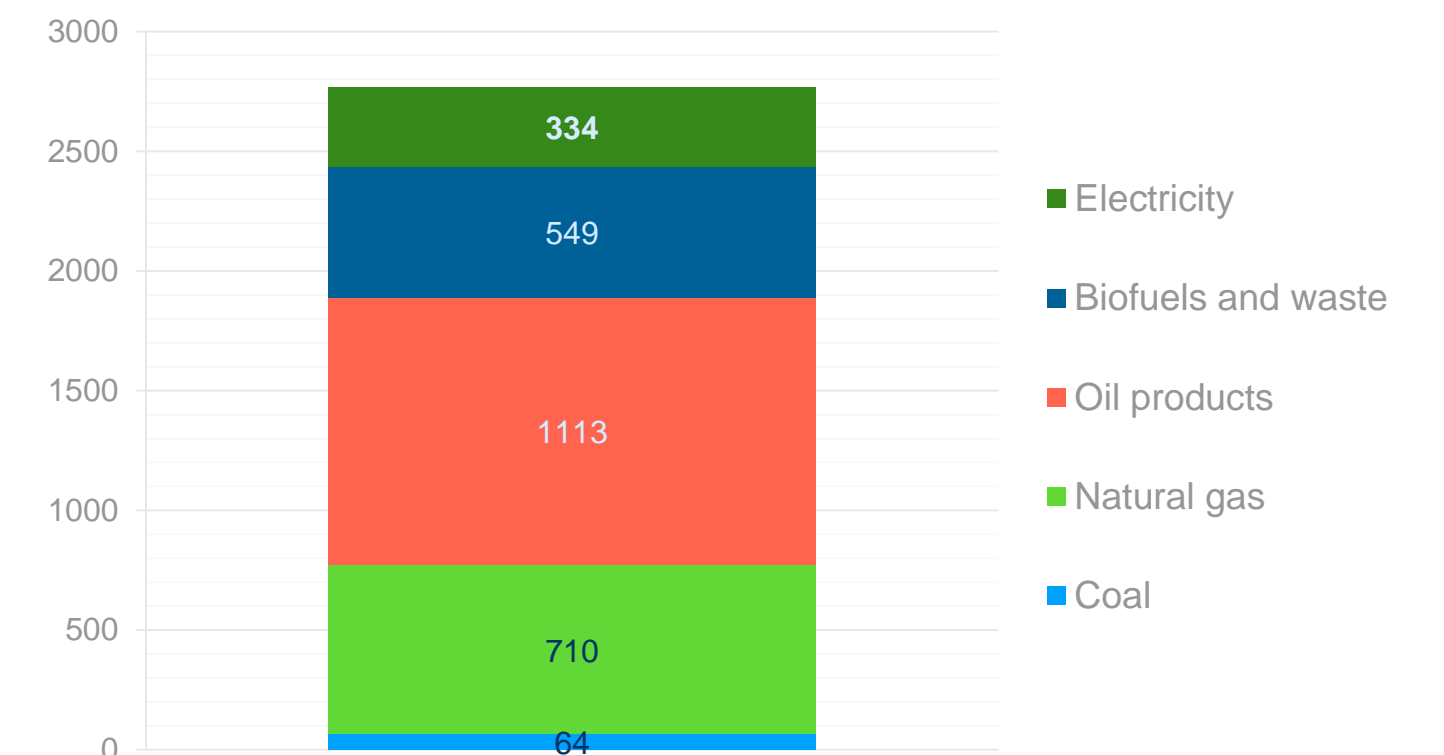


Moldova's national energy demand, 2022

Final energy Consumption
Total - 2 521 ktoe



Gross energy Consumption
Total – 2 770 ktoe



These vulnerabilities created real shocks felt by all Moldovans during the autumn of 2022

A dangerous and expensive precedence...

Made from bad to worse...

And from worse to even worse...

Setting a domino effect into motion...

