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Supply Chain Sustainability Program GHG kick-off webinar

flex.

Supplier Greenhouse Gas Emission Program

Flex has adopted greenhouse gas emissions reduction targets necessary to meet the Paris Agreement goals, limiting global warming to 1.5°C above preindustrial levels.

Flex approach



In order to support [Flex's 2030 goals](#), the supplier sustainability team launched a GHG emission reduction program with our preferred suppliers and in partnership with CDP (formerly known as the Carbon Disclosure Project) to help us achieve our GHG emission reduction goals.



*Note: To remain in the PSP, suppliers will be required to commit to have an emissions reduction target within 3 years from the approval date in the PSP.



Commitment from our CEO

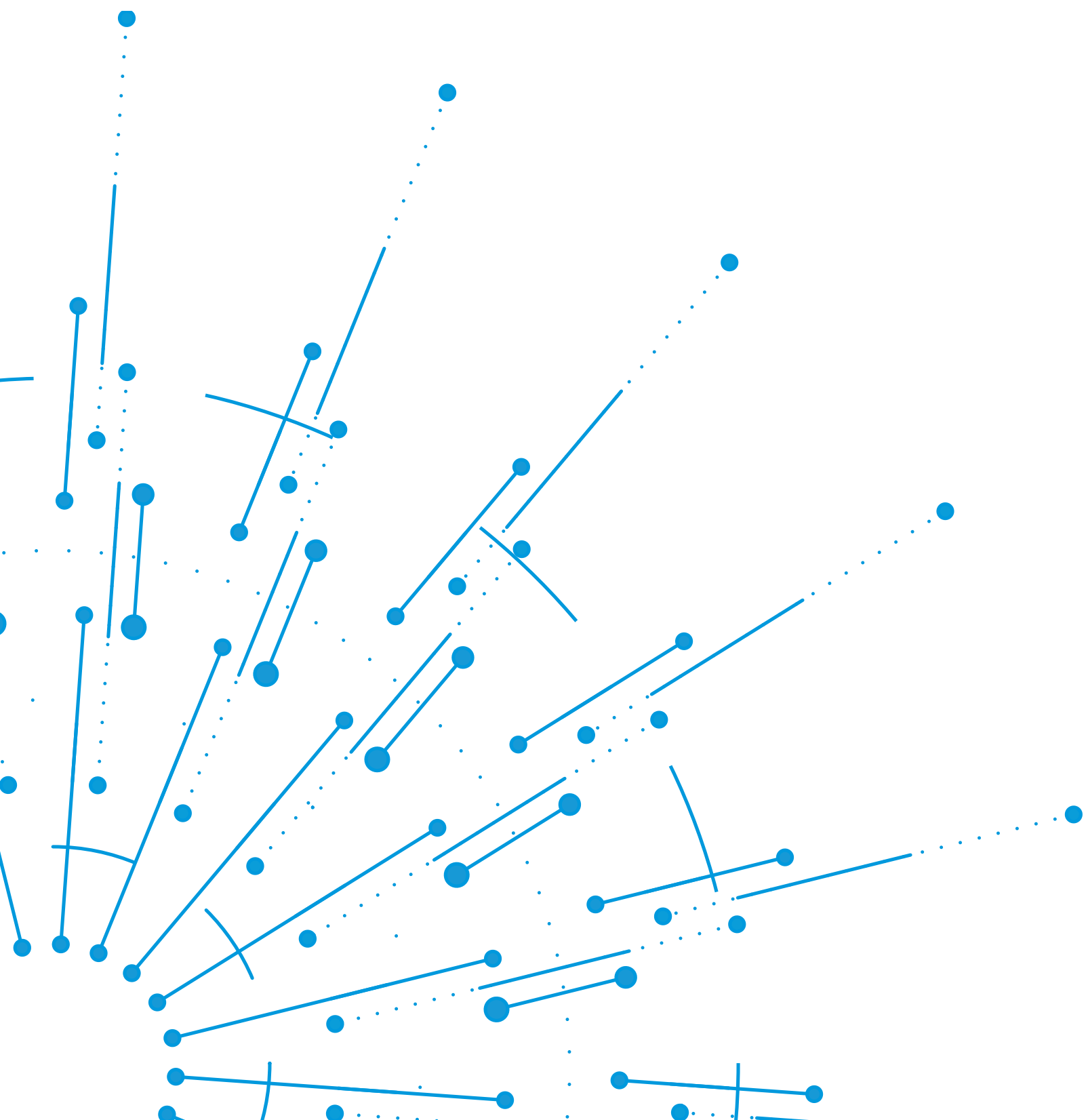


Revathi Advaiti, CEO, Flex

Sustainability, including environmental, social and corporate governance (ESG), has long been the bedrock of Flex operations. Now more than ever, it's important for us to do our part and contribute to a sustainable future.

As we aim to become the most trusted partner in manufacturing, we have a responsibility to not only deliver on our stakeholders' expectations but to do so in a sustainable manner. We are well-positioned to deepen our sustainability commitment by building on our investments and experiences of years past. To this end, we are working toward [our most ambitious goals yet with a timeline to meet them by 2030](#) and a commitment to net-zero by 2040. As we look to significantly lower emissions throughout our global operations, Flex is a proud member of the [Science Based Targets initiative](#), which aligns us to the Paris Agreement's goal to limit climate change.

Our 2030 goals also continue our focus on cultivating a safe, inclusive and respectful workplace that values the diverse backgrounds, perspectives and talents of our people, who are at the heart of our operations. Our commitments inspire us to continue holding ourselves and our partners to the highest ethical standards, act with integrity and further drive transparency and accountability.



Greenhouse Gas Emissions

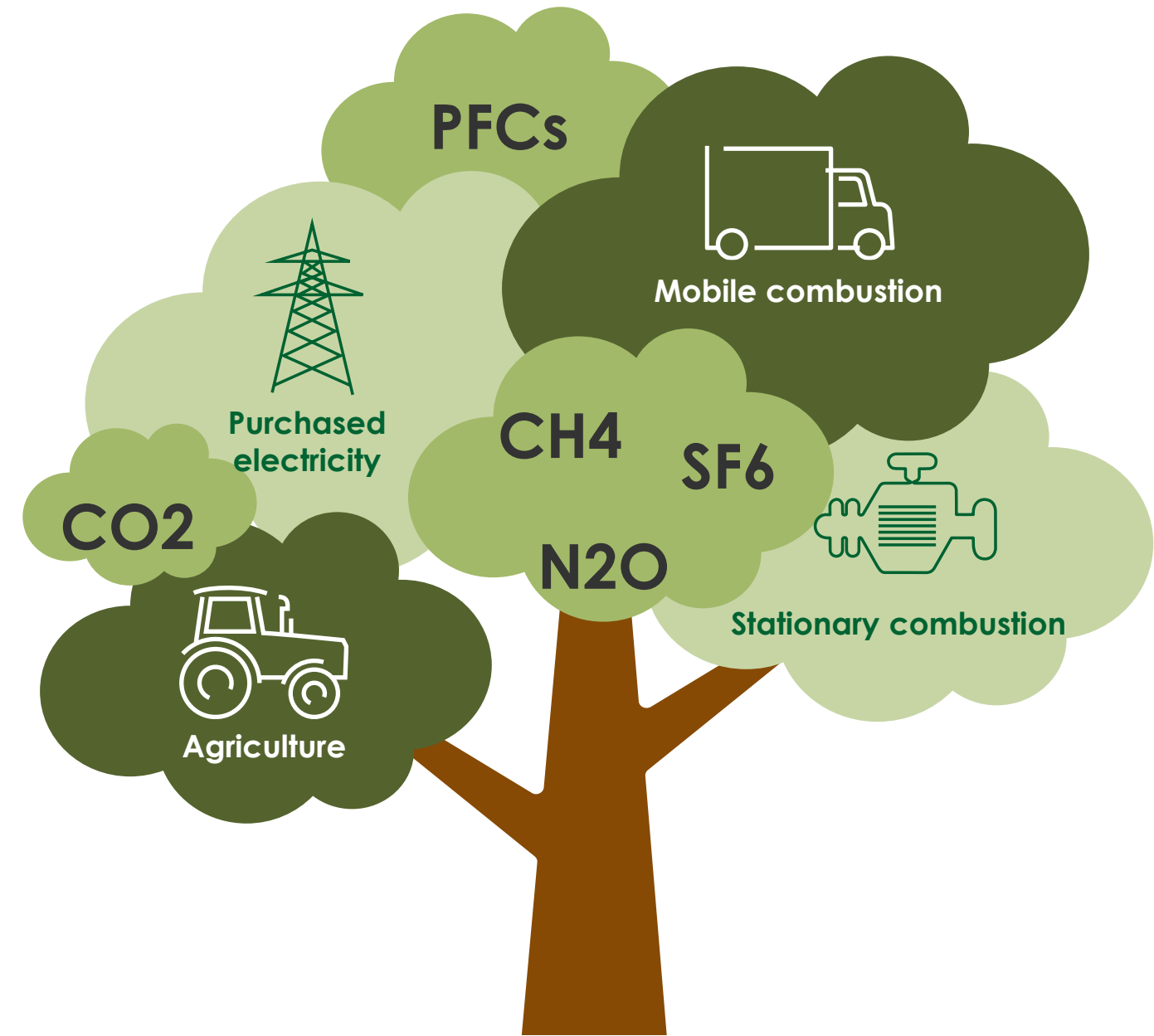
Greenhouse Gas Emissions

Greenhouse gases (GHG) are trap heat from the sun that warm the planets surface, creating a greenhouse effect and allowing life on earth.

Primary sources of GHG emissions are the burning of fossil fuels for electricity, heat and transportation; and even land-use change, or agriculture.



Some examples of greenhouse gases:



Note: All industries including manufacturers, distributors, services providers, and office-based companies have GHG emissions; so, they apply in this initiative.

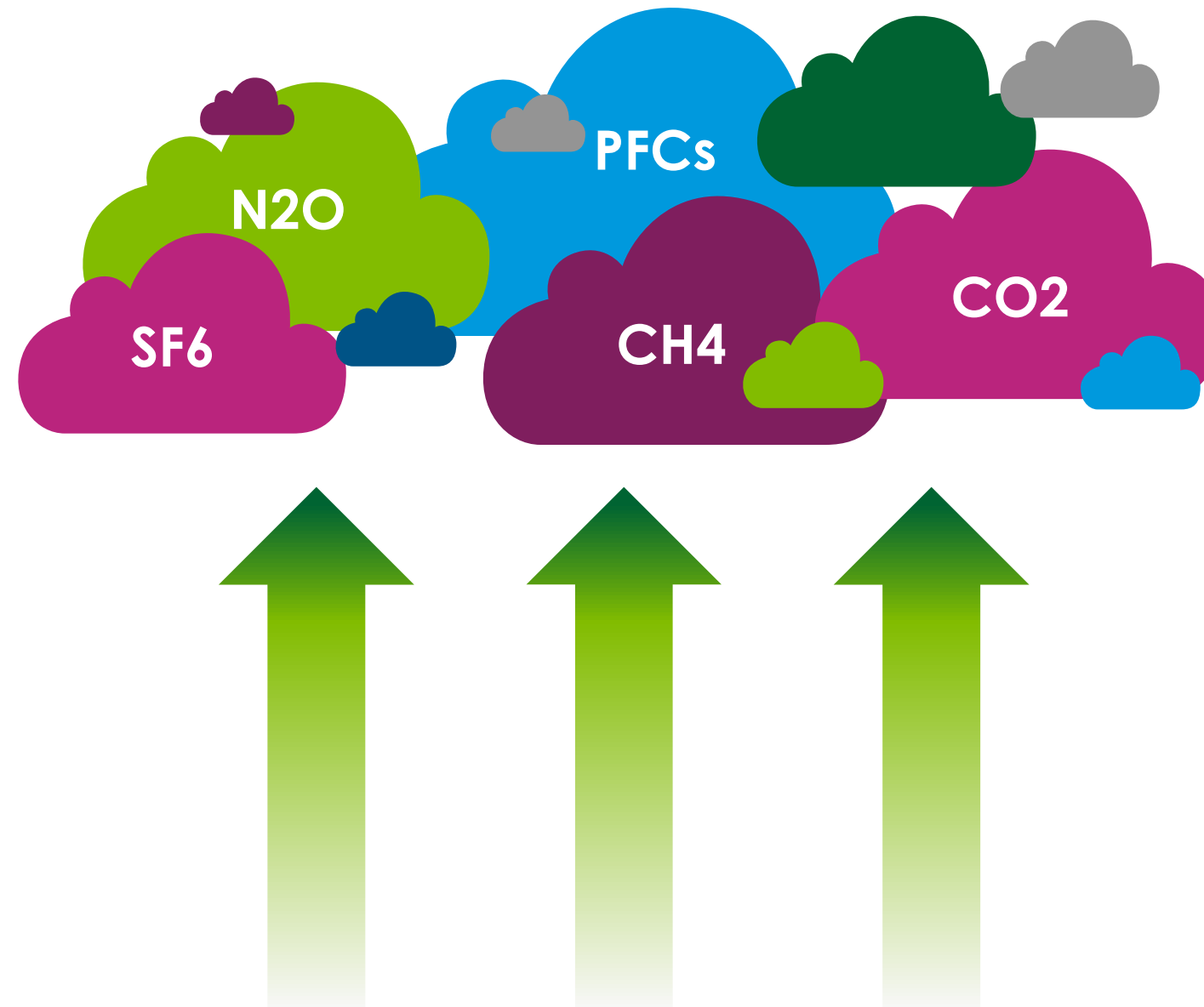
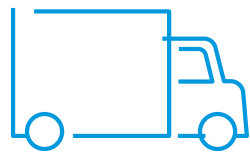


CO₂ : Carbon dioxide / SF: Sulphur hexafluoride / CH₄ : one atom of carbon and four atoms of hydrogen / N₂O: Nitrous oxide (laughing gas)

GHG Emissions Scopes

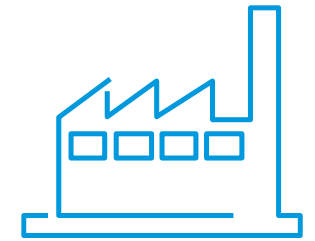
Scope 1

Direct emissions from fuel combustion and refrigerant leakage from company's owned facilities and vehicles and on-site manufacturing.



