FILING AND JUSTIFICATION OF THE MERGER OF NEW STEEL GLOBAL S.À.R.L, NEW STEEL S.A. AND CENTRO TECNOLÓGICO SOLUÇÕES SUSTENTÁVEIS S.A. INTO VALE S.A.

VALE S.A., a publicly traded corporation whose principal place of business is Praia de Botafogo, 186 - suites 701, 1101, 1601, 1701, 1801 and 1901 | Botafogo | Rio de Janeiro, RJ 22250-145, bearer of CNPJ/ME 33.592.510/0001-54 and of Board of Trade of the State of Rio de Janeiro (JUCERJA) NIRE 33.3.0001976-6, hereby represented by its executive officers, Mr. Gustavo Duarte Pimenta, nationality: Brazilian, marital status: married, occupation: economist, I.D.: 5.762.765, issued by SSP/MG, Individual Taxpayer Number of the Ministry of Economy (Cadastro de Pessoas Físicas/Ministério da Economia – CPF/ME) 035.844.246-07; and Mr. Marcello Magistrini Spinelli, , nationality: Brazilian, marital status: married, occupation: production engineer, I.D.: 230121603, issued by SSP/SP, Individual Taxpayer Number of the Ministry of Economy (Cadastro de Pessoas Físicas/Ministério da Economia – CPF/ME) 197.378.918-30, whose professional address is Praia de Botafogo 186 - 19th floor | Botafogo | Rio de Janeiro, RJ 22250-145, hereinafter simply VALE or Surviving Company;

NEW STEEL GLOBAL S.À.R.L., a company incorporated under the laws of the Great Duchy of Luxembourg whose principal place of business is 14 rue Edward Steichen | L-2540 Luxembourg, bearer of CNPJ/ME 29.875.537/0001-87, hereby represented by its Director Mrs. Patricia Silva Rodrigues Scheel, nationality: Brazilian, marital status: married, occupation: engineer, I.D.: M8016140, issued by SSP/MG, Individual Taxpayer Number of the Ministry of Economy (Cadastro de Pessoas Físicas/Ministério da Economia – CPF/ME) 034.213.646-13, whose professional address is Praia de Botafogo 186 - 19th floor | Botafogo | Rio de Janeiro, RJ 22250-145, hereinafter simply **NSG**;

NEW STEEL S.A., a publicly traded corporation, with principal place of business at Praia de Botafogo, 186 - suite 701 | Botafogo | Rio de Janeiro, RJ 22250-145, bearer of CNPJ/ME 09.442.144/0001-72 and registered before the Board of Trade of the State of Rio de Janeiro (JUCERJA) under NIRE 33.3.0030358-8, hereby represented by its executive officers, Mr. Victor Pereira Padula, nationality: Brazilian, marital status: married, occupation: engineer, I.D.: MG.6.888.260, issued by SSP/MG, Individual Taxpayer Number of the Ministry of Economy (Cadastro de Pessoas Físicas/Ministério da Economia – CPF/ME) 027.679.626-82, and Mr. João Sichieri Moura, nationality: Brazilian, marital status: married, occupation: economist, I.D.: 65941015, issued by SSP/PR, Individual Taxpayer Number of the Ministry of Economy (Cadastro de Pessoas Físicas/Ministério da Economia – CPF/ME) 079.130.737-99, whose professional address is Praia de Botafogo 186 - 19th floor | Botafogo | Rio de Janeiro, RJ 22250-145, hereinafter simply NS; and

CENTRO TECNOLÓGICO SOLUÇÕES SUSTENTÁVEIS S.A., a closely held corporation, with principal place of business at Praia de Botafogo, 186 - suite 701 | Botafogo | Rio de Janeiro, RJ 22250-

145, bearer of CNPJ/ME 15.363.867/0001-89 and registered before the Board of Trade of the State of Rio de Janeiro (JUCERJA) under NIRE 33.3.0030215-8, hereby represented by its executive officers, Mr. Victor Pereira Padula and Mr. João Sichieri Moura, both already qualified above, whose professional address is Praia de Botafogo 186 - 19th floor | Botafogo | Rio de Janeiro, RJ 22250-145, hereinafter simply <u>CTSS</u>, and, together with **NSG** and **NS**, hereinafter <u>Absorbed Companies</u>;

