

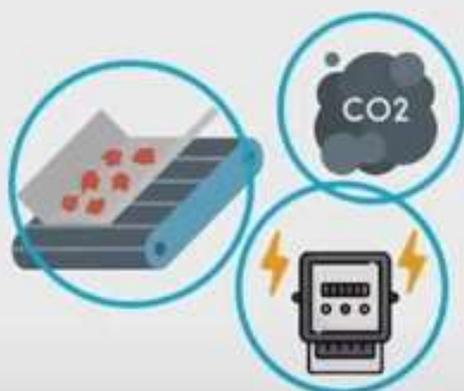
- 4個最重要的建議填寫表格，所代表的內容

### A\_InstData



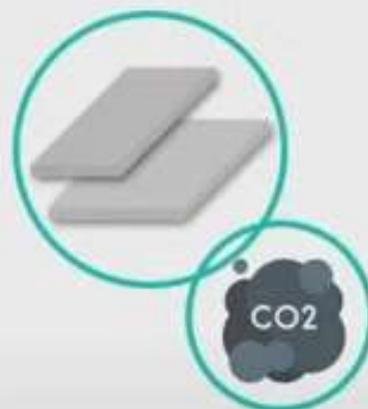
建立報告區間日期、生產設施、產品類別、製程路徑、前驅物等基本資訊。

### D\_Processes



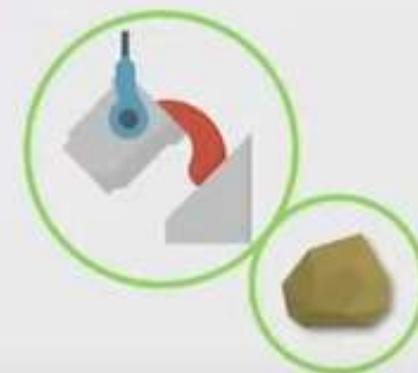
填寫產品產量、製程直接排放、用電量、電力係數等數據。

### E\_PurchPrec



填寫前驅物投入量、每噸前驅物碳含量等數據。

### Summary\_Products



填寫產品稅則碼、產品名稱、爐號、合金占比、廢料使用比等特定參數。

資料來源：經濟部國貿署 歐盟CBAM填報實戰說明會

# A\_InstData 製造商資訊 (1/2)

## 1) 報告期間

所填入資料的盤查區間(至少要3個月，多寫入一年)

1 Reporting period	
Start	盤查起始日
End	盤查結束日

Please enter here the starting date and the end date of the reporting period to which all data entered in this communication template refers to. For example, if you want to report data based on the whole calendar year 2023, the starting date would be 1.1.2023 and the end date 31.12.2023.  
It is important that all data entered in this template (embedded emissions, carbon price due, product properties, etc.) all relate to that same reporting period entered above.

2 About the installation	
i. Name of the installation (optional):	製造廠名稱
ii. Name of the installation (English name):	地址街道號碼
iii. Street, Number:	
iv. Economic activity:	郵遞區號
v. Post code:	郵政信箱
vi. P.O. Box:	製造廠所在城市
vii. City:	國家名稱(下拉式選單)
viii. Country:	聯合國貿易和運輸地點代碼
ix. UNLOCODE:	製造廠緯度
x. Coordinates of the main emission source (latitude):	製造廠經度
xi. Coordinates of the main emission source (longitude):	
xii. Name of authorized representative:	
xiii. Email:	
xiv. Telephone:	

3 Verifier of the report – only if available and not required during transitional period	

## 2) 生產設施(製造廠)資訊

- 沒有資訊者(如郵政信箱，P.O.Box)寫0或n.a.
- 經緯度可用google地圖查詢
- 有多個生產地點時，請與要求填表人溝通需求，是以一個區域當代表資訊提供，還是逐項目填表



## 3) 報告查證資訊(過渡期志願性填報)

# A\_InstData 製造商資訊 (2/2)

## 一般資訊、生產流程、購買的前驅物

### 4 Aggregated goods categories and relevant production processes

(a) List of aggregated goods categories, relevant precursors and corresponding production routes

