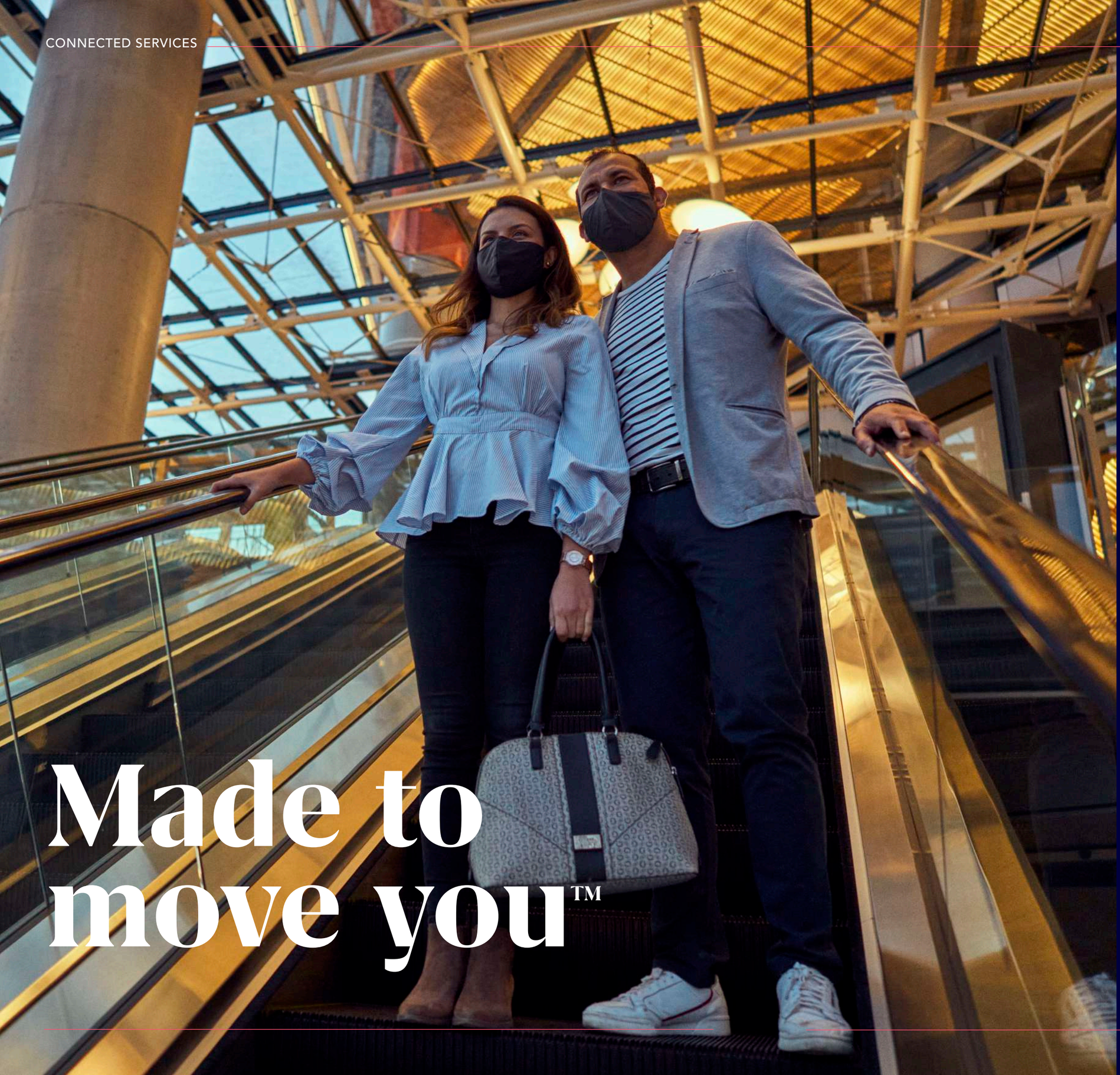
Environmental Product Declaration

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

LINK™ ESCALATOR
OTIS ELEVATOR COMPANY

Programme:	The International EPD® System - www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	S-P-10848
Publication date:	2023-12-08
Valid until:	2028-12-08
	An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com.
Revision number:	0.0
Geographical scope:	Global

OTIS



Made to move you™

About Otis

Otis gives people freedom to connect and thrive in a taller, faster, smarter world. The global leader in the manufacture, installation and servicing of elevators and escalators, we move 2 billion people a day and maintain approximately 2.2 million customer units worldwide – the industry's largest service portfolio. You'll find us in the world's most iconic structures, as well as residential and commercial buildings, transportation hubs and everywhere people are on the move.

Headquartered in Connecticut, USA, Otis is 69,000 people strong, including 41,000 field professionals, all committed to meeting the diverse needs of our customers and passengers in more than 200 countries and territories.

To learn more, visit otis.com and follow us on LinkedIn, Instagram, Facebook and Twitter @OtisElevatorCo

Factory information

Our factory has obtained certification of ISO14001 environmental management system, ISO45001 occupational health and safety management system, ISO9001 quality management system and ISO50001 energy management system. Currently ISO14064 carbon screening and PAS2060 (As far as we know, it will be replaced by ISO14068 in the near future) carbon neutral certification are also planned.

In June 2023, we have finished the phase two of photovoltaic system construction in OMC factory. As of now, 60% of the factory electricity consumption can be provided by the photovoltaic system. We are also strictly regulating recyclable and non-recyclable waste, water and greenhouse gas emissions. Smart water and electricity meters are installed, of which the operations are monitored through a digital energy management system. In addition, we have other energy-saving measures like smart switch lights, etc.

Our factory is currently undergoing ZWTL (Zero Waste To Landfill) certification, which is also an important project for the factory to achieve Environment、Society、Governance（ESG）goals. In this certification, we are doing projects such as implementing double-sided printing, encouraging the use of public office stationery, composting in the factory and growing vegetables, and the paperless workshop which can save ~750k sheets of paper every year. At the same time, we are also promoting the recycling of packaging materials, such as replacing wooden boxes with iron boxes.

Our factory will keep looking for energy-saving improvement opportunities to help achieve ESG goals and continue to create a safer working environment for employees.

General information

EPD Owner

Otis Elevator Manufacturing Co., Ltd.

No.7, Xin Er Road, Haining, Jiaxing City, Zhejiang Province

Programme Operator

EPD International AB

Box 210 60

SE-100 31 Stockholm Sweden

info@environdec.com

Product Category Rules (PCR)

CEN standard EN 15804 serves as the Core Product Category Rules (PCR)

Product Category Rules (PCR): <Escalators and moving walks, c-PCR-025 (2023-06-12), UN CPC 4354 Lifts, skip hoists, escalators and moving walkways >

PCR review was conducted by: < Hüdai Kara, reviewed by the Technical Committee of the International EPD® System. A full list of members is available at www.environdec.com. The review panel may be contacted via info@environdec.com. >

Life Cycle Assessment (LCA)

LCA accountability: <Jean Yang, Eric Ma, SGS-CSTC Standards Technical Services Co., Ltd.>

Third-party verification

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:

■ EPD verification by individual verifier

Third-party verifier: <Bill Kung, Ecovane Environmental>

Approved by: The International EPD® System

Procedure for follow-up of data during EPD validity involves third party verifier:

☐ Yes ■ No

[Procedure for follow-up the validity of the EPD is at minimum required once a year with the aim of confirming whether the information in the EPD remains valid or if the EPD needs to be updated during its validity period. The follow-up can be organized entirely by the EPD owner or together with the original verifier via an agreement between the two parties. In both approaches, the EPD owner is responsible for the procedure being carried out. If a change that requires an update is identified, the EPD shall be re-verified by a verifier]

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.