Resulting in economic crisis



September 2022

Gas prices from Gazprom reach the **highest historical level**, above 1800 USD/1000 cubic meters (~7x previous gas purchase price)

Early October 2022

- Gazprom cuts gas supplies by 30%
- Ukraine bans electricity exports due to Russian attacks

Late October 2022

- Transnistria declares emergency; **reduces gas supply to 38%** & stops electricity supply
- **Energy saving measures** introduced to reduce consumption

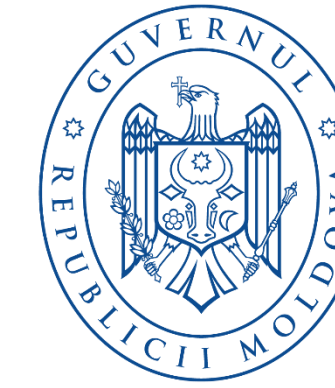
Early November 2022

- Gazprom cuts **gas supplies** by 49%
- Moldova reaches an energy deficit of more than 500 MW

Late November 2022

- **Multiple black-outs** following attacks in Ukraine
- Moldova's economic, political, and social stability under threat

Strategic planning



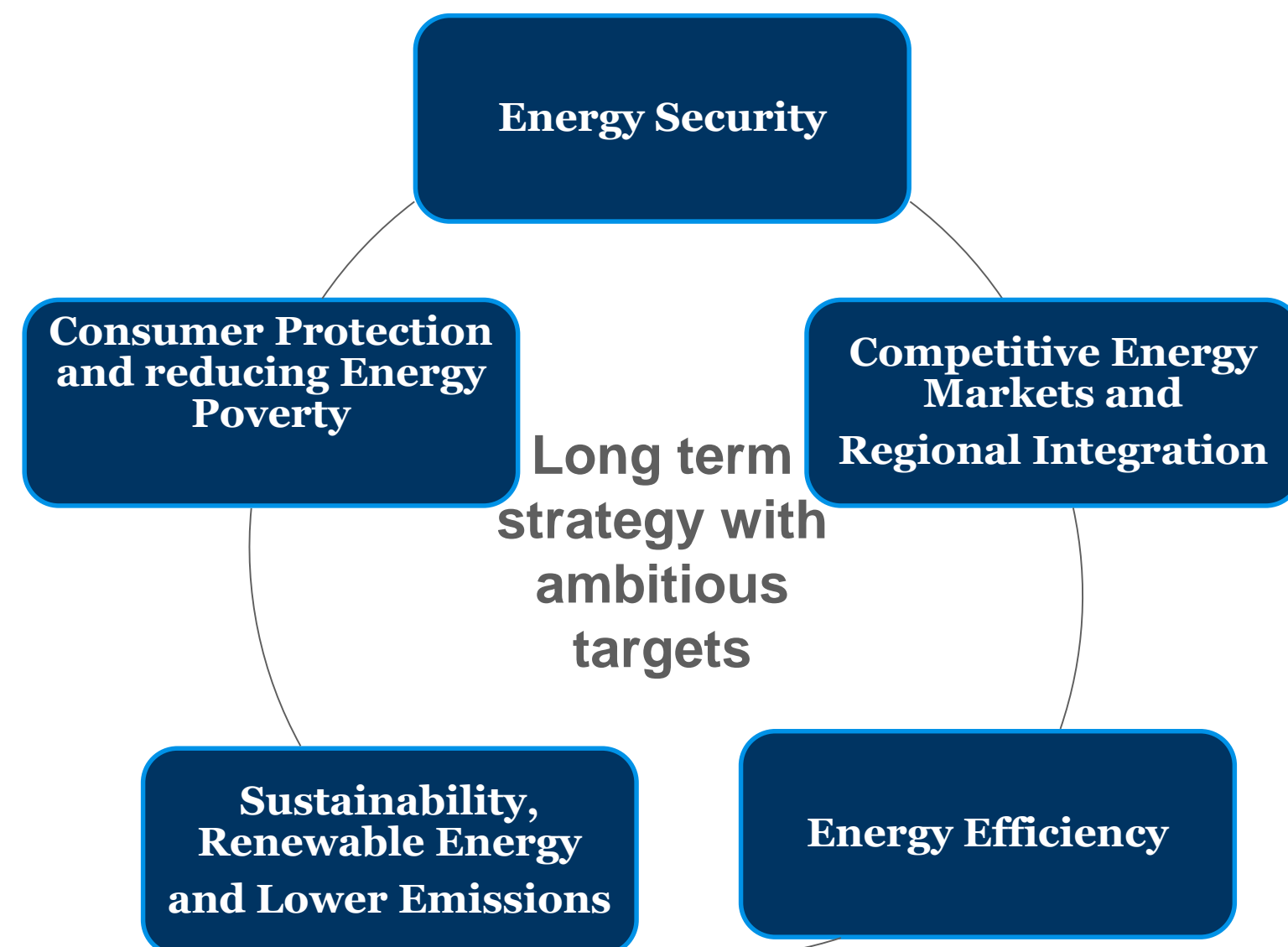
MINISTRY OF ENERGY
OF THE REPUBLIC OF MOLDOVA

Moldova is working to rapidly transform its energy landscape by proactively working towards an independent, sustainable, and resilient energy sector

Energy Strategy of the Republic of Moldova 2025-2050...

