

**Energy week - 2018
Yerevan, Armenia**

**SUSTAINABLE ENERGY SCENARIOS FOR ARMENIA,
INCLUDING 100% RE USE BY 2050**

Strengthening civil society to advocate for sustainable
energy transition Project

Authors: Artashes Sargsyan (NGO EcoTeam, A. Alikhanyan National Laboratory, Armenia),
Gunnar Olesen (INFORSE-Europe Secretariat, Denmark),

“EcoTeam” Energy and Environmental consulting NGO, Armenia

Project duration: 2016 - 2017

Project ASET was implemented by several NGOs from Denmark (OVE, INFORSE), Belarus (NGO Centre for Environmental Solutions), Macedonia (Eco-Swest), Serbia (NGO SEKOR), Ukraine (NGO Renewable Energy Agency), Armenia (NGO EcoTeam).

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RESULTS OF THE PROJECT

- Assessment of renewable energy resources potential and level of introduction in Armenia (2017 update in english) is prepared and printed
- Recommendations on renewable energy development are prepared
- 2 Seminars on sustainable energy were organized in Yerevan with participation of local NGOs and small businesses at one of which Gunnar Olesen presented version scenario “100% Renewable energy use in Armenia by 2050”
- Scenarios of renewable energy development were prepared with help of INFORSE
- Scenarios are translated into Armenian and put on EcoTeam WEB site

Table 1 GoA planning of introduction of new renewable capacities in 2025 and 2036 according to “Long-term (up to 2036) development pathways for RA energy sector [2]”

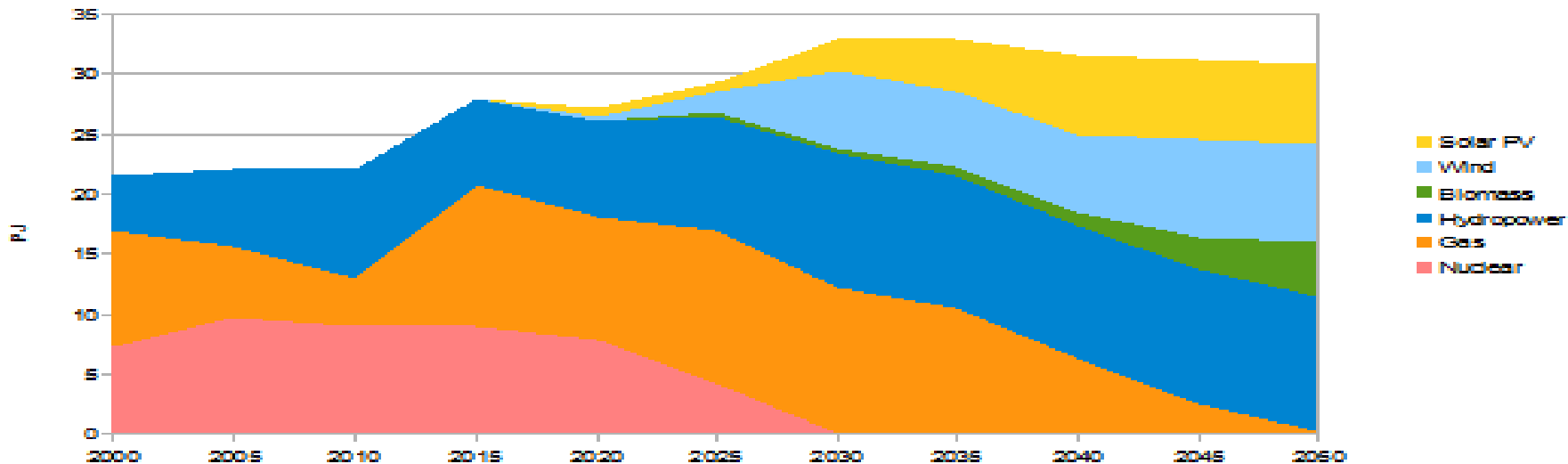
Type of renewables	2015	2025 ²	2036 ²
	Capacity (MW)	Cumulative Capacity (MW)	Cumulative Capacity (MW)
Solar (grid connected)	< 0.200	40	70
Wind	2.64	-	200
Geothermal	0	30	30
Small hydro	313	402	402
Large& Medium HPPs	960	1093	1223