VALE, NSG, NS and CTSS, also referred to jointly as <u>Corporations</u> or <u>Parties</u>, sign this Filing and Justification of Merger (<u>Filing and Justification of Merger</u>), which substantiates the conditions agreed upon got the merger of NSG, NS and CTSS into VALE as set forth in and for the purposes of articles 224, 225, 227 and 264 of Law 6404, enacted 12/15/76, (<u>Business Corporation Act</u>) and other applicable legal provisions (<u>Mergers</u>), as follows:

CLAUSE ONE – JUSTIFICATION OF THE MERGERS

- 1.1. VALE owns all shares issued by NSG, and NSG is the only shareholder in NS. For its part, NS owns all shares issued by CTSS. Therefore, Mergers will result in VALE'S direct management of NSG, NS and CTSS stock and in cost reductions on account of a more simplified corporate structure for all the aforementioned Corporations, including greater administrative and operational efficiency.
- 1.2. VALE, NSG, NS and CTSS management reviewed the alternatives for best conducting NSG'S, NS' and CTSS' managerial affairs and policies, taking into account the intent to streamline financial and operational resources. It was clear from the review that keeping several management structures would result in increased operating costs and simultaneously to a loss of important business synergies.
- 1.3. Therefore, in order to reduce operational costs, optimize business and corporate and financial organization, and optimize information flow, and given that VALE already directly or indirectly owns all NSG, NS and CTSS stock, and given VALE, NSG, NS and CTSS intend to carry out the Mergers interdependently, meaning approval of each merger is conditioned upon approval by the other mergers. Merger interdependency is justified on account of: (i) the impossibility of the merger of NS and CTSS into NSG without interrupting operations of the two Absorbed Companies since NSG, because it is a foreign corporation, can only operate in Brazil under specific government authorizations, which can take time to obtain; and (ii) the Parties' intent that Mergers occur on the same day to avoid separate bureaucratic and technical implementation processes for each merger.
- 1.4. As such and taking into account **NSG'S**, **NS'** and **CTSS'** current organizational structure, the most advantageous route for the Parties is to proceed with the Mergers. These Mergers will enable the Parties to better harness synergies, reduce operating costs and increase efficiency in addition to improving management and administration of **NSG'S**, **NS'** and **CTSS'** social businesses.

1.5. The Mergers will allow for VALE to absorb all NSG, NS and CTSS assets and liabilities, which will take effect fiscally and financially on the date Mergers are ultimately approved by the Corporations' shareholders. Once the Mergers are complete, which should be effected sequentially, each one immediately following the one before and conditioned on the others, NSG, NS and CTSS shall be dissolved for all legal effects, and VALE shall assume, as of said date, all rights, property and obligations without interruption. Following the Mergers, the balances in all credit and debit accounts that that compose NSG'S, NS' and CTSS' assets and liabilities should be reflected in VALE'S accounting books, transferred to the corresponding accounts and bearing any necessary adjustments.