ID	Aggregated goods category	Route	Route 1	Route 2	Route 3	Route 4	Route 5	Route 6
G1	Iron or steel products	All production routes						
G2	Crude steel	Please select...	Basic oxygen steelmaking					
G3	Alloys (FeMn, FeCr, FeNi)	All production routes						
G4								
Relevant precursors:			Crude steel	Direct reduced	Pig iron	Alloys (FeMn, Sintered Ore)	Hydrogen	

直接產出(售出)

(b) Relevant production processes

ID	Production process	Included goods categories listed under (a)						Name	Error message
		1	2	3	4	5	6		
P1	Iron or steel products	Only direct production						test	
P2	Crude steel	Alloys (FeMn, FeCr, FeNi)						test2	
P3									

給另一個製程使用 (通常框在泡泡內而不填寫)

### 5 Purchased precursors

Please list here all precursors that are produced OUTSIDE the installation (e.g. purchased) and consumed within the installation.  
Please also list the country in which the relevant precursor was produced (see sheet "c\_CodeLists" to find the correct country codes) and the relevant production routes, if known.

ID	Production process	Country code	Route 1	Route 2	Route 3	Route 4	Route 5	Name	Error
PP1	Iron or steel products	TW	Primary (elect)	Other product	Other product	Other product	Other product	steel wire	
PP2									
PP3									
PP4									
PP5									

### 4) 商品類別與相關生產流程

(a) 產品類別、生產途徑(下拉式選單)

相關前驅物 寫入商品類別後自動帶出

- 若在廠內生產，則填入4(a)表中
- 若自他廠購入，則填入5表中

(b) 生產流程、產品類別(下拉式選單)、品名

直接產出或用於其他製程

### 5) 購買的前驅物(上游原料)

(a) 生產流程、國家代碼、生產途徑(下拉式選單)、品名

# B\_EmInst 製造商排放源資料 (1/2)

## 與產品生產設施有關之排放

若尚未盤查，可在這寫N.A後跳至D、E表寫預設值(本簡報第48頁)，但此方式只能短時間內應急

### B. Sheet "B\_EmInst" - Installation's emission at source stream and emission source level

分頁 B\_InstData 生產設備之排放源與排放源層級資料

#### 1 Source streams and emission sources

源流和排放源

Please click on this link for further guidance on how to complete this section.

#### Source Streams (excluding PFC emissions)

源流 (不包括PFC排放) 填寫項 (所有數據單位均無誤)

#	Method 對應方法	Source stream name 源流名稱	Activity data (AD) 活動數據	AD Unit	Net calorific value (NCV) 淨排放熱值	NCV Unit	Emission factor (EF) 排放因子	EF Unit	Carbon content 碳含量	C-Content Unit	Oxidation factor (OxF) 氧化係數	OxF Unit	Conversion factor (ConvF) 轉換係數
Ex.1	Combustion	Heavy fuel oil	252,000.00	t	45.00	GJ/t	73.00	tCO <sub>2</sub> /TJ			100.00	%	
Ex.2	Process Emissions	Raw meal for clinker	121,000.00	t			0.09	tCO <sub>2</sub> /t				%	
Ex.3	Mass balance	Steel	-1,808,226.00	t			0.00		0.3878	tC/t		%	100.00
1	Process emissions	Natural gas	8,100.00	1000Nm <sup>3</sup>	33.60	GJ/1000Nm <sup>3</sup>	2.60	CO <sub>2</sub> /1000Nm <sup>3</sup>				%	100.00
2	Process emissions	Diesel oil	1,800.00	1000Nm <sup>3</sup>	35,280.00	GJ/1000Nm <sup>3</sup>	3,300.00	CO <sub>2</sub> /1000Nm <sup>3</sup>				%	100.00
3												%	
4												%	
5												%	

排放方式(下拉式選單)

- 燃燒
- 製程排放
- 質量平衡

來源名稱、活動數據、單位(下拉式選單)、熱值、排放係數、碳含量、氧化係數、轉換係數、生物質含量...

