



Lasy Państwowe
LAS ENERGII

Forests in Poland

Forest conversion, mainly from coniferous to mixed forest, is carried out to make stands more adapted to climate change



Sustainable Forests are with species composition matching site conditions

Forest regeneration is more and more based on natural regeneration and broadleaved tree species

ca 30%

9000

State Forests employees are employed in

Forest cover in Poland is 31.2 million ha, it's stands for 30%



77% is the State Forests, 26.5 thousand employees, **27% women**

There are 38% in the State Forests is under Natura 2000

7000

Educational units in the State Forests



The State Forests are managed in sustainable way with aim to enlarge forest resources



About forests

European Green Deal: **policy areas**

Clean Energy

Sustainable industry

Building and renovation

Farm to fork

Eliminating pollution

Sustainable mobility

Biodiversity

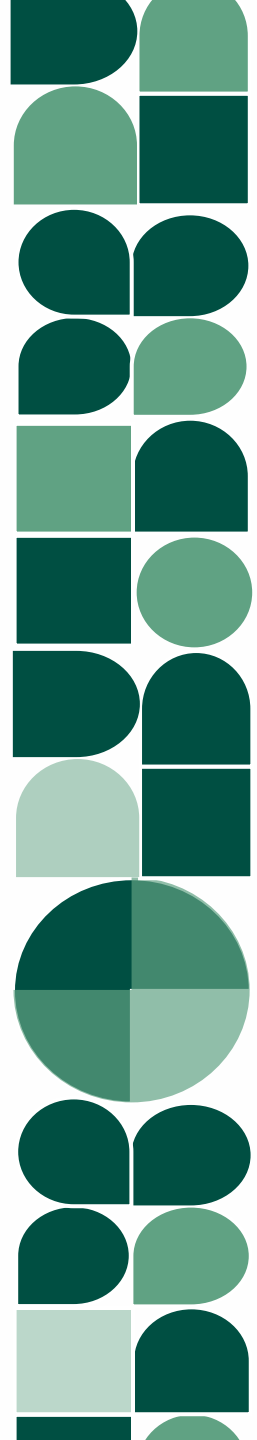
Sustainable finances



Strategic aim

**Mitigation of climate
change by reduction of
CO₂**

**So,
let's do that:**



3 projects:

- Carbon sequestration forests
- Energy efficiency in buildings
- Forests of energy



Forests.
For.
Climate.

About the project 3



Interdisciplinary, with aims strongly connected with Policy of EU and Policy of Poland

Recognition of **resources** of the State Forests for energy purposes based on **renewable energy**

The aim of the project is to gain energy **self-sufficiency**

400+

Stations for electric cars

740 MW+

Planned power of Renewable Energy

200+

Electric cars or with alternative power

17

Energy storages

2

Installations for production of green hydrogen



Actions

01. Analysis

Of potential of Renewable Energy Sources in the SF

02. Building of RES instalations

Self-efficiency of buildings in the SF

03. Large

Photovoltaic Farms (PVF) and Turbine Wind Farm (TWF)

04. Cooperation in

Building small, local energy systems

05. Building

Local Energy systems based on hydrogen,
hydrogen valley

06. Energy market

Implementation of electric energy trade
and gas trade

Actions



Actions



07.

Green hydrogen production

Installations of water electrolysis for green hydrogen and energy storage units

08.

Fleet change

Electric cars, hydrogen cars

09.

Infrastructure for EV

Electric cars charging stations

Electromobility





50

Electric cars and with
alternative energy -
hydrogen

100

Car power stations



In Forest District ...

