

1.1 Part III.8 - Supplementary Information Sheet for the notification of an evaluation plan

Member States must use this sheet for the notification of an evaluation plan pursuant to Art. 1(2)(a) of Regulation (EU) No 651/2014¹ and in the case of a notified aid scheme subject to an evaluation as provided in the relevant Commission guidelines.

Please refer to the Commission Staff Working Document "Common methodology for State aid evaluation"² for guidance on the drafting of an evaluation plan.

1. Identification of the aid scheme to be evaluated

(1) Title of the aid scheme:

Compensation for indirect ETS costs in Poland for the period 2021-2030

(2) Does the evaluation plan concern:

(a) a scheme subject to evaluation pursuant to Article 1(2)(a) of Regulation (EU) No 651/2014?

(b) a scheme notified to the Commission pursuant to Article 108(3) TFEU?

(3) Reference of the scheme (to be completed by the Commission):

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(4) Please list any existing *ex-ante* evaluations or impact assessments for the aid scheme and ex-post evaluations or studies conducted in the past on predecessors of the aid scheme or on similar schemes. For each of those studies, please provide the following information: (a) a brief description of the study's objectives, methodologies used, results and conclusions, and (b) specific challenges that the evaluations and studies might have faced from a methodological point of view, for example data availability that are relevant for the assessment of the current evaluation plan. If appropriate, please identify relevant areas or topics not covered by previous evaluation plans that should be the subject of the current evaluation. Please provide the summaries of such evaluations and studies in annex and, when available, the internet links to the documents concerned:

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¹ Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty (OJ L 187, 26.6.2014, p. 1).

² SWD(2014)179 final of 28.5.2014.

2. Objectives of the aid scheme to be evaluated³

2.1. Please provide a description of the aid scheme specifying the needs and problems the scheme intends to address and the intended categories of beneficiaries, for example size, sectors, location, indicative number:

The ETS Directive established a scheme for greenhouse gas emission allowance trading within the Union ('the EU ETS') in order to promote reductions of greenhouse gas emissions in a cost-effective and economically efficient manner. It was amended in 2018 to improve and extend the EU ETS for the period 2021-2030 (the fourth EU ETS trading period).

The ETS Directive provides for a number of special and temporary measures for certain undertakings, one of them being aid to compensate for increases in electricity prices resulting from the inclusion of the costs of greenhouse gas emissions due to the EU ETS (commonly referred to as 'indirect emission costs').

Under Article 10a(6) of the ETS Directive, Member States should adopt financial measures in favour of sectors or subsectors which are exposed to a genuine risk of carbon leakage due to significant indirect costs that are actually incurred from greenhouse gas emission costs passed on in electricity prices, provided that such financial measures are in accordance with State aid rules, and in particular do not cause undue distortions of competition in the internal market.

Conditions of compatibility of such aid are defined with great detail in the new Guidelines for 2021-2030. Thus, Member State are not given much room to introduce country-specific arrangements. On the contrary, indirect emission costs compensation schemes are mostly uniform across the EU. The notified measure is no exception and it constitutes a compensation scheme for indirect emission costs which closely follows the new Guidelines for 2021-2030.

The aid beneficiaries have to be active in sectors and subsectors deemed to be exposed to a significant risk of carbon leakage due to costs relating to greenhouse gas emissions passed on in electricity prices, listed in Annex I to new Guidelines for 2021-2030:

- a) 14.11 – Manufacture of leather clothes;
- b) 24.22 – Aluminium production;
- c) 20.13 – Manufacture of other inorganic basic chemicals;
- d) 24.43 – Lead, zinc and tin production;
- e) 17.11 – Manufacture of pulp;
- f) 17.12 – Manufacture of paper and paperboard;

³ Beyond providing a general description of the objectives and eligibility rules of the scheme, the aim of this section is to assess how the eligibility and exclusion rules of the scheme may be used to identify the effect of aid. In some cases, the precise eligibility rules may not be known in advance. In those cases the best available expectations should be provided.

- g) 24.10 – Manufacture of basic iron and steel and ferro-alloys;
- h) 19.20 – Manufacture of refined petroleum products;
- i) 24.44 – Copper production;
- j) 24.45 – Other non-ferrous metal production;
- k) The following subsectors within the plastics sector (20.16): 20.16.40.15 – Polyethylene glycols and other polyether alcohols, in primary forms;
- l) All product categories in the casting of iron sector (24.51);
- m) The following subsectors within the glass fibre sector (23.14):
 - a. 23.14.12.20 – Glass fibre mats,
 - b. 23.14.12.40 – Glass fibre voiles;
- n) The following subsectors within the industrial gases sector (20.11):
 - a. 20.11.11.50 – Hydrogen,
 - b. 20.11.12.90 – Inorganic oxygen compounds of non-metals.