Noted that it is not encouraged to use the results from modules A1-A3 solely without considering the results of module B and C as escalator is a product which comsume large quantity of energy and have significant impact in the end of life stage. The data collected from Tier 1 suppliers are selectively reviewed to the best of our knowledge, which may have chance to be improved in the future EPD work.

Product information

Product name:
OTIS LINK ESCALATOR
Product identification:
The escalators are compliant with required Codes and Standards

Otis industry-leading Link escalators are reliable, safe and stylish. Custom-made solutions complement any unique environment, whether that's welcoming patrons into a luxury fashion store or busy travelers to a streamlined airport. And with easy maintenance and maximum uptime, Link keeps moving people in ways that guide and delight.
We focus on delivering a more sustainable experience. We have applied innovative thinking every step of the way – from design and manufacturing to installation and throughout the product lifecycle: energy efficient with sleep mode and Otis ReGen™ drive, efficient smart lubrification system, use of recyclable materials for Link manufacturing and exposed finishes made of extremely durable stainless steel or non-toxic powder coating for carbon steel.

UN CPC code: 4354

Geographical scope:

OTIS LINK ESCALATOR is manufactured in China and to be distributed and used globally.

The following tables depict the technical specifications for the considered LINK escalator and other additional specifications. The figures correspond to a typical configuration, being the representative unit of the complete range of the LINK escalator:

Characteristic	Range	Representative Values
Type of installation	Escalator	
Type of configuration	new generic installation without modernization	
Commercial name	Link	
Recommended application (main market)	Commercial	
Geographic region of intended installation	Global	
Optional equipment	/	
Designed Reference Service Life (RSL)	20 years	
Applied Usage Class (UC)	1,2,3,4	2
Nominal speed	0.5 m/s	
Number of operating days per year	365	
Operation mode	Auto start, Slow-speed, Continuous	Auto start
Angle of inclination, α	30°/35°	30°
Vertical rise	up to 13m	
Step width	600/800/1000	1000 mm

LCA information

FUNCTIONAL UNIT / DECLARED UNIT:

According to C-PCR-025 (TO PCR 2019:14) for ESCALATORS AND MOVING WALKS , the FU is defined as the transportation of one passenger over one kilometre, i.e., passenger-kilometre [pkm] over an inclined (or horizontal) trajectory. Declared unit is one single unit of OTIS Link escalator.

REFERENCE SERVICE LIFE:

20 years

TIME REPRESENTATIVENESS:

January to December 2022

DATABASE(S) AND LCA SOFTWARE USED:

In the study, SimaPro 9.5 software were used to establish the model for the life cycle of products and calculate LCA results, datasets from the Ecoinvent 3.9 were used.

DESCRIPTION OF SYSTEM BOUNDARIES:

The system boundary covers cradle to grave and module D (A + B + C + D). in accordance with PCR.

SYSTEM DIAGRAM:

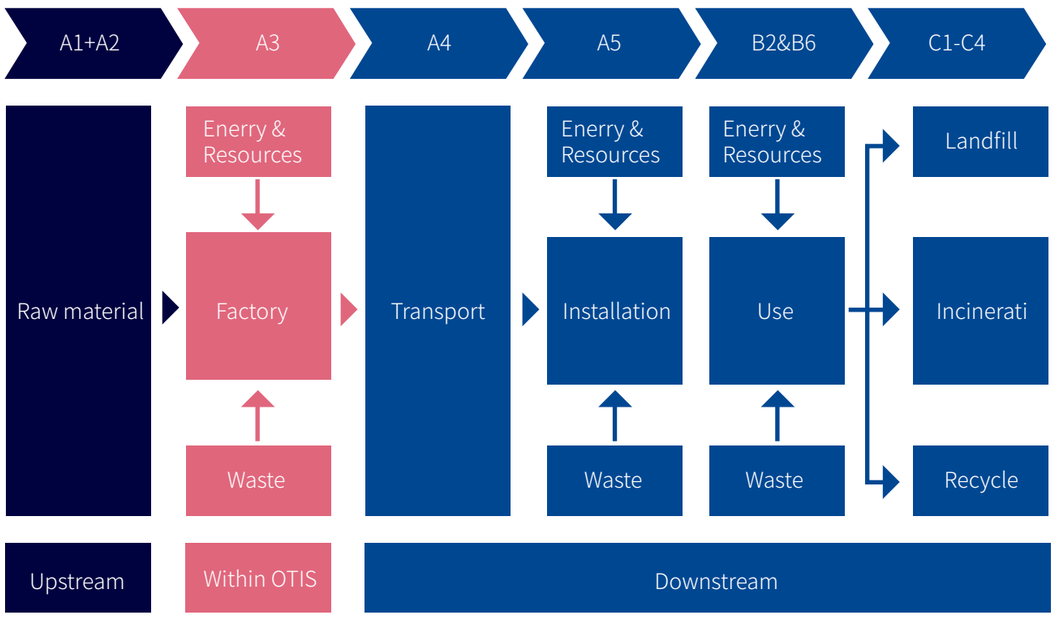


Table 8. Energy Efficiency Class of the Link escalator according to ISO 25745-3 standard
* The results of the energy calculation are based on the typical energy consumption of a Link Escalator.

Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

		Module	Modules declared	Geography	Specific data used	Variation – products	Variation – sites
Product stage	Raw material supply	**A1**	√	CN	>90%	/	/
	Transport	**A2**	√	CN	>90%	/	/
	Manufacturing	**A3**	√	CN	>90%	/	/
Construction process stage	Transport	**A4**	√	GLO	>90%	-	-
	Construction installation	**A5**	√	GLO	>90%	-	-
Use stage	Use	**B1**	×	GLO	-	-	-
	Maintenance	**B2**	√	GLO	-	-	-
	Repair	**B3**	×	GLO	-	-	-
	Replacement	**B4**	×	GLO	-	-	-
	Refurbishment	**B5**	×	GLO	-	-	-
	Operational energy use	**B6**	√	GLO	-	-	-
	Operational water use	**B7**	×	GLO	-	-	-
End of life stage	De-construction demolition	**C1**	√	GLO	-	-	-
	Transport	**C2**	√	GLO	-	-	-
	Waste processing	**C3**	√	GLO	-	-	-
	Disposal	**C4**	√	GLO	-	-	-
Resource recovery stage	Reuse-Recovery-Recycling-potential	**D**	√	GLO	-	-	-

As Link is sold globally, in order to better understand the differences in the final potential environmental impact of different sales regions, in this report, four distribution scenarios were assumed: distribution to China, Europe, the United States and Singapore. For each region, different modes of transport and distances are assumed for the transportation of products, and dataset from different countries were used to calculate potential environmental impact of escalator operation. In order to control variables to clearly contrast the potential environmental impact of different sales scenarios, the assumptions for the remaining downstream stages are the same for all four scenarios, except for downstream distribution and transportation.

ALLOCATION RULES

The energy and resources usage per unit of the product in the production stage of the product is calculated by dividing the annual energy or resource consumption by the total output of the company's product, that is, the physical allocation method is used for allocation.

In addition, the default distribution rule for the environmental impacts and benefits of reuse, recovery and/or recycling is based on the polluter pays principle (PPP), which means that the recovery or reuse beneficiary bears the environmental impacts and benefits associated with the recovery or reuse treatment, and the original product manufacturer does not have to bear this part of the impact burden. It also does not participate in the sharing of benefits (environmental impact of the production of the same product avoided by recycling and reuse).

CUT-OFF CRITERIA

According to EN 15804 and C-PCR-025 (TO PCR 2019:14) for ESCALATORS AND MOVING WALKS, the following flows and operations are cut-offed:

Production, use and disposal of the packaging of components and semi-finished intermediates.

Material and energy flows related to dismantling phase which is performed by adopting manual tools (e.g. screwdrivers, hammers, etc.).

