

CHORNOBYL 35



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**State Agency of Ukraine on
Exclusion Zone management**

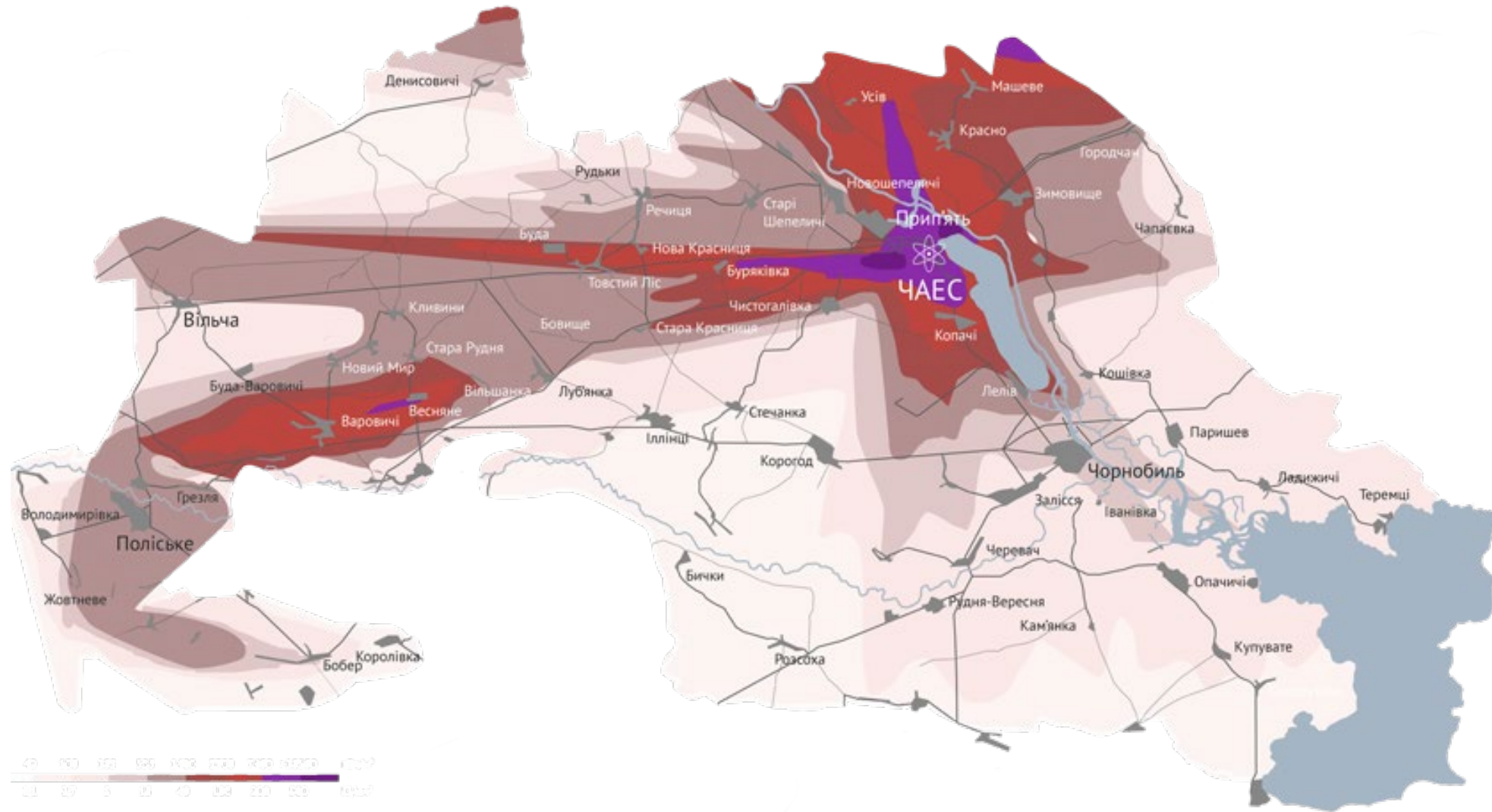
**Ukraine
NOW**



CONTAMINATION OF EXCLUSION ZONE 2600 sq.km (1,000 sq mi)