Moreover, according to point 22 of the new Guidelines for 2021-2030, if Member States decide to grant the aid only to some of the sectors listed in Annex I, the choice of sectors must be made on the basis of objective, non-discriminatory and transparent criteria. The notified measure grants aid to all sectors and subsectors listed in Annex I to the new Guidelines for 2021-2030 throughout the entire period of validity of the scheme.

The scheme is addressed to both SMEs and large enterprises (however, in practice undertakings operating in eligible sectors and subsectors are large entities), regardless of their location. It is estimated that approx. 200 undertakings will benefit from the scheme.

2.2. Please indicate the objectives of the scheme and the expected impact, both at the level of the intended beneficiaries and as far as the objective of common interest is concerned:

The objective of the aid is to compensate undertakings operating in energy-intensive sectors for the higher electricity costs they experience under the EU ETS, thus limiting the risk of carbon leakage. Potential beneficiaries are those companies active in one of the eligible sectors listed in the Annex I of the ETS guidelines. Furthermore, the objective of the aid is to compensate these undertakings with the twofold ultimate goals of:

- promoting the international and European climate protection targets by: (i) preventing a global increase of GHG by reducing the electricity costs related carbon leakage risks and (ii) minimising the direct and indirect emissions intensity of production processes by supporting investments in energy efficiency and low carbon technology;
- ensuring the competitiveness of the funded (sub)sectors in the international market, securing jobs and avoiding an investment leakage in these sectors.

Regarding the risk of carbon leakage, it refers in particular to EUA costs passed on in electricity prices paid by the beneficiary. If its competitors from third countries do not face similar costs in their electricity prices, the beneficiary might be unable to pass on those costs to product prices without losing significant market share. Thus, the expected impact of the aid on the beneficiaries is to mitigate the burdens stemming from the ambitious EU climate policy to such extent as to enable the beneficiaries to maintain their competitiveness and not relocate outside the EU.

Due to additional conditions attached to the aid (cf. points 54-55 of the new Guidelines for 2021-2030) it is also expected that the beneficiaries will either improve their energy efficiency or contribute to the reduction of the CO₂ emissions.

Addressing the risk of carbon leakage, by assisting beneficiaries to reduce their exposure to this risk, serves an environmental objective, since the aid aims to avoid an increase in global greenhouse gas emissions due to shifts of production outside the Union, in the absence of a binding international agreement on reduction of greenhouse gas emissions.

2.3. Please indicate possible negative effects, on the aid beneficiaries or on the wider economy, that might be directly or indirectly associated with the aid scheme⁴:

As regards possible negative effects of the scheme either on the beneficiaries, their competitors or on the wider economy, it is in principle not the scheme itself, but the conditions stipulated in the new Guidelines for 2021-2030 themselves which could have such impact.

In this respect, inter-sector distortions could arise in situations where there is substitutability between materials and products manufactured by different sectors, one or some being eligible for compensation under the new Guidelines for 2021-2030.

A related concern raised by the Polish authorities is that the exclusion of some sectors and sub-sectors from the scope of indirect emission cost compensation compared to the ETS Guidelines post-2012 (e.g. ‘manufacture of other inorganic basic chemicals’ or ‘manufacture of fertilizers and nitrogen compounds’) may result in deteriorated competitiveness of undertakings playing vital role in the Polish economy.

It is also to be verified whether other conditions of granting aid stipulated in the new Guidelines for 2021-2030 (e.g. the aid intensity) do not compromise the objective of the aid.

2.4. Please indicate (a) the annual budget planned under the scheme, (b) the intended duration of the scheme⁵, (c) the aid instrument or instruments and (d) the eligible costs:

a) Annual budget

⁴ Examples of negative effects are regional and sectorial biases or crowding out of private investments induced by the aid scheme.

⁵ Aid schemes defined in Article 1(2)(a) of Regulation (EU) No 651/2014 are excluded from the scope of the Regulation six months after their entry into force. After having assessed the evaluation plan, the Commission may decide to extend the application of the Regulation to such schemes for a longer period. Member States are invited to precisely indicate the intended duration of the scheme.

Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Budget (PLN million)	1,767	4,19	3,745	3,824	5,014	5,135	5,276	5,688	5,604	5,192	45,435
Budget (EUR million)	0,3903	0,9255	0,8272	0,8446	1,1075	1,1342	1,1653	1,2564	1,2378	1,1468	10,0356

b) Duration of the scheme

The scheme refers to compensation of indirect emission costs incurred in years 2021-2030. Since aid is to be paid *ex post*, i.e. in the year following the year in which indirect emission costs have been incurred, aid is to be paid in years 2022-2031.

c) The aid instrument

Aid takes the form of a direct grant calculated in line with the formulae stipulated in point 28 of the new Guidelines for 2021-2030. Separate formulae have been defined for installations manufacturing products:

- to which electricity consumption efficiency benchmark expressed in MWh/t applies. The electricity consumption efficiency benchmarks are consistent with benchmarks listed in Table 1 in Annex II to the new Guidelines for 2021-2030; those benchmarks values are used as a starting point for the determination of the applicable efficiency benchmark for a specific year, taking into account the corresponding annual reduction rate according to the formula established in Annex II under ‘Updated efficiency benchmarks for certain products referred to in Annex I’;
- to which product benchmark expressed in tCO₂e/t applies. The product benchmarks are set out in section 2 of the Annex to the Commission Implementing Regulation (EU) 2021/447 of 12 March 2021 determining revised benchmark values for free allocation of emission allowances for the period from 2021 to 2025 pursuant to Article 10a(2) of Directive 2003/87/EC of the European Parliament and of the Council, as stated in Annex II to the new Guidelines for 2021-2030;
- for which electricity consumption efficiency benchmarks are not defined. In such cases fall back electricity consumption efficiency benchmark applies (defined in point 15(15) of the new Guidelines for 2021-2030); the fall back electricity consumption efficiency benchmark will be reduced (as from 2022) by 1.09% on an annual basis, according to the formula established in Annex II under ‘Updated efficiency benchmarks for certain products referred to in Annex I’.

As regards other rules applicable to the aid calculation method:

- the maximum aid intensity defined in the new Guidelines for 2021-2030 is respected;
- the regional CO₂ emission factor for Poland defined in Annex III to the new Guidelines for 2021-2030 will apply;
- EUA forward price used in the formulae is calculated in accordance with the definition set out point 15(9) of the new Guidelines for 2021-2030;
- the aid calculation methodology complies with points 29-30 of new Guidelines for 2021-2030;
- aid will be calculated based on actual output;
- in order to ensure equal treatment of sources of electricity and avoid possible abuses, auto generation, electricity supply contracts or grid supply will be treated on the same footing;
- the arrangement described in point 31 of the new Guidelines for 2021-2030 (limitation of the amount of the indirect costs to be paid at undertaking level to 1,5 % of the gross value added of the undertaking concerned in year t) is to apply.

d) The eligible costs

The eligible costs will be indirect emission costs calculated in line with the formulae stipulated in point 28 of the new Guidelines for 2021-2030.

2.5. Please provide a summary of the eligibility criteria and the methods for selecting the aid beneficiaries. In particular, please describe the following: (a) the methods used for selecting beneficiaries (e.g. such as scoring), (b) the indicative budget available for each group of beneficiaries, (c) the likelihood of the budget being exhausted for certain groups of beneficiaries, (d) the scoring rules, if they are used in the scheme, (e) the aid intensity thresholds and (f) the criteria the authority granting the aid will take into account when assessing applications:

The eligibility criteria stem directly from the new Guidelines for 2021-2030. For the time being the scheme does not foresee allocation of separate budgets to selected groups of beneficiaries.

2.6. Please mention specific constraints or risks that might affect the implementation of the scheme, its expected impacts and the achievement of its objectives:

The Polish authorities do not identify specific constraints or risks that might affect the implementation of the scheme, its expected impacts and the achievement of its objectives.

3. Evaluation questions

3.1. Please indicate the specific questions that the evaluation should address by providing quantitative evidence of the impact of aid. Please distinguish between (a) questions related to the direct impact of the aid on the beneficiaries, (b) questions related to the indirect impacts and (c) questions related to the proportionality and appropriateness of the aid. Please explain how the evaluation questions relate to the objectives of the scheme:

The questions are listed in section 4.1

4. Result indicators

1.1. Please use the following table to describe which indicators will be built to measure outcomes of the scheme, as well as the relevant control variables, including the sources of data, and how each result indicator corresponds to the evaluation questions. In particular, please mention (a) the relevant evaluation question, (b) the indicator, (c) the source of data, (d) the frequency of collection of data (for example, annual, monthly, etc.), (e) the level at which the data is collected (for example, firm level, establishment level, regional level, etc.), (f) the population covered in the data source (for example, aid beneficiaries, non-beneficiaries, all firms, etc.):

