

# An EU strategy for solar energy - public consultation questionnaire

Fields marked with \* are mandatory.

## Introduction

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### About this Consultation

With the proposal for a revision of the Renewable Energy Directive adopted on 14 July 2021 as part of the Delivering the European Green Deal package, the EU is setting out its aim of doubling the share of renewables in the energy mix compared to 2020, to reach at least 40% in 2030. The current pace of deployment of projects and market penetration will need to accelerate significantly to meet the needed capacity increase, while supporting the environmental performance of the relevant technologies. A strategy specifically for solar technologies is needed to underpin the efforts of authorities, producers, consumers and stakeholders.

In this context and in line with 'better regulation' principles, the Commission is launching this public consultation designed to gather stakeholder views on matters relating to the objectives of the Communication on an EU solar energy strategy.

### What is the purpose of the communication?

The EU solar energy strategy aims at helping unlock solar energy's potential in contribution to the European Green Deal objectives, including its key role to achieve climate and energy targets. It will analyse the state of play of solar energy across the EU, identify barriers and propose measures to accelerate deployment, ensure that the public reap related opportunities as well as enhance system integration. It will also consider avenues to foster EU competitiveness along the solar energy value chain.

### How can I participate?

You can complete this questionnaire through the Commission website until 12 April 2022. Please use the button at the end of the questionnaire to upload feedback in other document formats. A synopsis report of this public consultation, as well as a summary of all consultation activities' results will be published on this page at the end of the consultation period.

You may choose to answer any or all of the questions.

Please note: In order to ensure a fair and transparent consultation process only responses received through our online questionnaire will be taken into account and included in the report summarising the responses.

Should you have a problem completing this questionnaire or if you require particular assistance, please contact [ENER-C1-SECRETARIAT@ec.europa.eu](mailto:ENER-C1-SECRETARIAT@ec.europa.eu).

## About you

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\* Language of my contribution

- Bulgarian
- Croatian
- Czech
- Danish
- Dutch
- English
- Estonian
- Finnish
- French
- German
- Greek
- Hungarian
- Irish
- Italian
- Latvian
- Lithuanian
- Maltese
- Polish
- Portuguese
- Romanian
- Slovak
- Slovenian
- Spanish
- Swedish

\* I am giving my contribution as

- Academic/research institution
- Business association
- Company/business organisation
- Consumer organisation
- EU citizen
- Environmental organisation
- Non-EU citizen
- Non-governmental organisation (NGO)

- Public authority
- Trade union
- Other

\* First name

Stavroula

\* Surname

Pappa

\* Email (this won't be published)

stavroula.pappa@rescoop.eu

\* Organisation name

*255 character(s) maximum*

REScoop.eu

\* Organisation size

- Micro (1 to 9 employees)
- Small (10 to 49 employees)
- Medium (50 to 249 employees)
- Large (250 or more)

Transparency register number

*255 character(s) maximum*

Check if your organisation is on the [transparency register](#). It's a voluntary database for organisations seeking to influence EU decision-making.

704074840427-06

\* Country of origin

Please add your country of origin, or that of your organisation.

- Afghanistan
- Åland Islands
- Djibouti
- Dominica
- Libya
- Liechtenstein
- Saint Martin
- Saint Pierre and Miquelon

