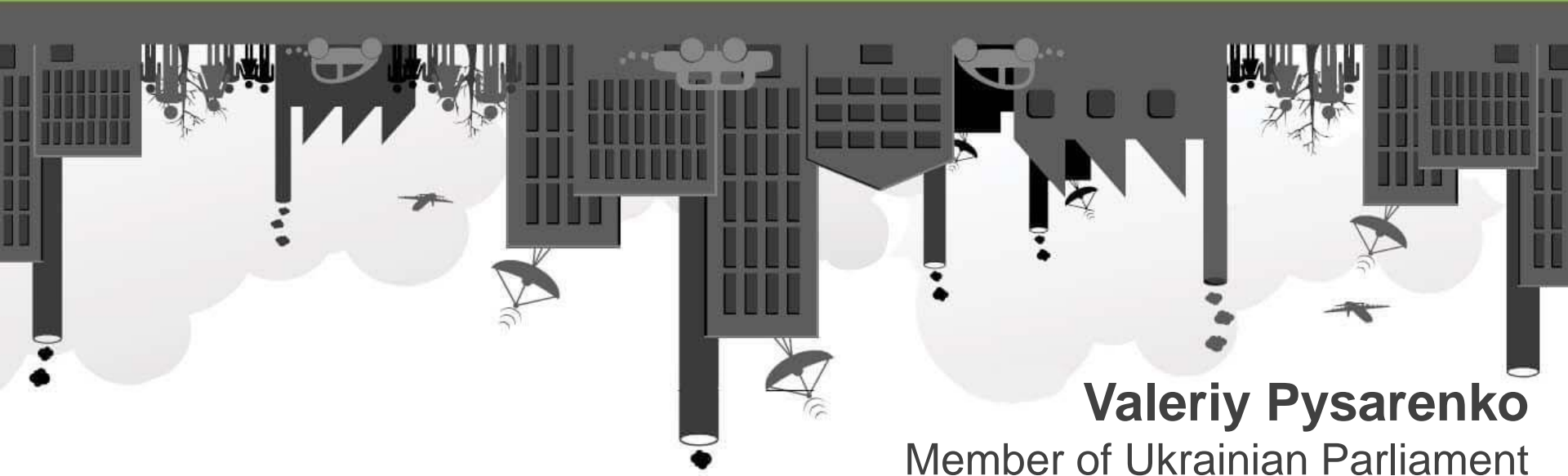


# Ukraine: Greening of the Energy Sector



**Valeriy Pysarenko**  
Member of Ukrainian Parliament  
12 June 2017, Astana, Kazakhstan

# Ukraine Energy Profile: Present and Future

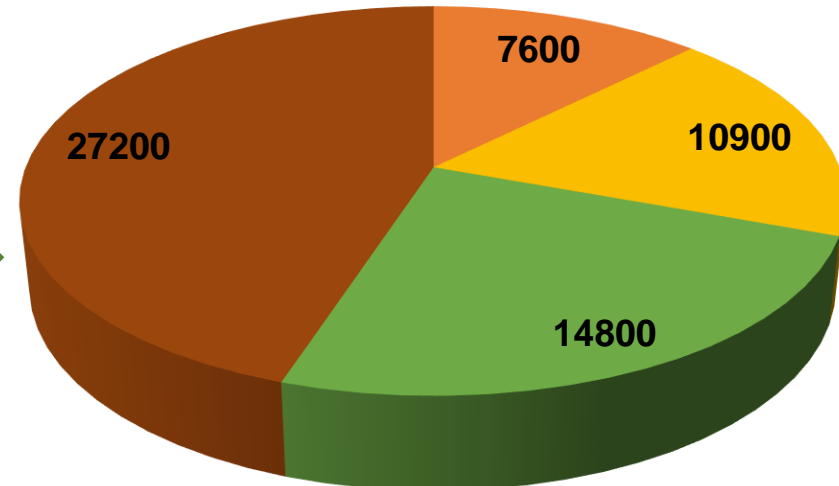
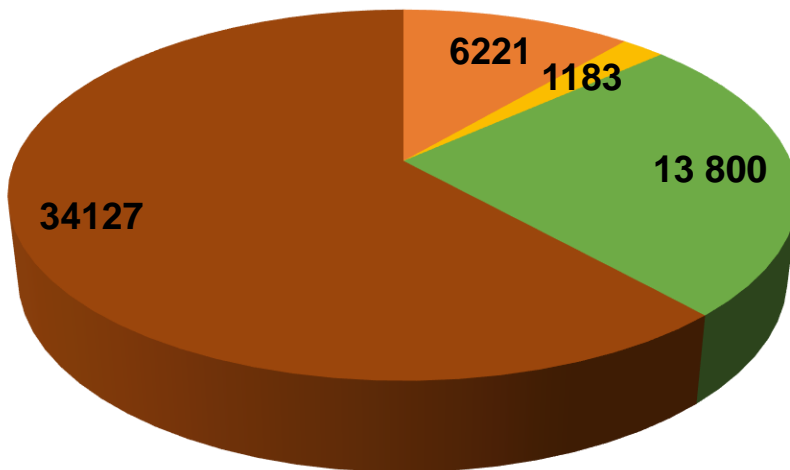
## National action plan for renewable energy 2020

