

# Environmental governance for renewable energy with a focus on solar

SolarPower Europe

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Summerschool Energy



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**SolarPower  
Europe**

- **Representing the whole solar value chain - 300 organisations**
- **Working closely with 30+ national associations**
- **Based in Brussels**

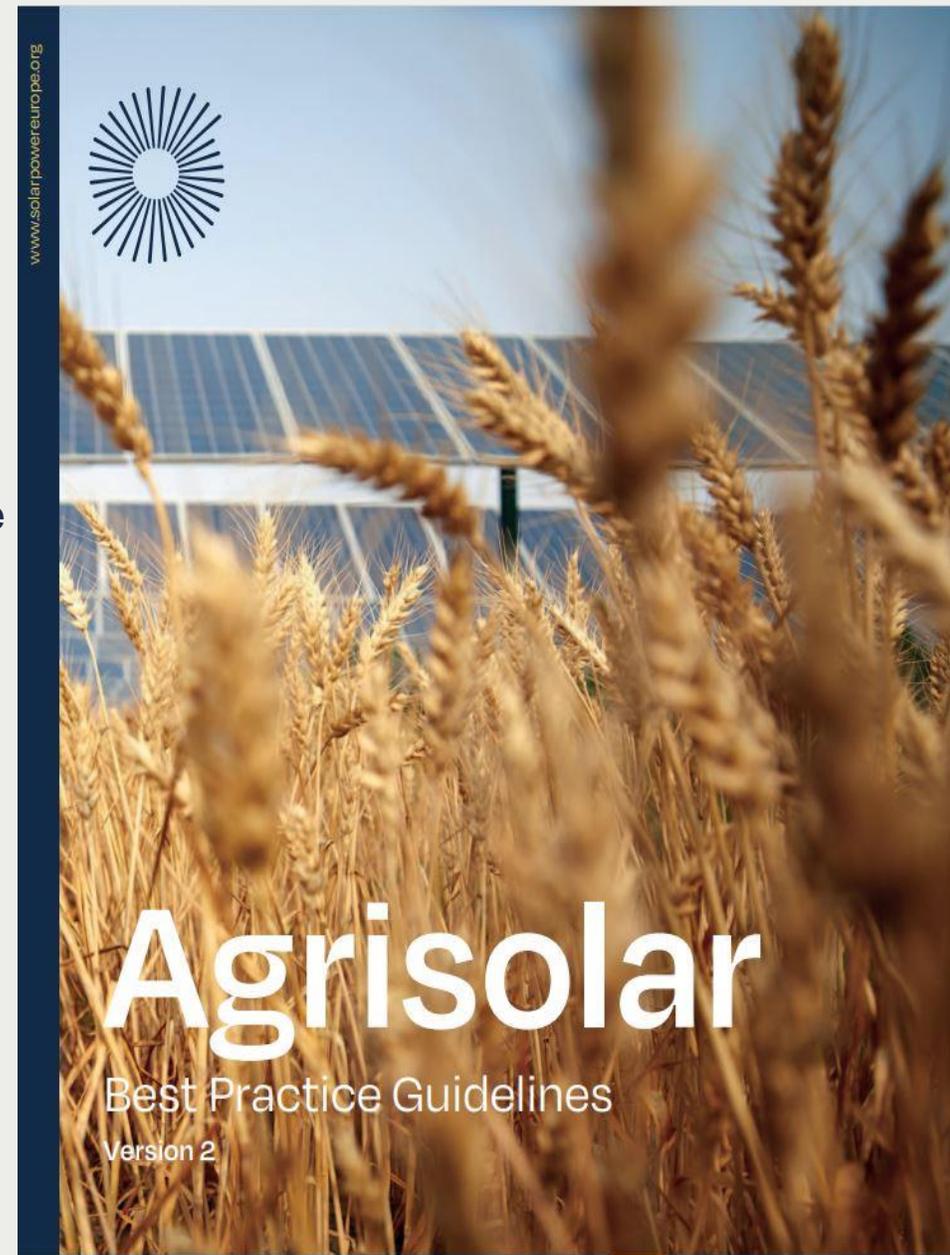


# SolarPower Europe's work towards sustainable, nature-integrated solar deployment

- **Developed agrisolar best practice guidelines vol 1**
  - How to assess and develop high quality agrisolar projects, inclusive of sustainability
  - Pilot projects and demonstrators across countries
  - R&I in agri-PV field

