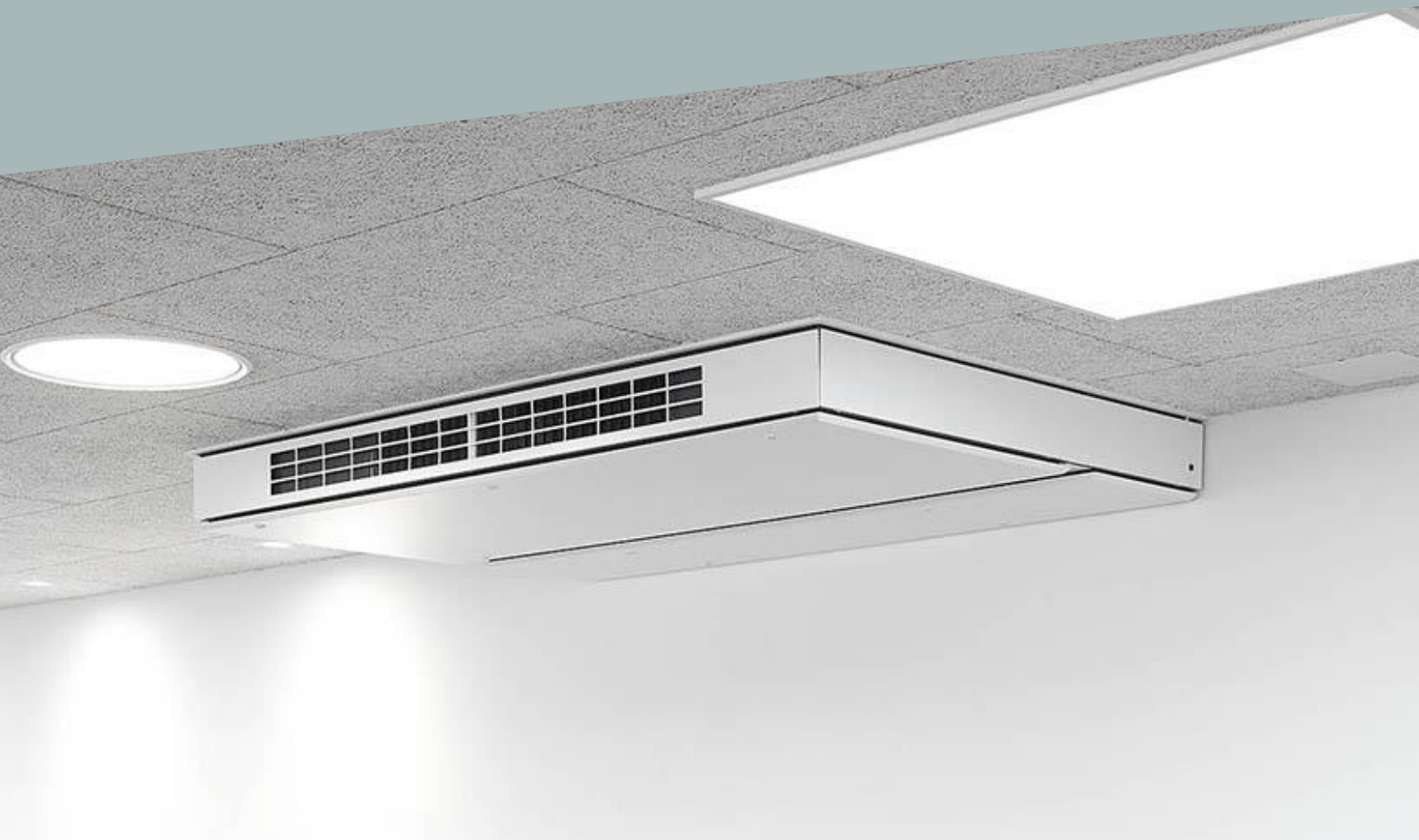


Owner: Airmaster A/S
No.: MD-23078-EN_rev1
First issue: 02-06-2023
Issued: 22-02-2024
Valid to: 22-02-2029

3rd PARTY VERIFIED

EPD

VERIFIED ENVIRONMENTAL PRODUCT DECLARATION | ISO 14025 & EN 15804



Owner of declaration
 Airmaster A/S,
 Industrivej 59, 9600 Aars
 CVR: 29527393

AIRMASTER

Programme
 EPD Danmark
www.epddanmark.dk



- Industry EPD
- Product EPD

Declared product(s)

The declared products are listed below:

- AM150 decentralised ventilation unit (DVU)
- AM300 decentralised ventilation unit (DVU)
- AM500 decentralised ventilation unit (DVU)
- AM800 decentralised ventilation unit (DVU)
- AM900 decentralised ventilation unit (DVU)
- AM1000 decentralised ventilation unit (DVU)
- AM1200 decentralised ventilation unit (DVU)

In this document referred to as the DVUs.

The EPD is an average EPD for the products:

- AML150
- AML300
- AMP500 H, AMP500V, AML500 H, and AML500 V
- AMP800 H, AMP800V, AML800 H, and AML800 V
- AMP900 H and AMP900 V
- AMP1000
- AMP1200 H and AMP1200 V

It has not been possible to group the datasets within +/- 10% of the average. Therefore, the EPD is based on a 'reference worst case product' within the aforementioned product range. For the AM150, AM300, and AM1000 the results are based on the versions AML150, AML300, and AMP1000.

Number of declared datasets/product variations: 7

Production sites

Industrivej 35, Industrivej 59, and Tolstrupbyvej 8,
 9600 Aars
 Denmark

Product(s) use

Decentralised ventilation unit for rooms.

Declared/ functional unit

One piece of decentralised ventilation unit with an air capacity of 115 – 1050 m3/h (varying per product).

Year of production site data (A3)

2021

EPD version

No. 2: new products added and EPD validity extended at re-verification.

Issued:
 22-02-2024

Valid to:
 22-02-2029

Basis of calculation

This EPD is developed in accordance with the European standard EN 15804+A2.

Comparability

EPDs of construction products may not be comparable if they do not comply with the requirements in EN 15804. EPD data may not be comparable if the datasets used are not developed in accordance with EN 15804 and if the background systems are not based on the same database.

Validity

This EPD has been verified in accordance with ISO 14025 and is valid for 5 years from the date of issue.

Use

The intended use of an EPD is to communicate scientifically based environmental information for construction products, for the purpose of assessing the environmental performance of buildings.

EPD type

- Cradle-to-gate with modules C1-C4 and D
- Cradle-to-gate with options, modules C1-C4 and D
- Cradle-to-grave and module D
- Cradle-to-gate
- Cradle-to-gate with options

CEN standard EN 15804 serves as the core PCR	
Independent verification of the declaration and data, according to EN ISO 14025	
<input type="checkbox"/> internal	<input checked="" type="checkbox"/> external
Third party verifier:	
 _____ Mirko Miseljic	



 Martha Katrine Sørensen
 EPD Danmark

Product information

Life cycle stages

Life cycle stages and modules (MND = module not declared)																
Product			Construction process		Use							End of life			Beyond the system boundary	
Raw material supply	Transport	Manufacturing	Transport	Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-contruction demolition	Transport	Waste processing	Disposal	Re-use, recovery and recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Product description

The dimensions (WxHxD) and weight of decentralised ventilation unit (DVUs) are listed in the following table:

Ventilation unit	Dimensions - WxHxD (mm)	Weight (kg)	Capacity at 30DB(A) (m ³ /h)
AM150	1170 x 261 x 862	54.5	115
AM300	1180 x 344 x 705	83.9	210
AM500	1600 x 439 x 779	145.3	430
AM800	1910 x 174 x 916	166.6-168.5	650
AM900	800 x 2323 x 602	190.5	690
AM1000	2325 x 561 x 1283	322.4	950
AM1200	496 x 2406 x 2427	489.3	1050

The function of the DVUs is to provide fresh air by circulating air through supply and exhaust filters which removes dust and particles and lowers the CO2 levels in the indoor climate. The DVUs allow being installed on the wall and ceiling. The units are applicable for larger rooms with a higher activity of people such as classrooms, offices, and meeting rooms etc. The unit has an automatically adjustable supply that adjusts the diffusion of air in the room.

The main product components are shown in the table below.

DVUs	AM150	AM300	AM500	AM800	AM900	AM1000	AM1200
Material	Weight-% of declared product						
Steel	54%	54%	63%	55%	63%	79%	59%
MDF	9%	8%	9%	7-8%	5%	0%	20%
Electronics	14%	12%	16%	21%	15%	10%	14%
Insulation	18%	23%	8%	11%	13%	7%	4%
Aluminium	0%	0%	1%	2-3%	0%	2%	1%
Plastics	2%	2%	1%	1%	3%	2%	1%
Other	2%	2%	2%	2-3%	1%	1%	1%
Total	100%	100%	100%	100%	100%	100%	100%

Product packaging:

The composition of the sales- and transport packaging of the product is shown in the table below.

DVUs	AM150	AM300	AM500	AM800	AM900	AM1000	AM1200
Materials for packaging	kg						
Cardboard	0.23	0.23	3.14	6.21-6.68	-	0.44	2.10
EPS	1.75	2.00	-	-	1.80	-	0.72
LDPE	0.28	0.34	-	-	0.77	2.00	1.20
Polyethylene	-	-	0.06	0.08	-	0.10	0.26
PE foam	-	-	0.01	0.02	-	0.12	-
Wooden pallet	7.50	7.50	14.50	20.20	32.35	36.20	42.98
Total	9.76	10.08	17.71	26.51-26.98	34.92	38.86	47.26

Representativity

This declaration, including data collection and the modelled foreground system including results, represents the production of the DVUs on the production sites located in Aars, Denmark. Airmaster has three production sites where the DVUs are assembled.

Product specific data are based on values collected in the period January to December 2021. Background data are less than 10 years old and are based on GaBi Professional database and EcoInvent. Generally, the used background datasets are of high quality.

