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10th Anniversary
Covenant of Mayors
for Climate & Energy
Eastern Partnership

Covenant of Mayors for Climate & Energy – Eastern Partnership

FUNDING GREEN PROJECTS: CHALLENGES AND OPPORTUNITIES

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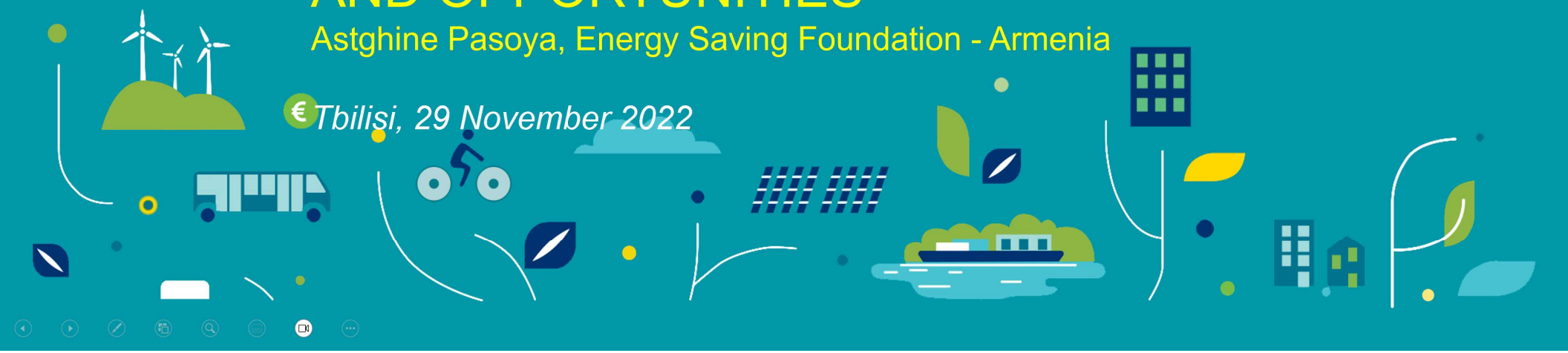
Tbilisi, 29 November 2022



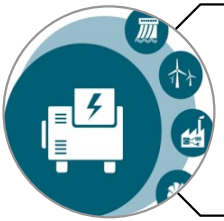
Sustainable Energy Policy Framework in Armenia

Energy Efficiency & Renewable Energy Targets

15.6% by 2023 (NEEAP3)

15% by 2040 (Energy Dev-t Strategy)

Small HPP 500MW, Wind - 500 MW, Solar 1000 MW



Extended nuclear until 2036

Comprehensive and Enhanced Partnership Agreement Effective as of March 2021

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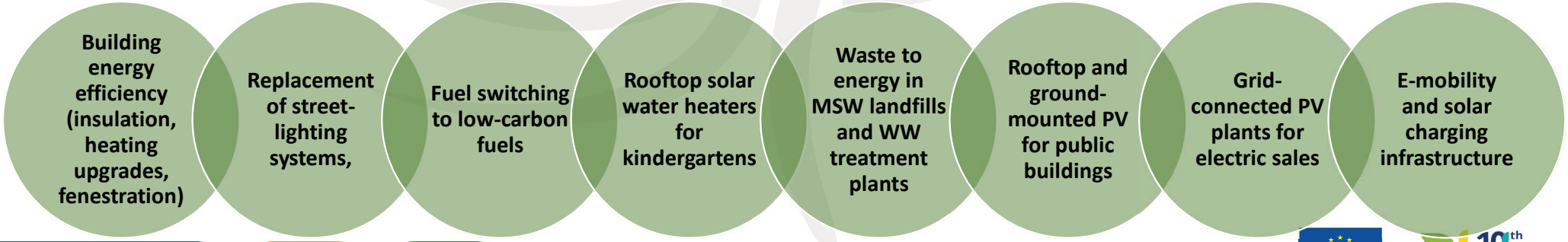
Why Municipalities Must Invest in Green Projects

- Energy efficiency would free up the scarce public budgets for this sector. Without energy efficiency, the expected increase of energy prices will increase the demand for public budgets. **Energy Saving Potential = 52%!**
- Within the overall framework of the national energy security and growing energy prices, and constrained public budget resources, EE and RE investments offer the shortest, cheapest way to help reduce country's energy import dependence, curtail the energy expenditures of public budgets, while mitigating climate change.
- Renewable energy investments help cities minimize electricity bills in public buildings and external lighting, carry out virtual/group metering and generate cash on "net metering" surplus.
  - **Solar energy flow per 1m^{2}of horizontal surface is 1,720 kWh (the EU average is 1 000 kWh),**
  - **¼ Armenia's territory is endowed with solar energy resources of 1,850 kWh/m^2**
- Municipal license window allows to sell directly to the grid at "green" feed-in tariff
- Lead the market transformation by example, triggering private sector green investments as well



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Current Market Offering

The current commercial banks' portfolios offer financial products for financing:

- energy efficiency
- renewable energy,
- clean production, and
- modernization improvements.