1. Direct effects of the aid

Evaluation question	Indicator	Source	Frequency	Level	Population
1. Has the aid had a significant and direct effect on the emission reduction of beneficiaries?	GHG emissions at plant level	Surveys/interviews among beneficiaries (and control group if applicable) Reports submitted to President of ERO	Annually	Plant level	Aid beneficiaries (and control group if applicable)
	Reductions of the greenhouse gas emissions due to implementation of the direct emission reduction measures in line with point 55(c) of the EU ETS Guidelines and Art. 12a Section 2 Subparagraph 3 of the Polish Act on indirect costs compensation	Surveys/interviews among beneficiaries (and control group if applicable) Reports submitted to President of ERO	Annually	Plant level	Aid beneficiaries
2. Has the aid improved	Energy efficiency indicators:	Compliance reports submitted	Annually	Plant level	Aid beneficiaries

energy efficiency of production for beneficiaries?	<p>1. Electricity consumption per unit of production</p> <p>2. Electricity consumption per value added</p> <p>3. Energy intensity – energy cost per value added</p> <p>4. Identified potential energy savings (toe) in energy audits compared with total energy consumption</p>	<p>to President of ERO</p> <p>Statistics Poland/Eurostat</p> <p>Energy audits</p> <p>Surveys/interviews among beneficiaries (and control group if applicable)</p>			(and control group if applicable)
	Energy saved due to implementation of the energy audits recommendations in line with point 55(a) of the EU ETS Guidelines and Art. 12a Section 2 Subparagraph 1 of the Polish Act on indirect costs compensation	<p>Compliance reports submitted to President of ERO</p> <p>Energy audits</p> <p>Surveys/interviews among beneficiaries</p>	Annually	Plant level	Aid beneficiaries
3. Has the aid fostered energy transition of beneficiaries' companies?	Number / value of investments in energy efficiency or decarbonization (at plant level)	Surveys/interviews among beneficiaries (and control group if applicable)	Annually	Plant level	Aid beneficiaries (and control group if applicable)
	Electrification of production processes: electricity consumption compared to fossil fuel consumption (at plant level)	Surveys/interviews among beneficiaries (and control group if applicable)	Annually	Plant level	Aid beneficiaries (and control group if applicable)
	Emission free electricity consumption of aid beneficiaries, compared with the overall share of RES electricity in Poland, due to implementation of	<p>Compliance reports submitted to President of ERO</p> <p>Energy market data (e.g. ENTSOE, TSO)</p>	Annually	Plant level	Aid beneficiaries

	point 55(b) of the EU ETS Guidelines and Art. 12a Section 2 Subparagraph 2 of the Polish Act on indirect costs compensation	Surveys/interviews among beneficiaries			
4. Has the aid affected firms' performance?	Productivity per employee at plant level	Surveys/interviews among beneficiaries (and control group if applicable)	Annually	Plant level	Aid beneficiaries (and control group if applicable)
	Assets per employee at plant level	Surveys/interviews among beneficiaries (and control group if applicable)	Annually	Plant level	Aid beneficiaries (and control group if applicable)
	Number of jobs at plant level	Surveys/interviews among beneficiaries (and control group if applicable)	Annually	Plant level	Aid beneficiaries (and control group if applicable)
	Turnover and asset value of enterprise at plant level	Surveys/interviews among beneficiaries (and control group if applicable)	Annually	Plant level	Aid beneficiaries (and control group if applicable)

2. Indirect effects of the aid

Evaluation question	Indicator	Source	Frequency	Level	Population
5. Has the aid affected productivity, production and exports?	Quantity produced in the Member State, imports and exports, their share of local demand	Statistics Poland /Eurostat	Annually	Country/sector level	Domestic sectors
	Productivity per employee at country level	Statistics Poland /Eurostat	Annually	Country/sector level	Domestic sectors
	Assets per employee at country level	Statistics Poland /Eurostat	Annually	Country/sector level	Domestic sectors
	Number of jobs in sectors eligible for aid	Statistics Poland /Eurostat	Annually	Country/sector level	Domestic sectors
	Turnover and asset value of enterprises	Statistics Poland /Eurostat	Annually	Country/sector level	Domestic sectors
6. Has the aid reduced EU emission levels?	CO2 emissions potentially avoided by keeping production in the EU: estimated emissions from equivalent production in the main exporting countries to the Member State taking into account	Statistics/literature data President of ERO data from application forms	Annually	Country/sector level	Domestic production vs foreign production

	their national emission factor				
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3. Wider economic effects of the aid