表格尾端  
自動產出計算結果  
並輸出給C表

CO <sub>2</sub> e fossil (t)	CO <sub>2</sub> e bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
827,820	0	11,340.0	0.0
10,841	0	0.0	0.0
25,822	0	0.0	0.0
21,812	0	388.8	0.0
5,735	0	77.4	0.0

# B\_EmInst 製造商排放源資料 (2/2)

## PFC Emissions 鋁製品

#	Method	Type of anode	Activity data (AD)	AD Unit	Global Warming Potential (GWP)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)
Ex	Overvoltage method	Centre Worked Pre-Bal	5,000.00	t		300.00	2.00	0.15	0.00	0.00	0.00	0.12	4.38	0.53	6.630	11,100	32,368	6,519	98.00	39,581
1	Slope method			t									0.00	0.00			0	0		0
2	Overvoltage method			t													0	0		0
3				t																

排放方式(下拉式選單)

- 斜率法
- 過電壓法

類型、活動數據、頻率、持續時間、收集效率...

## Emissions Sources (Measurement-Based Approaches)

### 固定排放源(例如煙囪) 連續監測

#	Name	Type of GHG	Biomass fraction	BioC Unit	non-just. BioC	non-just. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	Global Warming Potential (GWP)
Ex 1	N2O	N2O	0	%	0	%	54.293	gNm3	4	h/year	265	1000Nm3/h	1060	1000Nm3/year	68	t	265
Ex 2	CO2 transfer	CO2	0	%	0	%	1,820,000	gNm3	5,000	h/year	50	1000Nm3/h	250,000	1000Nm3/year	455,000	t	1
1			20	%				gNm3		h/year		1000Nm3/h		1000Nm3/year		t	
2				%				gNm3		h/year		1000Nm3/h		1000Nm3/year		t	

溫室氣體種類、生物質含量、每小時GHG濃度平均值...

# C\_Emissions & Energy 排放與能源(1/2)

## C. Sheet "C\_Emissions&Energy" - Installation-level GHG emissions and energy consumption

"C\_Emissions&Energy"表 - 安裝層溫室氣體排放和能源消耗

### 1 Fuel balance

燃油平衡

Please enter in the table below the amount of energy consumed for each use type:

請在下表中輸入每種使用類型的能源消耗量：

- Fuel input to all CBAM production processes (including precursors produced within the installation), either directly or via the production of measurable heat (e.g. steam) with the exception of fuel for electricity.

所有CBAM生產過程(包括裝置內生產的前體)的燃料輸入,無論是直接還是通過產生可測量的熱量(例如蒸汽),但電力燃料除外。

- Fuel input for electricity production

發電燃料投入

- Fuel input to all non-CBAM production processes, either directly or via the production of measurable heat (e.g. steam).

直接或通過產生可測量的熱量(例如蒸汽)向所有非CBAM生產過程輸入燃料。

	Unit	Total fuel input	Direct fuel for CBAM goods	Fuel for electricity	Direct fuel for non-CBAM goods	Rest
<b>Fuel balance:</b>						
i. from sheet "B_Emlnst"	TJ	63,776.16				
ii. manual entries	TJ					
iii. <b>Results:</b>	TJ	63,776.16				63,776.16

自動連結  
B表計算  
結果

### 2 Greenhouse gas emissions balance & information on data quality

溫室氣體排放平衡與數據品質資訊

#### (a) GHG balance by type of GHG

按溫室氣體類型劃分的溫室氣體平衡

Values below are taken automatically from entries in sheet "B\_Emlnst". If entries made in that sheet are incomplete, please enter the total emissions figures manually under ii. to override automatic results displayed under i.

以下值是從工作表"B\_Emlnst"中的欄目中自動採用的。如果該表中的欄目不完整,請在ii下手動輸入總排放量數據。覆蓋i下顯示的自動結果。

Installation level data:	Unit	Total CO2 emissions	Biomass emissions	Total N2O emissions	Total PFC emissions	Total direct emissions	Total indirect emissions	Total emissions
i. from sheet "B_Emlnst"	tCO2e	5,961,060	0	0	0	5,961,060		
ii. manual entries	tCO2e						35,630	
iii. <b>Results:</b>	tCO2e	5,961,060	0	0	0	5,961,060	35,630	5,996,690

#### (b) GHG balance by type of monitoring methodology

按監測方法類型劃分的溫室氣體平衡

Values below are taken automatically from entries in sheet "B\_Emlnst" and point (a) above.

