



# INTERIM EVALUATION REPORT OF THE STATE AID SCHEMES FOR DECARBONISATION OF INDUSTRY (SA.102388,SA.102385)

*Evaluation report was developed pursuant to Art. 1(2)(a) of Regulation (EU) No 651/2014 and pursuant to the draft Evaluation Plan as submitted during the notification process of the schemes in question (please refer to the document "Part III.8 - Supplementary Information Sheet for the notification of an evaluation plan").*

## State aid schemes evaluated:

- **SA.102385 – State aid scheme for the decarbonisation of industry from the Recovery and Resilience Plan (component 4) – Slovakia**
- **SA.102388 – State aid scheme for the decarbonisation of industry financed from the Modernization Fund**



## 1. Questions related to the direct impact of the aid on the beneficiaries

### **1. What was the impact of the scheme on the emissions reduced by the beneficiaries as opposed to those reduced by the entire EU ETS sector?**

*Relevant indicator: Achieved amount (%) of CO<sub>2</sub>eq reduction by entire EU ETS (excl. supported projects) & Achieved amount of CO<sub>2</sub>eq reduction by the projects supported by the schemes (%).*

To date, there has been no emission reduction by the beneficiaries. This is due to the fact that none of the supported measures has materialized yet. According to the schedules provided by the beneficiaries, the first project will become operational in Q1 2027 (SA.102388) and Q4 2025 (SA.102385).

The overview of the supported beneficiaries is enclosed in attachment 1.

### **2. Did the project lead to increased energy efficiency in industrial installations that do not stimulate or prolong the use of fossil fuels and energy resources?**

*Relevant indicator: Number of implemented measures to reduce energy consumption not using fossil fuel sources.*

To date, there has been no increase in energy efficiency in industrial installations. This is due to the fact that none of the supported measures has materialized yet.

### **3. Has the measure led to an increase in investment in innovative environmental technologies in industrial production, more in supported undertakings in the energy-intensive industry as compared to non-supported undertaking**

*Relevant indicator: Increase in expenditures by supported undertakings / private investment in addition to government support relative to annual turnover.*

To date, there has been no increase in investment in innovative environmental technologies. This is due to the fact that none of the supported measures has materialized yet.

### **4. Has emission reductions by beneficiaries compared to the reference period decreased by at least 1,233,000 tons CO<sub>2</sub>eq on an annual basis for the RRP scheme?**

*Relevant indicator: Amount of CO<sub>2</sub>eq reduction on an annual basis under the RRP scheme.*

To date, emission reductions have not been achieved in the RRP scheme. This is due to the fact that none of the supported measures has materialized yet.

Nevertheless, the submitted applications of three approved projects (SA.102385) indicates that the greenhouse gas abatement will reach 3,098,706 tons of CO<sub>2</sub> equivalent on an annual basis<sup>1</sup>. This abatement is expected to be achieved with the allocation of 316.9 mil. EUR (compared to the estimated total aid of 357.3 mil. EUR<sup>2</sup>, 89%).

### **5. Has the amount of GHG /in CO<sub>2</sub>eq emitted by beneficiaries under the RRP scheme decreased by at least 30% CO<sub>2</sub>eq compared to the reference period?**

*Relevant indicator: Percentage of GHG /in CO<sub>2</sub>eq decreases under the RRP scheme, compared to the reference period.*

To date, none of the beneficiaries under the RRP scheme decreased their GHG by at least 30%. This is due to the fact that none of the supported measures has materialized yet.

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<sup>1</sup> Assuming that all projects will materialize as outlined in their respective bids. However, one beneficiary has not yet finalized the binding contract with the Ministry. Please refer to the attachment for additional details.

<sup>2</sup> Based on the total allocation of the scheme, set in the Council Implementing Decision to SK RRP.



Nevertheless, the compilation of three approved applications (SA.102385) indicates that all approved projects will decrease the amount of GHG by at least 30% of CO<sub>2</sub>eq compared to the reference period.

**6. Has emission reductions by beneficiaries compared to the reference period decreased by at least 3,000,000 tons CO<sub>2</sub>eq on an annual basis for the MoF scheme?**

*Relevant indicator: Amount of CO<sub>2</sub>eq reduction on an annual basis under the MoF scheme.*

To date, none of the beneficiaries under the MoF scheme decreased their GHG. This is due to the fact that none of the supported measures has materialized yet.

Nevertheless, the submitted applications of seven approved projects (SA.102388) indicate that the annual emission reduction resulting from these seven projects is projected to surpass 3,000,000 tons of CO<sub>2</sub>eq on an annual basis. The anticipated abatement is estimated at 3,286,264 tons of CO<sub>2</sub> equivalent on an annual basis.<sup>3</sup> This abatement is expected to be achieved with the allocation of 469.7 mil. EUR (compared to the estimated total aid of 750 mil. EUR<sup>4</sup>, 59%).

