APPLICATION FORM (PART B)

European Commission

PROJECT	
Project acronym:	[acronym]
Project title:	[title]
Coordinator contact:	[name NAME], [organisation name]
INNOVATION FUND SPECIFIC INFORMATION	
Proposed date of Financial Close:	[month, year]
Proposed date of Entry into Operation:	[month, year]
Category of the project (drop down list) *For this and next two items, refer to Annex C to the call, Methodology for calculation of GHG emission avoidance, Appendix C1 Classification of projects into sectors*	[category name from list: (Energy storage, Renewable energy, Energy Intensive Industries, Energy intensive industries, CCS]]
Sector of the project (drop down lists)	[sector name from list: (Intra-day electricity storage, Other energy storage, Wind energy, Solar energy, Hydro/Ocean energy, Geothermal energy, Bio-electricity, Renewable Heating/Cooling, Refineries, Biofuels and bio-refineries, Iron & steel, Non-ferrous metals, Cement & lime, Glass, ceramics & construction material, Pulp & paper, Chemicals, Hydrogen, Other, CO2 Transport and Storage)]
Products within sector	[product name from list: (if substitute product, indicate the product substituted)]
Monitoring and reporting period	[number of ... project has ... shorter per... justification ...]
In which Member State(s) and at which location will the project be implemented?	[name of E... coordinates ...]
Does the project build on prior work supported under Horizon 2020 or any other EU programme(s)?	[yes/no, in ... it was supp...]
Is the project co-financed by, or requesting funding or planning to request funding from other EU programmes?	[yes/no, in case of yes, state the name of the project(s) and programme(s)]

Annex C, Methodology for calculation of GHG emission avoidance, Appendix C1 Classification of projects into sectors

Category	Sector	Product
Energy storage, incl. manufacturing plants for components	Intra-day electricity storage	electricity
	Other energy storage	electricity, heating/cooling, e-fuels, hydrogen
Renewable energy, incl. manufacturing plants for components	Wind energy	electricity
	Solar energy	electricity
	Hydro/Ocean energy	electricity
	Geothermal energy	electricity, CHP
	Bio-electricity	electricity, CHP
	Renewable Heating/Cooling	heating/cooling
Energy Intensive Industries, incl. CCU, incl. substitute products, incl. CCS (CO2 capture and full scale)	Refineries	fuels (incl. e-fuels)
	Biofuels and bio-refineries	biofuel, bio-based products
	Iron & steel	coke, iron ore, iron, steel, cast ferrous metals products, other
	Non-ferrous metals	aluminium, precious metals, copper, cast non-ferrous metal products, other
	Cement & lime	cement, lime, dolime, sintered dolime, other
	Glass, ceramics & construction material	flat & container glass, glass fibres, tiles, plates, refractory products, bricks, houseware, sanitary ware, mineral wool, gypsum, other
	Pulp & paper	chemical pulp, mechanical pulp, paper and paperboard, sanitary and tissue paper, other
	Chemicals	organic basic chemicals, inorganic basic chemicals, nitrogen compounds, plastics in primary forms, synthetic rubber, other
	Hydrogen	hydrogen
	Other	electricity, heat, other
CCS (CO2 transport and/or storage)	CO2 transport and/or storage	CO2 transport and/or storage

Choice of a sector

1) determine *principal product(s)* and *use*

2a) <u>if one principal products</u>: the choice is straightforward: e.g. 'wind energy' or 'cement' production

…but may be influenced by the use: e.g. ethanol can be used for production of chemicals (so 'chemicals') or as a fuel (so 'refineries')

2b) <u>if more than one principal product</u>, e.g. different chemicals but all in the same sector: also straightforward: e.g. 'chemicals'

2c) <u>if principal products from 2 or more sectors</u>: choose one of the sectors of the principal products, e.g. steel plant producing methanol: choose 'steel' or 'refineries' or 'chemicals'

⚠ the principal product has to be used in the calculation of the relative emission avoidance

PROJECT and APPLICANT

Background and objectives

Describe the *background* and *rationale* of the project as well as the *specific objectives* of the project.