Installed capacity 2017  
MW

Planned installed capacity 2020  
MW

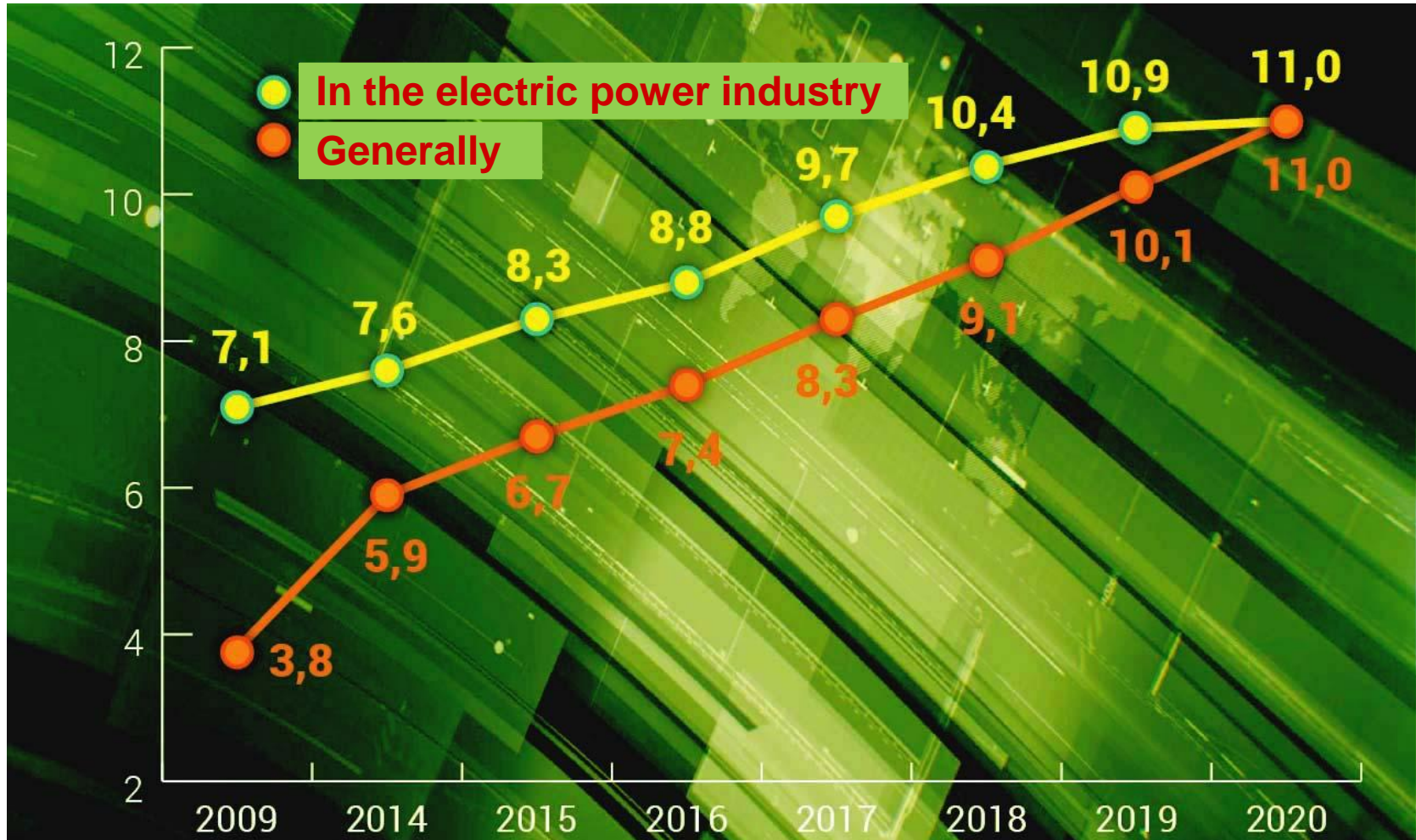


■ Thermal ■ RES ■ Nuclear ■ Hydro



# Ukraine Energy Profile: Present and Future

National indicative target for RES share  
in gross final energy consumption, %



# Ukraine Energy Reform

## 1. Integration of Ukraine to ENTSO-E

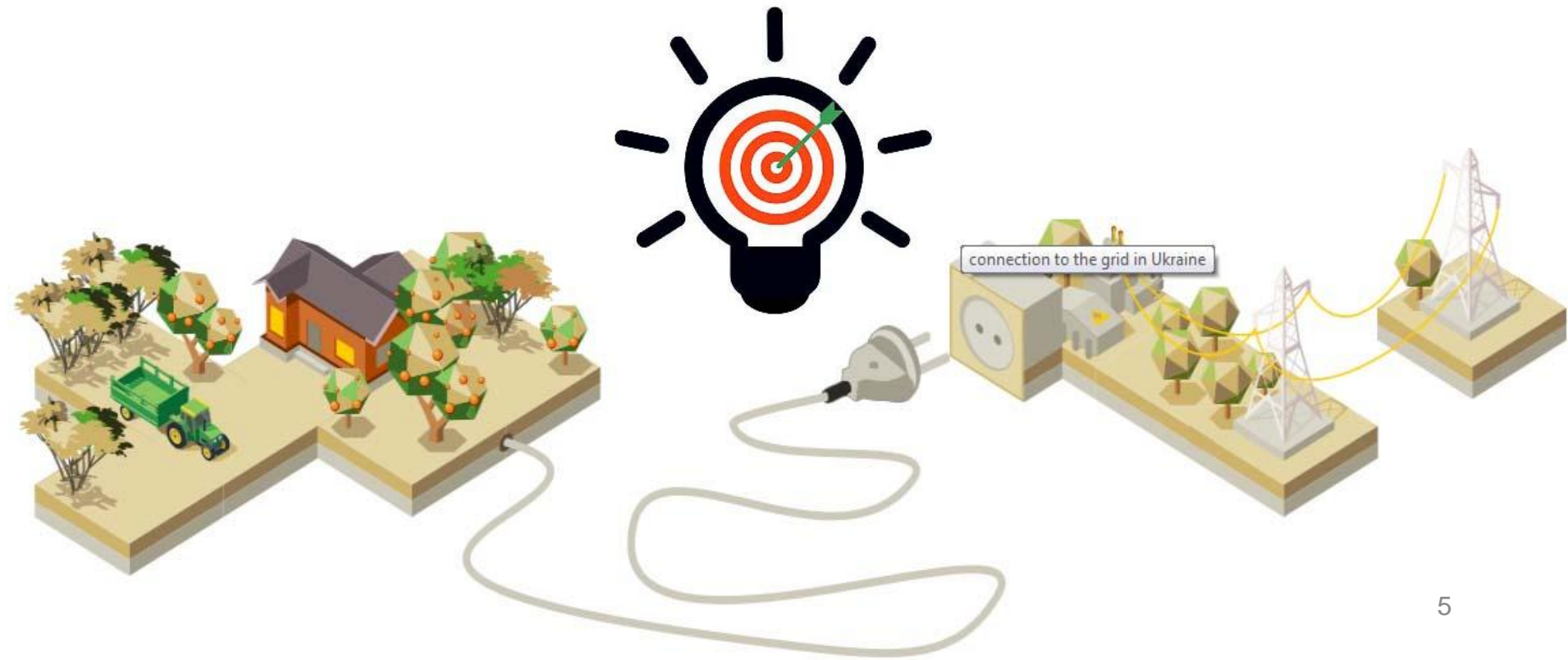
Capacity of electricity export/import from/to the ips of Ukraine



# Ukraine Energy Reform

## 2. New Law "On Electricity Market"

April 13, 2017 Ukrainian Parliament adopted the **Law "On Electricity Market"** that significantly changed the electricity market rules



# Law "On Electricity Market"

## Key features

- ✓ Implements EU Third Energy Package
- ✓ Involves many incentives for investments in generation and networks
- ✓ Provides gradual movement from the current "single buyer" model to the new liberalized electricity market model of Ukraine
- ✓ Prescribes conditions for competition in retail level though unbundling of existing oblenenergос
- ✓ Sets up preconditions for further full synchronization with ENTSO-E

# Law "On Electricity Market"

## Key features

- ✓ The new law absolutely saves all existing rates of "green tariff" till 2030



# New rules of electricity market

Functioning of the new electricity market of Ukraine after transitional period (after 01.07.2020) under the draft Law of Ukraine “On electricity market”



TSO by transmission tariff compensate for Guaranteed Buyer purchase of electricity under the “green tariff”