Contamination of Exclusion Zone



Contamination of the Exclusion Zone by Cesium-137 (for 1996)





Outcome of Chornobyl disaster in numbers:

- **5 million people were affected**
- **5,000 settlements are located in the contaminated areas**
- **Territory of 2600 square km contaminated with transuranic elements**
- **96 neighborhoods evacuated for ever**
- **163 000 people resettled in obligatory order**
- **488 963 liquidators engaged in the process of liquidation of disaster consequences**
- **Direct losses estimated for the period 1986-1989, amounted to approximately 12.6 billion US dollars.**
- **total economic losses for Ukraine amounted to at least 180 billion US dollars**



Sweden, Austria, Norway, Germany, Finland, Greece, Romania, Slovenia, Switzerland have been significantly polluted as a result of the Chornobyl disaster.

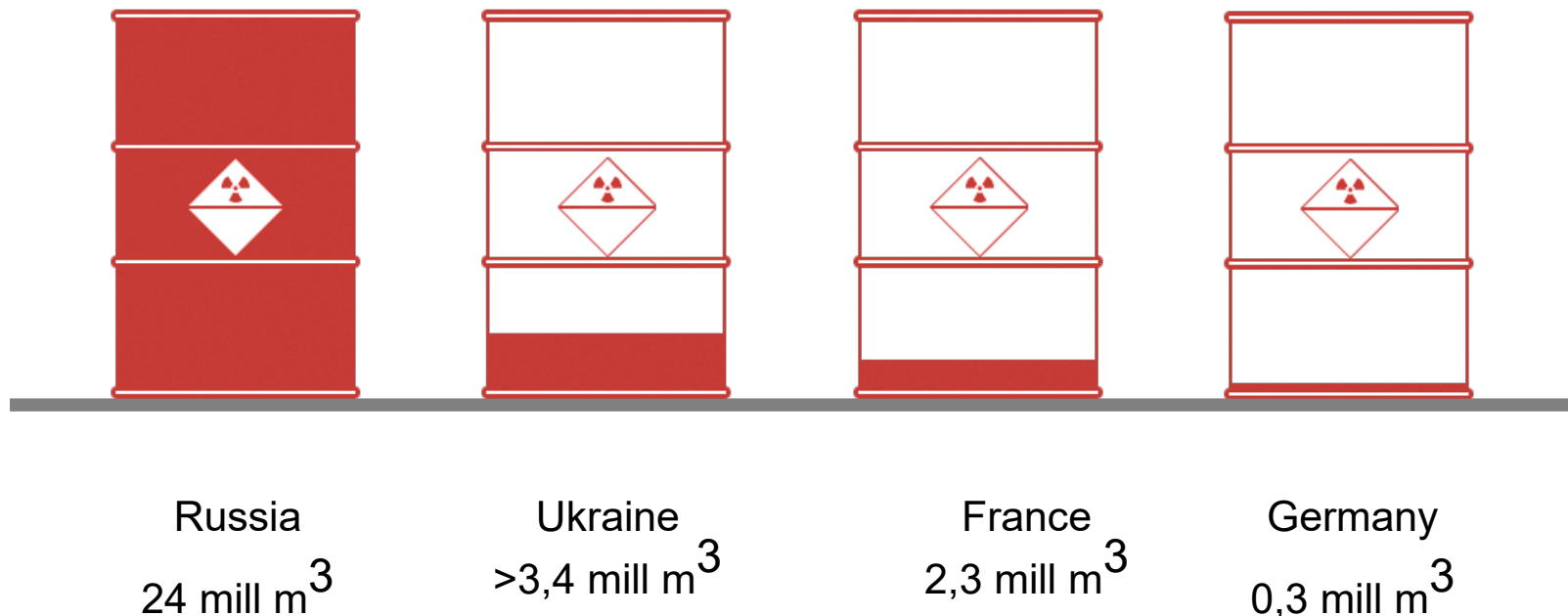


State Agency of Ukraine on
Exclusion Zone Management



STATE POLICY IN THE SPHERE OF RW MANAGEMENT

By volume of radioactive waste (RW)
Ukraine has the second place in Europe
and on the 4th in the world (3.5 million m³):



