



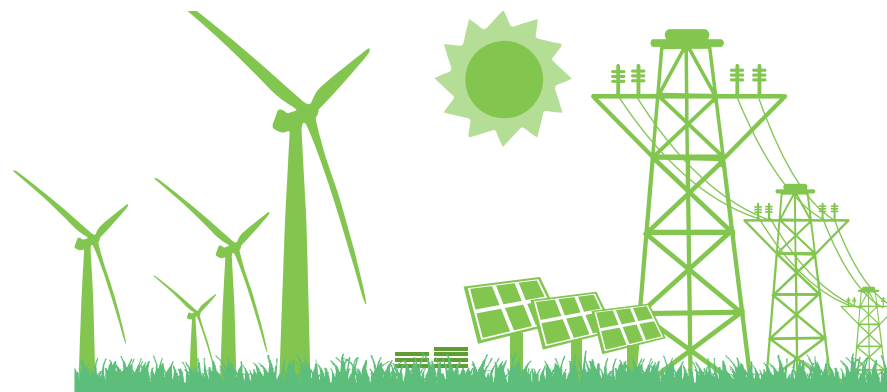
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MINISTRY OF TERRITORIAL
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EU4Climate

Better Climate Policies for Eastern Partner Countries



Case Study – ARMENIA

Program on Energy Savings and Renewable Energy for 2022-2030

Regional Workshop on Climate Mainstreaming Activities in the EaP countries
Recommendations for Energy and Agriculture

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Vision of Climate Mainstreaming in the Energy Sector

Adhering to the **UN's 2030 Agenda for Sustainable Development**, particularly **Goal 7** "Access to affordable, clean, reliable, sustainable and modern energy" and the Paris Agreement, the Government of **Armenia is making continuous efforts to create clean and energy efficient, sustainable developing Energy Sector.**

In this case the **responsible use of renewable energy potential**, considering it as a part of the Least Cost Energy Development Plan, is **one of the key priorities of the Energy Sector development.** Considering the available domestic resources and development tendencies of this technology throughout the world, the **construction of solar and wind power plants**, will prevail over the rest of types, given the limitations of the system reliability and safety indicators.

The other important way is the possible **realization of energy efficiency potential.** All the sectors of the economy of Armenia have great energy efficiency potential including **transport, industry, multi-apartment buildings, public sector** etc. The Government of Armenia will be consistent in terms of creating a **new culture of energy efficiency**, implementing institutional reforms.

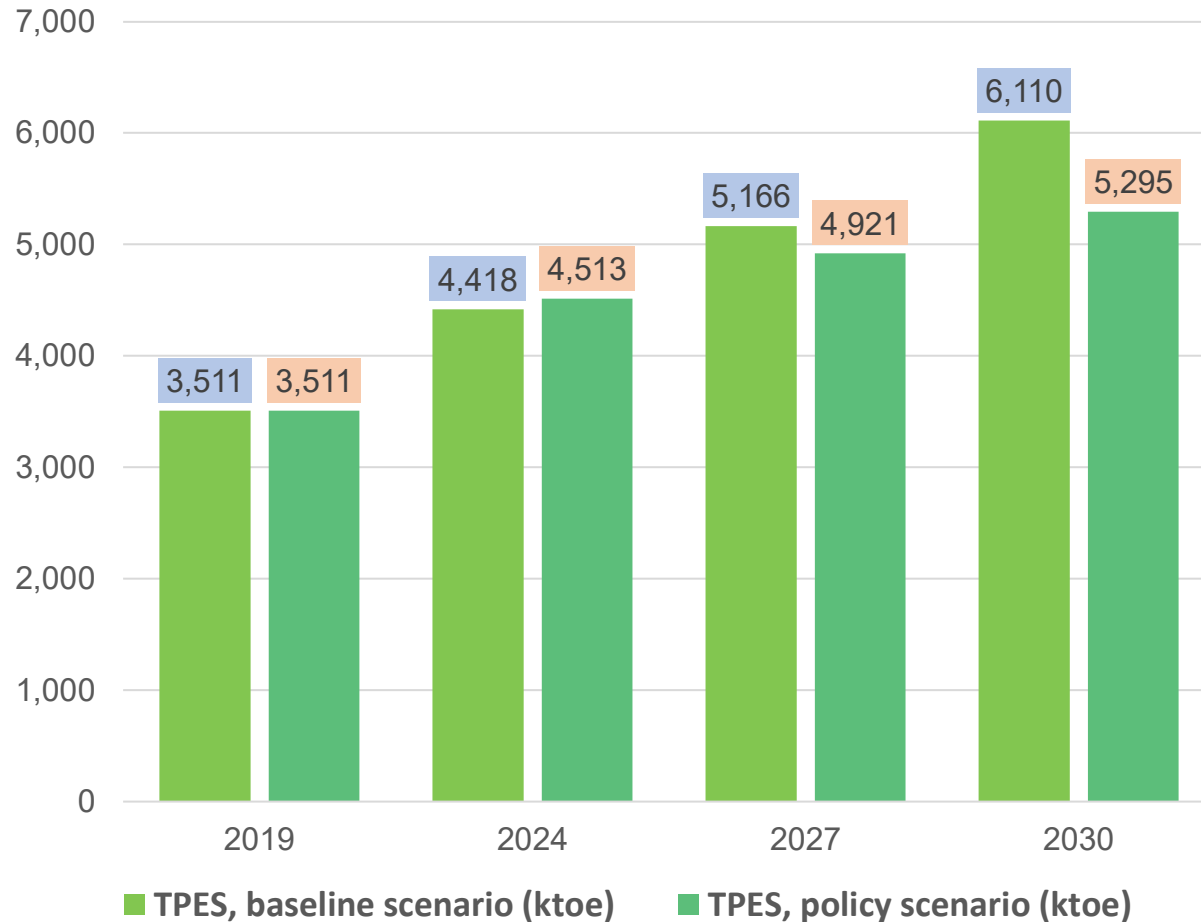
Program on Energy Savings and Renewable Energy for 2022-2030