# Renewable Energy Hard Talk:

first Energiewende Dialogue Ukraine, UNECE and REN 21



December 2016, Kiev

# Ukraine Energy Reform

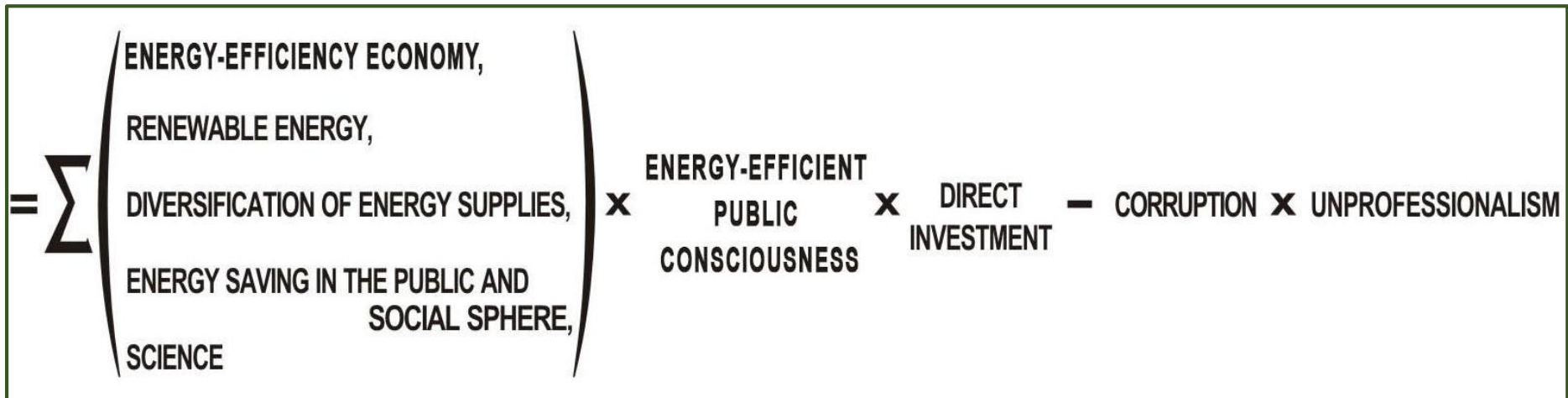


# Ukraine Energy Reform

## 3. Synergies renewable energy and energy efficiency



## Energy Independence of Ukraine

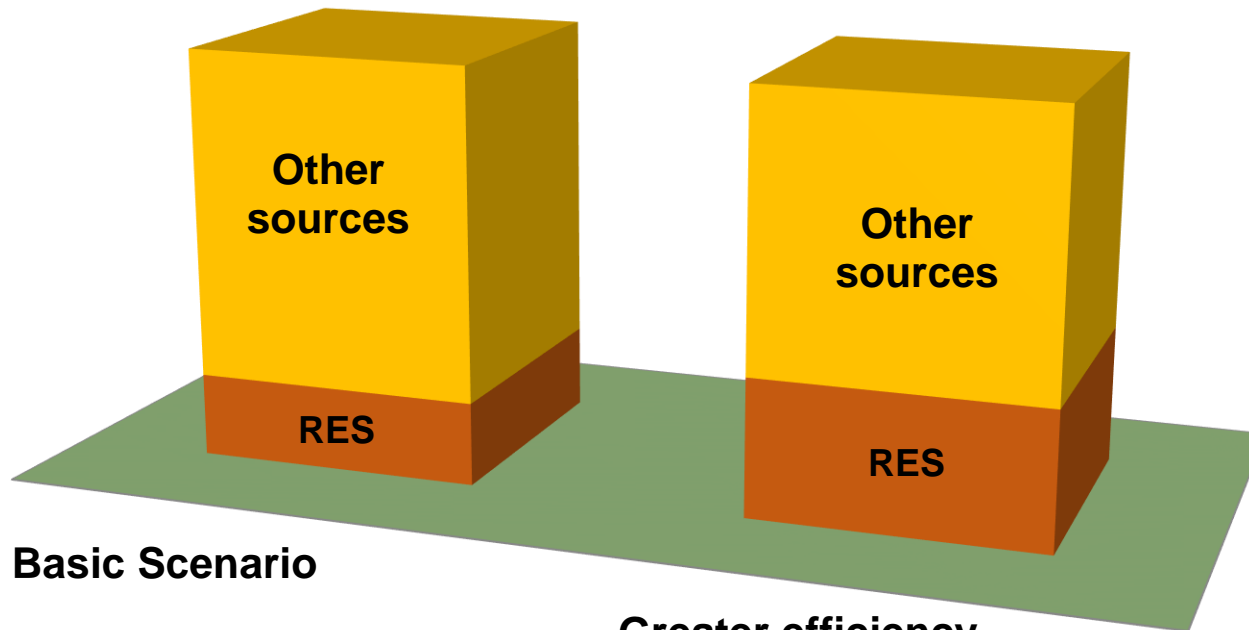


# Ukraine Energy Reform

## Synergy of RES and EE ( example)

■ RES Share

■ Other sources