GoA new approaches on PV

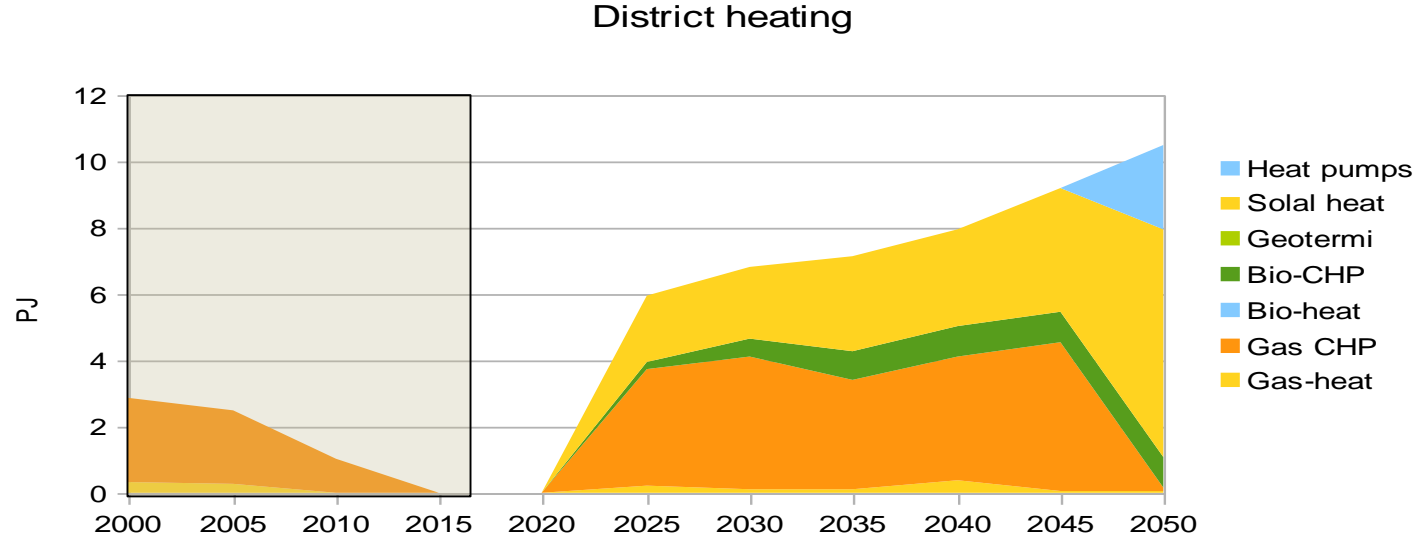
- In the end of 2016 GoA adopted new approaches to stimulate solar PV development and in its decision it proposed to consider to construct PV stations in Armenia with total capacity up to 110 MW. This new approach takes into account 80% reduction of prices on solar PV panels from 2011 to 2015 years. Feed-in-tariff on solar photovoltaic in the amount of 23.8AMD/kWh (VAT excluded) was introduced in 2018 for PV stations with capacity up to 5 MW.