Hazardous substances

The DVUs do not contain substances listed on the "Candidate List of Substances of Very High Concern for authorisation".

(<http://echa.europa.eu/candidate-list-table>)

Essential characteristics

The DVUs are covered by harmonised technical specification EN 1886:2008 and EN 13141-7:2010. Additionally, the DVUs comply with following EU directives: DIRECTIVE 2006/42/EC, DIRECTIVE 2014/30/EC, DIRECTIVE 2009/125/EC, and DIRECTIVE 2011/65/EU.

Further technical information can be obtained by contacting the manufacturer or on the manufacturer's website:

- <https://airmaster.dk/produkter/vaeghaengte-ventilationsanlaeg>
- <https://airmaster.dk/produkter/ventilationsanlaeg-gulvstaaende>

For the specific available options and models of the DVUs contact Airmaster A/S.

Reference Service Life (RSL)

The reference service life is set to 25 years, which is an estimated average lifetime based on [BUILD Report 2021:32](#) by Department of the Built Environment (Aalborg University).

Picture of product(s)



Figure 1 AM150



Figure 3 AM500



Figure 2 AM300

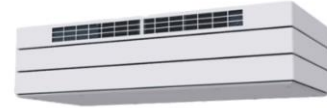


Figure 4 AM800



Figure 5 AM900



Figure 6 AM1200



Figure 7 AM1000

LCA background

Declared unit

The LCI and LCIA results in this EPD relates to "One decentralised ventilation unit with an air capacity of 115 – 1050 m³/h (varying per product)".

Name	AM150	AM300	AM500	AM800	AM900	AM1000	AM1200
Declared unit	1	1	1	1	1	1	1
Density (kg)	54.5	83.9	145.3	166.6-168.5	190.5	322.4	489.3
Conversion factor to 1 kg	0.018	0.012	0.007	0.006	0.005	0.003	0.002

Functional unit

One decentralised ventilation unit with an air capacity of 115 – 1050 m³/h (varying per product) at the reference flow rate of 70% of the maximum flow rate and an annual operating hours of 8760 hours.

PCR

This EPD is developed according to the core rules for the product category of construction products in PCR EN 15804:2012+A2:2019 and the following complementary PCR:

- EN 50693:2019

Guarantee of Origin – certificates

Foreground system:

The products are produced without using any GO's. The energy process is modelled using 'electricity, medium voltage, residual mix' for Denmark from EcoInvent.

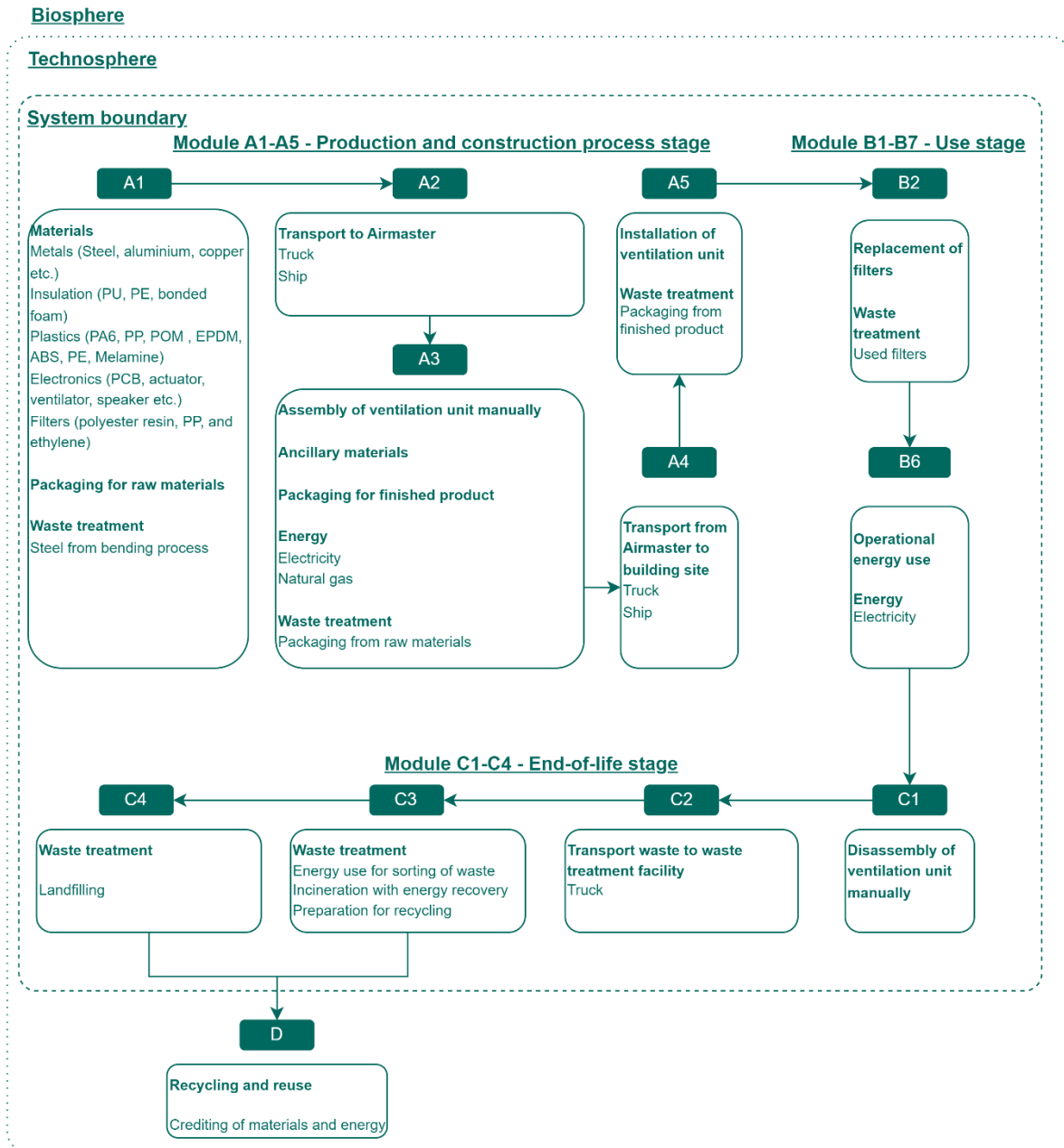
Background system:

Most of the upstream processes have electricity included modelled using the grid mix. For some specific processes where it has been possible to define the specific electricity mix, these were modelled using the country-specific residual mix. Downstream processes are modelled using electricity grid mix for RER.

Geographical area

The geographical area is Europe.

Flow diagram



System boundary

This EPD is based on a cradle-to-gate with options, modules C1-C3 and module D cf. EN 15804 + A2, in which 100%-weight of the products have been accounted for.

The general rules for the exclusion of inputs and outputs follows the requirements in EN 15804, 6.3.5, where the total of neglected input flows per module shall be a maximum of 5 % of energy usage and mass and 1 % of energy usage and mass for unit processes.

Product stage (A1-A3) includes:

A1 – Extraction and processing of raw materials

A2 – Transport to the production site

A3 – Manufacturing processes

The product stage comprises the acquisition of all raw materials, products and energy, transport to the production site, packaging and waste processing up to the "end-of-waste" state or final disposal. The LCA results are declared in aggregated form for the product stage, which means, that the sub-modules A1, A2 and A3 are declared as one module A1-A3.

Steel: The DVUs have a steel cabinet which account for the majority of the weight. The scrap content in the steel varies from 17.4-18.2%. The cabinet sheets are bended, welded, and surface treated at the suppliers before arriving at Airmaster. A process has been included in module A1 to account for these processes. Additionally, small fixing parts is included in the steel.

Aluminium: The aluminium is modelled as primary aluminium.

Plastic: There are several types of plastic components in the DVUs which are modelled using representative datasets on the plastic types. A process is included to account for the moulding and shaping of the plastic components.

Electronic: As the DVUs are an electronic ventilation unit, several electronic components are present in the unit. These are modelled based on information from suppliers.

Insulation: The DVUs are insulated using PE foam, PU foam and bonded foam. Bonded foam is a secondary material and thus included without any impacts. However, impacts associated with shredding and adhesive to mould bonded foam is included.

Generally, the components of the DVUs are premanufactured and assembled manually at the production sites in Aars (DK). Airmaster has three different production sites in Aars where the DVUs are

assembled. Energy from these sites has been allocated based on man-hours for the assembly of the units.

Construction process stage (A4-A5) includes:

Module A4 includes the impacts associated with the transport of the finished product. The finished product is distributed to different markets in EU. The utilization capacity of the truck (including empty return) is 47.8%. Additionally, transportation with ship is also included. The utilization capacity is 70%.

A weighted average distance has been calculated based on the market distribution.

The installation of the DVUs is done manually. Therefore, the energy needed for this process is only associated with an electric screwdriver. Additionally, screws are needed for installation. These two processes are excluded due to the negligible impacts.

Module A5 includes the end-of-life treatment of the packaging. Here, cardboard, LDPE foil and EPS are assumed recycled.

AM150, AM300, and AM 1200 are distributed on EUR wooden pallets. Due to the durability of EUR-wooden pallets it is assumed that the pallets are reused 25 times. Thus, 1/25 of the EUR pallet is attributed to these ventilation units. For AM500, AM800, AM 900, and AM1000 customised pallets are used. These are one time use due to customised dimensions and therefore the whole pallet is modelled. Wooden pallets are assumed incinerated after use.

Use stage (B1-B7) includes:

B1 + B3-B5 + B7: As this is an electronic component, all the b-modules must be declared.

B1: During the use, no emissions to the environment are expected during the reference service life.

B3-B5: No repair, replacement, or refurbishment due to damage is expected within the reference service life of 25 years (module B3-B5).

B7: There is no operational water use to operate the DVUs, therefore no environmental impacts are included in module B7.

