ENVIRONMENTAL PRODUCT DECLARATION

HES 1006 SERIES ELECTRIC STRIKE



The 1006 series is the strongest and most versatile electric strike available. The dual interlocking plunger design and heavy duty stainless steel construction enables it to exceed every standard developed for electric strikes.



ASSA ABLOY is committed to providing products and services that are environmentally sound throughout the entire production process and the product lifecycle. Our unconditional aim is to make sustainability a central part of our business philosophy and culture, but even more important is the job of integrating sustainability into our business strategy. The employment of EPDs will help architects, designers and LEED-APs select environmentally preferable door openings. The HES 1006 Series Electric Strike EPD provides detailed requirements with which to evaluate the environmental and human health impacts related to producing our door openings. ASSA ABLOY will continue our efforts to protect the environment and health of our customers/end users and will utilize the EPD as one means to document those efforts.



ENVIRONMENTAL PRODUCT DECLARATION



ASSA ABLOY

ASSA ABLOY / Hanchet Entry Systems Inc

According to EN 15804 and ISO 14025 Dual Recognition by UL Environment and Institut Bauen und Umwelt e.V.

This declaration is an environmental product declaration (EPD) in accordance with ISO 14025. EPDs rely on Life Cycle Assessment (LCA) to provide information on a number of environmental impacts of products over their life cycle. <u>Exclusions</u>: EPDs do not indicate that any environmental or social performance benchmarks are met, and there may be impacts that they do not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. EPDs can complement but cannot replace tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc. <u>Accuracy of Results</u>: EPDs regularly rely on estimations of impacts, and the level of accuracy in estimations and are either not comparable or have limited comparability when they cover different life cycle stages, are based on different product category rules or are missing relevant environmental impacts. EPDs from different programs may not be comparable.



PROGRAM OPERATOR	UL Environment
DECLARATION HOLDER	ASSA ABLOY / Hanchet Entry Systems Inc
ULE DECLARATION NUMBER	4786545067.106.1
IBU DECLRATION NUMBER	EPD-ASA-20150067-IBA1-EN
DECLARED PRODUCT	HES 1006 Series Electric Strike
REFERENCE PCR	IBU PCR Part B: Locks and fittings, 07.2014

DATE OF ISSUE	April 10, 2015
PERIOD OF VALIDITY	5 years

CONTENTS OF THE DECLARATION	General information Product / Product description LCA calculation rules LCA scenarios and further technic LCA results References	al information
The PCR review was conducte	ed by:	IBU – Institut Bauen und Umwelt e.V. PCR was approved by the Independent Expert Committee (SRV)
The CEN Norm EN 15804 ser was independently verified in a Underwriters Laboratories	ves as the core PCR. This declaration accordance with ISO 14025 by	WA
		Wade Stout
This life cycle assessment was with EN 15804 and the referer	s independently verified in accordance ace PCR by:	IBU – Institut Bauen und Umwelt e.V.



Environment



1. General Information

ASSA ABLOY / Hanchet Entry Systems Inc

Programme holder IBU - Institut Bauen und Umwelt e.V.

Panoramastr. 1 10178 Berlin Germany

Declaration number

EPD-ASA-20150067-IBA1-EN

HES 1006 Series electric strike

Owner of the Declaration

Hanchet Entry Systems Inc 10027 S. 51st St, Ste. 102 Phoenix, AZ 85044

Declared product / Declared unit

The declaration represents HES 1006 Series electric strike consisting of the following items:

- Electric Strike body with trim enhancer
- Screw pack and keeper shims
- 12-Volt and 24-Volt pigtails

Scope:

This declaration and its LCA study are relevant to the HES 1006 Series electric strike.

External suppliers make the primary manufacturing processes and the final manufacturing processes and assembly occur at our manufacturing factory in Phoenix, Arizona.

The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

Verification



Dr. Wolfram Trinius

(Independent verifier appointed by SVR)

This Declaration is based on the Product Category Rules:

Locks and fittings , 07.2014 (PCR tested and approved by the independent expert committee (SVR))

Issue date

10.04.2015

Valid to 09.04.2020

Nermanes

Prof. Dr.-Ing. Horst J. Bossenmayer (President of Institut Bauen und Umwelt e.V.)

WMM

Dr.-Ing. Burkhart Lehmannt (Managing Director IBU)

2. Product

2.1 Product description

Product name: HES 1006 Series electric strike

Product characteristics: HES 1006 Series electric strike

The 1006 series is the strongest and most versatile electric strike available. The dual interlocking plunger design and heavy duty stainless steel construction, enables it to exceed every standard developed for electric strikes. With multiple faceplate options, the 1006 will fully accommodate every lock designed to work within an ANSI 4-7/8" strike plate. Tested to exceed 3,000 lbs. of static strength, 350 ft-lbs. of dynamic strength and factory tested to exceed 1,000,000 cycles of operation, the 1006 is in a class of its own.

2.2 Application

HES 1006 Series electric strike are ideal for a wide range of applications – from private to commercial and public sectors both light and heavy duty usage:

- Door openings that are secured with cylindrical or mortise locksets where someone wants to add access control or traffic control
- Emergency exit doors
- Frequently used doors

2.3 Technical Data

For the declared product, the following technical data in the delivery status must be provided with reference to the test standard.



Technical data

Parameter	Value	Unit
Static strength	3070	lbs.
Dynamic strength	350	ft-lbs.
Endurance	1,000,000	cycles
Can be purchased		
in fail safe or fail		
secure mode		
Dual voltage	12 or 24	VDC

2.4 Placing on the market / Application rules The standards that can be applied for HES 1006 Series electric strike are:

- UL 10C fire-rated, 3 hour single door (fail secure only)

- UL 10C fire-rated, 1-1/2 hour double door (fail secure only)

- CAN4-S104 (ULC-S104) fire door conformant
- ANSI A250.13-2003 windstorm listed

- UL 1034 burglary-resistant listed and suitable for outdoor use

- ANSI/BHMA A156.31, Grade 1
- NFPA-252 fire door conformant
- ASTM-E152 fire door conformant
- MEA New York City accepted
- Florida Building Code approved
- Patents #6021038 & 6595564

2.5 Delivery status

Electric strikes are delivered as in a box size - $9.75 \times 3 \times 2.5$ Inches

2.6 Base materials / Ancillary materials

The primary product components and/or materials must be indicated as a percentage mass to enable the user of the EPD to understand the composition of the product in delivery status.

The average composition for 1006 Series is as following:

Component	Percentage in mass (%)
Aluminum	0.05
Stainless Steel	74.35
Steel	10.15
Plastic	0.07
Electro mechanics	15.33
Other	0.05
Total	100.0

2.7 Manufacture

The primary manufacturing processes are made by Tier 1 suppliers and the final manufacturing processes occur at factories in China and Taiwan.

The electronics are produced in Singapore and the mechanics in China, Taiwan & USA. The components come from processes like stamped steel, turning, zinc and steel casting. Final assembly takes place in Phoenix, Arizona, USA.

The factory of Phoenix, Arizona has a certification of Quality Management system in accordance with ISO 9001:2008.

2.8 Environment and health during manufacturing

ASSA ABLOY is committed to producing and distributing door opening solutions with minimal environmental impact, where health & safety is the primary focus for all employees and associates. • Environmental operations, greenhouse gases (GHG), energy, water, waste, volatile organic compound (VOC), surface treatment and H&S are being routinely monitored. Inspections, audits, and reviews are conducted periodically to ensure that applicable standards are met and Environment Management program effectiveness is evaluated.

• Code of Conduct covers human rights, labor practices and decent work. Management of ASSA ABLOY is aware of their environmental roles and responsibilities, providing appropriate training, supporting accountability and recognizing outstanding performance.

• The factory of Phoenix, AZ, USA has certification of Environmental Management to ISO 14001:2004 and Occupational Health and Safety to OHSAS 18001:2007.

• Any waste metals during machining are separated and recycled. The waste from the water-based painting process is delivered to waste treatment plant.

2.9 Product processing / Installation

HES 1006 Series electric strike are distributed through and installed by trained installation technicians, such as locksmiths, carpenters etc. adhering to local/national standards and requirements.

2.10 Packaging

HES 1006 Series electric strike are packed in a cardboard box with corrugated carton inlays. The packaging is fully recyclable. Separate lock case package with dimensions: 9.75 x 3 x 2.5 Inches. Material composition of packaging in % of total packaging mass is as following:

s (%)	Material	Value (%)
5 (70)	Cardboard/paper	100.0
	Total	100.0

2.11 Condition of use

To maintain low friction and secure latching, annual maintenance <1g of grease on contact surfaces of latchbolt is recommended.

No cleaning. Electric strikes can be replaced or upgraded without changing control unit or installation cable.

2.12 Environment and health during use

There is no harmful emissive potential. No damage to health or impairment is expected under normal use corresponding to the intended use of the product.

2.13 Reference service life

Approved for 1,000,000 cycles under normal working conditions, 15 years depending on cycle frequency.

2.14 Extraordinary effects Fire

Suitable for use in fire and smoke doors (EN 14846).



Water

Contain no substances that have any impact on water in case of flood. Electric operation of the device will be influenced negative.

Mechanical destruction

No danger to the environment can be anticipated during mechanical destruction.

2.15 Re-use phase

It is possible to re-use the product during the reference service life and to move it from one door to another.

The majority of components are made of steel, which can be recycled. The locks can be mechanically dissembled to separate the different materials. 90% of

3. LCA: Calculation rules

3.1 Declared Unit

The declaration refers to the functional unit of 1 piece of HES 1006 Series electric strike as specified in Part B requirements on the EPD for PCR Locks and fittings: (mechanical & electromechanical locks & Fittings).