## Recently published:

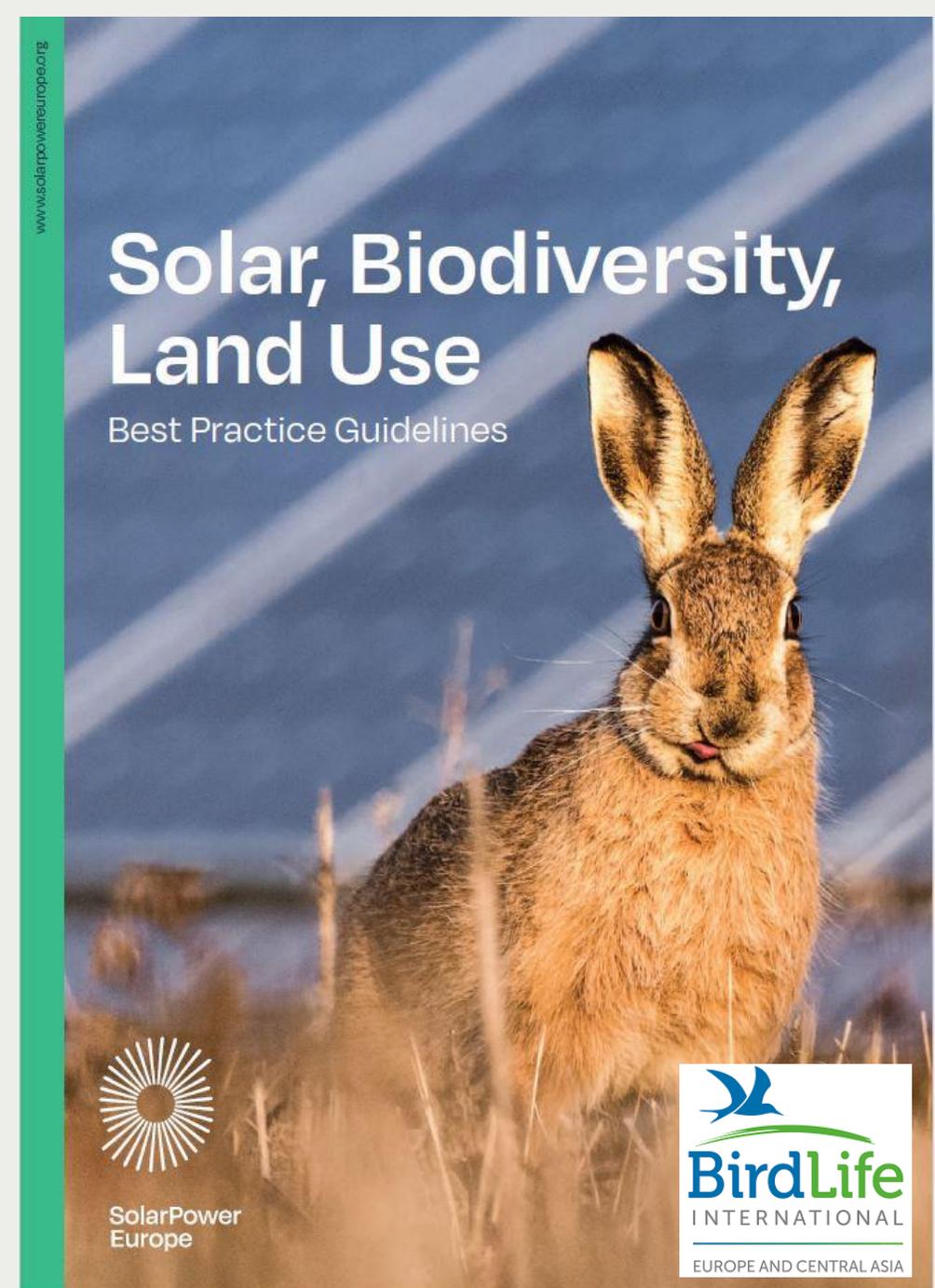
- **Agrisolar best practice guidelines vol 2**
  - Updates on best practices
  - Updates on pilot projects and demonstrators
  - Best practices for EPC and O&M



# SolarPower Europe's work towards sustainable, nature-integrated solar deployment

## Recently published:

- **Solar, Biodiversity, Land Use best practice guidelines**
  - Overview of nature legislation at EU and national levels; and provide Member State examples best practices
  - Address the potential impacts on land use from solar PV projects and outline key actions for suitable land identification
  - Provide best practices:
    - solar sites that protect and enhance biodiversity;
    - and best practice guidelines on how to incorporate environmental considerations across solar PV phases



# SolarPower Europe's advocacy work



Coalitions

Represent & Influence

Gather information



Meetings & exchanges with policy-makers

Position papers & Reports

**SMALL IS BEAUTIFUL**

JOINT REPLY TO THE EUROPEAN INVESTMENT BANK  
CONSULTATION ON THE EIB ENERGY LENDING POLICY

The Small is Beautiful (SIB) coalition aims at unlocking the benefits of small-scale and locally-owned renewable and high-efficiency co-generation solutions for the European economy. Shaping the right balance between centralised and decentralised solutions is crucial to ensure an inclusive energy transition, empowering European businesses, cities and citizens, supporting Europe's industrial leadership, and the sustainable development of all European regions.

