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Supply Chain Sustainability Program GHG Emissions Calculations Webinar



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.



In order to support <u>Flex's 2030 goals</u>, 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.

Since January 2023, 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 Advaithi, 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
- commitment to net-zero by 2040
- continue working towards Science Based Targets initiative
- commit that 50% of our 'Preferred Suppliers' will set their own GHG emissions reduction targets by 2025 and 100% by 2030



Greenhouse Gas Emissions

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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:

Purchased electricity



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

- Solar panels, solar lamps, wind turbines
- Smart route programming, hybrid and electric fleet
- Refrigerant replacement, maintenance of leaks and abatement of PFCs
- Procurement of renewable energy and attributes
- Building controls, insulation and maintenance program
- Equipment replacement, heat recovery systems, pressure system enhancement
- No paper and disposables policy
- Usage of circular plastic
- Reduction of office space due to home office

GHG Questionnaires Overview

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2025 GHG Questionnaires

CDP QUESTIONNAIRE

Start date: June 2025 Deadline: Sep 2025

Deadline: TBD

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

FLEX SUSTAINABILITY SURVEY

Start date: June 2025 Deadline: Sep 2025

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.

Demonstrate **transparency** and operational competence to your customers.

GHG Program Preferred Suppliers' Impact

*As reported by Flex suppliers on CDP from 2020 to 2024 **With the contribution of 330 watts peak

2025 Timeline

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2025 GHG Program Timeline

- Sustainability questionnaire launch M
- Sustainability questionnaire **closure**

Webinar dates:

 Target setting AME & EU: March 11th Asia EN: March 12th Asia CH: March 13th

• GHG emissions

1st AME & EU: April 8th 1st Asia EN: April 9th 1st Asia CH: April 10th

Kick-off AME & EU: May 13th Asia EN: May14th Asia CH: May 15th

 GHG emissions 2nd AME & EU: June 17th 2nd Asia EN: June18th 2nd Asia CH: June 19th

Target setting

GHG emissions 3rd AME-EU: August 12th 3rd Asia EN: August 13th 3rd Asia CH: August 14th

Pre-disclosure Flex invitation to suppliers Disclosure

disclosure

Post-disclosure

Discuss results with suppliers and send feedback, and hold suppliers accountable for on-going improvement Work with suppliers to explore collaborative opportunities Suppliers continue their environmental journey

Personalized sessions

During all disclosure cycle

Aug	Sept	Oct	Nov	Dec						
		POST-DISCLOSURE CYCLE								

Supplier fill-in and submit the questionnaire Webinars from Flex to support suppliers in their

flex.		ম০	DP	Advancing Sustainability Globally	flex.		
	Target Question	Full Questionnaire	SME Questionnaire	RBA EMT Section	Flex Sustainability Survey		
1	GHG Emissions reduction target(s)	7.53.1 and / or 7.53.2	20.16.1 and / or 20.16.2	[Targets]	GHG Emissions Reduction Targets Question: 14-20 and / or 21-27		
2	Renewable energy target	7.54.1	20.16.3	NA	Renewable Energy Targets Question: 37-41		
3	Emissions reduction initiatives	7.55, 7.55.1 & 7.55.2	20.17	[Emissions initiatives]	Sustainability initiatives Question: 45-48		
4	Methodology for emissions calculations	7.2	20.2	[Company information]	GHG Emissions Data Question: 13		
5	Base year information	7.5	20.4, 20.5 & 20.7	[Company information]	GHG Emissions Reduction Targets Question: 19 & 26		
6	Scope 1 emissions	7.6	20.1 & 20.3.1. – Select Scope 1 20.4 – Scope 1	[Scope 1]	GHG Emissions Data Question: 6 & 7		
7	Scope 2 Methodology (LB / MB)	7.3	20.1 & 20.3.1. – Select Scope 2 20.5 – Scope 2	[Scope 2]	GHG Emissions Data Question: 8		
8	Scope 2 Emissions	7.7	20.1 & 20.3.1. – Select Scope 3 20.7 – Scope 3	[Scope 2]	GHG Emissions Data Question: 9 & 10		
9	Scope 3 emissions (optional)	7.8	20.3.1	[Scope 3]	GHG Emissions Data Question: 11 & 12		
10	Renewable & Non renewable energy consumption and usage totals	7.30, 7.30.1, 7.30.6 & 7.30.7	20.15	[Energy reporting]	Energy Data Question: 29-36		
11	GHG Emissions allocation	7.26	20.12	NA	Emissions Allocation Question: 54, 55 & 56		