*The State puts
an important
role on the
Agency in
long-term
storage of*

CHORNOBYL TODAY



State enterprises and organizations in the sphere of SAUEZM management



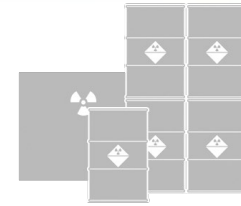
- SSE “Chornobyl NPP”
- SSE “Ecocentre”
- SSE “CERWM”
- SSE “Association Radon”
- SSE “Odesa SISC”
- SSE “Dnipropetrovsk SISC”
- SSE “Kyiv SISC”
- SSE “Lviv SISC”
- SSE “Kharkiv SISC”
- SE STC DCRWM
- SSE “MCCEZ”
- Chornobyl Radiation and Ecology Biosphere Reserve
- Scientific Center for Cultural Heritage
- Chornobyl Center for Nuclear and Radiation Safety Problems
- SE “COTIS”
- SSE “Pivnichna Pushcha”
- Ukrainian Radiation Training Center

10 Enterprises more than 6000 workers

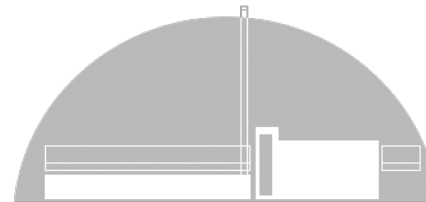
State Agency on Exclusion Zone Management responsible for strategic directions



**Realization of the
state policy in the
area of management
of the exclusion zone
and the zone of
unconditional
(mandatory)
resettlement**



**Implementation of
state management in
the field of
radioactive waste
management at the
stage of their long-
term storage and
disposal**