Evaluation question	Indicator	Source	Frequency	Level	Population
7. Does the aid distort competition in the market it covers?	Market shares	Statistics Poland /Eurostat Market data Surveys/interviews among beneficiaries	Annually	Country and international / sector level	Domestic and foreign markets
8. Has the aid affected the competitiveness of national companies compared to those in other countries operating in the same market?	Markup and prices	Statistics Poland /Eurostat International market data Surveys/interviews among beneficiaries	Annually	Country and international / sector level	Domestic and foreign markets
9. Was there an impact of the aid in the market position of (large) beneficiaries?	Market concentration	Statistics Poland /Eurostat	Annually	Country / sector level	Domestic sectors
	Number of entities in eligible sectors	Statistics Poland /Eurostat	Annually	Country / sector level	Domestic sectors

4. Proportionality and appropriateness of the aid

Evaluation question	Indicator	Source	Frequency	Level	Population
10. Were the form and the intensity of the aid proportionate to the problem being addressed? Could the same effects have been obtained with less aid or a different form of aid?	Aid intensity	President of ERO decisions	Annually	Country level	Aid beneficiaries
11. Is the aid an appropriate instrument to compensate for the additional costs associated with	Value of compensation and additional compensation granted	President of ERO decisions	Annually	Country level	Aid beneficiaries
	Value of administrative costs (e.g. cost borne by President of ERO on	Public administration	Annually	Country level	Domestic administration

higher electricity costs?	handling and processing applications, Ministry expenses (including salaries) for setting up and managing scheme, etc.)				
	Impact of EU ETS on energy prices: 1. Correlation between electricity prices and EUA prices 2. Comparison of electricity prices in different regions 3. Correlation between indirect compensation and electricity price	International electricity price database (e.g. ENTSOE) Polish Power Exchange (TGE), ICE/EEX	Annually	Country and international level	Domestic and foreign market
12. Is the aid keeping alive firms that would have otherwise disappeared?	Profitability profiles	Statistics Poland Surveys/ interviews among beneficiaries	Annually	Plant level	Aid beneficiaries

5. Background information

Evaluation question	Indicator	Source	Frequency	Level	Population
13. How many enterprises /beneficiaries have received the aid under the scheme?	Number of beneficiaries, including Art. 7a of the Polish Act on indirect costs compensation (and in line with point 31 of the EU ETS Guidelines)	President of ERO decisions	Annually	Country level	Aid beneficiaries
	The number of entities that received support in relation to the number of entities that were eligible for support	President of ERO decisions Statistics Poland /Eurostat	Annually	Country/ sector level	Entities from the eligible sectors
	Electricity consumption of entities that benefited from the support in relation to the electricity consumption of entities that were eligible for the support	President of ERO data from application forms Statistics Poland /Eurostat	Annually	Country / sector level	Entities from the eligible sectors

Please explain why the chosen indicators are the most relevant for measuring the expected impact of the scheme:

This question is answered in detail in section 5 below.

5. Envisaged methods to conduct the evaluation

5.1. In light of the evaluation questions, please describe the envisaged methods to be used in the evaluation to identify the causal impact of the aid on the beneficiaries and to assess other indirect impacts. In particular, please explain the reasons for choosing those methods and for rejecting other methods (for example, reasons related to the design of the scheme)⁶:

The methodology of the evaluation is based on the “Energy State Aid: A Toolbox on Counterfactual Impact Evaluation”, a joint publication of the JRC and DG COMP, available on the Commission’s website and “Guidance on evaluation plan for indirect ETS cost compensation schemes under the ETS state aid guidelines post-2021”, provided by the Commission services.

The aim of the evaluation is to verify to what extent the Polish aid scheme is in line with the original objective of the scheme to minimise the risk of carbon leakage while preserving the incentive for a cost effective decarbonization of the economy without creating excessive competition distortion.

To evaluate the risk of carbon leakage, the evaluation will cover the situation of entities in the market, including key employment and performance indicators. The relatively strong performance of companies will be likely to indicate effective protection against carbon leakage. In particular the level and amount of investment may indicate companies' medium- and long-term projections for operation at their current location. In the context of carbon leakage, the correlation between the cost of the EU ETS and the electricity market will also be analysed.

To address issues related to decarbonization and energy transformation of companies and the economy, part of the evaluation questions will focus on energy and climate indicators. Elements such as energy efficiency, GHG emissions, use of electricity from RES and electrification will be studied.