Declared unit

Name	Value	Unit
Declared unit	0.75 kg	1 piece of electric strike
Conversion factor to 1 kg	1.33	-

3.2 System boundary

Type of the EPD: cradle to gate - with Options The following life cycle phases were considered:

Production stage:

- A1 Raw material extraction and processing
- A2 Transport to the manufacturer and
- A3 Manufacturing

A4-A5 Construction stage:

- A4 Transport from the gate to the site
- A5 Packaging waste processing

Use stage related to the operation of the building includes:

• B6 – Operational energy use

End-of-life stage:

- C2 Transport to waste processing
- C3 Waste processing for recycling and
- C4 Disposal (landfill)

This includes provision of all materials, products and energy, packaging processing and its transport, as well as waste processing up to the end-of waste state or disposal of final residues.

• D - Declaration of all benefits or recycling potential from EOL and A5.

the materials used are recyclable. The plastic components can be used for energy recovery in an incineration plant.

2.16 Disposal

All parts of product can be recycled or used for energy recovery.

2.17 Further information

Hanchent Entry Systems Inc. 10027 S. 51st St, Ste. 102 Phoenix, AZ 85044 Tel: 1-800-626-7590 http://www.hesinnovations.com

3.3 Estimates and assumptions

Transport:

For materials and pre-products the actual means of transport and distances, provided by the suppliers, were considered

EoL:

In the End-of-Life phase a recycling scenario with 100% collection rate was assumed.

3.4 Cut-off criteria

In the assessment, all available data from the production process are considered, i.e. all raw materials used, auxiliary materials (e.g. lubricants), thermal energy consumption and electric power consumption - including material and energy flows contributing less than 1% of mass or energy (if available). In case a specific flow contributing less than 1% in mass or energy is not available, worst case assumption proxies are selected to represent the respective environmental impacts.

Impacts relating to the production of machines and facilities required during production are out of the scope of this assessment.

3.5 Background data

For life cycle modeling of the considered products, the GaBi 6 Software System for Life Cycle Engineering, developed by PE INTERNATIONAL AG, is used /GaBi 6 2013/. The GaBi-database contains consistent and documented datasets which are documented in the online

GaBi-documentation /GaBi 6 2013D/.

To ensure comparability of results in the LCA, the basic data of GaBi database were used for energy, transportation and auxiliary materials.

3.6 Data quality

The requirements for data quality and background data correspond to the specifications of the /IBU PCR PART A/.

PE INTERNATIONAL performed a variety of tests and checks during the entire project to ensure high quality of the completed project. This obviously includes an



extensive review of project-specific LCA models as well as the background data used.

The technological background of the collected data reflects the physical reality of the declared products. The datasets are complete and conform to the system boundaries and the criteria for the exclusion of inputs and outputs.

All relevant background datasets are taken from the

GaBi 6 software database. The last revision of the used background data has taken place not longer than 10 years ago.

3.7 Period under review

The period under review is 2013/14 (12 month average)

3.8 Allocation

Regarding incineration, the software model for the waste incineration plant (WIP) is adapted according to the material composition and heating value of the combusted material. In this EPD the following specific life cycle inventories for the WIP are considered:

- Waste incineration of plastic
- · Waste incineration of paper
- · Waste incineration of wood
- Waste incineration of electronic wastes

Regarding the recycling material of metals, the metal parts in the EoL are declared as end-of-waste status. Thus, these materials are considered in module D. Specific information on allocation within the background data is given in the GaBi dataset documentation.

3.9 Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to /EN 15804/ and the building context, respectively the product-specific characteristics of performance, are taken into account.

4. LCA: Scenarios and additional technical information

The following technical information is a basis for the declared modules or can be used for developing specific scenarios in the context of a building assessment if modules are not declared (MND).

Recycling Stainless steel	74.35	%
Recycling Electro mechanics	15.33	%
Reuse Plastic parts	0.07	%
Loss Construction waste for landfilling (no recycling potential)	0.05	%

Installation into the building (A5)

Name	Value	Unit
Output substances following waste	0.056	ka
treatment on site (Paper packaging)	0.056	kg

Reference service life

Name	Value	Unit
Reference service life	15	а

Operational energy use (B6)

Name	Value	Unit
Electricity consumption	395	kWh
Days per year in use	365	d
Hours per day in one mode	12	h
Power consumption per mode in W	6	W

End of life (C1-C4)

Name	Value	Unit
Collected separately Aluminum, steel, stainless steel, electro mechanics	0.75	kg
Collected separately plastics	0.001	kg
Recycling Aluminum, steel, stainless steel, electro mechanics	0.75	kg
Thermal treatment plastics	0.001	kg

Reuse, recovery and/or recycling potentials (D), relevant scenario information

Name	Value	Unit
Collected separately waste type (without packaging)	0.75	kg
Recycling Aluminum	0.05	%
Recycling Steel	10.15	%