In spite of these benefits, small-scale and decentralised energy solutions tend to face important challenges as regards financing, due to the specificity of project developers and variety of technologies and solutions concerned:

- Most of decentralised energy solutions are owned by households and small businesses, which tend to face higher capital costs than long-term investors.
- Small-scale and decentralised energy solutions are very diverse and provide often tailor-made, innovative solutions adapted to the specificity of the user (hospital, school, SME, city building, household, etc). This limits the potential for economies of scale and justifies higher LCOE compared to utility-scale solutions.

Members of the Small is Beautiful coalition therefore see the review of the EIB's lending criteria as a great opportunity to further develop low-cost financing instruments for small-scale renewable and efficient energy solutions in the EU. This is urgently needed to bring capital costs down for decentralised renewable solutions and foster private investments in small & medium renewable and high-efficiency cogeneration solutions.

In respect of question 10 of the EIB 'lending criteria consultation', the Small is Beautiful coalition recommends the EIB develop a specific credit line for decentralised energy projects by using existing national intermediaries or builds a network of intermediaries, where necessary.

The EIB funding is currently limited for small projects, which is notably due to the €7.5 million investment costs threshold required to access EIB's credit line. Considering the urge to support a better financing environment for small & medium projects in Europe, the EIB should create a specific credit line for decentralised energy projects, which could be directly accessible by financing intermediaries (i.e. guarantee organisations or local banks) able to issue smaller loans & credits. The EIB should also enable and facilitate the creation of portfolios of small-scale projects aggregated into larger volumes to access credit.

In developing a dedicated credit line for smaller projects, the EIB should consider the following elements:

- Account for the full benefits. Small-scale decentralised solutions often have higher upfront costs for consumers than traditional technologies or centralised solutions. Nevertheless the "business case" for investing in such technologies must include societal and overall energy system benefits, such as avoided grid costs, local job creation or additional energy savings for consumers.
- Ensure flexibility to cater to diverse small consumer needs. Small energy consumers will have different needs depending on whether they run a business, own or rent a home. There are also significant differences between different types of buildings (new or old) and various energy demand profiles. It is therefore crucial that any targeted financing instrument covers a wide variety of renewable and energy-efficient solutions and allows for sufficient flexibility to meet diverse customer needs.
- Bundle traditional financing with new business models. New market actors are rolling out innovative business models with emerging technologies (e.g. paying for a service rather than owning a technology, collective self-consumption or energy cooperatives). Adding low-cost financing to bundled products/services offers can only add value to the consumer and further boost the local economy.

**About The Small is Beautiful coalition:**

The Small is Beautiful coalition aims at unlocking the benefits of small-scale, locally-owned renewable solutions and high-efficiency co-generation. Shaping the right balance between centralised and decentralised solutions models will be a key challenge for an inclusive energy transition, empowering European SMEs, cities and citizens, supporting Europe's industrial leadership and the sustainable development of all European regions.

This campaign gathers 18 trade associations including SolarPower Europe, AIE, Bioenergy Europe, COGEN EUROPE, EBA (European Biogas Association), EGEC, Geothermal Energy Cities, EHPA (European Heat Pump Association), EREF (European Renewable Energies Federation), the European Biogas Confederation (EBC), EUREC, Euroheat & Power, OceanEnergy Europe, REScoop.EU, Solarheat Europe, Wind Europe, the International Union of property owners (UIPI) and SMEUnited (the European association of craft, small and medium-sized enterprises).