B2: To maintain the performance of the DVUs and ensure a continuous supply of fresh, ventilated air continuously throughout their lifetime, it is necessary to replace ventilation filters. Airmaster recommends replacing both the supply and exhaust filters annually to maintain optimal DVU performance. The production of new filters is accounted for in B2 according to EN 15804 + A2. Additionally, the waste treatment of used

filters is considered in B2. It is important to note that B2 is modelled for one year to align with the B modules and does not represent the estimated reference service life of 25 years.

B6: The Ecodesign Directive (COMMISSION REGULATION (EU) No 1253/2014 of 7 July 2014 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for ventilation units) is used to determine the reference capacity and thus the energy use of the ventilation units. The Ecodesign requirements determine that the reference flow rate as 70% of the maximum flow rate. The annual operating hours are set to 8760 hours as a conservative approach which is in accordance with the default value that is used in the Ecodesign directive to calculate the SEC (specific energy consumption). For this EPD the reference scenario is based on the use of the filters ePM10 50%/ ePM10 50% with a 30 dB(A). The RER electricity mix has been applied to model the usage of energy for the DVUs, as the geographical scope is European. B6 is modelled for 1 year and does therefore not represent the estimated reference service life of 25 years. According to the Danish Building Regulation, B6 from EPDs is not used in the LCA modelling of buildings. Therefore, one year has been included to indicate an average electricity use for the given scenario.

End of Life (C1-C4) includes:

No impacts from dismantling have been included in module C1 as this is done manually.

Module C2 includes the impacts associated with the transport of the waste from the dismantling to the waste handling. The product is placed on different European markets, average distances to waste handling for countries have been included to account for the different distances.

Materials	Truck (km)
Steel	500
Aluminium	500
Copper	450
Plastic	365
Cardboard	455
Incineration	50
Inert materials (landfilling)	250

Module C3 contains the impacts of waste handling. The waste scenario is derived from EN 50693:2019 Product Category Rules for the life cycle assessments of electronic and electrical products and systems. Due to uncertainties surrounding the disposal of electronic and electrical equipment (EEE) and variations in waste management practices across different European countries, the waste handling of these units is based on EN 50693:2019. The waste scenario is a default scenario, and the values will vary depending on the specific EEE product. Energy for shredding the DVUs are included.

Module C4 covers the impacts of landfilling.

Following waste treatment rates (recycling, incineration, and landfilling) are included in the waste treatment.

Materials	Recycling rate (%)	Incineration rate (%)	Landfilling Rate (%)
Steel	80	0	20
Aluminium	70	0	30
Insulation	0	50	50
Plastics	20	40	40
Metals in electronics	90	0	10
Filters	0	100	0

Re-use, recovery and recycling potential (D) include:

In module D potential benefits from recovery and recycling of materials in the product are calculated. The materials are either used as secondary materials in a new product system, thus substituting virgin materials, or incinerated with energy recovery. To avoid double counting, the amount of scrap in the steel and bonded foam is not credited in module D.

LCA results

ENVIRONMENTAL IMPACTS PER AM150														
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	2.32E+02	4.84E+00	8.72E-01	0.00E+00	1.40E+00	0.00E+00	3.56E+01	0.00E+00	0.00E+00	7.91E-01	2.43E+01	6.10E-01	-3.24E+01
GWP-fossil	kg CO ₂ eq.	2.40E+02	4.79E+00	1.34E-01	0.00E+00	1.40E+00	0.00E+00	3.52E+01	0.00E+00	0.00E+00	7.82E-01	1.59E+01	6.17E-01	-3.22E+01
GWP-biogenic	kg CO ₂ eq.	-7.97E+00	1.09E-02	7.38E-01	0.00E+00	4.28E-03	0.00E+00	3.07E-01	0.00E+00	0.00E+00	1.79E-03	8.39E+00	-7.62E-03	-1.73E-01
GWP-luluc	kg CO ₂ eq.	2.73E-01	4.48E-02	9.44E-04	0.00E+00	2.35E-04	0.00E+00	3.84E-03	0.00E+00	0.00E+00	7.32E-03	1.23E-04	5.60E-04	-6.73E-03
ODP	kg CFC 11 eq.	4.66E-06	6.29E-13	2.05E-13	0.00E+00	1.89E-09	0.00E+00	6.51E-10	0.00E+00	0.00E+00	1.03E-13	4.38E-12	1.03E-12	-2.31E-10
AP	mol H ⁺ eq.	1.02E+00	2.62E-02	7.18E-04	0.00E+00	2.43E-03	0.00E+00	7.51E-02	0.00E+00	0.00E+00	4.21E-03	8.70E-03	1.91E-03	-1.19E-01
EP-freshwater	kg P eq.	1.13E-01	1.77E-05	3.28E-06	0.00E+00	6.15E-05	0.00E+00	1.32E-04	0.00E+00	0.00E+00	2.89E-06	1.11E-06	6.85E-05	-8.03E-05
EP-marine	kg N eq.	2.22E-01	1.26E-02	3.31E-04	0.00E+00	5.91E-04	0.00E+00	1.80E-02	0.00E+00	0.00E+00	2.03E-03	3.77E-03	4.56E-04	-2.15E-02
EP-terrestrial	mol N eq.	2.38E+00	1.40E-01	3.53E-03	0.00E+00	6.36E-03	0.00E+00	1.88E-01	0.00E+00	0.00E+00	2.25E-02	4.57E-02	5.01E-03	-2.31E-01
POCP	kg NMVOC eq.	7.22E-01	2.49E-02	7.51E-04	0.00E+00	2.84E-03	0.00E+00	4.80E-02	0.00E+00	0.00E+00	3.99E-03	9.80E-03	1.44E-03	-7.31E-02
ADPm ¹	kg Sb eq.	3.37E-02	3.21E-07	8.53E-09	0.00E+00	1.51E-06	0.00E+00	5.45E-06	0.00E+00	0.00E+00	5.24E-08	3.81E-08	1.66E-08	-8.78E-04
ADP ¹	MJ	3.83E+03	6.59E+01	1.92E+00	0.00E+00	2.85E+01	0.00E+00	7.40E+02	0.00E+00	0.00E+00	1.08E+01	8.77E+00	9.23E+00	-5.99E+02
WDP ¹	m ³ world eq. deprived	4.68E+01	5.84E-02	5.71E-02	0.00E+00	3.44E-01	0.00E+00	7.75E+00	0.00E+00	0.00E+00	9.56E-03	2.43E+00	-8.59E-03	-4.80E+00
Caption	GWP-total = Global Warming Potential - total; 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 = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADP = Abiotic Depletion Potential – fossil fuels; WDP = water use													
Disclaimer	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.													

ADDITIONAL ENVIRONMENTAL IMPACTS PER AM150														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
PM	[Disease incidence]	9.10E-06	9.10E-06	1.34E-07	4.16E-09	0.00E+00	1.89E-08	0.00E+00	6.32E-07	0.00E+00	0.00E+00	2.07E-08	3.56E-08	1.94E-08
IRP ²	[kBq U235 eq.]	1.91E+01	1.91E+01	1.85E-02	5.31E-03	0.00E+00	2.32E-02	0.00E+00	1.95E+01	0.00E+00	0.00E+00	3.02E-03	1.05E-01	1.60E-02
ETP-fw ¹	[CTUe]	3.21E+03	3.21E+03	4.72E+01	1.29E+00	0.00E+00	9.62E+00	0.00E+00	2.06E+02	0.00E+00	0.00E+00	7.72E+00	3.36E+00	5.69E+00
HTP-c ¹	[CTUh]	5.43E-07	5.43E-07	9.60E-10	4.02E-11	0.00E+00	3.04E-10	0.00E+00	1.09E-08	0.00E+00	0.00E+00	1.57E-10	2.46E-10	3.71E-10
HTP-nc ¹	[CTUh]	7.97E-06	7.97E-06	4.26E-08	2.61E-09	0.00E+00	1.02E-08	0.00E+00	1.74E-07	0.00E+00	0.00E+00	6.97E-09	7.42E-09	3.18E-08
SQP ¹	[Pt]	1.33E+03	1.33E+03	2.75E+01	6.81E-01	0.00E+00	1.10E+00	0.00E+00	2.92E+02	0.00E+00	0.00E+00	4.50E+00	2.54E+00	8.26E-01
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; Land use = LU; SQP = Soil Quality													
Disclaimers	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. ² This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.													

RESOURCE USE PER AM150														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
PERE	[MJ]	3.56E+02	4.79E+00	2.32E-01	0.00E+00	1.03E+00	0.00E+00	4.43E+02	0.00E+00	0.00E+00	7.84E-01	2.79E+00	8.31E-01	-2.06E+02
PERM	[MJ]	2.32E+02	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	0.00E+00	0.00E+00
PERT	[MJ]	5.88E+02	4.79E+00	2.32E-01	0.00E+00	1.23E+00	0.00E+00	4.43E+02	0.00E+00	0.00E+00	7.84E-01	2.79E+00	8.31E-01	-2.06E+02
PENRE	[MJ]	3.19E+03	6.62E+01	1.92E+00	0.00E+00	2.85E+01	0.00E+00	7.40E+02	0.00E+00	0.00E+00	1.08E+01	8.77E+00	9.24E+00	-6.00E+02
PENRM	[MJ]	6.50E+02	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	0.00E+00	0.00E+00
PENRT	[MJ]	3.84E+03	6.62E+01	1.92E+00	0.00E+00	2.88E+01	0.00E+00	7.40E+02	0.00E+00	0.00E+00	1.08E+01	8.77E+00	9.24E+00	-6.00E+02
SM	[kg]	7.33E+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	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	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	0.00E+00	0.00E+00	0.00E+00
FW	[m ³]	1.40E+00	5.25E-03	1.46E-03	0.00E+00	1.01E-02	0.00E+00	3.56E-01	0.00E+00	0.00E+00	8.59E-04	5.78E-02	9.66E-05	-2.89E-01
Caption	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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water													