- Albania
- Algeria
- American Samoa
- Andorra
- Angola
- Anguilla
- Antarctica
- Antigua and Barbuda
- Argentina
- Armenia
- Aruba
- Australia
- Austria
- Azerbaijan
- Bahamas
- Bahrain
- Bangladesh
- Barbados
- Belarus
- Belgium
- Belize
- Benin
- Bermuda
- Bhutan
- Bolivia
- Dominican Republic
- Ecuador
- Egypt
- El Salvador
- Equatorial Guinea
- Eritrea
- Estonia
- Eswatini
- Ethiopia
- Falkland Islands
- Faroe Islands
- Fiji
- Finland
- France
- French Guiana
- French Polynesia
- French Southern and Antarctic Lands
- Gabon
- Georgia
- Germany
- Ghana
- Gibraltar
- Greece
- Greenland
- Grenada
- Lithuania
- Luxembourg
- Macau
- Madagascar
- Malawi
- Malaysia
- Maldives
- Mali
- Malta
- Marshall Islands
- Martinique
- Mauritania
- Mauritius
- Mayotte
- Mexico
- Micronesia
- Moldova
- Monaco
- Mongolia
- Montenegro
- Montserrat
- Morocco
- Mozambique
- Myanmar/Burma
- Namibia
- Saint Vincent and the Grenadines
- Samoa
- San Marino
- São Tomé and Príncipe
- Saudi Arabia
- Senegal
- Serbia
- Seychelles
- Sierra Leone
- Singapore
- Sint Maarten
- Slovakia
- Slovenia
- Solomon Islands
- Somalia
- South Africa
- South Georgia and the South Sandwich Islands
- South Korea
- South Sudan
- Spain
- Sri Lanka
- Sudan
- Suriname
- Svalbard and Jan Mayen
- Sweden

- Bonaire Saint Eustatius and Saba
- Bosnia and Herzegovina
- Botswana
- Bouvet Island
- Brazil
- British Indian Ocean Territory
- British Virgin Islands
- Brunei
- Bulgaria
- Burkina Faso
- Burundi
- Cambodia
- Cameroon
- Canada
- Cape Verde
- Cayman Islands
- Central African Republic
- Chad
- Chile
- China
- Christmas Island
- Clipperton
- Guadeloupe
- Guam
- Guatemala
- Guernsey
- Guinea
- Guinea-Bissau
- Guyana
- Haiti
- Heard Island and McDonald Islands
- Honduras
- Hong Kong
- Hungary
- Iceland
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Isle of Man
- Israel
- Italy
- Jamaica
- Nauru
- Nepal
- Netherlands
- New Caledonia
- New Zealand
- Nicaragua
- Niger
- Nigeria
- Niue
- Norfolk Island
- Northern Mariana Islands
- North Korea
- North Macedonia
- Norway
- Oman
- Pakistan
- Palau
- Palestine
- Panama
- Papua New Guinea
- Paraguay
- Peru
- Switzerland
- Syria
- Taiwan
- Tajikistan
- Tanzania
- Thailand
- The Gambia
- Timor-Leste
- Togo
- Tokelau
- Tonga
- Trinidad and Tobago
- Tunisia
- Turkey
- Turkmenistan
- Turks and Caicos Islands
- Tuvalu
- Uganda
- Ukraine
- United Arab Emirates
- United Kingdom
- United States

- Cocos (Keeling) Islands
- Colombia
- Comoros
- Congo
- Cook Islands
- Costa Rica
- Côte d'Ivoire
- Croatia
- Cuba
- Curaçao
- Cyprus
- Czechia
- Democratic Republic of the Congo
- Denmark
- Japan
- Jersey
- Jordan
- Kazakhstan
- Kenya
- Kiribati
- Kosovo
- Kuwait
- Kyrgyzstan
- Laos
- Latvia
- Lebanon
- Lesotho
- Liberia
- Philippines
- Pitcairn Islands
- Poland
- Portugal
- Puerto Rico
- Qatar
- Réunion
- Romania
- Russia
- Rwanda
- Saint Barthélemy
- Saint Helena  
Ascension and  
Tristan da Cunha
- Saint Kitts and  
Nevis
- Saint Lucia
- United States  
Minor Outlying  
Islands
- Uruguay
- US Virgin Islands
- Uzbekistan
- Vanuatu
- Vatican City
- Venezuela
- Vietnam
- Wallis and  
Futuna
- Western Sahara
- Yemen
- Zambia
- Zimbabwe

The Commission will publish all contributions to this public consultation. You can choose whether you would prefer to have your details published or to remain anonymous when your contribution is published. **For the purpose of transparency, the type of respondent (for example, 'business association, 'consumer association', 'EU citizen') country of origin, organisation name and size, and its transparency register number, are always published. Your e-mail address will never be published.** Opt in to select the privacy option that best suits you. Privacy options default based on the type of respondent selected

### \* Contribution publication privacy settings

The Commission will publish the responses to this public consultation. You can choose whether you would like your details to be made public or to remain anonymous.