Gather ideas, solutions & Shape the position of the industry

Analyse & Understand the consequences for the industry

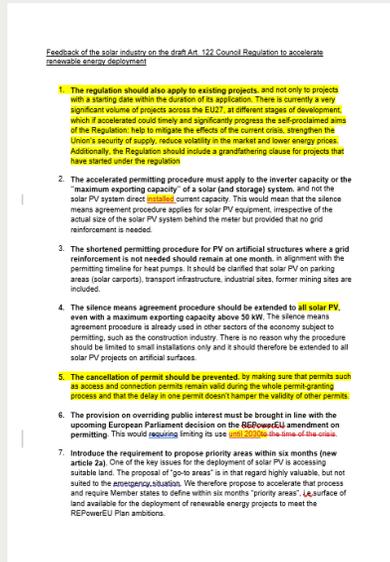


Workshops & events

# An example of campaign : permitting



Position paper validated by members



Letters to the Ministries via national association



Joint letter with NGOs

Mailing to the Parliament

Attending Parliamentary sessions

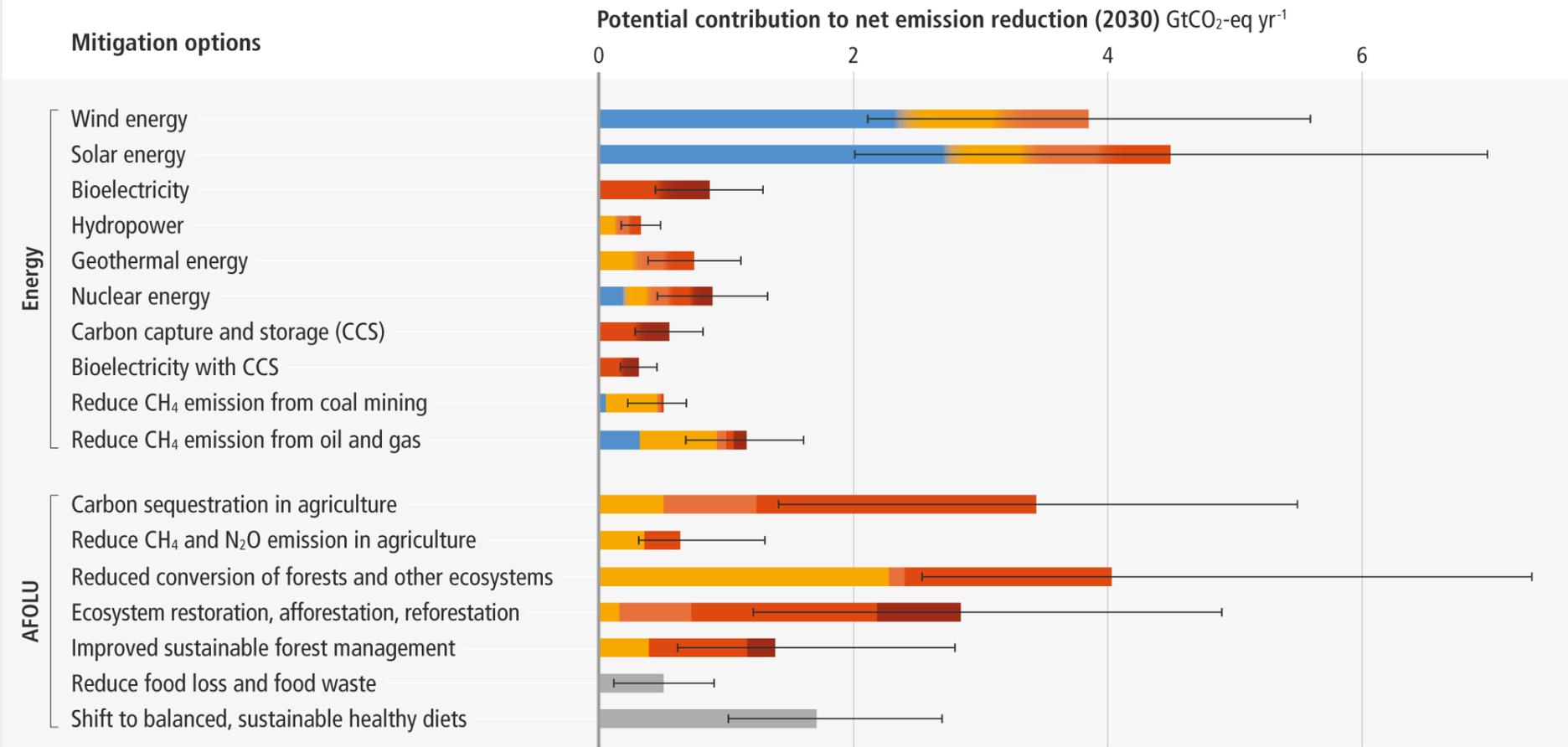


# Current status on solar deployment



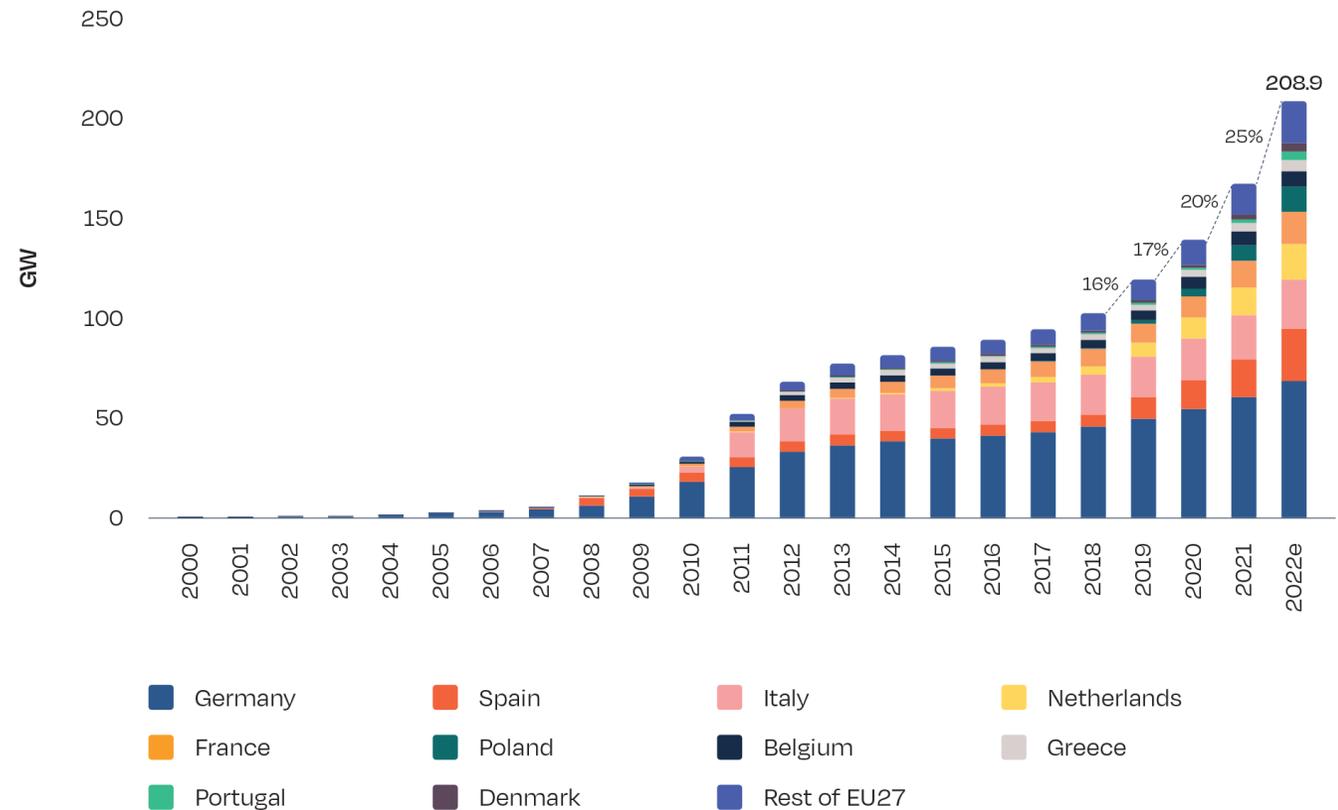
# The most efficient solution to the climate crisis

Many options available now in all sectors are estimated to offer substantial potential to reduce net emissions by 2030. Relative potentials and costs will vary across countries and in the longer term compared to 2030.