5



5. LCA: Results Results shown below were calculated using CML Methodology.

Non renewable primary energy as energy carrier [MJ] 4.93E+01 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	PRODUCT STAGE CONSTRUCTI STAGE USE STAGE END OF LIFE STAGE END OF LIFE STAGE LOADS SYSTEM Image: Stage							BOUND	4RY (.	∧ = II	NOLUD		.CA;	MND	= MC	DU	JLE NO	ם וט	ECL	ARED)
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RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: 1 piece of HES 1006 Series electric strike Parameter Unit A1-3 A4 A5 B6 C2 C3 C4 D Global varning potential stratospheric core layer Ikg CO ₂ eq. (2) 3.78E+00 4.59E+02 7.87E+02 2.65E+02 3.57E+04 1.69E+02 3.03E+03 -1.10E+00 Deptetion potential of the stratospheric core layer Ikg CO ₂ Eq. (2) 2.75E+02 2.10E+04 1.79E+05 8.95E+01 4.38E+06 7.99E+05 5.54E+06 -1.11E+02 Eutrophication potential oxone photochemical oxidantal (eq) Eq. (2) 1.73E+03 4.80E+05 3.13E+06 4.78E+02 1.00E+06 4.50E+06 4.42E+10 -6.12E+04 Abiotic depletion potential for moon flogal insources Ikg Ehen Eq. (1) 1.57E+03 4.78E+06 1.27E+06 3.60E+10 1.32E+02 1.12E+02 1.12E+02 -1.17E+01 Abiotic depletion potential for moon flogal insources Ikg Ehen Eq. (1) 1.57E+03 6.37E+00 - - - - - - - - - - - <td>RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: 1 piece of HES 1006 Series electric strike Parameter Unit A1-3 A4 A5 B6 C2 C3 C4 D Global warning potential [kg CO: strike 3.78E+00 4.58E+01 9.57E-04 1.88E+02 3.08E+03 -1.10E+04 Depletion potential of her strike [kg SO: teg] 3.78E+02 2.08E+03 9.16E-08 4.58E+15 1.16E+11 1.74E+14 -4.15E+11 Acdification potential of hard and [kg SO: teg] 1.75E+02 2.10E+04 1.79E+03 8.96E+01 4.38E+06 7.99E+06 5.54E+06 -1.11E+02 Eutrophication potential of land and [kg SO: teg] 1.77E+03 4.96E+05 1.27E+06 4.77E+02 -1.41E+06 4.75E+06 4.94E+07 -5.72E+04 Abloid depletion potential fromospheric [kg SD: teg] 1.37E+03 1.42E+09 3.05E+03 3.13E+02 1.92E+01 1.12E+02 -1.17E+07 Abloid depletion potential fromospheric [kg SD: teg] 1.38E+03 1.32E+02 3.05E+03 3.13E+02 1.92E+01 1.12E+02 -1.17E+07</td> <td>A1</td> <td>A2</td> <td>A3</td> <td>A4</td> <td>A5</td> <td>B1</td> <td>B2</td> <td>B3</td> <td>B4</td> <td>B5</td> <td>B6</td> <td>B7</td> <td>C1</td> <td>C</td> <td>2</td> <td>C3</td> <td>C4</td> <td></td> <td>D</td>	RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: 1 piece of HES 1006 Series electric strike Parameter Unit A1-3 A4 A5 B6 C2 C3 C4 D Global warning potential [kg CO: strike 3.78E+00 4.58E+01 9.57E-04 1.88E+02 3.08E+03 -1.10E+04 Depletion potential of her strike [kg SO: teg] 3.78E+02 2.08E+03 9.16E-08 4.58E+15 1.16E+11 1.74E+14 -4.15E+11 Acdification potential of hard and [kg SO: teg] 1.75E+02 2.10E+04 1.79E+03 8.96E+01 4.38E+06 7.99E+06 5.54E+06 -1.11E+02 Eutrophication potential of land and [kg SO: teg] 1.77E+03 4.96E+05 1.27E+06 4.77E+02 -1.41E+06 4.75E+06 4.94E+07 -5.72E+04 Abloid depletion potential fromospheric [kg SD: teg] 1.37E+03 1.42E+09 3.05E+03 3.13E+02 1.92E+01 1.12E+02 -1.17E+07 Abloid depletion potential fromospheric [kg SD: teg] 1.38E+03 1.32E+02 3.05E+03 3.13E+02 1.92E+01 1.12E+02 -1.17E+07	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C	2	C3	C4		D
Parameter Unit A1-3 A4 A5 B6 C2 C3 C4 D Global warming potential [kg CO; Eq.] 3.78E+00 4.59E-02 7.87E-02 2.6EE+02 9.57E-04 1.69E-02 3.03E-03 -1.10E+00 Depletion potential of land and water [kg CO; Eq.] 2.75E-02 2.10E-04 1.79E-05 8.95E-01 4.38E-06 7.99E-05 5.54E-06 1.11E-02 Eutrophication potential of land and water [kg SO; Eq.] 1.73E-03 4.80E-05 3.13E-06 4.78E-02 1.00E-06 4.50E-06 7.24E-07 4.90E-04 Formation potential for non (cospleto-imclaod dianesurces) [kg Ethn Eq.] 1.47E-03 6.78E-05 1.27E-02 3.46E-01 3.36E-03 3.61E-11 2.34E-09 4.42E-10 6.12E-04 Abiotic depletion potential for non (cospleto-imclawall ansources) [MJ] 4.48E+01 6.34E-01 2.0E-03 3.61E-11 2.34E-09 4.42E-10 6.12E-04 Abiotic depletion potential for non (cospleto-imclawalla primary energy resources) [MJ] 4.38E-01 2.0E-03 3.61E-11	Parameter Unit A1-3 A4 A5 B6 C2 C3 C4 D Global warming potential [kg C0- Eq.] 378E+00 4.59E+02 7.87E+02 2.65E+02 9.57E+04 1.68E+02 3.03E+03 1.10E+04 Depletion potential of the stratospheric ozone layer [Kg 1] 1.97E+09 2.20E+13 3.60E+13 9.16E+08 4.58E+15 1.16E+11 1.74E+14 4.15E+11 Aciditection potential [kg CP0-] 2.75E+02 2.10E+04 1.78E+05 8.95E+01 4.38E+06 7.98E+05 5.54E+06 1.11E+01 Eutrophication potential [kg EP0-] 2.75E+02 2.10E+04 1.78E+05 4.38E+06 7.98E+05 5.54E+06 1.27E+06 5.47E+02 1.41E+04 4.56E+08 7.24E+07 4.30E+07 5.27E+00 1.27E+06 5.47E+02 1.41E+04 4.56E+08 7.24E+07 4.42E+10 6.12E+04 5.36E+03 1.32E+02 1.32E+03 1.32E+03 1.32E+03 1.32E+03 1.32E+03 1.32E+03 1.32E+03 1.32E+03 1.32E+03 1.32E+	Х	Х	Х	Х	Х	MND	MND	MND	MND	MND	Х	MND	MN	р х	r	Х	Х		Х
Global warming potential [kg CO_r [Eq] 3.78E+00 4.59E-02 7.87E-02 2.65E+02 9.57E-04 1.69E-02 3.00E-03 1.110E+00 Deptetion potential of the stratospheric ozone layer [Kg CO_r Eq] 1.97E-02 2.06E-13 9.67E-04 1.69E-02 3.00E-03 -1.10E+00 Addification potential of land and water [kg SO_r Eq] 2.75E-02 2.10E-04 1.79E-05 8.95E-01 4.38E-06 7.99E-05 5.54E-06 -1.11E-02 Fundion potential of tropospheric conce photochemical codams [kg (Fbn)_r ³ 1.73E-03 4.78E-02 1.00E-06 4.50E-06 7.24E-07 -4.90E-04 Abloid depteinto potential for toosall mesources [kg S Dhe Eq] 1.73E-03 4.78E-02 1.04E-04 4.75E-06 4.42E-10 -6.12E-04 Abloid depteinto potential for toosall resources [MJ] 4.48E+01 6.34E-01 2.20E-02 3.05E+05 3.61E-11 2.34E-09 4.42E-10 -6.12E-04 Abloid depteinto potential for toosall resources [MJ] 4.48E+01 6.34E-01 2.20E-02 3.05E+05 3.61E-11 2.34E-09 4.42E-10 <td>Global warming potential Ikg CO₇ Eq. 3.78E+00 4.59E+02 7.87E+02 2.66E+02 9.57E+04 1.66E+02 3.03E+03 -1.10E+04 Depletion potential of the stratospheric core lever Eq. 1.97E+09 2.20E+13 3.00E+13 9.16E+08 4.58E+15 1.16E+11 1.74E+14 4.15E+11 Acidification potential of land and water Ikg SO₂ 2.75E+02 2.10E+04 1.79E+05 8.96E+01 4.38E+06 7.99E+05 5.54E+06 1.11E+02 Eutrophication potential for core photospheric core photospherical oxigants Ikg SO₂ 7.75E+03 6.78E+05 1.27E+06 5.47E+02 1.41E+06 4.75E+06 4.94E+07 6.72E+07 4.50E+06 Abiotic depletion potential for nossi resources Ikg Ib 1.38E+01 1.32E+02 1.32E+04 1.42E+0 6.31E+11 2.3E+02 3.51E+11 2.3E+02 3.51E+11 2.3E+02 3.51E+10 2.3E+02 3.51E+01 3.52E+02<td>RESU</td><td>LTS O</td><td>F THE</td><td>LCA - E</td><td>NVIR</td><td>ONME</td><td>INTAL IN</td><td>IPACT</td><td>: 1 pi</td><td>ece of H</td><td>IES 1006</td><td>6 Serie</td><td>es ele</td><td>ctric s</td><td>trik</td><td>(e</td><td></td><td></td><td></td></td>	Global warming potential Ikg CO ₇ Eq. 3.78E+00 4.59E+02 7.87E+02 2.66E+02 9.57E+04 1.66E+02 3.03E+03 -1.10E+04 Depletion potential of the stratospheric core lever Eq. 1.97E+09 2.20E+13 3.00E+13 9.16E+08 4.58E+15 1.16E+11 1.74E+14 4.15E+11 Acidification potential of land and water Ikg SO ₂ 2.75E+02 2.10E+04 1.79E+05 8.96E+01 4.38E+06 7.99E+05 5.54E+06 1.11E+02 Eutrophication potential for core photospheric core photospherical oxigants Ikg SO ₂ 7.75E+03 6.78E+05 1.27E+06 5.47E+02 1.41E+06 4.75E+06 4.94E+07 6.72E+07 4.50E+06 Abiotic depletion potential for nossi resources Ikg Ib 1.38E+01 1.32E+02 1.32E+04 1.42E+0 6.31E+11 2.3E+02 3.51E+11 2.3E+02 3.51E+11 2.3E+02 3.51E+10 2.3E+02 3.51E+01 3.52E+02 <td>RESU</td> <td>LTS O</td> <td>F THE</td> <td>LCA - E</td> <td>NVIR</td> <td>ONME</td> <td>INTAL IN</td> <td>IPACT</td> <td>: 1 pi</td> <td>ece of H</td> <td>IES 1006</td> <td>6 Serie</td> <td>es ele</td> <td>ctric s</td> <td>trik</td> <td>(e</td> <td></td> <td></td> <td></td>	RESU	LTS O	F THE	LCA - E	NVIR	ONME	INTAL IN	IPACT	: 1 pi	ece of H	IES 1006	6 Serie	es ele	ctric s	trik	(e			