Scope 2

Indirect emissions from the purchase of electricity, steam, heat, and cooling.

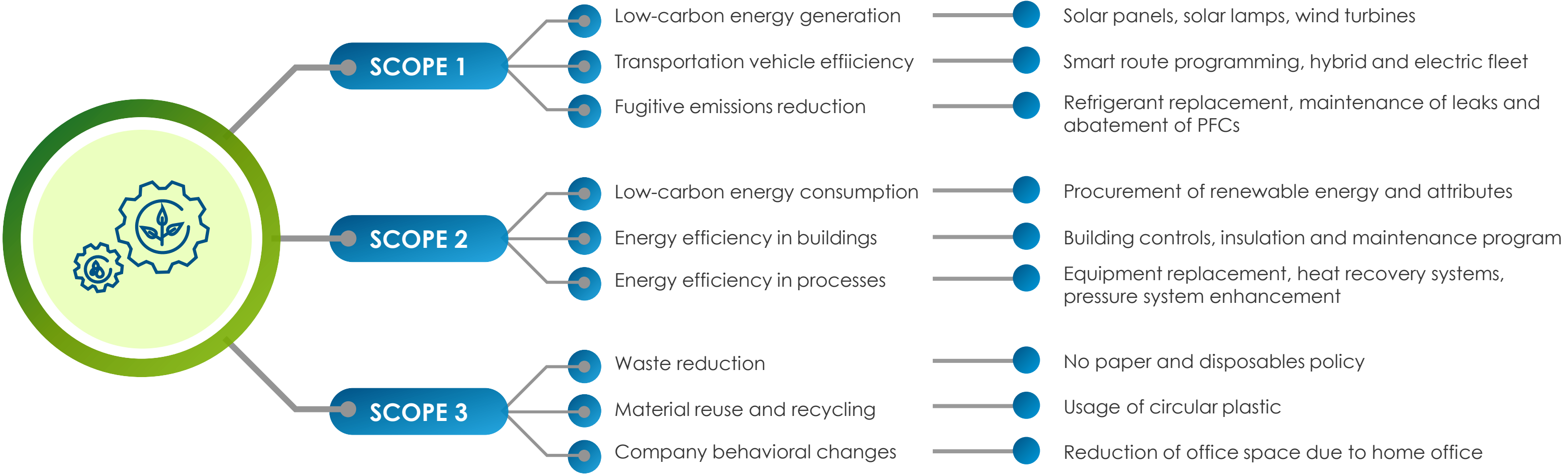


Scope 3

Indirect emissions from a company's value chain (e.g., purchased goods and services, use of sold products, suppliers).



Greenhouse gas emission reduction activities





GHG Questionnaires Overview

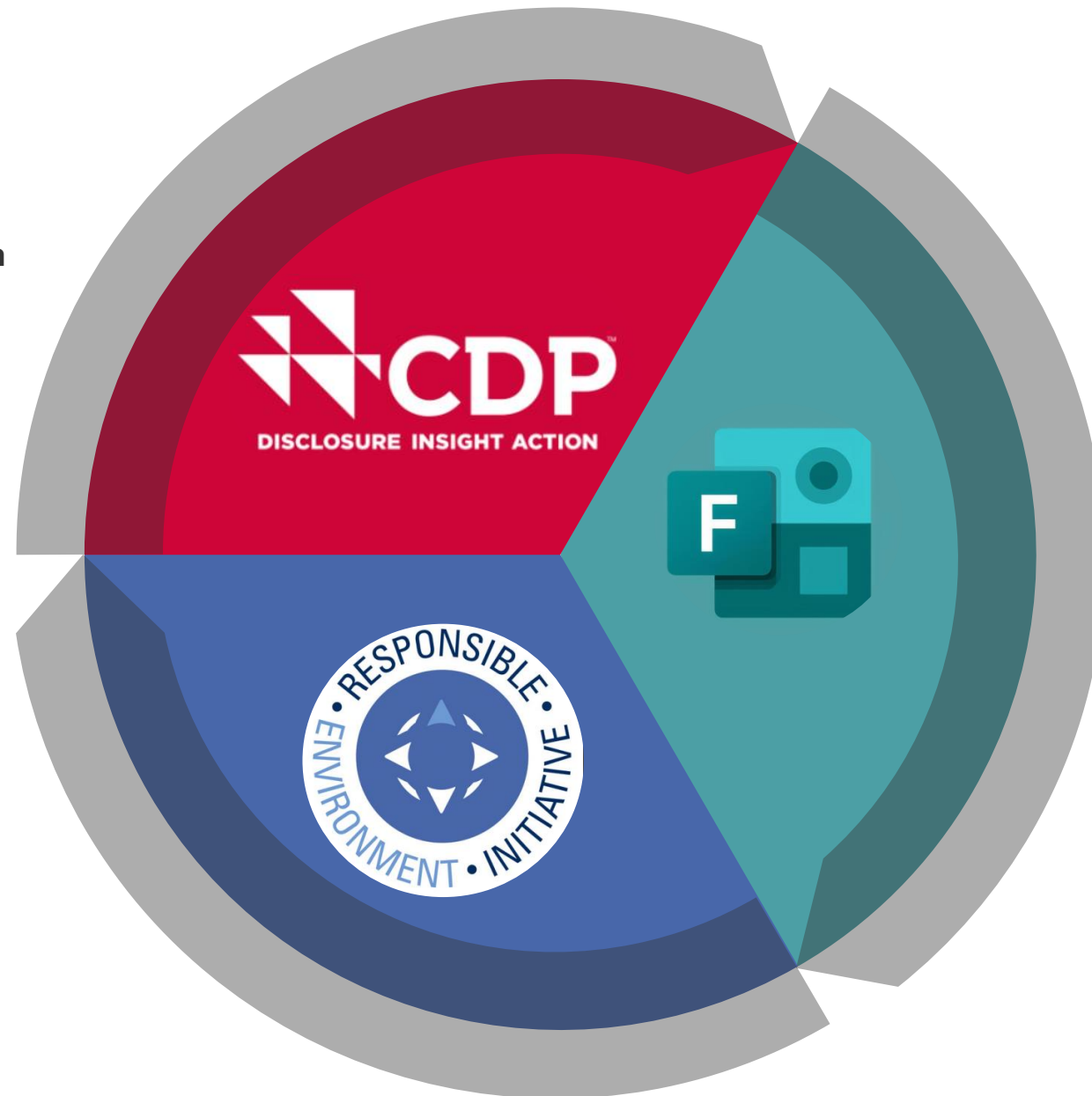
2024 GHG Questionnaires



CDP QUESTIONNAIRE

Start date: June 4th

Deadline: September 18th



FLEX - MS FORMS

Start date: June 4th

Deadline: September 18th

RBA – EMISSIONS MANAGEMENT TOOL

Start date: April 29th

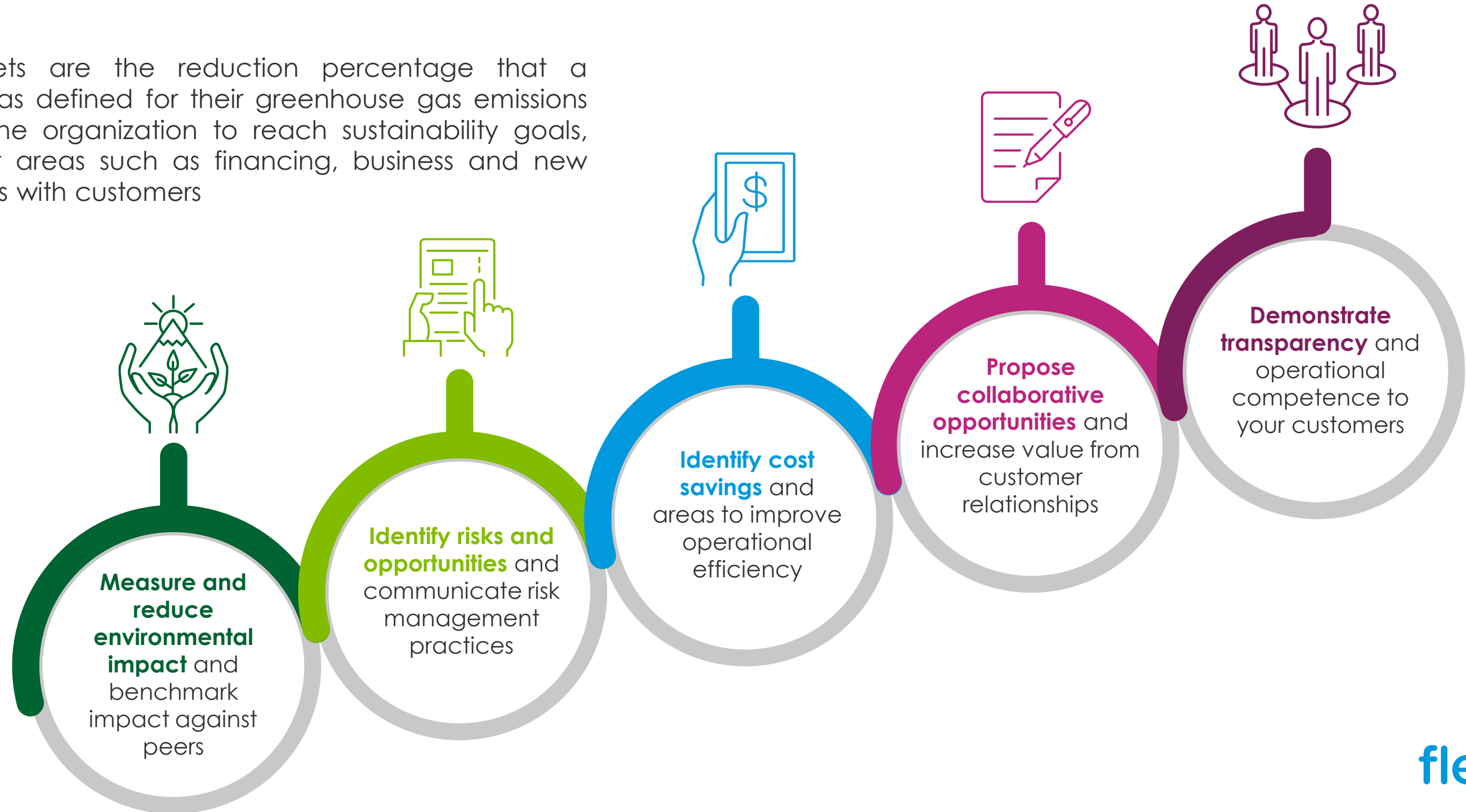
Deadline: August 1st

Note: You only need to answer 1 questionnaire, that Flex will assign to you.