RELEVANT ASSUMPTIONS

The following assumptions are used in this assessment:

Distance of transportation is assumed using online map, transport inland is assumed via 32-ton truck. It is assumed that same amount of energy and resource were used and waste were produced to manufacture, install and disassemble each unit of escalator.

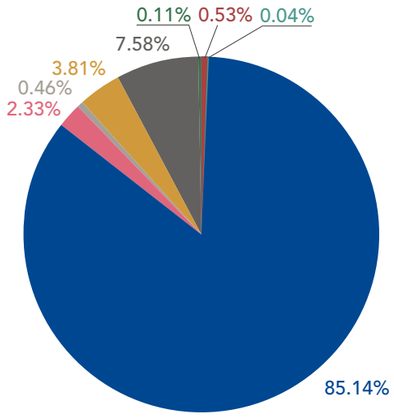
The product is expected to be used globally, expected energy consumption of the escalator is calculated according to Annex A of ISO 25745-3.

End of life treatment method and ratio is assumed in acordance with expertise judgement from OTIS and IEC TR 62635-2012.

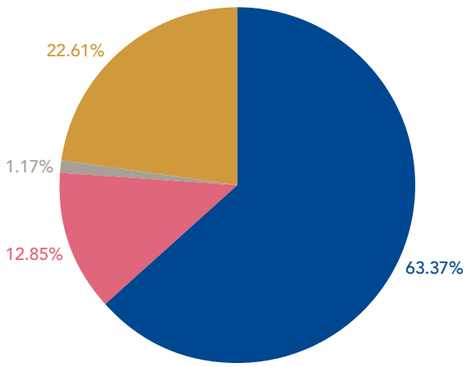
5% of raw material loss was considered in accordance with PCR.

It is assumed in accordance with IEC TR 62635-2012, a recycling rate of 90% for escalators. Which means 90% of escalators were sorted and potentially recycled while the rest 10% were disposed as whole directly. After all the waste materials has been separated and sorted, steel and copper are recycled at a rate of 95% in accordance with IEC TR 62635-2012, others were not recycled but either landfilled or incinerated.

Content information



Product components	Weight (kg)	Weight (%)	Biogenic carbon
Ferrous metals (zinc coated steel, stainless steel, cast iron)	5208.41	85.14	/
Non-ferrous metals (aluminium)	142.45	2.33	/
Non-ferrous metals (copper)	27.93	0.46	/
Plastics & rubbers	232.83	3.81	/
Inorganic materials (glass)	463.90	7.58	/
Organic materials (paper)	6.72	0.11	0.45 kg C/kg
Lubricants and paintings	32.6	0.53	/
Electric & Electronic Equipment(PCBs)	2.34	0.04	/
TOTAL	6117.18	100	/



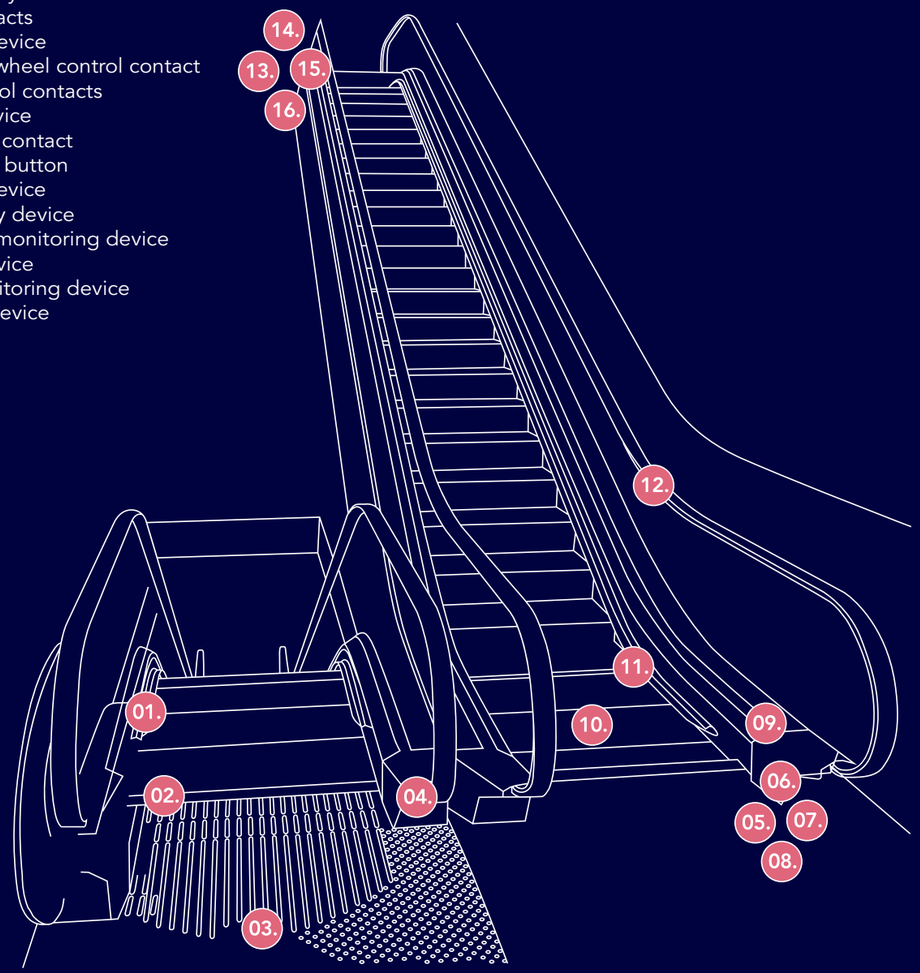
Packaging materials	Weight (kg)	Weight (%)	Biogenic carbon
Wood	146.30	63.37	0.50 kg C/kg
Plastic	29.67	12.85	/
Paper	2.70	1.17	0.45 kg C/kg
Ferrous metals	52.20	22.61	/
TOTAL	230.87	100	/

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
NA	/	/	/

Otis, we believe that when it comes to safety, just meeting code is not enough. That's why we deliver a wide range of superior safety features to avoid entrapment, freewheeling and other safety risks. See all of our standard and premium safety features at otis.com or talk to your sales representative.

LINK ESCALATOR MAIN FEATURES

01. Anti-static brush for step
02. Comb plate safety device
03. Floor plate contacts
04. Handrail entry device
05. Chain and step wheel control contact
06. Step chain control contacts
07. Missing step device
08. Handrail broken contact
09. Emergency stop button
10. Upthrust track device
11. Skirt panel safety device
12. Handrail speed monitoring device
13. Non-reversal device
14. Overspeed monitoring device
15. Motor thermal device
16. Auxiliary brake