## EU27 Total Solar PV Installed Capacity 2000-2022

First time:  
>200 GW EU solar  
power plant fleet

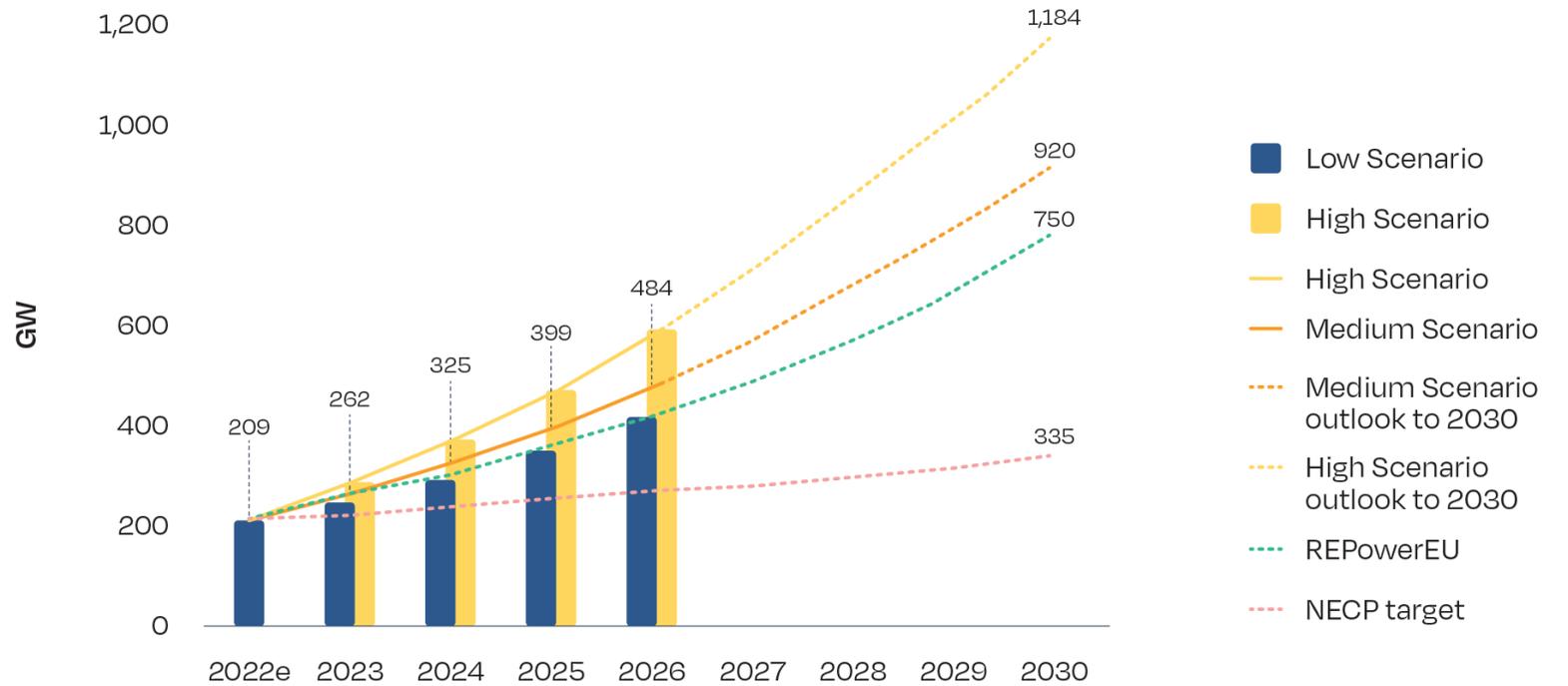


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In 2022, the EU's solar power generation fleet increased by 25% to 208.9 GW, from 167.5 GW in 2021.

# EU 2030 Medium Scenario: 920 GW

## EU-27 Total Solar PV Market Scenarios 2022-2030



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Total EU solar power fleet is expected to increase from 209 GW installed today to 399 GW in 2025, and 920 GW in 2030. This is much higher than aggregate capacity target from NECPs (335 GW). While 2025 number is inline with EU Commission scenario (400 GW), the 2030 number is above EC 2030 target (750 GW)

# Solar diversification gaining momentum in EU

NUMBER OF SOLAR GW MARKETS IN THE EU27



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The expansion of solar technology in different geographies across the EU will continue. From 10 GW-scale annual markets today, in 2024 we expect to reach 14 GW markets across the EU, which will become 18 by 2026.

# Current EU rules for deploying solar PV



# Overview of main EU regulations for solar PV

## **Renewable Energy Directive (to be voted in September 2023)**

- Binding EU targets
- RES mapping and acceleration areas
- Overriding public interest

## **Birds and habitats Directives (2009/147/EC and 92/43/EEC)**

- Strict protection regimes for certain species, both inside and outside Natura 2000
- Natura 2000 areas: nearly 1mio. km<sup>2</sup> - greater than ES and SE together
- No installation having significant effects should be built on N2000

## **Environmental Impact Assessment and Strategic Environmental Assessment Directives**

- Assessing the impacts resp. of projects and programmes
- Hierarchy of avoidance, reduction, compensation
- Threshold for solar PV at the discretion of Member States

+ Water framework Directive + Energy Performance of Building Directive....

# Overview of main EU regulations for solar PV

## EU Nature restoration law (at the interinstitutional negotiations)

- To restore degraded ecosystems across the EU territory with an interim target of:
  - 2030 to restore 20% of EU's land, and surrounding sea
  - restore all degraded ecosystems by 2050
- Complementary initiative to support the two EU Nature Directives and raise the ambition of nature protection and restoration across the EU.
- Aligned with RED Directive's acceleration areas and areas for RES development
- Coordinated action between designated RES areas and nature restoration plans

# Imperative Reason of Overriding Public Interest (IROPI)

## A principle enshrined in the Habitats Directive

- Balancing against the conservation aims of the Directive
- Human health, public safety and beneficial consequences of primary importance for the environment
- Only public interests, irrespective of whether they are promoted either by public or private bodies