- how does the project help demonstrating highly innovative technologies, processes or products, that are *sufficiently mature and have a significant potential to reduce greenhouse gas emissions*; and

- how does the project plan to *attract additional public and private resources*.

- describe *how will the project contribute to EU Policies*: the Integrated SET Plan, the New Industrial Strategy for Europe and the Communication on a recovery plan for Europe, the new Circular Economy Action Plan, the shift to renewables and increased electrification, energy efficiency, the LULUCF Regulation, the EU Biodiversity Strategy for 2030 and the Bioeconomy Strategy.

Technical characteristics and scope

Outline the technical characteristics and scope of the project. Explain why the proposed solution is the most suitable for achieving the project's objectives.

Briefly describe the scope, approach and key technical characteristics of the project, including:

- Location of the project

- Expected output in terms of volume of main product(s)

- Expected source of key inputs and feedstock

- Technology, and why this has been chosen over alternatives

- Current status of project development

- The technical characteristics, scope and nature of the project should be stable and well defined

- Summarize the points elaborated in other parts of the application form B

PROJECT and APPLICANT

Requested EU contribution

Indicate...
(EUR) ba...
costs.
Only an I...
For guida...
to the A...
amount o...
60% of t...
The indic...
consister...
section a...

Tool to support the calculation of the relevant cost under the Innovation Fund - Levelised Cost Model - Energy & Power
Designed by ICF, Turquoise International and Gregor Paterson-Jones, June 2020

Introduction to the calculation tool

This tool aims to support the calculation of relevant costs under the Innovation Fund for projects generating power and heat. It is based on the well-known LCOE calculation which is a standard when comparing technologies' cost of producing a MWh or equivalent of energy. It should be used as support to calculate relevant cost based on Option 1A in the Decision Tree presented here.

The "**Example**" tab presents an illustration of how the tool is used to calculate the relevant costs of a hypothetical wave energy project.

The "**Inputs**" tab is the **only tab where applicants have to enter data**. Specific guidance is provided on most data entries. Make sure to follow them for the tool to function properly, e.g. do not change the format of the date for financial close.

The "**Relevant Costs**" tab presents the results of the tool.

For further detailed information on how to do the calculation and on all conditions linked to the application and grant award, please refer to the call text and its annexes. This tool is provided only as support. In case of divergence of the information or formulas between this tool and the call text and its annexes, the call text and the annexes take precedence.
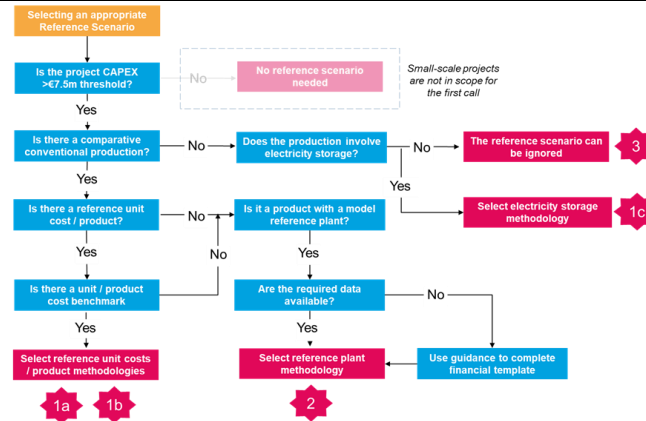
Structure

The spreadsheet is divided into tabs according to its contents and purposes

Overview	Provides an overview of the spreadsheet
Example	Presents an illustrative example to explain the principles of the methodology
Inputs	Contains all the input data, applicants using this tool will have to fill in
Relevant Costs	Presents the result of the relevant cost calculation based on the data entered into the Inputs tab

Using the spreadsheet

The cells are color-coded to guide the user in navigating the Inputs tab. Captions are on the sheets where data entry is required.

