

Testing of market needs in relation to the EU ETS Innovation Fund and the revision of its legal basis

Eurelectric response to EC consultation

Eurelectric represents the interests of the electricity industry in Europe. Our work covers all major issues affecting our sector. Our members represent the electricity industry in over 30 European countries.

We cover the entire industry from electricity generation and markets to distribution networks and customer issues. We also have affiliates active on several other continents and business associates from a wide variety of sectors with a direct interest in the electricity industry.

We stand for

The vision of the European power sector is to enable and sustain:

- A vibrant competitive European economy, reliably powered by clean, carbon-neutral energy
- A smart, energy efficient and truly sustainable society for all citizens of Europe

We are committed to lead a cost-effective energy transition by:

investing in clean power generation and transition-enabling solutions, to reduce emissions and actively pursue efforts to become carbon-neutral well before mid-century, taking into account different starting points and commercial availability of key transition technologies;

transforming the energy system to make it more responsive, resilient and efficient. This includes increased use of renewable energy, digitalisation, demand side response and reinforcement of grids so they can function as platforms and enablers for customers, cities and communities;

accelerating the energy transition in other economic sectors by offering competitive electricity as a transformation tool for transport, heating and industry;

embedding sustainability in all parts of our value chain and take measures to support the transformation of existing assets towards a zero carbon society;

innovating to discover the cutting-edge business models and develop the breakthrough technologies that are indispensable to allow our industry to lead this transition.

Dépôt légal: D/2023/12.105/16

Testing of market needs in relation to the EU ETS Innovation Fund and the revision of its legal basis

Fields marked with * are mandatory.

Introduction

The survey (comprising Parts 1 and 2) is open for all market actors that could benefit from the EU ETS Innovation Fund support.

The views of the EU Member States (plus Iceland and Norway), academia and other stakeholders are also welcome, and are encouraged to focus on Part 2 of the survey.

Context

The achievement of the EU's ambitious climate target in 2030, reaching climate neutrality by 2050, while at the same time ensuring European industrial competitiveness and security of supply, requires rapid deployment of zero and low-carbon solutions. Many less mature technologies, especially in "hard-to-abate" sectors, will need to move faster to commercialisation stage in order to be deployed on time and at the right scale. As underlined in the Green Deal Industrial Plan for the Net-Zero Age ([COM\(2023\) 62 final](#)), the EU is committed to speed up net-zero industrial transformation at home. This brings with it significant investment needs. The EU also has to be ready to lead the way to seize the net-zero industrial opportunities.

The EU ETS Innovation Fund has been established to support the private and public sector actors in developing innovative decarbonisation, by providing funding in a number of key sectors, i.e. energy intensive industry sectors, carbon capture, utilisation and storage applications (CCUS), innovative renewable energy technologies, energy storage, clean tech manufacturing, maritime and aviation.

The Commission is currently preparing the revision of the EU ETS Innovation Fund legal basis (Commission Delegated Regulation (EU) 2019/856) to ensure that it is fully aligned with the revised ETS Directive and draws on the lessons learned from the first years of implementation. At the same time, the Commission is preparing the next calls for proposals and auctions in line with the key political priorities, notably the Green Deal Industrial Plan, the REPowerEU Plan and the Hydrogen Bank. The objective of this survey is to receive contribution to this work and test the market's needs.

On the basis of the revised ETS Directive, the EU ETS Innovation Fund has around EUR 40 billion (depending on the carbon price) to invest in projects in the current decade .

The 3rd Large Scale Call is currently ongoing with a budget of EUR 3 billion and four topics. The 3rd Small

Scale Call will be published in March 2023 and auctions on renewable hydrogen production will be launched in autumn 2023.

Purpose

The purpose of this survey is to:

1. Assist the Commission services in understanding the types of funding that different industrial sectors and market players will require to close the green premium gap and decarbonise as fast as possible, and consequently to establish an appropriate portfolio of support instruments under the EU ETS Innovation Fund that will best meet the market's needs (*Part 1 of the survey*); and,
2. Gather views of market players and other stakeholders on strategic planning of the EU ETS Innovation Fund, in light of revision of both revisions to the ETS Directive and publication of the EU's Green Deal Industrial Plan for the Net-Zero Age (*Part 2 of the survey*).