WASTE CATEGORIES AND OUTPUT FLOWS PER AM150														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
HWD	[kg]	6.60E-05	2.05E-10	2.35E-11	0.00E+00	1.17E-09	0.00E+00	-5.79E-08	0.00E+00	0.00E+00	3.35E-11	1.41E-10	7.71E-10	-1.90E-06
NHWD	[kg]	1.01E+01	1.01E-02	2.56E-01	0.00E+00	7.33E-02	0.00E+00	5.43E-01	0.00E+00	0.00E+00	1.65E-03	6.25E-01	1.08E+01	-3.54E+00
RWD	[kg]	5.22E-02	1.24E-04	3.28E-05	0.00E+00	9.57E-05	0.00E+00	1.17E-01	0.00E+00	0.00E+00	2.02E-05	6.51E-04	1.09E-04	-2.71E-02

CRU	[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	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	3.18E+00	0.00E+00	1.67E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.14E+01	0.00E+00	0.00E+00
MER	[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	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	1.20E+00	0.00E+00	6.79E-01	0.00E+00	5.62E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.99E+01	0.00E+00	0.00E+00
EET	[MJ]	2.73E+00	0.00E+00	1.22E+00	0.00E+00	1.05E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.13E+01	0.00E+00	0.00E+00

Caption HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy

ENVIRONMENTAL IMPACTS PER AM300														
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	3.41E+02	7.53E+00	9.03E-01	0.00E+00	7.03E-01	0.00E+00	6.84E+01	0.00E+00	0.00E+00	1.03E+00	2.96E+01	8.10E-01	-6.36E+01
GWP-fossil	kg CO ₂ eq.	3.51E+02	7.45E+00	1.58E-01	0.00E+00	7.00E-01	0.00E+00	6.78E+01	0.00E+00	0.00E+00	1.02E+00	1.91E+01	8.19E-01	-6.33E+01
GWP-biogenic	kg CO ₂ eq.	-1.01E+01	1.70E-02	7.44E-01	0.00E+00	2.14E-03	0.00E+00	5.91E-01	0.00E+00	0.00E+00	2.34E-03	1.05E+01	-1.01E-02	-2.86E-01
GWP-luluc	kg CO ₂ eq.	3.77E-01	6.96E-02	1.13E-03	0.00E+00	1.17E-04	0.00E+00	7.39E-03	0.00E+00	0.00E+00	9.57E-03	1.51E-04	7.57E-04	-1.51E-02
ODP	kg CFC 11 eq.	5.60E-06	9.79E-13	2.56E-13	0.00E+00	9.45E-10	0.00E+00	1.25E-09	0.00E+00	0.00E+00	1.34E-13	5.92E-12	1.37E-12	-3.52E-10
AP	mol H ⁺ eq.	1.47E+00	4.08E-02	8.35E-04	0.00E+00	1.22E-03	0.00E+00	1.45E-01	0.00E+00	0.00E+00	5.50E-03	1.02E-02	2.55E-03	-2.54E-01
EP-freshwater	kg P eq.	1.36E-01	2.75E-05	3.79E-06	0.00E+00	3.08E-05	0.00E+00	2.54E-04	0.00E+00	0.00E+00	3.78E-06	1.48E-06	7.66E-05	-1.24E-04
EP-marine	kg N eq.	3.16E-01	1.96E-02	3.85E-04	0.00E+00	2.96E-04	0.00E+00	3.46E-02	0.00E+00	0.00E+00	2.65E-03	4.35E-03	6.14E-04	-4.27E-02
EP-terrestrial	mol N eq.	3.38E+00	2.18E-01	4.12E-03	0.00E+00	3.18E-03	0.00E+00	3.62E-01	0.00E+00	0.00E+00	2.94E-02	5.31E-02	6.75E-03	-4.60E-01
POCP	kg NMVOC eq.	1.04E+00	3.87E-02	8.61E-04	0.00E+00	1.42E-03	0.00E+00	9.23E-02	0.00E+00	0.00E+00	5.21E-03	1.13E-02	1.94E-03	-1.41E-01
ADPm ¹	kg Sb eq.	4.14E-02	4.98E-07	1.03E-08	0.00E+00	7.57E-07	0.00E+00	1.05E-05	0.00E+00	0.00E+00	6.85E-08	5.12E-08	2.21E-08	-1.33E-03
ADPf ¹	MJ	5.51E+03	1.03E+02	2.27E+00	0.00E+00	1.42E+01	0.00E+00	1.42E+03	0.00E+00	0.00E+00	1.41E+01	1.12E+01	1.23E+01	-1.07E+03
WDP ¹	m ³ world eq. deprived	6.17E+01	9.08E-02	5.78E-02	0.00E+00	1.72E-01	0.00E+00	1.49E+01	0.00E+00	0.00E+00	1.25E-02	2.97E+00	-1.14E-02	-9.48E+00
Caption	GWP-total = Global Warming Potential - total; 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 = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication - aquatic freshwater; EP-marine = Eutrophication - aquatic marine; EP-terrestrial = Eutrophication - terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential - minerals and metals; ADPf = Abiotic Depletion Potential - fossil fuels; WDP = water use													
Disclaimer	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.													

ADDITIONAL ENVIRONMENTAL IMPACTS PER AM300														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
PM	[Disease incidence]	1.46E-05	2.08E-07	4.79E-09	0.00E+00	9.45E-09	0.00E+00	1.22E-06	0.00E+00	0.00E+00	2.70E-08	4.35E-08	2.62E-08	-3.09E-06
IRP ²	[kBq U235 eq.]	2.83E+01	2.87E-02	6.77E-03	0.00E+00	1.16E-02	0.00E+00	3.76E+01	0.00E+00	0.00E+00	3.94E-03	1.47E-01	2.13E-02	-8.99E+00
ETP-fw ¹	[CTUe]	4.17E+03	7.34E+01	1.53E+00	0.00E+00	4.81E+00	0.00E+00	3.96E+02	0.00E+00	0.00E+00	1.01E+01	4.19E+00	6.93E+00	-3.82E+02
HTP-c ¹	[CTUh]	6.71E-06	1.49E-09	4.63E-11	0.00E+00	1.52E-10	0.00E+00	2.10E-08	0.00E+00	0.00E+00	2.05E-10	3.09E-10	4.82E-10	-3.45E-08
HTP-nc ¹	[CTUh]	1.12E-05	6.63E-08	2.93E-09	0.00E+00	5.08E-09	0.00E+00	3.34E-07	0.00E+00	0.00E+00	9.11E-09	9.28E-09	4.20E-08	-1.10E-06
SQP ¹	[Pt]	1.80E+03	4.28E+01	8.15E-01	0.00E+00	5.52E-01	0.00E+00	5.61E+02	0.00E+00	0.00E+00	5.88E+00	3.35E+00	1.10E+00	-2.54E+02
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation - human health; ETP-fw = Eco toxicity - freshwater; HTP-c = Human toxicity - cancer effects; HTP-nc = Human toxicity - non cancer effects; Land use = LU; SQP = Soil Quality													
Disclaimers	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. ² This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.													

RESOURCE USE PER AM300														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
PERE	[MJ]	6.55E+02	7.45E+00	2.84E-01	0.00E+00	5.17E-01	0.00E+00	8.52E+02	0.00E+00	0.00E+00	1.02E+00	3.81E+00	1.10E+00	-3.96E+02
PERM	[MJ]	2.55E+02	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	0.00E+00	0.00E+00
PERT	[MJ]	9.10E+02	7.45E+00	2.84E-01	0.00E+00	5.17E-01	0.00E+00	8.52E+02	0.00E+00	0.00E+00	1.02E+00	3.81E+00	1.10E+00	-3.96E+02
PENRE	[MJ]	4.61E+03	1.03E+02	2.28E+00	0.00E+00	1.42E+01	0.00E+00	1.42E+03	0.00E+00	0.00E+00	1.41E+01	1.12E+01	1.23E+01	-1.07E+03
PENRM	[MJ]	9.11E+02	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	0.00E+00	0.00E+00
PENRT	[MJ]	5.52E+03	1.03E+02	2.28E+00	0.00E+00	1.42E+01	0.00E+00	1.42E+03	0.00E+00	0.00E+00	1.41E+01	1.12E+01	1.23E+01	-1.07E+03
SM	[kg]	1.45E+01	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	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	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	0.00E+00	0.00E+00	0.00E+00
FW	[m³]	2.10E+00	8.16E-03	1.51E-03	0.00E+00	4.98E-03	0.00E+00	6.85E-01	0.00E+00	0.00E+00	1.12E-03	7.08E-02	1.30E-04	-6.63E-01
Caption	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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water													

WASTE CATEGORIES AND OUTPUT FLOWS PER AM300														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
HWD	[kg]	1.13E-03	3.19E-10	2.34E-11	0.00E+00	5.87E-10	0.00E+00	-1.11E-07	0.00E+00	0.00E+00	4.37E-11	9.12E-11	1.02E-09	-4.01E-06
NHWD	[kg]	1.96E+01	1.57E-02	2.89E-01	0.00E+00	3.67E-02	0.00E+00	1.05E+00	0.00E+00	0.00E+00	2.15E-03	7.53E-01	1.48E+01	-1.01E+01
RWD	[kg]	9.27E-02	1.92E-04	4.18E-05	0.00E+00	4.79E-05	0.00E+00	2.26E-01	0.00E+00	0.00E+00	2.64E-05	9.06E-04	1.44E-04	-5.16E-02

CRU	[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	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	4.77E+00	4.77E+00	0.00E+00	2.24E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.68E+01	0.00E+00
MER	[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	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	1.80E+00	1.80E+00	0.00E+00	6.79E-01	0.00E+00	2.81E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.91E+01	0.00E+00
EET	[MJ]	4.10E+00	4.10E+00	0.00E+00	1.22E+00	0.00E+00	5.27E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.78E+01	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy													