Colour code - Inputs tab
Enter data
Calculated data
Select an option
Please provide additional information

Relevant costs tools to guide applicants

- Relevant costs calculation tools developed for all 5 RC methodologies (LCOE, LCOP, LCOS, reference plant, no reference)

- The tools can be used as a support guidance for applicants

- Available on the call website

- Include the Overview, Examples of RC calculations, Input tab for applicants and Relevant costs calculation

AWARD CRITERIA
GHG EMISSION AVOIDANCE POTENTIAL

⚠️ *Minimum requirements*

Comparison with EU ETS benchmark emissions (only for projects producing products with a EU ETS benchmark)
Calculate the GHG emissions per unit of product according to the EU ETS methodology and compare with the equivalent EU ETS benchmark(s) applicable at the time of the application.

Sustainability of biomass (only for projects using biomass as feedstock)
Projects using biomass as feedstock should confirm that the used biomass will at least meet the sustainability requirements of the Renewable Energy Directive and originate from feedstocks with a low risk of causing indirect land-use change.

AWARD CRITERIA
GHG EMISSION AVOIDANCE POTENTIAL

Absolute GHG emission avoidance

Calculate the potential for absolute GHG emission avoidance during 10 years after entry into operation in accordance with the GHG emission avoidance methodology described in Annex C of the call text.

Support the calculation with:

- *Copy of own detailed calculation as one editable Excel document (mandatory).*
- *Detailed explanation of the assumptions made and consistency with the methodology*

Relative GHG emission avoidance

Calculate the relative GHG emission avoidance during 10 years after entry into operation following the GHG emission avoidance methodology described in Annex C of the call text.

Support the calculation with:

- *Copy of own detailed calculation as an editable Excel sheet (mandatory).*
- *Detailed explanation of the assumptions made and consistency with the methodology.*

Tools available to support the calculation of GHG emission avoidance from CCS, RES and energy storage projects

Due to the variety of possible cases in the sectors of energy intensive industries, it hasn't been possible to develop a template to guide the calculations.

Applicants are however encouraged to structure the presentation of the calculations in a similar way to the extent possible, i.e. using the same tabs in one Excel document:
- Overview
- Summary
- Reference emissions
- Project emissions
- Conversion factors

Tools available to support the calculation of GHG emission avoidance from CCS, RES and energy storage projects

Data / Parameter	Proposed value	Data unit	Description	Assumption / Comment	Alternative value proposed by Applicant	Data unit	Name of responsible	Area / Department	
EF_{road}	0,108	kg CO_2e / tonne.km	Emission factor for liquid CO2 transport by heavy truck.	40 tonne articulated truck carrying 20m3 pressurized cryotank. Includes return trip.		kg CO_2e / tonne.km			
EF_{rail}	0,065	kg CO2e / tonne.km	Emission factors for freight by maritime modals	Transport in liquid form. Includes necessary boil-off		kg CO2e / tonne.km			
$EF_{maritime}$	0,03	kg CO2e / tonne.km	Emission factors for freight by maritime modals	Lower end of IPCC range, Includes fuel combustion and boil-off of CO2.		kg CO2e / tonne.km			

| Overview | Summary | Reference emissions | Project emissions | **Conversion factors** |

Tools available to support the calculation of GHG emission avoidance from CCS, RES and energy storage projects

Reference emissions calculation

					Projected operational data				GHG Emissions		
Source	Parameter monitored	Description	Energy type/service	Unit	Year 1	Year 10	Comments	Grid loss [%]	t CO2e / [unit]	t CO2e	
Ref$_{energy}$	E$_{transport}$	Net amount of electricity supplied by the project to non-rail vehicles	Electricity	TJ				-	222,3	0	
Ref$_{energy}$	E$_{out,elect}$	Net amount of electricity supplied by the project to any other user	Electricity	TJ				6,58	140	0	
Ref$_{energy}$	E$_{out,heat}$	Net amount of heat supplied by the project	Heat	TJ				8,54	62,4	0	
Ref$_{energy}$	E$_{out,hydrogen}$	Net amount of hydrogen supplied by the project	Hydrogen	TJ				0,43	62,3	0	
Ref$_{energy}$	E$_{out,other}$	Net amount of any other energy type supplied by the project	[Please specify]	TJ						0	
Ref$_{services}$	T$_{services,freq}$	Duration of delivery of frequency response by the project	Frequeny response	h				-	0	0	
Ref$_{services}$	T$_{services,react}$	Duration of delivery of reactive power by the project	Reactive power	h				-	0	0	
Ref$_{services}$	T$_{services,inertia}$	Duration of provision of inertia by the project	Provision of inertia	h				-	0	0	
			[Please					-	0	0	

| Overview | Summary | **Reference emissions** | Project emissions | Conversion factors |