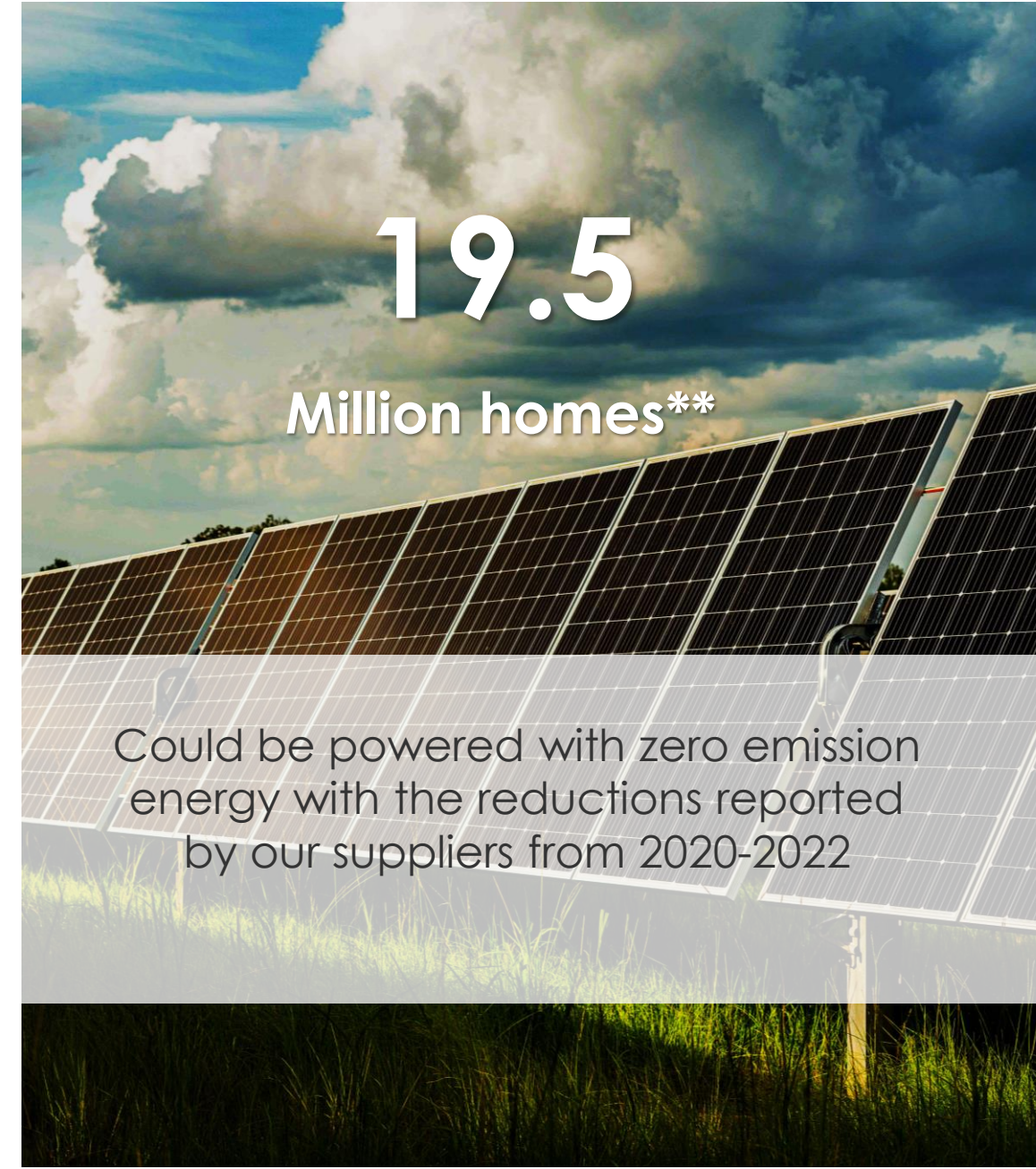
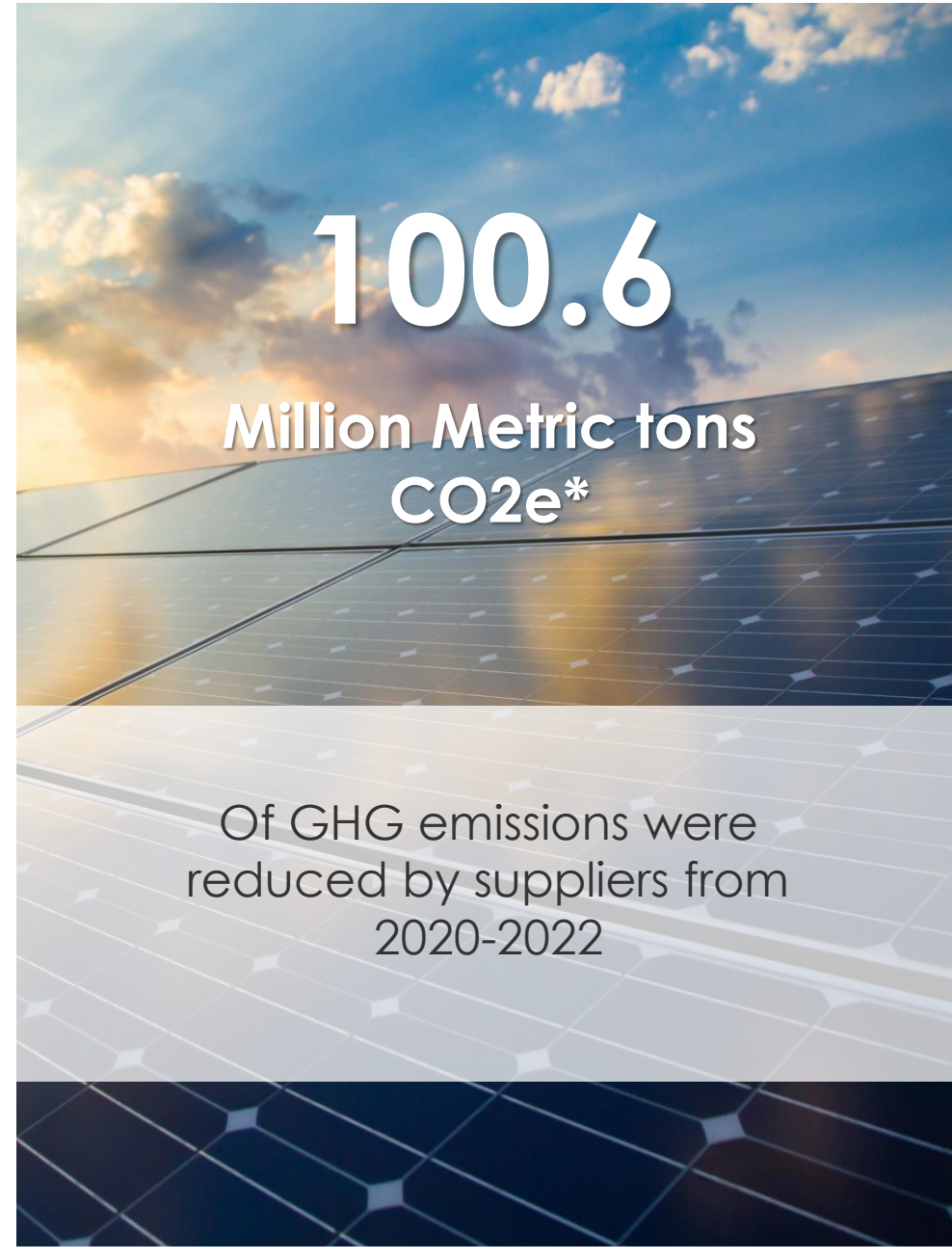


Importance of setting emissions reduction targets

These targets are the reduction percentage that a company has defined for their greenhouse gas emissions they help the organization to reach sustainability goals, and impact areas such as financing, business and new opportunities with customers

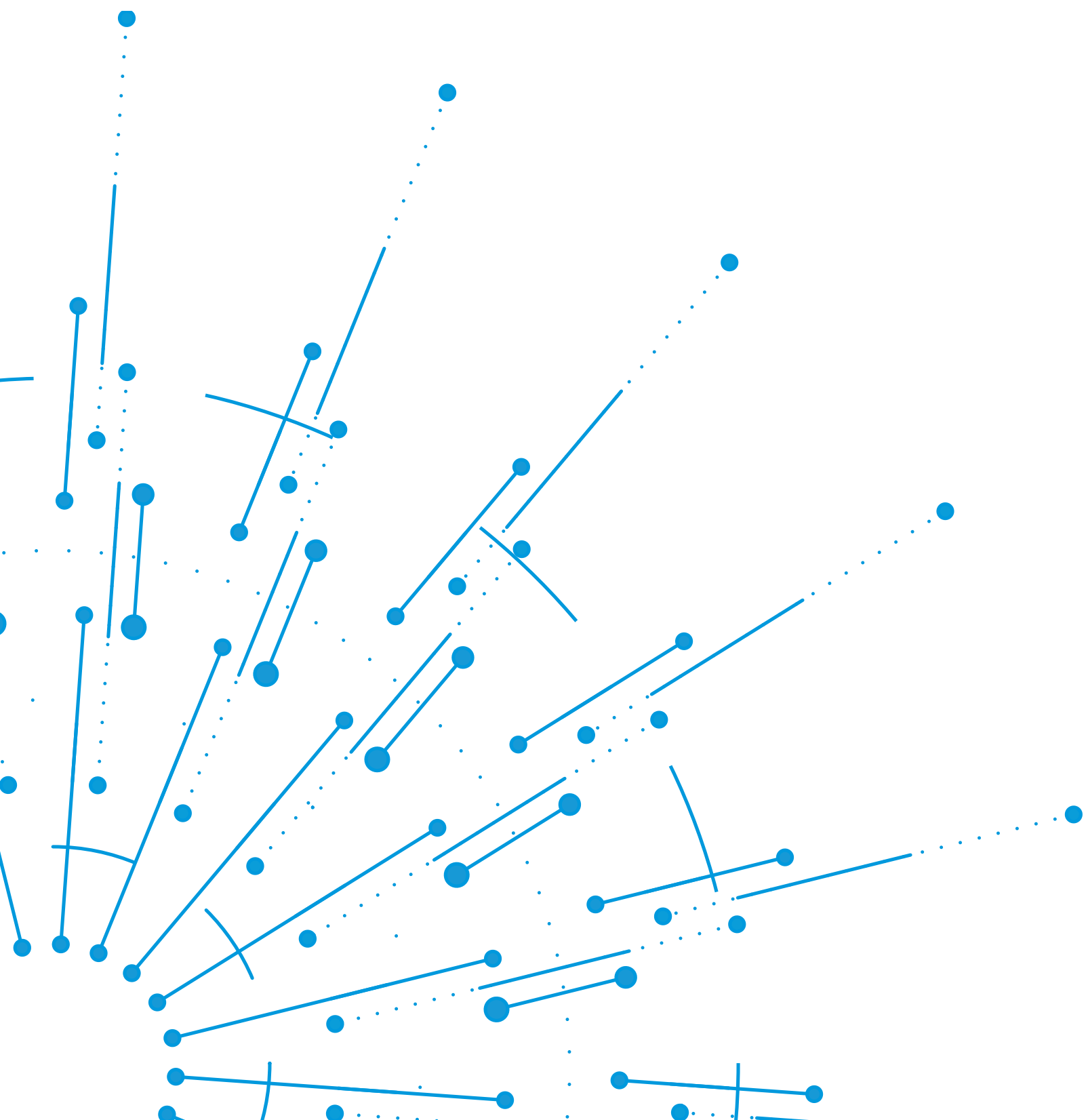


GHG Program Preferred Suppliers' Impact



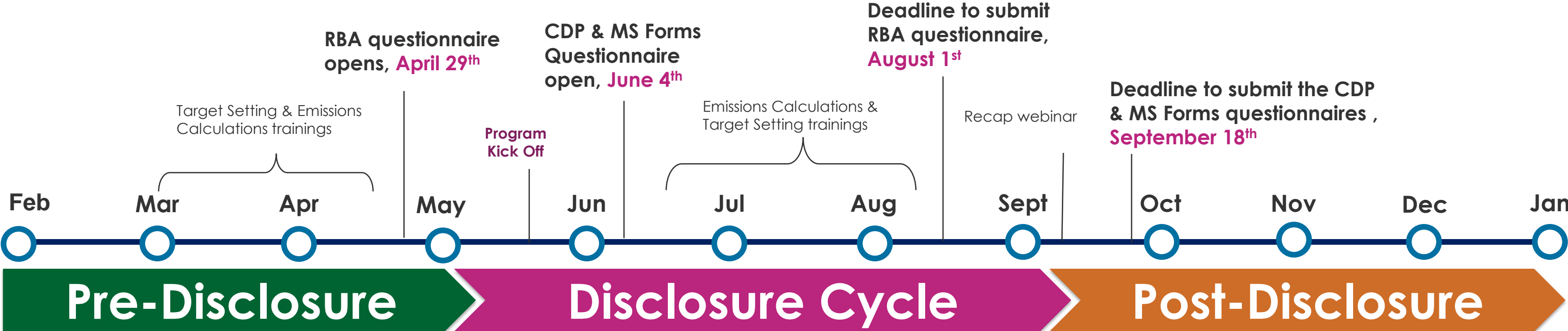
*As reported by Flex suppliers on CDP from 2021 to 2023

¹ **With the contribution of 330 watts peak



2024 Timeline

2024 GHG Program Timeline



Webinar dates:

- **Target Setting:**
AME & EU: March 12th
Asia EN: March 13th
Asia CH: March 14th

- **Kick-off:**
AME & EU: May 21th
Asia EN: May 22th
Asia CH: May 23th

- **Target Setting:**
1st AME & EU: July 16th
1st Asia EN: July 17th
1st Asia CH: July 18th

- **Recap:**
AME & EU: September 3rd
Asia EN: September 4th
Asia CH: September 5th

- **GHG Emissions:**
1st AME & EU: April 16th
1st Asia EN: April 17th
1st Asia CH: April 18th

- **GHG Emissions:**
2nd AME & EU: June 18th
2nd Asia EN: June 19th
2nd Asia CH: June 20th

- **On-Site trainings:**
Guadalajara, México: July 9th
Shenzhen, China: July 11th

- **GHG Emissions:**
3rd AME-EU: August 13th
3rd Asia EN: August 14th
3rd Asia CH: August 15th

- **Personalized sessions**
During all disclosure cycle





Target questions for Flex suppliers



Target Question

2023 Question #

2024 Question #

RBA EMT Section

MS Forms section

1	GHG Emissions reduction target(s)	C4.1.1, C4.1.2	7.53.1 and / or 7.53.2	[Targets]	[Section 3: GHG Emissions Reduction Targets]
2	Renewable energy target	C4.2.1	7.54.1	NA	[Section 5: Renewable Energy Targets]
3	Emissions reduction initiatives	C4.3	7.55, 7.55.1, 7.55.2	[Emissions initiatives]	[Section 6: Sustainability initiatives]
4	Methodology for emissions calculations	C5.3	7.2	[Company information]	[Section 2: GHG Emissions Data]
5	Base year information	C5.1, C5.2	7.5	[Company information]	[Section 3: GHG Emissions Reduction Targets]
6	Scope 1 emissions	C6.1	7.6	[Scope 1]	[Section 2: GHG Emissions Data]
7	Scope 2 Methodology (LB / MB)	C6.2	7.3	[Scope 2]	[Section 2: GHG Emissions Data]
8	Scope 2 Emissions	C6.3	7.7	[Scope 2]	[Section 2: GHG Emissions Data]
9	Scope 3 emissions (optional)	C6.5	7.8	[Scope 3]	[Section 2: GHG Emissions Data]
10	Renewable & Non renewable energy consumption and usage totals	C8.2a, C8.2b	7.30, 7.30.1, 7.30.6, 7.30.7	[Energy reporting]	[Section 4: Energy Data]
11	GHG Emissions allocation	SC1.1, SC1.2	7.26	NA	[Section 7: Emissions Allocation]

Target Questions: Greenhouse Gas Emissions Data

Reporting emissions is **best practice** and a pre-requisite to understanding and reducing negative environmental impacts.

▼Target Questions: Emissions methodology

- ▼ Provide your base year and base year emissions (scopes 1 and 2).
- ▼ Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate scope 1 and scope 2 emissions.

▼Target Questions: Emissions data

- ▼Scope 1 and scope 2 GHG emissions
- ▼Account for your scope 3 GHG emissions
- ▼Provided an emissions intensity figure

Target Questions: Targets and Performance

Target setting provides direction and structure to environmental strategy. Providing information on quantitative targets and qualitative goals, and progress made against these targets, can demonstrate your organization's commitment to improving climate-related issues management at a corporate level. It also **helps Flex understand your ambition levels for reducing your greenhouse gas emissions in the future.**

▼Target Questions: Emissions targets

- ▼ Details on GHG emissions targets (absolute and/or intensity)

▼Target Questions: Other climate-related targets

- ▼ Provide details of your target(s) to increase low-carbon energy consumption or production including renewable energy targets
- ▼ Provide details of any other climate-related targets

▼Target Questions: Emissions reduction initiatives

- ▼Details on GHG emissions reduction initiatives

Target Questions:

Greenhouse Gas Emissions Allocation & Energy Usage

Emissions located in the supply chain are around four times as high as those from direct operations.