...NECP as we strive to achieve Energy Community targets...

...we expect to achieve by 2030



27% of energy mix from renewable sources by 2030

Maximum primary energy consumption of 3.00 Mtoe by 2030

Maximum final energy consumption of 2.80 Mtoe by 2030

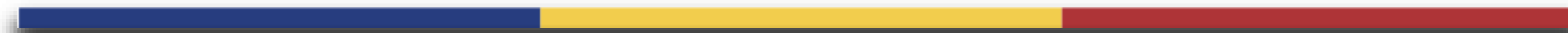
Limit greenhouse gas emissions to 68.6% of 1990 levels by 2030

A **strong vision** for Moldova's energy vision

Well-articulated targets to strive forward on our journey

Clear measures that the Government plans to take to in achieving the plan

A **set of milestones** to ensure we are on track in our journey



Energy Efficiency first



MINISTRY OF ENERGY
OF THE REPUBLIC OF MOLDOVA



A national focal point for the country's energy efficiency needs, including in residential sector, and a trusted institution for all donors and partners

Residential Energy Efficiency Fund

- Improving the energy performance of the building envelope (thermal insulation, replacement of windows, etc.)
- Regulating heat consumption (switching from vertical to horizontal distribution, installing individual heating points, etc.)

Eco Voucher Program

- Replacement of old household appliances
- Replacement of inefficient light bulbs

Super ESCO Program

- Energy efficiency in public buildings
- Starting the development of the the ESCO market in Moldova

E-mobility Program

- Infrastructure for electric transport (residential)
- Subsidies for electric cars
- EVs public chargers