ENVIRONMENTAL IMPACTS PER AM500														
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	6.30E+02	1.23E+01	2.40E+01	0.00E+00	1.13E+00	0.00E+00	1.04E+02	0.00E+00	0.00E+00	1.92E+00	4.44E+01	1.44E+00	-1.16E+02
GWP-fossil	kg CO ₂ eq.	6.72E+02	1.22E+01	6.13E-01	0.00E+00	1.12E+00	0.00E+00	1.03E+02	0.00E+00	0.00E+00	1.90E+00	2.39E+01	1.46E+00	-1.16E+02
GWP-biogenic	kg CO ₂ eq.	-4.23E+01	2.79E-02	2.35E+01	0.00E+00	3.43E-03	0.00E+00	8.98E-01	0.00E+00	0.00E+00	4.34E-03	2.05E+01	-1.80E-02	-3.82E-01
GWP-luluc	kg CO ₂ eq.	6.86E-01	1.14E-01	1.91E-03	0.00E+00	2.01E-04	0.00E+00	1.12E-02	0.00E+00	0.00E+00	1.78E-02	2.49E-04	1.37E-03	-3.17E-02
ODP	kg CFC 11 eq.	4.33E-05	1.60E-12	2.57E-12	0.00E+00	1.51E-09	0.00E+00	1.90E-09	0.00E+00	0.00E+00	2.50E-13	1.03E-11	2.43E-12	-6.58E-10
AP	mol H ⁺ eq.	2.92E+00	6.68E-02	4.98E-03	0.00E+00	1.95E-03	0.00E+00	2.20E-01	0.00E+00	0.00E+00	1.02E-02	2.66E-02	4.57E-03	-4.72E-01
EP-freshwater	kg P eq.	2.65E-01	4.50E-05	2.71E-06	0.00E+00	4.92E-05	0.00E+00	3.86E-04	0.00E+00	0.00E+00	7.02E-06	2.67E-06	1.13E-04	-2.42E-04
EP-marine	kg N eq.	6.28E-01	3.22E-02	1.65E-03	0.00E+00	4.76E-04	0.00E+00	5.26E-02	0.00E+00	0.00E+00	4.92E-03	1.25E-02	1.11E-03	-7.96E-02
EP-terrestrial	mol N eq.	6.78E+00	3.58E-01	2.18E-02	0.00E+00	5.13E-03	0.00E+00	5.50E-01	0.00E+00	0.00E+00	5.47E-02	1.44E-01	1.22E-02	-8.57E-01
POCP	kg NMVOC eq.	1.91E+00	6.34E-02	4.16E-03	0.00E+00	2.28E-03	0.00E+00	1.40E-01	0.00E+00	0.00E+00	9.69E-03	3.21E-02	3.49E-03	-2.51E-01
ADPm ¹	kg Sb eq.	8.02E-02	8.16E-07	3.67E-08	0.00E+00	1.21E-06	0.00E+00	1.59E-05	0.00E+00	0.00E+00	1.27E-07	8.87E-08	3.95E-08	-1.38E-03
ADPf ¹	MJ	9.37E+03	1.68E+02	8.95E+00	0.00E+00	2.28E+01	0.00E+00	2.16E+03	0.00E+00	0.00E+00	2.62E+01	2.08E+01	2.18E+01	-1.58E+03
WDP ¹	m ³ world eq. deprived	1.21E+02	1.49E-01	2.60E+00	0.00E+00	2.75E-01	0.00E+00	2.27E+01	0.00E+00	0.00E+00	2.32E-02	4.65E+00	-2.02E-02	-1.57E+01
Caption	GWP-total = Global Warming Potential - total; 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 = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication - aquatic freshwater; EP-marine = Eutrophication - aquatic marine; EP-terrestrial = Eutrophication - terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential - minerals and metals; ADPf = Abiotic Depletion Potential - fossil fuels; WDP = water use													
Disclaimer	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.													

ADDITIONAL ENVIRONMENTAL IMPACTS PER AM500														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
PM	[Disease incidence]	3.09E-05	3.41E-07	3.18E-08	0.00E+00	1.52E-08	0.00E+00	1.85E-06	0.00E+00	0.00E+00	5.02E-08	9.25E-08	4.74E-08	-5.68E-06
IRP ²	[kBq U235 eq.]	5.02E+01	4.70E-02	6.03E-02	0.00E+00	1.86E-02	0.00E+00	5.71E+01	0.00E+00	0.00E+00	7.33E-03	2.49E-01	3.78E-02	-1.80E+01
ETP-fw ¹	[CTUe]	7.19E+03	1.20E+02	4.51E+00	0.00E+00	7.71E+00	0.00E+00	6.02E+02	0.00E+00	0.00E+00	1.87E+01	7.22E+00	1.13E+01	-4.54E+02
HTP-c ¹	[CTUh]	1.07E-05	2.45E-09	3.00E-10	0.00E+00	2.43E-10	0.00E+00	3.18E-08	0.00E+00	0.00E+00	3.81E-10	5.01E-10	8.44E-10	-5.95E-08
HTP-nc ¹	[CTUh]	2.03E-05	1.09E-07	1.64E-08	0.00E+00	8.14E-09	0.00E+00	5.07E-07	0.00E+00	0.00E+00	1.69E-08	1.66E-08	7.46E-08	-1.76E-06
SQP ¹	[Pt]	6.54E+03	7.01E+01	3.01E+00	0.00E+00	8.90E-01	0.00E+00	8.53E+02	0.00E+00	0.00E+00	1.09E+01	5.81E+00	1.98E+00	-4.98E+02
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; Land use = LU; SQP = Soil Quality													
Disclaimers	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. ² This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.													

RESOURCE USE PER AM500														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
PERE	[MJ]	1.32E+03	1.22E+01	1.81E+00	0.00E+00	8.28E-01	0.00E+00	1.29E+03	0.00E+00	0.00E+00	1.90E+00	6.57E+00	1.97E+00	-8.01E+02
PERM	[MJ]	5.45E+02	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	0.00E+00	0.00E+00
PERT	[MJ]	1.87E+03	1.22E+01	1.81E+00	0.00E+00	8.28E-01	0.00E+00	1.29E+03	0.00E+00	0.00E+00	1.90E+00	6.57E+00	1.97E+00	-8.01E+02
PENRE	[MJ]	8.85E+03	1.69E+02	8.96E+00	0.00E+00	2.28E+01	0.00E+00	2.16E+03	0.00E+00	0.00E+00	2.63E+01	2.08E+01	2.19E+01	-1.58E+03
PENRM	[MJ]	5.45E+02	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	0.00E+00	0.00E+00
PENRT	[MJ]	9.39E+03	1.69E+02	8.96E+00	0.00E+00	2.28E+01	0.00E+00	2.16E+03	0.00E+00	0.00E+00	2.63E+01	2.08E+01	2.19E+01	-1.58E+03
SM	[kg]	1.69E+01	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	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	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	0.00E+00	0.00E+00	0.00E+00
FW	[m ³]	4.11E+00	1.34E-02	6.13E-02	0.00E+00	7.96E-03	0.00E+00	1.04E+00	0.00E+00	0.00E+00	2.09E-03	1.11E-01	2.34E-04	-1.29E+00
Caption	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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water													

WASTE CATEGORIES AND OUTPUT FLOWS PER AM500														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
HWD	[kg]	1.76E-03	5.22E-10	1.39E-10	0.00E+00	9.39E-10	0.00E+00	-1.69E-07	0.00E+00	0.00E+00	8.13E-11	5.49E-10	1.82E-09	-1.82E-06
NHWD	[kg]	4.03E+01	2.57E-02	5.83E-01	0.00E+00	5.86E-02	0.00E+00	1.59E+00	0.00E+00	0.00E+00	4.00E-03	1.27E+00	2.73E+01	-2.13E+01
RWD	[kg]	1.54E-01	3.15E-04	3.76E-04	0.00E+00	7.66E-05	0.00E+00	3.43E-01	0.00E+00	0.00E+00	4.91E-05	1.54E-03	2.56E-04	-1.03E-01

CRU	[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	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	7.96E+00	0.00E+00	3.05E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.30E+01	0.00E+00	0.00E+00
MER	[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	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	3.00E+00	0.00E+00	3.28E+01	0.00E+00	4.49E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.14E+01	0.00E+00	0.00E+00
EET	[MJ]	6.83E+00	0.00E+00	5.91E+01	0.00E+00	8.43E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E+02	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy													