Target Questions

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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 marketbased 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

Allocated GHG Emissions **Revenue of products/services purchased by Flex**

Total revenue of products/services produced

Working example of allocating emissions to Flex based on revenue

0 metric tons of CO2 _e	_	US\$500,000 revenue from Flex			
allocated to Flex		US\$200 000 000 total revenue	- X		

- x Total GHG Emissions for Scope 1or Scope 2

100,000 tons of CO2_e (Company-wide Scope 1 GHG emissions)

GHG Calculation Case Study

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GHG Calculations Case Study

Company A is an international distributor, they have 2 physical locations in Guadalajara, México and California, USA as well as a **subsidiary company** (Company B) that has 1 location, in Zhuhai, 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
А	California, USA
А	Guadalajara, México
В	Zhuhai, 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
 Fuel for their fleet of trucks Fuel from business travel in the company-owned vehicles Water heater in the buildings Forklifts 	Electricity usage locations

in their

Required Materials for Calculations (examples)

Electricity & natural gas

US

Electricity Mexico

KWMax

kVA/h

CENACE

Capacidad

SCHMEM(Total

CFE Suministrador de Servicios Básicos Rio Ródano Iko, 14, zofornia Cuauttémoc, Alcaldía Cuauttémoc, Código Postal 06500, Ciudad de Mítrico, RFC: CSS168330CP7

BUINGROOM PAGE 2 of 4 FORMA DE PAGO nationalgrid Mar 10, 2022 to Apr 11, 2022 ACCOUNT NUMBER PLEASE PAY BY AMOUNT DUE May 6, 2022 \$ 189.68 NUMERO DE CASETA DETAIL OF CURRENT CARGES To enroll with a supplier or change to another supplier, you will need the following information about your account LECTURA INICIAL --- 3 CORRECT **Delivery Services Electricity Delivery** PRESION CONTROLADA (BAR) Cumar: Reading - Previous Reading 72708 Actual 72184 Actual Mar 10 - Apr 11 524 kWh Electric Usage Gas Usage 32 Usage Cas Usage WMh Month Therm. 727 Apr 21 90 780 May 21 60 976 Jun 21 22 1033 Jul 21 11 1122 Aug 21 01 1065 Seg 21 11 561 Nor 21 155 104 Oct 21 10 561 Nor 21 10 561 Nor 21 10 561 Nor 21 10 561 Nor 21 10 564 Apr 22 19 400 Her 22 15 504 Apr 22 115 METER NUMBER NEXT SCHEDULED READ DATE ON OR ABOUT May 12 Apr 21 May 21 Jun 21 Jul 21 Aug 21 Sep 21 Oct 21 Nov 21 Dec 21 Jan 22 Feb 22 Mar 22 EJECUTIVO DE CUENTA Electric SC1 Non Heat BATE Basic Service (not including usage) 17.33 Delivery 0.06533062 x 524 kWh 34.24 CLAVE PRODUCTO DESCRIPCION SBC 0.005203 x 524 kWh 2.73 0.001551 x 524 kWh 0.81 78102101 Cargo por tran Legacy Transition Chrg 83101601 Cargo por serv RDM -0.00422 x 524 kWh -2.21 83101601 Cargo por serv Transmission Rev Adj -0.00359 x 524 kWh -1.88 83101601 Cargo por serv Apr 22 Tariff Surcharge 2.04082 % 1.04 83101601 Cargo por come 84101700 Intereses more 2 \$ 52.06 **Total Electricity** choose who applies your energy, ho mater which energy supplier you choose National Grid will continue to deliver energy to you cately, efficiently and reliably. We will also continue to provide your customer service, including emergency response and storm restoration. National Grid is dedicated to creating an open emergy market that lates energy suppliers, who may drive different pricing options. For information on sufforced energy suppliers and how to choose, please visit us online at light doc mury-energychoce cose who subplies your energy. No **Gas Deliver** Previous Reading - Service Period No. of cays Ourrance Resting Previous Resting Measure Resting Measure Core Mar 10 - Apr 11 32 2559 Accest 2451 Accest 108 1.02947 METER NUMBER MAN NEXT SCHEDULED READ DATE ON OR ABOUT May 12 RATE Gas SC1 Res Heat La corrección volumétrica del gas obedecer NOTA: Si le aparecen cargos volumétricos "G ngrid.com/uny-energychoice Oficial de la Federación) vigente al momento Notice About Electronic Check By sending your completed, signed check to us, you authorize us to use the account ation from your check to make an electronic fund transfer from your accour for the same amount as the check. If the ectronic fund transfer cannot be processed for technical reasons, you authorize us to process the copy of your