**Anonymous**

Only organisation details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published as received. Your name will not be published. Please do not include any personal data in the contribution itself if you want to remain anonymous.

**Public**

Organisation details and respondent details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published. Your name will also be published.

I agree with the [personal data protection provisions](#)

## About you - continued

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1. Are you:

- Electricity market undertaking related to the integration of distributed solar installations (supplier, aggregator, etc)
- Utility-scale producer of electricity from solar energy
- Solar project developer
- Consumer organisation
- Public authority
- NGO
- Small or medium-sized business
- Primary agricultural producer, including farmer and forester
- Owner of Industrial facility
- Solar energy product (hardware) manufacturer
- Digital solutions developer
- Research and Innovation Organisation
- An individual that produces and consumes solar energy
- Other

If other please specify

100 character(s) maximum

REScoop.eu is the European Federation of citizen energy cooperatives.

2. What solar energy technology do you work with, if any?

- Solar photovoltaic – utility grid
- Solar photovoltaic – distributed
- Solar thermal – for industrial / agricultural application
- Solar thermal – domestic use
- Solar thermal – district heating
- Concentrated solar power (CSP)/Solar thermal electricity (STE)
- Other

If other please specify

50 character(s) maximum

Our members work with the 1, 2, 4 and 5 options.

3. In which markets are you active?

- All EU countries
- Some EU countries
- Non-EU countries

3c. which countries specifically?

500 character(s) maximum

We have members in 25 Member States and non-EU countries.

4. Do you represent either a renewable energy community in the sense of the Renewable Energy Directive or a citizen energy community in the sense of Electricity Market Directive?

- Yes
- No

5. Are you or do you represent an owner / owners of distributed, small-scale solar energy production?

- Yes
- No

Accelerating the deployment of solar energy projects

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6. What are the key barriers that delay or prevent new utility grid solar energy projects (photovoltaic -PV or concentrated solar power - CSP) from materialising? Please assess their importance, separately for each technology, with 5 being the highest level of importance.

	PV: 1	PV: 2	PV: 3	PV: 4	PV: 5	PV: no opinion	CSP: 1	CSP: 2	CSP: 3	CSP: 4	CSP: 5	CSP: no opinion
Obstacles / lack of clarity related to permitting procedures	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regulatory framework impacting the business case	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conflicting environmental regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of public acceptance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grid connection issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increased uncertainty of curtailments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## If other please specify

*100 character(s) maximum*

Grid extension and access to areas for solar power plants in Germany.

## 6c. Comment

*300 character(s) maximum*

The biggest barrier for new PV plants in Germany is the strict European competition law in particular the state aid guidelines and the application practice of the DG Competition. The latter demand such a low funding rate that a lot of PV plants are not feasible.

7. What do you consider are the main factors that negatively affect the business case of new utility grid solar energy projects (photovoltaic -PV or concentrated solar power - CSP)? Please assess their importance, separately for each technology, with 5 being the highest level of importance.

	PV: 1	PV: 2	PV: 3	PV: 4	PV: 5	PV: no opinion	CSP: 1	CSP: 2	CSP: 3	CSP: 4	CSP: 5	CSP: no opinion
Competition from conventional generation installations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Competition from utility-grid solar energy production installations which receive or have received feed-in tariffs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carbon price is not high enough	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insufficient cooperation between Member States (e.g. through the cooperation mechanisms of the Renewable Energy Directive)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Auction-based systems inadequate to ensure level playing field	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uncertainty regarding future support scheme framework	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uncertainty regarding future regulatory framework	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy taxation framework unfavourable towards renewable electricity generation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insufficient incentives through disclosure schemes such as guarantees of origin	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Lack of incentives for behind-the-meter storage combined with solar projects	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unfavourable financing conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unfavourable or uncertain market entry / dispatching of energy produced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## If other please specify

*100 character(s) maximum*

Auction-based systems are inadequate.

## 7c. Comment

*300 character(s) maximum*

In Germany the main problem is access to areas for RES installations. See more comments in the Annex of the document attached.