**7. Has the amount of GHG /in CO<sub>2</sub>eq emitted by beneficiaries decreased by at least 10,000 tons CO<sub>2</sub>eq on an annual basis for the MoF scheme?**

*Relevant indicator: Amount of GHG /in CO<sub>2</sub>eq reduction per project under the MoF scheme, compared to the reference period on an annual basis.*

To date, none of the beneficiaries under the MoF scheme decreased their GHG. This is due to the fact that none of the supported measures has materialized yet.

Nevertheless, the compilation of seven approved applications (SA.102388) indicates that all projects will decrease the GHG by at least 10,000 tons of CO<sub>2</sub>eq on an annual basis.

**8. Has the energy consumption (in GJ/year) per each project decreased by at least 10% compared to the reference period under the MoF scheme?**

*Relevant indicator: Energy consumption reduction, expressed in % compared to the reference period under the MoF scheme.*

To date, none of the beneficiaries under the MoF scheme decreased their energy consumption. This is due to the fact that none of the supported measures has materialized yet.

Nevertheless, the compilation of seven approved applications (SA.102388) indicates that all projects will decrease energy consumption by at least 10%.

**9. Have the direct impacts been heterogeneous across different types of beneficiaries (size/location/sector)?**

*Relevant indicator: Proportion of beneficiaries (%) as per: i. size (small, medium, large enterprises), ii. Location (western, central, eastern Slovakia), iii. sector (NACE)*

The overview of the supported project is enclosed in the attachment. Regarding the proportions of beneficiaries in terms of the size of enterprises, the support has been strongly concentrated (table 1). All aid was disbursed to large enterprises (over 100 employees).

<sup>3</sup> Assuming that all projects will materialize as outlined in their respective bids. However, two beneficiaries have not yet finalized the binding contract with the Ministry. Please refer to the attachment for additional details.

<sup>4</sup> Of allocation to the scheme of which there will be at least two calls for proposals.



**Table 1: Share of projects supported and the share of allocation by the size of enterprises**

	Small enterprises	Medium enterprises	Large enterprises
Share of projects	0%	0%	100%
Allocation share	0%	0%	100%

Source: author, based on the information provided by the Ministry of Environment

The concentration is weaker in terms of geography. The majority of supported projects (7 out of 10) are located in Western Slovakia. However, 75% of financial allocation is for the projects located in Eastern Slovakia. The least allocation in terms of both share of projects and allocation share went to Central Slovakia, with only one project with a 4% allocation share (table 2).

**Table 2: Share of projects supported and the share of allocation by location**

	Western Slovakia	Central Slovakia	Eastern Slovakia
Share of projects	60%	10%	30%
Allocation share	19%	4%	77%

Source: author, based on the information provided by the Ministry of Environment

In terms of the share of projects, the support was divided among 8 beneficiaries across 7 different industries in terms of the NACE codes. The allocation share is strongly skewed towards high allocation for the basic iron and steel sector with over 75% of the total allocation (table 3). This skewed allocation partly follows the findings of earlier expert studies ([ÚHP, IEP, BCG, 2022: 11](#)) as the greenhouse gases are predominantly produced by the steelmaking sector. Therefore, the abatement potential is also highest in this industry.

**Table 3: Share of projects supported and the share of allocation by NACE**

	Number of beneficiaries	Number of projects	Allocation share
24100. Manufacture of basic iron and steel	1	2	76,3%
20150. Manufacture of fertilisers and nitrogen compounds	1	1	7,4%
19200. Manufacture of refined petroleum products	1	2	5,6%
17120. Manufacture of paper and paperboard	1	1	3,7%
23130. Manufacture of hollow glass	1	1	3,6%
23510. Manufacture of cement	2	2	2,3%
23320. Manufacture of bricks	1	1	1,1%
<b>Total</b>	<b>8</b>	<b>10</b>	<b>100%</b>

Source: author, based on the information provided by the Ministry of Environment

**10. Has the measure resulted in a change in the competitive position of the beneficiaries in comparison to non-beneficiaries following the granting of aid?**

Relevant indicator: Increase of beneficiary market share.

To date, none of the supported measures has materialized yet. Therefore, the measures have not resulted in a change in the competitive position of the beneficiaries, compared to the non-beneficiaries.

**11. How many jobs were created as a result of project implementation in granted undertakings;**

Relevant indicator: Number of FTE created in granted undertakings

To date, none of the supported measures has materialized yet. Therefore, the measures have not resulted in a significant number of jobs created in supported undertakings.