Tools available to support the calculation of GHG emission avoidance from CCS, RES and energy storage projects

Project emissions calculation

	Projected operational data						GHG Emissions	
Source	Parameter monitored	Description	Unit	Year 1	Year 10	Comments	t CO2e / [unit]	t CO2e
$Proj_{capture}$	Various	See Regulation (EU) 2018/2066, Annex IV, Section 21.	t CO_2					0
$Proj_{transport\ pipeline}$	Various	See Regulation (EU) 2018/2066, Annex IV, Section 22.	t CO_2					0
$Proj_{injection}$	Various	See Regulation (EU) 2018/2066, Annex IV, Section 23.	t CO_2					0
$Proj_{transport\ road}$	K_{road}	Total distance travelled by road vehicles	km			Equals to distance of one-way trip * number of trips		
$Proj_{transport\ maritime}$	$K_{maritime}$	Total distance travelled by maritime transportation	km			Equals to distance of one-way trip * number of trips		
$Proj_{transport\ rail}$	K_{rail}	Total distance travelled by rail	km			Equals to distance of one-way trip * number of trips		
$Proj_{transport\ road}$	$CO2_{transported\_road}$	Amount of CO2 transported by road vehicles	t CO_2					
$Proj_{transport\ maritime}$	$CO2_{transported\_maritime}$	Amount of CO2 transported by maritime transportation	t CO_2					
$Proj_{transport\ rail}$	$CO2_{transported\_rail}$	Amount of CO2 transported by rail	t CO_2					
				0	0		0,108	0

| Overview | Summary | Reference emissions | **Project emissions** | Conversion factors |

Tools available to support the calculation of GHG emission avoidance from CCS, RES and energy storage projects

General plant information

General information		Comment
Start of operations		
Type and location of plant of origin		
Type of transport		
Type and location of storage site		
Technology used		

Absolute GHG Emissions Avoidance

Net absolute GHG emissions avoided due to operation of the project during the first 10 years of operation, in tCO2e.

Acummulated GHG emission avoidance	=	Reference emissions	-	Project emissions
ΔGHG_{abs}	=	$Ref_{release}$	-	$(Proj_{capture} + Proj_{transport\ pipeline} + Proj_{transport\ road} + Proj_{transport\ rail} + Proj_{transport\ maritime} + Proj_{injection})$
0	=	0	-	0

Relative GHG Emissions Avoidance

Relative GHG emissions avoided due to operation of the project during the first 10 years of operation, in percent.

Acummulated GHG emission avoidance	=	Acummulated GHG emission avoidance	÷	Reference emissions
ΔGHG_{rel}	=	ΔGHG_{abs}	÷	$Ref_{release}$
#DIV/0!	=	0	÷	0

| Overview | **Summary** | Reference emissions | Project emissions | Conversion factors |

Errors?

- *Clerical errors:* minor errors, normally caused by inadvertent negligence in the application of formulas, or conversion of units, and *that can be easily corrected*.

- *Manifest errors* are the discrepancies that can be seen to influence the GHG avoidance estimates significantly and, consequently, the result of the evaluation / scoring. Such errors could derive from an oversight, omission or miscalculation.

⮕ Manifest errors lead to 0 score and rejection of the proposal

Score

Sub-criteria	unit	Max score	Min score
Absolute GHG emission avoidance	tCO2	5 (the best in the sector)	0 (the worst in the sector)
Relative GHG emission avoidance	%	5 (100%)	0 (0%)
Total		10	0
Normalised score		**5**	**0**

⚠️ *Doubts in the robustness of the calculation?*
Points may be reduced

AWARD CRITERIA
DEGREE OF INNOVATION

Annex D

Degree of innovation

Describe whether the proposed action (technology / product) is innovative in relation to the state-of-the-art and how it goes beyond incremental innovation.