ENVIRONMENTAL IMPACTS PER AM800														
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	7.51E+02	1.48E+01	3.36E+01	0.00E+00	2.04E+00	0.00E+00	1.67E+02	0.00E+00	0.00E+00	2.15E+00	5.84E+01	1.86E+00	-2.11E+02
GWP-fossil	kg CO ₂ eq.	8.03E+02	1.46E+01	9.41E-01	0.00E+00	2.03E+00	0.00E+00	1.65E+02	0.00E+00	0.00E+00	2.12E+00	3.79E+01	1.88E+00	-2.10E+02
GWP-biogenic	kg CO ₂ eq.	-5.16E+01	3.33E-02	2.96E+01	0.00E+00	6.20E-03	0.00E+00	1.44E+00	0.00E+00	0.00E+00	4.86E-03	2.05E+01	-2.32E-02	-7.31E-01
GWP-luluc	kg CO ₂ eq.	7.36E-01	1.36E-01	3.35E-03	0.00E+00	3.40E-04	0.00E+00	1.80E-02	0.00E+00	0.00E+00	1.99E-02	2.82E-04	1.74E-03	-5.03E-02
ODP	kg CFC 11 eq.	5.26E-05	1.92E-12	3.74E-12	0.00E+00	2.74E-09	0.00E+00	3.05E-09	0.00E+00	0.00E+00	2.80E-13	1.22E-11	3.13E-12	-8.11E-10
AP	mol H ⁺ eq.	3.39E+00	8.01E-02	7.40E-03	0.00E+00	2.56E-03	0.00E+00	3.53E-01	0.00E+00	0.00E+00	1.14E-02	3.13E-02	5.83E-03	-9.52E-01
EP-freshwater	kg P eq.	2.22E-01	5.38E-05	4.81E-06	0.00E+00	8.91E-05	0.00E+00	6.19E-04	0.00E+00	0.00E+00	7.86E-06	3.24E-06	1.73E-04	-3.03E-04
EP-marine	kg N eq.	7.14E-01	3.86E-02	2.51E-03	0.00E+00	6.21E-04	0.00E+00	8.46E-02	0.00E+00	0.00E+00	5.49E-03	1.45E-02	1.41E-03	-1.46E-01
EP-terrestrial	mol N eq.	7.72E+00	4.29E-01	3.28E-02	0.00E+00	6.68E-03	0.00E+00	8.84E-01	0.00E+00	0.00E+00	6.11E-02	1.67E-01	1.54E-02	-1.58E+00
POCP	kg NMVOC eq.	2.16E+00	7.60E-02	6.27E-03	0.00E+00	2.99E-03	0.00E+00	2.25E-01	0.00E+00	0.00E+00	1.08E-02	3.73E-02	4.43E-03	-4.52E-01
ADPm ¹	kg Sb eq.	6.64E-02	9.76E-07	5.73E-08	0.00E+00	2.19E-06	0.00E+00	2.56E-05	0.00E+00	0.00E+00	1.43E-07	1.06E-07	5.07E-08	-3.62E-03
ADPf ¹	MJ	1.13E+04	2.01E+02	1.37E+01	0.00E+00	4.12E+01	0.00E+00	3.47E+03	0.00E+00	0.00E+00	2.93E+01	2.47E+01	2.81E+01	-2.83E+03
WDP ¹	m ³ world eq. deprived	1.43E+02	1.78E-01	3.62E+00	0.00E+00	4.99E-01	0.00E+00	3.64E+01	0.00E+00	0.00E+00	2.60E-02	6.08E+00	-2.60E-02	-3.25E+01
Caption	GWP-total = Global Warming Potential - total; 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 = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water use													
Disclaimer	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.													

ADDITIONAL ENVIRONMENTAL IMPACTS PER AM800														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
PM	[Disease incidence]	3.76E-05	4.09E-07	4.67E-08	0.00E+00	1.99E-08	0.00E+00	2.97E-06	0.00E+00	0.00E+00	5.61E-08	1.11E-07	6.00E-08	-1.04E-05
IRP ²	[kBq U235 eq.]	6.86E+01	5.64E-02	8.85E-02	0.00E+00	2.44E-02	0.00E+00	9.17E+01	0.00E+00	0.00E+00	8.19E-03	3.08E-01	4.86E-02	-3.17E+01
ETP-fw ¹	[CTUe]	6.91E+03	1.44E+02	7.12E+00	0.00E+00	1.39E+01	0.00E+00	9.65E+02	0.00E+00	0.00E+00	2.10E+01	8.31E+00	1.58E+01	-7.71E+02
HTP-c ¹	[CTUh]	1.33E-05	2.93E-09	4.40E-10	0.00E+00	3.19E-10	0.00E+00	5.12E-08	0.00E+00	0.00E+00	4.25E-10	6.23E-10	1.10E-09	-1.10E-07
HTP-nc ¹	[CTUh]	3.00E-05	1.30E-07	2.40E-08	0.00E+00	1.47E-08	0.00E+00	8.14E-07	0.00E+00	0.00E+00	1.89E-08	2.01E-08	9.64E-08	-3.20E-06
SQP ¹	[Pt]	8.20E+03	8.40E+01	4.69E+00	0.00E+00	1.16E+00	0.00E+00	1.37E+03	0.00E+00	0.00E+00	1.22E+01	7.04E+00	2.53E+00	-6.21E+02
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; Land use = LU; SQP = Soil Quality													
Disclaimers	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. ² This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.													

RESOURCE USE PER AM800														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
PERE	[MJ]	2.03E+03	1.46E+01	2.70E+00	0.00E+00	1.09E+00	0.00E+00	2.08E+03	0.00E+00	0.00E+00	2.13E+00	7.89E+00	2.52E+00	-1.31E+03
PERM	[MJ]	7.11E+02	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	0.00E+00	0.00E+00
PERT	[MJ]	2.74E+03	1.46E+01	2.70E+00	0.00E+00	1.09E+00	0.00E+00	2.08E+03	0.00E+00	0.00E+00	2.13E+00	7.89E+00	2.52E+00	-1.31E+03
PENRE	[MJ]	1.05E+04	2.02E+02	2.69E+00	0.00E+00	4.13E+01	0.00E+00	3.47E+03	0.00E+00	0.00E+00	2.94E+01	2.47E+01	2.81E+01	-2.71E+03
PENRM	[MJ]	8.94E+02	0.00E+00	1.37E+01	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
PENRT	[MJ]	1.14E+04	2.02E+02	1.64E+01	0.00E+00	4.13E+01	0.00E+00	3.47E+03	0.00E+00	0.00E+00	2.94E+01	2.47E+01	2.81E+01	-2.71E+03
SM	[kg]	1.83E+01	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	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	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	0.00E+00	0.00E+00	0.00E+00
FW	[m ³]	5.92E+00	1.60E-02	8.57E-02	0.00E+00	1.05E-02	0.00E+00	1.67E+00	0.00E+00	0.00E+00	2.33E-03	1.44E-01	2.97E-04	-2.49E+00
Caption	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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water													

WASTE CATEGORIES AND OUTPUT FLOWS PER AM800														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
HWD	[kg]	2.19E-03	6.26E-10	1.94E-10	0.00E+00	1.23E-09	0.00E+00	-2.72E-07	0.00E+00	0.00E+00	9.08E-11	6.20E-10	2.34E-09	-2.97E-06
NHWD	[kg]	7.56E+01	3.06E-02	8.81E-01	0.00E+00	1.06E-01	0.00E+00	2.55E+00	0.00E+00	0.00E+00	4.48E-03	1.54E+00	3.41E+01	-4.45E+01
RWD	[kg]	2.62E-01	3.78E-04	5.51E-04	0.00E+00	1.01E-04	0.00E+00	5.52E-01	0.00E+00	0.00E+00	5.49E-05	1.90E-03	3.29E-04	-1.70E-01

CRU	[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	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	7.96E+00	0.00E+00	6.44E+00	0.00E+00	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E+02	0.00E+00	0.00E+00
MER	[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	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	3.00E+00	0.00E+00	4.57E+01	0.00E+00	5.91E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.60E+01	0.00E+00	0.00E+00
EET	[MJ]	6.83E+00	0.00E+00	8.24E+01	0.00E+00	1.11E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.54E+02	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy													

ENVIRONMENTAL IMPACTS PER AM900														
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	6.52E+02	1.71E+01	5.28E+01	0.00E+00	2.46E+00	0.00E+00	1.91E+02	0.00E+00	0.00E+00	2.54E+00	5.66E+01	2.07E+00	-1.08E+02
GWP-fossil	kg CO ₂ eq.	7.19E+02	1.69E+01	1.13E+00	0.00E+00	2.45E+00	0.00E+00	1.90E+02	0.00E+00	0.00E+00	2.51E+00	4.05E+01	2.09E+00	-1.07E+02
GWP-biogenic	kg CO ₂ eq.	-6.67E+01	3.85E-02	5.17E+01	0.00E+00	7.50E-03	0.00E+00	1.65E+00	0.00E+00	0.00E+00	5.74E-03	1.62E+01	-2.58E-02	-5.81E-01
GWP-luluc	kg CO ₂ eq.	7.40E-01	1.58E-01	2.33E-03	0.00E+00	4.40E-04	0.00E+00	2.07E-02	0.00E+00	0.00E+00	2.35E-02	4.90E-04	1.93E-03	-2.11E-02
ODP	kg CFC 11 eq.	1.48E-05	2.22E-12	5.41E-12	0.00E+00	3.31E-09	0.00E+00	3.51E-09	0.00E+00	0.00E+00	3.30E-13	1.45E-11	3.49E-12	-8.31E-10
AP	mol H ⁺ eq.	2.59E+00	9.24E-02	9.88E-03	0.00E+00	4.28E-03	0.00E+00	4.04E-01	0.00E+00	0.00E+00	1.35E-02	3.16E-02	6.50E-03	-3.86E-01
EP-freshwater	kg P eq.	2.16E-01	6.22E-05	4.04E-06	0.00E+00	1.08E-04	0.00E+00	7.11E-04	0.00E+00	0.00E+00	9.28E-06	3.80E-06	1.99E-04	-2.75E-04
EP-marine	kg N eq.	6.04E-01	4.45E-02	3.07E-03	0.00E+00	1.04E-03	0.00E+00	9.69E-02	0.00E+00	0.00E+00	6.50E-03	1.46E-02	1.57E-03	-7.06E-02
EP-terrestrial	mol N eq.	6.51E+00	4.95E-01	4.23E-02	0.00E+00	1.12E-02	0.00E+00	1.01E+00	0.00E+00	0.00E+00	7.23E-02	1.69E-01	1.72E-02	-7.57E-01
POCP	kg NMVOC eq.	1.89E+00	8.77E-02	7.98E-03	0.00E+00	4.99E-03	0.00E+00	2.58E-01	0.00E+00	0.00E+00	1.28E-02	3.76E-02	4.93E-03	-2.76E-01
ADPm ¹	kg Sb eq.	6.59E-02	1.13E-06	6.55E-08	0.00E+00	2.65E-06	0.00E+00	2.93E-05	0.00E+00	0.00E+00	1.68E-07	1.25E-07	5.64E-08	-1.82E-03
ADPf ¹	MJ	1.02E+04	2.32E+02	1.66E+01	0.00E+00	4.98E+01	0.00E+00	3.98E+03	0.00E+00	0.00E+00	3.46E+01	2.89E+01	3.13E+01	-1.65E+03
WDP ¹	m ³ world eq. deprived	1.01E+02	2.06E-01	5.78E+00	0.00E+00	6.02E-01	0.00E+00	4.18E+01	0.00E+00	0.00E+00	3.07E-02	5.85E+00	-2.90E-02	-1.41E+01
Caption	GWP-total = Global Warming Potential - total; 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 = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water use													
Disclaimer	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.													