CLAUSE TWO - PURPOSE AND BASE DATE OF MERGERS

- 2.1. The purpose of the operation is the comprehensive, sequential and interdependent Mergers of NSG'S, NS' and CTSS' stockholder equity, in that order, into VALE, and the Absorbed Companies shall automatically be dissolved for all legal purposes, and all their rights and obligations shall be survived by the Surviving Company pursuant to the terms of article 227 of the Business Corporation Act, which is why the Corporations, through their duly identified representatives, sign this agreement and for the purposes of articles 224 and 225 of the Business Corporation Act.
- 2.2. To clarify, the operation described in this Filing and Justification for Merger involves the sequential and interdependent Mergers of NSG, NS and CTSS into VALE as follows: (i) conditioned upon approval of the following items ii and iii, NSG shall merge into VALE, owner of all shares issued by NSG, and shall assume all rights and obligations of the Absorbed Company pursuant to the terms of 227 of the Business Corporation Act; (ii) immediately thereafter and conditioned upon approval of the foregoing item i and the following item iii, NS shall merge into VALE, which, on account of the merger with NSG, shall proceed to own all shares issued by NS, and shall assume all rights and obligations of the Absorbed Company pursuant to the terms of 227 of the Business Corporation Act; and (iii) finally and immediately thereafter and conditioned upon approval of the foregoing items i and ii, CTSS shall merge into VALE, which, on account of the merger with NS, shall proceed to own all shares issued by CTSS, and shall assume all rights and obligations of the Absorbed Company pursuant to the terms of 227 of the Business Corporation Act.
- 2.3. For the purpose of the Mergers, the base date is 11/30/2021 (Base Date), the preparation date for NSG'S, NS' and CTSS' stockholder equity documentation that shall serve as the basis for the sequential Mergers of the Absorbed Companies' stockholder equity into the Surviving Company.

CLAUSE THREE – APPRAISAL OF ABSORBED COMPANIES' PROPERTY

3.1. In accordance with legal requirements, notably the provisions set forth in articles 8 and 227 of the Business Corporation Act, the Merger must include an appraisal of the **Absorbed Companies**' stockholder equity at book value based on the **Absorbed Companies**' **financial statements** prepared

on the Base Date.

- 3.2. The firm of Macso Legate Auditores Independentes, located at Rua Bela Cintra 1200 | 2nd floor | São Paulo, SP and bearer of CNPJ 23.037.018/0001-63, State of São Paulo Accounting Board (CRC) registration 2SP033482/0-3 and Securities Commission (CVM) registration 12432, whose articles of incorporation are registered before the 9th Notary Office for Deeds and Documents for Individuals and Legal Entities in the State of São Paulo under entry 41387, in session dated 8/6/2015 including subsequent alterations, the last of which is dated 10/30/2019 under entry 53159 (Specialized Company), was retained to appraise the **Absorbed Companies**' stockholder equity. As set forth in articles 8, 226 and 227 of the Business Corporation Act, it prepared accounting appraisal reports of the **Absorbed Companies**' stockholder equity. The reports for **NS** and **CTSS** were dated 1/12/2022, and the report for **NSG** was dated 1/25/2022. The reports were based on the assets and liabilities listed in **NSG'S**, **NS**' and **CTSS**' financial statements prepared 11/30/2021 (Appraisal Reports), which are included in Annexes I, II and III to this Filing and Justification for Merger. The hiring of the Specialized Company and the Appraisal Reports shall be submitted for approval or ratification, as the case may be, by **Surviving Company's** and **Absorbed Companies**' shareholders.
- 3.3. The Specialized Company appraised the **Absorbed Companies**' stockholder equity at book value pursuant to the **Absorbed Companies**' financial statements prepared on the Base Date, which had been prepared independently and in accordance with generally accepted accounting principles in Brazil.
- 3.4. According to the information in the Appraisal Reports prepared by the Specialized Company, (i) **NSG'S** stockholder equity at book value on the Base Date comes to R\$77,452,728.67 (seventy-seven million four hundred fifty-two thousand seven hundred twenty-eight Brazilian *reals* and sixty-seven cents) (ii) **NS'** stockholder equity at book value on the Base Date comes to R\$9,991,765.11 (nine million nine hundred ninety-one thousand seven hundred sixty-five Brazilian *reals* and eleven cents); and (iii) **CTSS'** accumulated deficit at Base Date comes to R\$8,894,383.13 (eight million eight hundred ninety-four thousand three hundred eighty-three Brazilian *reals* and thirteen cents).