The Program on Energy Savings and Renewable Energy for 2022-2030

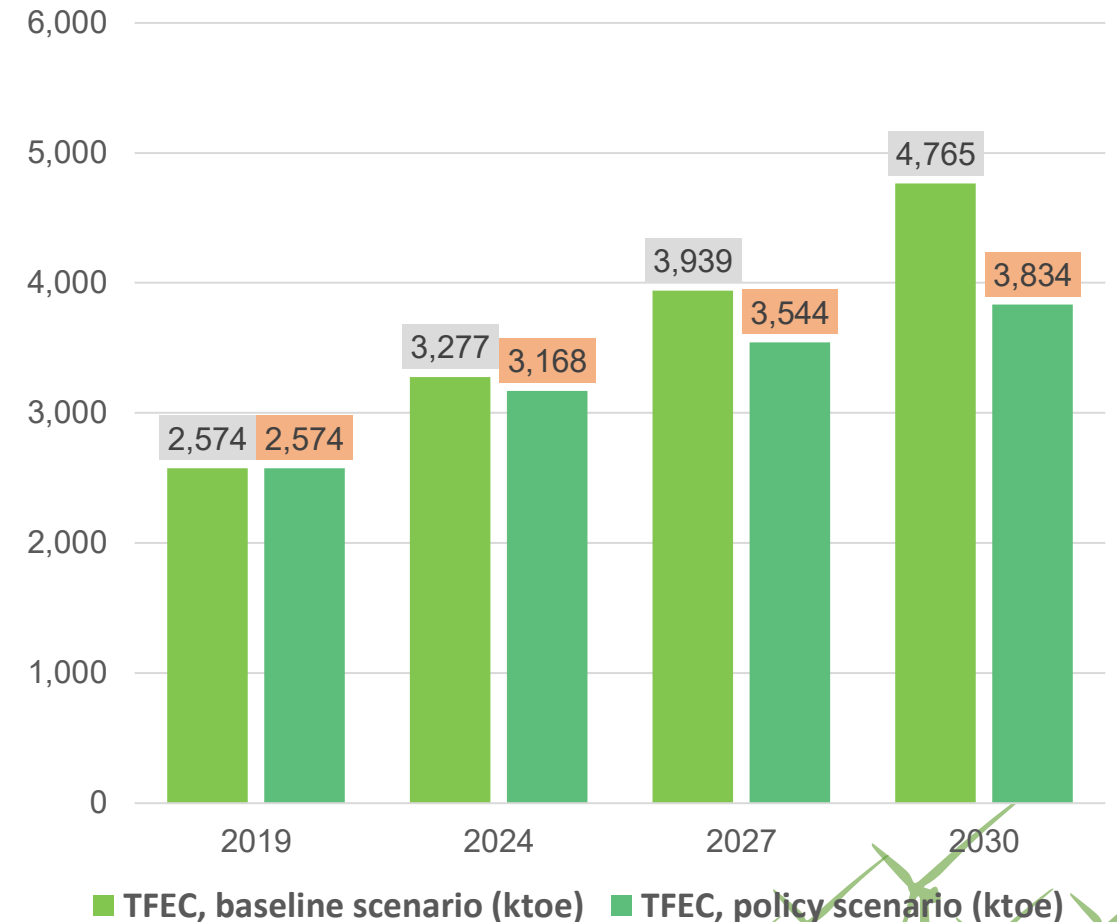
- ❑ **Based on** the provisions of the Strategic Program for the Development of the Energy Sector of the Republic of Armenia (until 2040)
- ❑ **Defines** the directions, goals, and targets of the policies pursued in energy-saving and renewable energy sectors for 2022-2030, determining the main actions to ensure the set targets.
- ❑ **Aims at** improving energy efficiency, promoting energy savings, increasing the use of renewable energy sources
- ❑ **Will be implemented** through Action Plan for 2022-2024; Action Plan for 2025-2027; Action Plan for 2028-2030

Main Targets of the Program

Total primary energy supply (TPES)



Total final energy consumption (TFEC)



Low carbon development context



Increased use of renewable energy will improve the share of low-carbon energy in electricity generation to meet the domestic demand: 75% in 2030 compared to 72% in 2019



To meet the domestic demand greenhouse gas emissions from energy production will be reduced at an incomparably higher rate -by more than 60% by 2030 compared to 1990.