ADDITIONAL ENVIRONMENTAL IMPACTS PER AM900														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
PM	[Disease incidence]	3.05E-05	4.72E-07	6.42E-08	0.00E+00	3.31E-08	0.00E+00	3.40E-06	0.00E+00	0.00E+00	6.64E-08	1.22E-07	6.68E-08	-4.71E-06
IRP ²	[kBq U235 eq.]	4.34E+01	6.50E-02	1.25E-01	0.00E+00	4.07E-02	0.00E+00	1.05E+02	0.00E+00	0.00E+00	9.68E-03	3.28E-01	5.43E-02	-1.58E+01
ETP-fw ¹	[CTUe]	6.68E+03	1.66E+02	7.81E+00	0.00E+00	1.69E+01	0.00E+00	1.11E+03	0.00E+00	0.00E+00	2.48E+01	1.15E+01	1.78E+01	-5.46E+02
HTP-c ¹	[CTUh]	8.52E-07	3.38E-09	6.13E-10	0.00E+00	5.32E-10	0.00E+00	5.87E-08	0.00E+00	0.00E+00	5.03E-10	7.15E-10	1.23E-09	-5.20E-08
HTP-nc ¹	[CTUh]	1.40E-05	1.50E-07	3.33E-08	0.00E+00	1.78E-08	0.00E+00	9.35E-07	0.00E+00	0.00E+00	2.24E-08	2.87E-08	1.07E-07	-1.84E-06
SQP ¹	[Pt]	1.04E+04	9.69E+01	5.40E+00	0.00E+00	1.95E+00	0.00E+00	1.57E+03	0.00E+00	0.00E+00	1.44E+01	7.93E+00	2.82E+00	-6.13E+02
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; Land use = LU; SQP = Soil Quality													
Disclaimers	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. ² This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.													

RESOURCE USE PER AM900														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
PERE	[MJ]	1.20E+03	1.69E+01	3.64E+00	0.00E+00	1.81E+00	0.00E+00	2.39E+03	0.00E+00	0.00E+00	2.52E+00	9.09E+00	2.82E+00	-7.59E+02
PERM	[MJ]	7.61E+02	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	0.00E+00	0.00E+00
PERT	[MJ]	1.96E+03	1.69E+01	3.64E+00	0.00E+00	1.81E+00	0.00E+00	2.39E+03	0.00E+00	0.00E+00	2.52E+00	9.09E+00	2.82E+00	-7.59E+02
PENRE	[MJ]	8.90E+03	2.33E+02	2.33E+02	0.00E+00	2.33E+02	0.00E+00	2.33E+02	0.00E+00	0.00E+00	2.33E+02	2.33E+02	2.33E+02	2.33E+02
PENRM	[MJ]	1.37E+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	0.00E+00	0.00E+00	0.00E+00
PENRT	[MJ]	1.03E+04	2.33E+02	2.33E+02	0.00E+00	2.33E+02	0.00E+00	2.33E+02	0.00E+00	0.00E+00	2.33E+02	2.33E+02	2.33E+02	2.33E+02
SM	[kg]	3.71E+01	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	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	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	0.00E+00	0.00E+00	0.00E+00
FW	[m³]	3.36E+00	1.85E-02	1.36E-01	0.00E+00	1.74E-02	0.00E+00	1.92E+00	0.00E+00	0.00E+00	2.76E-03	1.40E-01	3.31E-04	-9.84E-01
Caption	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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water													

WASTE CATEGORIES AND OUTPUT FLOWS PER AM900														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
HWD	[kg]	7.73E-05	7.22E-10	3.05E-10	0.00E+00	2.05E-09	0.00E+00	-3.12E-07	0.00E+00	0.00E+00	1.07E-10	5.63E-10	2.61E-09	-3.01E-06
NHWD	[kg]	3.12E+01	3.55E-02	1.16E+00	0.00E+00	1.28E-01	0.00E+00	2.93E+00	0.00E+00	0.00E+00	5.29E-03	2.54E+00	3.77E+01	-1.33E+01
RWD	[kg]	1.36E-01	4.36E-04	7.83E-04	0.00E+00	1.68E-04	0.00E+00	6.33E-01	0.00E+00	0.00E+00	6.49E-05	2.05E-03	3.67E-04	-9.76E-02

CRU	[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	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	9.55E+00	0.00E+00	2.44E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E+02	0.00E+00	0.00E+00
MER	[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	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	3.60E+00	0.00E+00	7.32E+01	0.00E+00	9.83E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.48E+01	0.00E+00	0.00E+00
EET	[MJ]	8.20E+00	0.00E+00	1.32E+02	0.00E+00	1.84E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.53E+02	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy													

ENVIRONMENTAL IMPACTS PER AM1000														
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	1.35E+03	2.73E+01	5.91E+01	0.00E+00	4.49E+00	0.00E+00	2.46E+02	0.00E+00	0.00E+00	4.62E+00	4.21E+01	3.25E+00	-2.62E+02
GWP-fossil	kg CO ₂ eq.	1.41E+03	2.70E+01	1.26E+00	0.00E+00	4.48E+00	0.00E+00	2.44E+02	0.00E+00	0.00E+00	4.57E+00	4.21E+01	3.29E+00	-2.61E+02
GWP-biogenic	kg CO ₂ eq.	-5.49E+01	6.17E-02	5.78E+01	0.00E+00	1.37E-02	0.00E+00	2.13E+00	0.00E+00	0.00E+00	1.05E-02	7.87E-03	-4.07E-02	-1.12E+00
GWP-luluc	kg CO ₂ eq.	1.30E+00	2.53E-01	2.54E-03	0.00E+00	7.51E-04	0.00E+00	2.66E-02	0.00E+00	0.00E+00	4.28E-02	3.18E-04	3.14E-03	-6.09E-02
ODP	kg CFC 11 eq.	6.84E-05	3.55E-12	6.03E-12	0.00E+00	6.04E-09	0.00E+00	4.51E-09	0.00E+00	0.00E+00	6.01E-13	1.62E-11	5.47E-12	-1.51E-09
AP	mol H ⁺ eq.	5.25E+00	1.48E-01	1.10E-02	0.00E+00	7.79E-03	0.00E+00	5.20E-01	0.00E+00	0.00E+00	2.46E-02	2.70E-02	1.03E-02	-1.06E+00
EP-freshwater	kg P eq.	3.26E-01	9.97E-05	4.17E-06	0.00E+00	1.97E-04	0.00E+00	9.14E-04	0.00E+00	0.00E+00	1.69E-05	3.96E-06	2.04E-04	-4.83E-04
EP-marine	kg N eq.	1.18E+00	7.13E-02	3.42E-03	0.00E+00	1.89E-03	0.00E+00	1.25E-01	0.00E+00	0.00E+00	1.18E-02	1.24E-02	2.53E-03	-1.76E-01
EP-terrestrial	mol N eq.	1.27E+01	7.93E-01	4.72E-02	0.00E+00	2.03E-02	0.00E+00	1.30E+00	0.00E+00	0.00E+00	1.32E-01	1.43E-01	2.78E-02	-1.90E+00
POCP	kg NMVOC eq.	3.58E+00	1.41E-01	8.90E-03	0.00E+00	9.09E-03	0.00E+00	3.32E-01	0.00E+00	0.00E+00	2.33E-02	3.20E-02	7.95E-03	-5.67E-01
ADPm ¹	kg Sb eq.	1.02E-01	1.81E-06	7.26E-08	0.00E+00	4.84E-06	0.00E+00	3.77E-05	0.00E+00	0.00E+00	3.06E-07	1.37E-07	8.93E-08	-2.19E-03
ADPf ¹	[MJ]	1.87E+04	3.72E+02	1.85E+01	0.00E+00	9.10E+01	0.00E+00	5.12E+03	0.00E+00	0.00E+00	6.30E+01	2.68E+01	4.92E+01	-3.64E+03
WDP ¹	m ³ world eq. deprived	1.89E+02	3.30E-01	6.47E+00	0.00E+00	1.10E+00	0.00E+00	5.37E+01	0.00E+00	0.00E+00	5.58E-02	4.42E+00	-4.53E-02	-3.37E+01
Caption	GWP-total = Global Warming Potential - total; 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 = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication - aquatic freshwater; EP-marine = Eutrophication - aquatic marine; EP-terrestrial = Eutrophication - terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential - minerals and metals; ADPf = Abiotic Depletion Potential - fossil fuels; WDP = water use													
Disclaimer	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.													