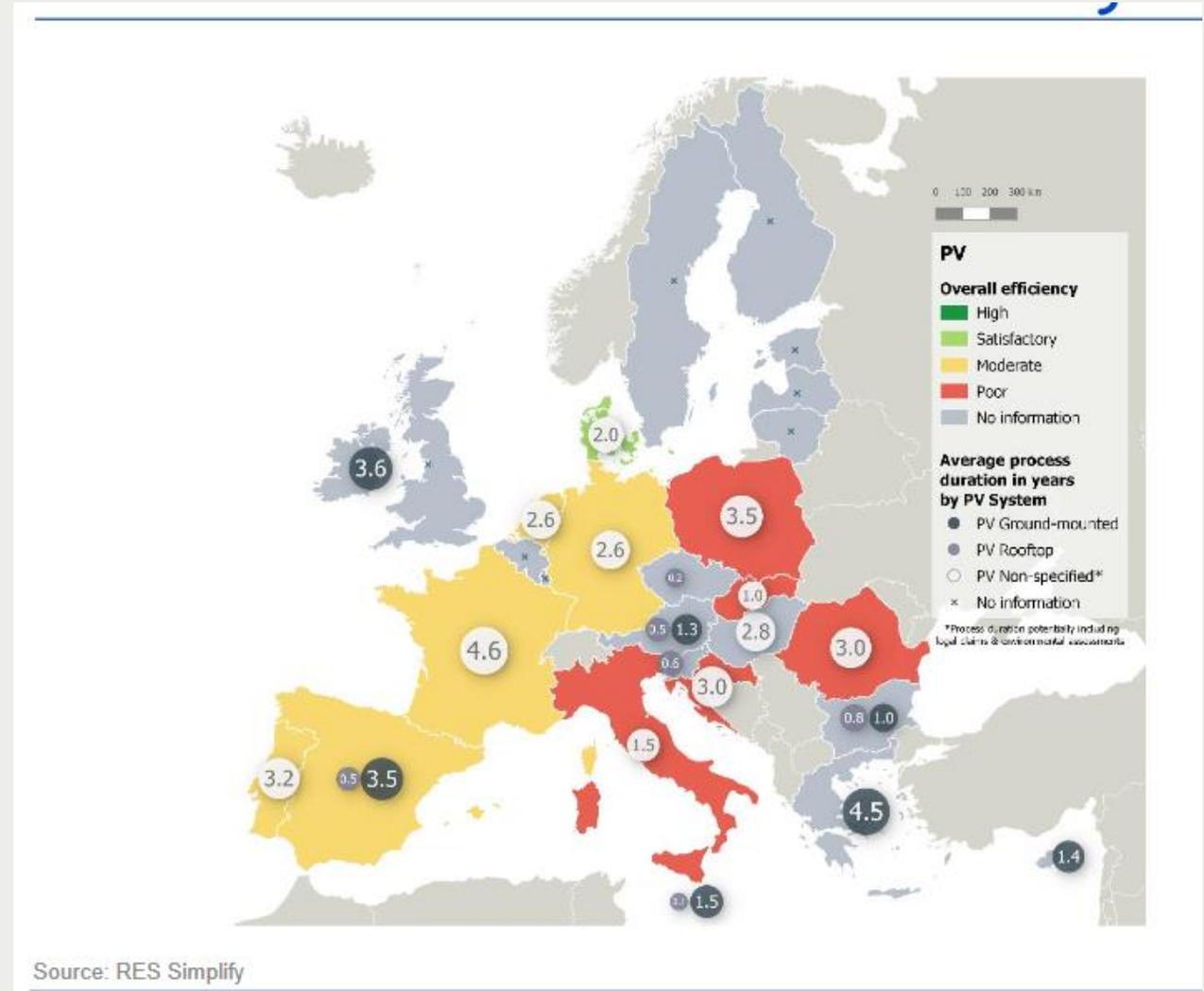
## RED: Renewables are IROPI in regard with Birds, Habitats and Water Framework Directives

- Derogate from the principle that no installation having significant effect should be built on Natura 2000 areas, provided the project offers a series of guarantees
- Under certain conditions, derogate from the principle of wild fauna and flora species protection
- Derogate from reaching good ecological status or potential of a surface water body
- Derogate from the protection of certain species of bird

## Conditions

- Demonstrate the lack of satisfactory alternative in a sufficiently large geographical scope
- Show that the project is not detrimental to the maintenance of the populations of the species
- Take compensatory measures necessary to ensure the overall coherence of Natura 2000

Results of industry survey shows permitting can take up to 4~5 years



# An acceleration of renewable projects

## **RES Booster (Council Regulation 22 December 2022):**

- Fast track permitting procedures for renewables, new time limits for project
- 3 months for rooftop / artificial structures / integrated projects
- One month if the project is under 50 kW
- Exemption of environmental impact assessment.
- Overriding public interest (with however potential exemptions).
- Facilitated procedures for repowering