Low-carbon energy share in the total electricity generation structure will be decreased given the assumption on exported natural gas-based electricity volume growth: 51% in 2030 compared to 60% in 2019



By 2030, total GHG emissions in the energy sector will be reduced by 50% compared to 1990.



Implementation of the Program

Renewable energy

❑ New generation using renewable energy sources (solar, wind)

Increase the share of solar energy production to at least 15% by 2030. For this purpose, it is necessary

- To build about 1000 MW of solar plants, including autonomous ones.
- Construction of small and utility scale Wind Power Plants with capacity of up to 500 MW, if competitive tariff offers exist.

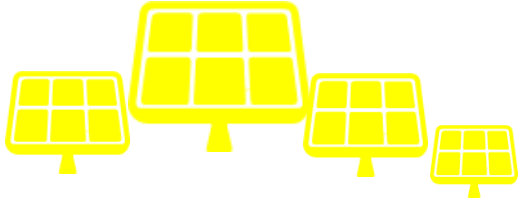
❑ Establishing basis for development and installment of battery energy storage systems:

- A large solar power plant together with a battery energy storage system in the same location;
- Separate battery energy storage systems

Installment of battery energy storage systems of 300 MW (1200 MWh) capacity during projected period.



Renewable portfolio



Residential rooftop

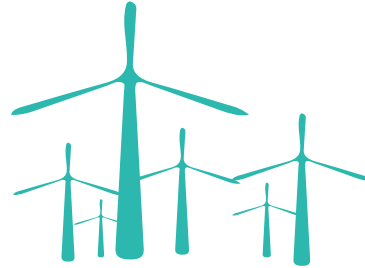
11514 systems / 213 megawatts

Commercial/ Institutional

60 systems / 205 megawatts

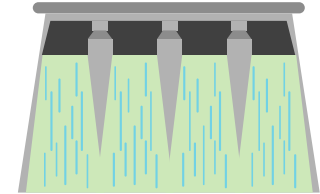
Community solar

1 system / 500 kilowatts



Wind PP

4 systems / 4,2 megawatts



Small HPP's

189 systems / 390 megawatts



Implementation of the Program

Energy efficiency and energy saving

The program emphasizes the following three areas/sectors, **1. Households, 2. Transport, 3. Public schools**, which together account for most of the total final energy consumption. In addition, specific reference is made to industry and agriculture.

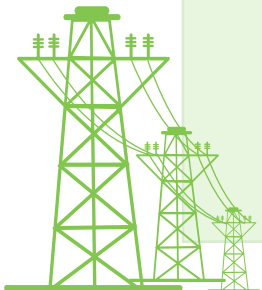
The energy-saving and energy efficiency improvement policy will be aimed at increasing the level of "**electrification**" (replacing gas with electric energy) in the economy (in particular, in the residential buildings sector). Such a policy will contribute to scaling up the use of low-carbon energy, thereby reducing the negative impact on the environment.

In this direction, the RA Government intends to apply the following tools:

- **Measures for the operation of battery energy storage systems,**
- **Changes in customs regulations, promoting the use of electricity-powered equipment,**
- **Direct state support projects**

Additional steps will be taken to harmonize tariff policies for natural gas and electricity, making market-pricing mechanisms as applicable as possible.

During the program period, the RA Government intends to issue "green" bonds, the proceeds of which will be used exclusively to improve energy efficiency and energy saving.





CEPA Implementation

Based on **Comprehensive and Enhanced Partnership Agreement (CEPA)** signed between the European Union and the Republic of Armenia, **Armenia is obliged to adapt 65 directives and regulations** (buildings and facilities, energy consuming equipment and means of transport) to the RA legislation in the nearest period which are aimed on **promotion of energy efficiency** thereby enhancing the state policy in terms of **energy saving and energy efficiency development**.

Bringing **EU directives and regulations** into compliance will result in **harmonization of the RA energy sector regulations with the European standards** which will make the investment environment of the energy sector more attractive. **New incentives** will be introduced for the use of **renewable energy sources**. **New criteria for energy efficiency** including energy labelling and eco design shall be determined.

Under approximation 2012/27/EU, 2010/31/EU, 2009/28/EU, 2019/125/EU Directives



SUMMARY

Sustainable and smart energy is one of the most important conditions for dynamic development of the economy aimed at improving human lives and their living standards. Hence, until 2030 the RA power system will have the following description:

- **Cost-effective and rational use of renewable energy** sources in compliance with all **environmental standards**. Ensuring the highest possible increase of the **renewable energy share** in the country's energy balance - at least **15% of solar energy in 2030**.
- Extensive conducting of **energy efficiency** measures, implementation of energy efficient technologies in the **transition to a green and science-based economy**.



**For Questions or Comments, Please
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