



UKRAINE:

RENEWABLE ENERGY DEVELOPMENT

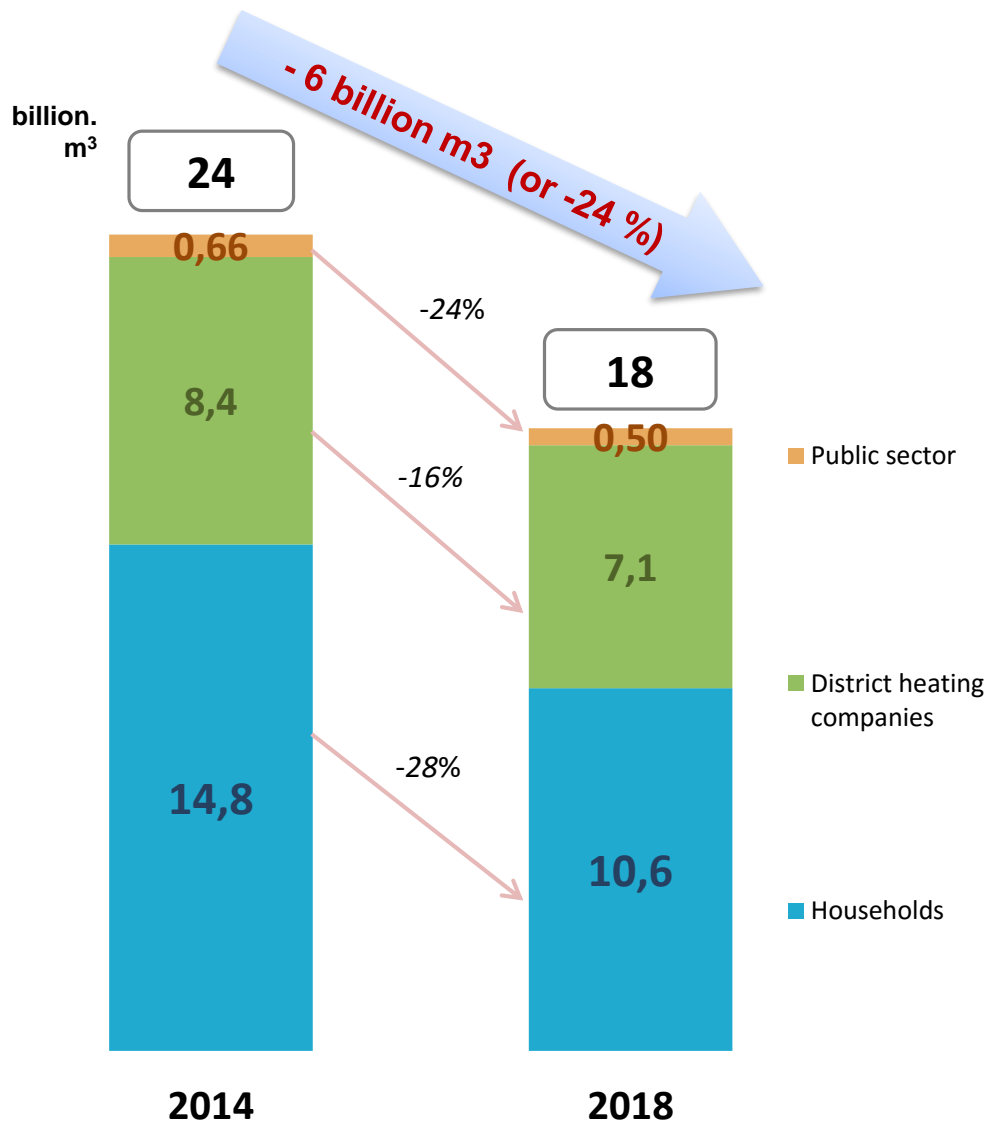
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**State Agency on Energy Efficiency
and Energy Saving of Ukraine**



MAIN PRIORITY: NATURAL GAS SAVING

Dynamics of natural gas consumption in 2014-2018*



* according to operational data of NJSC "Naftogaz of Ukraine" and PJSC "Ukrtransgas" (without temporarily occupied territories)

Achievements in 2014 - 2018:

IN RENEWABLE ENERGY:

2 120 MW of new heat capacities

Investments – **500 million €**

1 307 MW of new renewable energy capacities

Investments – **1,2 billion €**, including:

→ **7 450** of families installed SPP with total capacity – **157 MW**

Investments – **151 million €**

Invested in Ukrainian "clean"
energy projects

Σ ≈ 1.7 billion €





National Renewable Energy Action Plan-2020

11% of Renewables in final energy consumption

Energy Strategy of Ukraine till 2035

25% of energy, produced from RES in the structure of primary energy supply

€ 30 bln

Potential directions of investment attraction

Necessary investments by 2035 for:



construction of **renewable energy facilities** (SPP, WPP, small HPP, CHP, biomass boiler station, biogas facilities, etc.)



construction of capacities for production of **equipment for renewable energy facilities**



construction of **biofuel production plants** (solid, liquid)

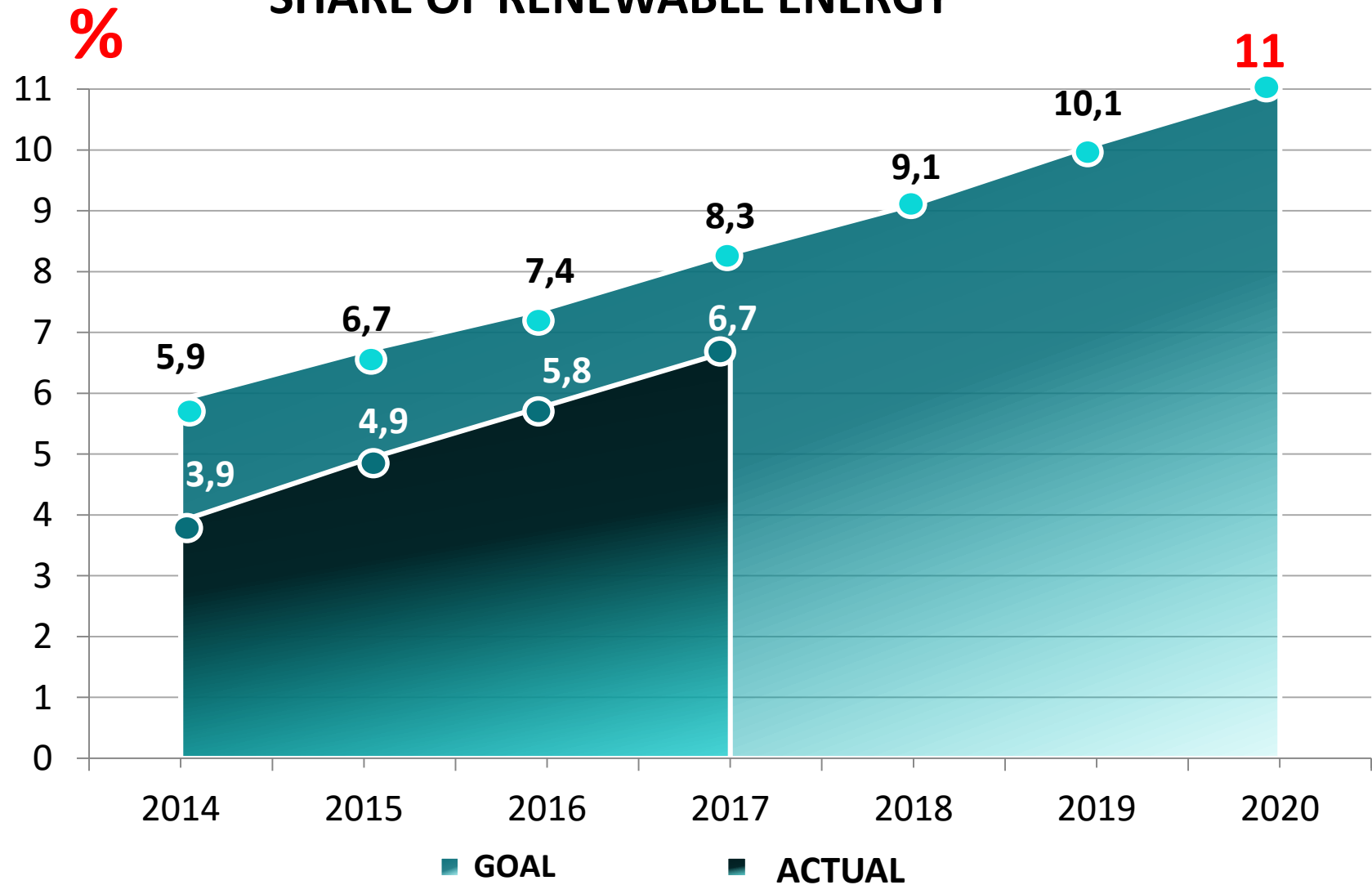
growing of **energy crops**



GOAL NREAP 2020

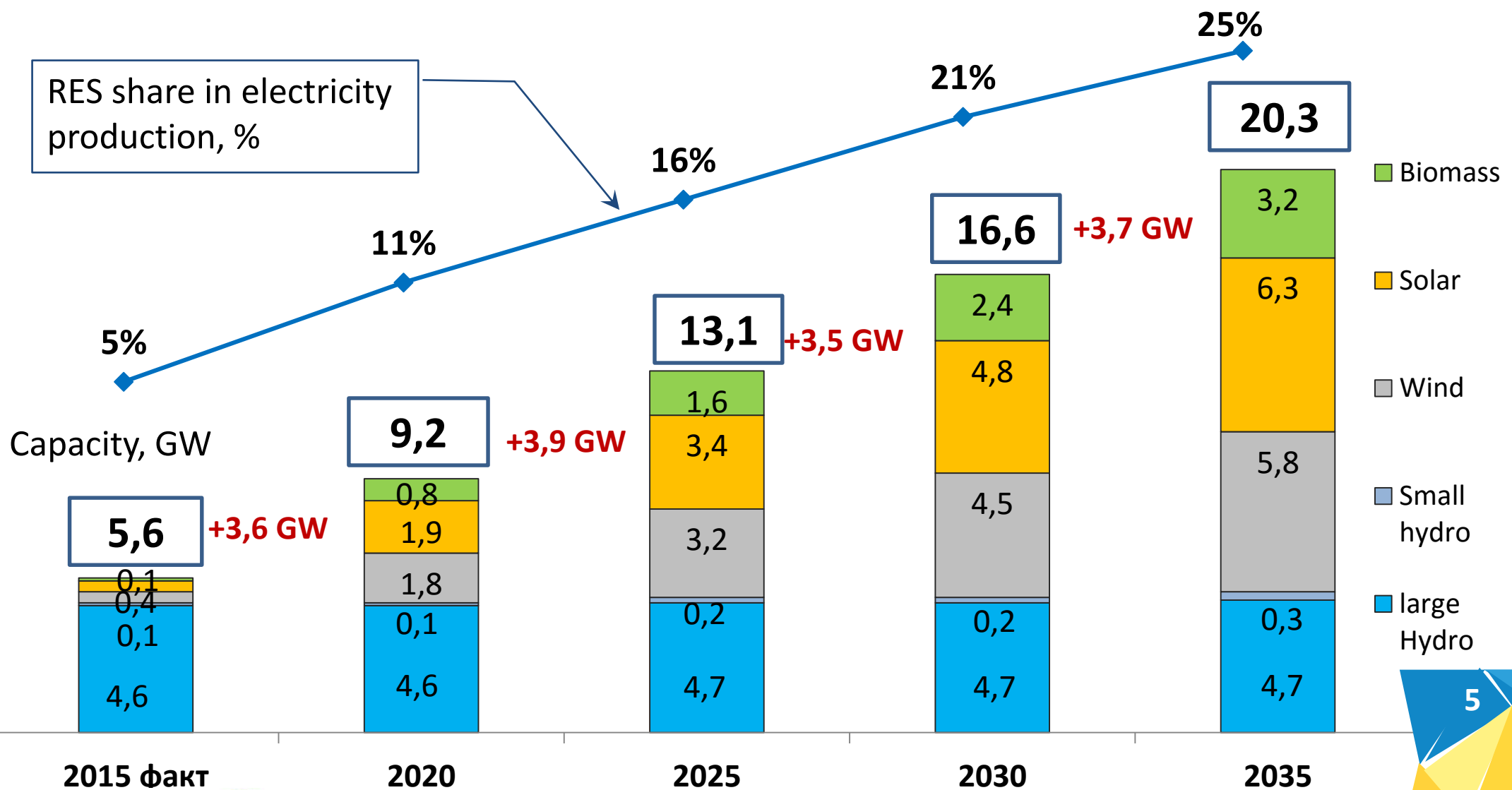


SHARE OF RENEWABLE ENERGY



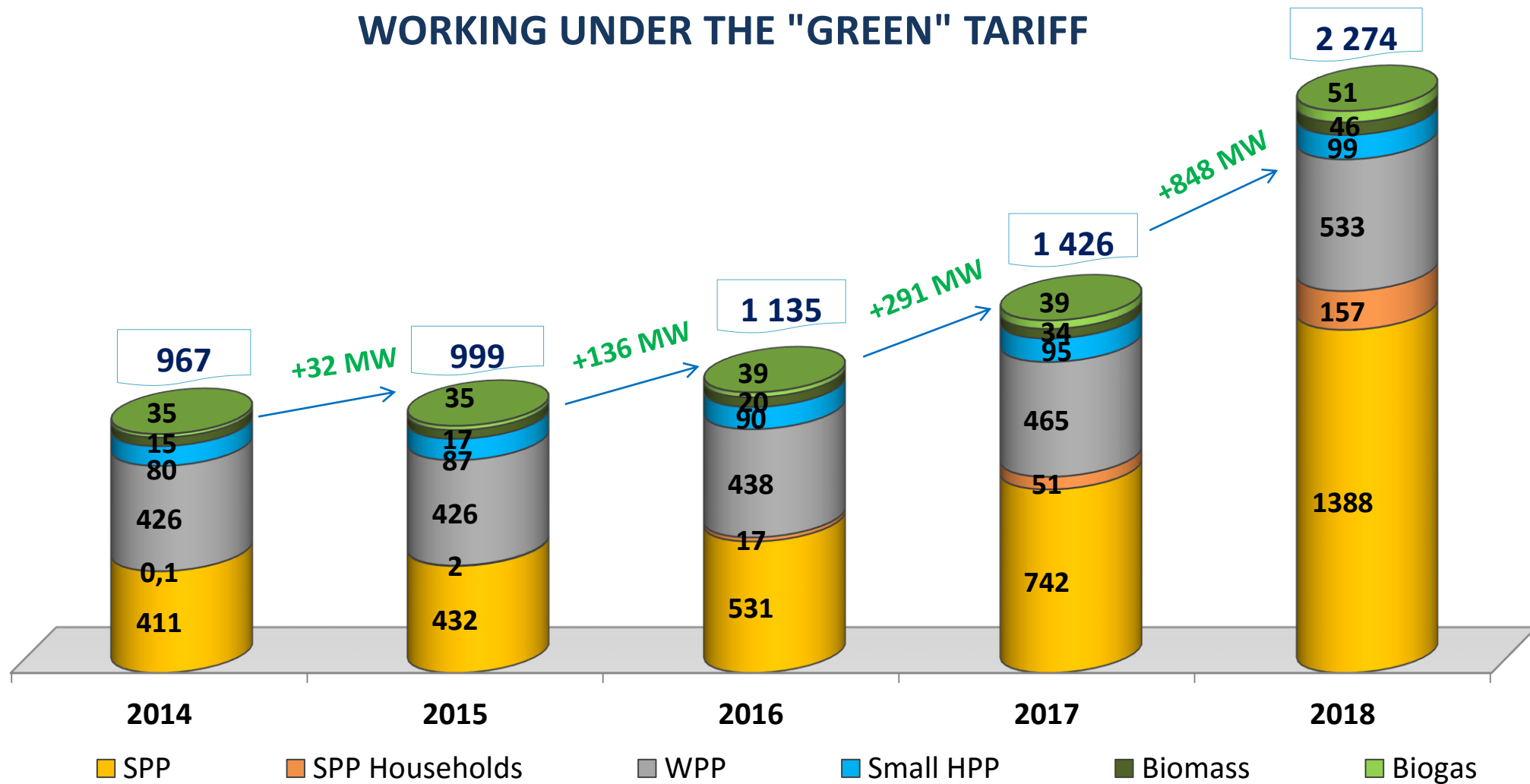
- calculated according to the Directive 2009/28/EU

