

# Product Carbon Footprint Verification Opinion

The Inventory of Product Carbon Footprint of  
Circulation Coins

which is calculated by

**CENTRAL MINT**

No. 577, Jhensing Rd., Gueishan Dist.,  
Taoyuan City 333029, Taiwan(R.O.C.)

Based on life cycle assessment verified in accordance  
with ISO 14064-3:2019 as meeting the requirements of

**ISO 14067:2018**

**Basis of Assessment**

Cradle-to-Gate

Authorized by

Stephen Pao

Knowledge Deputy General Manager

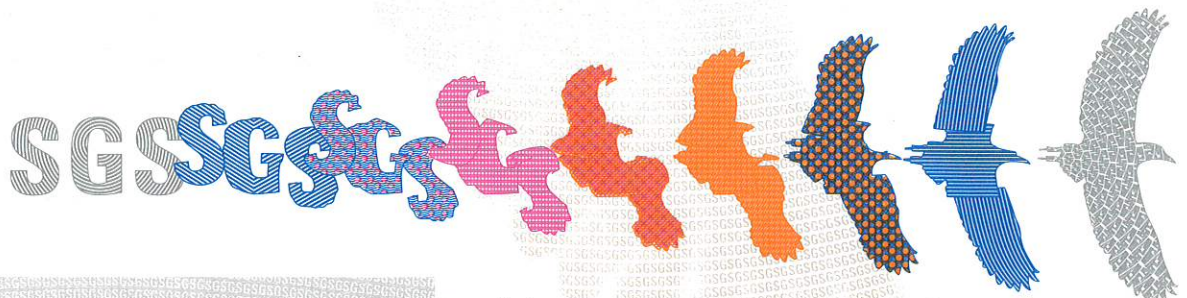
Version 1

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Opinion TW24/00024CFP, continued

| Product Name   | Circulation Coins |             |       |
|--|-------------------|-------------|-------|
| Declared Unit  | Per pcs           |             |       |
| Life cycle GHG emissions                                   |                   |             |       |
| Declared Unit emissions (Unit: grams of CO <sub>2</sub> e) |                   |             |       |
| Life Cycle Stage   | Material          | Manufacture | Total |
| NT \$1 coin  | 12.610            | 1.654       | 14.26 |
| NT \$5 coin  | 14.747            | 1.953       | 16.70 |
| NT \$10 coin   | 19.047            | 2.910       | 21.96 |
| NT \$50 coin   | 42.942            | 3.731       | 46.67 |

SGS has been commissioned by C.C.Sustain ESG Solution Co.,Ltd. (hereinafter referred to as “C. C. Sustain”), 15F.-5, No. 12, Zhonghua Rd., Yongkang Dist., Tainan City 710029 , Taiwan (R.O.C.) to conduct the life cycle Greenhouse Gas (hereinafter referred to as “GHG”) emissions verification of Coins provided by CENTRAL MINT (hereinafter referred to as “CENTRAL MINT”), No.577, Jhensing Rd., Gueishan Dist., Taoyuan City 333029, Taiwan(R.O.C.) in accordance with ISO 14064-3:2019 against the requirements of

## ISO 14067:2018

### Roles and responsibilities

- The management of CENTRAL MINT is responsible for the organization’s GHG information system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of the life cycle GHG emissions for product information and the reported life cycle GHG emissions of the product.
- Contract Date: The verification was based on the verification scope, objectives and criteria as agreed between C. C. Sustain and SGS on 13 June 2023.
- Verification Standard: ISO 14067:2018  
Greenhouse gases- Carbon footprint of products- Requirements and guidelines for quantification
- Verification Period: 05 December 2023 to 29 December 2023.

### Scope

- GHG information for the following production period was verified : 01 January 2022 to 31 December 2022.
- Title or description of activities : Product carbon footprint verification of the Cradle-to-Gate life cycle GHG emissions manufactured by CENTRAL MINT:
  - NT \$1 coin
  - NT \$5 coin
  - NT \$10 coin
  - NT \$50 coin
- Manufacturing location :
  - No. 577, Jhensing Rd., Gueishan Dist., Taoyuan City 333029, Taiwan (R.O.C.)
- Product Category Rule : Nil.
- Declared unit : Per pcs

- System boundary : Covers a Cradle-to-Gate assessment of the full life cycle emissions; the system boundary was clearly defined in accordance with ISO 14067:2018. All GHG's enlisted on ISO 14067:2018.
- Data resources : The primary data collection is from manufacturing and operational control phases. The secondary data collection is from Carbon Footprint Information Platform, EF Database 2.0, Ecoinvent v3.
- Life cycle assessment tool and index :
  - Life cycle emissions are calculated by Excel and SimaPro 9.5.0.0.
  - IPCC 2021 AR6 GWP values are applied in this inventory.
- Level of assurance: In accordance with verification criteria and the execution of verification procedures based on bilateral agreements, the process aligns with the materiality requirements and the reasonable assurance level recognized by authorities.
- Materiality : 5%.