Allocating your emissions provides further context to buyers regarding the procedures adopted and/or actions taken by their suppliers.

▼Target Questions: Energy

- ▼ Report which energy-related activities your organization has undertaken and the consumption that comes from renewable sources
- ▼ Report energy consumption accounted for at a zero or near-zero emission factor in the market-based Scope 2

▼Target Questions: Supply chain

- ▼ Allocate emissions to Flex, describe challenges, and reporting capabilities
- ▼ Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate scope 1 and scope 2 emissions.

Your responses to the Supply Chain module are visible only to Flex regardless of whether you elect to make your CDP response private or public

Target Questions: Allocating your emissions to your customers

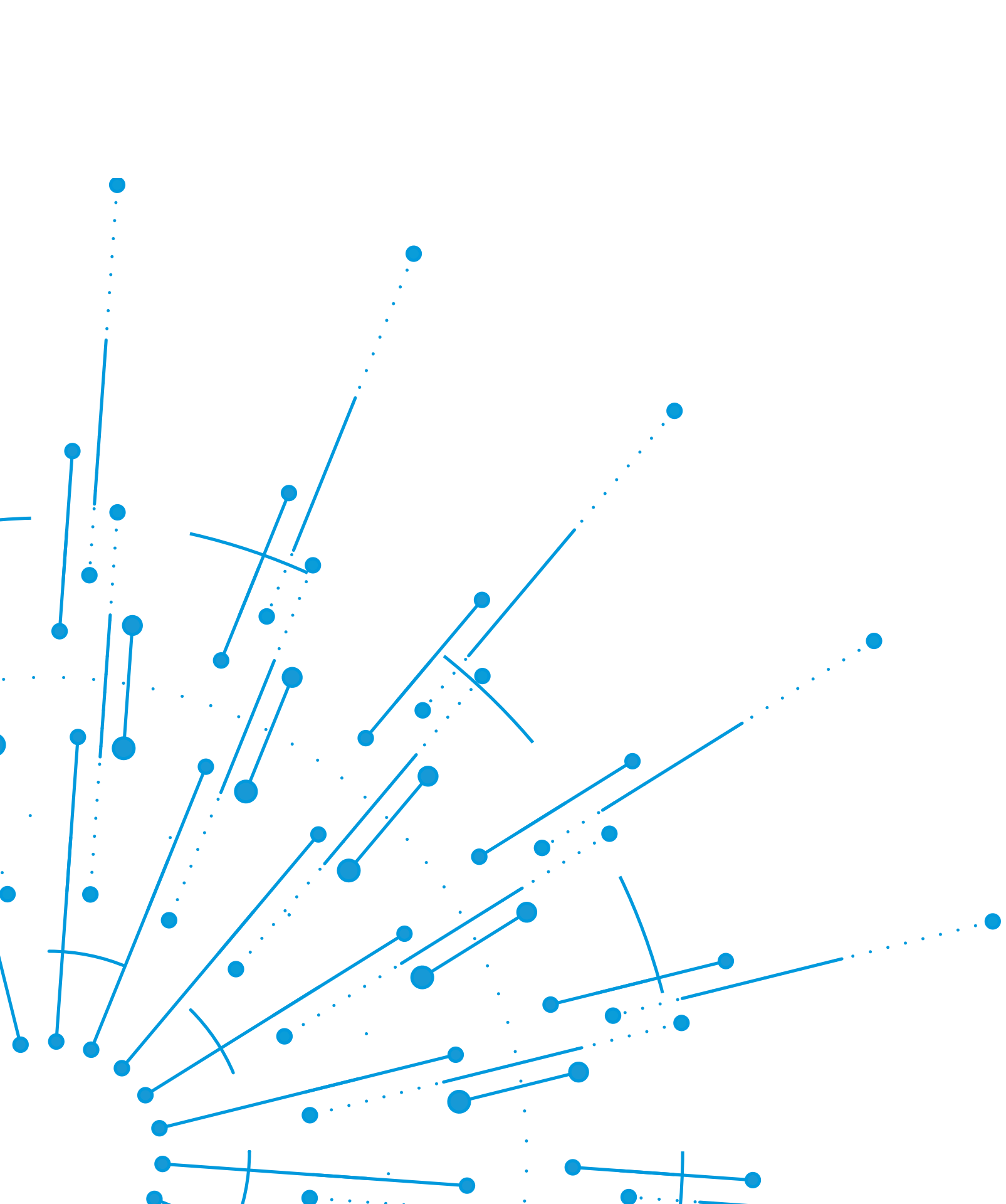
Allocate based on the proportion of total revenue represented by Flex

Formula for allocating emissions to Flex based on revenue

$$\text{Allocated GHG Emissions} = \frac{\text{Revenue of products/services purchased by Flex}}{\text{Total revenue of products/services produced}} \times \text{Total GHG Emissions for Scope 1 or Scope 2}$$

Working example of allocating emissions to Flex based on revenue

$$250 \text{ metric tons of CO}_2\text{e allocated to Flex} = \frac{\text{US\$500,000 revenue from Flex}}{\text{US\$200,000,000 total revenue}} \times 100,000 \text{ tons of CO}_2\text{e (Company-wide Scope 1 GHG emissions)}$$



GHG calculation Case Study

GHG Calculations Case Study

Company A is an international distributor, they have 2 physical locations in Singapore, SG and Texas, USA as well as a **subsidiary company** (Company B) that has 1 location, in Shenzhen, China . They also have a fleet of vehicles they use on their daily operations.

In order to avoid double accounting of emissions, best practice is to have calculations and reporting done in a global-corporate level, so Company B will be considered as a subsidiary site of Company A.

Company	Location
A	Texas, USA
A	Singapore, SG
B	Shenzhen, China



Identifying your emission sources (operational boundary)

Energy sources from companies can be sorted into **direct** and **indirect emissions**. For reporting purposes, these are defined in the GHG Protocol as **Scope 1** and **Scope 2** emissions.

Company A identified the following sources of energy on their daily operations:

Direct sources (SCOPE 1)	Indirect sources (SCOPE 2)
<ul style="list-style-type: none">• Fuel for their fleet of trucks• Fuel from business travel in the company-owned vehicles• Water heater in the buildings• Forklifts	<ul style="list-style-type: none">• Electricity usage in their locations

Required materials for calculations (examples)

Electricity Mexico

CFE Comisión Federal de Electricidad

CFE Administrador de Servicios Básicos
Río Ródano No. 14, colonia Cuauhtémoc,
Alcaldía Cuauhtémoc, Código Postal 06500,
Ciudad de México. RFC: C551603300P7

TOTAL A PAGAR: DOS

NO. DE SERVICIO : 43500040
RMU : 45645 00-04-19 SMM8-40503 001

TARIFA: DIST NO. MEDIDOR: P892EH

CARGA CONECTADA kW: 12000 DEMANDA

CONSUMO HISTÓRICO

Período	Demanda kW	Consumo total kWh	Factor potencia %	Factor carga %	Precio medio (MXN)
DIC 21	10,749	5,859,384	98.16	73	1,9100
ENE 22	10,699	5,658,149	97.78	71	1,9572
FEB 22	11,227	5,511,766	97.88	73	1,9807
MAR 22	11,874	6,610,870	97.36	75	1,8807
ABR 22	11,494	448,893	97.19	81	1,9500
ABR 22	12,136	5,962,509	97.25	73	2,0100
MAY 22	12,110	7,030,965	97.11	78	2,0049
JUN 22	12,100	6,964,785	97.08	80	1,9469
JUL 22	11,416	6,657,294	97.29	78	2,0116
AGO 22	11,316	6,739,130	97.21	80	2,0133
SEP 22	11,622	6,646,586	97.91	79	2,0007
OCT 22	11,468	6,272,985	98.47	79	1,9981
OCT 22	11,052	387,334	98.71	72	1,9588
NOV 22	11,240	6,235,579	98.61	77	2,0549
DIC 22	11,223	6,200,617	98.37	74	2,0607

Costos de la energía en el Mercado Eléctrico

Concepto	\$	\$/kW	\$/kWh
Suministro	1000.06	0	
Distribución	0	0	
Transmisión	0	0	108
CENACE	0	0	
Generación B	0	0	152
Generación I	0	0	54
Generación P	0	0	142
Capacidad	0	3494796.48	
SCoMEM(*)	0	0	
Total	1,000.06	3,494,796.48	9,556

Electricity & natural gas US

nationalgrid

SERVICE FOR: CAMILLUS NY 13031

BILL PERIOD: Mar 10, 2022 to Apr 11, 2022

ACCOUNT NUMBER: [REDACTED] PLEASE PAY BY: May 6, 2022 AMOUNT DUE: \$ 189.68

DETAIL OF CURRENT CHARGES

Delivery Services

Electricity Delivery

Month	kWh	Month	Therms
Apr 21	737	Apr 21	90
May 21	790	May 21	81
Jun 21	976	Jun 21	23
Jul 21	1033	Jul 21	11
Aug 21	1132	Aug 21	08
Sep 21	1055	Sep 21	10
Oct 21	591	Oct 21	10
Nov 21	561	Nov 21	45
Dec 21	537	Dec 21	105
Jan 22	514	Jan 22	134
Feb 22	490	Feb 22	155
Mar 22	451	Mar 22	153
Apr 22	524	Apr 22	111

Gas Usage

Month	kWh	Month	Therms
Apr 21	737	Apr 21	90
May 21	790	May 21	81
Jun 21	976	Jun 21	23
Jul 21	1033	Jul 21	11
Aug 21	1132	Aug 21	08
Sep 21	1055	Sep 21	10
Oct 21	591	Oct 21	10
Nov 21	561	Nov 21	45
Dec 21	537	Dec 21	105
Jan 22	514	Jan 22	134
Feb 22	490	Feb 22	155
Mar 22	451	Mar 22	153
Apr 22	524	Apr 22	111

Basic Service (not including usage) 17.33

Delivery 0.05333082 x 524 kWh 34.24

SBC 0.005203 x 524 kWh 2.73

Legacy Transition Chrg 0.001551 x 524 kWh 0.81

RDM -0.00422 x 524 kWh -2.21

Transmission Rev Adj -0.00359 x 524 kWh -1.86

Tariff Surcharge 2.04082 % 1.04

Total Electricity Delivery \$ 52.06

Gas Delivery

Service Period	Acct. #	Current Reading	Previous Reading	Measured	Term Factor	Therms Used
Mar 10 - Apr 11	32	2559 Actual	2451 Actual	108	1.02047	111

Natural Gas (LNG)

PUNTO DE SUMINISTRO	TIPO DE SERVICIO	PERIODO CONSUMO	METODO DE PAGO					
FORMA DE PAGO	FECHA LIMITE DE PAGO	PODER CALORIFICO	NUMERO DE CUENTA BANCARIA					
		0.035993867 GJ/m3	No Identificado					
NUMERO DE CASETA	TIPO DE MEDIDOR	TIPO DE LECTURA	TIPO DE MONEDA					
LECTURA INICIAL m3 CORREGIDOS	LECTURA FINAL m3 CORREGIDOS	CONSUMO m3 CORREGIDOS	TIPO DE CAMBIO					
		1,408,268.40	1.00					
PRESION CONTROLADA (BAR)	FACTOR DE CORRECCION	CONSUMO m3 SIN CORREGIR						
1.0000	*	0.00						
EJECUTIVO DE CUENTA	CORREO ELECTRÓNICO	TELÉFONO						
CLAVE PRODUCTO	DESCRIPCION	FECHA INICIO	FECHA FINAL	CANTIDAD	UNIDAD	PRECIO UNITARIO	DESCUENTO	IMPORTE
78102101	Cargo por transporte	01.03.2022	31.03.2022	53,925.8280	GJ			
83101601	Cargo por servicio de compraventa de gas natural	01.03.2022	31.03.2022	53,925.8280	GJ			
83101601	Cargo por servicio de conducción (volumétricoGCG4)	01.03.2022	31.03.2022	53,925.8280	GJ			
83101601	Cargo por servicio de conducción (servicio GCG4)	01.03.2022	31.03.2022	1.0000	SER			
83101601	Cargo por comercialización	01.03.2022	31.03.2022	53,925.8280	GJ			
84101700	Intereses moratorios			1.0000	SER			

Required materials for calculations (examples)

江苏增值税电子普通发票

发票代码: 32
机器编号: 0072667

发票号码: 0066788
开票日期: 2017年04月20日
校验码: 588330078305066

购 买 方 名称: [Redacted] 纳税人识别号: [Redacted] 地址、电话: 开户行及账号:	密 码 区 03<875/*14005+904/8848955<28 66-9/-645<8>7</2-01-*865-+> 6*<875/*14005+904/94*-327->> <2>/3*4-1<01*65<193-35/<7*84						
货物或应税劳务、服务名称 *供电*售电	规格型号	单位 千瓦时	数量 78240	单价 0.6793757538	金额 53154.36	税率 17%	税额 9036.24
合 计				¥ 53154.36		¥ 9036.24	
价税合计(大写)	陆万贰仟壹佰玖拾元陆角			(小写)		¥ 62190.60	
销 售 方 名称: [Redacted] 纳税人识别号: [Redacted]	备 注			开票人: sgcc			

Electricity invoice
KWh (千瓦时)

宁波增值税电子普通发票

发票代码: 0330216
机器编号: 661622024507
发票号码: 029
开票日期: 2017年04月20日
校验码: 54073 08654 13546

购 买 方 名称: [Redacted] 纳税人识别号: [Redacted] 地址、电话: 开户行及账号:	密 码 区 011*>73761>37*6*211*4-73**+ 9802+480/<471+3/9<>65>39-1/ +432/915*2+18<><7*6/601*8<5 3/42<+20<410*>43182*5+/0*<-						
货物或应税劳务、服务名称 燃气费(2017.01.25-2017.04.01)	规格型号	单位 m ³	数量 5	单价 2.610619	金额 13.05	税率 13%	税额 1.70
合 计				¥13.05		¥1.70	
价税合计(大写)	壹拾肆圆柒角			(小写)		¥14.75	
销 售 方 名称: [Redacted] 纳税人识别号: [Redacted] 地址、电 话: [Redacted] 4-27707118	备 注 上期抄见196m ³ ,本期抄见201m ³ ,本期实用量(阶一5 ×2.95);(阶二)×3.50);(阶三)×4.50);			开票人: 14			

Gas invoice (m³)

An abstract graphic on the left side of the page consisting of numerous blue dots of varying sizes connected by thin blue lines. Some lines are solid, while others are dotted. The lines and dots are scattered across the left half of the page, creating a sense of movement and connectivity.