To assess potential distortions of competition in the market, the key market indicators will be used, including the number of players in the market, market concentration, market shares and price levels and margins.

We evaluate the conditionality requirements introduced in the most recent guidelines revision (point 55), by analysing the specific impact of the measures undertaken by beneficiaries, using the indicators listed in table in section 4.1, questions 1), 2) and 3).

⁶ Please make reference to SWD(2014)179 final of 28.5.2014.

The evaluation will be conducted by analysing specific indicators and their changes over time. We will analyse annual data collected from publicly available data sources and surveys. When analysing changes, it may be valid to analyse both changes in absolute terms and the dynamics of change in relative terms.

Reaching unequivocal results of the evaluation of the support scheme may be challenging, because many economic and institutional factors are at play. The main difficulties derive from both the absence of a direct control group and of a pre-treatment period. The former is due to the fact that all companies in eligible sectors are potential beneficiaries and all applicants are granted aid. Thus, the only eligible non beneficiary companies are small firms that decide not to apply - because the application cost is higher than the compensation - which would not form a good control group. In fact, the existing evaluation of carbon leakage executed on the EU level by the Commission services yielded no conclusive empirical results. In the Commission staff working document - SWD(2020)194, the authors note that “From the results of the literature review, the analysis of the case-practice, the results of the JRC Technical Report, the conclusions on electricity price-convergence within the EU, as well as the consultation activities, it can be concluded that the impact of the 2012 ETS Guidelines on the risk of carbon leakage is difficult to determine”.

We address these problems by selecting as a control group the companies that either became ineligible to CO₂ compensation due to the changes in the guidelines in 2021, or coming from the sectors that were excluded from the aid but still face carbon leakage risk due to high level of energy consumption (see 5.2 below).

This allows us to implement counterfactual method. Where applicable, a comparison of indicators and their changes in the control group and in group of aid beneficiaries will be conducted. For the analysis, the methodology Difference-in-Differences (“DiD”) is likely to be used, as a viable methodology for the purpose of the evaluation of the effectiveness of the aid scheme. This empirical design would allow the identification of the causal effect of the aid. To this end, the analysis shall include the relevant statistical exercises that allow testing the main assumptions underlying the applied model. These might encompass an event-study analysis to assess the absence of differential trends in performance across beneficiaries and non-beneficiaries. We plan to use the exclusion of certain sectors from CO₂ compensation in 2022 (eg. fertilizers) as a placebo test to verify direct effect of the aid. In case the validity of the applied method is not confirmed by appropriate tests, the evaluation report will clearly specify and discuss to what extent the estimated relationships can be interpreted as simple correlations.

In all cases, the counterfactual analysis shall be accompanied by descriptive statistics drawn from administrative and survey data (even if aggregated at sector/region level) in support of the evidence, especially when potentially relevant unobservable factors, such as the firms’ propensity to invest in renewables, are not directly measurable.

5.2. Please describe precisely the identification strategy for the evaluation of the causal impact of the aid and the assumptions on which the strategy relies. Please describe in detail the composition and the significance of the control group:

In the evaluation, where applicable, a control group consisting of two types of companies will be used. The first group will consist of companies from sectors that were eligible for CO₂ compensation in years 2019-2020, but were excluded from CO₂ compensation in the new guidelines for 2021-2030. This group in Poland consists of 19 companies.

The second group will consist of the companies that are eligible for relief for industrial users (Energy Intensive Users) in the financing of the RES support scheme (case SA.43697) and for reduction of burdens arising from the renewables certificate obligation for energy intensive users (case SA.37345) (called hereafter: "RES relief"), but are excluded from the CO₂ compensation. This group, based on 2021 data consist of 390 companies (out of 450 in total eligible for RES relief). We have decided to use these groups for 2 reasons. First, they cover companies from sectors that typically exhibit a high ratio between electricity cost and value added. These companies are naturally most vulnerable to the carbon leakage problem. Second, at least in theory, we can use the companies that lost the right for CO₂ compensation as a natural experiment to verify the proportionality and appropriateness of the aid.

5.3. Please explain how the envisaged methods address potential selection bias. Can it be claimed with sufficient certainty that observed differences in the outcomes for the aid beneficiaries are due to the aid?

The selection bias will be addressed using econometric measures, where possible. The following challenges are identified at this stage and will be addressed in the evaluation. First, the control group is small – in particular the companies that are excluded from CO₂ compensation in 2021.