Scope

In Part 1, the survey is aimed at both project developers that may consider applying for funding from the EU ETS Innovation Fund and professional / trade / business associations representing companies that could consider applying for funding from the EU ETS Innovation Fund in the current decade.

Financial entities that can provide lending, equity or other types of financial support to projects applying to the EU ETS Innovation Fund are also encouraged to respond to Part 1, from the perspective of projects likely to receive financing from them.

Views of EU Member States (plus Iceland and Norway), academia / think-tanks and other stakeholders are also welcome. They are encouraged to focus on Part 2 of the survey.

We kindly ask you to dedicate 15-20 minutes to this survey to help us better define the types of public support that are most required and which should be provided under the EU ETS Innovation Fund.

No personal or commercially sensitive data is requested and all information will be kept strictly confidential. Survey replies will have no impact on possible future applications to the EU ETS Innovation Fund. Responses will be aggregated and non-attributable.

The survey will be open until 7th March 2023.

Thank you for your time!

Privacy Statement

The European Commission, DG CLIMA, has contracted ICF to provide "Support services for the Innovation Fund - launch of the 2022 large-scale and small-scale calls for proposals" with the objective to improve the call methodologies, procedures and award criteria, including for future calls. As part of this support, ICF will process the answers to this survey. To proceed with the survey please confirm that you consent to your data being used as outlined in the privacy statement.

Privacy statement

☒ I accept your Terms

Part 1: Questions about projects

*** 1. What is the name of the entity you are responding on behalf of?**

50 character(s) maximum

Eurelectric

*** 2. Please select the option that best describes your entity?**

- ☐ Financial entity that can provide financial support (e.g. lending, equity) to projects applying to the EU ETS Innovation Fund
- ☐ Private company and groups, in industrial sector
- ☐ Private company and groups, renewable energy
- ☐ Private company and groups, energy storage
- ☐ Publicly owned company in industrial sector
- ☐ Publicly owned company in renewable energy
- ☐ Publicly owned company in energy storage
- ☒ Professional / trade / business associations
- ☐ Academic, think-tanks or research institution
- ☐ Non-governmental organisations, platforms, networks and similar
- ☐ Public entities (state / regional / local government) or their associations
- ☐ Other

*** 3. In which industrial or services sector is your entity active?**

50 character(s) maximum

Energy - electricity

*** 4. Does your entity envisage projects in any of the following areas (eligible under the EU ETS Innovation Fund) that would need public funding support? (Energy intensive industry sectors (as in the Annex I of the EU ETS Directive), CCS, CCU, Substitute products to those produced in Annex I, Renewable energy generation, Energy storage, Clean-tech manufacturing of components for renewable energy generation, Energy storage, Maritime, Aviation, Use of renewable fuels/energy carriers energy and low-carbon fuels/energy carriers outside Annex I of the ETS Directive, e.g. for Waste management, Wastewater treatment, Buildings, Road Transport)**

- ☐ Yes
- ☒ No [You are encouraged to progress to Part 2 starting at Question 21]
- ☐ Not known [You are encouraged to progress to Part 2 starting at Question 21]

5. In which area(s), does your entity envisage project that would need public funding support?

Select the applicable area of the project (note that a hybrid project could cover several areas).