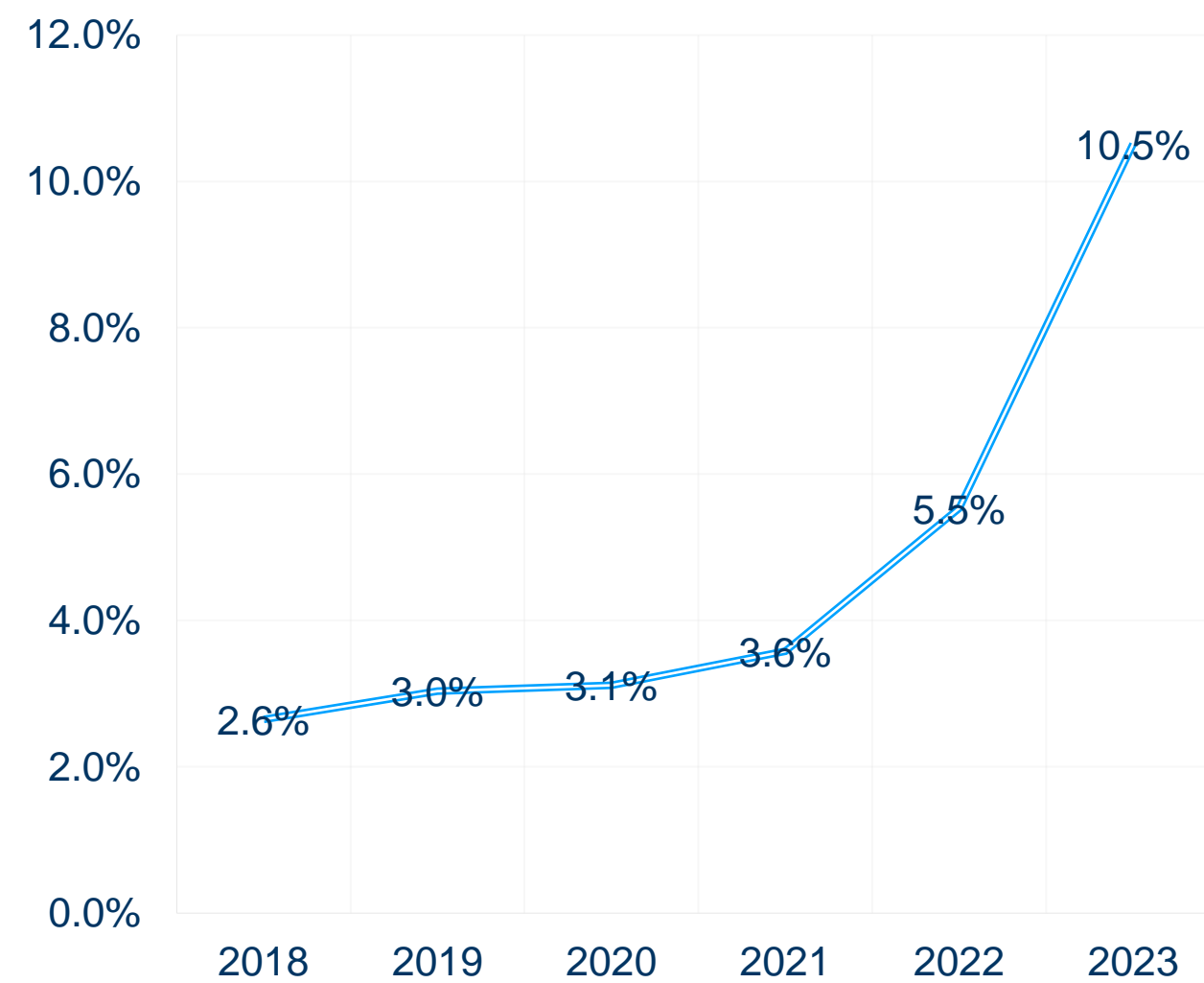


Promotion of Renewable energy

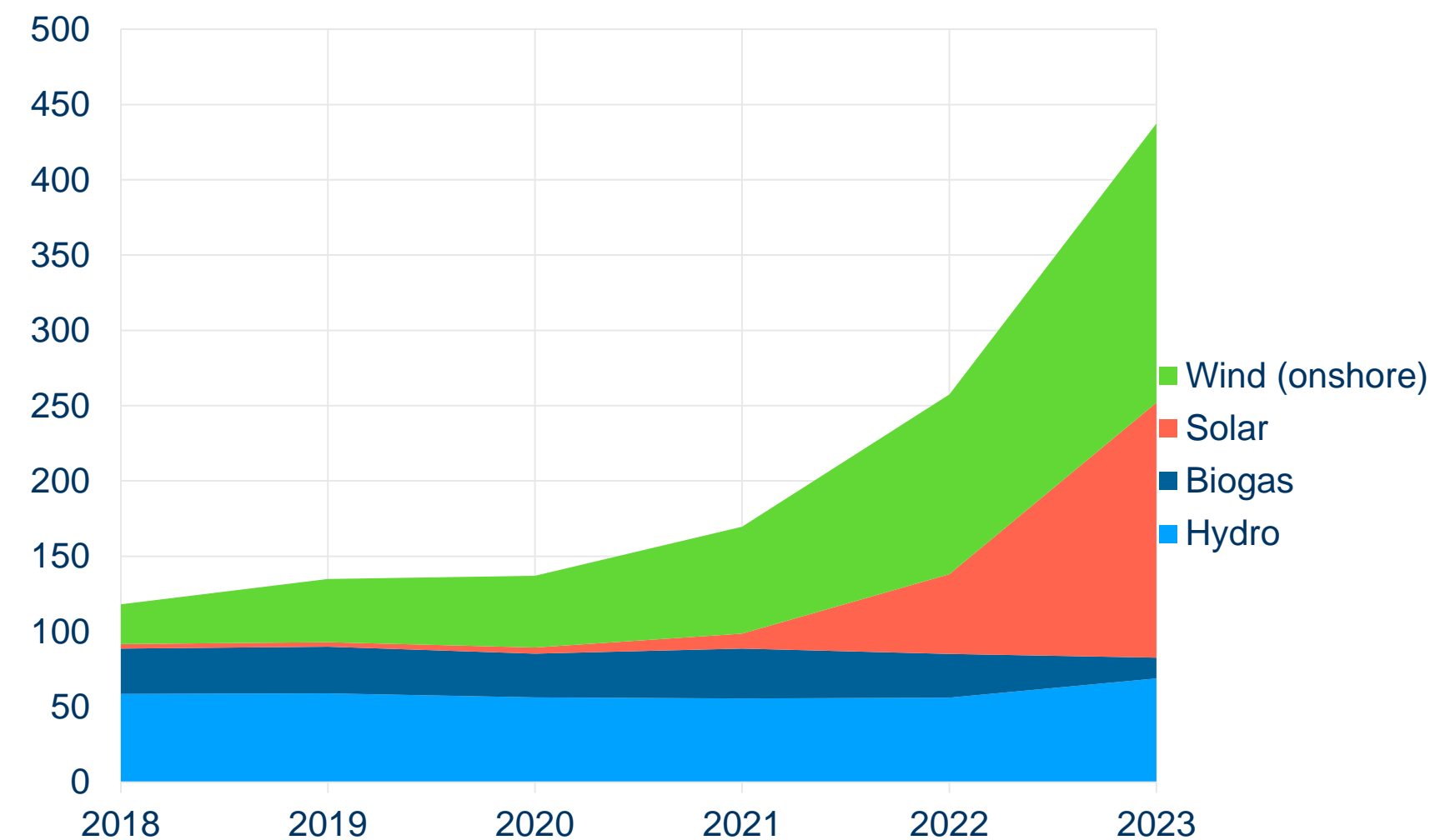


MINISTRY OF ENERGY
OF THE REPUBLIC OF MOLDOVA

Evolution of the RES-E share (%)



Renewables share to electricity generation (GWh)



Installed generation capacity at the end of 2023 (MW)

Technology	2023
Wind	132.7
Solar	76.9
Biogas	6.6
Hydro	16.8
Net metering	115.3
Total RES	348.3



Liberalisation of energy markets



MINISTRY OF ENERGY