### Objective

The purpose of this verification exercise is, by review of objective evidence, to independently review:

- Whether the life cycle GHG emissions of the product are as declared by the organization's GHG assertion.
- The data reported is accurate, complete, consistent, transparent and free of material error or omission.

### Conclusion

- SGS's approach is risk-based, drawing on an understanding of the risks associated with reporting the life cycle GHG emissions of product information and the controls in place to mitigate these risks. Our examination included assessment and a test of evidence relevant to the amounts and disclosures in relation to the reported life cycle GHG emissions of the product. We planned and performed our work to obtain the information, explanations and evidence that the life cycle GHG emissions are free from material misstatement.
- Verification Opinion: the opinion of SGS is modified in accordance with the following described circumstances.
  - The auditor has sufficient and appropriate evidence to support the material emissions, removals, or storage.
  - The auditor applies appropriate criteria for the material emissions, removals, or storage.

- When the auditor intends to rely on relevant controls, the effectiveness of those controls has been assessed.
- The auditor, applying the ISO 14067:2018 standard, presents the following findings. After adjustments and corrections, no material errors were identified.
  - The calculation process of the stamping die in the carbon footprint inventory of circulating coin products was incorrect and has been corrected.
  - The allocation of "raw material stage" and "waste treatment" in the carbon footprint inventory of circulating currency products has been re-arranged.
  - The greenhouse gas emissions from the currency factory's air conditioners, air compressors, and lighting equipment have not yet been allocated to each circulating currency, and the correction has been completed.
  - The power distribution principle of the auxiliary workshop and the administrative building has been modified to "total weight of circulating coins/total weight of the entire site".
  - The secretarial room's refrigerant and fire protection distribution principle has been revised to "total weight of circulating coins/total weight of the entire venue".
  - The usage activity data of sodium fluoroaluminate (cryolite) has been corrected.
  - Duplicate activity data of pure manganese tablets has been deleted.
  - Duplicate activity data for Silicon Metal has been removed.
  - Silicon oxide usage activity data has been corrected.
  - The description of the light cake distribution principle has been changed to "Total weight of light cake (raw materials paid + remaining raw materials)/total weight of the entire site"
  - The distribution principle of wastewater input chemicals and on-site groundwater treatment chemicals has been changed to "total weight of circulating coins/total weight of the entire site"
- Retention Limitation: Nil.

### Confidentiality

The reports and attachments may contain relevantly confidential information of the clients. In addition to being submitted as governmental application or certification documents, the reports and attachments are not allowed to be edited, duplicated, or published without the clients' agreement in written form.

**Avoidance of Conflict of Interest**

The reports and attachments are completely complied with the standards and procedures that related-authorities established. The reports and attachments of auditing process are conduct with fairness and honesty. If not, the auditing institution not only has to bear the relevant compensation duties, but also to receive legal charge and punishment.

**Verifier Group**

Above opinions coincide with auditing process with fairness and impartiality, and aim at the emission of clients.

Lead Verifier: *Kevin Hsieh*

Verifier: *Victor Tseng* *Sophia Chui*

This opinion shall be interpreted with the GHG assertion of CENTRAL MINT as a whole. This result shall be valid for a maximum period of two years, after which the GHG emission shall be re-assessed.

Note: This Opinion is issued, on behalf of Client, by SGS Taiwan Ltd. ("SGS") under its General Conditions for Green Gas Verification Services available at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The findings recorded hereon are based upon an audit performed by SGS. A full copy of this Opinion, the findings and the supporting Carbon Footprint Assertion may be consulted at CENTRAL MINT, No. 577, Jhensing Rd., Gueishan Dist., Taoyuan City 333029, Taiwan(R.O.C.). This Opinion does not relieve Client from compliance with any bylaws, federal, national or regional acts and regulations or with any guidelines issued pursuant to such regulations. Stipulations to the contrary are not binding on SGS and SGS shall have no responsibility vis-à-vis parties other than its Client.