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Subject: SA.61388 (2021/EV) – Germany
Evaluation plan for block-exempted Federal scheme for
decarbonisation of industry ("Förderrichtlinie zur Dekarbonisierung
in der Industrie")

Excellency,

1. PROCEDURE

- (1) By electronic notification of 27 January 2021, Germany submitted summary information pursuant to Article 11(a) of 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 Treaty¹ (hereinafter "**GBER**") on the establishment of the Federal aid scheme for the decarbonisation of certain sectors of the industry for the period 2021-2024² (hereinafter "**the scheme**"), registered under SA.61388 (2021/X).
- (2) The scheme allows for funding for projects undertaken by energy-intensive industries³ that aim at the development of innovative climate protection

¹ OJ L 187, 26.6.2014, p. 1.

² "Förderrichtlinie zur Dekarbonisierung in der Industrie".

³ Funding is to be provided to undertakings in the industrial sectors participating in EU emissions trading with a registered office in Germany. Projects for which funding is requested must be implemented in Germany. Funding is available for the steel, cement, chemicals, non-ferrous metals and lime sectors, but also for other energy-intensive industries participating in the EU ETS. Both large undertakings and SMEs are eligible to apply for funding.

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technologies and their utilisation on an industrial scale, in particular to reduce or avoid industrial process-related greenhouse gas emissions.

- (3) It was put into effect on 1 January 2021 with reference to Articles 25, 36 and 41 of the GBER, at present for the remaining period of validity of the GBER and this including the transition period of six months foreseen in Article 58 (5) of the GBER. However, the national legal basis limits the duration of the measure to ten years, that is until 31 December 2030. It is the responsibility of Germany to ensure that the scheme continues to comply with the respective provisions of the GBER after 30 June 2024, i.e. to make any necessary amendments and publish a new information sheet.
- (4) As the German authorities considered that the exempted measure, with an estimated annual average budget of EUR 473.57 million, constitutes a large scheme in the meaning of Article 1(2)(a) of the GBER, they notified on 27 January 2020, following pre-notification contacts, an evaluation plan, registered by the Commission under SA.61388 (2020/EV).
- (5) On 12 March 2021, Germany exceptionally waived its rights deriving from Article 342 TFEU, in conjunction with Article 3 of Council Regulation (EEC) No 1/1958⁴, and agreed to have this decision adopted and notified in English.

2. DETAILED DESCRIPTION OF THE KEY ELEMENTS OF THE NOTIFIED EVALUATION PLAN

- (6) As required by Article 2(16) of the GBER and in line with best practices⁵, the notified evaluation plan contains the description of the following main elements: (i) the objectives of the aid scheme to be evaluated, (ii) the evaluation questions, (iii) the result indicators, (iv) the envisaged methodology to conduct the evaluation, (v) the data collection requirements, (vi) the proposed timing of the evaluation (including the date for submission of the final evaluation report), (vii) the approach for the selection of the independent body conducting the evaluation, and (viii) the modalities for ensuring the publicity of the evaluation.

2.1.Objectives of the aid scheme to be evaluated

- (7) The scheme aims at enabling industry to research, develop, test, scale up and demonstrate innovative decarbonisation technologies and to facilitate their use in environmental protection and renewable energy investments on an industrial scale, by investing into appropriate production facilities for the reduction or avoidance of process-related greenhouse gas ("GHG") emissions, in view ultimately to achieve net-zero GHG emissions in the industrial sector by 2050.

⁴ Regulation No 1 determining the languages to be used by the European Economic Community, OJ 17, 6.10.1958, p. 385.

⁵ Commission Staff Working Document on Common methodology for State aid evaluation, Brussels, 28.5.2014, SWD(2014) 179 final.