8. Which do you consider to be the main factors that negatively affect the deployment of distributed, small-scale solar production installations in single-unit (SUB) or multi-unit buildings (MUB)? Please assess the importance of the following factors, separately for both categories of buildings, with 5 being the highest level of importance.

	SUB: 1	SUB: 2	SUB: 3	SUB: 4	SUB: 5	SUB: no opinion	MUB: 1	MUB: 2	MUB: 3	MUB: 4	MUB: 5	MUB: no opinion
Obstacles / lack of clarity related to permitting procedures	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Regulatory and public support framework impacting business case	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Unfavourable taxation / tariffs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Specific issues or limitations to self-consumption related to the existing net metering / net billing schemes (e.g. limitations in capacity installed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Conflicting environmental / town planning regulations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of resources of owner/s to face upfront investment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unfavourable financing conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dwellings are used by tenant/s, therefore owner/s lack interest to invest	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Absence of or low remuneration for sales of excess electricity produced	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unsuitability of the building (shape, size, strength, structure or shading of roof areas)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of standardisation amongst solar solutions (e.g. size of panels / tiles, method of attachment, compatibility etc)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of or limited choice of experienced solar installation companies in the area	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Only for MUB: Absence of an adequate legal framework for decision-making and representation in joint-ownership buildings (e.g. blocks of flats) with commonly owned rooftops and facades.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 8c. Comment

300 character(s) maximum

In Italy a factor is also the complex procedures for grid connections (DSO) and operation (GSE - the Energy System Manager who acknowledges incentives and withdraws/purchases excess energy). In Germany a major issue is the lack of installation engineers and technicians for renewable systems.

9. In the absence of net-metering / net-billing schemes, do you consider there would be a lack of incentives for distributed, small-scale installations?

3

9.1. If so, how would you assess the following as disincentivising factors? (5 being the highest level of disincentivisation)

	1	2	3	4	5
Applicable network charges, taxes and levies	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unfavourable or uncertain market entry / dispatching of electricity produced	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Absence of value added services by electricity suppliers / aggregators to "prosumers", for selling excess electricity in the market on their behalf	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Insufficient incentives through disclosure schemes such as guarantees of origin	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

If other please specify

100 character(s) maximum

insufficient funding rate, e.g. FITs for the excess electricity produced due to restrictive CEEAG

10. How would you assess the following factors in preventing energy communities from fully playing their role in the generation, sharing and sale of solar energy? (5 being the highest level of prevention)

	1	2	3	4	5
Obstacles / lack of clarity in permitting procedures to set up energy communities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Applicable grid tariffs for physical electricity sharing or collective self-consumption	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Conditions set by the system operator or the energy regulator to participate in energy markets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Insufficient generation capacity to operate in energy markets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>



Obstacles related to grid connection / other infrastructure connection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Limited ownership / management rights on the community network	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Lack of community engagement	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Getting professionals on board / receiving technical advice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Rigid and time-consuming tender procedures for subsidies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Lack of cooperation of local authorities	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

### If other please specify

*100 character(s) maximum*

insufficient funding rate, e.g. FITs for the excess electricity produced due to restrictive CEEAG

### 10c. Comment

*500 character(s) maximum*

In Italy: lack of clarity on the fiscal discipline of the RECs and RECs' members incomes (especially in case of SMEs), lack of clarity and regulatory framework to discipline the distribution of shared energy and incomes among the RECs members. In Germany the problem is that energy communities are not allowed to share energy.

### 11. How would you assess the following factors in preventing solar installations in industrial areas / facilities? (5 being the highest level of prevention)

	1	2	3	4	5
Obstacles / lack of clarity related to permitting procedures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of business case	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unfavourable taxation / tariffs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulatory and public support framework impacting business case	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conflicting environmental / town planning regulations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Grid connection issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unfavourable financing conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of long-term visibility needed to make large investment decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of incentives to use more renewable energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low potential for electrification of operations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. How would you assess the following factors in preventing further deployment of solar thermal installations in the EU? (5 being the highest level of prevention)