Basic Scenario

Greater efficiency -  
higher share of  
renewables with same RE  
capacity

# Ukraine Energy Profile: 2017

Ukraine - one of the 10 most energy-intensive economies in the world



# Ukraine Energy Profile: 2017

## Index energy efficiency

WORLD  
ENERGY  
COUNCIL

Energy index

Country profile

Regional profile

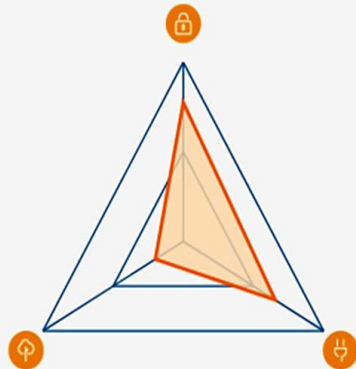
Pathway calculator

Maps

Ukraine

Index Rank **63**

Balance Score **ABD**



Energy Profile

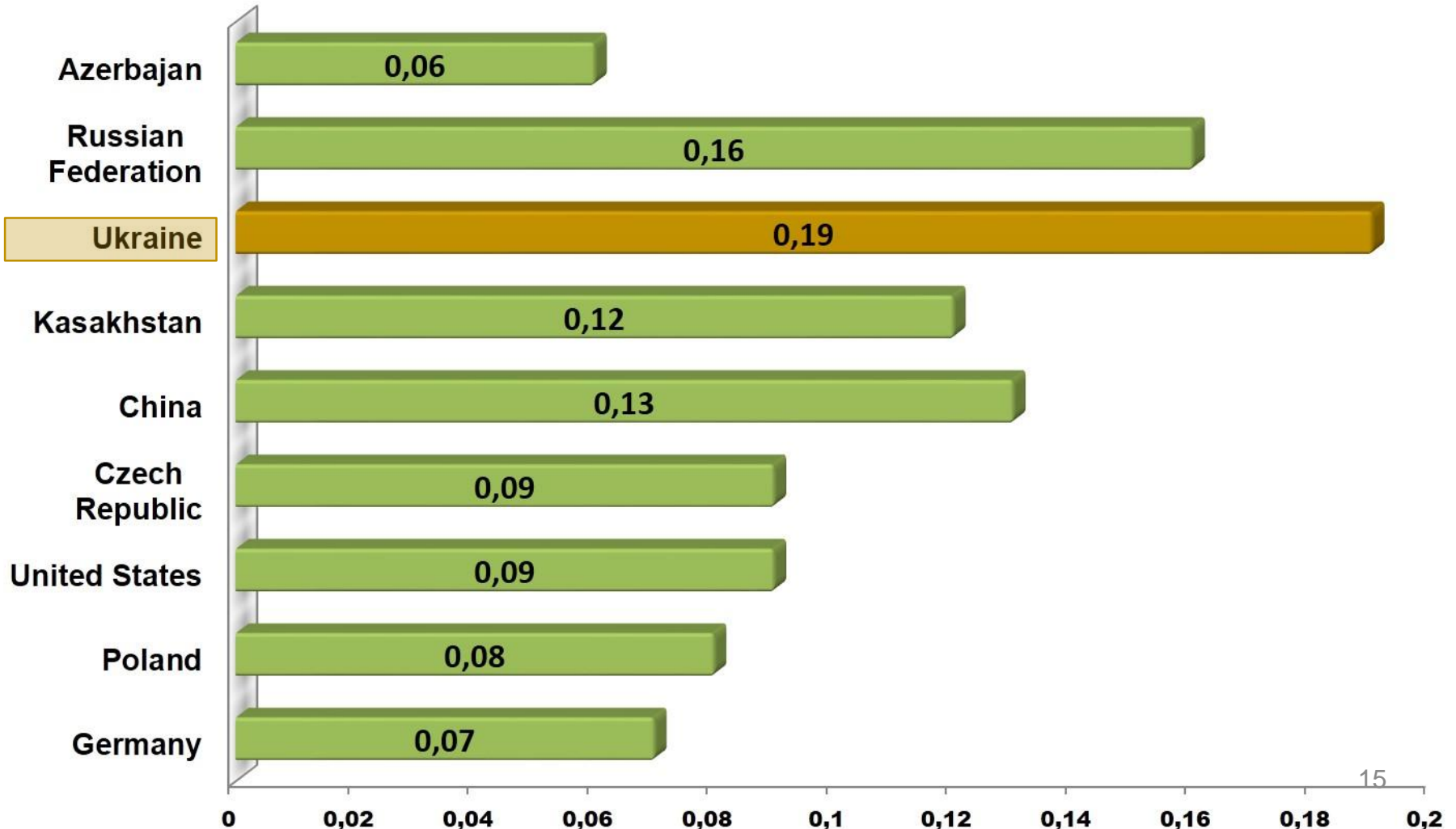
2016

	2014	2015	2016	2016 Trend	2016 Score
Index Rank	65	65	63	▶	ABD
🔒 Energy Security	26	28	28	▶	A
🔒 Energy Equity	59	60	61	▶	B
🔒 Environmental Sustainability	112	111	108	▶	D

# Ukraine Energy Profile: 2017

Index energy efficiency

Energy intensity koe/\$US



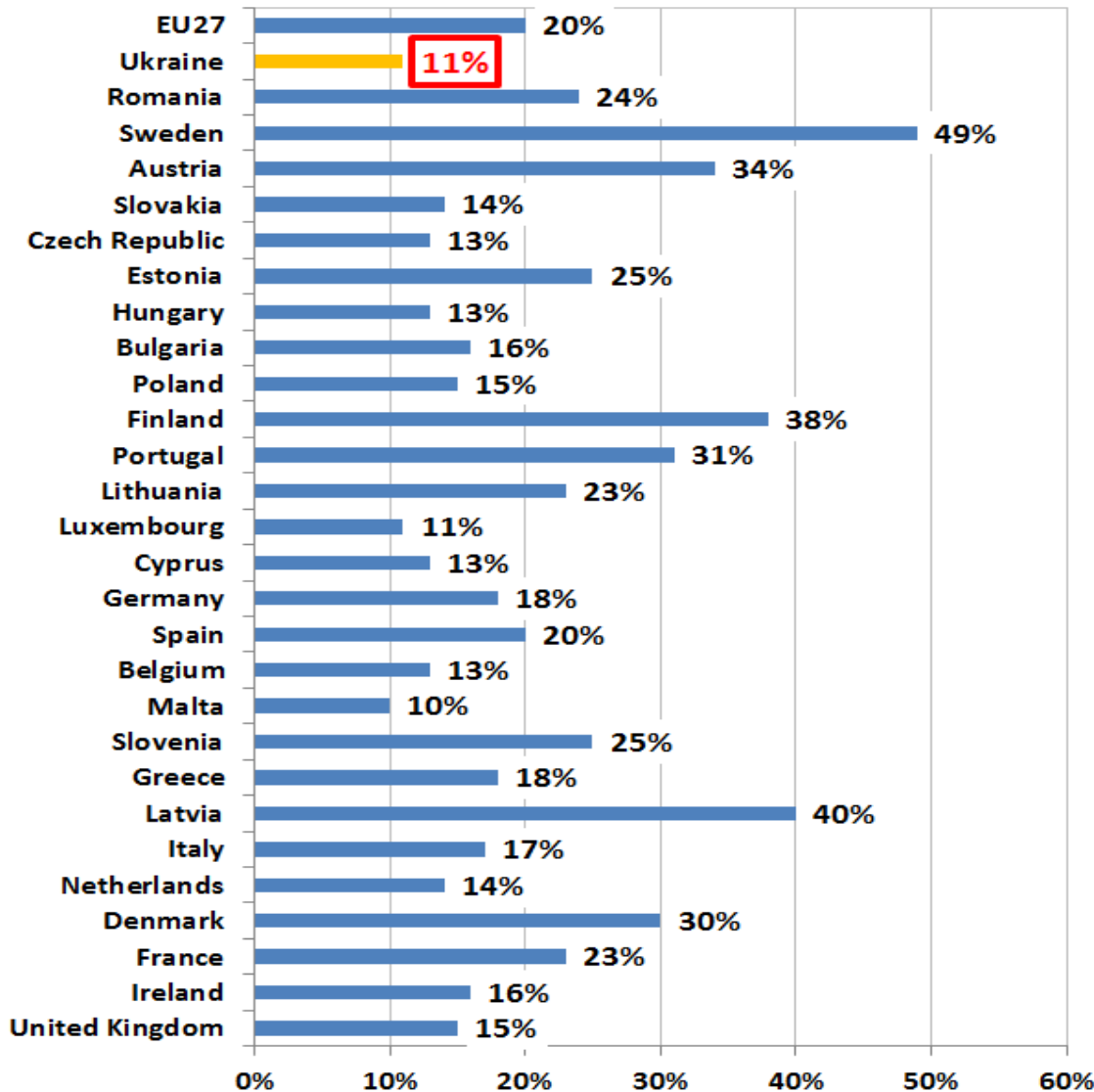
# Ukraine Energy Efficiency Action Plan 2020