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stratospheric ozone layer CFC11- Eq.1 1.9FE-09 2.20E-13 3.60E-13 9.16E-08 4.58E-15 1.16E-11 1.74E-14 -4.15E-11 Acidification potential of tand and water [kg (PO ₄) ³ Eq.1] 2.75E-02 2.10E-04 1.79E-05 8.95E-01 4.38E-06 7.99E-05 5.54E-06 1.11E-02 Eutrophication potential of troopspheric core photochemical wodents [kg (PO ₄) ³ Eq.1] 1.73E-03 4.80E-05 3.13E-06 4.78E-02 1.00E-06 4.50E-06 7.24E-07 -4.90E-04 Abloid depletion potential of troopspheric core photochemical wodents [kg (PO ₄) ³ Eq.1] 1.37E-03 1.73E-09 1.42E-09 3.50E-05 3.61E-11 2.34E-09 4.24E-10 -6.12E-04 Abloid depletion potential of rosail resources [MJ] 4.48E+01 6.34E-01 2.20E-02 3.05E+03 1.32E-02 1.92E-01 1.12E-02 -1.17E+01 Renewable primary energy as energy carrier [MJ] 5.76E+00 	stratospherio ozone layer CFC11 Eq.1 1.97E-09 2.20E-13 3.00E-13 9.16E-08 4.58E-15 1.16E-11 1.74E-14 4.15E-11 Acidification potential of land and water [kg 60-p] Eq.1 2.75E-02 2.10E-04 1.79E-06 8.95E-01 4.38E-06 7.99E-05 5.54E-06 -1.11E-02 Formation potential of tropospheric occe photochemical coldarts [kg (Pb.0) ² Eq.1 1.73E-03 4.80E-06 3.12E-06 5.47E-02 1.41E-06 4.56E-06 7.24E-07 4.90E-04 Abloid depletion potential of tropospheric occe photochemical coldarts [kg 5bn 1.38E-03 1.73E-09 1.42E-09 3.50E-55 3.61E-11 2.34E-00 4.42E-10 6.12E-04 Abloid depletion potential for fossil resources [MJ] 4.48E+01 6.34E-01 2.00E-02 3.05E+03 3.13E-02 1.92E-01 1.12E-02 1.17E-02 -1.7E+04 Renewable primary energy as energy carrier [MJ] 6.34E-01 2.00E-02 3.05E+03 2.92E+02 5.02E+04 5.5E+02 9.54E-04 -1.12E+04 Non renewable primary energy as energy carrier [MJ]	G	iodai wa	rming po	otential			3.78E+00	4.59E-	-02	7.87E-02	2.65E	+02	9.57E	-04	1.69	9E-02	3.03E	-03	-1.10E+00
Addification potential of land and water [kg] (PQ) ² (Eq.) 2.75E-02 2.10E-04 1.79E-05 8.95E-01 4.38E-06 7.99E-06 5.54E-06 -1.11E-02 Eutrophication potential Formation potential of tropospheric come photochemical dodants [kg] (PQ) ² (Eq.) 1.73E-03 4.80E-05 3.13E-06 4.78E-02 1.00E-06 4.50E-06 7.24E-07 -4.90E-04 Abiotic depletion potential for non lossil resources [kg] (Kg, Sb (Eq.) 1.38E-03 1.77E-09 1.42E-09 3.50E-05 3.81E-11 2.34E-09 4.42E-10 -6.12E-04 Abiotic depletion potential for non lossil resources [kg] (Kg, Sb (Eq.) 1.38E-03 1.77E-09 1.42E-09 3.50E-05 3.81E-11 2.34E-09 4.42E-10 -6.12E-04 Abiotic depletion potential for nossil resources [MJ] 4.48E-01 2.0E-01 1.32E-02 1.32E-02 1.32E-01 1.12E-02 -1.17E+01 Renewable primary energy as energy carrier [MJ] 5.76E+00 	Additionation potential of land and water Rg SOr, Eq.J 2.75E-02 2.10E-04 1.79E-05 8.95E-01 4.38E-06 7.99E-05 5.54E-06 -1.11E-02 Eutrophication potential propertial under the eq.J 1.73E-03 4.80E-06 3.13E-06 4.78E-02 1.00E-06 4.50E-06 7.24E-07 4.90E-04 Formation potential of tropospheric corne photochemical oddants Eq.J 1.73E-03 4.78E-02 1.02E-06 5.47E-02 -1.41E-06 4.50E-06 7.24E-07 -5.72E-04 Abloid depletion potential for fossil resources Eq.J 1.38E-03 1.73E-00 1.42E-06 3.50E-05 3.61E-11 2.34E-00 4.22E-10 -6.12E-04 Abloid depletion potential for fossil resources [MJ] 4.48E+01 6.34E-01 2.20E-02 3.05E+03 1.32E-02 1.92E-01 1.12E-02 -1.17E+03 Renewable primary energy as energy carrier resources [MJ] 5.78E+00 - - - - - - - - - - - - - - - - - -					CF	C11-	1.97E-09	2.20E-	·13	3.60E-13	9.16E	-08	4.58E	-15	1.16	6E-11	1.74E	-14	-4.15E-11
Eq.] 1.74-03 4.302-05 3.132-06 4.762-02 1.002-06 4.502-07 4.302-04 Formation potential of troposition potential for non tossil resources [kg Sb q.] 1.67E-03 6.78E-05 1.27E-06 5.47E-02 -1.41E-06 4.75E-06 4.94E-07 -5.72E-04 Abiotic depletion potential for non tossil resources [kg Sb q.] 1.38E-03 1.73E-09 1.42E-09 3.50E-05 3.61E-11 2.34E-09 4.42E-10 -6.12E-04 Abiotic depletion potential for fossil resources [MJ] 4.48E+01 6.34E-01 2.20E-02 3.05E+03 1.32E-02 1.92E-01 1.12E-02 -1.17E+01 RESULTS OF THE LCA - RESOURCE USE: 1 piece of HES 1006 Series electric strike - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - <t< td=""><td>Eq.1 1.7.6±.03 4.30±.05 3.15±.05 4.76±.02 1.00±.05 4.30±.05 7.24±.07 4.30±.04 Formation potential of tropospherical oxidants [kg Ethn Eq.1] 1.67±.03 -6.78±.05 1.27±.06 5.47±.02 -1.41±.06 4.75±.06 4.94±.07 -5.72±.04 Abiotic depletion potential for toosil resources [kg S b Eq.1] 1.38±.03 1.73±.09 1.42±.09 3.50±.05 3.61±.11 2.34±.09 4.42±.10 -6.12±.04 Abiotic depletion potential for tossil resources [MJ] 4.48±.01 6.34±.01 2.20±.02 3.05±.03 1.32±.02 1.92±.01 1.12±.02 -1.17₹+.04 Renewable primary energy as energy carrier [MJ] 5.76±.00 </td><td>Acidifi</td><td></td><td></td><td>of land an</td><td>d [kg</td><td>SO₂-</td><td>2.75E-02</td><td>2.10E-</td><td>-04</td><td>1.79E-05</td><td>8.95E</td><td>-01</td><td>4.38E</td><td>-06</td><td>7.99</td><td>9E-05</td><td>5.54E</td><td>-06</td><td>-1.11E-02</td></t<>	Eq.1 1.7.6±.03 4.30±.05 3.15±.05 4.76±.02 1.00±.05 4.30±.05 7.24±.07 4.30±.04 Formation potential of tropospherical oxidants [kg Ethn Eq.1] 1.67±.03 -6.78±.05 1.27±.06 5.47±.02 -1.41±.06 4.75±.06 4.94±.07 -5.72±.04 Abiotic depletion potential for toosil resources [kg S b Eq.1] 1.38±.03 1.73±.09 1.42±.09 3.50±.05 3.61±.11 2.34±.09 4.42±.10 -6.12±.04 Abiotic depletion potential for tossil resources [MJ] 4.48±.01 6.34±.01 2.20±.02 3.05±.03 1.32±.02 1.92±.01 1.12±.02 -1.17₹+.04 Renewable primary energy as energy carrier [MJ] 5.76±.00 	Acidifi			of land an	d [kg	SO ₂ -	2.75E-02	2.10E-	-04	1.79E-05	8.95E	-01	4.38E	-06	7.99	9E-05	5.54E	-06	-1.11E-02