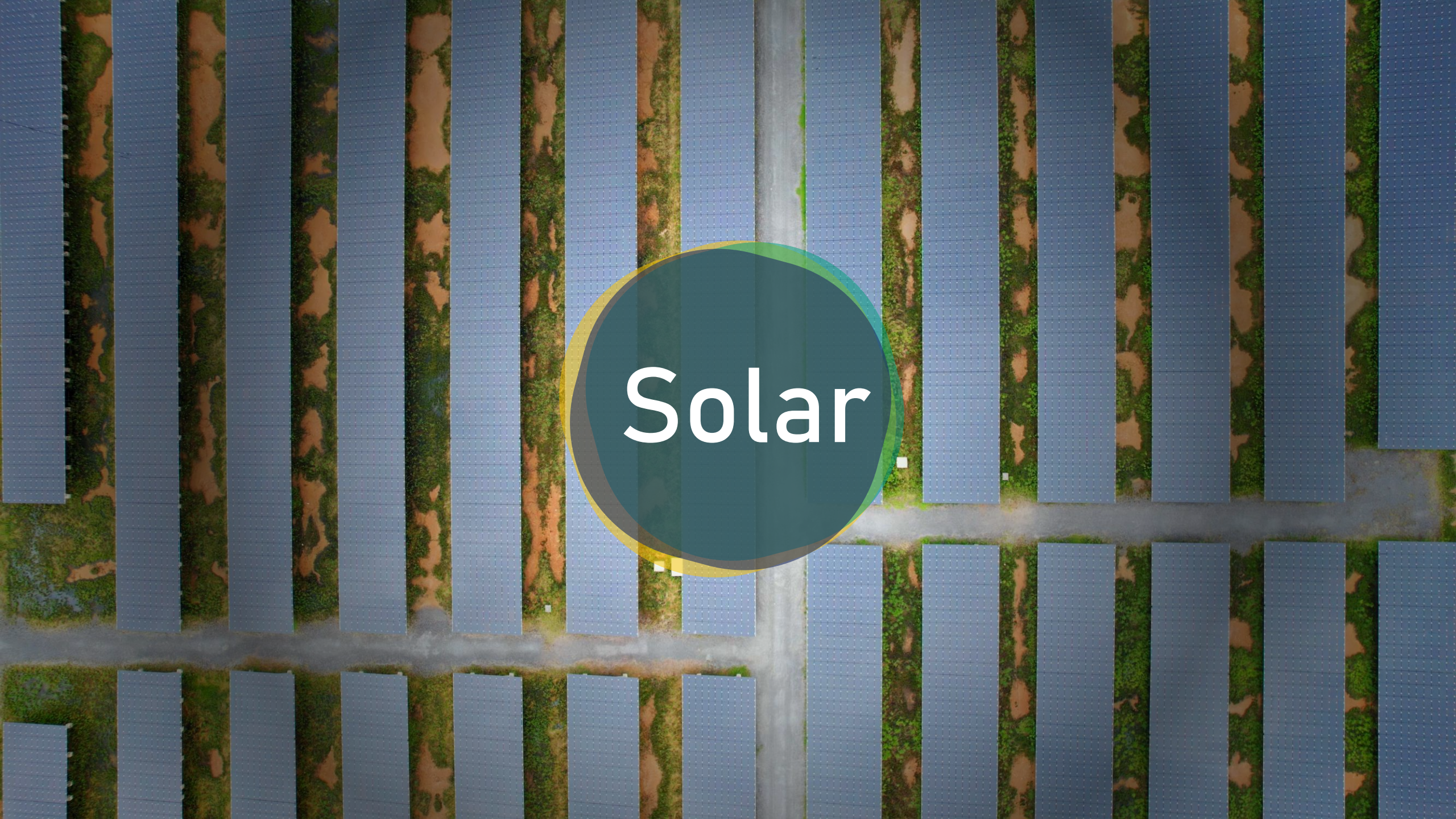
Cars for the SF
administration and for
Forest Guards

RDSF Toruń
FD Osie



In Forest District ...
Forest Guards

RDSF Toruń
FD Osie

An aerial photograph of a large-scale solar farm. The image shows numerous rows of dark blue solar panels installed in a grid-like pattern across a landscape. The panels are separated by narrow paths of dry, brownish ground and patches of green vegetation. A central circular graphic, composed of overlapping teal, yellow, and green layers, is superimposed over the middle of the image. Inside this circle, the word "Solar" is written in a clean, white, sans-serif font. The overall composition emphasizes the scale and organized layout of the renewable energy installation.