Natural Gas (LNG)

PUNTO DE SUMINISTRO

	TIPO DE SER	VICIO	PERIODO CI	ONSUMO		METODO DE PAGO			
	PECHA LIMIT	E DE PAGO		PODER CAL 0.035993867	oRIFICO (G)/m3		NUMERO DE CUENTA BANCARIA No Identificado		
	TIPO DE MED	IDOR		TIPO DE LEO	TURA		TIPO DE MONEDA		
	LECTURA FINAL m3 CORRECIDOS FACTOR DE CORRECCION			CONSUMO n 1,498,288.40 CONSUMO n 0.00	na CORREGIO	os Igir	TIPO DE CAMBIO 1.00		
	CORREO ELE	CTRÓNICO		TELÉPONO					
aporte icio de compraventa de gas n icio de conducidón (volumétric ticó de conducidón (servicio G ercialización torica à la ecuación contemplada e nas Inductrial" o "Pequaño Indi de la facturación.	n el Método AG	FECHA INCIO 01.03.2022 01.03.2022 01.03.2022 01.03.2022 01.03.2022 01.03.2022	FECHA FINAL 31.03.2022 31.03.2022 31.03.2022 31.03.2022 31.03.2022 (station). cargos relacionados p	CANTIDAD 53.025.8280 53.925.8280 53.925.8280 1.0000 53.025.8280 1.0000	UNIDAD GJ GJ SER GJ SER SER	PRECIO UNITA	RIO DESCUENTO	IMPORTE	
		P-0							

Required Materials for Calculations (examples)

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
- Using 1 MWh of electrical energy in Mexico in 2022

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

Releases 2.51 kg of CO2e*

Releases 423 kg of CO2e*

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)			
Guadalajara, MX	15,590	4042.8	37.2			
California, USA	5,590	8505.8	24.1			
Zhuhai, CN	17,534	9156.9	30.5			
Total	38,714	21,706	92			

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

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

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

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

 CO2e is the normalized unit to measure greenhouse gas emissions that encompasses CO2 as well as other GHG gases
 Factors to convert Fuel sources to tons CO2e taken from: World Resources Institute (2015). GHG Protocol tool for stationary combustion. Version 4.1. 28

Natural Gas (m^3)	
0.2706	
0.5377	
0.1925	
1	

)2 ton CO2e`

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

SEMANART: Secretaría de Medio Ambiente y Recursos Naturales (México) **EPA:** Environmental Protection Agency (USA) EMA: Electricity Market Authority (SG) CFE: Comisión Federal de Electricidad (México) ENGIE: WW

E.G.

SEMARNAT EPA EMA

CFE ENGIE **HK Electric**

Electricity Factors

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

(二) 组织制以2023年侵数据应重控制计划

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《按算报告指南》要求编制。

2022年度全国电网平均排放云子为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 〔2021〕130号)和《企业温室气体排放核查技术机 进行文件评审,开展现场核查并线上填报核查信息。 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 成的核查结果数据汇总表、配额分配相关数据汇总表书面机

(六) 强化数据质量日常监管

照《企业温室气体排放报告核查指南(试行)》(环办气候函 6施》(环办气候函〔2022〕485号)要求,通过管理平台 2告,确保核查全过程电子化留痕,于每年6月30日前完成, 2工作。核查结束后,省级生态环境部门应将管理平台生 - 成部,抄送全国碳排放权注册登记机构。

aviso fesen 2024.pdf

FACTOR DE EMISIÓN DEL SISTEMA ELÉCTRICO NACIONAL 2024

A todos los Establecimientos Sujetos a Reporte, (ESR), Organismos de Certificación, Validación y Verificación de Gases de Efecto Invernadero, OC-VV-GEI, público en general.