Electricity shall come from many sources

Electricity production

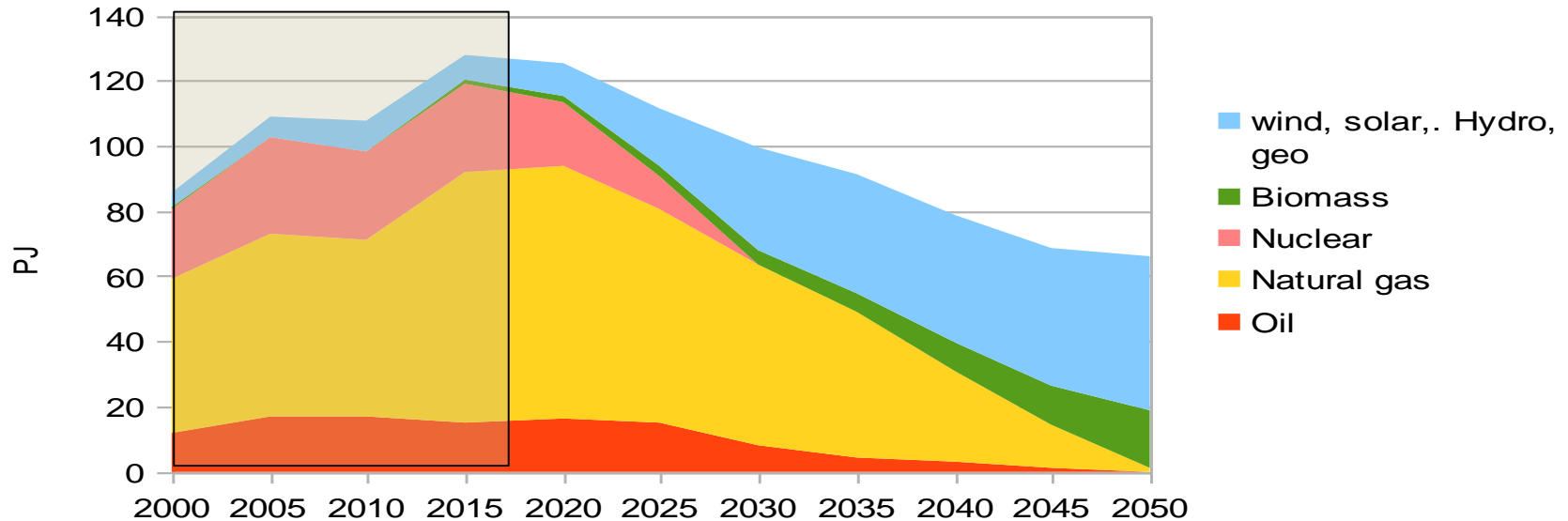


District heating once again



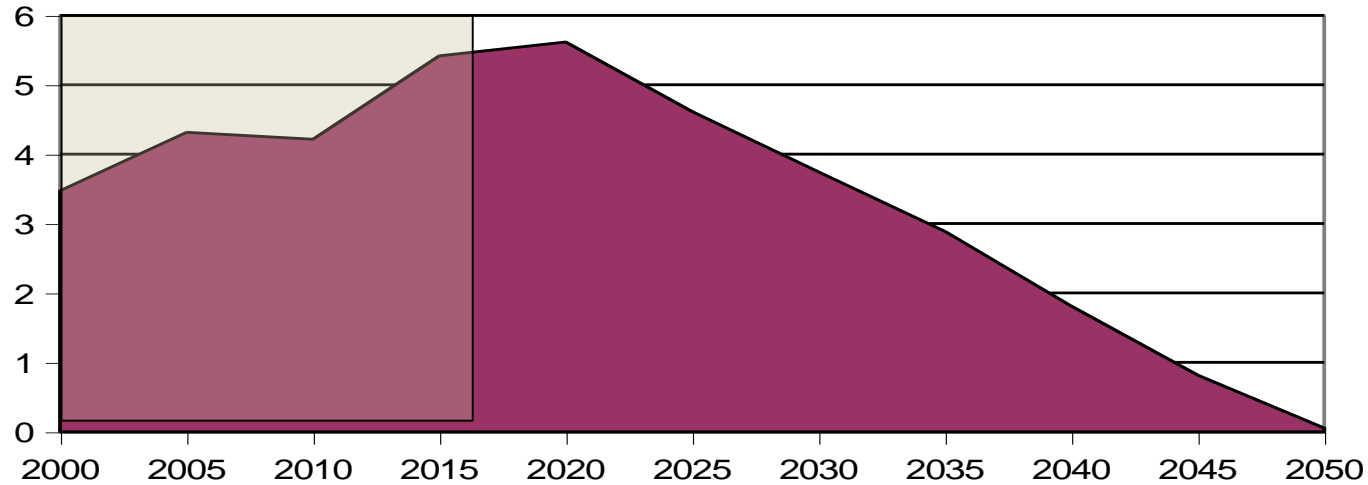
All energy can be renewable in Armenia in 2050

Total primary energy demand



Reduce CO₂

**CO₂ emissions from energy consumption,
million tons CO₂/år**



FINDINGS and RECOMMENDATIONS

1. Armenia should strengthen its relations with EU through Energy Union framework to improve its energy sector
2. Corruption risks should be minimized to open the national energy market for investors and allow open and fair competition among them.
3. It seems reasonable to re-evaluate renewable energy potential in Armenia regarding biogas and biomass use.
4. It is necessary to restore district heating in Armenia
5. We would now suggest 120 MW PV station to be constructed instead of planned 40 MW PV station by 2025.

FINDINGS and RECOMMENDATIONS

6. It is desirable to utilize software programs to implement energy forecasts that don't require so many input data as previous and are free.
7. Better tariffs policy regulation will stimulate introduction of market oriented energy saving appliances.
8. Introduction of energy forests in large scales
9. To be competitive on regional energy market Armenia should reduce its technical and commercial losses within electricity distribution companies from current 11-13% to at least two times less i.e. close to figures in European electricity distribution companies.

Thank you

Presented by Artashes Sargsyan, PhD
Chairman of NGO EcoTeam
Email: artashes.sargsyan@gmail.com