Second, there are underlying macroeconomic differences between sectors eligible and not eligible to CO₂ compensation. In fact, it was those differences that justified selecting the sectors eligible for aid under the revised guidelines. These factors could distort the results of the analysis and will have to be addressed, if possible, using econometric methods.

Third, energy intensive industry is currently under tremendous stress due to the unprecedented increase in energy prices as a result of the distortion of the EU gas market as a result of Russian aggression on Ukraine. In Poland, as well as in other EU countries average electricity price was 360% higher in May 2022 compared with December 2020. The impact of such a significant increase in cost on energy efficiency and business continuity will in the short and medium term overshadow any potential impact of ETS system or aid. In addition, the Commission in the communication of May 18th (RepowerEU) has highlighted several measures that member countries could adopt to mitigate that increase in energy cost. The magnitude of the increase in cost and potential additional measures to be introduced in Poland, might be difficult to tackle with statistical tools and might undermine the results of the evaluation. This is however impossible to address at this moment and will have to be tackled at the moment of the evaluation.

5.4. If relevant, please explain how the envisaged methods intend to address specific challenges related to complex schemes, for example schemes that are implemented in a differentiated manner at regional level and schemes that use several aid instruments:

n/a

6. Data collection

6.1. Please provide information on the mechanisms and sources for collecting and processing data about the aid beneficiaries and about the envisaged counterfactual.⁷ Please provide a description of all the relevant information that relates to the selection phase: data collected on aid applicants, data submitted by applicants and selection outcomes. Please also explain any potential issue as regards data availability:

Sources of data will be collected from:

- application forms by the President of ERO;
- by the President of ERO from ex-post monitoring of additional conditionality criteria;
- Statistics Poland/Eurostat data on macroeconomic factors at NACE level;
- energy market and EUA prices;
- energy audits from beneficiaries (surveys);
- surveys/interviews from industry collected in public consultation process;
- information at EU and national level from public sources.

6.2. Please provide information on the frequency of the data collection relevant for the evaluation. Are observations available on a sufficiently disaggregated level, that is to say at the level of individual undertakings?

Statistical data from Statistics Poland/Eurostat and the President of ERO to be collected annually. The surveys will be performed once per evaluation, but we will ask for annual data, where possible.

⁷

Please note that the evaluation might require sourcing of both historical data and data that will become progressively available during the deployment of the aid scheme. Please identify the sources for both types of information. Both types of data should preferably be collected from the same source as to guarantee consistency across time.

6.3. Please indicate whether the access to the necessary data for conducting the evaluation might be hindered by laws and regulations governing confidentiality of data and how those issues would be addressed. Please mention other possible challenges related to data collection and how they would be overcome:

It is expected that the access to the necessary data for conducting the evaluation might be hindered by laws and regulations governing confidentiality of data. Some information presented to the President of the ERO is a business secret within the meaning of Art. 11 sec. 2 of the Act of April 16, 1993 on Combating Unfair Competition (Journal of Laws of 2020, item 1913, as amended) or other legally protected secrets and should not be disclosed to other entities. Therefore, they can only be made available in an aggregated and anonymised form or upon prior consent of the beneficiaries.

6.4. Please indicate whether surveys of aid beneficiaries or of other undertakings are foreseen and whether complementary sources of information are intended to be used:

Yes. Surveys and target interviews will be used as an important source of information.

7. Proposed timeline of the evaluation

7.1. Please indicate the proposed timeline of the evaluation, including milestones for data collection, interim reports and involvement of stakeholders. If relevant, please provide an annex detailing the proposed timeline:

As mentioned above, the scheme refers to compensation of indirect emission costs incurred in years 2021-2030. Since aid is to be paid *ex post*, i.e. in the year following the year in which indirect emission costs have been incurred, aid is to be paid in years 2022-2031.

It is envisaged that the body conducting the evaluation will be selected in 2023 and will be obliged to provide an a first interim report within 18 months of the Commission decision, including descriptive statistics of the compensations paid in 2022 and during the previous years under the previous scheme SA.53850 (including the available information on the indicators suggested), an analysis of the methodology that will be used for the evaluation and an annex with the fully developed evaluation plan. Moreover, it is envisaged to submit a second interim report in 2027 in order to assess the first five years of operation of the scheme.

It needs to be stressed that any potential amendments following the results of the interim report will have to comply with the respective wording of the ETS Guidelines.

The final evaluation report will be submitted to the Commission in 2030, at least 9 months before the end of the scheme.