How to manually calculate your emissions



What is an emissions factor?

Emissions factors describe the amount of greenhouse gases that are emitted into the atmosphere* when carrying out an activity that uses energy.

E.G. :

- Burning **1 liter** of gasoline in a car  Releases **2.51 kg of CO2e***
- Using **1 MWh** of electrical energy in Mexico in 2022  Releases **423 kg of CO2e***

*CO2e = Unit that includes carbon dioxide and other greenhouse gases such as methane and nitrous oxides

Calculating Scope 1 emissions (step-by-step)

Using the annual diesel, gasoline and natural gas we calculate our Scope 1 total emissions in metric tons CO2e. Note that we can calculate the totals here directly without regional separation as direct emission factors do not vary by region.

Location	Electricity (kWh)	Gasoline (Lt)	Diesel (m ³)	Natural Gas (m ³)
Singapore, SG	15,590	4042.8	37.2	0.2706
Texas, USA	5,590	8505.8	24.1	0.5377
Shenzhen, CH	17,534	9156.9	30.5	0.1925
Total	38,714	21,706	92	1

$$\text{SCOPE 1} = \sum (\text{Annual direct energy source usage})_i * (\text{Emission factor})_i$$

$$\text{Scope 1} = (\text{SCOPE 1}_{\text{Diesel}} + \text{SCOPE 1}_{\text{Gasoline}} + \text{SCOPE 1}_{\text{Natural Gas}})$$

$$\text{Scope 1} = \left(92 \text{ m}^3 * \frac{2.692 \text{ ton CO2e}}{1 \text{ m}^3} \right) + \left(21,706 \text{ Lt} * \frac{0.002 \text{ ton CO2e}}{1 \text{ Lt}} \right) + \left(487 \text{ m}^3 * \frac{0.002 \text{ ton CO2e}}{1 \text{ m}^3} \right)$$

$$\text{SCOPE 1}_{\text{Total}} = 242.50 \text{ tonCO2e} + 54.54 \text{ tonCO2e} + 0.92 \text{ tonCO2e} = \mathbf{297.96 \text{ tonCO2e}}$$

Electricity factors

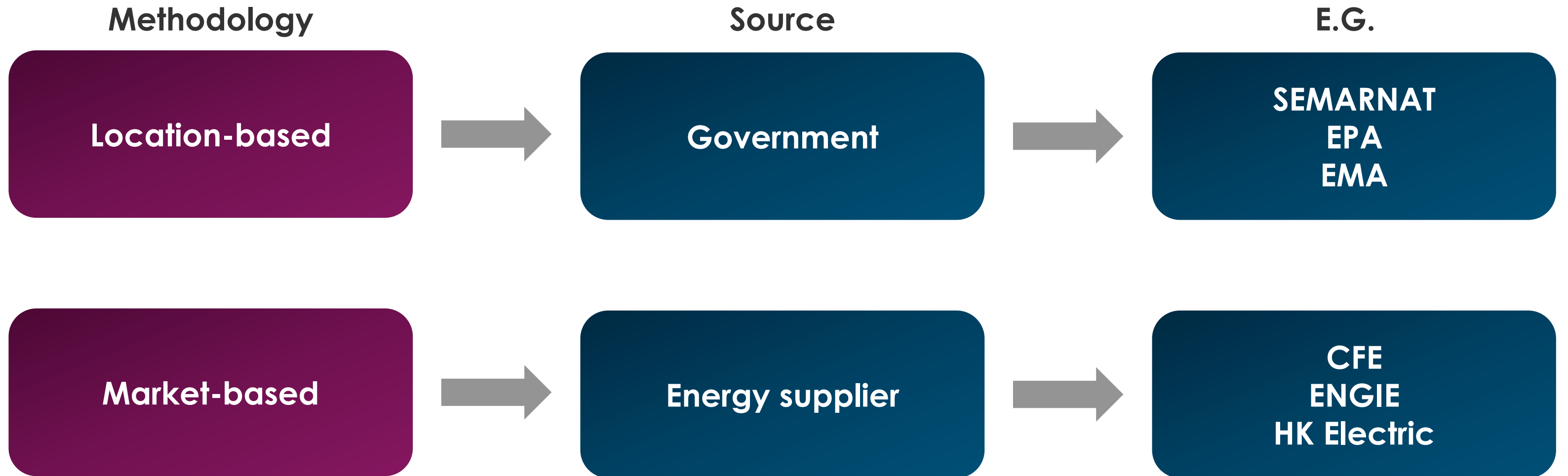
In order to calculate Scope 2 emissions, we first need to get our electricity factors.

Where you can find the electricity factor for your country/region varies but it usually is provided either by the following options:

1. Your government (usually by the environmental agency or the energy agency)
2. Your Electricity Provider company
3. The IEA* also offers several licenses and data products related to emissions from electricity and heat generation



GHG Emissions Methodology



Market-based methodology allows an organization to count procured renewable energy as a zero-emission energy

SEMARNAT: Secretaría de Medio Ambiente y Recursos Naturales (México)
EPA: Environmental Protection Agency
EMA: Electricity Market Authority
CFE: Comisión Federal de Electricidad (México)

Electricity factors

As an example, we got the Mexico and Singapore Electricity factors from their government websites:

(二) 组织制订2023年度数据质量控制计划

组织重点排放单位，按照《企业温室气体排放核算与报告指南 发电设施》（环办气候函〔2022〕485号，以下简称《核算报告指南》）要求，于每年12月31日前通过管理平台完成下一年度数据质量控制计划制订工作（2023年度数据质量控制计划需在3月10日前完成）。

(三) 组织开展月度信息化存证

组织重点排放单位，按照《核算报告指南》等要求，在每月结束后的40个自然日内，通过管理平台上传燃料的消耗量、低位发热量、元素碳含量、购入使用电量、发电量、供热量、运行小时数和负荷（出力）系数以及排放报告辅助参数等数据及其支撑材料。

(四) 组织报送年度温室气体排放报告

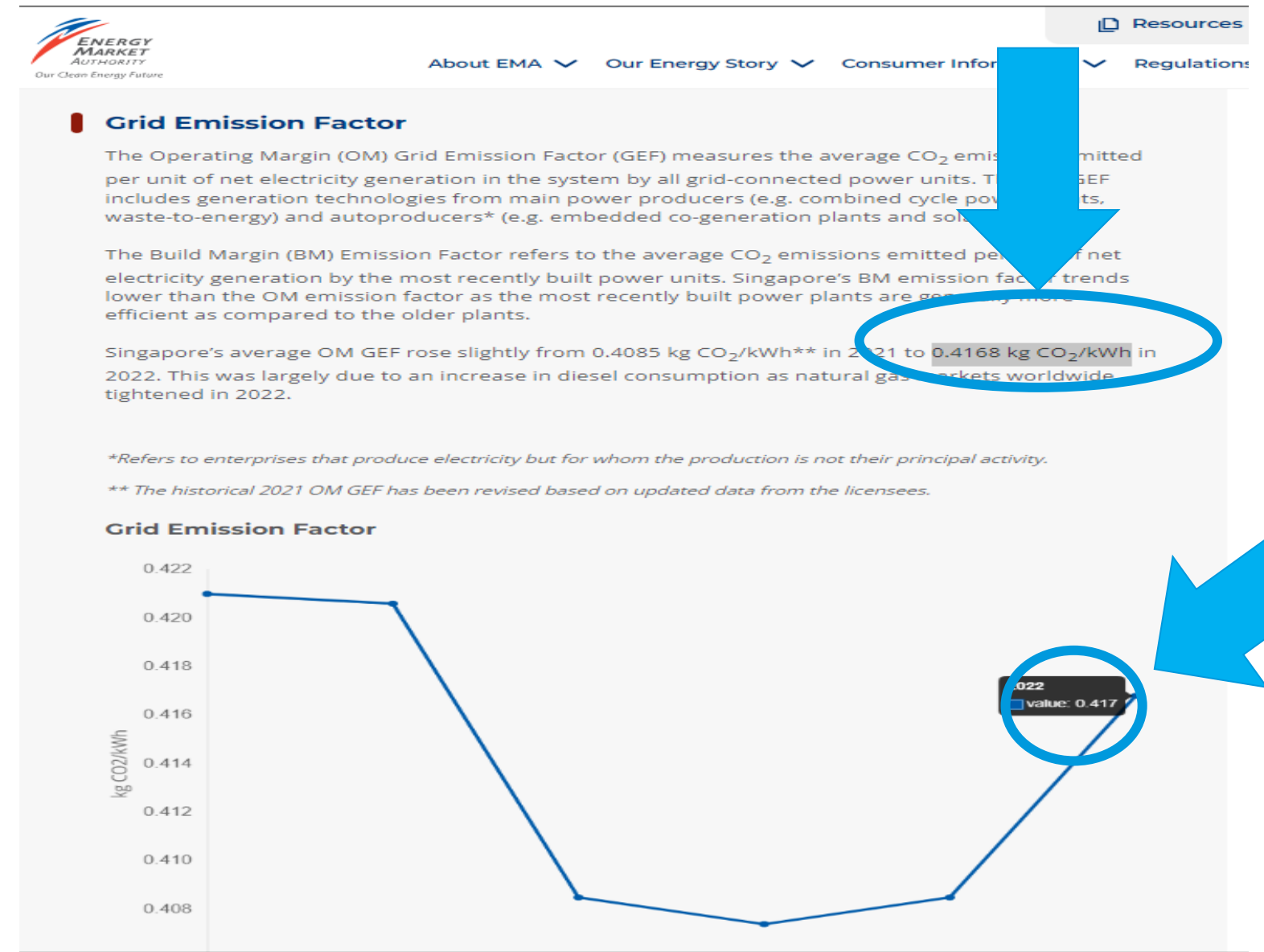
组织重点排放单位于每年3月31日前通过管理平台报送上一年度温室气体排放报告。其中，2022年度温室气体排放报告，按照《企业温室气体排放核算方法与报告指南 发电设施（2022年修订版）》（环办气候〔2022〕111号）要求编制；2023和2024年度温室气体排放报告，按照《核算报告指南》要求编制。

2022年度全国电网平均排放因子为0.5703t CO₂/MWh。后续年度全国电网平均排放因子如有更新，将由我部在当年年底前另行发布。

(五) 组织开展年度排放报告核查

组织有关技术支撑单位或委托第三方技术服务单位，按照《企业温室气体排放报告核查指南（试行）》（环办气候函〔2021〕130号）和《企业温室气体排放核算与报告指南 发电设施》（环办气候函〔2022〕485号）要求，通过管理平台进行文件评审，开展现场核查并线上填报核查信息、编制核查报告，确保核查全过程电子化留痕，于每年6月30日前完成对重点排放单位上一年度温室气体排放报告的核查及管理工作。核查结束后，省级生态环境部门应将管理平台生成的核查结果数据汇总表、配额分配相关数据汇总表书面报送我部，抄送全国碳排放权注册登记机构。

(六) 强化数据质量日常监管



[关于做好2023—2025年发电行业企业温室气体排放报告管理有关工作的通知 \(mee.gov.cn\)](https://www.mee.gov.cn)

<https://www.ema.gov.sg/resources/singapore-energy-statistics/chapter2>



Electricity factors

For Texas (US), Company A goes to [the EPA Emissions factor hub](#) where they go to table 6, find their location on the map and note the code (for the case of TX it is “ERCT”), then they go to the table, locate the corresponding factors*.