☐ Ferrous metals

- ☐ Non-ferrous metals
- ☐ Cement
- ☐ Lime
- ☐ Glass
- ☐ Ceramics
- ☐ Paper & pulp
- ☐ Refineries
- ☐ Chemicals
- ☐ Hydrogen
- ☐ Power and heat generation, including manufacturing of components
- ☐ Carbon capture and storage (CCS)
- ☐ Carbon capture and utilisation (CCU)
- ☐ Renewable energy
- ☐ Energy storage
- ☐ Clean-tech manufacturing of equipment/components for PVs
- ☐ Clean-tech manufacturing of equipment/components for wind turbines
- ☐ Clean-tech manufacturing of equipment/components for other types of renewable energy
- ☐ Clean-tech manufacturing of equipment/components for energy storage (batteries and other)
- ☐ Clean-tech manufacturing of equipment/components for hydrogen (electrolysers)
- ☐ Maritime
- ☐ Aviation
- ☐ Road transport
- ☐ Buildings
- ☐ Substitute products to those produced in the Annex I of the ETS Directive (Energy Intensive industries)
- ☐ Use of renewable fuels/energy carriers and low-carbon fuels/energy carriers outside the Annex I of the ETS Directive, e.g. waste management, wastewater treatment
- ☐ Other

6. In which year you would like to apply for funding from the EU ETS Innovation Fund for your project?

- ☐ 2023
- ☐ 2024
- ☐ 2025
- ☐ 2026
- ☐ 2027
- ☐ 2028
- ☐ 2029
- ☐ 2030

7. What is your project about and what are its innovative elements?

1000 character(s) maximum

8. In which European country or countries will your project be deployed?

Several countries can be selected.

Austria
Belgium
Bulgaria
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Italy
Latvia
Lithuania
Luxembourg
Malta
Netherlands
Norway
Poland
Portugal
Romania
Slovak Republic
Slovenia
Spain
Sweden

9. What is both the starting Technology Readiness Level (TRL) of your project and the TRL that you aim to reach with your project following successful public funding support?

The TRLs are defined as:

TRL 4 – technology validated in lab

TRL 5 – technology validated in relevant environment

TRL 6 – technology demonstrated in relevant environment

TRL 7 – system prototype demonstration in operational environment

TRL 8 – system complete and qualified

TRL 9 – actual system proven in operational environment

TRL now

- ☐ 4
☐ 5
☐ 6
☐ 7

- ☐ 8
- ☐ 9

TRL after project

- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9

10. What *type of funding or support* is your project in need of most to progress?

- ☐ Attractive loans from national / regional promotional (public) banks
- ☐ Competitive loans from commercial banks
- ☐ Grants, fixed amount at award
- ☐ Grants, linked to production volumes based on unit cost
- ☐ Equity
- ☐ Guarantees
- ☐ Project Development Assistance
- ☐ Other

11. What are the *reasons / financial risks* that could lead to your project not being financially viable without subsidies?

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Technical risk, due to the innovative nature of the project	☐	☐	☐	☐	☐
Financial position of project sponsor / initiator	☐	☐	☐	☐	☐
Costs of project feasibility, FEED studies, planning & permitting too high for project sponsor to cover	☐	☐	☐	☐	☐
High upfront capital investment requirements	☐	☐	☐	☐	☐
Insufficient distribution of debt risk across parties, elevating financial risks	☐	☐	☐	☐	☐
Insufficient distribution of investment risk across investors, elevating financial risks	☐	☐	☐	☐	☐
Inappropriate project vehicle structure	☐	☐	☐	☐	☐

(Optimal) offtake agreements difficult to establish	☐	☐	☐	☐	☐
EU ETS carbon price remains too low and/or uncertain	☐	☐	☐	☐	☐
Debt service cover during operations too low to repay debt	☐	☐	☐	☐	☐
Suboptimal Return on Investment (ROI) for equity investors in project	☐	☐	☐	☐	☐
Low profitability due to regulated market returns	☐	☐	☐	☐	☐
Other (<i>please specify below</i>)	☐	☐	☐	☐	☐

12. For those risks which you have identified in Question 11 as either “Very important” or “Extremely important”, please briefly describe what types of support best address these risks.