Por este medio, se hace de su conocimiento que la Comisión Reguladora de Energía ha notificado a esta Secretaría que el factor de emisión del Sistema Eléctrico Nacional para el cálculo de las emisiones indirectas de gases de efecto invernadero por consumo de electricidad correspondiente al no 2024, es:

Dicho factor se deberá emplear para fines del reporte al Registro Nacional de Emisiones, tomando en cuenta que este factor considera la generación de las

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)

31

Ciudad de México, a 28 DE FEBRERO DE2025

AVISO

Electricity Factors

For California (US), Company A goes to the EPA Emissions factor hub where they find their location on the map and note the code (for the case of CA it is "CAMX"), then they go to the table, locate the corresponding factors in the CO2e column.

eGRID Subregion Total Output Emission Rates (lb/MWh)

Show 30 v entries						Search:		
eGRID Subregion 🔺	CO ₂	CH ₄	N ₂ O	CO ₂ e	Annual NO _X	Ozone S	eason NO _X	SO ₂
AKGD	899.003	0.086	0.012	904.475	5.550	б.	167	0.310
АКМЅ	519.445	0.026	0.004	521.358	13	7.	882	0.707
AZNM	740.810	0.041	0.006	743.428	J.379	0.	384	0.108
САМХ	436.655	0.025	0.003	438.203	0.338	0.	304	0.020
ERCT	738.038	0.043	0.006	740.821	0.446	0.	488	0.321
FRCC	801.891	0.042	0.005	804.477	0.248	0.	240	0.131
німѕ	1122.117	0.146	0.022	1132.028	7.557	7.	200	4.484
ΗΙΟΑ	1489.362	0.134	0.021	1498.76	3.908	3.	714	4.279
MROE	1402.005	0.116	0.017	1409.681	0.985	1.	022	0.278
MROW	920.022	0.097	0.014	926.443	0.711	0.	805	0.896
NEWE	537.243	0.063	0.008	541.131	0.290	0.	283	0.115
NWPP	631.705	0.054	0.008	635.237	0.568	0.	520	0.268
NVCW	07/ 656	0 025	500 Q	076 003	0 262	Q	256	0 007

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:

SCOPE 2 = (Annual electricity usage) * (Electricity Factor)

SCOPE $2_{MX} = (155,900 \, kWh) * \left(0.444 \, \frac{kg \, CO2e}{kWh}\right) = 69,220 \, kgCO2e$

SCOPE 2_{CA} = (55,900 kWh) *
$$\left(0.199 \frac{kg CO2e}{kWh}\right)$$
 = 11,124 kgCO2e

SCOPE
$$2_{ZUH} = (175,340 \, kWh) * \left(0.570 \, \frac{kg \, CO2e}{kWh}\right) = 99,944 \, kgCO2e$$

SCOPE $2_{Total} = 69,220 \ kgCO2e + 11,124 \ kgCO2e + 99,944 \ kgCO2e = 180,288 \ kgCO2e$

Converting to metric tons

$$180,288 \ kgCO2e \ * \ \frac{1 \ ton}{1,000 \ kg} = \mathbf{180.29} \ ton \ CO2e$$

*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

Last year Data								
Location	Electricity (kWh)	Electricity Factor (kgCO2e/kWh)						
adalajara, MX	155,900	0.444						
alifornia, USA	55,900	0.199						
Zhuhai, CN	175,340	0.570						
Total	387,140							

2021_Scope 2 Calculation Guidance.pdf

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

36

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					
Guadalajara, MX	15,590	37.2295	4042.82	0.2704					
California, USA	5,590	24	8505.82	0.5373					
Zhuhai, CN	17,534	30	9156.911	0.1922					
Total	38,714	92	21,706	1.0					