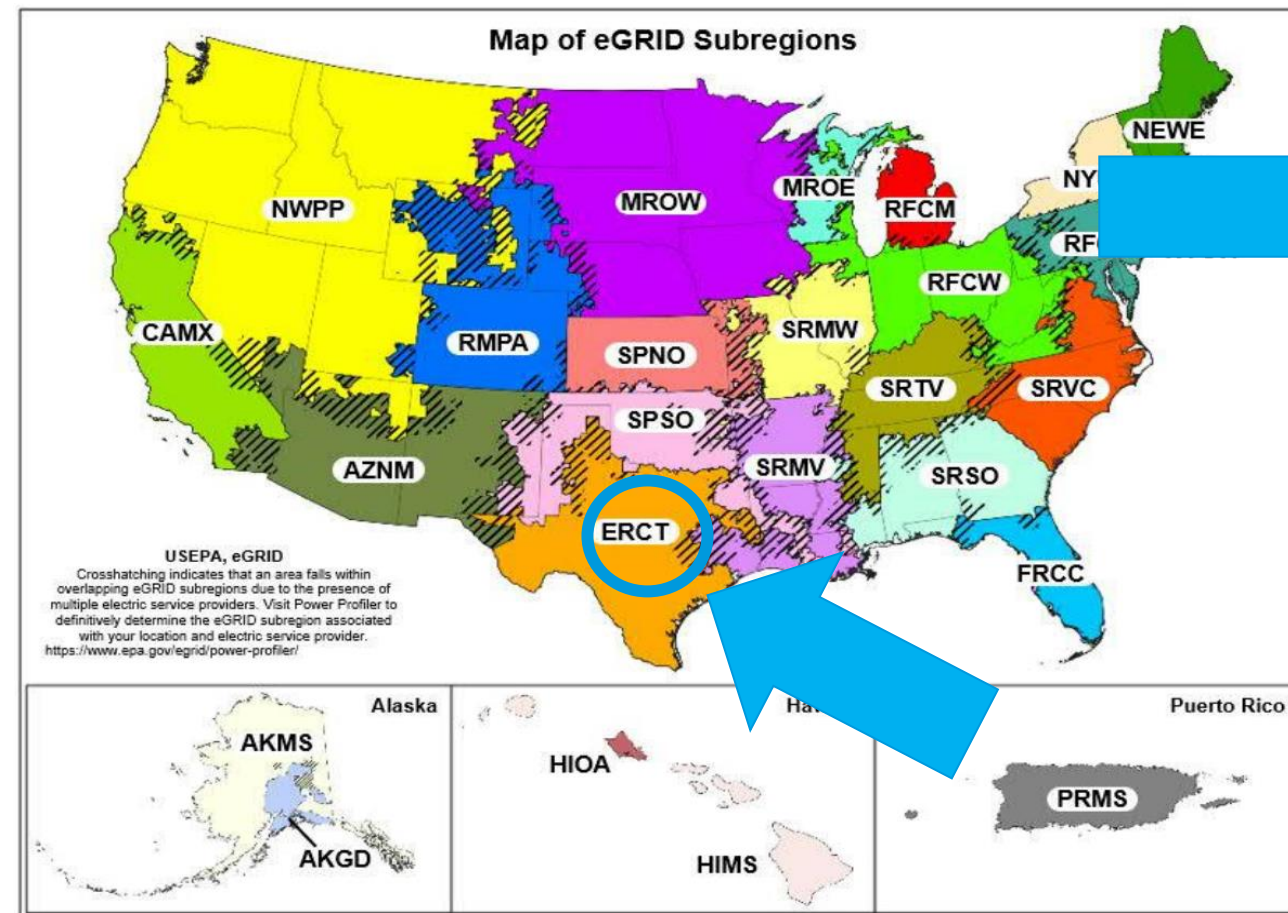


Table 6 Electricity

eGRID Subregion Acronym	eGRID Subregion Name	Total Output Emission Factors			Non-Baseload Emission Factors		
		CO ₂ Factor (lb CO ₂ / MWh)	CH ₄ Factor (lb CH ₄ / MWh)	N ₂ O Factor (lb N ₂ O / MWh)	CO ₂ Factor (lb CO ₂ / MWh)	CH ₄ Factor (lb CH ₄ / MWh)	N ₂ O Factor (lb N ₂ O / MWh)
AKGD	ASCC Alaska Grid	1,052.1	0.088	0.012	1,224.5	0.123	0.017
AKMS	ASCC Miscellaneous	495.8	0.023	0.004	1,587.9	0.069	0.012
AZNM	WECC Southwest	776.0	0.051	0.007	1,205.2	0.065	0.009
CAMX	WECC California	497.4	0.030	0.004	1,055.0	0.049	0.006
ERCT	ERCOT All	771.1	0.049	0.007	1,194.9	0.067	0.009
FRCC	FRCC All	813.8	0.048	0.006	1,044.4	0.056	0.007
HIMS	HICC Miscellaneous	1,155.5	0.124	0.019	1,619.2	0.157	0.025
HIOA	HICC Oahu	1,575.4	0.163	0.025	1,810.3	0.177	0.028
MROE	MRO East	1,479.6	0.133	0.019	1,672.9	0.147	0.021
MROW	MRO West	936.5	0.102	0.015	1,794.7	0.183	0.026
NEWE	NPCC New England	536.4	0.063	0.008	923.3	0.073	0.010
NWPP	WECC Northwest	602.1	0.056	0.008	1,515.7	0.134	0.019
NYCW	NPCC NYC/Westchester	885.2	0.023	0.003	971.8	0.021	0.002
NYLI	NPCC Long Island	1,200.7	0.135	0.018	1,316.7	0.039	0.005
NYUP	NPCC Upstate NY	274.6	0.015	0.002	920.1	0.043	0.005
PRMS	Puerto Rico Miscellaneous	1,593.5	0.087	0.014	1,670.9	0.074	0.013
RFCE	RFC East	657.4	0.045	0.006	1,278.7	0.097	0.013
RFCM	RFC Michigan	1,216.4	0.116	0.016	1,597.3	0.149	0.021
RFCW	RFC West	1,000.1	0.087	0.012	1,843.6	0.178	0.026
RMPA	WECC Rockies	1,124.9	0.101	0.014	1,676.4	0.129	0.018
SPNO	SPP North	952.6	0.100	0.014	1,943.0	0.198	0.029
SPSO	SPP South	970.4	0.072	0.010	1,528.2	0.105	0.015
SRMV	SERC Mississippi Valley	801.0	0.040	0.006	1,220.7	0.073	0.010
SRMW	SERC Midwest	1,369.9	0.151	0.022	1,808.6	0.186	0.027
SRSO	SERC South	893.3	0.064	0.009	1,354.8	0.092	0.013
SRTV	SERC Tennessee Valley	933.1	0.082	0.012	1,671.0	0.152	0.022
SRVC	SERC Virginia/Carolina	623.0	0.047	0.007	1,308.8	0.099	0.014
US Average	US Average	823.1	0.066	0.009	1,405.3	0.107	0.015

Source: EPA eGRID2022, January 2024 (Summary Tables - Table 1. Subregion Output Emission Rates)
https://www.epa.gov/system/files/documents/2024-01/eGRID2022_summary_tables.xlsx

*The EPA does not provide a direct CO₂e factor, they disclose it separately by CO₂, CH₄ and N₂O. In order to convert to CO₂e we need to multiply each one by their Global Warming Potential (GWP; found on table 11) and then, add the up. In this case the Factors and potentials are: CO₂ (Factor: 771.1, GWP: 1), CH₄ (Factor: 0.049, GWP: 25), N₂O (Factor: 0.007, GWP: 298). By multiplying each factor by their GWP and then adding up we get a CO₂e emissions factor of **774.31 lb CO₂e / MWh**.

Calculating Scope 2 emissions (step-by-step)

Using the annual electricity usage and the electricity factors gathered we can now proceed to calculate the Scope 2 (indirect) CO₂e* emissions for each location and the total:

$$\text{SCOPE 2} = (\text{Annual electricity usage}) * (\text{Electricity Factor})$$

$$\text{SCOPE 2}_{SG} = (155,900 \text{ kWh}) * \left(0.4168 \frac{\text{kg CO}_2\text{e}}{\text{kWh}}\right) = 6,498 \text{ kgCO}_2\text{e}$$

$$\text{SCOPE 2}_{TX} = (55,900 \text{ kWh}) * \left(0.351 \frac{\text{kg CO}_2\text{e}}{\text{kWh}}\right) = 1,965 \text{ kgCO}_2\text{e}$$

$$\text{SCOPE 2}_{SZ} = (175,340 \text{ kWh}) * \left(0.570 \frac{\text{kg CO}_2\text{e}}{\text{kWh}}\right) = 9,999 \text{ kgCO}_2\text{e}$$

$$\text{SCOPE 2}_{Total} = 6,498 \text{ kgCO}_2\text{e} + 1,965 \text{ kgCO}_2\text{e} + 9,999 \text{ kgCO}_2\text{e} = 18,463 \text{ kgCO}_2\text{e}$$

Converting to metric tons

$$184,627 \text{ kgCO}_2\text{e} * \frac{1 \text{ ton}}{1,000 \text{ kg}} = 184.63 \text{ ton CO}_2\text{e}$$

Last year Data		
Location	Electricity (kWh)	Electricity Factor (kgCO ₂ e/kWh)
Singapore, SG	155,900	0.4168
Texas, USA	55,900	0.351
Shenzhen, CH	175,340	0.570
Total	387,140	-----



2021_Scope 2 Calculation Guidance.pdf

33 *CO₂e is the normalized unit to measure greenhouse gas emissions that encompasses CO₂ as well as other GHG gases
 ** 1 ton/MWh = 1 kg/kWh



How to calculate your emissions using excel

How to calculate your emissions?

To quickly calculate your metric tons of CO2e Scope 1 and 2 emissions you can use calculations spreadsheets such as GHG Protocol or our Flex Environmental Metrics Template. Let's take a look at how to use this file:



2024 GHG emissions tool
V1.4.0.xlsx



GHG Emissions tool
2024 - Quick
guide.pdf



Calculating Scope 1 emissions

In the **Env Template** tab input your direct energy usage data in the corresponding row (Natural Gas, Gasoline and Diesel in this example) in the **Month** columns. In the **Annual Total** column, you will see the sum of the 12-month period you inputted.

Each row states which unit needs to be used (M3, Lt). Make sure you are using the units stated in the file, otherwise convert them accordingly.

Last year Data				
Location	Electricity (kWh)	Diesel (m ³)	Gasoline (Lt)	Natural Gas (m ³)
Singapore, SG	15,590	37.2295	4042.82	0.2704
Texas, USA	5,590	24	8505.82	0.5373
Shenzhen, CH	17,534	30	9156.911	0.1922
Total	38,714	92	21,706	1.0

Category 类别	Data to be reported 需要申报的数据	Type of Field 数据类型	Description 描述	01_JAN 一月	02_FEB 二月	03_MAR 三月	04_APR 四月	05_MAY 五月	06_JUN 六月	07_JUL 七月	08_AUG 八月	09_SEP 九月	10_OCT 十月	11_NOV 十一月	12_DEC 十二月	Annual Total 年度总额
Direct Energy sources (SCOPE 1) 直接能源 (范围1)	Natural Gas (M3) 天然气 (M3)	[numerical] 数字	Please provide your inputs in M ³ ; Please separate decimals with dots "." (Example: 10.00) 请输入M3数; 请用小数点"."分隔小数 (例如: 10.00)	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	1.000
	LP Gas (Liters) 液化石油气 (升)	[numerical] 数字	Please provide your inputs in LITERS; Please separate decimals with dots "." (Example: 10.00) 请输入公升数; 请用小数点"."分隔小数 (例如: 10.00)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	Gasoline (Liters) 汽油 (升)	[numerical] 数字	Please provide your inputs in LITERS; Please separate decimals with dots "." (Example: 10.00) 请输入公升数; 请用小数点"."分隔小数 (例如: 10.00)	1,808.83	1,808.83	1,808.83	1,808.83	1,808.83	1,808.83	1,808.83	1,808.83	1,808.83	1,808.83	1,808.83	1,808.83	21,706
	Diesel (M3) 柴油 (M3)	[numerical] 数字	Please provide your inputs in M ³ ; Please separate decimals with dots "." (Example: 10.00) 请输入M3数; 请用小数点"."分隔小数 (例如: 10.00)	7.67	7.67	7.67	7.67	7.67	7.67	7.67	7.67	7.67	7.67	7.67	7.67	92
	Ethanol (M ³) 乙醇 (M ³)	[numerical] 数字	Please provide your inputs in M ³ ; Please separate decimals with dots "." (Example: 10.00) 请输入M3数; 请用小数点"."分隔小数 (例如: 10.00)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	Biodiesel (Liters) 生物柴油 (升)	[numerical] 数字	Please provide your inputs in LITERS; Please separate decimals with dots "." (Example: 10.00) 请输入公升数; 请用小数点"."分隔小数 (例如: 10.00)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Fuel data source 燃料数据来源	Invoices 发票			Invoices 发票	Invoices 发票	Invoices 发票	Invoices 发票	Invoices 发票	Invoices 发票	Invoices 发票	Invoices 发票	Invoices 发票	Invoices 发票	Invoices 发票	Invoices 发票	

Energy from fuels

Once you have input your monthly information, scroll to the right and input the % of the energy that comes from the US or Canada to get the Energy calculations. Note that if it is zero, please enter 0 and don't leave blank.

12_DEC 十二月	Annual Total 年度总额	Location in the CDP questionnaire CDP问卷中的位置	ENERGY 能源 Please input below the % of your fuels that come from the US or Canada 请输入以下来自美国或加拿大的能源百分比	Results for :(C8.2a) Consumption of purchased or acquired electricity MWh 从不可再生能源购买或获得的电力消耗量 MWh	Energy source and unit 能源来源及单位
3	0.083	1,000	54	5.94	Natural Gas (MWh) 天然气 (MWh)
0	0.00	0	0	0.00	LP Gas (MWh) 液化石油气 (升)
3	1,808.83	21,706	39	201.71	Gasoline (MWh) 汽油 (MWh)
7	7.67	92	26	935.68	Diesel (MWh) 柴油 (MWh)
0	0.00	0	0	0.00	Ethanol (MWh) 乙醇 (MWh)
0	0.00	0	0	0.00	Biodiesel (MWh) 生物柴油 (MWh)
Invoices 发票				369.17	Non Renewable Electricity (MWh) 不可再生能源 (MWh)
7	32,261.67	387,140.00			

Please review the Energy section at the right side of the table --->

请查看表格右侧的能源部分

ENERGY 能源 Results for :(C8.2a) Consumption of purchased or acquired electricity MWh 从不可再生能源购买或获得的电力消耗量 MWh	Energy source and unit 能源来源及单位
Please enter the % on the left cell 请在左侧单元格中输入%	Natural Gas (MWh) 天然气 (MWh)
Please enter the % on the left cell 请在左侧单元格中输入%	LP Gas (MWh) 液化石油气 (升)
Please enter the % on the left cell 请在左侧单元格中输入%	Gasoline (MWh) 汽油 (MWh)
Please enter the % on the left cell 请在左侧单元格中输入%	Diesel (MWh) 柴油 (MWh)
Please enter the % on the left cell 请在左侧单元格中输入%	Ethanol (MWh) 乙醇 (MWh)
Please enter the % on the left cell 请在左侧单元格中输入%	Biodiesel (MWh) 生物柴油 (MWh)



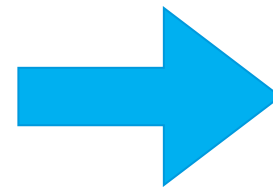
This message will appear if you leave the cell in blank

Calculating Scope 2 emissions

For the SCOPE 2 emissions calculations, in this case as we have 3 different emission factors for 3 different regions. First, we go to the **Electricity Factor** Tab where you can select from the different regions available in the file or add a custom factor, you just need to select the units in case you want to use a custom factor.