Formation potential of tropospheric azone photochemical axidants [kg Ethen Eq.] 1.67E-03 6.78E-05 1.27E-06 5.47E-02 -1.41E-06 4.75E-06 4.94E-07 -5.72E-04 Abiotic depletion potential for non fossil resources [kg Sb Eq.] 1.38E-03 1.73E-09 1.42E-09 3.50E-05 3.61E-11 2.34E-09 4.42E-10 -6.12E-04 Abiotic depletion potential for tossil resources [MJ] 4.48E+01 6.34E-01 2.20E-02 3.05E+03 1.32E-02 1.92E-01 1.12E-02 -1.17E+01 Renewable primary energy as energy carrier [MJ] 5.76E+00 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - <td>Formation potential of properties: azone photochemical oxidants Ikg Ethen Eq.1 1.67E-03 -6.78E-05 1.27E-06 5.47E-02 -1.41E-06 4.75E-06 4.94E-07 -5.72E-04 Ablotic depletion potential for non fossil resources Ikg Sb Eq.1 1.38E-03 1.73E-09 1.42E-09 3.60E-05 3.61E-11 2.34E-09 4.42E-10 -6.72E-04 Ablotic depletion potential for nossil resources IMJ 4.48E+01 6.34E-01 2.20E-02 3.05E+03 1.32E-02 1.92E-01 1.12E-02 -1.17E+00 Renewable primary energy as energy carrier IMJ 5.76E+00 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -</td> <td>E</td> <td colspan="3">Eutrophication potential [kg (PO</td> <td></td> <td>1.73E-03</td> <td>4.80E-</td> <td>-05</td> <td>3.13E-06</td> <td>4.78E</td> <td>-02</td> <td colspan="2">1.00E-06 4.5</td> <td colspan="2">4.50E-06 7.</td> <td>7.24E</td> <td>-07</td> <td>-4.90E-04</td>	Formation potential of properties: azone photochemical oxidants Ikg Ethen Eq.1 1.67E-03 -6.78E-05 1.27E-06 5.47E-02 -1.41E-06 4.75E-06 4.94E-07 -5.72E-04 Ablotic depletion potential for non fossil resources Ikg Sb Eq.1 1.38E-03 1.73E-09 1.42E-09 3.60E-05 3.61E-11 2.34E-09 4.42E-10 -6.72E-04 Ablotic depletion potential for nossil resources IMJ 4.48E+01 6.34E-01 2.20E-02 3.05E+03 1.32E-02 1.92E-01 1.12E-02 -1.17E+00 Renewable primary energy as energy carrier IMJ 5.76E+00 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	E	Eutrophication potential [kg (PO				1.73E-03	4.80E-	-05	3.13E-06	4.78E	-02	1.00E-06 4.5		4.50E-06 7.		7.24E	-07	-4.90E-04	
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Abiotic depletion potential for fossil resources [MJ] 4.48E+01 6.34E-01 2.20E-02 3.05E+03 1.32E-02 1.92E-01 1.12E-02 -1.17E+01 RESULTS OF THE LCA - RESOURCE USE: 1 piece of HES 1006 Series electric strike Mainteend to fossil (MJ) 6.34E+01 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -<	Abiotic depletion potential for fossil resources [MJ] 4.48E+01 6.34E-01 2.20E-02 3.05E+03 1.32E-02 1.92E-01 1.12E-02 -1.17E+01 Results OF THE LCA - RESOURCE USE: 1 piece of HES 1006 Series electric strike Unit A1-3 A4 A5 B6 C2 C3 C4 D Renewable primary energy as energy carrier material utilization [MJ] 0.00E+00 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	Abiotic	biotic depletion potential for non [kg S				1.38E-03	1.73E-09 1.42E-0		1.42E-09	3.50E	3.50E-05 3.61E		-11	2.34E-09		4.42E-10		-6.12E-04	
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Hazardous waste disposed [kg] 2.29E-03 1.45E-06 1.78E-06 3.01E-03 3.02E-08 4.18E-05 5.56E-07 -2.49E-04 Non hazardous waste disposed [kg] 7.74E-01 7.99E-05 1.98E-03 1.23E+00 1.67E-06 9.73E-05 5.79E-02 -3.78E-01 Radioactive waste disposed [kg] 1.78E-03 8.32E-07 1.51E-06 3.18E-01 1.73E-08 4.34E-05 2.30E-07 -2.39E-04 Components for re-use [kg] 0.00E+00	Hazardous waste disposed [kg] 2.29E-03 1.45E-06 1.78E-06 3.01E-03 3.02E-08 4.18E-05 5.56E-07 -2.49E-0 Non hazardous waste disposed [kg] 7.74E-01 7.99E-05 1.98E-03 1.23E+00 1.67E-06 9.73E-05 5.79E-02 -3.78E-00 Radioactive waste disposed [kg] 1.78E-03 8.32E-07 1.51E-06 3.18E-01 1.73E-08 4.34E-05 2.30E-07 -2.39E-0 Components for re-use [kg] 0.00E+00		se of re	newable renewa	dary mat	ary fuels Idary fu		[MJ] [MJ]	0.00	DE+00 DE+00	0.00E+00	0 0.00E+0	00 0.0	0E+00 0E+00	0.00E-	+00 +00	0.00E+0	00 0.0	00E+00 00E+00	0.00E+00
Image: Non hazardous waste disposed [kg] 7.74E-01 7.99E-05 1.88E-06 3.01E-03 3.02E-08 4.18E-05 5.56E-07 -2.49E-04 Non hazardous waste disposed [kg] 7.74E-01 7.99E-05 1.98E-03 1.23E+00 1.67E-06 9.73E-05 5.79E-02 -3.78E-01 Radioactive waste disposed [kg] 1.78E-03 8.32E-07 1.51E-06 3.18E-01 1.73E-08 4.34E-05 2.30E-07 -2.39E-04 Components for re-use [kg] 0.00E+00 0.0	Instruction Instruction <thinstruction< th=""> <thinstruction< th=""></thinstruction<></thinstruction<>	Use	se of re of non Use	newable renewa e of net	dary mat e second ble secor fresh wat	ary fuel: Idary fu er	els	[MJ] [MJ] [m³]	0.00	DE+00 DE+00 2E-02	0.00E+00 0.00E+00 1.76E-05	0.00E+0 0.00E+0 5 2.29E-0	00 0.0 00 0.0 04 1.3	0E+00 0E+00 6E+00	0.00E- 0.00E- 3.67E	+00 +00 -07	0.00E+0 0.00E+0 1.36E-0	00 0.0 00 0.0	00E+00 00E+00 69E-05	0.00E+00 0.00E+00 -8.70E-03
Item Item <th< td=""><td>Image: Note of the second se</td><td>Use</td><td>se of re of non Use</td><td>newable renewa e of net F THE Paran</td><td>dary mat e second ble secor fresh wat LCA – neter</td><td>ary fuels Idary fu er DUTPI</td><td>els</td><td>[MJ] [MJ] [m³] OWS AN</td><td>0.00 0.00 2.72 D WAS</td><td>DE+00 DE+00 2E-02 STE C</td><td>0.00E+00 0.00E+00 1.76E-05</td><td>0.00E+0 0.00E+0 5 2.29E-0 0RIES: 1</td><td>00 0.0 00 0.0 04 1.3 piece</td><td>0E+00 0E+00 6E+00</td><td>0.00E- 0.00E- 3.67E ES 100</td><td>+00 +00 -07</td><td>0.00E+0 0.00E+0 1.36E-0 Series e</td><td>00 0.0 00 0.0 04 -2 04 -2</td><td>00E+00 00E+00 69E-05 ic stri</td><td>0.00E+00 0.00E+00 -8.70E-03 ke</td></th<>	Image: Note of the second se	Use	se of re of non Use	newable renewa e of net F THE Paran	dary mat e second ble secor fresh wat LCA – neter	ary fuels Idary fu er DUTPI	els	[MJ] [MJ] [m³] OWS AN	0.00 0.00 2.72 D WAS	DE+00 DE+00 2E-02 STE C	0.00E+00 0.00E+00 1.76E-05	0.00E+0 0.00E+0 5 2.29E-0 0RIES: 1	00 0.0 00 0.0 04 1.3 piece	0E+00 0E+00 6E+00	0.00E- 0.00E- 3.67E ES 100	+00 +00 -07	0.00E+0 0.00E+0 1.36E-0 Series e	00 0.0 00 0.0 04 -2 04 -2	00E+00 00E+00 69E-05 ic stri	0.00E+00 0.00E+00 -8.70E-03 ke
Components for re-use [kg] 0.00E+00 0.00E+00 <td>Image: Non-state Image: Non-state<</td> <td>Use RESU</td> <td>ise of re of non Use LTS O Hazare</td> <td>newable renewa e of net F THE Paran dous wa</td> <td>dary mat e second ble secor fresh wat LCA – neter aste dispo</td> <td>ary fuels Idary fu er DUTPU</td> <td>els</td> <td>[MJ] [MJ] [m³] OWS AN Unit</td> <td>0.00 0.00 2.73 D WAS A1-3</td> <td>DE+00 DE+00 2E-02 STE (3</td> <td>0.00E+00 0.00E+00 1.76E-05 ATEGO A4</td> <td>0 0.00E+0 0 0.00E+0 5 2.29E-0 0RIES: 1 A5</td> <td>00 0.0 00 0.0 14 1.3 piece B</td> <td>0E+00 0E+00 6E+00 • of HI 6</td> <td>0.00E- 0.00E- 3.67E- ES 100 C2</td> <td>+00 +00 -07</td> <td>0.00E+0 0.00E+0 1.36E-0 Series 6 C3</td> <td>00 0.0</td> <td>00E+00 00E+00 69E-05 ic stri C4</td> <td>0.00E+00 0.00E+00 -8.70E-03 ke</td>	Image: Non-state Image: Non-state<	Use RESU	ise of re of non Use LTS O Hazare	newable renewa e of net F THE Paran dous wa	dary mat e second ble secor fresh wat LCA – neter aste dispo	ary fuels Idary fu er DUTPU	els	[MJ] [MJ] [m ³] OWS AN Unit	0.00 0.00 2.73 D WAS A1-3	DE+00 DE+00 2E-02 STE (3	0.00E+00 0.00E+00 1.76E-05 ATEGO A4	0 0.00E+0 0 0.00E+0 5 2.29E-0 0RIES: 1 A5	00 0.0 00 0.0 14 1.3 piece B	0E+00 0E+00 6E+00 • of HI 6	0.00E- 0.00E- 3.67E- ES 100 C2	+00 +00 -07	0.00E+0 0.00E+0 1.36E-0 Series 6 C3	00 0.0	00E+00 00E+00 69E-05 ic stri C4	0.00E+00 0.00E+00 -8.70E-03 ke