The development of renewable electricity by 2035





INSTALLED CAPACITY OF RENEWABLE ENERGY OBJECTS WORKING UNDER THE "GREEN" TARIFF



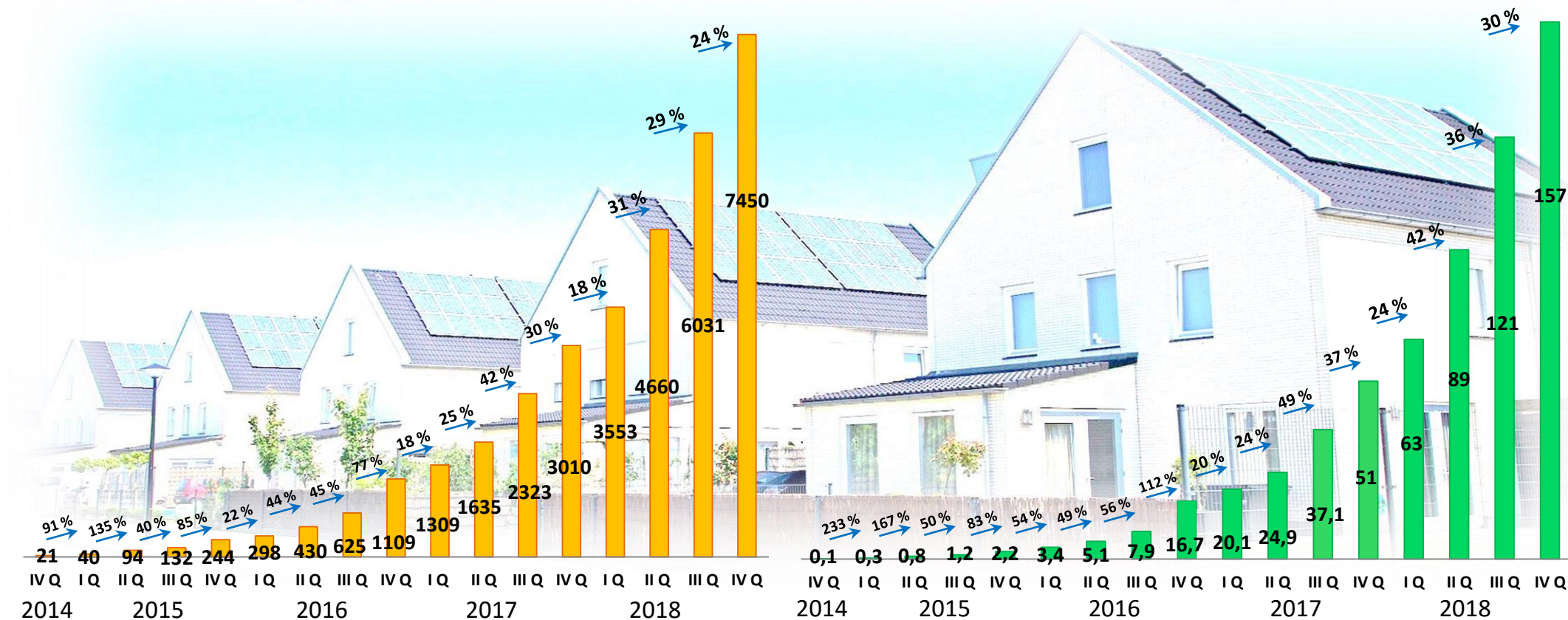
From the beginning of 2015, 1 307 MW were introduced and around € 1,2 bln were invested.



DYNAMICS OF SOLAR INSTALLATIONS IN PRIVATE HOUSES

Number of private households

Installed capacity, MW



Around **151 mln EURO** invested.
The number of private houses eligible
for solar panels installation is 6,5 mln.