	Catego y	r Data to be reported 需要申报的数据	Type of Field 致据类型 ▼	Description 措述	01_JAN → 月	02_FEB	03_MAR ⊒∃	04_APR	05_MAY 五月	NUL_30	or Jul t	08_AUG	09_SEP J1.A	oct
		Natural Gas (M3) 天然气(M3)	[numerical] [数字]	Please provide your inputs in M* ; 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	0.08.	0.083	
	~	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	
	SCOPE 1	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	1,8
	urces (S	5 ⁵ Diesel (M3) 柴油(M3)	[numerical] [数字]	Please provide your inputs in M*; Please separate decimals with dots "." (Example: 10.00) 请输入M3数; 请用小数点"."分蹑小数(例如: 10.00)	7.67	7.67	7.67	7.67	7.67	7.67	7.67	7.67	7.67	
	t Energy so	≝ Ethanol (M³) □ 乙醇(M³)	[numerical] [数字]	Please provide your inputs in M* ; Please separate decimals with dots "." (Example: 10.00) 请翰入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	
	Direct	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	
		Fuel data source 燃料数据来源	Invoices发票		Invoices发票	Invoices发 栗	Invoices发 票	Invoices发 票	Invoices发 票	Invoices发 票	Invoices发 票	Invoices发 票	Invoices发 栗	Invoi 票
				Plasea provida uour inpute in KWh - Plasea	() () () () () () () () () ()	1	1		1			1		i

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 ▲廿二月	Annual Total 年度意额	Location in the CDP questionnaire CDP问卷中的位置	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	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
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	O	Please review the Energy	0	0.00	Ethanol (MWh) 乙醇 (MWh)
0	0.00	0	the table	0	0.00	Biodiesel (M₩h) 生物柴油(M₩h)
	voices发		请查看表格右侧的能源部分			Non Renewable Electricity
7	32,261.67	387,140.00			369.17	(MWh) 不可再生电力 (MWh)

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	Natural Gas (MWh)
请在左侧单元格中输入%	天然气(MWh)
Please enter the % on the left cell	LP Gas (MWh)
请在左侧单元格中输入%	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	Diesel (MWh)
请在左侧单元格中输入%	柴油(MWh)
Please enter the % on the left cell	Ethanol (MWh)
请在左侧单元格中输入%	乙醇 (MWh)
Please enter the % on the left cell	Biodiesel (MWh)
请在左侧单元格中输入%	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.

					Weighted Electricity factor 加权电力系数										
Lo	ast year Da	ta			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 /	Units 单位	%	Σ Weig Electri fact 加权电力		
Location	Electricit y (kWh)	Electricity Factor	Units		Americas	USandPuertoRico	ERCT (ERCOT AII)	55,900	N/A	energy) 774.3100	lbCO2e / MWh	14.44%	[gCO2e/ 50.7		
uadalajara, MX	15,590	0.4057	kgCO2e/kWh		Asia	PRofChina	PR Of China	175,340	N/A	0.5703	TonCO2e / MWh	45.29%	258.3		
California, USA	5,590	234.496	lbCO2e/MWh		Asia	Singapore	Energy Market Author	155,900	N/A	0.4168	kgCO2e / kWh	40.27%	167.8		
Zhuhai, CN	17,534	0.423	TonCO2e/MWh	F								0.00%			
Total	38,714											0.00%			
												0.00%			

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

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 vear Data

			Locatior	ı	Wei Elec Fo (gCO)	ghted stricity ictor 2e/kWl	E	lectric	ity (kW	'n)	
			Guadalajarc	a, MX				155	5,900		
			California, l	USA	37	0.33		55	,900		
			Zhuhai, C	N .				175	5,340		
			Total					387	,140		
Electricity 电力 (KWh)	[numerical] [数字]	Please provide your inpu separate decimals with do 请输入KWH数 请用小数点*.**分隔小数(ts in KWh ; Please bts "." (Example: 10.00) (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.E
Electricity factor (gCO2e / kWh) 电力因子(gCO2e / kWh)	[numerical] [数字]	Please input the factor in the The emission factors are coe certain gases that are release and for when electricity is ger per month, only per year 请输入单位为[g CO2e/KWh] 排放系数是燃料燃烧和发电时 它们每月不会夸化,仅每年变	units [g CO2e/K\#h] Ifficients for the amounts of ed when fuels are burned herated. They do not vary 的系数 释放的某些气体量的系数。 化	476.90							

ndirect sources (SCOPE 2)

Renewable & Non-Renewable Energy

Below the Electricity factor row, you can disclose:

- Renewable electricity purchased (kWh) ٠
- Electricity generated on-site from renewable sources (kWh)) ٠
- Partial PPA (kWh %) (note the percentage must be multiplied by the % of the electricity of the region this takes ٠ place to disclose correctly)