Results of the environmental performance indicators

Scenario 1 China

MANDATORY IMPACT CATEGORY INDICATORS ACCORDING TO EN 15804

RESULTS PER FUNCTIONAL UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-fossil	kg CO_2 eq.	4.41E-02	4.68E-03	3.71E-04	3.10E-03	3.58E-01	1.36E-05	1.41E-03	6.79E-04	1.24E-03	-2.30E-02
GWP-biogenic	kg CO_2 eq.	-5.58E-04	1.38E-06	5.93E-04	3.35E-06	6.28E-05	2.37E-09	4.61E-07	1.82E-06	2.50E-05	-1.11E-05
GWP-luluc	kg CO_2 eq.	4.16E-05	2.26E-06	7.07E-08	1.89E-06	1.41E-04	5.34E-09	6.71E-07	1.36E-06	3.92E-08	-1.28E-05
GWP-total	kg CO_2 eq.	4.36E-02	4.69E-03	9.64E-04	3.10E-03	3.59E-01	1.36E-05	1.41E-03	6.82E-04	1.27E-03	-2.30E-02
ODP	kg CFC 11 eq.	8.14E-10	7.18E-11	3.65E-12	4.84E-11	7.28E-10	2.75E-14	3.12E-11	4.74E-12	2.09E-12	-8.02E-10
AP	mol H^+ eq.	2.57E-04	1.66E-05	1.66E-06	1.06E-05	1.91E-03	7.22E-08	3.41E-06	3.67E-06	5.00E-07	-1.29E-04
EP-freshwater	kg P eq.	2.14E-06	4.30E-08	2.22E-09	6.86E-08	7.70E-06	2.91E-10	1.15E-08	3.41E-08	6.87E-10	-9.20E-07
EP-marine	kg N eq.	4.31E-05	5.45E-06	6.87E-07	2.04E-06	3.80E-04	1.44E-08	9.09E-07	6.12E-07	2.17E-07	-2.09E-05
EP-terrestrial	mol N eq.	4.83E-04	5.85E-05	7.45E-06	2.18E-05	4.19E-03	1.58E-07	9.53E-06	7.27E-06	2.27E-06	-2.41E-04
POCP	kg NMVOC eq.	1.88E-04	2.36E-05	2.38E-06	1.80E-05	1.11E-03	4.20E-08	5.56E-06	2.05E-06	6.75E-07	-9.78E-05
ADP-minerals&metals*	kg Sb eq.	1.46E-06	1.24E-08	4.24E-10	1.76E-08	1.41E-06	5.35E-11	3.85E-09	6.12E-09	1.04E-10	-4.02E-07
ADP-fossil*	MJ	4.71E-01	6.68E-02	3.17E-03	5.61E-02	3.37E+00	1.28E-04	2.09E-02	8.48E-03	9.17E-04	-1.98E-01
WDP*	m^3	8.92E-03	3.41E-04	1.64E-05	6.59E-04	4.01E-02	1.51E-06	9.98E-05	1.17E-04	6.96E-05	-2.10E-03
GWP-GHG	kg CO_2 eq.	4.42E-02	4.69E-03	3.71E-04	3.10E-03	3.59E-01	1.36E-05	1.41E-03	6.82E-04	1.24E-03	-2.30E-02
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption										

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

RESOURCE USE INDICATORS

RESULTS PER FUNCTIONAL UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	4.90E-02	8.45E-04	6.76E-05	2.35E-03	4.05E-01	1.53E-05	3.06E-04	1.14E-03	1.78E-05	-7.95E-03
PERM	MJ	5.99E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	5.50E-02	8.45E-04	6.76E-05	2.35E-03	4.05E-01	1.53E-05	3.06E-04	1.14E-03	1.78E-05	-7.95E-03
PENRE	MJ	4.49E-01	6.68E-02	3.17E-03	4.36E-02	3.37E+00	1.28E-04	2.09E-02	8.48E-03	9.17E-04	-1.98E-01
PENRM	MJ	2.09E-02	0.00E+00	0.00E+00	1.25E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	4.70E-01	6.68E-02	3.17E-03	5.61E-02	3.37E+00	1.28E-04	2.09E-02	8.48E-03	9.17E-04	-1.98E-01
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	2.74E-04	1.05E-05	5.67E-07	1.88E-05	9.72E-04	3.68E-08	3.28E-06	4.68E-06	2.11E-06	-6.71E-05
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water										

WASTE INDICATORS

RESULTS PER FUNCTIONAL UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	3.31E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.11E-04	0.00E+00
Non-hazardous waste disposed	kg	0.00E+00	0.00E+00	5.02E-04	1.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.72E-03	0.00E+00
Radioactive waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

OUTPUT FLOW INDICATORS

RESULTS PER FUNCTIONAL UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-02
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Scenario 2 Europe

MANDATORY IMPACT CATEGORY INDICATORS ACCORDING TO EN 15804

RESULTS PER FUNCTIONAL UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
GWP-fossil	kg CO_2 eq.	4.41E-02	4.70E-03	3.53E-04	3.06E-03	1.28E-01	4.84E-06	1.41E-03	6.79E-04	1.24E-03	-2.30E-02
GWP-biogenic	kg CO_2 eq.	-5.58E-04	1.11E-06	5.93E-04	3.45E-06	7.07E-04	2.67E-08	4.61E-07	1.82E-06	2.50E-05	-1.11E-05
GWP-luluc	kg CO_2 eq.	4.16E-05	3.12E-06	8.42E-08	1.92E-06	3.15E-04	1.19E-08	6.71E-07	1.36E-06	3.92E-08	-1.28E-05
GWP-total	kg CO_2 eq.	4.36E-02	4.71E-03	9.46E-04	3.07E-03	1.29E-01	4.88E-06	1.41E-03	6.82E-04	1.27E-03	-2.30E-02
ODP	kg CFC 11 eq.	8.14E-10	7.27E-11	3.78E-12	4.86E-11	2.41E-09	9.09E-14	3.12E-11	4.74E-12	2.09E-12	-8.02E-10
AP	mol H^+ eq.	2.57E-04	9.17E-05	1.56E-06	1.04E-05	7.24E-04	2.74E-08	3.41E-06	3.67E-06	5.00E-07	-1.29E-04
EP-freshwater	kg P eq.	2.14E-06	2.79E-08	2.60E-09	6.94E-08	1.25E-05	4.71E-10	1.15E-08	3.41E-08	6.87E-10	-9.20E-07
EP-marine	kg N eq.	4.31E-05	2.30E-05	6.64E-07	1.99E-06	9.08E-05	3.43E-09	9.09E-07	6.12E-07	2.17E-07	-2.09E-05
EP-terrestrial	mol N eq.	4.83E-04	2.54E-04	7.20E-06	2.13E-05	1.06E-03	4.00E-08	9.53E-06	7.27E-06	2.27E-06	-2.41E-04
POCP	kg NMVOC eq.	1.88E-04	7.18E-05	2.32E-06	1.79E-05	3.40E-04	1.29E-08	5.56E-06	2.05E-06	6.75E-07	-9.78E-05
ADP-minerals&metals*	kg Sb eq.	1.46E-06	7.56E-09	4.33E-10	1.76E-08	1.53E-06	5.78E-11	3.85E-09	6.12E-09	1.04E-10	-4.02E-07
ADP-fossil*	MJ	4.71E-01	6.13E-02	3.13E-03	5.60E-02	2.87E+00	1.09E-04	2.09E-02	8.48E-03	9.17E-04	-1.98E-01
WDP*	m^3	8.92E-03	2.10E-04	1.58E-05	6.58E-04	3.23E-02	1.22E-06	9.98E-05	1.17E-04	6.96E-05	-2.10E-03
GWP-GHG	kg CO_2 eq.	4.42E-02	4.71E-03	3.53E-04	3.07E-03	1.29E-01	4.88E-06	1.41E-03	6.82E-04	1.24E-03	-2.30E-02
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption										

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

RESOURCE USE INDICATORS

RESULTS PER FUNCTIONAL UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
PERE	MJ	4.90E-02	5.76E-04	8.62E-05	2.39E-03	6.43E-01	2.43E-05	3.06E-04	1.14E-03	1.78E-05	-7.95E-03
PERM	MJ	5.99E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	5.50E-02	5.76E-04	8.62E-05	2.39E-03	6.43E-01	2.43E-05	3.06E-04	1.14E-03	1.78E-05	-7.95E-03
PENRE	MJ	4.49E-01	6.13E-02	3.13E-03	4.35E-02	2.87E+00	1.08E-04	2.09E-02	8.48E-03	9.17E-04	-1.98E-01
PENRM	MJ	2.09E-02	0.00E+00	0.00E+00	1.25E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	4.70E-01	6.13E-02	3.13E-03	5.60E-02	2.87E+00	1.08E-04	2.09E-02	8.48E-03	9.17E-04	-1.98E-01
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	2.74E-04	6.94E-06	6.73E-07	1.90E-05	2.32E-03	8.78E-08	3.28E-06	4.68E-06	2.11E-06	-6.71E-05
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water										