CLAUSE FOUR – ABSORBED COMPANIES' CAPITAL AND BASIC MERGER CONDITIONS

4.1. As of the date of this agreement, (i) **NSG'S** wholly subscribed and paid-in capital stands at EUR 51,904.78 (fifty-one thousand nine hundred four Euros and seventy-eight cents), equivalent, on the date this agreement is signed, to R\$298,311.91 (two hundred ninety-eight thousand three hundred eleven Brazilian *reals* and ninety-one cents), represented by 5,190,478 (five million one hundred ninety thousand, four hundred seventy-eight) registered shares with a par value of EUR 0.01 (zero Euros and one cent) each, all owned by **VALE** and free and clear of all encumbrances; (ii) **NS'** wholly subscribed and paid-in capital stands at R\$391,411,623.15 (three hundred ninety-one million four hundred eleven thousand six hundred twenty-three Brazilian *reals* and fifteen cents), represented by 19,888,420,595

(nineteen billion eight hundred eighty-eight million four hundred twenty thousand five hundred ninety-five) registered shares with no par value, all owned by **NSG** and free and clear of all encumbrances; and (iii) **CTSS'** wholly subscribed and paid-in capital stands at R\$230.644.207,03 (two hundred thirty million six hundred forty-four thousand two hundred seven Brazilian *reals* and three cents), represented by 15,284,324,627 (fifteen billion two hundred eighty-four million three hundred twenty-four thousand six hundred twenty-seven) registered shares with no par value, all owned by **NS** and free and clear of all encumbrances.

- 4.2. With the Mergers, initially stockholder equity pertaining to NSG, a full subsidiary of VALE, shall be transferred to VALE at the corresponding book value since, as the Surviving Company is the sole shareholder of NSG, its stockholder equity already exclusively pertains thereto and figures in the Surviving Company' assets at the share value of shares issued by NSG. Once all 5,190,478 (five million one hundred ninety thousand, four hundred seventy-eight) shares issued by NSG and the Surviving Company's property has expired as a result of said Merger, the respective value shall be replaced in VALE'S accounting ledgers with the value of NSG'S net equity.
- 4.3. Following the merger described in the foregoing Clause 4.2, NS' stockholder equity shall be transferred to VALE at book value since, following the merger of NSG into VALE, the Surviving Company shall be, as the universal successor of NSG, the sole shareholder of NS; in other words, NS shall momentarily be a wholly owned subsidiary of VALE, in which case NS' stockholder equity shall pertain entirely to VALE and shall figure in the Surviving Company's assets at the share value of shares issued by NS. Thus, as result of the merger of NS into VALE, all 19,888,420,595 (nineteen billion eight hundred eighty-eight million four hundred twenty thousand five hundred ninety-five) shares issued by NS that, following the merger of NSG into VALE, are property of the Surviving Company, the respective value shall be replaced in VALE'S accounting ledgers with the value of NS' net equity.
- 4.4. Following the merger described in the foregoing Clause 4.3, CTSS' stockholder equity shall be transferred to VALE at book value since, following the merger of NS into VALE, the Surviving Company shall be, as the universal successor of NS, the sole shareholder of CTSS; in other words, CTSS shall momentarily be a wholly owned subsidiary of VALE, in which case CTSS' stockholder equity shall pertain entirely to VALE and shall figure in the Surviving Company's assets at the share value of shares issued by CTSS. Thus, as result of the Merger of CTSS into VALE, all 15,284,324,627 (fifteen billion two hundred eighty-four million three hundred twenty-four thousand six hundred twenty-seven) shares issued by CTSS that, following the Merger of NS into VALE, are property of the Surviving Company, the respective value shall be replaced in VALE'S accounting ledgers with the value of CTSS' net equity.
- 4.5. Any variations between the Base Date and effective Mergers of the calculated values of the **Absorbed Companies**' assets and liabilities to be transferred to the **Surviving Company** shall be

registered in the **Surviving Company's** commercial and tax accounting records without interruption, and an expiration balance sheet shall be prepared on said date to meet legal requirements, at which time the pertinent transfers shall be recorded in the **Surviving Company's** tax and accounting books.