In the Top right corner, you will obtain the **Weighted Electricity Factor** that we will then input in the **Env Template** tab.

Last year Data			
Location	Electricity (kWh)	Electricity Factor	Units
Singapore, SG	15,590	0.4057	kgCO2e/kWh
Texas, USA	5,590	234.496	lbCO2e/MWh
Shenzhen, CH	17,534	0.423	TonCO2e/MWh
Total	38,714	-----	



Weighted Electricity factor 加权电力系数								
Continent 大陆	Country / Administrative Region	Country / Province / State / Region (For US see map on right) / Provider / Agency	Electricity per region 电力 (kWh)	Custom factor	Electricity factor 电力因子 (mass CO2e / energy)	Units 单位	%	Σ Weighted Electricity factor 加权电力系数 [gCO2e/kWh]
Americas	USandPuertoRico	ERCT (ERCOT All)	55,900	N/A	774.3100	lbCO2e / MWh	14.44%	50.76
Asia	PRofChina	PR Of China	175,340	N/A	0.5703	TonCO2e / MWh	45.29%	258.30
Asia	Singapore	Energy Market Author	155,900	N/A	0.4168	kgCO2e / kWh	40.27%	167.84
							0.00%	
							0.00%	
							0.00%	

Weighted Electricity factor 加权电力系数 [gCO2e/kWh]

476.90

Input this number in the Env Template tab in the Electricity factor row's dropdown list

在“环境模板”选项卡中“电力系数”行输入此数字



Calculating Scope 2 emissions

Once we have our **Weighted Electricity Factor**, we input it in the **Electricity Factor** row in the **Env Template** tab. Note that if you used the **Electricity factor tab** you can select from a dropdown list your **weighted electricity factor calculated**.

You will also input your total monthly electricity usage data (in kWh) in the **month** columns, and you will get the annual total in the right side.

Last year Data		
Location	Weighted Electricity Factor (gCO2e/kWh)	Electricity (kWh)
Singapore, SG	370.33	155,900
Texas, USA		55,900
SZ, Mex		175,340
Total		387,140

Indirect sources (SCOPE 2)	Electricity 电力 (KWh)	[numerical] [数字]	Please provide your inputs in KWh ; Please separate decimals with dots "." (Example: 10.00) 请输入KWh数 请用小数点"."分隔小数 (例如: 10.00)	32,261.67	32,261.67	32,261.67	32,261.67	32,261.67	32,261.67	32,261.67	32,261.67	32,261.67	32,261.67	32,261.67	32,261.67	32,261.67	387,140.00
	Electricity factor (gCO2e / kWh) 电力因子 (gCO2e / kWh)	[numerical] [数字]	Please input the factor in the units [g CO2e/KWh] The emission factors are coefficients for the amounts of certain gases that are released when fuels are burned and for when electricity is generated. They do not vary per month, only per year 请输入单位为[g CO2e/KWh]的系数 排放系数是燃料燃烧和发电时释放的某些气体量的系数。它们每月不会变化，仅每年变化。	476.90													

Renewable & Non-Renewable Energy

Below the Electricity factor row, you can disclose:

- Renewable electricity purchased (kWh)
- Electricity generated on-site from renewable sources (kWh)
- Partial PPA (kWh %) (note the percentage must be multiplied by the % of the electricity of the region this takes place to disclose correctly)

		它们每年都会变化，仅每年变化																
Renewable energy	Renewable electricity purchased (kWh) 购买的可再生电力	[numerical] [数字]	Please provide your inputs in KWh Please separate decimals with dots "." (Example: 10.00) 请输入KWh数 请用小数点"."分隔小数 (例如: 10.00)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	
	Electricity generated on-site from renewable sources (kWh) 由可再生资源产生	[numerical] [数字]	Please provide your inputs in KWh Please separate decimals with dots "." (Example: 10.00) 请输入KWh数 请用小数点"."分隔小数 (例如: 10.00)	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	36,000.00	(C8.2a) Consumption of self-generated non fuel renewable energy 自我生产的非燃料可再生能源消耗量
	Partial PPA (kWh %)	Not required	Please enter the % of renewable energy of the partial PPA; Partial PPA's are usually available in China. 请输入部分购电协议中可再生能源的百分比； 部分购电协议通常在中国提供	4.53%	4.53%	4.53%	5.43%	5.43%	5.43%	3.62%	3.62%	3.62%	4.98%	4.98%	4.98%	17,971.91		

On the right side you will find the results of your energy usages:

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh. (C8.2a) 请报告贵组织的能源消耗总量 (原料除外) · 单位为MWh。	
Renewable energy consumption (MWh) 可再生能源消耗	53.97
Non-renewable energy consumption (MWh) 不可再生能源消耗	1,512.50
Total energy consumption (MWh) 能源消耗总量	1,566.47

Note that this number does not include biodiesel, please fill cells R11 and U11 to include it

Please fill all fuel data on column R, and % in column U
请在 R 列中填写所有燃油数据，在 U 列中填写 %



This message will appear if you don't fill up completely cells U6:U11

Calculating Scope 1 & 2 emissions

Once you have input your monthly information on the template:

- The file will auto-calculate the annual total emissions in Metric Ton CO2e
- On the right side you will find the CDP module where you need to input this data

Calculated fields 计算部分	SCOPE 1 - CO2 Emissions [Metric ton CO2e] 范围1-CO2排放量 [公吨CO2e]	Calculated 计算 $=([NG-CO2\ Emissions]+[LP_Gas-CO2\ Emissions]+[Gasoline-CO2\ Emissions]+[Diesel-CO2\ Emissions]+[Ethanol-CO2\ Emissions]+[Bio-Diesel-CO2\ Emissions])$ $=([天然气-CO2\ 排放量]+[LPG-CO2\ 排放]+[汽油-CO2\ 排放]+[柴油-CO2\ 排放]+[乙醇-CO2\ 排放]+[生物柴油-CO2\ 的排放量])$	24.80	24.80	24.80	24.80	24.80	24.80	24.80	24.80	24.80	24.80	24.80	24.80	24.80	297.603	(C6.1) Gross global Scope 1 emissions (metric tons CO2e) (C6.1) 全球范围1总排放量 (公吨CO2当量)
	SCOPE 2 - CO2 Emissions [Metric ton CO2e] 范围2-CO2排放量 [公吨CO2e]	Calculated 计算 $=(Electricity\ (kWh) * Electricity\ Factor)$ $= (用电量 (kWh) * 电力系数)$	15.39	15.39	15.39	15.39	15.39	15.39	15.39	15.39	15.39	15.39	15.39	15.39	15.39	184.627	(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e? (C6.3) 贵组织的全球范围2排放总量是多少公吨CO2当量?
	Total Scope 1 + Scope 2 CO2e Emissions 总CO2排放量	Calculated 计算 $=[SCOPE\ 1-CO2\ Emissions]+[SCOPE\ 2-CO2\ Emissions]$ $=[范围1-CO2\ 排放量]+[范围2-CO2\ 排放量]$	40.19	40.19	40.19	40.19	40.19	40.19	40.19	40.19	40.19	40.19	40.19	40.19	40.19	482.231	(C6.10) 范围一和范围二合并的全球总排放量 (单位: 公吨CO2e)



Emissions allocation

Once we have calculated our **Scope 1 and 2 emissions**, we go to the **Emissions allocation** tab. There on the left side you will find the emissions you calculated in the **Env Template** tab. You need to input your Revenue from Flex and total in the **Emissions allocation data** table and you will obtain the **Emissions allocated to Flex**. This is the number you will input in the SC1.1 section of the CD questionnaire.

CDP SC 1.1 Emissions allocation To Flex 目标问题: SC1.1 向FLEX分配排放量					
Data calculated from Env Template tab		Emissions allocation data		Location in CDP Questionnaire CDP问卷中的位置	Notes 注释
SCOPE 1 - CO2 Emissions [Metric ton CO2e] 范围1-CO2排放量 [公吨CO2e]	297.96	Revenue of products/services purchased by Flex Flex 购买的产品/服务的营业额	\$ 500,000.00	←	
SCOPE 2 - CO2 Emissions [Metric ton CO2e] 范围2-CO2排放量 [公吨CO2e]	14.34	Total revenue of products/services produced 生产的产品/服务的总额	\$ 20,000,000.00		
Total CO2 Emissions 总CO2排放量	312.30	Allocated GHG Emissions [Metric Ton CO2e] 所分配的温室气体排放 [公吨CO2e]	7.81	(SC1.1) Emissions in metric tons of CO ₂ e 排放量 (公吨CO ₂ e)	Please make sure to select "Flex, Ltd" on the dropdown list at the beginning of the SC1.1. section 请确保在SC1.1章节开头的下拉列表中选择 "Flex, Ltd"

Electricity Factor 电力系数 | **Emissions Allocation 所分配的温室气体排放** | Target setting tool 目标设置 ...

Flex Excel GHG Emissions Target Tool

(C4.1) Did you have an emissions target that was active in the reporting year? (C4.1) 在此报告年中，您是否有有效的排放目标？					
Types of targets: 减排目标的类型	ABSOLUTE: Total quantity of greenhouse gas emissions emitted 绝对目标: 温室气体排放总量	Units example: Tons CO ₂ e reduced	减少的二氧化碳当量排放吨数		
	INTENSITY: Compares the emissions to some unit of economic output 强度目标: 排放量和某种经济产出进行对比	Units example: $\frac{\text{Tons CO}_2\text{e}}{\text{Revenue / product}}$ reduced	减少的 $\frac{\text{二氧化碳当量排放吨数}}{\text{营业额/产品数量}}$		
Question (Mandatory questions are marked with an asterisk *)		Your answer	Notes 注释	Location in the CDP questionnaire CDP问卷中的位置	
Data to provide	ABSOLUTE TARGET 绝对目标	Scope(s) of your target* 范围*	Scope 1 范围一		(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets. (C4.1a) 请提供您的绝对排放目标和针对这些目标的进展的详情。
		Base Year 绝对目标	2020	The year you will take as a starting point to reduce your emissions. 您设定的作为废气减排起点的年份，作为对比减排目标的参照年份	
		Is your base year the same year you reported in the "Env Tab" of this file?	Yes 是		
		Covered emissions in base year (Metric ton CO ₂ e)* 所有选定范围中目标覆盖的基准年排放 (公吨CO ₂ e) *	297.96	If you answered "Yes" in the previous columns and filled the env template tab it will autopopulate.	
		Target year* 强度目标*	2025	Year in which you aim to achieve it, the date must be higher than the current year. 您设定的目标达成的年份	
		Targeted reduction % from base year* 基准年减排百分比 *	50.00	% of reduction (0-100) 百分比字段(输入0-100的百分比，最多保留2位小数)	
	Target Status in reporting year* 报告年的目标状态 *	Underway 正在进行	Select the option that applies from the dropdown list 请从下方下拉菜单选项中选择		
	INTENSITY TARGET 强度目标	Scope(s) of your target* 范围*	Scope 2 范围二		(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s). (C4.1b) 请提供您的排放强度目标和针对这些目标的进展的详情。
		Base Year 绝对目标	2020	The year you will take as a starting point to reduce your emissions. 您设定的作为废气减排起点的年份，作为对比减排目标的参照年份	
		Is your base year the same year you reported in the "Env Tab" of this file?	Yes 是		
		Intensity Metric* 强度指标*	Metric ton CO ₂ e / Revenue in USD	Please write the units used; it is usually units of CO ₂ e/revenue or another unit of business activity 请您写公吨CO ₂ e/单位活动	
		Insert your business activity metric from your base year [matching the denominator units of the "Intensity Metric" row; i.e. USD revenue, tons of product, kWh, etc].	5,768.00		
Intensity figure in base year for all selected Scopes (metric tons CO ₂ e per unit of activity) *		n n0292912	If you answered "Yes" in the previous columns and filled the env template tab it will autopopulate. Otherwise divide the		



In order to have a structured target, the following elements are required in your disclosure:

Absolute target (C4.1a):

1. Scope(s)
2. Covered emissions in base year (metric ton CO₂e)
3. Target year
4. Targeted reduction % from base year
5. Target Status

Intensity target (C4.1b):



1. Scope(s)
2. Intensity Metric
3. Intensity Figure in base year
4. Intensity Figure in reporting year
5. Target year
6. Target reduction %
7. Target Status