[N9] 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 -	Instruction Instruction 0.00E+00	Use RESU	ise of re of non Use LTS O Hazar	newable renewa e of net F THE Paran dous wa ardous	dary mat e second ble secon fresh wat LCA – 1 neter aste dispo waste dispo	ary fuels idary fu er DUTPI ised posed	els	[MJ] [MJ] [m ³] OWS AN Unit [kg] [kg]	0.00 0.00 2.77 D WAS A1-3 2.29E-	DE+00 DE+00 2E-02 STE 0 3 03 1	0.00E+00 0.00E+00 1.76E-05 ATEGO A4 .45E-06	0 0.00E+0 0 0.00E+0 2.29E-0 RIES: 1 A5 1.78E-06	00 0.0 00 0.0 14 1.3 piece 3.011	0E+00 0E+00 6E+00 • of HI 6 E-03	0.00E- 0.00E- 3.67E ES 100 C2 3.02E-0	+00 +00 -07 06 \$	0.00E+0 0.00E+0 1.36E-0 Series 6 C3 4.18E-05	00 0.1 00 0.1 04 -2 04 -2 05 -0 04 -2 04 -2 05 -0 04 -2 05 -0 04 -2 05 -0 04 -2 05 -0 04 -2 05 -0 04 -2 00 -0 04 -2 05 -0 04 -2 05 -0 04 -2 05 -0 04 -2 05 -0 04 -2 05 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 04 -0 0 -0 0 -0 0 -0 0 -0 0 -0 0 -0 0 -0 -	00E+00 00E+00 69E-05 ic stri C4 6E-07	0.00E+00 0.00E+00 -8.70E-03 ke D -2.49E-04
Materials for recycling	Materials for energy recovery [kg] 0.00E+00 0.00	Use RESU	se of re of non Use LTS O Hazar Non haz Radioa	newable renewa e of net FTHE Paran dous wa ardous wa	dary mat e second ble secor fresh wat LCA – 1 neter aste dispo waste disp aste disp	ary fuels adary fu er DUTPI sed posed posed	els	[MJ] [MJ] [m ³] OWS AN Unit [kg] [kg]	0.00 0.00 2.77 D WAS A1-3 2.29E- 7.74E- 1.78E-	DE+00 DE+00 2E-02 STE (3 03 1 01 7 03 8	0.00E+00 0.00E+00 1.76E-05 XTEGO A4 .45E-06 2.99E-05 3.32E-07	0 0.00E+0 0 0.00E+0 2.29E-0 RIES:1 1.78E-06 1.98E-03 1.51E-06	00 0.0 00 0.0 14 1.3 piece B 3.011 1.23E 3.18	0E+00 0E+00 6E+00 of HI 6 E-03 E+00 E-01	0.00E- 0.00E- 3.67E ES 100 C2 3.02E-0 1.67E-0 1.73E-0	+00 +00 -07 06 \$ 8 8 6 8	0.00E+(0.00E+(1.36E-C Series c C3 4.18E-05 9.73E-05 4.34E-05	00 0.0 00 0.0 04 -2 00 04 -2 00 00 00 00 00 00 00 00 00 00 00 00 00	00E+00 00E+00 69E-05 ic stri 6E-07 9E-02 0E-07	0.00E+00 0.00E+00 -8.70E-03 ke D -2.49E-04
Image:	Exported electrical epergy (A4.0) (100E+00 (0.00E+00 (0.00E+00) (0.00E+00 (0.00E+00) (0.00E+00 (0.00E+00) (0.00E+0)	Use RESU	e of non Use LTS O Hazar Non haz Radioa	renewa e of net FTHE Paran dous wa ardous va active wa	dary mat e second ble secor fresh wat LCA – neter aste dispo waste disp aste disp s for re-u	ary fuels dary fu er DUTPI sed posed posed se	els	[MJ] [MJ] [m ³] OWS AN Unit [kg] [kg] [kg]	0.00 0.00 2.73 D WAS 2.29E- 7.74E- 1.78E- 0.00E+	DE+00 DE+00 2E-02 STE 0 3 03 1 01 7 03 8 -00 0	0.00E+000 1.76E-05 ATEGO A4 .45E-06 .32E-07 .00E+00	0.00E+00 0.00E+0 0.00E+0 0.00E+0 0.00E+00	00 0.0 00 0.0 14 1.3 piecee 3.011 1.23E 3.18E 0.00E	0E+00 0E+00 6E+00 of HI 6 E-03 E+00 E-01 E+00	0.00E- 0.00E- 3.67E ES 100 C2 3.02E-0 1.67E-0 1.67E-0 0.00E+0	+00 +00 -07 06 \$ 8 8 6 8 8 00	0.00E+0 0.00E+0 1.36E-0 6eries e C3 4.18E-05 9.73E-05 4.34E-05 0.00E+00	00 0.1 00 0.1 04 -2 00 0.1 00 0.1 04 -2 0 0.1 0 5.5 5 5.7 5 2.3 0 0.0	00E+00 00E+00 69E-05 ic stri 6E-07 9E-02 0E-07 0E+00	0.00E+00 0.00E+00 -8.70E-03 ke -2.49E-04 -3.78E-01 -2.39E-04 -
Exported electrical energy radiu		RESU	lse of re of non Use Hazare Non haz Radioa Corr Mat	newable renewa e of net F THE Paran dous wa ardous wa ardous wa active wa nponents rerials for	dary mat e second ble secor fresh wat neter aste dispo waste disp aste disp s for re-u or recyclir	ary fuels idary fu er DUTPI ised posed posed se g	els	[MJ] [MJ] [m ³] OWS AN Unit [kg] [kg] [kg] [kg]	0.00 0.00 2.77 DWAS A1-3 2.29E- 7.74E- 1.78E- 0.00E+ 0.00E+	DE+00 DE+00 2E-02 STE C 3 03 1 01 7 03 8 00 0 00 0	0.00E+00 0.00E+00 1.76E-05 CATEGO A4 .45E-06 2.99E-05 3.32E-07 .00E+00 .00E+00	0.00E+00 0.00E+0 0.00E+0 0.00E+00 0.00E+00	00 0.0 00 0.0 04 1.3 DieCe B 3.011 1.23E 3.18E 0.00E	0E+00 0E+00 6E+00 6 6 E-03 E-03 E+00 E-01 E+00 E+00	0.00E- 0.00E- 3.67E ES 100 C2 3.02E-0 1.67E-0 1.73E-0 0.00E+0	+00 +00 -07 06 \$ 8 8 8 8 8 00 00	0.00E+0 0.00E+0 1.36E-0 Series e C3 4.18E-05 9.73E-05 4.34E-05 0.00E+00 6.89E-01	00 0.0 00 0.0 04 -2 00 0.0 00 0.0 00 0.0 0.0	00E+00 00E+00 69E-05 C4 6E-07 9E-02 0E-07 0E+00 0E+00	0.00E+00 0.00E+00 -8.70E-03 ke -2.49E-04 -3.78E-01 -2.39E-04 -
	Exported thermal energy [MJ] 0.00E+00 0.00E+00 9.95E-02 0.00E+00 0.00E+00 </td <td>RESU</td> <td>se of re of non Use Hazar Non haz Radioa Com Mat</td> <td>newable renewa e of net FTHE Paran dous wa ardous wa ardous wa ardous wa ardous for er</td> <td>dary mat a second ble secor fresh wat neter aste dispo waste disp aste disp s for re-u pr recyclir nergy rec</td> <td>ary fuels dary fu er DUTP(sed posed posed psed g g povery</td> <td>els</td> <td>[MJ] [MJ] [m³] OWS AN Unit [kg] [kg] [kg] [kg] [kg]</td> <td>0.00 0.00 2.73 0 WAS 2.29E- 7.74E- 1.78E- 0.00E+ 0.00E+ 0.00E+</td> <td>DE+00 DE+00 2E-02 STE 0 3 03 1 01 7 03 8 -00 0 -00 0</td> <td>0.00E+00 0.00E+00 1.76E-05 A1EGO A4 .45E-06 .99E-05 3.32E-07 .00E+00 .00E+00 .00E+00</td> <td>0 0.00E+00 0 0.00E+0 0 0.00E+0 1.29E-0 1.78E-06 1.98E-03 1.51E-06 0.00E+00 0.00E+00</td> <td>00 0.0 00 0.0 04 1.3 piecce B 3.011 1.23E 3.18E 0.00E 0.00E 0.00E</td> <td>0E+00 0E+00 6E+00 66 E-03 E+00 E-01 E+00 E+00 E+00 E+00</td> <td>0.00E- 0.00E- 3.67E ES 100 C2 3.02E-0 1.67E-0 1.73E-0 0.00E+0 0.00E+0</td> <td>+00 +00 -07 06 \$ 8 8 6 8 8 8 00 00 00</td> <td>0.00E+0 0.00E+0 1.36E-0 Series e C3 4.18E-05 9.73E-05 4.34E-05 0.00E+00 6.89E-01 0.00E+00</td> <td>00 0.1 00 0.4 04 -2 00 0.1 00 0.1 01 -2 00 0.1 00 0.1 00 0.1 00 0.0 00 0.0</td> <td>00E+00 00E+00 69E-05 C4 6E-07 9E-02 0E-07 0E+00 0E+00 0E+00</td> <td>0.00E+00 0.00E+00 -8.70E-03 ke -2.49E-04 -3.78E-01 -2.39E-04 - - - -</td>	RESU	se of re of non Use Hazar Non haz Radioa Com Mat	newable renewa e of net FTHE Paran dous wa ardous wa ardous wa ardous wa ardous for er	dary mat a second ble secor fresh wat neter aste dispo waste disp aste disp s for re-u pr recyclir nergy rec	ary fuels dary fu er DUTP(sed posed posed psed g g povery	els	[MJ] [MJ] [m ³] OWS AN Unit [kg] [kg] [kg] [kg] [kg]	0.00 0.00 2.73 0 WAS 2.29E- 7.74E- 1.78E- 0.00E+ 0.00E+ 0.00E+	DE+00 DE+00 2E-02 STE 0 3 03 1 01 7 03 8 -00 0 -00 0	0.00E+00 0.00E+00 1.76E-05 A1EGO A4 .45E-06 .99E-05 3.32E-07 .00E+00 .00E+00 .00E+00	0 0.00E+00 0 0.00E+0 0 0.00E+0 1.29E-0 1.78E-06 1.98E-03 1.51E-06 0.00E+00 0.00E+00	00 0.0 00 0.0 04 1.3 piecce B 3.011 1.23E 3.18E 0.00E 0.00E 0.00E	0E+00 0E+00 6E+00 66 E-03 E+00 E-01 E+00 E+00 E+00 E+00	0.00E- 0.00E- 3.67E ES 100 C2 3.02E-0 1.67E-0 1.73E-0 0.00E+0 0.00E+0	+00 +00 -07 06 \$ 8 8 6 8 8 8 00 00 00	0.00E+0 0.00E+0 1.36E-0 Series e C3 4.18E-05 9.73E-05 4.34E-05 0.00E+00 6.89E-01 0.00E+00	00 0.1 00 0.4 04 -2 00 0.1 00 0.1 01 -2 00 0.1 00 0.1 00 0.1 00 0.0 00 0.0	00E+00 00E+00 69E-05 C4 6E-07 9E-02 0E-07 0E+00 0E+00 0E+00	0.00E+00 0.00E+00 -8.70E-03 ke -2.49E-04 -3.78E-01 -2.39E-04 - - - -