- 4.6. On account of the provisions of the foregoing items 4.2, 4.3 and 4.4, the intended Mergers shall not result in an increase in the **Surviving Company's** capital or in issuance of new shares.
- 4.7. With the automatic dissolution of the **Absorbed Companies**, the **Surviving Company** shall unconditionally assume, without interruption, all legal or agreed upon assets, rights and obligations beholden to **NSG**, **NS** and **CTSS**, and the **Absorbed Companies** shall be universally subsumed by the **Surviving Company**.

CLAUSE FIVE - MISCELLANEOUS

- 5.1. Approval of the Mergers **Absorbed Companies**' and the **Surviving Company's** shareholders must be given at **NSG'S**, **NS'**, **CTSS'** and **VALE'S** special shareholders' meetings or equivalent, with the respective sequential dissolutions of the **Absorbed Companies** on account of the Mergers, in the case such are approved. It is hereby agreed that the Mergers may only be considered effective if approved by the respective applicable voting quorum of shareholders. Given that (i) **VALE** is currently the sole shareholder of **NSG**, (ii) it shall figure as the sole shareholder of **NS** and **CTSS** following the merger of **NSG** and **NS** respectively, and (iii) it proposes the Mergers by signing this instrument, no exchange of shares shall be necessary nor shall the rules regarding withdrawal rights to which articles 137, II, and 230 of the Business Corporation Act refer apply.
- 5.1. 1. Given the interdependent nature of the Mergers hereby proposed, the operation presented in this Filing and Justification for Merger shall only take place should all the Corporations' shareholders' meetings approve the mergers of all the **Absorbed Companies** into **VALE**. Should one of the stages described in items i through iii of item 2.2 not be approved, the Mergers shall not take place.
- 5.2. VALE, as the Surviving Company to the Absorbed Companies, shall be liable for complying with all acts required to carry out the Mergers, including registration and publication of all corporate acts related to the Mergers, cancellations, notary filings, registrations, communications and perfection of Mergers with government agencies or competent authorities. The Surviving Company's management shall also be liable for maintaining the Absorbed Companies' tax records, corporate records and accounting records as well as all tax documentation prepared during the Mergers as long as required by law.

5.3. The **Absorbed Companies**' and **Surviving Company's** management understand the intended operation involving the Mergers is in the interest of the **Absorbed Companies**, the **Surviving Company**

and their respective shareholders, which is why the operation is recommended.

5.4. This Filing and Justification for Merger may only be changed through a written instrument

signed by all Parties and subject to the corporate approvals to which item 5.1 hereto refers, as applicable.

5.5. For all intents and purposes, the annexes to this Filing and Justification for Merger are an

integral and inseparable part of this instrument.

5.6. Should any clause, provisions, term or condition of this Filing and Justification for Merger come

to be considered void, the remaining clauses, provisions, terms and conditions shall not be affected and

shall remain in effect.

5.7. This Filing and Justification for Merger shall be governed by and interpreted in accordance with

the laws of Brazil.

5.8. The courts of the capital city and judicial district of Rio de Janeiro are chosen, with the waiver

of any other court, however preferable it may be, to settle any controversy arising out of this agreement.

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In witness whereof, the Parties hereto sign this instrument in the presence of the two undersigned

witnesses and for a single purpose after being read and approved.

Rio de Janeiro, March 07, 2022.

VALE S.A.

By: Gustavo Duarte Pimenta

By: Marcello Magistrini Spinelli
Position: Executive Officer

Position: Executive Officer

NEW STEEL GLOBAL S.À.R.L.

By: Patricia Silva Rodrigues Scheel

Position: Director

By: Victor Pereira Padula	By: João Sichieri Moura
Position: President	Position: Executive Officer
CENTRO TECNOLÓGICO SO	OLUÇÕES SUSTENTÁVEIS S.A.
By: Victor Pereira Padula Position: President	By: João Sichieri Moura Position: Executive Officer
Witnesses:	
Name: Adriana Nascimento Lemos de Moura ID: 256145509 – DETRAN/RJ Tax ID (CPF/MF): 142.481.967-94	Name: Katia Azeredo Diniz ID: 1.353220 – IPF/RJ Tax ID (CPF/MF): 609.504.127-91