- (8) At the beneficiary level, the following outcomes are expected by the German authorities:
- a) Increase in private spending in R&D&I, in particular in innovative climate protection technologies;
 - b) Increase of competitiveness;
 - c) Improvement and increase of innovativeness, including for the beneficiaries and for other undertakings, as well as industries and regions via spill-overs;
 - d) Reduction or avoidance of industrial process-related emissions⁶, thus industrial GHG emissions, through the implementation of decarbonisation projects.
- (9) The aid scheme provides support in the form of direct grant / interest rate subsidies as partial financing, to undertakings operating in the targeted energy-intensive industrial sectors⁷, following an assessment of the application projects based upon specific selection criteria⁸. Individual aid under the scheme is granted in reference to the thresholds set out in Article 4 of the GBER.
- (10) The granting procedure follows a two-step approach:
- As a first step, the applicant must submit in writing a project outline to the Climate Change Competence Centre in Energy-Intensive Industries⁹ (hereinafter "KEI") – in addition to a technical description of the project, including the expected financial requirements, information on the foreseen duration, a description of the technological path for decarbonisation, a quantitative estimate of the expected greenhouse gas savings and information on the transferability to the respective industry. The project outline is assessed with the participation of the Federal Environment Agency¹⁰ (hereinafter "UBA"), primarily on the basis of the technical feasibility with regard to the objective of the measure. Further evaluation criteria, such as the timeline of the project and the expected funding efficiency, will also be considered.
 - As a second step, following a successful assessment of the project outline, applicants must submit upon invitation a written application for funding to the KEI. The application must provide detailed justification of how the project may contribute to the decarbonisation of industry and the achievement of climate protection objectives, and in particular, the expected short-, medium- and long-term GHG savings in comparison with the state of the art ("*Stand der Technik*"). In addition, the applicant must demonstrate the substitution effects when using renewable energies. In the particular case of investment

⁶ According to the Funding Guideline, "process-related emissions" are GHG emissions that do not result from the use of fossil fuels and raw materials for energy production, but are caused by the use of these materials in the production process as a result of the technology or process.

⁷ E.g. building materials, chemical, glass, non-ferrous metal, paper and steel sector.

⁸ See recital 10 below.

⁹ "*Kompetenzzentrum Klimaschutz in energieintensiven Industrien*".

¹⁰ "*Umweltbundesamt*".

projects¹¹, it must be demonstrated that the project leads to an overall reduction in emissions, taking into account the possible shift of GHG emissions to other sectors.

2.2. Evaluation questions and result indicators

- (11) The notified evaluation plan identifies the issues to be addressed by the evaluation.
- (12) The evaluation questions address the scheme's direct and indirect effects (in terms of both positive and negative externalities), and the proportionality and appropriateness of the aid. The result indicators are linked to the respective evaluation questions and to the objectives of the scheme.
- (13) The actual implementation of the scheme and the direct effects of the aid on the beneficiaries will be addressed by evaluation questions on whether the aid has led to (1) investments in facilities for the application and implementation of climate protection technologies on an industrial scale in supported undertakings in the energy-intensive industry, above and beyond the establishment of low or zero-emission production capacities in non-supported undertakings, (2) increase in research, development and testing of innovative climate protection technologies, more in supported undertakings in the energy-intensive industry as compared to non-supported undertaking, (3) the implementation of decarbonisation projects in all the relevant sectors of the economy, in both small and medium and large enterprises and in the expected number thereof, (4) a reduction of the respective GHG emissions of supported undertakings in the energy-intensive industry through decarbonisation projects following the grant of aid.
- (14) With regard to the evaluation questions on the direct effects, the following result indicators will be used, among others:
 - Emergence of low-emission or zero-emission production capacity in aided undertakings and non-aided undertakings, in tons of product / intermediate product;
 - Increase in R&D&I - expenditures by supported undertakings / private investment in addition to government support relative to annual turnover;
 - Allocation of supported undertakings or supported projects to economic sectors at the level of classification of the economic sectors (WZ classification¹²);
 - Size category of supported undertakings (SME, large) according to EU definitions;

¹¹ I.e., investments in facilities for the application and implementation of measures on an industrial scale, provided that they are suitable for reducing greenhouse gas emissions as far as possible and permanently, based on the current status of the underlying technologies, processes or products, and thereby contribute to GHG neutrality in industry in 2050.

¹² <https://www.destatis.de/DE/Methoden/Klassifikationen/Gueter-Wirtschaftsklassifikationen/klassifikation-wz-2008.html>.

- GHG savings of the aided undertakings in areas covered by the aid (in t CO₂ eq.).
- (15) The indirect effects of the aid scheme (so called "*second round*" effects) are to be addressed by evaluation questions on (5) the change in the competitive position of the beneficiaries in comparison to non-beneficiaries following the granting of aid, (6) the potential use of the supported technologies in further undertakings, sectors and regions ("spill-over" effects), (7) the change in supply and demand structures in the markets towards products and technologies with low or zero GHG emissions, (8), the change in tendencies towards the relocation of the energy-intensive industry ("carbon leakage"), (9) the lack of private investment in the supported industrial sectors due to the granting of aid (which would not have occurred otherwise).
- (16) With regard to the evaluation questions on the indirect effects, amongst others, the following result indicators will be used:
- Shares of the supported undertakings in the EU-wide turnover of the products mainly affected by the support;
 - Frequency of use or planned use of promoted technologies in the given industry (number of investments made or decided, production capacity in tons);
 - Investments made or planned in low or neutral GHG technologies compared to conventional technologies in the sectors affected by the aid (number of investments);
 - Change in the number of production sites of supported undertakings in the EU (relative to the situation prior to the entry into force of the aid scheme);
 - Development of private investment in the sectors affected by the aid in the EU.
- (17) The proportionality and appropriateness of the aid are to be addressed by evaluation questions on (10) the identification of obstacles in form of inhibiting factors proper to the aid instrument ("*Hemmnisfaktoren des Beihilfeinstruments*"), and (11) the potential application of a lower budget or lower aid intensities.