## 2. Questions related to the indirect impacts

### **1. How many jobs were created as a result of project implementation in the supplier industry?**

*Relevant indicator: Number of FTE created in the supplier industry.*

To date, none of the supported measures has materialized yet. Therefore, the measures have not resulted in a significant number of jobs created in the supplier industry.

### **2. Has the aid resulted in skilled workers in the financed industries displacing skilled workers from other industries?**

*Relevant indicator: Number of FTE in the financed industries displacing skilled work from other industries?*

To date, none of the supported measures has materialized yet. Therefore, the measures have not resulted in the displacement of skilled workers from other industries.

### **3. Has the measure resulted in spillover effects (the potential use of the supported technologies in further undertakings, sectors and regions)**

*Relevant indicator: Further use or planned use of promoted technologies in the given industry/ other industries/ regions.*

To date, none of the supported measures has materialized yet. Therefore, the measures have not resulted in spillover effects.

### **4. Has the measure resulted in a change in supply and demand structures in the markets towards products and technologies with low or zero GHG emissions?**

*Relevant indicator: Shares of the supported products in the EU-wide turnover of the products mainly affected by the support.*

To date, none of the supported measures has materialized yet. Therefore, the measures have not resulted in a change in supply and demand structures in these markets.

### **5. Has the measure resulted in an increased demand for electricity and in particular increase in demand for fossil-based electricity by beneficiaries?**

*Relevant indicator: (i) increase in overall electricity consumption, (ii) variations in the production capacity of electricity produced from fossil fuels, (iii) variations in the production of electricity produced from fossil fuels*

*Relevant indicator in case of increase of demand for fossil-based electricity: comparison of the amount of increased CO<sub>2</sub> emissions resulting from fossil-based electricity increase to the emission reductions stipulated as aid scheme objectives.*

To date, none of the supported measures has materialized yet. Therefore, the measures did not lead to an increased demand for electricity, or fossil-based electricity.

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### 3. Questions about the proportionality and appropriateness of the aid:

#### **1. Were beneficiaries granted the aid through a competitive bidding process?**

*Relevant indicator: (i) Open, clear, transparent and non-discriminatory bidding process, based on objective criteria, defined ex-ante in accordance with the objective of the schemes (ii) Selection of projects with application of cost-efficiency related bidding criterion.*

Both schemes had an open, clear, transparent and non-discriminatory bidding process following the criteria that were defined ex-ante. To increase transparency and avoid providing unfair advantage to the bidders, the Ministry has published several rounds of FAQs for both schemes.

The selection of projects followed the conditions that were set up ex-ante. In both cases, 70% of the final score was based on achieving the lowest costs for abating 1 t of CO<sub>2</sub>eq, while the remaining 30% of the score was allocated based on the total size of abatement.

During the bidding process, five bidders (four in the SA.102385 scheme, and one in the SA.102388 scheme) were disqualified from the competition due to not fulfilling the conditions of the schemes that were declared ex ante. The decisions to disqualify these bidders were made by external independent evaluators. Two of the bidders objected to the exclusion (both in the SA.102385 scheme). In their cases, the appeal body (Minister of Environment) confirmed the original decision to disqualify these bidders. The most common reason for it (also in the case of the two bids that appealed) was not achieving the condition of a 30% decrease of the CO<sub>2</sub>eq emissions per applicant.

#### **2. Were all criteria published in advance of the deadline for submitting applications?**

*Relevant indicator: Time to submit a grant application from the publication of the call for grant applications.*

For the Modernization fund, the applicants had three months to apply (MŽP SR, 2024). The time was shorter for the RRP scheme – approximately 2 months (MŽP SR, 2024).

The relevant state institutions published a notice of their intention to establish the aid measure in advance (for example in the forms of asking industries to submit their non-binding investment intentions for the Modernization fund and publishing the Recovery and resilience plan). Additionally, all installations belonging to the EU ETS in the Slovak Republic were invited for two consultations with the Ministry of Environment of the Slovak Republic. The first consultation took place during the preparation of the state aid notification, and the second one after the state aid was notified (but without details on the call).

Taking all of these facts into consideration, the period to submit a grant application from the publication of the call was sufficient for potential bidders to submit their applications.

#### **3. Did all bidders receive aid?**

*Relevant indicator: The amount of requested aid which exceeded the entire allocation.*

In both schemes, not all bidders received aid. However, all bidders that fulfilled the eligibility conditions to participate received aid in both schemes.

For the RRP scheme, the bidders requested 387 mil. EUR. Successful bidders (3) were earmarked funds of 316.9 mil. EUR (81.9%). Four unsuccessful (disqualified) additional bidders have requested 70.2 mil. EUR (18.1%) cumulatively.