OF THE REPUBLIC OF MOLDOVA



Gas exchange is launched and operational
BRM Romania



EAST ENERGY

Designated electricity market operator
OPEM as a subsidiary
of OPCOM in Romania.



OPEM

We are making it happen:

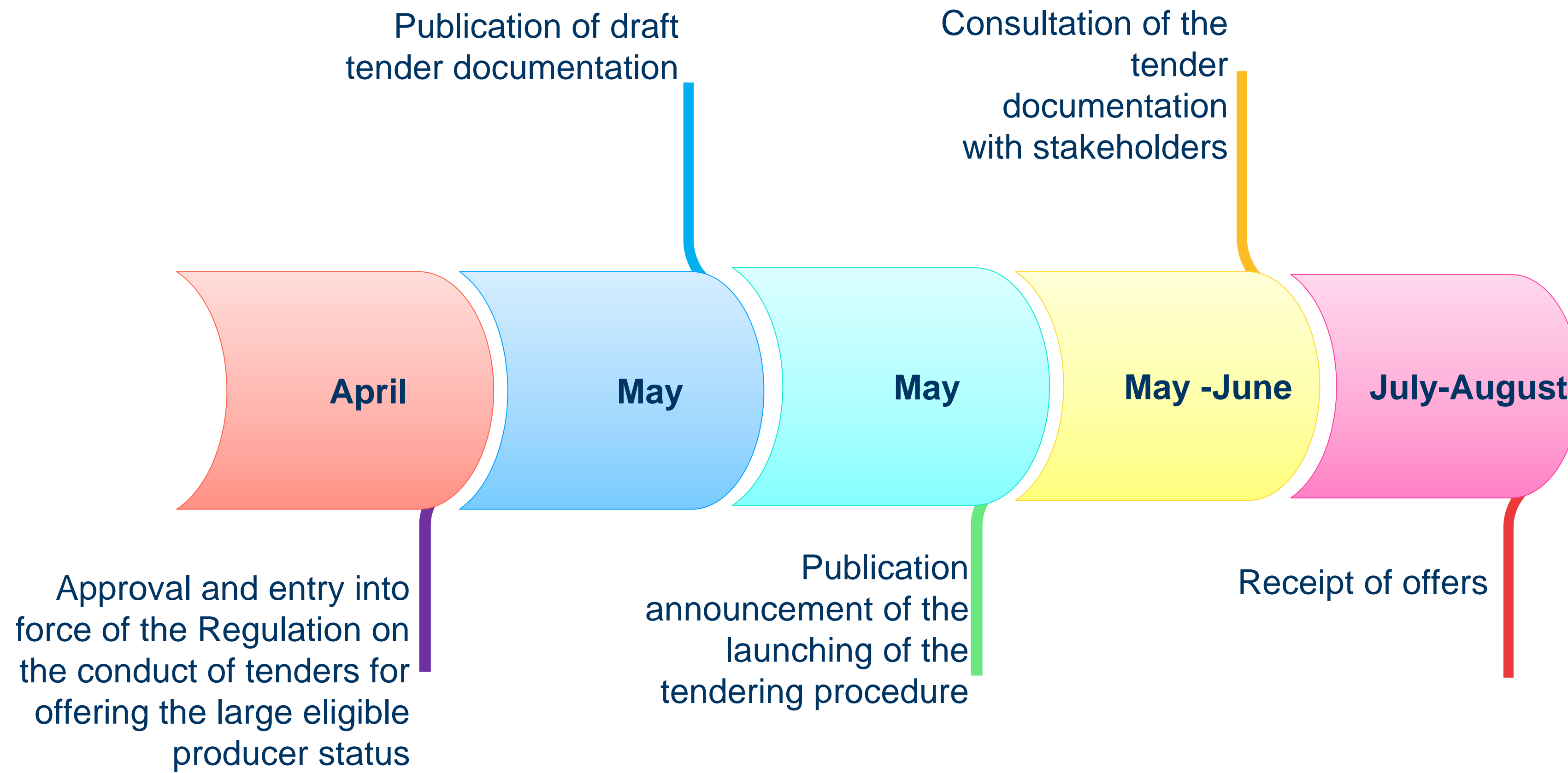
- Launch of the Day Ahead Market (DAM)
- Launch of the Intraday Market (IM)
- Coupling the national DAM and IM with similar markets in Member States by 2025
- Increasing the liquidity of markets to EU comparable levels