2.3. Envisaged methodology to conduct the evaluation

- (18) The direct effects of the aid scheme on the beneficiaries are to be identified by employing econometric methods, in particular a regression analysis of the type "*Matching – Difference-in-Differences*", as described in the Commission Staff Working Document on Common methodology for State aid evaluation¹³.
- (19) The *Difference-in-Differences* strategy is the one that, exploiting the longitudinal nature of the data available, is considered more robust to the presence of unobservable differences between undertakings benefitting from aid under the

¹³ See footnote 5.

evaluated aid scheme, and undertakings belonging to a control group, provided that these differences remain constant over time (parallel trend assumption).

- (20) For the control group, non-aid recipients of the same industry are identified, which are as similar as possible to the beneficiaries in terms of essential characteristics¹⁴ to ensure that both aid recipients and non-aid recipients are affected to the same extent by external factors (e.g. economic development). To avoid a distortion of the causal effect, the control group will include as much as possible non-aid recipients who applied but did not receive aid, as they did not meet the necessary requirements.
- (21) To rule out a selection bias in the causal effect due to the presence of unobserved differences between the two groups, the characteristics listed in the outcome indicators and their development are recorded and compared for beneficiaries and non-aid beneficiaries both for the period before and after the aid was granted. Pre-existing differences would be attributable to factors other than State aid. Only the variation in these differences (see reference to "*Difference-in-Differences*" at recitals 18 to 19 above) would be attributed to the State aid, thus identifying the causal effect. In particular, for the comparison group, Germany explained that it will often be necessary to rely on annual reports, company announcements and expert interviews for data collection.
- (22) Germany further explained that the range of observable characteristics used in the analysis is very broad, which should reduce the effect of unobservable factors. In their analysis, Germany therefore e.g. takes also into account factors that only affect specific companies (such as e.g. M&A activities) as well as potential interaction effects of other subsidies received by the aid recipients during the same funding period. Where possible, this will also be conducted for the control group. Otherwise, unobserved influencing factors are largely neutralised by using the *Difference-in-Differences* procedure.

2.4. Data collection requirements

- (23) For the purposes of the evaluation, data in respect of beneficiaries and non-beneficiaries is gathered from different sources. As for the former, the relevant data is collected during the application process or at a later stage upon request of the BMU. As for the latter, the relevant data is collected through a dedicated multiannual survey.

2.5. Proposed timing of the evaluation, including the date of submission of intermediate reports and final evaluation report

- (24) The German authorities will submit a methodological report by 31 December 2021. The methodological report shall contain descriptive statistics (if available) as well as a detailed description of the data and the methodologies that will be utilised for the evaluation.

¹⁴ Such as e.g. number of employees, annual turnover, locations, similar sales markets and specialisation of manufactured products.

- (25) Furthermore, the German authorities will submit the final evaluation report for the period between 2021 and 2023 by 30 June 2023 at the latest. This final evaluation report will cover the first phase of implementation of the scheme.
- (26) An overall evaluation shall be completed, the results of which will be included in an additional evaluation report to be submitted to the Commission by 30 June 2030 at the latest.

2.6. Selection of an independent body to conduct the evaluation, or criteria for its selection

- (27) The entity, or entities, that will be responsible for carrying out the evaluation, will be selected in accordance with national and EU public procurement rules. The award of the contract to an evaluation body will be based on the technical quality and economic conditions of the tender.
- (28) For the purpose of ensuring the quality and reliability of the evaluation, the entity (entities) selected will be functionally independent from the Federal Ministry for the Environment, which is responsible for the implementation of the scheme, as well as the KEI and the UBA.
- (29) The entities participating in the public procurement procedure must demonstrate their suitability and skills, and in particular expertise in issues related to the decarbonisation of industry and environmental protection in order to be able to fully evaluate the scheme and its effects.