1200 character(s) maximum

13. In what range are the *total project costs (CAPEX+OPEX)* of your project over a 10-year operational period?

- ☐ [<10 million EUR]
- ☐ [10-20 million EUR]
- ☐ [20-25 million EUR]
- ☐ [25-50 million EUR]
- ☐ [50-100 million EUR]
- ☐ [100-250 million EUR]
- ☐ [250-500 million EUR]
- ☐ [500-1000 million EUR]
- ☐ [1000-2000 million EUR]
- ☐ [>2000 million EUR]

14. In what range is the *CAPEX* of your project over a 10-year operational period?

- ☐ [<10 million EUR]
- ☐ [10-20 million EUR]
- ☐ [20-25 million EUR]
- ☐ [25-50 million EUR]
- ☐ [50-100 million EUR]
- ☐ [100-250 million EUR]
- ☐ [250-500 million EUR]
- ☐ [500-1000 million EUR]
- ☐ [1000-2000 million EUR]
- ☐ [>2000 million EUR]

15. What is the *ideal volume of funding* from the most important type of funding you selected above (*i.e. loans, grants, etc.*) your project would need to secure?

 million EUR

16. What *type of costs* in your project would you like to have covered by the EU ETS Innovation Fund?

- ☐ Project development
- ☐ CAPEX
- ☐ OPEX
- ☐ Both CAPEX & OPEX
- ☐ Not known

17. To help the EU ETS Innovation Fund to understand the likely timing of your project, when do you expect to be able to reach *final investment decision* (provided you get access to the financial support where needed) for your project?

- ☐ 2023
- ☐ 2024
- ☐ 2025
- ☐ 2026
- ☐ 2027
- ☐ 2028
- ☐ 2029
- ☐ 2030
- ☐ Not known

18. When do you expect your project to be able to enter *into operation* (provided you get access to the support where needed)?

- ☐ 2024
- ☐ 2025
- ☐ 2026
- ☐ 2027
- ☐ 2028
- ☐ 2029
- ☐ 2030
- ☐ 2031
- ☐ 2032
- ☐ 2033
- ☐ 2034
- ☐ 2035
- ☐ 2036
- ☐ 2037
- ☐ 2038
- ☐ 2039
- ☐ 2040
- ☐ Not known

19. What is the *expected capacity* of your project? Please specify output and units (e.g. “solar panel manufacturing, xGW per year” or “DRI Steel Pilot, x t of steel per year”)?

150 character(s) maximum

20. What is the *potential for cost reduction* you foresee for your technology upon realisation of your project (i.e. the *potential technology cost decline per unit of product in % before versus after the project/supporting project ends*)?

 %

Part 2: Questions about VIEWS on the future operation of the EU ETS Innovation Fund

21. How should EU ETS Innovation Fund spending be split over the next 3 years to achieve maximum impact in the market?

Please complete the following table to indicate the relative importance of each funding mechanism as a percentage of the overall EU ETS Innovation Fund budget (and ensure your total equals 100%):

Funding mechanism	Ideal share of the EU ETS Innovation Fund budget (%)
Grants with multi-criteria assessment and awarding fixed amount of support	60 %
Auctions based on price competition awarding support based on volume of production / abatement (fixed premium, contract for difference, (carbon) contract for difference)	40 %
Financial instruments, e.g. EU ETS Innovation Fund used as guarantee for attractive loans (like mechanism deployed under InvestEU) or equity funding	0 %
Total	100%

22. Which sector(s) should be prioritised for grants under the regular calls for proposals?

- ☐ Ferrous metals
- ☐ Non-ferrous metals
- ☐ Cement
- ☐ Lime
- ☐ Glass
- ☐ Ceramics
- ☐ Paper & pulp
- ☐ Refineries
- ☐ Chemicals
- ☐ Hydrogen
- ☒ Power and heat generation, including manufacturing of components
- ☐ Carbon capture and storage (CCS)

- ☒ Carbon capture and utilisation (CCU)
- ☒ Renewable energy
- ☒ Energy storage
- ☒ Clean-tech manufacturing of equipment/components for PVs
- ☒ Clean-tech manufacturing of equipment/components for wind turbines
- ☒ Clean-tech manufacturing of equipment/components for other types of renewable energy
- ☒ Clean-tech manufacturing of equipment/components for energy storage (batteries and other)
- ☒ Clean-tech manufacturing of equipment/components for hydrogen (electrolysers)
- ☐ Maritime
- ☐ Aviation
- ☐ Road transport
- ☐ Buildings
- ☐ Substitute products to those produced in the Annex I of the ETS Directive (Energy Intensive industries)
- ☐ Use of renewable fuels/energy carriers and low-carbon fuels/energy carriers outside the Annex I of the ETS Directive, e.g. waste management, wastewater treatment
- ☐ Other

23. Which should be priority sector(s) for auctions (i.e. competitive bidding) that can award fixed premium or (carbon) contracts for difference type of support?