Timetable and procedures for RES auctiones (2024-2025)



MINISTRY OF ENERGY
OF THE REPUBLIC OF MOLDOVA



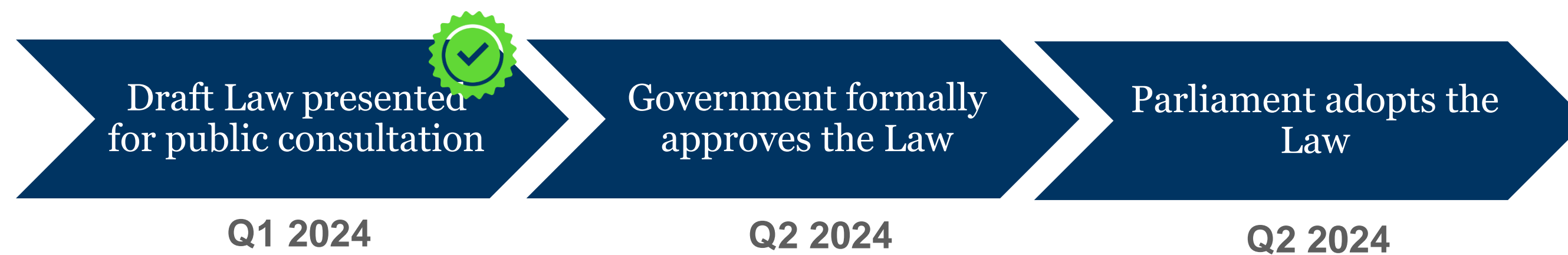
Advancing cleantech innovation via energy sandboxes



MINISTRY OF ENERGY
OF THE REPUBLIC OF MOLDOVA

We create a safe space where innovators, companies and any other stakeholders can bring innovative energy solutions to market without being subject to mandatory legislative requirements.

Law on energy Sandboxes

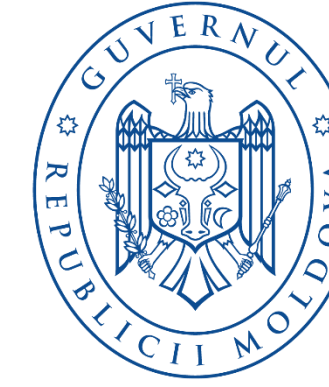


Tentatively timeline

Good examples of areas covered by sandboxes:

- *Collective self-consumption and energy communities.*
- *Electro-mobility.*
- *Flexibility and balancing services.*
- *Integration of renewable energy sources.*
- *Smart grids.*
- *Tariff policies.*

Growth Opportunities



MINISTRY OF ENERGY
OF THE REPUBLIC OF MOLDOVA

- Funding and implementation of ESCO projects in both the public and private sectors.
- Exploration and leveraging of geothermal potential in the Republic of Moldova.
- Investment in the production of green hydrogen for local use in load shifting and for export.

Q & A

Thank you!