Energy Calculations

CDP Energy Disclosure

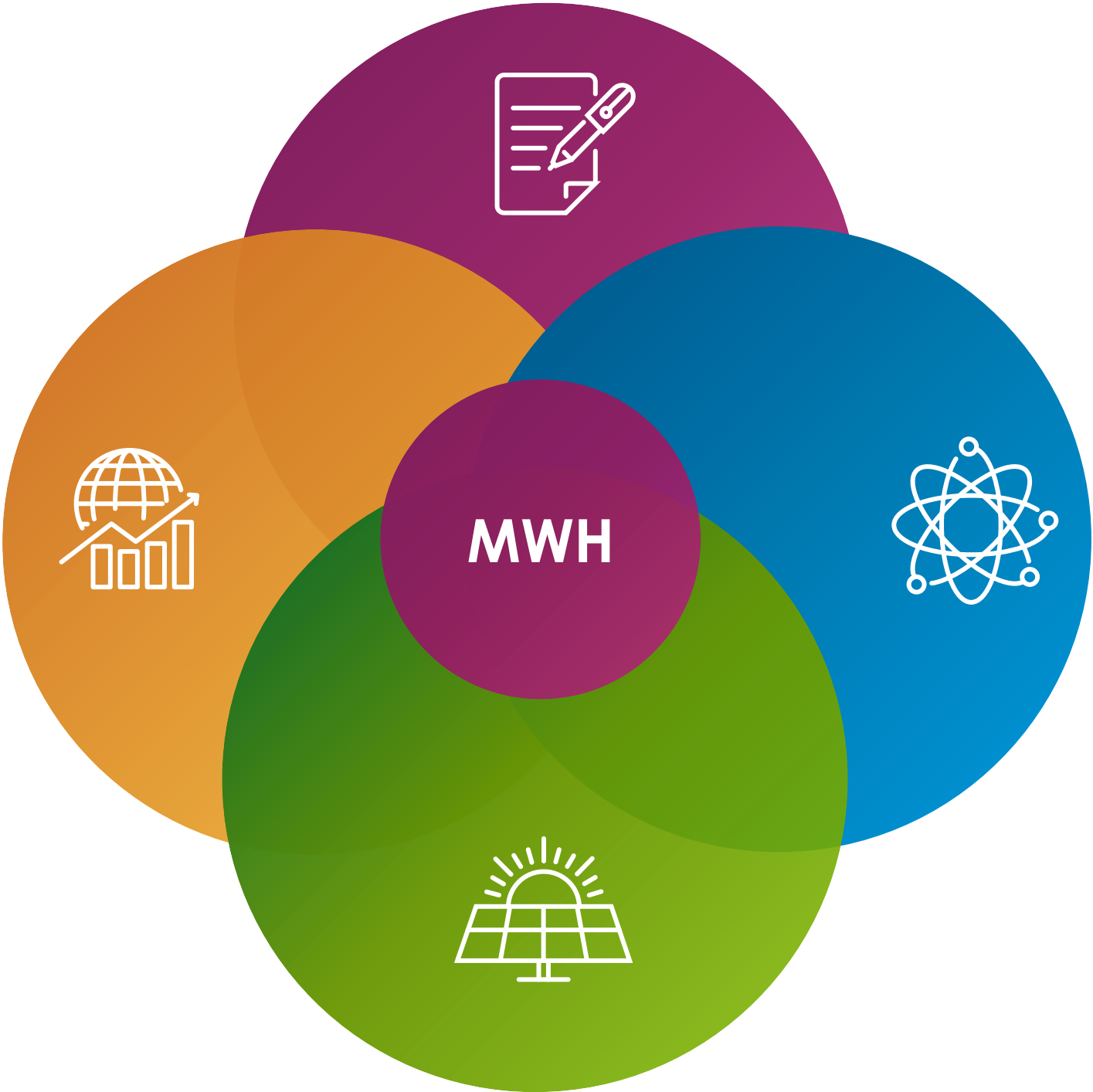
SOURCING METHOD*



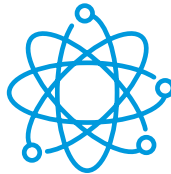
-  Bundled and unbundled energy
-  Tracking system





REGION

-  Country



ENERGY CARRIER



-  Electricity
-  Steam
-  Heat
-  Cooling

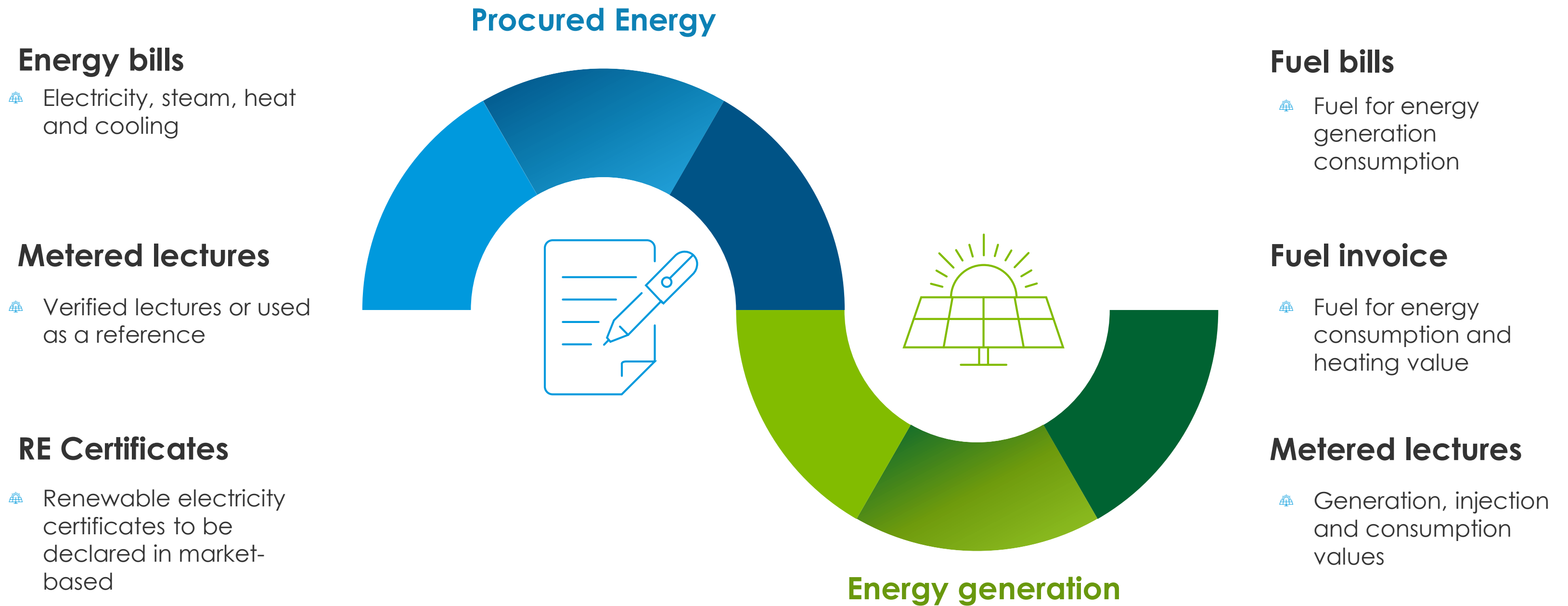
ENERGY SOURCE



-  Non-Renewable
-  Renewable
-  Low Carbon

*Only applicable for organizations that use market-based methodology

Required materials for energy calculation



Energy Conversions

C8. Energy Disclosure

CDP requests all energy consumption and generation in MWh


These calculations are available in Columns V-W of *2023 GHG Emissions excel file*

Location	Electricity (kWh)	Gasoline (Lt)	Diesel (m ³)	Natural Gas (m ³)
Singapore, SG	15,590	4042.8	37.2	0.2706
Texas, USA	5,590	8505.8	24.1	0.5377
Shenzhen, CH	17,534	9156.9	30.5	0.1925
Total	38,714	21,706	92	1

Location	Electricity (MWh)	Gasoline (MWh)	Diesel (MWh)	Natural Gas (MWh)
Singapore, SG	15.59	36.81	373.24	1.57
Texas, USA	5.59	81.53	254.51	3.27
Shenzhen, CH	17.53	83.38	306.02	1.11
Total	38.71	201.72	933.77	5.95

Renewable Energy Certificates

**CERTIFICATES
EQUIVALENT TO
1 MWH OF
RENEWABLE
ELECTRICITY**



**DOESN'T SUPPLY
ELECTRICITY**

**ALLOWS AN
ORGANIZATION
TO CLAIM CO2
AVOIDANCE IN
A MARKET-
BASED
METHODOLOGY**



**ONLY
GENERATORS
WHO HAVE
BEEN CERTIFIED
ARE ABLE TO
SELL ATTRIBUTES**

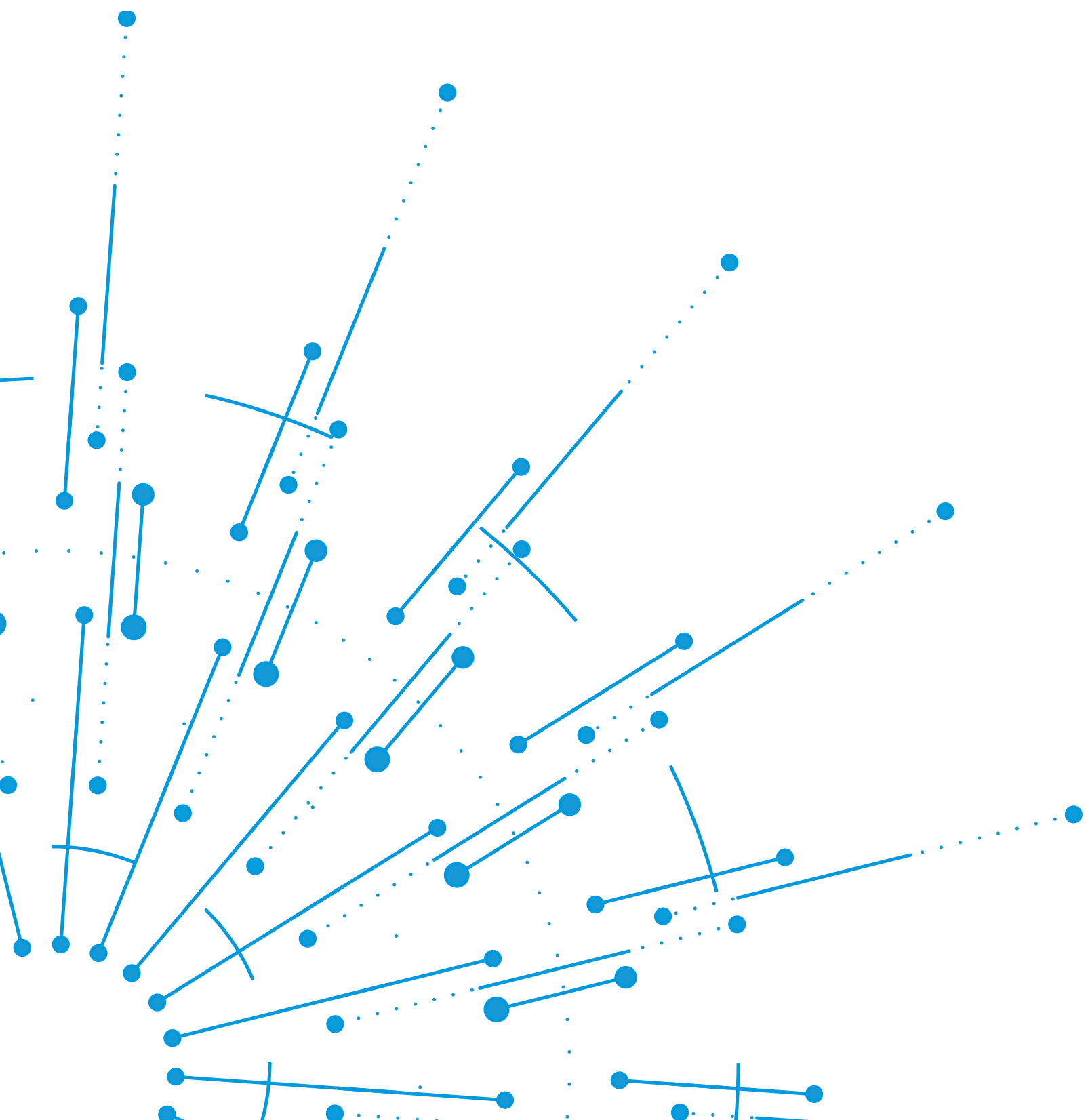
Practical Case of RE Certificates

Market-based methodology

The only methodology in which renewable energy certificates can be claimed and counted as an approach to reduce emissions

	ELECTRICITY CONSUMPTION MWh	RE CERTIFICATES MWh	MARKET BASED MWh
USA	5,59	0	5,59
China	17,53	17	0,53
Singapore	15,59	15	0,59
Total	38,71	32	6,71

↑
Location-based electricity



FAQs and Resources

Frequently asked questions

What if I don't have resources to complete a CDP disclosure?

Calculation resources and tools available

Minimum tier response



What if we haven't started collecting environmental information yet?

Provide partial/qualitative response

Use questionnaires to guide your internal strategy



What if we already disclose environmental information elsewhere?

Alignment with DJSI/TCFD/SDGs

Use information from CSR report



What if we're concerned about receiving a score?

Fully transparent scoring methodologies that provides feedback on your GHG emissions status

Frequently asked questions



- **If we have multiple sites, multiple business entities across the world do we have to roll the data up to the overall parent company or keep results at a local site level?**

Best practice in corporate GHG accounting encourages all companies to be reporting enterprise-data at the ultimate parent company level. Doing so avoids double counting and reduces reporting effort. For your CDP questionnaire, please provide as much company-wide data and information as you have available.

- **What if I do not want to publicly disclose some information on the questionnaire?**

Suppliers can choose to disclose Public or Non-Public, if Non-Public is chosen only Flex will have access to the information.

Supply Chain (SC) section of the questionnaire is always treated as Non-Public Information.

Please note that it is not possible to access the questionnaires through the Internet Explorer browser. Please, consider using another browser to disclose through our platform.

Further useful resources

Resources for Disclosure:

- ▼ [CDP Guidance for Companies](#)
- ▼ [FAQs – Find answers to common queries](#)
- ▼ [CDP Supply Chain Report: Changing the Chain](#)
- ▼ [CDP-ACS: Guidance for Company Classification](#)
- ▼ [Working 9-5: A guide for Small Office Based Organizations'](#)
- ▼ [Hot Climate, Cool Commerce: A Service Sector Guide to Greenhouse Gas Management](#)
- ▼ [On-Demand Technical Support:](#)
For all geographic regions, contact <https://casemgmt-crm.cdp.net/>

GHG Emissions Accounting and Science-Based Targets:

- ▼ [GHG Protocol Corporate Standard](#)
- ▼ [GHG Protocol Calculation Tools](#)
- ▼ [CDP Technical Note on Science-Based Targets](#)
- ▼ [FAQs- The Science Based Targets Initiative](#)

[Flex's Supply Chain Resource Webpage](#)

If you require support from Flex, please send us an email to:

- ✓ [Flex GPSC Sustainability](#)
- ✓ Contact your GCM

Emissions calculation tools

Here you can find some recommended files for further information and to assist you in your GHG emission calculations and Renewable energy calculations:



2024 GHG emissions tool
V1.4.0.xlsx



GHG Emissions tool
2024 - Quick
guide.pdf

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If you require support from Flex,
please send us an email to:

- ✓ [Flex GPSC Sustainability](mailto:flex.gpsc@flex.com) (flex.gpsc@flex.com)
- ✓ Contact your GCM

Please help us improve by answering a **quick survey**
that will launch after the webinar

Supplier training survey:



flex[®]

Thank you