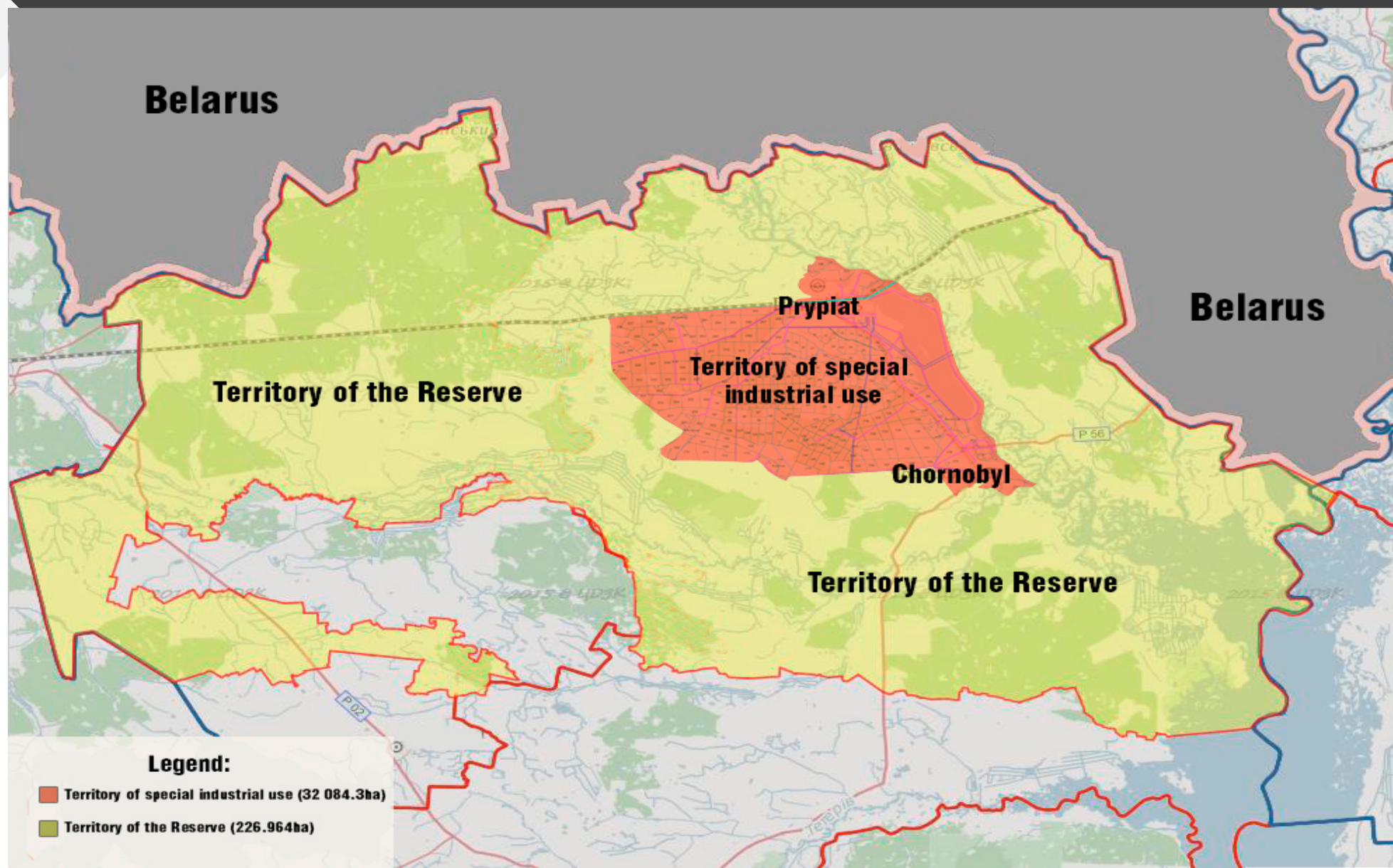
**Decommissioning of
Chornobyl NPP and
transforming Shelter Object
into ecologically safe
system**



**Overcoming the
consequences of the
Chornobyl accident**



The territory of exclusion zone



ABOUT THE EXCLUSION ZONE

Exclusion Zone is divided into two main parts:



10 km

Territory of special industrial use



30 km

Chornobyl Radiation and Ecological Biosphere Reserve

Advantages:

- ☐ **Will never be used for living and usage by people**
- ☐ **Placement of objects of alternative energy (solar, wind, etc.)**
- ☐ **Transformation of the territory into RW, SNF, SIRS storage facilities**



TERRITORY OF SPECIAL INDUSTRIAL USE



State Specialized Enterprise “Chornobyl NPP”



TRANSFORMATION OF SHELTER OBJECT INTO ECOLOGICALLY SAFE SYSTEM

The world's largest moving construction in the world – New Safe Confinement (NSC):

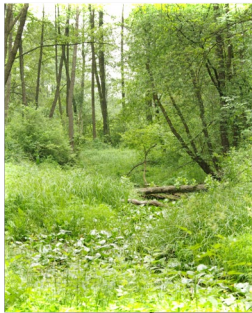
- **Completion of the facility construction and its transfer from the contractor to the customer took place in 2019. The new facility will operate for 100 years.**
- **height of 110 meters**
- **165 meters long (one and a half football field)**
- **cost almost \$1.6 billion**
- **weighing more than 36 tons**

BIOSPHERE RESERVE

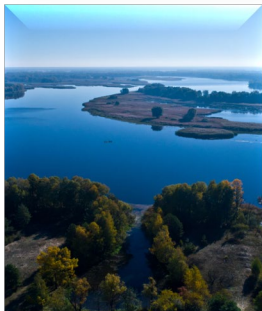
MAIN GOALS



Preservation of the most typical natural complexes Polissya in the natural state



Ensure support and increase the barrier function of the Chernobyl exclusion zone



Rehabilitation of the area contaminated of radionuclides and stabilization it's hydrological regime