以下值取自表"B\_Emlnst"和上面(a)點中的欄目。

	Unit	Calculation - based (excl. PFC)	Total PFC emissions	Measurement - based	Other
Emissions	tCO2e	5,961,060	0	0	0

填入(用電造成的)  
間接排放量

## 1) 燃料平衡

## 2) 溫室氣體排放平衡與數據品質資料

(a)依不同類型的溫室氣體排放量

(b)依不同量測方式的溫室氣體排放量

(c)資料數據品質與品質保證(下拉式選單)

# C\_Emissions & Energy 排放與能源(2/2)

## (c) Information on the data quality and quality assurance

### 呈現數據品質

關於數據質量和質量保證的資訊

General information on data quality: Please select from the hierarchical order (descending order) in the drop-down list the predominant approach for determining the installation's direct emissions.

關於資料品質的一般資訊：

請從下拉清單中的分層順序（降序）中選擇確定裝置直接排放的主要方法。

Justification for use of default values (if relevant):

If the predominant method was to use default values published by the European Commission, please select from the drop-down list the most appropriate justification for not achieving higher data quality.

使用預設值的理由（如果相關）：

如果主要方法是使用歐盟委員會公佈的預設值，請從下拉清單中選擇不提高數據品質的最適當理由。

Information on quality assurance:

Please select from the hierarchical order (descending order) in the drop-down list the approach for quality assurance of emissions data.

有關質量保證的資訊：

請從下拉清單的分層順序（降序）中選擇排放數據質量保證的方法。

i. General information on data quality:

Mostly measurements & national standard factors for e.g. the emission factor

實際量測 + 國家標準係數、特定行業標準係數、國際標準係數、歐盟預設值...

Mostly measurements & analyses

Mostly measurements & sector-specific standard factors for e.g. the emission factor

Mostly measurements & international standard factors for e.g. the emission factor

Mostly default values provided by the European Commission

ii. Justification for use of default values (if relevant):

iii. Information on quality assurance:

Four eyes principle

四眼原則、第三方查證、內部稽核、無

Third-party verification

Internal audits

None

# D\_Processes 生產流程 (1/2)

## 活動強度與歸屬於單位產品碳排量(SEE)分配計算

Data input for the determination of the specific embedded emissions

1 Production process 1: **fasteners** **Iron or steel products**

於A表單填入的產品

[Please click on this link for further guidance on how to complete this section.](#)

(a) Total production levels:	Production route	Unit	Amounts
1 fasteners   Iron or steel products	All production routes	t	2,300
2	n.a.		
3	n.a.		
4	n.a.		
5	n.a.		
6	n.a.		
7	n.a.		
8	n.a.		
Total production within installation (= denominator for SEE calculation):		t	2,300

(a) 該產品總產量

(b) Production details	Unit	Amounts
i. Produced for the market	t	2,300
ii. Share of total under (a) produced for the market		100.0%
iii. Total production only for the market?		TRUE

(b) 該產品銷售數量

(c) 該產品用於廠內其他CBAM管制產品之數量

(c) Consumed in other 'production processes' within the installation:	Unit	Amounts
1	t	
2	t	
3	t	
4	t	
5	t	
6	t	
7	t	
8	t	
9	t	

(d) Consumed for non-CBAM goods within the installation:	t	
(e) Control:	t	0

(d) 該產品用於廠內其他非CBAM產品之數量

(e) 質量平衡確認(數值一定要是0)

# D\_Processes 生產流程 (2/2)

Calculation of the attributed emissions: **fasteners**

[Please click on this link for further guidance on how to complete this section.](#)

	Measurable heat	Waste gases	Indirect emissions
(f) Please select which elements are applicable <b>選擇適用項目</b>	FALSE	FALSE	TRUE

Based on your selection, related sections below might become irrelevant and greyed out below.