2.7. Modalities for ensuring the publicity of the evaluation

- (30) The results of the evaluation of the aid scheme will be made public on the website of the Federal Ministry for the Environment.
- (31) According to the German authorities, the evaluation results will serve as a solid background for the adaptation and, if necessary, the improvement of the aid scheme for further funding periods.
- (32) In addition, the involvement of stakeholders will be ensured by consultations of the Advisory Board¹⁵ of the KEI on the implementation of the evaluation plan.
- (33) The collected data will remain at the disposal of the German authorities for future studies and consideration in greater depth. The collected data may be made available upon request to academic institutions or other authorities granting aid to businesses, in order to ensure that the impact of such aid can be measured in a similar and consistent manner.

¹⁵ Its Technical Advisory Board advises the KEI on fundamental and strategic issues in the context of its work as a think tank in the field of industrial decarbonisation and its project sponsorship for the funding programme "Decarbonisation in Industry".

3. ASSESSMENT OF THE NOTIFIED EVALUATION PLAN

- (34) The correct application of the GBER is the responsibility of the Member State. The present decision on the evaluation plan does not assess whether the aid scheme to be evaluated was put into effect by the Member State in full respect of all applicable provisions of the GBER. It does therefore neither create legitimate expectations regarding the lawfulness and compatibility of the scheme, nor does it prejudice the position the Commission might take regarding the conformity of the aid scheme with the GBER and its lawfulness and compatibility when monitoring it, or assessing complaints against individual aid granted under it.
- (35) Pursuant to Article 1(2)(a) GBER, certain large aid schemes¹⁶ within the meaning of Article 2(15) GBER, with an average annual State aid budget exceeding EUR 150 million, are subject to evaluation. The Commission notes that the annual average budget of the aid scheme concerned (i.e. EUR 473.57 million) exceeds the threshold of EUR 150 million in 2020 laid down in Article 1(2)(a) GBER (see recital (4) above). Chapter I and section 4 (Article 25) of Chapter III of the GBER constitute the legal basis for the aid scheme to benefit from the exemption from notification provided for in Article 108(3) of the TFEU. However, in the absence of a positive Commission decision on the notifiable evaluation plan, pursuant to the provision in Article 1(2)(b) GBER, the exemption expires six months after the entry into force of the measure, and may continue to apply for a longer period only if the Commission decides to authorise this explicitly by the present decision.
- (36) As the Commission explained in recital 8 of the GBER, the evaluation of large schemes is required "[I]n view of the greater potential impact of large schemes on trade and competition". The required "[E]valuation should aim at verifying whether the assumptions and conditions underlying the compatibility of the scheme have been achieved, as well as the effectiveness of the aid measure in light of its general and specific objectives and should provide indications on the impact of the scheme on competition and trade." State aid evaluation should in particular allow the direct incentive effect of the aid on the beneficiary to be assessed (i.e. whether the aid has caused the beneficiary to take a different course of action, and how significant the impact of the aid has been). It should also provide an indication of the general positive and negative effects of the aid scheme on the attainment of the desired policy objective and on competition and trade, and could examine the proportionality and appropriateness of the chosen aid instrument¹⁷.
- (37) In the light of these considerations, Article 2(16) of the GBER defines as evaluation plan "a document containing at least the following minimum elements: the objectives of the aid scheme to be evaluated (see recitals (7) to (10) above), the evaluation questions (see recitals (11) to (17) above), the result indicators (see recitals (11) to (17) above), the envisaged methodology to conduct the evaluation

¹⁶ Schemes under Sections 1 (with the exception of Article 15), 2, 3, 4, 7 (with the exception of Article 44), and 10 of Chapter III of this Regulation (Article 1(2)(a) GBER). 'Aid scheme' means any act on the basis of which, without further implementing measures being required, individual aid awards may be made to undertakings defined within the act in a general and abstract manner and any act on the basis of which aid which is not linked to a specific project may be granted to one or several undertakings for an indefinite period of time and/or for an indefinite amount (Article 2(15) GBER).

¹⁷ See Staff Working Document referred to in footnote 2 above.