	1	2	3	4	5
Obstacles / lack of clarity related to permitting procedures	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unfavourable conditions for renewable sources connecting to the heating market or system	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Absence of a heating system to connect to	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unfavourable taxation / tariffs	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unsuitability of the building (shape, size, strength, structure or shading of roof areas)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulatory and public support framework impacting business case	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Conflicting environmental / town planning regulations	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unfavourable financing conditions	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hot water consumption is not enough to justify investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Space heating system cannot effectively utilise hot water from a solar thermal system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Absence of other uses of heat (e.g. swimming pool, industrial process, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12c. Comment

*500 character(s) maximum*

13. How would you assess the following factors in encouraging public authorities to install solar energy in the buildings or land they own or lease? (5 being the highest level of effectiveness)

	1	2	3	4	5
Setting targets for renewable installations in public buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Legal mandates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Lease public building's roof for use by private companies to exploit the solar potential	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lease public building's roof for use by energy communities to exploit the solar potential	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Lease publicly owned land for use by private companies or energy communities to exploit the solar potential	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promotion of green public procurement	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Focus on key categories, e.g. social housing, schools or hospitals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

### If other please specify

*100 character(s) maximum*

Setting obligations (not only targets) for renewable installation in public buildings.

14. To primary agricultural producers including farmers / agriculture associations: have you invested or are you planning to invest in solar energy in your farm?

- Yes
- No

14.1. If yes, in which context?

- As part of a net-billing / net-metering scheme
- As a stand-alone electricity generation installation, feeding into the wholesale /retail market
- As part of an energy community
- Alongside electrifying my agricultural machinery set / fleet
- To support artificial lighting for plant growing / vertical farming installation
- Other

14.2. If not, why?

- Lack of financing
- Barriers linked to permitting
- Barriers linked to grid connection
- Unclear technology choice or preference for another technology, e.g. biogas production
- Conflict with other land uses
- Not a priority
- Other

15. What regulatory changes would be beneficial to create a more supportive framework for additional distributed photovoltaic capacity in locations other than buildings, e.g. agricultural, industrial, or recreational areas?

*500 character(s) maximum*

Croatia: Higher price for surplus energy, easier application for incentives Germany: to be able to conduct energy sharing and explicit subsidy for PV systems that enable dual use = innovative PV systems (e.g. agriculture + PV), less restrictive state aid guidelines and application process of DG Com especially with respect to feed-in-tariffs and market premiums and auctions schemes - see more in the Annex of the document attached.

## Facilitating system integration of solar energy production

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16. Do you consider that compatibility / interoperability issues between components of solar photovoltaic installations, or solar production & storage systems, limit customer choice in equipment to a particular supplier, manufacturer, or product line?

3

16.1. If so: What is this incompatibility attributed to?

- Incompatible communication protocol / standard
- Incompatible power specifications, such as voltage requirements
- Other

17. Do you provide flexibility services (e.g. through demand response) to the local electricity system operator?

- Yes
- No

17.1. If No, what is preventing you from doing so?

- Concerns about data protection
- Regulatory barriers
- Conditions set by the local system operator or the energy regulator to offer flexibility services are too strict
- Insufficient scale to offer flexibility services
- Other

18. Do you consider that distributed, small-scale solar producers should be allowed to sell on both wholesale and retail markets?

- Yes
- No

18.1. How would you assess the following barriers, preventing such market participation? (5 being the highest level of prevention)

	1	2	3	4	5
Bidding thresholds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Lack of opportunity to participate in several market streams (e.g. wholesale day-ahead and intraday market, or ancillary services (including balancing), or congestion management services)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Absence of local markets, peer-to-peer trading possibilities etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Market dominated by large utilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Net metering / net billing restrictions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. Have you installed or do you plan to install a battery for your domestic or business needs?

- Yes
- No

19.1. If yes, why?

- To better align my consumption with solar production
- To charge my electric vehicle at night with own solar production
- To decrease dependence from the grid
- To use in agriculture / industrial applications
- Other

If other please specify

*100 character(s) maximum*

German member: to optimize production of RE plants for supply to our customers, system services.