The products have been available on the market for a number of years in one form or another with various combinations of near-market interest rate and technical assistance;

Barriers to the Viability of Municipal Green Investments

Poor statistical base

RESULT: Limited ability for quality analytics, proper baselines, and feasibility analysis

Low comfort levels and artificially reduced energy consumption levels

RESULT: low financial baseline conditions, jeopardizing the calculated economic viability of investments.

Poor condition of buildings:

RESULT: requires a combination of energy efficiency retrofits with substantial rehabilitation, reinforcement and renovation funds, since most public buildings have not been renovated for over 25 years,

Limited technical capacities and high velocity of cadre

RESULT: Perpetual loss of institutional memory, wasted capacity building, poor in-house investment planning and fundraising skills

IFI & Donor activities in EE&RE

State subventions on matching principle (45-70%)

- Over EUR 200 mln invested during 2018-20 (36 PVs too!)

United Nations Development Program (UNDP) / GEF /Green Climate Fund (GCF):

- Green Urban Lighting
- Improvement of EE in buildings Project
- De-risking climate investments in EE in buildings

United States Agency for International Development (USAID):

- Residential Energy Efficiency for Low-Income Households (REELIH) Program
- Energy & Water Program,
- LEDS Project and least cost generation planning
- STIP initiative and plans for water and energy efficiency solutions in fisheries

Eastern European Energy Efficiency and Environment Partnership (E5P)

- Pipeline of municipal infrastructure EE & RE projects: DH, WW, MSW, Streetlighting, transport

European Investment Bank (with E5P, UNDP & Yerevan Municipality)

- Yerevan Energy Efficient Building Renovation Program

European Commission

- SUDEP EE & RE for Spitak & Vayq Communities
- Yerevan Solar Community, ComDep Demo Project
- EU for Armenia's Sustainable Energy, Artik & Aparan, ComDep Demo Project
- INOGATE Technical Secretariat
- NIF grant co-financing for selected IFI loan products

World Bank/GEF

- Public/Municipal/Social Building EE Credit Line Via ESA Scheme (R2E2)
- Scaling up Renewable Energy Program, Climate Investment Fund

International Finance Corporation (IFC)

- Sustainable Energy Finance Project on-lending through banks for corporate and residential EE through 2 PFIs

European Bank for Reconstruction and Development (EBRD):

- Caucasus Sustainable Energy Financing Facility in Armenia providing corporate & residential energy efficiency loans through 5 PFIs with free TA & LEMA, and 10-15% grant investment incentives
- Direct loans with sovereign guarantees
- Leveraged funding from EIB

KfW lending activities and planned initiatives in the field of EE

- EE-integrated reinforcement of schools (may leverage ADB)
- Financing solar water heaters &SHPP
- Housing EE mortgages
- EE in SMEs

Green for Growth Fund

- EE & RE Loans through PFIs

NEFCO

- Municipal EE&RE Loans

French Development Agency

- Residential EE Loans to low-to-middle income HH with 5-10% grant incentive through NMC

Factors Affecting cities' ability to attract finance Legal, Technical, Institutional, Market Barriers

- Poor state of Municipal Infrastructure
  - cannot finance sterile EE, need repair and reinforcement, hence – large investment needs
- Limited Degree of autonomy for the cities to take actions and inflexible public procurement
- Limited Financial resources of the cities (most cities 50%+ subsidized by state)
- Municipal amalgamation reform (bureaucratic chaos, data chaos, financial chaos)
- Municipal Borrowing Approval Process (Ministry of Finance green light)
  - This includes factoring and ESCO/energy performance contracting, and inability to finance off-balance
- Municipal Borrowing limitation (linked to extra-budgetary funds and one loan at a time!)
- Poor Concessionality, Currency Risk and Lack of Grants for non-EE investments
- No collateral, hence - Need for Sovereign or Other Guarantees
- Limited Fiscal Space
- Limited Institutional Capacities and Lack of Technical Assistance in Project Preparation
- Poor readiness of EE service vendors to help design and deliver quality projects

How to Help Increase the Green Investments in Municipal Sector

Continue Legal Reform (Transposition of EU Energy package, Budgeting and borrowing reform)

Support expansion of repayment-from-savings instruments (ESCO, ESA/R2E2, Factoring)

Create capacities and acting support mechanism for integration SE into public procurement, capitalize on the power of professional networks!!!

Create tailor-made financing instruments with adequate concessionality and guarantees

DIGITALIZATION !!!!!

- Integrated building registries, pre-approved vendors, accelerated e-procurement, standardized exemplary technical solutions online project MRV, interoperable with GIS, MEIS, buildings database, etc.

Build the knowledge and capacity of local authorities in:

project identification, development, MRV, public EERE Procurement

Establish a strong baseline data foundation for proper feasibility analysis

Assign grant resources for project preparation and broader technical assistance

Help cities rip revenues from liberalized energy markets: Net metering, Licensed solar PV farms, Prosumer Provision for grid-connected plants and own use, energy cooperatives &minigrids

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ENERGYSAVING FOUNDATION
FOUNDATION TO SAVE ENERGY

Efficient, clean, smart, sustainable, secure energy use in all city infrastructures

Thank you!

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