6. LCA: Interpretation

This chapter contains an interpretation of the Life Cycle Impact Assessment categories. Stated percentages in the whole interpretation are related to the overall life cycle, excluding credits (module D).

The production phase (modules A1-A3) contributes between 3% and 22% to the overall results for all the environmental impact assessment categories hereby considered, except for the abiotic depletion potential (ADPE). For this, the contribution from the production phase accounts for app. 99% - this impact category describes the reduction of the global amount of non-renewable raw materials, therefore. As expected, it is mainly related with the extraction of raw materials (A1).

Within the production phase, the main contribution for all the impact categories is the production of steel, with app. 90%, mainly due to the energy consumption on this process. Stainless steel

7. Requisite evidence

Not applicable in this EPD.

8. References

Institut Bauen und Umwelt

Institut Bauen und Umwelt e.V., Berlin (pub.): Generation of Environmental Product Declarations (EPDs);

General principles

for the EPD range of Institut Bauen und Umwelt e.V. (IBU), 2013-04 www.bau-umwelt.de

PCR Part A

Institut Bauen und Umwelt e.V., Königswinter (pub.): Product Category Rules for Construction Products from the range of Environmental Product Declarations of Institut Bauen und Umwelt (IBU), Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Background Report. April 2013 www.bau-umwelt.de

IBU PCR Part B

IBU PCR Part B: PCR Guidance-Texts for Building-Related Products and Services. From the range of Environmental Product Declarations of Institute Construction and Environment e.V. (IBU). Part B: Requirements on the EPD for Locks and fittings. www.bau-umwelt.com

ISO 14025

DIN EN ISO 14025:2011-10: Environmental labels and declarations — Type III environmental declarations — Principles and procedures

EN 15804

EN 15804:2012+A1:2014: Sustainability of construction works - Environmental product

accounts with app. 74% to the overall mass of the product, therefore, the impacts are in line with the mass composition of the product. The environmental impacts for the transport (A2) have a negligible impact within this stage.

To reflect the use phase (module B6), the energy consumption was included and it has a major contribution for all the impact assessment categories considered - between 73% and 97%, with the exception of ADPE (1%). This is a result of 12 hours of operation in on mode per day and per 365 days in a year.

In the end-of-life phase, there are loads and benefits (module D, negative values) considered. The benefits are considered beyond the system boundaries and are declared for the recycling potential of the metals and for the credits from the incineration process (energy substitution).

declarations - Core rules for the product category of construction products

DIN EN 1154

DIN EN 1154: Building hardware - Controlled door closing devices - Requirements and test methods (includes amendment A1:2002)

OHSAS 18001

OHSAS 18001: 2007: Occupational Health and Safety Management Systems—Requirements

DIN EN ISO 14001

Environmental management systems - Requirements with guidance for use (ISO 14001:2004 + Cor. 1:2009)

DIN EN1634-1

Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware - Part 1: Fire resistance test for door and shutter assemblies and openable windows; German version EN 1634-1:2014

9. Annex

Results shown below were calculated using TRACI Methodology.