7.2. Please indicate the date by which the final evaluation report will be submitted to the Commission:

The final evaluation report will be submitted to the Commission in 2030, at least 9 months before the end of the scheme.

7.3. Please mention factors that might affect the envisaged timeline:

At this stage no factors that might affect the envisaged timeline are identified.

8. The body conducting the evaluation

8.1. Please provide specific information on the body conducting the evaluation or, if not yet selected, on the timeline, procedure and criteria for its selection:

The body conducting the evaluation has not been selected yet. It will be selected specifically for the purpose of preparing the interim and final evaluation report.

The body conducting evaluation will be selected in an open transparent and non-discriminatory procedure in accordance with relevant UE legislation on public procurement.

The criteria for selection of the body conducting the evaluation will include requirements related to the following:

- experience in carrying out evaluative research concerning schemes and instruments designed for the improvement of competitiveness and innovativeness of economy;
- experience in evaluation conducted within the framework of the Cohesion Policy or in evaluation required under State aid rules (e.g. CEEAG, EEAG or the GBER);
- experience in conducting evaluation in the energy sector or in respect of industrial undertakings;
- qualifications and experience of members of the evaluation team in conducting evaluative research in the above mentioned areas, using the methods which will be used for the evaluation of the scheme.

The evaluation of the scheme will be commissioned and financed by the Ministry of Development and Technology or its successor.

8.2. Please provide information on the independence of the body conducting the evaluation and on how possible conflict of interest will be excluded during the selection process:

The evaluation task will be entrusted to the body (most likely, a commercial evaluator) that is both structurally and functionally independent from the Ministry of Development and Technology or its successor.

8.3. Please indicate the relevant experience and skills of the body conducting the evaluation or how those skills will be ensured during the selection process:

Please refer to information provided in section 8.1 above.

8.4. Please indicate which arrangements the granting authority will make to manage and monitor the conduct of the evaluation:

The evaluation will be carried out by an independent entity selected by the Ministry of Development and Technology based on objective criteria and in accordance with the Public Procurement Law.

The evaluation shall be delivered on the basis of an agreement between the contractor and the Ministry of Development and Technology. The agreement will stipulate obligations of the entity conducting the evaluation related to informing the contracting authority of the course of the evaluation and to presenting key elements of the evaluation process, such as the methodological report, research tools, and the final report, for consultation and approval. In addition, the agreement will provide for contractual penalties to be imposed on the contractor in the event of a default in due completion of the key stages of the evaluation.

8.5. Please provide information, even if only of an indicative nature, on the necessary human and financial resources that will be made available for carrying out the evaluation:

It is estimated that the evaluation will require continued commitment of human resources within entities responsible for data collection. These will be employees of the Ministry of Development and Technology and the Energy Regulatory Office. It is not expected that new workplaces will need to be set up specifically for the purpose of the scheme's evaluation. Rather, obligations associated with the scheme's evaluation will constitute part of the present employees' duties.

The remuneration of the commercial evaluator will be established in the procurement procedure. It is estimated that it will exceed EUR 60,000.

9. Publicity of the evaluation

9.1. Please provide information on the way the evaluation will be made public, that is to say, through the publication of the evaluation plan and the final evaluation report on a website:

The evaluation plan and the final evaluation report will be published on the website of the Ministry of Development and Technology: <https://www.gov.pl/web/rozwoj-technologia>

9.2. Please indicate how the involvement of stakeholders will be ensured. Please indicate whether the organisation of public consultations or events related to the evaluation is envisaged:

The final evaluation report, drawn up by the contractor, will be circulated among respective bodies within the Polish public administration.

Furthermore, the final evaluation report will be subject to consultation with the entities related to the energy sector, including associations of entrepreneurs.

9.3. Please specify how the evaluation results are intended to be used by the granting authority and other bodies, for example for the design of successors of the scheme or for similar schemes:

The Ministry of Development and Technology does not foresee the need to use the results of the evaluation, however they may be useful in case of designing the successors of the scheme.

9.4. Please indicate whether and under which conditions data collected for the purpose or used for the evaluation will be made accessible for further studies and analysis:

All data collected for the purpose of the evaluation, excluding sensitive data (such as raw data from detailed research) will be available based on access to public information.

9.5. Please indicate whether the evaluation plan contains confidential information that should not be disclosed by the Commission:

The evaluation plan does not contain any confidential information.

10. Other information

10.1. Please indicate here any other information you consider relevant for the assessment of the evaluation plan:

n/a

10.2. Please list all documents attached to the notification and provide paper copies or direct internet links to the documents concerned:

n/a