-			它们每月不会变化) 仪率年变化														
	Renewable electricity purchased (kWh) 购买的可再生电力	[numerical] 丁字]	Please provide your inputs in KWh Please separate decimals with dots "." (Example: 10.00) 请输入KWH数 请用小数点"."分蹑小数(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	0.00	
wable energry	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	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满耗量
Rene	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鲍源的百分比; 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

SC M范 公	OPE 1 - CO2 Emissions etric ton CO2e] 围1-CO2排放量 w吨CO2e]	Calculated 计算	=[NG-CD2 Emissions]+[LF_Gas-CD2 Emissions]+[Gasoline-CD2 Emissions]+[Diesel-CD2 Emissions]+[Ethanol-CD2 Emissions]+[Dio-Diesel-CD2 Emissions] =[天然气-CD2錄放]+[LF_Gas-CD2錄放]+[汽油- CD2錄放]+[柴油-CD2錄放物]+[乙醇- CD2錄放量]+[生物集油-CD2時錄放量]	24.80	24.80	24.80	24.80	24.80	24.80	24.80	24.80	24.80	24.80	24.80	24.80	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
sc M 范 公	OPE 2 - CO2 Emissions etric ton CO2e] 围2-CO2排放量 w吨CO2e]	Calculated 计算	=[Electricity [kWh]"Electricity Factor] = (用宅量(kWW 『宅力系数)	15.39	15.39	15.39	15.39	15.39	15.39	15.39	15.39	15.39	15.39	15.39	15.39	184.627	(C6.3) What were your organization's gros global Scope 2 emissions in metric tons CD2e? (C6.3)责组织的全球范围2排放总量是多 公吨CD2当量?
To CO 总	tal Scope 1 + Scope 2 De Emissions CO2排放量	Calculated 计算	= SCOPE 1 - CO2 Emissions]+ SCOPE 2 - CO2 Emissions] =随国 1-CO3缘故量]+ 范国 2-CO3缘故量]	40.19	40.19	40.19	40.19	40.19	40.19	40.19	40.19	40.19	40.19	40.19	40.19	482.231	(C6.10) 苑園一和菇園三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 I and your 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 allo 目标问题: SC1.1 向FLEX	cation To Fle 分配排放量	×
Data calculated from Env Temple	ate tab	Emissions allocation data		Location in CDP Questionnaire CDP问卷中的位置
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 CO₂e 排放量(公 吨 CO2e)
	Emissions Allosof	on 所公配的温安与体地协善Torget cotting	tool日标识:	

Notes 注释	
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章节廾头的卜拉列表中选择 "Flex,Ltd"	

Flex Excel GHG Emissions Target Tool

<u> </u>	<u> </u>	<u>_</u>	V	
		(C4.1) Did you have a (C4.1)	n emissions targ 在此报告年中・	jet that was active in the reporting year? 您是否有有效的排放目标?
Type targ	es of jets:	ABSOLUTE: Total quantity of greenhouse gas emissions emi 绝对目标: 温室气体排放总量	tted	Units example: Tons CO2e reduced 减少
耕目礼	示的类型 :	INTENSITY : Compares the emissions to some unit of econom 强度目标:排放量和某种经济产出进行对比	nic output	Units example: Tons CO2e 减 Revenue / product
	(Ma	Question ndatory questions are marked with an asterisk ")	Your ans w er	Notes 注释
		Scope(s) of your taget* 范围*	Scope 1范围—	
	Ε	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
	TARGE . 🛙	Is your base year the same year you reported in the "Env Tab" of this file?	Yes 是	
	DLUTE 絶対	Covered emissions in base year (Metric ton CO2e)* 所有选定范围中目标覆盖的基准年排放(公吨CO2e)*	297.96	If you answered "Yes" in the previous columns and filled the env template tab it will autopopulate.
	ABSC	Target year* 强度目标*	2025	Year in which you aim to achieve it, the date must be higher thar 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[輸入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
		Scope(s) of your taget* 范围*	Scope 2 范围二	
		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
provide		Is your base year the same year you reported in the "Env Tab" of this file?	Yes 是	
Data to		Intensity Metric [*] 强度指标*	Metric ton CO2e <i>1</i> Revenue in USD	Please write the units used; it is usually units of CO2e/revenue or another unit of business activity 请您写公吨CO2e/单位活动
	TARGET 宦目 标	Insert your businness 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	
	EN SITY 强度	Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activitu) *	N NN3293912	If you answered "Yes" in the previous columns and filled the env tempolate tab it will autopopulate. Otherwise divide the