DESC	CRIP		F THE	SYST	ЕМ В	OUND	ARY ()	(= INC	LUDE	D IN	LCA;	MND :	= MOI	DULE	E NOT	DECL	ARED)	
PROE	DUCT	STAGE	STAGE CONSTRUCTI ON PROCESS STAGE				USE STAGE						ND OF	BE	EFITS AND LOADS YOND THE SYSTEM JNDARYS			
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement ¹⁾	Refurbishment ¹⁾	Operational energy use	Operational water use	De-construction demolition	Transport		waste processing	Reuse-	Recovery- Recycling- potential	
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	С	3 C	4	D	
Х	Х	Х	Х	Х	MND	MND	MND	MND	MND	Х	MND	MND	Х	>	X X	(Х	
RESU	JLTS	OF TH	IE LCA	- EN	/IRON	IMENT	AL IM	PACT:	1 pied	e of	HES 1	006 S	eries	elect	tric str	ike		
Parame	eter		Parame	eter		Ur	nit	A1-3	A4	A	.5	B6	C2	C3	зс	4	D	
GWF	Ρ	Globa	al warmin	g potenti	al	[kg CC	D ₂ -Eq.]	3.78E+00	4.59E-0	2 7.87	E-02 2.6	5E+02 9	.57E-04	1.69E	-02 3.03	E-03 -	1.10E+00	
ODF	Р	Deple strate	etion pote spheric c	ential of th zone lay	ne er	[kg CFC	:11-Eq.]	2.01E-09	2.34E-1	3 3.83	E-13 9.7	′5E-08 4	.87E-15	1.23E	-11 1.85	E-14	4.41E-11	
AP	,	Acidificat	ion poten wate		d and	[kg SC	0 ₂ -Eq.]	2.68E-02	2.75E-0	4 2.17	E-05 8.3	36E-01 5	.72E-06	7.56E	-05 6.13	E-06	1.03E-02	
EP	,	Eutro	ophicatio	n potentia	al	[kg N	l-eq.]	1.03E-03	1.94E-0	5 1.25	E-06 4.1	1E-02 4	.04E-07	3.22E	-06 4.96	E-07	2.37E-04	
Smo	og (Ground-level smog formation potential		ootential	[kg O	₃ -eq.]	2.89E-01	5.65E-0	E-03 5.07E-04		2E+00 1	.18E-04	6.85E	-04 1.14	E-04	8.61E-02		
Resour			rces – fos			[M	-						+02 1.90E-03 1.37E-0		-02 1.40	E-03	7.90E-01	
RESU	JLTS	OF TH	IE LCA	\ - RE	SOUR	CE US	E: 1 pi	ece of	HES	1006	Series	s elect	ric st	rike				
Param	neter		Param	eter		Unit	A1-3	A	1	A5	B6	C	2	C3	C4	1	D	
PEF	RE		able prim energy c	arrier		[MJ]	5.76E+0	- 00			-						-	
PER	RM	resource		erial util	zation	[MJ]	0.00E+0	0.00E+00 -						-	-			
PEF	RT	e	e of rene nergy res	sources	,	[MJ]	5.76E+0	00 2.50E	2.50E-02 2		6E-03 2.99E+02		E-04	5.51E-0)2 9.54E	-04 -	1.12E+00	
PEN	IRE		ewable p s energy		nergy	[MJ]	4.93E+0)1 -						-			-	
PEN	IRM		ewable p material		0,	[MJ]	0.00E+0	- 00			-		-		-		-	
PEN	IRT		ise of no ry energ			[MJ]	4.93E+(3E+01 6.36E-		01 2.58E-02 3.87E-		7E+03 1.32E-02		3.01E-0)1 1.18E	-02 -	-1.23E+01	
SN	М	Use of secondary material					00E+00 0.00E+0		0.00E+00 0		0.00E+00				0.00E+00			
H				ary mate	erial	[kg]	4.10E-0	01 0.00E	+00 0.	00E+00	0.00E+	00 0.00	E+00	0.00E+0	0.00E	+00	0.00E+00	
RS	SF	Use of	renewab fuel	le secor		[kg] [MJ]	4.10E-0			00E+00	0.00E+ 0.00E+			0.00E+0			0.00E+00	
RS NRS		Use	fuel of non r	le secor s enewabl	Idary	[MJ]	0.00E+0	00 0.00E	+00 0.	00E+00	0.00E+	00 0.00	E+00 (0.00E+0	0.00E	+00	0.00E+00	
NRS	SF	Use	fuel	le secor s enewabl y fuels	idary e	[MJ] [MJ]	0.00E+0	00 0.00E	+00 0.	00E+00 00E+00	0.00E+ 0.00E+	00 0.00	E+00 (0.00E+0	00 0.00E	+00	0.00E+00 0.00E+00	
NRS FV RESU	SF N JLTS	Use s Use	fuel of non r secondar of net fr	le secor s enewabl y fuels esh wate	ndary e er	[MJ] [MJ] [m³]	0.00E+0 0.00E+0 2.72E-0	00 0.00E 00 0.00E 02 1.76E	+00 0. +00 0.	00E+00 00E+00 29E-04	0.00E+ 0.00E+ 1.36E+	00 0.00 00 0.00 00 3.67	E+00 (E+00 (E-07	0.00E+0 0.00E+0 1.36E-0	00 0.00E	+00	0.00E+00	
NRS FV	SF W JLTS	Use s Use	fuel of non r secondar of net fr IE LCA	le secor s enewabl y fuels esh wate	e e TPUT	[MJ] [MJ] [m³]	0.00E+0 0.00E+0 2.72E-0	00 0.00E 00 0.00E 02 1.76E	+00 0. +00 0.	00E+00 00E+00 29E-04 TEG	0.00E+ 0.00E+ 1.36E+	00 0.00 00 0.00 00 3.67	E+00 (E+00 (E-07	0.00E+0 0.00E+0 <u>1.36E-0</u> f HES	00 0.00E	+00	0.00E+00 0.00E+00 8.70E-03	
NRS FV RESU strike	SF V JLTS e neter	Use S Use	fuel of non r secondar of net fr IE LCA	le secor s enewabl y fuels esh wate	idary e er TPUT	[MJ] [MJ] [m ³]	0.00E+0 0.00E+0 2.72E-0 /S ANE Unit	00 0.00E 00 0.00E 12 1.76E 0 WAS A1-3	+00 0. +00 0. -05 2. TE CA	00E+00 00E+00 29E-04 TEG	0.00E+ 0.00E+ 1.36E+ ORIES	00 0.00 00 0.00 00 3.67 5: 1 pic B6	E+00 (E+00 (E-07 0 E-07 0 C	0.00E+0 0.00E+0 <u>1.36E-0</u> f HE \$ 2	00 0.00E 00 0.00E 04 -2.69I S 1006 C3	+00 +00 E-05 Series C4	0.00E+00 0.00E+00 8.70E-03 s electric D	
NRS FV RESU strike Param	SF N JLTS heter	Use S OF TH	fuel of non r secondar of net fr IE LCA Pa	le secon s enewabl y fuels esh wate - OU rameter s waste c	idary e er TPUT	[MJ] [MJ] [m ³] FLOW	0.00E+0 0.00E+0 2.72E-0 /S AND	00 0.00E 1.76E 0 0.00E 2 1.76E 0 WAS A1-3 2.29E-0	+00 0. +00 0. -05 2. TE CA A 3 1.45	00E+00 00E+00 29E-04 TEG 4 5-06 1	0.00E+ 0.00E+ 1.36E+ ORIES A5 .78E-06	00 0.00 00 0.00 00 3.67 5: 1 pic B6 3.01E-0	E+00 (E+00 (E-07 CC 0 3 3.02	0.00E+0 0.00E+0 <u>1.36E-0</u> f HES 2 E-08	00 0.00E 00 0.00E 04 -2.69I S 1006 C3 4.18E-05	+00 +00 <u>5.56E-0</u>	0.00E+00 0.00E+00 8.70E-03 3 electric D 7 -2.49E-04	
NRS FW RESU strike Param HW	SF V JLTS Meter /D VD	Use S OF TH Ha Non	fuel of non r secondar of net fr IE LCA Pa azardous	le secor s enewabl y fuels esh wate - OU rameter s waste c us waste	idary e er TPUT disposec e dispos	[MJ] [MJ] [M ³] FLOW	0.00E+(0.00E+(2.72E-(/S ANE Unit [kg] [kg]	00 0.00E 10 0.00E 12 1.76E 1.76E 2.29E-0 7.74E-0	+00 0. +00 0. -05 2. TE CA 3 1.451 1 7.991	00E+00 00E+00 29E-04 TEG 4 E-06 1 E-05 1	0.00E+ 0.00E+ 1.36E+ ORIES A5 .78E-06 .98E-03	00 0.00 00 0.00 00 3.67 5: 1 pic B6 3.01E-0 1.23E+0	E+00 (E+00 (E-07 0 CC 0 C 3 3.022 0 1.67	D.00E+0 D.00E+0 <u>1.36E-0</u> f HES <u>2</u> E-08 4 E-06 1	00 0.00E 00 0.00E 04 -2.69 S 1006 C3 4.18E-05 9.73E-05	+00 +00 <u>-05</u> Series C4 5.56E-0 5.79E-0	0.00E+00 0.00E+00 8.70E-03 6 electric 7 -2.49E-04 2 -3.78E-01	
NRS FV RESU strike Param HW NHW	SF W JLTS heter /D WD /D	Use S OF TH Ha Non Ra	fuel e of non r secondar of net fr IE LCA Pa azardous hazardo	le secor s enewabl y fuels esh wate - OU rameter waste c us waste e waste	idary e Pr TPUT disposec e dispos	[MJ] [MJ] [M ³] FLOW	0.00E+0 0.00E+0 2.72E-0 /S ANE Unit [kg] [kg]	00 0.00E 10 0.00E 11.76E 1.76E 1.76E 1.76E 1.78E-0 1.78E-0	+00 0. +00 0. -05 2. TE CA 3 1.451 1 7.991 3 8.321	00E+00 00E+00 <u>29E-04</u> TEG 4 E-06 1 E-05 1 E-05 1 E-07 1	0.00E+ 0.00E+ 1.36E+ ORIES A5 .78E-06 .98E-03 .51E-06	00 0.00 00 0.00 00 3.67 5: 1 pic B6 3.01E-0 1.23E+0 3.18E-0	E+00 (E+00 (E-07 0 CC 0 CC 0 CC 0 CC 0 CC 0 CC 0 CC 1 CC 1	2.00E+0 0.00E+0 1.36E-0 f HES 2 E-08 E-08 E-08	00 0.00E 00 0.00E 04 -2.691 S 1006 C3 4.18E-05 9.73E-05 4.34E-05	+00 +00 Series C4 5.56E-00 5.79E-00 2.30E-0	0.00E+00 0.00E+00 8.70E-03 Selectric D 7 -2.49E-04 2 -3.78E-01 7 -2.39E-04	
NRS FV RESU strike Param HW NHW RW	SF V JLTS Meter /D VD /D	Use S OF TH Ha Non Ra	fuel of non r secondar of net fr IE LCA Pa azardous hazardo dioactive	le secor s enewabl y fuels esh wate a waste us waste e waste e mts for	idary e er TPUT disposed e disposed re-use	[MJ] [MJ] [M ³] FLOW	0.00E+0 0.00E+0 2.72E-0 /S AND [kg] [kg] [kg]	00 0.00E 00 0.00E 12 1.76E 0 WAS 2.29E-0 7.74E-0 1.78E-0 0.00E+C	+00 0. +00 0. -05 2. TE CA 3 1.451 1 7.991 3 8.321 0 0.006	00E+00 00E+00 29E-04 TEG 4 5-06 1 5-05 1 5-07 1 5+00 0.	0.00E+ 0.00E+ 1.36E+ ORIES A5 .78E-06 .98E-03 .51E-06 .00E+00	00 0.00 00 0.00 00 3.67 5: 1 pic B6 3.01E-0 1.23E+0 3.18E-0 0.00E+0	E+00 (E+00 (E-07 0 C C 3 3.02 0 1.67 1 1.73 0 0.000	2.000E+0 1.36E-0 f HES 2 E-08 E-08 E-08 E-08 E-08 E-08 C	00 0.00E 00 0.00E 04 -2.691 S 1006 C3 4.18E-05 9.73E-05 4.34E-05 0.00E+00	+00 +00 E-05 Series 5.56E-0 5.79E-0 2.30E-0 0.00E+0	0.00E+00 0.00E+00 8.70E-03 s electric D 7 -2.49E-04 2 -3.78E-01 7 -2.39E-04 0 -	
NRS FV RESU strike Param HW NHW RW CRI	SF V JLTS neter /D VD /D :U :R	Use S OF TH Ha Non Ra	fuel of non r secondar of net fr IE LCA Pa azardous hazardo dioactive Compon	le secor s enewably y fuels esh wate esh wate waste o us waste e waste o ents for s for rec	idary e er TPUT disposec e disposec disposec re-use ycling	[MJ] [MJ] [m ³] FLOW	0.00E+0 0.00E+0 2.72E-0 /S ANE Unit [kg] [kg]	00 0.00E 00 0.00E 1.76E 2 1.76E 2 2.29E-0 7.74E-0 1.78E-0 0.00E+0 0.00E+0	+00 0. +00 0. -05 2. TE CA 3 1.451 1 7.991 3 8.321 0 0.00E 0 0.00E	DOE+00 DOE+00 29E-04 TEG 4 E-06 1 E-05 1 E-07 1 E+00 0. E+00 0.	0.00E+ 0.00E+ 1.36E+ ORIES A5 .78E-06 .98E-03 .51E-06 .00E+00 .00E+00	00 0.00 00 0.00 00 3.67 5: 1 pic B6 3.01E-0 1.23E+0 3.18E-0 0.00E+0 0.00E+0	E+00 (E+00 (E-07) CC 0 CC 0 C 0 3 3.022 0 1.67 1 1.73 0 0.001 0 0.001	2.000E+0 1.36E-0 f HES 2 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08 E-08	00 0.00E 00 0.00E 04 -2.691 S 1006 C3 4.18E-05 9.73E-05 4.34E-05 0.00E+00 6.89E-01	+00 +00 E-05 Series 5.56E-07 5.79E-02 2.30E-07 0.00E+0 0.00E+0	0.00E+00 0.00E+00 8.⊤0E-03 electric D 7 -2.49E-04 2 -3.78E-01 7 -2.39E-04 0 - 0 - 0 -	
RESU strike Param HW NHW RW CRI	SF V ULTS D ND VD VD VD C R R R	Use Use OF TH Ha Non Ra Ma	fuel of non r secondar of net fr IE LCA Pa azardous hazardo dioactive Compon Material	le secor s enewably y fuels esh wate - OU rameter waste c us waste e waste c ents for s for rec r energy	e er TPUT disposed e disposed disposed re-use ycling recover	[MJ] [MJ] [m ³] FLOW I ed d	0.00E+0 0.00E+0 2.72E-0 (S AND [kg] [kg] [kg] [kg]	00 0.00E 00 0.00E 12 1.76E 0 WAS 2.29E-0 7.74E-0 1.78E-0 0.00E+C	+00 0. +00 0. -05 2. TE CA 3 1.451 1 7.991 3 8.321 0 0.00E 0 0.00E 0 0.00E	DOE+00 DOE+00 29E-04 TEG 4 E-06 1 E-05 1 E-07 1 E+00 0. E+00 E+00 0. E+00 E+00	0.00E+ 0.00E+ 1.36E+ ORIES A5 .78E-06 .98E-03 .51E-06 .00E+00	00 0.00 00 0.00 00 3.67 5: 1 pic B6 3.01E-0 1.23E+0 3.18E-0 0.00E+0	E+00 (E+00 (E-07 (C 0 C 0 C 0 C 0 C 0 C 0 C 0 C 0 C 0 C 0	2.00E+0 1.36E-0 f HES 2 E-08 4 E-06 9 E-08 4 E-08 4 E-	00 0.00E 00 0.00E 04 -2.691 S 1006 C3 4.18E-05 9.73E-05 4.34E-05 0.00E+00	+00 +00 E-05 Series 5.56E-0 5.79E-0 2.30E-0 0.00E+0	0.00E+00 0.00E+00 8.70E-03 electric D 7 -2.49E-04 2 -3.78E-01 7 -2.39E-04 0 - 0 - 0 - 0 -	

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