Include in the description clear arguments on how the technology / product is innovative in relation to state-of-the-art in terms of performance, reliability & availability, maintenance, economics, simplicity of design, simplicity of manufacturing, simplicity in control & operation.

Explain these for all parts or aspects of the project that you consider innovative.

- *Examples* of innovative actions
- *Definition of incremental innovation*: only minor changes to existing products, processes or business models, which result in e.g. reduction of costs or functional improvements at low levels of uncertainty
- Projects that contribute to reaching the *SET-Plan implementation targets* identified under the 10 actions are likely to deliver more than incremental innovation.

Score

Criterion	Max score	Min threshold for passing to second stage	Min score
Degree of innovation	**5**	**3**	**0**

PROJECT MATURITY: Technical maturity

Technical Maturity (short summary)

*- degree of **technology readiness and technical feasibility of the project** within its operational environment. Reflect the **current state of project development, building on any available information or documents**.*

Technology readiness

*- **degree of technology readiness** of your project and of the various components of your project (TRL) before the project and after the project*

Technical feasibility of achieving the GHG emission avoidance within the project's operational environment

*- technical **readiness of the project site, expected project output and technical feasibility of achieving this output***

*- how the proposed **technology has already been proven** in a pilot scale demonstration (where available)*

*- how **changes in scale or change in circumstances** compared to previous testing/projects have been taken into account in the design of the project, where applicable*

Degree of understanding of technology and related technical risks and proposed risk mitigation measures

*Describe **key risks** identified in relation to the technology and proposed **risk mitigation measures.***

- Robust feasibility study addressing at least the points in the application form is a mandatory document (80 pages max)

- Applicants may use existing technical feasibility study and/or any third-party due diligence report

- Always provide precise references to the text in supporting documents

- Technical design of the project should be stable and consistent with financial and operational set-up.

PROJECT MATURITY: Financial maturity

Financial maturity (short summary)

- *justification for the planned date of financial close and explain how the project will be financially prepared to enter into operation as expected*
- *demonstrate financial viability of your project i.e. is it fundable/bankable? Can it cover costs? Are planned revenues credible and sufficient? Etc.*
- *demonstrate that the financial risks of the project are understood and there is a sound strategy to mitigate them.*

Credibility of the business model

Describe the proposed project business model, targeted market(s)/products, including the project's value proposition, and how it addresses market gaps

Provide description of project costs, revenues and profitability. Include the description of prices assumed and expected revenue structure.

- Financial close must be reached in 4 years since grant agreement signature
- Credible business plan addressing at least the points in the application form is a mandatory document (25 pages max)
- Applicants may use existing business plan and/or any third-party due diligence report
- Breakdown per CAPEX and OPEX cost items, cash-flow projections and profitability. Robust financial model to be part of the business plan.

PROJECT MATURITY: Financial maturity

Soundness of financing plan and solidity of commitment of project funders and investors

- *project financing plan*, incl. envisaged financial structure of the project (level and source of equity, debt, expected public subsidies and their source, own financing)

- *state-of-play, nature, level and conditions of support provided from project funders and investors*, incl. own contribution by the applicant. Provide corresponding evidence (e.g. letters of interest/support, letters of approval from funders/shareholders or board confirming the submission and the support of the financing plan)

- *support from other sources including market mechanisms, or support from Member States* and status/planning for State aid clearance where relevant.

Level of understanding of the expected financial risks of the project and quality of proposed mitigation measures

- *expected financial risks of the project* (e.g. cash flow volatility, credit/counterparty risks, risk that public subsidies are discontinued or reduced) *and how you propose to mitigate these risks*.

- Comprehensive financing plan, clear financial structure, sources of funding

- Coherence with the cash flow projections and tech design and operational planning over the project lifetime

- Evidence on "secured" or "committed" funding, visibility of expected funding sources, funding acquisition strategy

- What happens if the promised funding does not materialize, costs increase or revenues decrease? Are financial risks understood and mitigated?