WASTE INDICATORS

RESULTS PER FUNCTIONAL UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	3.31E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.11E-04	0.00E+00
Non-hazardous waste disposed	kg	0.00E+00	0.00E+00	5.02E-04	1.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.72E-03	0.00E+00
Radioactive waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

OUTPUT FLOW INDICATORS

RESULTS PER FUNCTIONAL UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-02
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Scenario 3 Singapore

MANDATORY IMPACT CATEGORY INDICATORS ACCORDING TO EN 15804

RESULTS PER FUNCTIONAL UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-fossil	kg CO_2 eq.	4.41E-02	2.33E-03	3.58E-04	3.07E-03	1.84E-01	6.97E-06	1.41E-03	6.79E-04	1.24E-03	-2.30E-02
GWP-biogenic	kg CO_2 eq.	-5.58E-04	6.46E-07	5.93E-04	3.35E-06	2.28E-05	8.62E-10	4.61E-07	1.82E-06	2.50E-05	-1.11E-05
GWP-luluc	kg CO_2 eq.	4.16E-05	1.32E-06	6.07E-08	1.87E-06	1.36E-05	5.15E-10	6.71E-07	1.36E-06	3.92E-08	-1.28E-05
GWP-total	kg CO_2 eq.	4.36E-02	2.33E-03	9.51E-04	3.08E-03	1.84E-01	6.97E-06	1.41E-03	6.82E-04	1.27E-03	-2.30E-02
ODP	kg CFC 11 eq.	8.14E-10	3.74E-11	3.95E-12	4.90E-11	4.56E-09	1.72E-13	3.12E-11	4.74E-12	2.09E-12	-8.02E-10
AP	mol H^+ eq.	2.57E-04	2.21E-05	1.53E-06	1.03E-05	2.94E-04	1.11E-08	3.41E-06	3.67E-06	5.00E-07	-1.29E-04
EP-freshwater	kg P eq.	2.14E-06	1.87E-08	1.70E-09	6.76E-08	9.56E-07	3.61E-11	1.15E-08	3.41E-08	6.87E-10	-9.20E-07
EP-marine	kg N eq.	4.31E-05	5.62E-06	6.62E-07	1.99E-06	5.65E-05	2.14E-09	9.09E-07	6.12E-07	2.17E-07	-2.09E-05
EP-terrestrial	mol N eq.	4.83E-04	6.16E-05	7.17E-06	2.12E-05	6.37E-04	2.41E-08	9.53E-06	7.27E-06	2.27E-06	-2.41E-04
POCP	kg NMVOC eq.	1.88E-04	1.99E-05	2.33E-06	1.79E-05	4.09E-04	1.55E-08	5.56E-06	2.05E-06	6.75E-07	-9.78E-05
ADP-minerals&metals*	kg Sb eq.	1.46E-06	5.31E-09	4.20E-10	1.76E-08	1.36E-06	5.13E-11	3.85E-09	6.12E-09	1.04E-10	-4.02E-07
ADP-fossil*	MJ	4.71E-01	3.27E-02	3.13E-03	5.60E-02	2.80E+00	1.06E-04	2.09E-02	8.48E-03	9.17E-04	-1.98E-01
WDP*	m^3	8.92E-03	1.46E-04	1.39E-05	6.54E-04	8.10E-03	3.06E-07	9.98E-05	1.17E-04	6.96E-05	-2.10E-03
GWP-GHG	kg CO_2 eq.	4.42E-02	2.33E-03	3.58E-04	3.08E-03	1.84E-01	6.97E-06	1.41E-03	6.82E-04	1.24E-03	-2.30E-02
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption										

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

RESOURCE USE INDICATORS

RESULTS PER FUNCTIONAL UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	5.16E-02	3.74E-04	4.17E-05	2.46E-03	6.13E-02	2.32E-06	3.06E-04	1.14E-03	2.00E-05	-8.08E-03
PERM	MJ	5.99E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	5.76E-02	3.74E-04	4.17E-05	2.46E-03	6.13E-02	2.32E-06	3.06E-04	1.14E-03	2.00E-05	-8.08E-03
PENRE	MJ	4.57E-01	3.27E-02	3.15E-03	4.44E-02	2.80E+00	1.06E-04	2.09E-02	8.48E-03	9.53E-04	-1.98E-01
PENRM	MJ	2.09E-02	0.00E+00	0.00E+00	1.25E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	4.78E-01	3.27E-02	3.15E-03	5.69E-02	2.80E+00	1.06E-04	2.09E-02	8.48E-03	9.53E-04	-1.98E-01
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	2.82E-04	4.64E-06	5.35E-07	1.94E-05	3.49E-04	1.32E-08	3.28E-06	4.68E-06	2.14E-06	-6.75E-05
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water										

WASTE INDICATORS

RESULTS PER FUNCTIONAL UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	3.31E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.11E-04	0.00E+00
Non-hazardous waste disposed	kg	0.00E+00	0.00E+00	5.02E-04	1.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.72E-03	0.00E+00
Radioactive waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

OUTPUT FLOW INDICATORS

RESULTS PER FUNCTIONAL UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-02
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Scenario 4 US

MANDATORY IMPACT CATEGORY INDICATORS ACCORDING TO EN 15804

RESULTS PER FUNCTIONAL UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
GWP-fossil	kg CO_2 eq.	4.41E-02	4.76E-03	3.57E-04	3.07E-03	1.75E-01	6.61E-06	1.41E-03	6.79E-04	1.24E-03	-2.30E-02
GWP-biogenic	kg CO_2 eq.	-5.58E-04	1.12E-06	5.93E-04	3.37E-06	1.60E-04	6.04E-09	4.61E-07	1.82E-06	2.50E-05	-1.11E-05
GWP-luluc	kg CO_2 eq.	4.16E-05	3.16E-06	6.68E-08	1.88E-06	9.16E-05	3.46E-09	6.71E-07	1.36E-06	3.92E-08	-1.28E-05
GWP-total	kg CO_2 eq.	4.36E-02	4.76E-03	9.50E-04	3.08E-03	1.75E-01	6.62E-06	1.41E-03	6.82E-04	1.27E-03	-2.30E-02
ODP	kg CFC 11 eq.	8.14E-10	7.35E-11	3.66E-12	4.84E-11	7.74E-10	2.93E-14	3.12E-11	4.74E-12	2.09E-12	-8.02E-10
AP	mol H^+ eq.	2.57E-04	9.33E-05	1.55E-06	1.04E-05	5.71E-04	2.16E-08	3.41E-06	3.67E-06	5.00E-07	-1.29E-04
EP-freshwater	kg P eq.	2.14E-06	2.81E-08	2.55E-09	6.93E-08	1.18E-05	4.48E-10	1.15E-08	3.41E-08	6.87E-10	-9.20E-07
EP-marine	kg N eq.	4.31E-05	2.34E-05	6.64E-07	1.99E-06	7.97E-05	3.01E-09	9.09E-07	6.12E-07	2.17E-07	-2.09E-05
EP-terrestrial	mol N eq.	4.83E-04	2.58E-04	7.19E-06	2.13E-05	9.27E-04	3.50E-08	9.53E-06	7.27E-06	2.27E-06	-2.41E-04
POCP	kg NMVOC eq.	1.88E-04	7.30E-05	2.32E-06	1.79E-05	3.62E-04	1.37E-08	5.56E-06	2.05E-06	6.75E-07	-9.78E-05
ADP-minerals&metals*	kg Sb eq.	1.46E-06	7.61E-09	4.24E-10	1.76E-08	1.42E-06	5.36E-11	3.85E-09	6.12E-09	1.04E-10	-4.02E-07
ADP-fossil*	MJ	4.71E-01	6.19E-02	3.15E-03	5.60E-02	3.10E+00	1.17E-04	2.09E-02	8.48E-03	9.17E-04	-1.98E-01
WDP*	m^3	8.92E-03	2.12E-04	1.62E-05	6.59E-04	3.76E-02	1.42E-06	9.98E-05	1.17E-04	6.96E-05	-2.10E-03
GWP-GHG	kg CO_2 eq.	4.42E-02	4.76E-03	3.57E-04	3.08E-03	1.75E-01	6.62E-06	1.41E-03	6.82E-04	1.24E-03	-2.30E-02
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption										