MAIN TASKS



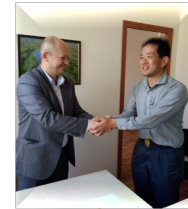
Conducting scientific research in the field of environmental protection



Maintenance of Reserve's territory with all natural objects



Preservation of landscapes natural diversity , the gene pool of animal world and vegetation, maintaining the overall ecological balance



Organization and conducting of international scientific researches



Conducting of ecological and educational work



Prevention of radionuclides leakage from the territory of the exclusion zone

RESTORATION OF NATURE

Fauna: more 300 species ,
66 species included to Red Book of Ukraine
and International List for
Conservation of Nature



European Five



RESTORATION OF NATURE

Flora: more 1200 of higher vascular plant species,
61 species included to Red Book of Ukraine
and International List
for Conservation of Nature



8 species of bryophyte
8 species of algae
18 species of mushrooms



INTERNATIONAL COOPERATION



Close cooperation with international organizations and countries to strengthen the non-proliferation regime of radioactive materials - IAEA, European Commission, G7 Global Partnership, USA, United Kingdom, Sweden

With the support of the European Commission from 2008 to 2014, construction and research in the RAW sector was funded for more than **50 million euros**



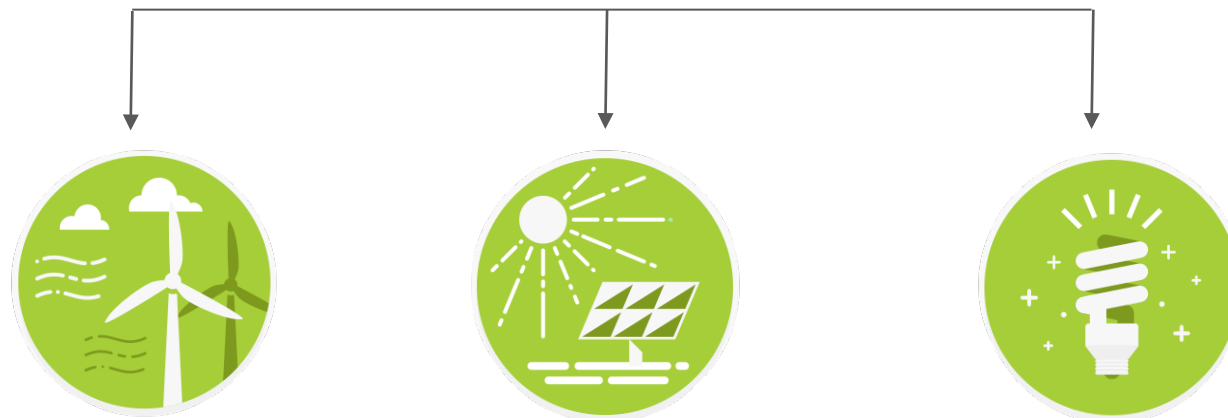
DEVELOPMENT OF ENERGY IN THE EXCLUSION ZONE:

SUN, WIND, SOLID FUEL



03/19/2018

According to the results of the calculation of the feasibility study, the French **company ENGIE** and state enterprise **UKRENERGO** concluded that from the technical and economic point of view, the construction of the SES with a capacity of 1.2 GW in the Exclusion Zone is **POSSIBLE**.



The first pilot project with the implementation of a wind power station with a capacity of 40 MW. The project is at the stage of land allocation (7 ha).

State enterprises are developing projects for the construction of solar energy facilities with a search for further funding.

In order to optimize the cost of energy carriers, energy-saving technologies are being implemented (insulation of buildings, roof reconstruction, windows replacement, etc.).

Thank you for attention!

questions?



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