PROJECT MATURITY: Operational maturity

Operational maturity (short summary)

- *demonstrate that the* **project implementation plan is sufficiently developed, comprehensive and realistic**

- *indicate the* **current standing in the project** *development cycle*

- *describe prospects and steps for* **successful construction, commissioning and entry into operation of the project**

- **building on any available information or documents.**

Credibility and level of detail of the project implementation plan covering all project milestones and deliverables

- *describe the* **project timeline** *and* **key milestones** *and* **deliverables for project development, construction and roll out**, *incl. project monitoring reports after entry into operation (also annual GHG emissions avoidance reports)*

- **cover the period from the signature of the grant up to the end of the proposed monitoring and reporting period.**

Relevance and track record of the project management team and soundness of the project organisation

Describe the **project management team**, *its professional capacity, relevant track record, and proposed* **project organisation** *including* **decision-making structures** *and processes.*

- Comprehensive project implementation plan is a mandatory document (25 pages max)

- Detailed plan and chart of milestones and deliverables

- Coherence with the technology design and roll-out and financing plan over the lifetime of project

- Focus on quality/relevance of the project team and partners for the success of the project

PROJECT MATURITY: Operational maturity

State of play and credibility of the proposed plan for obtaining required permits, intellectual property rights or licences and other regulatory procedures.

- *required **permitting** and other relevant **regulatory procedures/support**, steps towards acquiring intellectual property rights or licences*

- *the **list of permits/rights/licences already obtained**, those still needed and the envisaged timing for obtaining them.*

Strategy for ensuring public acceptance of the project

*- describe **environmental impacts during construction and operation,** the state of **public acceptance** of the technology and the project and how you propose to ensure it*

Robustness and credibility of the strategy for securing the key supply and off-take contracts

- *describe the main **commercial contracts envisaged** and the **contractual relationship between the main parties involved with the project***

- *list and describe **any preliminary agreements** with **suppliers or off-takers** and **strategy for timely conclusion of further required agreements**.*

- *****key contracts** and how the required **solidity/track record of suppliers and off-takers** will be ensured.*

Level of understanding of the project's implementation risks and credibility of proposed mitigation measures

*Describe the **expected project implementation risks** and propose **strategy to mitigate them**.*

- Public acceptance, permits and licenses are the responsibility of applicants – think of related procedures and steps

- Evidenced contracts or agreements with suppliers and off-takers increase the credibility of planning

- Are operational risks understood and mitigated?

Score

Sub-criteria	Max score	Min threshold for passing to second stage	Min score
Technical maturity	5	3	0
Financial maturity	5	3	0
Operational maturity	5	3	0
Total	15	9	0
Normalised score	**5**	**3**	**0**

Results of evaluation and what's next

Proposals are scored against the three award criteria

Proposals not meeting minimum requirements are rejected

Proposals meeting minimum requirements are ranked according to the sum of points received. Priority in case of the same sum of points:
1) Degree of innovation
2) Higher ranking in specified sector
3) Lower number of high-ranked proposals in a MS/NO/IC

Up to 70 best-ranked proposals or additional proposals up to 2,5 x the call budget are invited to the second stage

Project development assistance

Rejected proposals that :

a) meet the minimum requirements under greenhouse gas emissions avoidance and degree of innovation criteria; and

b) are awarded at least 50% of total points under the project maturity criterion; and

c) are considered by evaluators as having the potential for improving their maturity through specific project development assistance.

Will be considered for the **project development assistance** support provided by the EIB.

OVERVIEW OF SUPPORTING DOCUMENTS TO BE SUBMITTED

Page limit for Application Form Part B : 40 pages

Mandatory documents	Page limit	Optional documents	Page limit
• Detailed calculation of GHG emission avoidance potential (in editable xls format) • Feasibility study (in pdf format) • Business plan (in pdf format) • Project implementation plan (in pdf format)	n/a 80 25 25	Any existing due diligence reports (pdf format)	n/a

Note that excess pages will be blanked for evaluators and therefore disregarded.

The **mandatory documents can include any existing documents by the applicant or third party** *that the applicant considers useful and that fall in the scope of the documents listed in the table above.*

Further guidance

To be published this week:

✓Frequently asked questions

✓Relevant cost calculation templates

✓Guidance for evaluators on GHG emission avoidance calculation

Further questions:

Applicants are kindly invited to submit further questions via the Funding and Tenders Portal