## **Revised Renewable Energy Directive (RED IV)**

- Implemented right after the end of the RES booster, i.e. on the 1<sup>st</sup> July 2024.
- Some provisions are a continuation of RES booster
- 18-months deadline for RES mapping proportionate with 2030 targets
- Within these areas, a 27-months deadline for the designation of acceleration areas
- Options to define areas for grid upgrade to support RES acceleration areas
- One-month permitting for installations <100kW;

# Room for improvement remains

	AT	BE (FL)	BG	CZ	FR	DE	EL	IE	IT	NL	PL	PT	RO	SK	ES	SE	implementation rate per dimension
Overriding public interest	Light Green	Red	Red	Yellow	Light Green	Green	Light Green	Light Green	Yellow	Red	Red	Yellow	Yellow	Yellow	Red	Yellow	31%
Single contact point and digitalisation	Light Green	Green	Red	Red	Light Green	Green	Green	Yellow	Yellow	Yellow	Red	Light Green	Light Green	Yellow	Yellow	Red	44%
Deadlines for permit granting	Yellow	Light Green	Red	Red	Red	Light Green	Yellow	Red	Red	Red	Yellow	Light Green	Yellow	Red	Light Green	Red	25%
Acceleration areas	Yellow	Red	Red	Yellow	Light Green	Light Green	Green	Yellow	Green	Yellow	Light Green	Yellow	Red	Red	Green	Red	38%
Simpler rules for Repowering	Red	Light Green	Red	Red	Green	Yellow	Light Green	Yellow	Light Green	Red	Yellow	Green	Red	Green	Red	Red	38%
Acceleration on artificial structures	Red	Light Green	Yellow	Light Green	Yellow	Yellow	Yellow	Yellow	Light Green	Yellow	Red	Red	Red	Red	Red	Light Green	25%
Positive silence	Light Green	Light Green	Yellow	Red	Yellow	Red	Light Green	Light Green	Red	Red	Yellow	Light Green	Yellow	Light Green	Red	Light Green	44%
Simple notification for small-scale PV	Yellow	Light Green	Light Green	Red	Light Green	Green	Light Green	Light Green	Light Green	Yellow	Light Green	Light Green	Light Green	Green	Light Green	Green	81%
<b>Implementation rate per Member State</b>	<b>38%</b>	<b>75%</b>	<b>13%</b>	<b>13%</b>	<b>63%</b>	<b>63%</b>	<b>75%</b>	<b>38%</b>	<b>50%</b>	<b>0%</b>	<b>25%</b>	<b>63%</b>	<b>25%</b>	<b>38%</b>	<b>38%</b>	<b>38%</b>	

# Discussion points

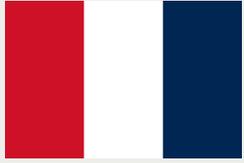
1. What other regulations for biodiversity protection in/around RE-plants do you know from your country/region?

# Member State examples





- **Environmental assessment** done during permitting process
- **Integrated Impact Assessment:** used prior to receiving a permit for project development. Mitigation measures are highly prioritised (tree replanting on solar sites, installations during off seasons to cause no impact on birds and their migration);
- **Natura2000:** sites excluded from any project development
- **High environmental priority** on nature protection and landscape-integration for solar PV;



- **EIA:** a common practice applied for ground-mounted solar PV projects (above 1MWp). National authorities responsible for implementation of EIA measures and their application to solar PV projects;
- **SEA:** national and regional authorities implement SEA measures;
- **Different national regulations**, incl. nature and species protection laws are applied;
- **Environmental integration** of PV plants is required. Criteria can differ from location to location.
- **Acceleration areas:** designation of waste land areas for solar deployment. Local authorities are obliged to consider the list of wastelands during a planning process.



- **Building permits** and **environmental assessments** are required to develop solar PV projects. Depending on project size, different permits can be granted (simplified permitting procedures or more complex permitting procedure);
- **EIA**: carried out at national, regional or local level;
- **Integrated impact assessment**: required prior to receiving a permit for a project development. Focused on mitigation measures, e.g., buffer zones around plant, replanting trees, protecting site-specific species, etc;
- **Natura2000**: excluded from any project development;
- **Environmental integration** and **landscape-integration**: prioritised for solar PV projects;
- **Acceleration areas**: identification of acceleration areas with simplified procedure (e.g. areas such as industrial/commercial land, buffer zones nearby highways, ceased mines and quarries, etc).

# Discussion points

1. What other regulations for biodiversity protection in/around RE-plants do you know from your country/region?
2. Do you think the regulations are sufficient? What would need strengthening or is not fitting to the specific needs of nature in your region?
3. How do such rules affect the pace of energy transition?



Thank you for your  
attention.

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