- ☐ Ferrous metals
- ☐ Non-ferrous metals
- ☐ Cement
- ☐ Lime
- ☐ Glass
- ☐ Ceramics
- ☐ Paper & pulp
- ☐ Refineries
- ☐ Chemicals
- ☒ Hydrogen
- ☒ Power and heat generation, including manufacturing of components
- ☐ Carbon capture and storage (CCS)
- ☒ Carbon capture and utilisation (CCU)
- ☒ Renewable energy
- ☒ Energy storage
- ☒ Clean-tech manufacturing of equipment/components for PVs
- ☒ Clean-tech manufacturing of equipment/components for wind turbines
- ☒ Clean-tech manufacturing of equipment/components for other types of renewable energy
- ☒ Clean-tech manufacturing of equipment/components for energy storage (batteries and other)
- ☒ Clean-tech manufacturing of equipment/components for hydrogen (electrolysers)
- ☐ Maritime
- ☐ Aviation
- ☐ Road transport
- ☐ Buildings
- ☐ Substitute products to those produced in the Annex I of the ETS Directive (Energy Intensive industries)
- ☐ Use of renewable fuels/energy carriers and low-carbon fuels/energy carriers outside the Annex I of the ETS Directive, e.g. waste management, wastewater treatment
- ☐ Other

24. Which sector(s) should be prioritised for financial instruments, e.g. EU ETS Innovation Fund used as guarantee for attractive loans (like mechanism deployed under InvestEU) or equity funding?

- ☐ Ferrous metals
- ☐ Non-ferrous metals
- ☐ Cement
- ☐ Lime
- ☐ Glass
- ☐ Ceramics
- ☐ Paper & pulp
- ☐ Refineries
- ☐ Chemicals
- ☐ Hydrogen
- ☐ Power and heat generation, including manufacturing of components
- ☐ Carbon capture and storage (CCS)
- ☒ Carbon capture and utilisation (CCU)
- ☒ Renewable energy
- ☒ Energy storage
- ☒ Clean-tech manufacturing of equipment/components for PVs
- ☒ Clean-tech manufacturing of equipment/components for wind turbines
- ☒ Clean-tech manufacturing of equipment/components for other types of renewable energy
- ☒ Clean-tech manufacturing of equipment/components for energy storage (batteries and other)
- ☒ Clean-tech manufacturing of equipment/components for hydrogen (electrolysers)
- ☐ Maritime
- ☐ Aviation
- ☐ Road transport
- ☐ Buildings
- ☐ Substitute products to those produced in the Annex I of the ETS Directive (Energy Intensive industries)
- ☐ Use of renewable fuels/energy carriers and low-carbon fuels/energy carriers outside the Annex I of the ETS Directive, e.g. waste management, wastewater treatment
- ☐ Other

25. As a part of delivery of the REPowerEU Plan, the pilot auctions under the EU ETS Innovation Fund will target renewable hydrogen production.

In line with the objectives of the new Green Deal Industrial Plan for the Net-Zero Age, pilot auctions could also be developed to target manufacturing of components for renewable energy, energy storage, heat pumps or electrolysers, providing support per volume of manufactured output.

Do you think such means of support would be attractive to market players?