Target: savings 9%  
of final consumption till 2020 (6,501,000 toe)



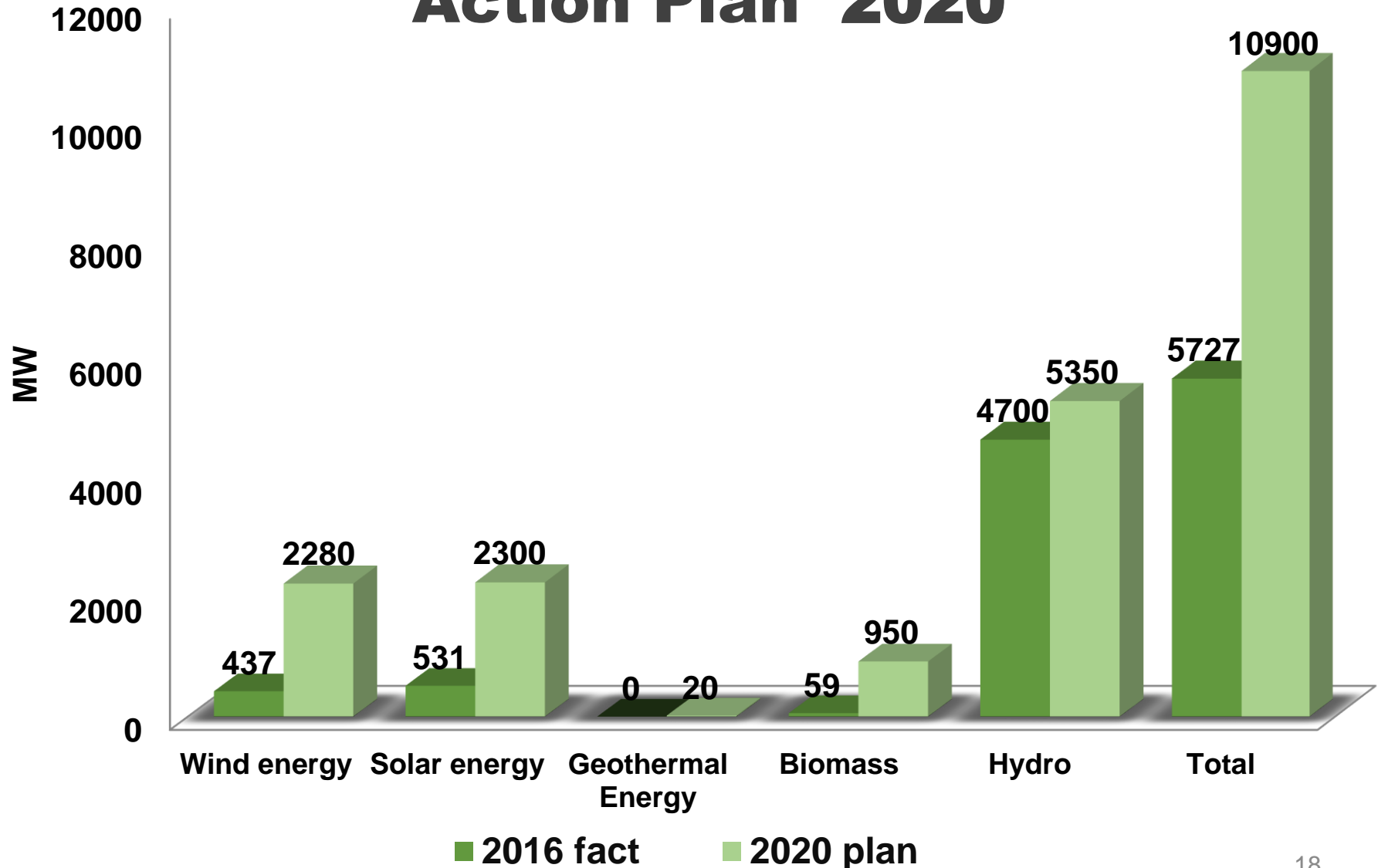


# Targets of the Ukraine Renewable Energy Action Plan 2020



**2020 – 11%**

# Targets of the Ukraine Renewable Energy Action Plan 2020

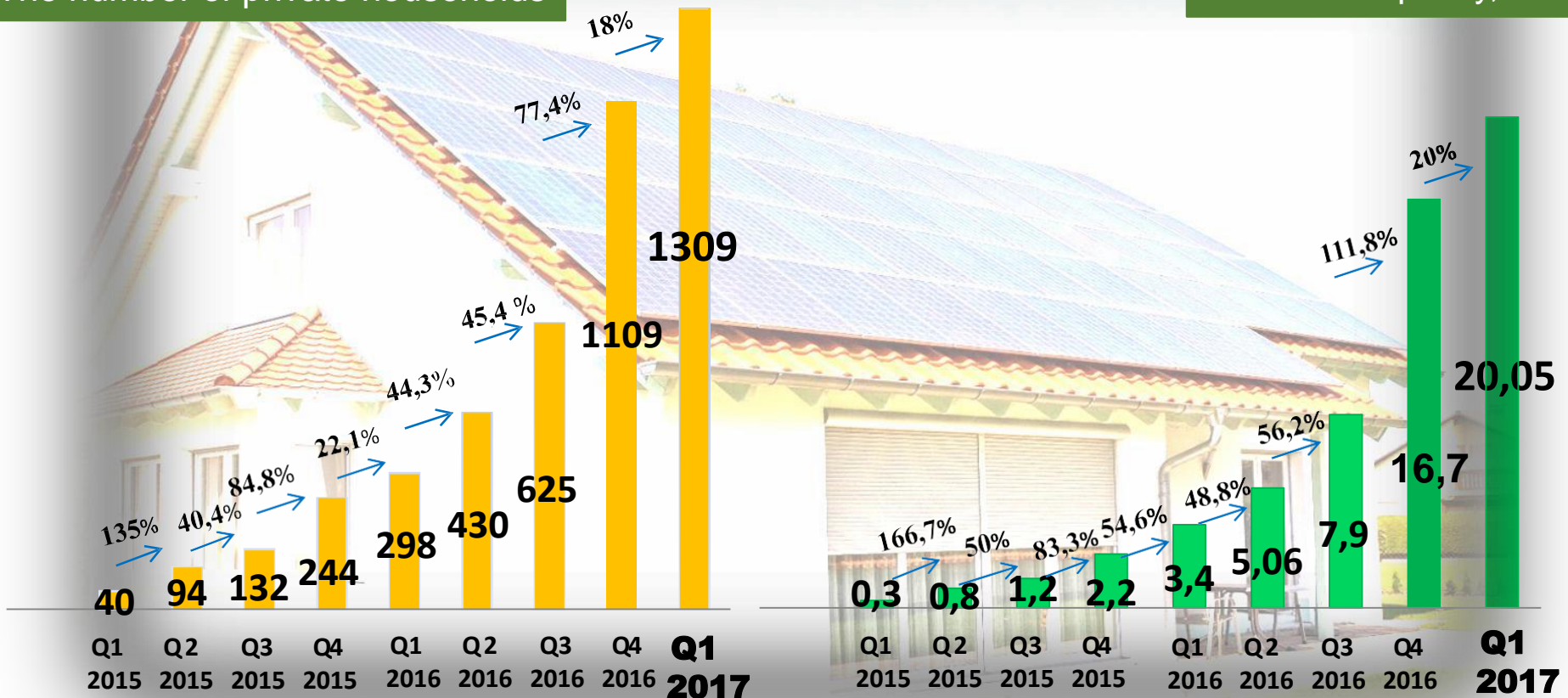


# Ukraine Renewable Energy Action Plan 2020

## Solar electrical installations by private households

The number of private households

Installed Capacity, MW



Today in Ukraine about 1309 households have solar stations 19

# Ukraine Energy Profile: 2017

## The Botievo Wind Farm



The area swept by the blades of one turbine is 1 ha, which is approximately equal to the area of football pitch

# Ukraine Energy Profile: 2017

Chernobyl



# Ukraine Renewable Energy Action Plan 2020

## Targets

	2016	2020
Power sector	7 977 MW	10 900 MW
	18 726 GWh	26 000 GWh
Heating and cooling	3 576 thsd. toe	5 825 thsd. toe
	35 760 thsd. Gkal	58 500 thsd. Gkal
Transport	298 thsd. toe	505 thsd. toe

### Investments will be made to the following:

- Construction of cogeneration plants in Ukraine
- Construction of waste recycling plants
- Construction of wind power plants farms and solar power plants
- Construction of geothermal power plants
- Construction of small hydropower plants
- Construction of bioethanol producing plants

The total amount of  
required investments  
**16 billion Euro**

# **Thank you for attention!**

**Valeriy Pysarenko**  
Member of Ukrainian Parliament  
**12 June 2017**  
**Astana, Kazakhstan**