	Unit	Value
(g) Directly attributable emissions (DirEm*) <b>直接排放量</b>	tCO2e	27,547

(h) Import and export of measurable heat		Unit	Imported	Exported
i. Amount of net measurable heat		TJ		
ii. Emissions factor <b>熱值投入與產出(例如蒸氣)</b>		tCO2/TJ		

(i) Waste gases		Unit	Imported	Exported
i. Amount of waste gas		TJ		
ii. Emission factor <b>廢氣投入與產出(例如製程尾氣)</b>		tCO2/TJ		

(j) Indirect emissions from electricity consumption		Unit	Value
i. Electricity consumption		MWh	70,000
ii. Emission factor of the electricity <b>耗電量</b>		tCO2/MWh	0.474
iii. Source of the emission factor		-	D.4(b)

2024年台電電力排碳係數

(k) Electricity exported from the production process		Unit	Value
i. Amounts exported <b>產電量</b>		MWh	0
ii. Emission factor of the electricity		tCO2/MWh	

係數來源

D.4(a) 歐盟執委會提供(歐盟根據IEA提出的歐盟電力排放係數)

D.4(b) 其他公開數值(例如台電公告係數)

D.4.1 製造廠藉由其他非汽電共生所產生電力排放係數

D.4.2 製造廠藉由汽電共生所產生電力排放係數

D.4.3.1 製造廠外購電力(依據直接技術連結)

D.4.3.2 製造廠外購電力(PPA購電協議)

Mix 電力來源超過一種以上

# E\_PurchPrec 購買之前驅物

## E. Sheet "E\_PurchPrec" - Purchased precursors for SEE calculation

[Please click on this link for further guidance on how to complete this section.](#)

### Data input for the determination of the specific embedded emissions

1 Purchased precursor 1:

[Please click on this link for further guidance on how to complete this section.](#)

(a) Total purchased levels:	Production route	Unit	Amounts
1 steel wire   Iron or steel products	All production routes	t	2,500
2	n.a.		
<b>Total purchase for possible consumption within installation:</b>		t	2,500
(b) Consumed in 'production processes' within the installation:		Unit	Amounts
1 fasteners		t	2,500
2			
(c) Consumed for other purposes, e.g. sold or used for non-CBAM goods:		t	0
(d) Control:		t	0

← 於A表單填入的前驅物

- (a) 該前驅物購買總量
- (b) 該前驅物在生產流程消耗量
- (c) 該前驅物在非CBAM產品消耗量
- (d) 質量平衡確認

### Specific embedded emissions:

#### (e) Emissions embedded in this purchased precursor

[Please click on this link for further guidance on how to complete this section.](#)

Parameter:	Unit	Value	Source
i. Specific embedded direct emissions (SEE (direct))	tCO2e/t	2.000	Measured
ii. Specific electricity consumption (for SEE (indirect))	MWh/t	4.169	Measured
iii. Electricity emission factor (for SEE (indirect))	tCO2e/MWh	0.474	D.4(b)
iv. Specific embedded indirect emissions (SEE (indirect))	tCO2e/t	1.976	
v. Justification for use of default values (if relevant):	Data gaps		

- (e) 該前驅物碳排量
  - i. 直接碳含量 數值、來源(下拉式選單)
  - ii. 用電量 數值、來源(下拉式選單)
  - iii. 電力排碳係數
  - iv. 間接碳含量 (自動帶出=ii x iii)
  - v. 選用預設值理由(下拉式選單)

# F\_Tools 工具 (1/2)

## 協助報告工具之一

## 汽電共生(CHP)—產熱排放量估算工具

### F. Sheet "F\_Tools" - Tools for facilitating reporting

#### 1 Cogeneration Tool

This is a tool for attributing fuels and emissions of CHPs to heat and electricity output.

This tool exists twofold in this template and each tool should only be used for one CHP. If more CHPs are relevant, you must aggregate energy amounts and emissions from multiple CHPs. Periods during which the CHP is operated in heat-only or electricity-only generation mode (i.e. periods during which only one of the two products was produced) should be excluded and assignment of fuels and emissions should be calculated separately.

#### 1 Tool to calculate the emissions attributable to heat production in combined heat and power units (CHP)

##### (a) Total amount of fuel input into CHP units

Please enter here the annual fuel input into the CHP unit, the net amount of heat produced and the net amount of electricity (or mechanical energy, where applicable) produced by the CHP.

Parameter	Fuel input into CHP	Heat output from CHP	Electricity output from CHP	Electricity output from CHP
Unit	TJ	TJ	MWh	TJ
Inputs and outputs	Value			

##### (b) Total emissions from CHP

Values should distinguish between emissions from fuel input and from flue gas cleaning.