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

RESOURCE USE INDICATORS

RESULTS PER FUNCTIONAL UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
PERE	MJ	5.16E-02	5.81E-04	6.61E-05	2.51E-03	3.73E-01	1.41E-05	3.06E-04	1.14E-03	2.00E-05	-8.08E-03
PERM	MJ	5.99E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	5.76E-02	5.81E-04	6.61E-05	2.51E-03	3.73E-01	1.41E-05	3.06E-04	1.14E-03	2.00E-05	-8.08E-03
PENRE	MJ	4.57E-01	6.19E-02	3.17E-03	4.45E-02	3.10E+00	1.17E-04	2.09E-02	8.48E-03	9.53E-04	-1.98E-01
PENRM	MJ	2.09E-02	0.00E+00	0.00E+00	1.25E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	4.78E-01	6.19E-02	3.17E-03	5.70E-02	3.10E+00	1.17E-04	2.09E-02	8.48E-03	9.53E-04	-1.98E-01
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	2.82E-04	7.00E-06	5.98E-07	1.95E-05	1.16E-03	4.39E-08	3.28E-06	4.68E-06	2.14E-06	-6.75E-05
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water										

WASTE INDICATORS

RESULTS PER FUNCTIONAL UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	3.31E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.11E-04	0.00E+00
Non-hazardous waste disposed	kg	0.00E+00	0.00E+00	5.02E-04	1.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.72E-03	0.00E+00
Radioactive waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

OUTPUT FLOW INDICATORS

RESULTS PER FUNCTIONAL UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-02
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Additional environmental information

To demonstrate the full life cycle potential environmental impact of each escalator, LCIA results per declared unit are shown in table below in this section.

Scenario 1 China

IMPACT CATEGORY INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-fossil	kg CO_2 eq.	2.03E+04	2.15E+03	1.71E+02	1.43E+03	1.65E+05	6.23E+00	6.48E+02	3.12E+02	5.71E+02	-1.06E+04
GWP-biogenic	kg CO_2 eq.	-2.57E+02	6.34E-01	2.73E+02	1.54E+00	2.89E+01	1.09E-03	2.12E-01	8.36E-01	1.15E+01	-5.09E+00
GWP-luluc	kg CO_2 eq.	1.91E+01	1.04E+00	3.25E-02	8.68E-01	6.50E+01	2.46E-03	3.09E-01	6.24E-01	1.80E-02	-5.90E+00
GWP-total	kg CO_2 eq.	2.01E+04	2.16E+03	4.43E+02	1.43E+03	1.65E+05	6.24E+00	6.49E+02	3.14E+02	5.82E+02	-1.06E+04
ODP	kg CFC 11 eq.	3.74E-04	3.30E-05	1.68E-06	2.22E-05	3.35E-04	1.27E-08	1.44E-05	2.18E-06	9.60E-07	-3.69E-04
AP	mol H^+ eq.	1.18E+02	7.63E+00	7.62E-01	4.87E+00	8.78E+02	3.32E-02	1.57E+00	1.69E+00	2.30E-01	-5.95E+01
EP-freshwater	kg P eq.	9.82E-01	1.98E-02	1.02E-03	3.16E-02	3.54E+00	1.34E-04	5.31E-03	1.57E-02	3.16E-04	-4.23E-01
EP-marine	kg N eq.	1.98E+01	2.51E+00	3.16E-01	9.38E-01	1.75E+02	6.60E-03	4.18E-01	2.82E-01	9.96E-02	-9.60E+00
EP-terrestrial	mol N eq.	2.22E+02	2.69E+01	3.42E+00	1.00E+01	1.93E+03	7.28E-02	4.38E+00	3.34E+00	1.04E+00	-1.11E+02
POCP	kg NMVOC eq.	8.63E+01	1.08E+01	1.10E+00	8.29E+00	5.10E+02	1.93E-02	2.56E+00	9.43E-01	3.10E-01	-4.50E+01
ADP-minerals&metals*	kg Sb eq.	6.71E-01	5.70E-03	1.95E-04	8.09E-03	6.51E-01	2.46E-05	1.77E-03	2.81E-03	4.76E-05	-1.85E-01
ADP-fossil*	MJ	2.17E+05	3.07E+04	1.46E+03	2.58E+04	1.55E+06	5.86E+01	9.61E+03	3.90E+03	4.22E+02	-9.10E+04
WDP*	m^3	4.10E+03	1.57E+02	7.56E+00	3.03E+02	1.84E+04	6.97E-01	4.59E+01	5.39E+01	3.20E+01	-9.66E+02
GWP-GHG	kg CO_2 eq.	2.03E+04	2.16E+03	1.71E+02	1.43E+03	1.65E+05	6.24E+00	6.49E+02	3.14E+02	5.71E+02	-1.06E+04
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption										

RESOURCE USE INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	2.25E+04	3.88E+02	3.11E+01	1.08E+03	1.86E+05	7.04E+00	1.41E+02	5.22E+02	8.17E+00	-3.66E+03
PERM	MJ	2.76E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	2.53E+04	3.88E+02	3.11E+01	1.08E+03	1.86E+05	7.04E+00	1.41E+02	5.22E+02	8.17E+00	-3.66E+03
PENRE	MJ	2.06E+05	3.07E+04	1.46E+03	2.00E+04	1.55E+06	5.86E+01	9.61E+03	3.90E+03	4.22E+02	-9.10E+04
PENRM	MJ	9.63E+03	0.00E+00	0.00E+00	5.74E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	2.16E+05	3.07E+04	1.46E+03	2.58E+04	1.55E+06	5.86E+01	9.61E+03	3.90E+03	4.22E+02	-9.10E+04
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	1.26E+02	4.82E+00	2.61E-01	8.65E+00	4.47E+02	1.69E-02	1.51E+00	2.15E+00	9.71E-01	-3.08E+01
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water										

WASTE INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	1.52E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.35E+02	0.00E+00
Non-hazardous waste disposed	kg	0.00E+00	0.00E+00	2.31E+02	8.34E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E+03	0.00E+00
Radioactive waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

OUTPUT FLOW INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.60E+03
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Scenario 2 Europe