Solar



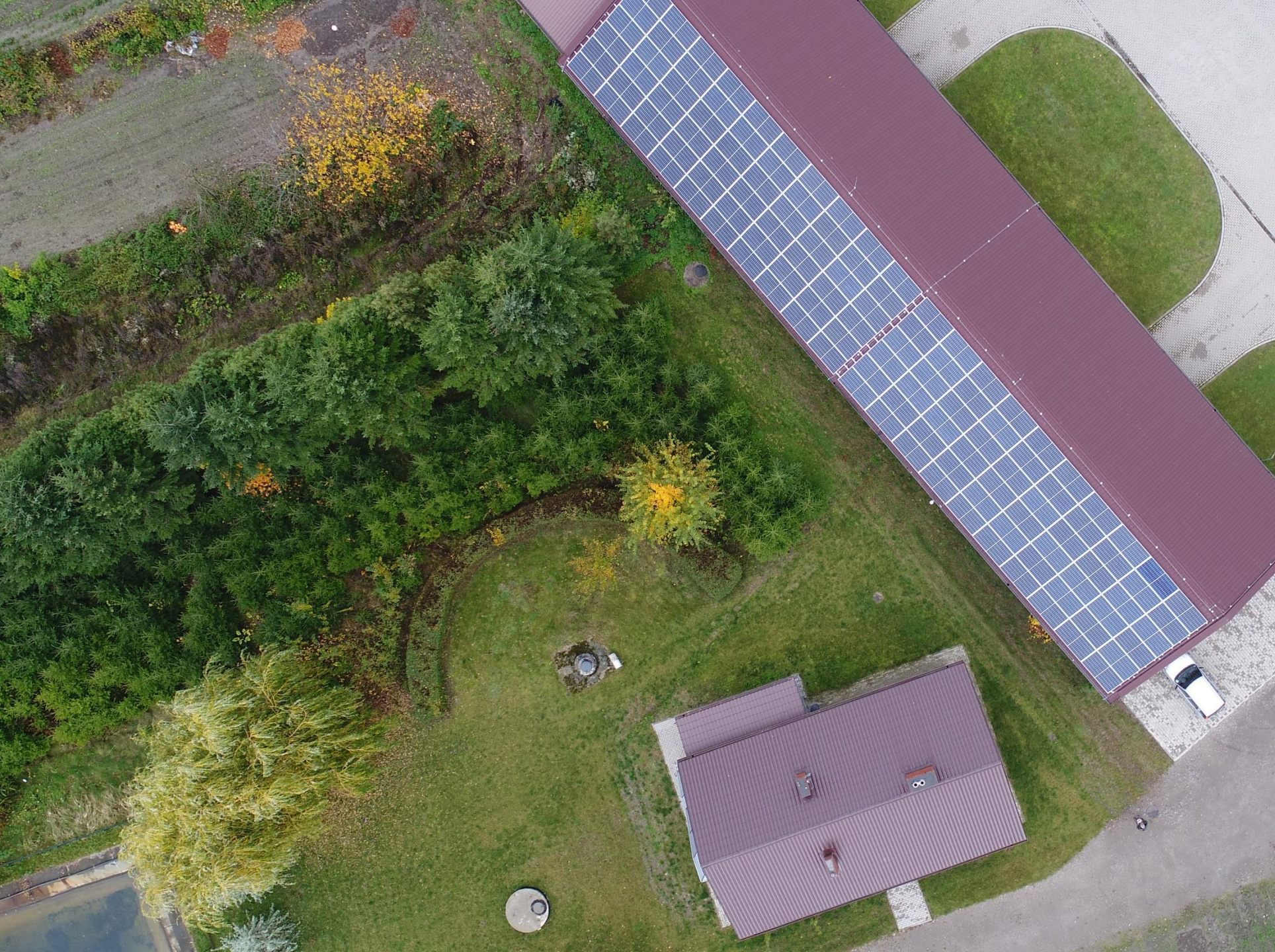
RDSF Łódź

In Forest District ...