19.2. If no, how would you assess the following factors, deterring you from installing a battery for your domestic or business needs? (5 being the highest level of deterrence)

	1	2	3	4	5
Too expensive for the added value	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

High upfront costs, although it is a financially viable investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Not enough space	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulatory / grid connection related barriers	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of suppliers / experienced installers	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safety issues	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Issues with disposal/recycling at the end of life	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 19c. Comment

*300 character(s) maximum*

20. Do you consider that a common format of data for grid communication of distributed solar photovoltaic systems is necessary?

You may provide extra information on suggested protocols or data flow organisation.

- Yes
- No

20.1. Do you consider that such data production should be close to the time intervals of electricity markets (e.g. 15 minutes), or even closer to real time (e.g. down to 1 or 5 minute intervals)

- Yes
- No

### 20c. Comment

*300 character(s) maximum*

**Enhancing sustainability, resilience, competitiveness, innovation and transparency along the solar energy value chain**

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21. Would you consider appropriate to apply any of the following sustainability-related measures for solar energy products/systems sold in EU, in relation to their production and/or lifecycle?

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	Yes	No	Not sure
Requiring transparency about environmental sustainability (e.g. through labelling)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Requiring transparency about carbon footprint (e.g. through labelling)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Requiring transparency about employment conditions (e.g. through labelling)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Placing quantitative requirements (e.g. thresholds) for environmental sustainability, carbon footprint, or other production aspects	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 21c. Comment

*300 character(s) maximum*

22. Do you consider that the EU's reliance on imported products/materials in the solar energy sector creates vulnerabilities or risks for accelerating deployment of solar energy?

- Yes
- No
- Not sure

### 22c. Comment

*300 character(s) maximum*

23. Do you consider that supply chain challenges could have a substantial impact on the availability of cost-effective solar energy solutions in the EU market in the medium-long term?

### 23c. Comment

*300 character(s) maximum*

24. How would you assess the following factors in hampering EU's capacity for generating intellectual property and innovation in relation to the solar energy value chain? (5 being the highest level of hampering)

	1	2	3	4	5
Lack of support to academic and research institutions	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Limited large-scale manufacturing in EU	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Lack of financing for start-ups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Process to file for EU-wide patents is too long / tedious	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Process to file for EU-wide patents is too costly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Absence of possibility to file a provisional patent application at EU level securing short-term (e.g. one year) patent protection with minimal cost, until a full application is filed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Lack of technical and financial capacity to pursue future intellectual property disputes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 24c. Comment

*300 character(s) maximum*

25. How would you assess the potential of various sectors of the photovoltaic supply chain to increase the competitiveness of the EU industry? (5 being the highest level of potential)

	1	2	3	4	5
Novel technologies (e.g. heterojunction, perovskite, tandem )	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Polysilicon production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ingots & wafers production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cells production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Modules production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Equipment manufacturing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Project engineering, procurement and construction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Project operation and maintenance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Balance of system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
System dismantling and recycling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 25c. Comment

*300 character(s) maximum*



26. How would you assess the contribution of the following measures to the sustainability, competitiveness and resilience of the EU solar energy value chain? (5 being the highest level of contribution)

	1	2	3	4	5
Access to favourable financing conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Launch a process of Important Projects of Common European Interest for the solar energy sector	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Secure access to raw materials by enhancing EU production	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Secure access to raw materials through promoting diversified and undistorted international traded	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Measures promoting fair and undistorted access to international markets for EU companies in the solar value chain, including through engagement with third countries	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Measures promoting solar energy solutions that require customisation (e.g. building-integrated photovoltaics, agri-photovoltaics, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Enhance skills development in the solar energy value chain in the EU	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Support to the development of large-scale production facilities, including through accelerated permitting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Measures promoting match-making between manufacturers and off-takers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Enhance synergies with the use for space applications	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

If other, please specify

*100 character(s) maximum*

In Germany: too little skilled staff for installation of PV.

26c. Comment

*500 character(s) maximum*

Feedback via file upload (optional)

Only files of the type pdf,txt,doc,docx,odt,rtf are allowed

4424de9b-47f3-4832-b128-95689d352097/Common\_response\_to\_the\_solar\_strategy-\_REScoop.eu\_and\_Energy\_Cities.pdf

**Thank you, your participation is very much appreciated!**

## Contact

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