(see recitals (18) to (22) above), the data collection requirements (see recital (23) above), the proposed timing of the evaluation including the date of submission of the final evaluation report (see recitals (24) to (26) above), the description of the independent body conducting the evaluation or the criteria that will be used for its selection (see recitals (27) to (29) above) and the modalities for ensuring the publicity of the evaluation (see recitals (30) to (33) above)."¹⁸

- (38) The Commission considers that, as described in section 2 of this decision, the notified evaluation plan contains these minimum elements outlined in Article 2(16) of the GBER.
- (39) The evaluation plan gives a concise description of the key objectives of the scheme concerned and provides sufficient information to understand the underlying "*intervention logic*". The scope of the evaluation is defined in an appropriate way (see recital (6) above).
- (40) The evaluation questions are designed in a way as to assess the direct effects of the scheme on the beneficiaries compared to non-beneficiaries, in order to measure the incentive effect of the scheme (see recital (11) above). The evaluation questions addressing indirect effects are linked to the specificities of the aid scheme, both in terms of objectives and aid instruments (see recital (12) above).
- (41) The evaluation plan identifies and justifies result indicators that integrate the evaluation questions for the aid scheme concerned (see recitals (11) to (17) above), and explains the data collection requirements and availabilities necessary in this context (see recital (23) above). The data sources to be used for the evaluation are described clearly and in detail. The Commission notes that the evaluation body will be able to take advantage of several different databases, gathering a more complete set of information.
- (42) The evaluation plan sets out and explains the main methods that will be used in order to identify the effects of the scheme, and discusses why these methods are likely to be appropriate for the scheme in question. The proposed evaluation methodology sufficiently allows the identification of the likely causal impact of the scheme itself (see recitals (18) to (22) above).
- (43) The proposed timeline of the evaluation is reasonable in view of the characteristics of the scheme concerned (see recitals (24) to (26) above).
- (44) The proposed criteria for the selection of the evaluation body on the basis of an open tender meet the independence and skills criteria (see recitals (27) to (29) above).
- (45) The proposed modalities for the publication of the evaluation results are appropriate and ensure transparency. In particular, the Commission takes note of the commitment to disseminate and make publicly available the results of the evaluation report (see recitals (30) to (33) above).
- (46) In view of the above, the Commission considers that the evaluation plan meets all requirements laid down in the GBER, is established in line with the common

¹⁸ Further guidance is given in the Staff Working Document referred to in footnote 5 above.

methodology proposed in the Staff Working Document, and is suitable given the specificities of the large aid scheme to be evaluated.

- (47) The Commission notes the commitment made by the German authorities to conduct the evaluation according to the plan described in the present decision. The Commission also notes that the German authorities will submit a methodological report by 31 December 2021 (see recital (24) above), an intermediate evaluation report by 30 June 2023 (see recital (25) above), and the final evaluation report by 30 June 2030 (see recital (26) above). The German authorities are invited to inform the Commission without delay of any element that might seriously compromise the full and timely implementation of the evaluation plan.
- (48) The Commission notes the commitment made by the German authorities to take into account the evaluation results for the design of any subsequent aid measure with a similar objective (see recital (28) above).
- (49) The Commission reminds that the application of the exempted scheme has to be suspended if the methodological report and the final evaluation report are not submitted in good time and sufficient quality.
- (50) Therefore, pursuant to Article 1(2)(a) of the GBER, the Commission decides that the GBER shall continue to apply to the aid scheme for which the evaluation plan was submitted, for a period exceeding the initial six months after the scheme at hand was applied for the first time, until the end of the validity of the GBER, and as from the date of the notification of this decision to Germany.
- (51) The Commission reminds that alterations to the evaluated scheme, other than modifications which cannot affect the compatibility of the scheme under the GBER or cannot significantly affect the content of the approved evaluation plan, are, pursuant to Article 1(2)(b) of the GBER, excluded from the scope of the GBER, and must therefore be notified to the Commission.

4. CONCLUSION

- (52) The Commission has accordingly decided:
- that the exemption of the national aid scheme for which the evaluation plan was submitted, shall continue to apply beyond the initial six-months period, until six months after the final date of applicability of Commission Regulation 651/2014 of 17 June 2014, as amended, which is laid down in its Article 59.
 - to publish this decision on the Internet site of the Commission.

If this letter contains confidential information which should not be disclosed to third parties, please inform the Commission within fifteen working days of the date of receipt. If the Commission does not receive a reasoned request by that deadline, you will be deemed to agree to the disclosure to third parties and to the publication of the full text of the letter in the authentic language on the Internet site: <http://ec.europa.eu/competition/elojade/isef/index.cfm>.

Your request should be sent electronically to the following address:

European Commission,
Directorate-General Competition
State Aid Greffe
B-1049 Brussels
Belgium
Stateaidgreffe@ec.europa.eu

Yours faithfully,

For the Commission

Margrethe VESTAGER
Executive Vice-President