RDSF Toruń
FD Osie



RDSF Olsztyn
Forest District Strzałowo



RDSF Łódź
Forest District Kutno



RDSF Toruń
Seed shelling plant,
Klosnowo

Forests in Poland absorb 12% of CO₂ emissions

WIND

1 wind turbine produces Energy that is
equivalent to CO₂ absorption by 2500 ha of
forests

1 ha of forests absorb ca 5 t of CO₂ per year



LAS ENERGII

Pilot programme of wind turbine over forests

Partners



State Forests
Poland

**Eurowind
Energy™**





Selection of area conditions

- wind
 - environmental
 - social
 - forest management plans

Small patches of forest area

Indication of coordinates to place
new turbines

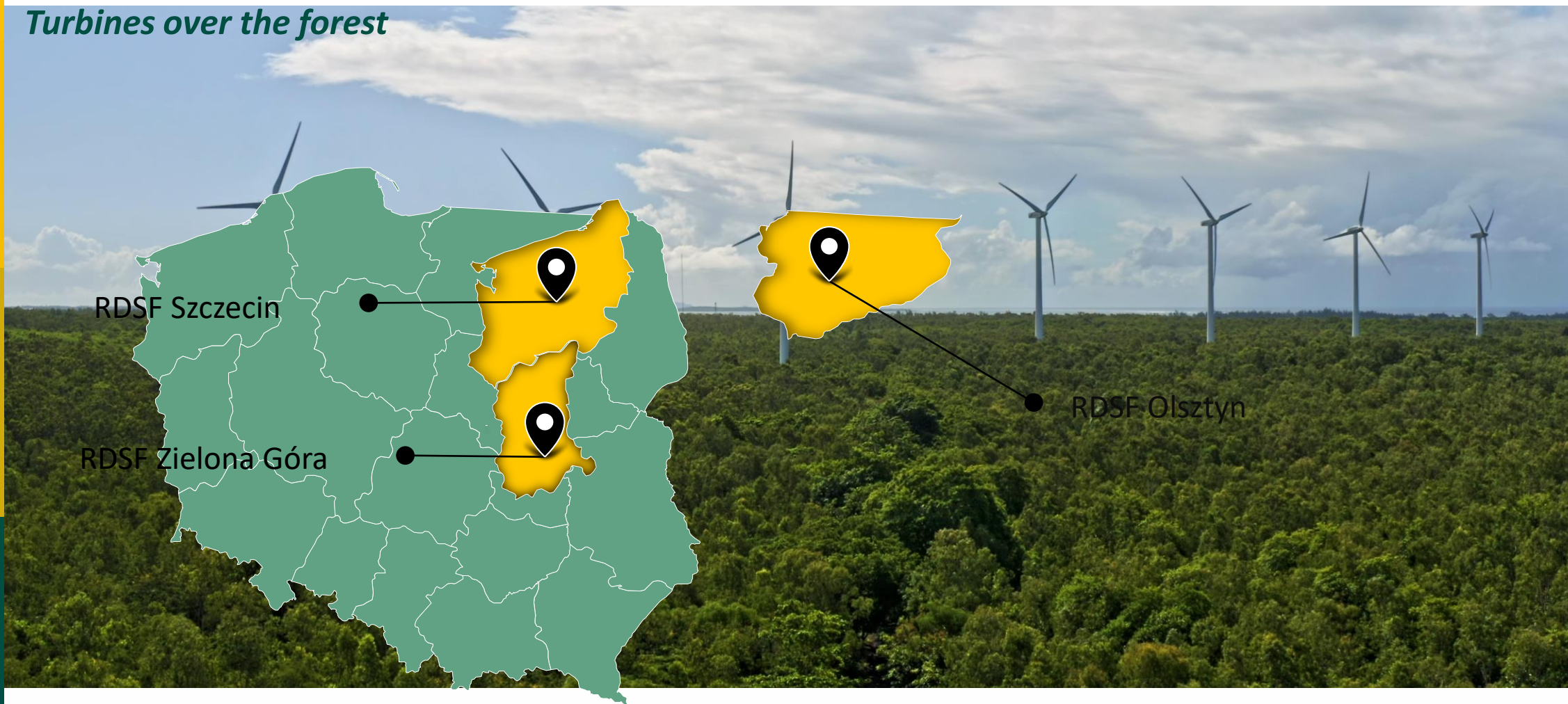
new planning

new management plans

with areas excluded form
utilisation



Location of pilot investment of *Turbines over the forest*





The lowest point of wing rotation
ca 70 – 80 m



Power
6.0 – 7.2 MW



Rotor diameter
166 -172 m



Supplier
Vestas
SIEMENS Gamesa
RENEWABLE ENERGY



Height
ca 250 m (highest point)



Maximum use of existing infrastructure

roads

compartment borders

planned fire roads

Monitoring of environment

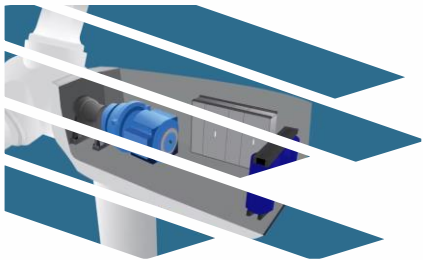
Before instalation of turbines and during turbine full exploitation:

- Birds monitoring on transects and observation points from elevation **over trees canopy**
- Particular attention is paid to predator birds including nests detection around planned points of turbine instalation
- Bats activity is also monitored with use of detector recording **under canopy**

Application of solutions protecting animals from collisions

Application of modern technology for fire protection and protection of turbines

Use of existing anti fire system



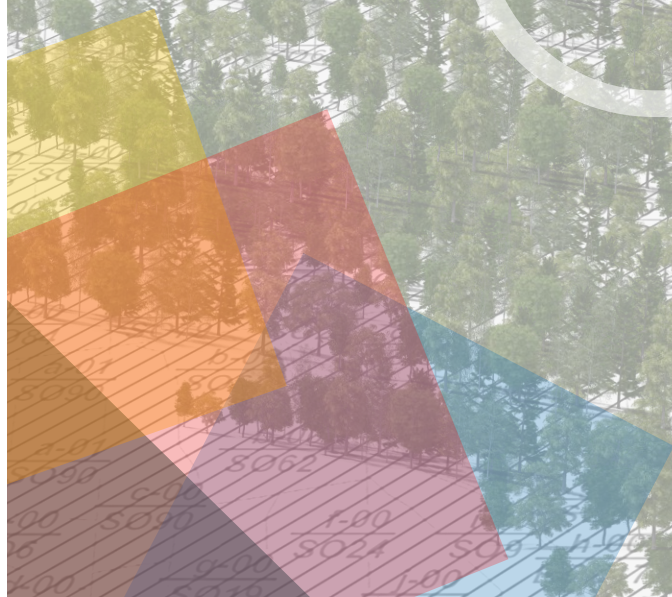


Lasy Państwowe

PILOT PROJECT
LAS ENERGI

Eurowind
Energy™

Forest of energy





Lasy Państwowe

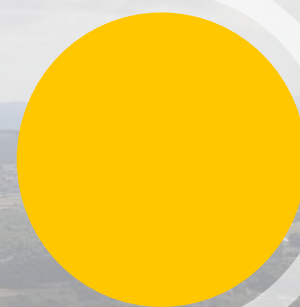


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Paldis:)





Lasy Państwowe



State Forests
Poland

Film: UN Environment Programme: Seven Billion Dreams. One Planet. Consume with care.
<https://www.youtube.com/watch?v=JyL58vlbvgw&t=1s>

Eurowind Energy: <https://eurowindenergy.com/pl>

Music:

Item Title: Cinematic Dramatic Trailer Emotional IntroItem

URL: <https://elements.envato.com/cinematic-dramatic-trailer-emotional-intro-TZKFJTQ>

Item ID: TZKFJTQ

Author Username: 331

Licensee: Szymon Radosz

Registered Project Name: Wind turbine

License Date: May 29th, 2023

Item License Code: B4XNW5DHRU