IMPACT CATEGORY INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
GWP-fossil	kg CO_2 eq.	2.03E+04	2.16E+03	1.62E+02	1.41E+03	5.89E+04	2.23E+00	6.48E+02	3.12E+02	5.71E+02	-1.06E+04
GWP-biogenic	kg CO_2 eq.	-2.57E+02	5.10E-01	2.73E+02	1.59E+00	3.25E+02	1.23E-02	2.12E-01	8.36E-01	1.15E+01	-5.09E+00
GWP-luluc	kg CO_2 eq.	1.91E+01	1.43E+00	3.87E-02	8.81E-01	1.45E+02	5.47E-03	3.09E-01	6.24E-01	1.80E-02	-5.90E+00
GWP-total	kg CO_2 eq.	2.01E+04	2.16E+03	4.35E+02	1.41E+03	5.93E+04	2.24E+00	6.49E+02	3.14E+02	5.82E+02	-1.06E+04
ODP	kg CFC 11 eq.	3.74E-04	3.34E-05	1.74E-06	2.24E-05	1.11E-03	4.18E-08	1.44E-05	2.18E-06	9.60E-07	-3.69E-04
AP	mol H^+ eq.	1.18E+02	4.22E+01	7.19E-01	4.78E+00	3.33E+02	1.26E-02	1.57E+00	1.69E+00	2.30E-01	-5.95E+01
EP-freshwater	kg P eq.	9.82E-01	1.28E-02	1.19E-03	3.19E-02	5.73E+00	2.17E-04	5.31E-03	1.57E-02	3.16E-04	-4.23E-01
EP-marine	kg N eq.	1.98E+01	1.06E+01	3.06E-01	9.17E-01	4.18E+01	1.58E-03	4.18E-01	2.82E-01	9.96E-02	-9.60E+00
EP-terrestrial	mol N eq.	2.22E+02	1.17E+02	3.31E+00	9.79E+00	4.87E+02	1.84E-02	4.38E+00	3.34E+00	1.04E+00	-1.11E+02
POCP	kg NMVOC eq.	8.63E+01	3.30E+01	1.07E+00	8.23E+00	1.56E+02	5.91E-03	2.56E+00	9.43E-01	3.10E-01	-4.50E+01
ADP-minerals&metals*	kg Sb eq.	6.71E-01	3.48E-03	1.99E-04	8.10E-03	7.03E-01	2.66E-05	1.77E-03	2.81E-03	4.76E-05	-1.85E-01
ADP-fossil*	MJ	2.17E+05	2.82E+04	1.44E+03	2.58E+04	1.32E+06	4.99E+01	9.61E+03	3.90E+03	4.22E+02	-9.10E+04
WDP*	m^3	4.10E+03	9.67E+01	7.28E+00	3.03E+02	1.49E+04	5.62E-01	4.59E+01	5.39E+01	3.20E+01	-9.66E+02
GWP-GHG	kg CO_2 eq.	2.03E+04	2.16E+03	1.63E+02	1.41E+03	5.93E+04	2.24E+00	6.49E+02	3.14E+02	5.71E+02	-1.06E+04
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption										

RESOURCE USE INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
PERE	MJ	2.25E+04	2.65E+02	3.96E+01	1.10E+03	2.96E+05	1.12E+01	1.41E+02	5.22E+02	8.17E+00	-3.66E+03
PERM	MJ	2.76E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	2.53E+04	2.65E+02	3.96E+01	1.10E+03	2.96E+05	1.12E+01	1.41E+02	5.22E+02	8.17E+00	-3.66E+03
PENRE	MJ	2.06E+05	2.82E+04	1.44E+03	2.00E+04	1.32E+06	4.99E+01	9.61E+03	3.90E+03	4.22E+02	-9.10E+04
PENRM	MJ	9.63E+03	0.00E+00	0.00E+00	5.74E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	2.16E+05	2.82E+04	1.44E+03	2.58E+04	1.32E+06	4.99E+01	9.61E+03	3.90E+03	4.22E+02	-9.10E+04
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	1.26E+02	3.19E+00	3.09E-01	8.74E+00	1.07E+03	4.04E-02	1.51E+00	2.15E+00	9.71E-01	-3.08E+01
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water										

WASTE INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	1.52E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.35E+02	0.00E+00
Non-hazardous waste disposed	kg	0.00E+00	0.00E+00	6.68E+01	8.34E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.24E+03	0.00E+00
Radioactive waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

OUTPUT FLOW INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.59E+03
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Scenario 3 Singapore

IMPACT CATEGORY INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
GWP-fossil	kg CO_2 eq.	2.03E+04	1.07E+03	1.64E+02	1.41E+03	8.47E+04	3.20E+00	6.48E+02	3.12E+02	5.71E+02	-1.06E+04
GWP-biogenic	kg CO_2 eq.	-2.57E+02	2.97E-01	2.73E+02	1.54E+00	1.05E+01	3.96E-04	2.12E-01	8.36E-01	1.15E+01	-5.09E+00
GWP-luluc	kg CO_2 eq.	1.91E+01	6.05E-01	2.79E-02	8.59E-01	6.26E+00	2.37E-04	3.09E-01	6.24E-01	1.80E-02	-5.90E+00
GWP-total	kg CO_2 eq.	2.01E+04	1.07E+03	4.37E+02	1.41E+03	8.47E+04	3.20E+00	6.49E+02	3.14E+02	5.82E+02	-1.06E+04
ODP	kg CFC 11 eq.	3.74E-04	1.72E-05	1.82E-06	2.25E-05	2.10E-03	7.93E-08	1.44E-05	2.18E-06	9.60E-07	-3.69E-04
AP	mol H^+ eq.	1.18E+02	1.02E+01	7.04E-01	4.75E+00	1.35E+02	5.12E-03	1.57E+00	1.69E+00	2.30E-01	-5.95E+01
EP-freshwater	kg P eq.	9.82E-01	8.59E-03	7.80E-04	3.11E-02	4.40E-01	1.66E-05	5.31E-03	1.57E-02	3.16E-04	-4.23E-01
EP-marine	kg N eq.	1.98E+01	2.58E+00	3.04E-01	9.14E-01	2.60E+01	9.82E-04	4.18E-01	2.82E-01	9.96E-02	-9.60E+00
EP-terrestrial	mol N eq.	2.22E+02	2.83E+01	3.30E+00	9.76E+00	2.93E+02	1.11E-02	4.38E+00	3.34E+00	1.04E+00	-1.11E+02
POCP	kg NMVOC eq.	8.63E+01	9.14E+00	1.07E+00	8.24E+00	1.88E+02	7.12E-03	2.56E+00	9.43E-01	3.10E-01	-4.50E+01
ADP-minerals&metals*	kg Sb eq.	6.71E-01	2.44E-03	1.93E-04	8.08E-03	6.24E-01	2.36E-05	1.77E-03	2.81E-03	4.76E-05	-1.85E-01
ADP-fossil*	MJ	2.17E+05	1.50E+04	1.44E+03	2.57E+04	1.29E+06	4.87E+01	9.61E+03	3.90E+03	4.22E+02	-9.10E+04
WDP*	m^3	4.10E+03	6.72E+01	6.41E+00	3.01E+02	3.72E+03	1.41E-01	4.59E+01	5.39E+01	3.20E+01	-9.66E+02
GWP-GHG	kg CO_2 eq.	2.03E+04	1.07E+03	1.64E+02	1.41E+03	8.47E+04	3.20E+00	6.49E+02	3.14E+02	5.71E+02	-1.06E+04
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption										

RESOURCE USE INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
PERE	MJ	2.37E+04	1.72E+02	1.92E+01	1.13E+03	2.82E+04	1.07E+00	1.41E+02	5.22E+02	9.20E+00	-3.71E+03
PERM	MJ	2.76E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	2.65E+04	1.72E+02	1.92E+01	1.13E+03	2.82E+04	1.07E+00	1.41E+02	5.22E+02	9.20E+00	-3.71E+03
PENRE	MJ	2.10E+05	1.50E+04	1.45E+03	2.04E+04	1.29E+06	4.87E+01	9.61E+03	3.90E+03	4.38E+02	-9.12E+04
PENRM	MJ	9.63E+03	0.00E+00	0.00E+00	5.74E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	2.20E+05	1.50E+04	1.45E+03	2.62E+04	1.29E+06	4.87E+01	9.61E+03	3.90E+03	4.38E+02	-9.12E+04
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	1.30E+02	2.14E+00	2.46E-01	8.93E+00	1.61E+02	6.08E-03	1.51E+00	2.15E+00	9.85E-01	-3.10E+01
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water										