- ☒ Yes, it would be attractive AND there would be a good pipeline of eligible projects already in the short term (as of 2024)
- ☐ Yes, it would be attractive BUT there would be a good pipeline of eligible projects only in the medium-term (as of 2026)
- ☐ No, it would not be an attractive mechanism, other tools (grants or Member State level support) are better suited to this objective
- ☐ No, it would not be an attractive mechanism

26. Following revisions to the EU ETS Directive, it will be possible from 2024 to offer support under the EU ETS Innovation Fund for: *small-scale, medium-scale and large-scale projects*. It will be important to enable projects with similar funding requirements to compete against one another more fairly. To ensure that the right CAPEX thresholds are used to delineate the three sizes of projects, we would like your views on what thresholds are most appropriate to market needs.

The current CAPEX maximum threshold for *small-scale calls* is less than EUR 7.5 million. Which of the following maximum thresholds would be more appropriate?

- ☐ 15 million
- ☐ 20 million
- ☒ 25 million
- ☐ Different threshold
- ☐ Not known

27. Beyond changing the maximum CAPEX threshold, what changes are necessary in the small-scale call cycle (application, evaluation and monitoring) to improve the attractiveness of the EU ETS Innovation Fund for small-scale projects?

1200 character(s) maximum

28. Which maximum CAPEX threshold would be appropriate as a band for the new *medium-scale calls* band?

- ☐ 75 million
- ☐ 100 million
- ☐ 125 million
- ☐ 150 million
- ☒ Different threshold
- ☐ Not known

What threshold would you suggest?

150 character(s) maximum

29. Beyond the establishment of maximum CAPEX threshold, what arrangements are necessary for the medium-scale projects in Innovation Fund project cycle (application, evaluation and monitoring) to make the Innovation Fund attractive for such projects?

1200 character(s) maximum

30. For medium-scale projects, what elements should be included in the calculation of Relevant Costs?

(Note that the Relevant Cost for current small-scale projects of less than EUR 7.5 million requires only the CAPEX to be included, while for large-scale projects the Relevant Cost is based on a set of prescribed

methodologies which require a detailed assessment of CAPEX, OPEX and benefits over a 10-year operational period – see the Annex B methodology [here](#))

- ☐ CAPEX
- ☐ OPEX
- ☐ Both CAPEX & OPEX
- ☒ Identical to current large scale call Relevant Cost methodology, calculation of CAPEX, OPEX and benefits in terms of funding gap
- ☐ Not known

31. Do you have any additional comments for the EU ETS Innovation Fund in terms of support to be provided for specific technology areas / types of projects?

1200 character(s) maximum

Final section: Future engagement

32. What are the *most effective mechanisms* that stakeholders can use to provide feedback on the mix of funding instruments to be used under the EU ETS Innovation Fund and design of next calls for proposals and auctions?

at most 3 choice(s)

- ☐ Surveys
- ☒ Dedicated preparatory events ahead of official Calls for proposals
- ☐ Events to discuss the lessons learned from each Innovation Fund Call after they are concluded
- ☒ Innovation Fund Expert Group (IFEG)
- ☒ Using National Contact Points to collate feedback which can be passed to Commission services
- ☐ Other

33. Are you interested in being more involved in the future development of the EU ETS Innovation Fund (e.g. being invited to event or surveys)?

- ☒ Yes please
- ☐ No thanks

Please provide your name and organisation.

Wolfgang Pell, Eurelectric & Ioana Petcu, Eurelectric

Please provide your email address.

ipetcu@eurelectric.org

This completes the survey. Thank you for your valuable inputs.

Contact

[Contact Form](#)

Eurelectric pursues in all its activities the application of the following sustainable development values:

Economic Development

- Growth, added-value, efficiency

Environmental Leadership

- Commitment, innovation, pro-activeness

Social Responsibility

- Transparency, ethics, accountability



Union of the Electricity Industry - Eurelectric aisbl
Boulevard de l'Impératrice, 66 – bte 2 - 1000 Brussels, Belgium
Tel: + 32 2 515 10 00 - VAT: BE 0462 679 112 • www.eurelectric.org
EU Transparency Register number: [4271427696-87](https://ec.europa.eu/transparency/regexpert/?s=details&id=4271427696-87)