Unit	From fuel input to CHP	From flue gas cleaning	Total emissions
GHG emissions	tCO <sub>2</sub>		

##### (c) Default efficiencies:

Heat:  Electricity:

##### (d) Efficiencies for heat and electricity

These values are dimensionless and automatically calculated from inputs in (a) to (c) above.

If no values are displayed here but total emissions under (b) above, default efficiencies from (c) will be used here. Please note that this should only be done if the determination of the efficiencies is technically not feasible or would incur unreasonable costs, and values based on technical documentation (design values) of the installation are not available as well.

Unit	Heat production	Electricity production	Total
Efficiencies			

##### (e) Reference efficiencies

These are the reference efficiency for heat production in a stand-alone boiler, and the reference efficiency of electricity production without cogeneration.

For the reference efficiencies the appropriate fuel-specific values from Annex IX of the Commission Implementing Regulation pursuant to Article 35(7) of the CBAM Regulation.

Default efficiencies below are for hard coal CHPs producing electricity and hot water.

Unit	Heat production	Electricity production
Reference efficiencies	88.00%	44.20%

(a)投入CHP燃料量

(b)CHP總排放量

(c)預設效率

(d)熱電效率

(e)參考效率

# F\_Tools 工具 (2/2)

## 協助報告工具之二

## 碳價估算工具

### 2 Tool to calculate the carbon price due

This tool aims to help you with the calculation of the carbon price due. Similar to the calculation of the specific embedded emissions in sheets D + E, please only enter the carbon price due and any rebate received in respect of the system boundaries of the production process.

The results obtained here in columns L and M have to be manually entered into the respective fields in sheet "Summary\_Products".

The following conditions apply:

- the carbon price used for each production process has to be converted into one common currency.
- the system boundaries of carbon pricing have to be consistent with the boundaries of the production process and precursors.

If the conditions above are not satisfied, this tool can only be used to support you with the calculation of the carbon price, but results cannot be used directly.

SE (total)	Specific direct + indirect emissions of the production process, i.e. excluding any embedded emissions from any precursors consumed in the process.	SE (total) tCO2e/t	Share of emissions covered by the carbon price	Covered SE tCO2e/t	Carbon price (CP) due (local currency) TWD/tCO2e	Amount of rebate (local currency) TWD/tCO2e	CP due (per t or MWh)	Rebate (per t or MWh)	Result: Effective CP due
P1 test	Iron or steel prod	0.208	100.0%	0.208	5.00	4.00	16.96	0.82	16.14
P2 test2	Crude steel	0.291	100.0%	0.291	5.00	4.00	10.80	1.16	9.63
P3									
P4									
P5									
P6									
P7									
P8									
P9									
P10									
PP1 rrets	Alloys (FeMn, Fe	4.412	80.0%	3.530	50.00				
PP2									
PP3									
PP4									

自己的製程  
P1、P2、P3

前段原料製程  
PP1、PP2



資料來源：工研院綠能所 連振安工程師

# 總結資料

填寫後自動產生，需要檢視有無錯漏或異常。若有，修訂A-E表單

- 01 生產過程匯總 (Summary\_Processes)
- 02 生產數據匯總 (需填寫) (Summary\_Products)
- 03 報送信息匯總 (Summary\_Communication)

- 各項產品碳含量 (SEE)
  - 各項產品額外補充說明資訊
  - 各項產品之有效碳價
- (各類產品規定之補充資訊不同)

提供進口商用於申報的資訊

Product name (used for communication with reporting declarant, e.g. on invoices)	SEE (direct)	SEE (indirect)	SEE (total)	Unit	Share of emissions by default value	Source for electricity EF	Embedded electricity (MWh/t)	The main reducing agent of the precursor, if known	Steel mill identification number	% Mn	% Cr	% Ni	% other all
Example name A	0.915	0.396	1.311	tCO2e/t		D 2.1	0.281	Coal or coke	623108	13.95%	8.41%	2.10%	3.00%
iron steel	431.428	2.828	434.256	tCO2e/t	0%	D 2.4	5.478	Coal or coke	11000	10.00%	4.00%	2.00%	1.00%