WASTE INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	1.52E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.35E+02	0.00E+00
Non-hazardous waste disposed	kg	0.00E+00	0.00E+00	6.68E+01	8.34E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.24E+03	0.00E+00
Radioactive waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

OUTPUT FLOW INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.59E+03
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Scenario 4 US

IMPACT CATEGORY INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-fossil	kg CO_2 eq.	2.03E+04	2.19E+03	1.64E+02	1.41E+03	8.04E+04	3.04E+00	6.48E+02	3.12E+02	5.71E+02	-1.06E+04
GWP-biogenic	kg CO_2 eq.	-2.57E+02	5.15E-01	2.73E+02	1.55E+00	7.35E+01	2.78E-03	2.12E-01	8.36E-01	1.15E+01	-5.09E+00
GWP-luluc	kg CO_2 eq.	1.91E+01	1.45E+00	3.07E-02	8.65E-01	4.21E+01	1.59E-03	3.09E-01	6.24E-01	1.80E-02	-5.90E+00
GWP-total	kg CO_2 eq.	2.01E+04	2.19E+03	4.37E+02	1.41E+03	8.05E+04	3.04E+00	6.49E+02	3.14E+02	5.82E+02	-1.06E+04
ODP	kg CFC 11 eq.	3.74E-04	3.38E-05	1.68E-06	2.22E-05	3.56E-04	1.35E-08	1.44E-05	2.18E-06	9.60E-07	-3.69E-04
AP	mol H^+ eq.	1.18E+02	4.29E+01	7.14E-01	4.77E+00	2.62E+02	9.92E-03	1.57E+00	1.69E+00	2.30E-01	-5.95E+01
EP-freshwater	kg P eq.	9.82E-01	1.29E-02	1.17E-03	3.19E-02	5.44E+00	2.06E-04	5.31E-03	1.57E-02	3.16E-04	-4.23E-01
EP-marine	kg N eq.	1.98E+01	1.08E+01	3.05E-01	9.16E-01	3.66E+01	1.39E-03	4.18E-01	2.82E-01	9.96E-02	-9.60E+00
EP-terrestrial	mol N eq.	2.22E+02	1.19E+02	3.31E+00	9.78E+00	4.26E+02	1.61E-02	4.38E+00	3.34E+00	1.04E+00	-1.11E+02
POCP	kg NMVOC eq.	8.63E+01	3.36E+01	1.07E+00	8.24E+00	1.67E+02	6.30E-03	2.56E+00	9.43E-01	3.10E-01	-4.50E+01
ADP-minerals&metals*	kg Sb eq.	6.71E-01	3.50E-03	1.95E-04	8.09E-03	6.52E-01	2.47E-05	1.77E-03	2.81E-03	4.76E-05	-1.85E-01
ADP-fossil*	MJ	2.17E+05	2.85E+04	1.45E+03	2.58E+04	1.43E+06	5.39E+01	9.61E+03	3.90E+03	4.22E+02	-9.10E+04
WDP*	m^3	4.10E+03	9.74E+01	7.47E+00	3.03E+02	1.73E+04	6.53E-01	4.59E+01	5.39E+01	3.20E+01	-9.66E+02
GWP-GHG	kg CO_2 eq.	2.03E+04	2.19E+03	1.64E+02	1.41E+03	8.05E+04	3.04E+00	6.49E+02	3.14E+02	5.71E+02	-1.06E+04
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption										

RESOURCE USE INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	2.37E+04	2.67E+02	3.04E+01	1.15E+03	1.72E+05	6.49E+00	1.41E+02	5.22E+02	9.20E+00	-3.71E+03
PERM	MJ	2.76E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	2.65E+04	2.67E+02	3.04E+01	1.15E+03	1.72E+05	6.49E+00	1.41E+02	5.22E+02	9.20E+00	-3.71E+03
PENRE	MJ	2.10E+05	2.85E+04	1.46E+03	2.05E+04	1.43E+06	5.39E+01	9.61E+03	3.90E+03	4.38E+02	-9.12E+04
PENRM	MJ	9.63E+03	0.00E+00	0.00E+00	5.74E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	2.20E+05	2.85E+04	1.46E+03	2.62E+04	1.43E+06	5.39E+01	9.61E+03	3.90E+03	4.38E+02	-9.12E+04
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	1.30E+02	3.22E+00	2.75E-01	8.99E+00	5.34E+02	2.02E-02	1.51E+00	2.15E+00	9.85E-01	-3.10E+01
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water										

WASTE INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	1.52E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.35E+02	0.00E+00
Non-hazardous waste disposed	kg	0.00E+00	0.00E+00	6.68E+01	8.34E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.24E+03	0.00E+00
Radioactive waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

OUTPUT FLOW INDICATORS PER DECLARED UNIT

RESULTS PER DECLARED UNIT											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B2**	**B6**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.59E+03
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

References

General Programme Instructions of the International EPD® System. Version 4.0

ISO 14040:2006
Environmental management — Life cycle assessment — Requirements and guidelines

ISO 14044:2006
Environmental management — Life cycle assessment — Principles and framework

PCR 2019:14
CONSTRUCTION PRODUCTS

C-PCR-025
(TO PCR 2019:14) for ESCALATORS AND MOVING WALKS
(2023-06-12)

IEC TR 62635-2012
Guidelines for end-of-life information provided by manufacturers and recyclers and for recyclability rate calculation of electrical and electronic equipment

EN 15804:2012+A2:2019
Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products

ISO 25745-3:2015
Energy performance of lifts, escalators and moving walks —Part 3: Energy calculation and classification of escalators and moving walks

Glossary

ENVIRONMENTAL PRODUCT DECLARATION (EPD)
An EPD is a type III declaration, complying with ISO14025, which provides results about a product's environmental performance and facilitates comparison between different products with the same function (Functional Unit and escalator characteristics). The results are based on the Life Cycle Analysis done in accordance with ISO 14040.

LIFE CYCLE ASSESSMENT (LCA)
LCA is a method that quantifies the total environment impact of products or activities over their entire life cycle and life cycle thinking. Life cycle assessment is based on ISO 14040 and ISO 14044 standards and comprises four phases: goal and scope definition, inventory data collection and analysis, environmental impact assessment, and interpretation of results. The results of LCA are used in communication and product development purposes, for example.

LIFE CYCLE IMPACT ASSESSMENT (LCIA)
The phase of life cycle assessment aimed at understanding and evaluating the magnitude and significance of the potential environmental impacts of a product system throughout the life cycle of the product.

GLOBAL WARMING POTENTIAL (GWP)
It is expressed in kg carbon dioxide (CO_2) equivalent. This indicator expresses global warming potential and refers to carbon footprint. It considers gaseous substances such as carbon dioxide (CO_2), methane (CH_4), laughing gas (N_2O) over 100 years. These substances have an ability to absorb infrared radiation in the earth's atmosphere. They let sunlight reach the earth's surface and trap some of the infrared radiation emitted back into space causing an increase in the earth's surface temperature.

LIFE CYCLE INVENTORY (LCI)
The phase of life cycle assessment involving the compilation and quantification of inputs and outputs for a product system throughout its life cycle.

FUNCTIONAL UNIT (FU)
The quantified performance of a product system for use, as a reference unit.

PRODUCT CATEGORY RULES (PCR)
The quantified performance of a product system for use, as a reference unit.

Otis gives people freedom to connect and thrive in a taller, faster, smarter world. The global leader in the manufacture, installation and servicing of elevators and escalators, we move 2 billion people a day and maintain more than 2.2 million customer units worldwide – the industry's largest Service portfolio. You'll find us in the world's most iconic structures, as well as residential and commercial buildings, transportation hubs and everywhere people are on the move. Headquartered in Connecticut, USA, Otis is 69,000 people strong, including 41,000 field professionals, all committed to meeting the diverse needs of our customers and passengers in more than 200 countries and territories.

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