For the MoF scheme, 516 mil. EUR were requested by the bidders. Successful bidders (7) were earmarked funds of 469.7 mil. EUR (91%). One unsuccessful (disqualified) additional bidder has requested 46.5 mil. EUR (9%).



**4. How much aid compared to the total investment costs have the projects within each project category received on average?**

*Relevant indicator: The amount of average awarded aid, compared to the total project investment costs, expressed for each project category.*

On average, the aid covered 38% of the total project investment costs. There was a significant variance in terms of individual shares, from 32% in the sector of refined petroleum products to 100% in the sector of the manufacture of hollow glass (table 4). Significant variations in the allocation of aid relative to total investment costs have contributed to a wide range of cost efficiencies among individual projects in terms of cost per metric ton of CO<sub>2</sub> equivalent abated in €/tCO<sub>2</sub>eq/year (attachment 1).

**Table 4: Aid provided and total investment costs by individual NACE codes**

<b>NACE code</b>	<b>Aid provided</b>	<b>Total investment cost</b>	<b>Share</b>
24100. Manufacture of basic iron and steel	600 000 000 €	1 600 214 202 €	37%
20150. Manufacture of fertilisers and nitrogen compounds	58 421 003 €	116 842 006 €	50%
19200. Manufacture of refined petroleum products	44 200 000 €	138 115 000 €	32%
17120. Manufacture of paper and paperboard	28 900 000 €	86 861 312 €	33%
23130. Manufacture of hollow glass	28 572 305 €	28 572 305 €	100%
23510. Manufacture of cement	18 007 302 €	60 024 342 €	30%
23320. Manufacture of bricks	8 434 470 €	13 490 444 €	63%
<b>Total</b>	<b>786 535 080 €</b>	<b>2 044 119 610 €</b>	<b>38%</b>

*Source: author, based on the information provided by the Ministry of Environment*



## 4. Attachment 1

**Table 5: Overview of the beneficiaries from both sources of the state aid**

<b>Beneficiary</b>	<b>Name of the project</b>	<b>Requested aid</b>	<b>Abatement cost</b>	<b>Source</b>	<b>State Aid</b>
<i>U. S. Steel Košice, s. r. o. *</i>	<i>Environmentally sustainable processing of liquid steel by thin strip casting</i>	300 000 000 €	112.44 €/tCO <sub>2</sub> eq/year	Modernization Fund	SA.102388
Duslo, a.s.	Duslo, a.s. - Green ammonia	58 421 003 €	3,948.70 €/tCO <sub>2</sub> eq/year	Modernization Fund	SA.102388
<i>Mondi SCP, a.s. *</i>	<i>Decarbonization of lime kiln</i>	28 900 000 €	751.16 €/tCO <sub>2</sub> eq/year	Modernization Fund	SA.102388
RONA, a.s.	Decarbonization of production capacities at RONA, a.s.	28 572 305 €	1,724.06 €/tCO <sub>2</sub> eq/year	Modernization Fund	SA.102388
SLOVNAFT, a.s.	Reduction of CO <sub>2</sub> eq emissions through the implementation of a set of technological measures	24 200 000 €	77.23 €/tCO <sub>2</sub> eq/year	Modernization Fund	SA.102388
SLOVNAFT, a.s.	Set of technological measures increasing energy efficiency and reducing CO <sub>2</sub> eq emissions at the Ethylene Unit	20 000 000 €	343.07 €/tCO <sub>2</sub> eq/year	Modernization Fund	SA.102388
Danucem Slovensko a.s.	Decarbonization of cement production in Rohožník	9 568 128 €	54.13 €/tCO <sub>2</sub> eq/year	Modernization Fund	SA.102388
<i>U. S. Steel Košice, s. r. o. *</i>	<i>Decarbonization of steel production by installing electric arc furnaces</i>	300 000 000 €	101.11 €/tCO <sub>2</sub> eq/year	Recovery and Resilience Fund	SA.102385
Danucem Slovensko a.s.	Decarbonization of gray cement in Turna nad Bodvou	8 439 174 €	68.46 €/tCO <sub>2</sub> eq/year	Recovery and Resilience Fund	SA.102385
Wienerberger slovenské tehelne, spol. s r. o.	Decarbonization of production at the Wienerberger brickworks - Zlaté Moravce	8 434 470 €	1,000.00 €/tCO <sub>2</sub> eq/year	Recovery and Resilience Fund	SA.102385
		<b>786 535 080 €</b>			

The beneficiaries associated with three projects, denoted by an asterisk (\*), have not yet extended cooperation nor finalized binding contracts with the Ministry of Environment. Primarily, this delay stems from internal business deliberations. For instance, in the case of U. S. Steel Košice, s. r. o., this hesitation is attributed to the reported acquisition of U.S. Steel by Nippon Steel.