

FRENCH REPUBLIC

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Paris, 25 January 2022

NOTE FROM THE FRENCH AUTHORITIES

Subject: Notification of the evaluation plan of the aid scheme for undertakings exposed to a significant risk of carbon leakage due to costs attributable to the greenhouse gas emission allowance trading scheme (ETS) passed on in electricity prices (scheme SA.63404)

The French authorities would like to ask the European Commission to find below the details of the notification of the evaluation plan for the abovementioned aid scheme pursuant to Article 1^{of} the General Block Exemption Regulation (EU) No 651/2014 of 17 June 2014.

I — Purpose of the aid scheme SA.63404

The increased climate ambition of the European Union (EU) now aiming for a 55 % reduction in greenhouse gas (GHG) emissions in 2030 compared to 1990, also implies an increase in the price of emissions permits under the EU ETS. The pass-through in the electricity price of the expected increase in EUAS costs¹ increases the risk of carbon leakage for electricity-intensive industries (up to 30 % of production costs or more than 100 % of their value added) and exposed to international competition that is not faced with the same costs.

At present, many trading partners do not share the same GHG reduction targets as the EU. Final electricity price levels for the industrial sector are significantly higher in Europe than in other directly competing countries. Thus, in 2017, the average electricity price paid by industrialists in Europe was EUR 103,3/MWh compared to EUR 61,3/MWh in the United States and EUR 74,3/MWh in Canada, thus confirming a trend observed since the 2000s when electricity prices in these countries were broadly similar. In accordance with paragraph 21 of the Guidelines on certain State aid measures in the context of the ETS, France has put in place a scheme to compensate for the indirect costs of the SEQUE on electricity prices which apply only to undertakings active in the eligible sectors listed in Annex I to those guidelines.

Support for carbon compensation shall take the form of a direct grant paid in the year directly following the year of consumption. The French authorities could change this practice in the future by anticipating the payment of the aid already in the year in which the costs are incurred.

The expected impact of the scheme is the reduction of carbon leakage, whether by shifting production from the EU to other countries that are less ambitious in terms of reducing GHG emissions, or by replacing products

¹The price of emission allowances has increased significantly since 2018 and exceeded EUR 80/tCO₂ in January 2022 (source: Ember; <https://ember-climate.org/data/carbon-price-viewer/>).

manufactured in the EU with imported products with higher carbon content. Indeed, these carbon leakage risks compensating for reductions within the EU, so decarbonisation efforts may not lead to reductions in global emissions.

Higher electricity prices due to the passing on of the cost of EUAs can also significantly slow down the electrification of these sectors, while the substitution of electricity to more GHG emitting fossil fuels is an important focus for the decarbonisation of industry.

II — Purpose and timetable of the evaluation plan

The purpose of the evaluation plan is to measure:

- the impact of the aid on the achievement of the objectives of the measure, namely to perpetuate the activities of French and European companies at risk of carbon leakage and to avoid deterring the electrification of industrial processes;
- the impact of the aid on the behaviour of the beneficiaries, in particular as regards energy efficiency and, where appropriate, the reduction of their direct emissions;
- the appropriateness of the aid instruments and the proportionality of the aid paid.

According to the Guidelines, the evaluation must be submitted to the Commission in due time to enable it to assess whether it is appropriate to extend the aid scheme before its expiry at the end of 2030. The evaluation of the scheme will therefore be carried out by the evaluators according to the following provisional schedule:

- start of the June 2028 evaluation,
- intermediate refund in September 2029,
- transmission of the final report to the Commission by 30 June 2030.

III — Method of evaluation

The evaluation must identify the causal links between the award of the aid and the behaviour of the beneficiaries and the efficiency and proportionality of the aid under the scheme.

Ideally, the effect of the aid should be measured by comparing the level of indicators for monitoring the measure achieved by the selected projects to the level that would have been observed in the absence of aid. In order to propose a credible counterfactual scenario, the evolution of the aided firms is compared with the evolution of companies that have not received aid (double differences method) but which initially have similar characteristics. The idea is to control the selection bias specific to each public policy framework, which tends to select only a specific business profile.

Parts A and B detail the principles of two methodologies for assessing the effects of the aid on undertakings. The methodology described in Part B is optional and would be implemented if Methodology A proves to be too fragile. Part C lists the monitoring indicators of companies common to both methodologies.

A. Possibilities for assessment based on counterfactual analysis

In order to apply the double differences method, it is necessary to set a reference date: a comparison between companies in assisted and non-assisted sectors since 2016 when the aid mechanism was set up in France seems to be the best solution. It will also be possible to measure a specific effect on the introduction of the new guidelines in 2021 and the development of the system on that occasion.

The non-beneficiary undertakings constituting the counterfactual would be chosen from:

- the sectors eligible for the period 2016-2020 under the old guidelines which have been removed for the period after 2020;
- the expanded list of sectors at risk of carbon leakage (Indirect Emissions Index only > 0,2);
- the sectors on both sides of the limit values in terms of the weight of electricity consumption in production and the intensity of international competition;
- the eligible sectors of the countries which have not put in place the aid (subject to the availability of sufficient data and according to their quality).

The French authorities would like to ask whether the Commission intends to publish summary information on the aid schemes put in place by the Member States (countries implementing the aid, the date of implementation, the levels of the various parameters for calculating the amount of aid, eligible sectors, any criteria on the size of the undertakings eligible for participation, etc.). In addition to the publication of aid schemes on the European Commission's website, the publication of summary tables of existing aid schemes could be very useful for the preparation of the evaluations of all Member States.