		_								
?										
少	的二氧化碳当量排放吨数									
成少的 二氧化碳当量排放吨数 营业额/ 产品数量										
	Location in the CDP questionnaire CDP问卷中的位置									
_										
מ	(C4.1a) Provide details of your absolute emissions target(s) and progress made									
v	(C4.1a) 请提供您的绝对排放目标和针 对这些日标的进展的详虑。									
n										
a										
	(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).									
v	〈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。									

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

Absolute target (7.53.1 & 20.16.1):

- 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 (7.53.2 & 20.16.2):

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

*Flex asks you to at least have one GHG Emissions reduction target, it can be absolute or intensity.

Energy Calculations

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Energy Disclosure

SOURCING METHOD*

- Bundled and unbundled energy
- Tracking system

REGION

Country

*Only applicable for organizations that use market-based methodology

ENERGY CARRIER

- Electricity
- 🛎 Steam
- A Heat
- Cooling

ENERGY SOURCE

- A Non-Renewable
- Renewable
- Low Carbon

Required Documents for Energy Calculation

Procured Energy

Electricity, steam, heat and cooling

Energy bills

Metered lectures

 Verified lectures or used as a reference

RE Certificates

 Renewable electricity certificates to be declared in marketbased

Energy generation

Fuel bills

 Fuel for energy generation consumption

Fuel invoice

 Fuel for energy consumption and heating value

Metered lectures

 Generation, injection and consumption values

Energy Conversions

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)				
Guadalajara, MX	15,590	4042.8				
California, USA	5,590	8505.8				
Zhuhai, CN	17,534	9156.9				
Total	38,714	21,706				

Location	Electricity (MWh)	Gasoline (MWh)
Guadalajara, MX	15.59	36.81
California, USA	5.59	81.53
Zhuhai, CN	17.53	83.38
Total	38.71	201.72

All energy calculations were done with <u>CDP Technical Note on Fuel Conversion</u> 48

Diesel (m^3)	Natural Gas (m^3)
37.2	0.2706
24.1	0.5377
30.5	0.1925
92	1

Diesel (MWh)	Natural Gas (MWh)	
373.24	1.57	
254.51	3.27	
306.02	1.11	
933.77	5.95	

Renewable Energy Certificates Elements

ONLY GENERATORS WHO HAVE BEEN CERTIFIED ARE ABLE TO SELL ATTRIBUTES

Case Study 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
México	15,59	15	0,59
Total	38,71	32	6,71
	Location-based electricity		

FAQs and Resources

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Frequently Asked Questions

• Do we need to answer the 3 questionnaires?

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

Does the supplier need to pay to disclose their data in any of the GHG questionnaires?

If you are invited to answer in RBA or Flex's survey, there are no costs involved. If you are invited to CDP only by Flex or other customers, then there are no costs, but as it has been in previous years, you will only need to pay a fee if an investor request you to disclose.

What happens to PSP suppliers who don't have any emissions reduction target? If a supplier does not comply with the above requirement within 3 years after joining the PSP program, a disqualification process might be considered.

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.

However, if you have more granular information on your emissions (like site level data or product level data) CDP and RBA questionnaires offer this option, and we encourage you to do so.

Please note that it is recommended to access the questionnaires with Google Chrome Browser.

Further Useful Resources

Resources for Disclosure:

For all geographic regions, contact https://casemgmt-crm.cdp.net/

GHG Emissions Accounting and Science-Based Targets:

RBA EMT website:

GHG Protocol Corporate Standard

GHG Protocol Calculation Tools

FAQs- The Science Based Targets Initiative

RBA Sharefile → FAQs, Survey Guide and more

RBA's upcoming webinars

RBA information about EMT

Supply Chain Sustainability Programs Webpage

Flex has created an external webpage for suppliers to revisit emission and energy calculation trainings.

- Webinar recordings
- Emission and energy calculation tools
- Presentations

https://flex.com/solutions-and-services/supplychain/sustainability-programs

You will be able to find the following materials:

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

✓ Flex GPSC Sustainability (flex.gpsc@flex.com)

✓ Contact your GCM

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

Thank You