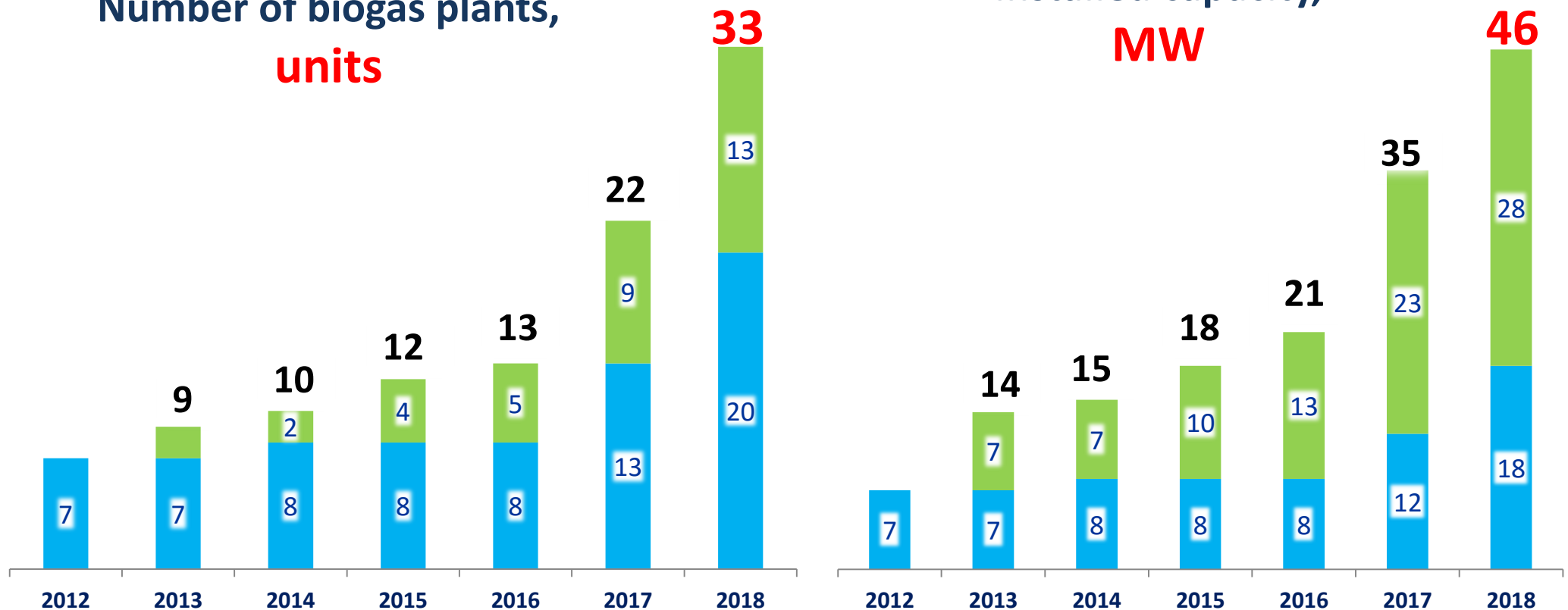


BIOGAS CAPACITY INCREASE IN UKRAINE

(biogas plants operating under the feed-in tariff)

Number of biogas plants,
units

Installed capacity,
MW



Green - biogas from agricultural waste

Blue - biogas from landfills





RENEWABLE AUCTIONS IMPLEMENTATION CONCEPT

(draft law № 8449-d dated 05.12.2018)





WEBINAR with IRENA on the introduction of an auction system to support renewable energy



Date: October 31, 2018

The result: the proposals made by IRENA experts with appropriate practical advice are sent to the Verkhovna Rada Committee on Fuel and Energy Complex for consideration during drafting the Law

On February 24, 2018, Ukraine became a member of the International Renewable Energy Agency (IRENA)





NEW RENEWABLE ENERGY INCENTIVES INTRODUCTION

Conducting pilot
auctions

Revision of the auctions
conducting order

Auctions holding
period

2019

6 mths
since Law
adoption

2020

2030



PPA terms
20 years



Obligatory participation:

- from 2020: SPP ≥ 10 MW; WPP ≥ 20 MW;
- from 2021-2022: SPP ≥ 5 MW; WPP ≥ 20 MW;
- from 2023: all types of RES ≥ 1 MW; WPP ≥ 3 MW.

Other key points:

All types of RES
will participate
in auctions

Electronic Trading
System

PROZORRO

Financial guarantee
15 000 € for 1 MW
**Land and
Specifications for
accession**

Premium for the
use of Ukrainian
equipment **5%** -
10% (current law)

Specifications are valid:
SPP – up to 2 years;
WPP, CHP on biomass,
small HPP – up to 3
years

10/



PROPOSALS FOR OPTIMIZATION «GREEN» TARIFF

	Law in force 2020	Draft law 8449-d			
		2020	2021	2022	2023
SPP	-10%	-25%	-2,5%	-2,5%	-2,5%
WPP	-10%	-10%	-1,5%	-1,5%	-1,5%
Biomass, small hydro, geothermal	-10%	-10% (The proposal is not to reduce the tariff, keep the current level)			
All types of RES (up to 500 kW)	-10%	-10%	weighted average auction tariff * 1,2 (since 2021 but not earlier than conducting a minimum of 2 auctions)		



THANK YOU FOR ATTENTION!