The double differences method carried out on all or part of the indicators listed below would allow the identification of the causal effect of the aid. However, the main assumptions of the model should be verified by relevant statistical analyses. These should include an analysis to assess the absence of differentiated trends in the performance of the beneficiary sectors and non-beneficiaries prior to the intervention, at least as regards the direct effects of the aid. If the available data allow, an additional test ("placebo") will be carried out, either on a relevant but not affected indicator or treatment group, or based on a fictitious treatment date by limiting the sample to the period before the aid is put in place. Given the characteristics of the aid scheme and the data available, the validity of the method applied might not be confirmed by the planned verifications. In this case, the evaluation report should clarify and explain to what extent the estimated dependencies can be interpreted as mere correlations.

In all cases, the counterfactual analysis will be complemented by descriptive statistics from administrative data and surveys (including aggregated at a sectoral level) to strengthen the analysis, in particular where potentially relevant but unobservable and non-measurable factors are present.

The aid under SA.63404 has specific characteristics: (1) the number of enterprises supported is rather small and the aid is highly concentrated; (2) the number of possible counterfactuals is also reduced. The econometric method of double differences will present implementation difficulties. Application at the aggregate level of sectors is arguably more feasible and more robust, although somewhat less satisfactory as it does not allow for the characteristics of each company to be taken into account. The introduction of the CBAM may also affect the results of the assessment and their interpretation.

If this econometric work proves to be too fragile, the analysis could also involve a qualitative assessment based on modelling (*theory-based impact assessment*) that would allow the effects of the measure to be modelled (*theory of change*).

B. Theory-based assessment (theory-based impact assessment), other potentially relevant approach

Recognising the importance of assessing the causal effects of the aid scheme and given the characteristics of the sector, the French authorities are considering a second method of analysing the effects of the scheme SA.63404. The counterfactual assessment could thus be complemented by [an assessment based on theory \(the modelling of the effects of aid\)](#). This approach will first require the development of a theory of change in order to identify the mechanisms (via a logical impact diagram — DLI) to achieve the expected results of the aid (maintenance of installations and production in the EU, electrification of eligible industrial sectors, greenhouse gas emissions avoided). It cannot be expected to carry out a specific data collection for the evaluation of this aid scheme. However, if they consider it necessary, the French authorities could decide to take such a step.

The evaluators could also decide to carry out a qualitative survey of beneficiaries. This optional analysis would make it possible to indicate the incentive nature of the aid (knowing whether the projects would still have been launched in the absence of the aid; relocation projects planned or carried out) and evaluation of the accessibility (technical and administrative) of the facility for eligible industrial enterprises. This approach would also make it possible to identify the conditions for the success of the aid and to disregard alternative explanations of the results observed. It could be based on semi-directional interviews and/or a standardised questionnaire. A target beyond the beneficiaries could be companies in sectors not eligible for support but with electricity consumption and exposure to international competition close to the eligibility thresholds or sectors with significant potential for substitution between electricity and fossil fuels.

The evaluation would involve all or some of the indicators presented in Section C below.

C. Indicators available for evaluation

a) Impact of the aid on the projected achievement of decarbonisation objectives

To assess whether the aid will meet the carbon leakage reduction targets, the following indicators may be used in whole or in part:

- Change in the quantity produced in France, imports and exports, their share of local demand.
- Changes in the number of jobs, turnover and asset value of enterprises.
- CO₂emissions potentially avoided by keeping production in the EU: estimated emissions from equivalent production in the main exporting countries to France taking into account their national emission factor.
- Evolution of productivity (turnover/employee) and assets per employee (total assets/number of employees).

b) Impact of the aid on beneficiaries

To estimate the direct impact of the aid on beneficiaries, the following indicators may be used in whole or in part:

- Evolution of the energy efficiency of production (with a comparison with the benchmark where it exists)².
- Evolution of investment in energy efficiency or decarbonisation based on audits.
- Electrification of production processes: evolution of electricity consumption compared to fossil fuel consumption at sectoral level, by beneficiary companies and in relation to non-eligible sectors.

c) Appropriateness of the aid and proportionality

To assess the appropriateness of the aid and its proportionality, the following indicators may be used in whole or in part:

- Level of inclusion of the different categories of enterprises and analysis of the effects according to the size of the enterprises.
- The weight of indirect emissions cost after offsetting and overcompensation in value added (VA) and sectoral allocation of companies benefitting from overcompensation (reduction of indirect emission cost to 1.5 % of VA).

IV — Body responsible for evaluation

The evaluation of the SA.63404 aid scheme will be conducted by one or more teams of econometers and evaluators recognised for their experience in conducting econometric assessments of public policies. These teams will be independent of the administrations and operators responsible for the measures covered by the aid scheme.

The recruited evaluation team will have skills in: Statistics — Econometrics applied to public policies — Processing of administrative data — Knowledge of the energy and environment sectors.

Possible conflicts of interest are considered when examining applications and then analysing candidates' offers.

The evaluation of the aid scheme will be managed by a steering committee composed of representatives of the Ministry of Economy, Finance and Recovery (MEFR).

V — Data collection

The data will be collected annually from the operator responsible for managing the device. The data to be transmitted will relate to the year of consumption n-1.

VI — Publication

The evaluation plan and the final report which will be available at the end of the analysis will be made public on the

²The monitoring over time of this criterion could be complex for certain sectors where several product types referenced under the same NACE code may have quite different electrical consumption. By way of:

website of the Directorate-General for Enterprise (DGE) (<http://www.entreprises.gouv.fr>). The information needed to feed into the evaluation report will also be the subject of one or more publications by INSEE.

The confidentiality of individual data must be ensured throughout the study, as well as in the context of its transmission to the European Commission and its publication.

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illustrative, consumption related to the production of industrial gases can vary significantly depending on the state of the gas produced.

The French authorities are at the disposal of the European Commission for any additional information that may be required in the context of this evaluation.