ADDITIONAL ENVIRONMENTAL IMPACTS PER AM1000														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
PM	[Disease incidence]	6.06E-05	7.56E-07	7.17E-08	0.00E+00	6.04E-08	0.00E+00	4.37E-06	0.00E+00	0.00E+00	1.21E-07	1.02E-07	1.08E-07	-1.25E-05
IRP ²	[kBq U235 eq.]	8.60E+01	1.04E-01	1.40E-01	0.00E+00	7.43E-02	0.00E+00	1.35E+02	0.00E+00	0.00E+00	1.76E-02	4.22E-01	8.51E-02	-3.91E+01
ETP-fw ¹	[CTUe]	1.05E+04	2.67E+02	8.65E+00	0.00E+00	3.08E+01	0.00E+00	1.42E+03	0.00E+00	0.00E+00	4.51E+01	9.07E+00	2.33E+01	-1.08E+03
HTP-c ¹	[CTUh]	2.26E-05	5.42E-09	6.84E-10	0.00E+00	9.72E-10	0.00E+00	7.54E-08	0.00E+00	0.00E+00	9.17E-10	6.13E-10	1.87E-09	-1.36E-07
HTP-nc ¹	[CTUh]	2.97E-05	2.41E-07	3.72E-08	0.00E+00	3.25E-08	0.00E+00	1.20E-06	0.00E+00	0.00E+00	4.07E-08	2.11E-08	1.68E-07	-3.97E-06
SQP ¹	[Pt]	1.05E+04	1.55E+02	5.99E+00	0.00E+00	3.53E+00	0.00E+00	2.02E+03	0.00E+00	0.00E+00	2.63E+01	8.23E+00	4.49E+00	-9.70E+02
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; Land use = LU; SQP = Soil Quality													
Disclaimers	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. ² This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.													

RESOURCE USE PER AM1000														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
PERE	[MJ]	2.55E+03	2.70E+01	4.05E+00	0.00E+00	3.31E+00	0.00E+00	3.07E+03	0.00E+00	0.00E+00	4.58E+00	1.06E+01	4.43E+00	-1.78E+03
PERM	[MJ]	6.60E+02	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	0.00E+00	0.00E+00
PERT	[MJ]	3.21E+03	2.70E+01	4.05E+00	0.00E+00	3.31E+00	0.00E+00	3.07E+03	0.00E+00	0.00E+00	4.58E+00	1.06E+01	4.43E+00	-1.78E+03
PENRE	[MJ]	1.77E+04	3.74E+02	1.85E+01	0.00E+00	9.11E+01	0.00E+00	5.12E+03	0.00E+00	0.00E+00	6.32E+01	2.68E+01	4.92E+01	-3.65E+03
PENRM	[MJ]	1.11E+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	0.00E+00	0.00E+00	0.00E+00
PENRT	[MJ]	1.88E+04	3.74E+02	1.85E+01	0.00E+00	9.11E+01	0.00E+00	5.12E+03	0.00E+00	0.00E+00	6.32E+01	2.68E+01	4.92E+01	-3.65E+03
SM	[kg]	4.42E+01	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	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	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	0.00E+00	0.00E+00	0.00E+00
FW	[m³]	7.26E+00	2.96E-02	1.52E-01	0.00E+00	3.18E-02	0.00E+00	2.47E+00	0.00E+00	0.00E+00	5.02E-03	1.07E-01	5.32E-04	-2.91E+00
Caption	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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water													

WASTE CATEGORIES AND OUTPUT FLOWS PER AM1000														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
HWD	[kg]	3.82E-03	1.16E-09	3.41E-10	0.00E+00	3.75E-09	0.00E+00	-4.01E-07	0.00E+00	0.00E+00	1.96E-10	-5.65E-11	4.09E-09	-5.82E-06
NHWD	[kg]	9.02E+01	5.69E-02	1.28E+00	0.00E+00	2.34E-01	0.00E+00	3.76E+00	0.00E+00	0.00E+00	9.63E-03	1.54E+00	6.33E+01	-4.88E+01
RWD	[kg]	3.20E-01	6.99E-04	8.72E-04	0.00E+00	3.06E-04	0.00E+00	8.13E-01	0.00E+00	0.00E+00	1.18E-04	2.58E-03	5.76E-04	-2.24E-01

CRU	[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	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	1.59E+01	0.00E+00	2.43E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.38E+02	0.00E+00	0.00E+00
MER	[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	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	6.00E+00	0.00E+00	8.19E+01	0.00E+00	1.80E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.12E+01	0.00E+00	0.00E+00
EET	[MJ]	1.37E+01	0.00E+00	1.48E+02	0.00E+00	3.37E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.29E+02	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy													

ENVIRONMENTAL IMPACTS PER AM1200														
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	1.54E+03	4.02E+01	3.09E+00	0.00E+00	7.73E+00	0.00E+00	2.05E+02	0.00E+00	0.00E+00	5.89E+00	2.09E+02	3.78E+00	-3.93E+02
GWP-fossil	kg CO ₂ eq.	1.70E+03	3.98E+01	3.32E-01	0.00E+00	7.71E+00	0.00E+00	2.03E+02	0.00E+00	0.00E+00	5.82E+00	4.73E+01	3.82E+00	-3.92E+02
GWP-biogenic	kg CO ₂ eq.	-1.58E+02	9.08E-02	2.77E+00	0.00E+00	2.36E-02	0.00E+00	1.77E+00	0.00E+00	0.00E+00	1.33E-02	1.61E+02	-4.72E-02	-1.60E+00
GWP-luluc	kg CO ₂ eq.	1.52E+00	3.72E-01	2.53E-03	0.00E+00	1.38E-03	0.00E+00	2.22E-02	0.00E+00	0.00E+00	5.46E-02	6.15E-04	3.67E-03	-8.90E-02
ODP	kg CFC 11 eq.	5.82E-05	5.22E-12	4.74E-13	0.00E+00	1.04E-08	0.00E+00	3.76E-09	0.00E+00	0.00E+00	7.67E-13	2.63E-11	6.34E-12	-1.97E-09
AP	mol H ⁺ eq.	6.32E+00	2.18E-01	1.95E-03	0.00E+00	1.34E-02	0.00E+00	4.33E-01	0.00E+00	0.00E+00	3.14E-02	1.09E-01	1.20E-02	-1.61E+00
EP-freshwater	kg P eq.	2.68E-01	1.47E-04	2.63E-06	0.00E+00	3.38E-04	0.00E+00	7.62E-04	0.00E+00	0.00E+00	2.15E-05	6.94E-06	2.22E-04	-6.69E-04
EP-marine	kg N eq.	1.40E+00	1.05E-01	8.38E-04	0.00E+00	3.27E-03	0.00E+00	1.04E-01	0.00E+00	0.00E+00	1.51E-02	5.17E-02	2.95E-03	-2.63E-01
EP-terrestrial	mol N eq.	1.53E+01	1.17E+00	9.75E-03	0.00E+00	3.52E-02	0.00E+00	1.09E+00	0.00E+00	0.00E+00	1.68E-01	5.97E-01	3.24E-02	-2.84E+00
POCP	kg NMVOC eq.	4.24E+00	2.07E-01	1.76E-03	0.00E+00	1.57E-02	0.00E+00	2.77E-01	0.00E+00	0.00E+00	2.97E-02	1.33E-01	9.26E-03	-8.29E-01
ADPm ¹	kg Sb eq.	8.58E-02	2.66E-06	2.20E-08	0.00E+00	8.32E-06	0.00E+00	3.14E-05	0.00E+00	0.00E+00	3.91E-07	2.40E-07	1.04E-07	-3.07E-03
ADPf ¹	MJ	2.27E+04	5.47E+02	4.69E+00	0.00E+00	1.57E+02	0.00E+00	4.27E+03	0.00E+00	0.00E+00	8.03E+01	6.91E+01	5.71E+01	-5.40E+03
WDP ¹	m ³ world eq. deprived	2.35E+02	4.85E-01	3.12E-01	0.00E+00	1.89E+00	0.00E+00	4.47E+01	0.00E+00	0.00E+00	7.12E-02	2.13E+01	-5.26E-02	-5.23E+01
Caption	GWP-total = Global Warming Potential - total; 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 = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water use													
Disclaimer	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.													

ADDITIONAL ENVIRONMENTAL IMPACTS PER AM1200														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
PM	[Disease incidence]	6.90E-05	1.11E-06	1.06E-08	0.00E+00	1.04E-07	0.00E+00	3.65E-06	0.00E+00	0.00E+00	1.54E-07	3.39E-07	1.26E-07	-1.88E-05
IRP ²	[kBq U235 eq.]	1.13E+02	1.53E-01	1.21E-02	0.00E+00	1.28E-01	0.00E+00	1.13E+02	0.00E+00	0.00E+00	2.25E-02	5.97E-01	9.88E-02	-6.11E+01
ETP-fw ¹	[CTUe]	1.03E+04	3.92E+02	3.09E+00	0.00E+00	5.30E+01	0.00E+00	1.19E+03	0.00E+00	0.00E+00	5.75E+01	2.26E+01	2.65E+01	-1.56E+03
HTP-c ¹	[CTUh]	2.75E-05	7.97E-09	9.14E-11	0.00E+00	1.67E-09	0.00E+00	6.28E-08	0.00E+00	0.00E+00	1.17E-09	1.68E-09	2.16E-09	-2.03E-07
HTP-nc ¹	[CTUh]	2.53E-05	3.54E-07	4.51E-09	0.00E+00	5.60E-08	0.00E+00	1.00E-06	0.00E+00	0.00E+00	5.19E-08	3.77E-08	1.94E-07	-5.57E-06
SQP ¹	[Pt]	1.09E+04	2.28E+02	1.84E+00	0.00E+00	6.12E+00	0.00E+00	1.68E+03	0.00E+00	0.00E+00	3.35E+01	1.77E+01	5.22E+00	-1.45E+03
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; Land use = LU; SQP = Soil Quality													
Disclaimers	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. ² This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.													

RESOURCE USE PER AM1200														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
PERE	[MJ]	3.28E+03	3.98E+01	5.56E-01	0.00E+00	5.69E+00	0.00E+00	2.56E+03	0.00E+00	0.00E+00	5.84E+00	1.65E+01	5.14E+00	-2.66E+03
PERM	[MJ]	2.56E+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	0.00E+00	0.00E+00	0.00E+00
PERT	[MJ]	5.84E+03	3.98E+01	5.56E-01	0.00E+00	5.69E+00	0.00E+00	2.56E+03	0.00E+00	0.00E+00	5.84E+00	1.65E+01	5.14E+00	-2.66E+03
PENRE	[MJ]	2.15E+04	5.49E+02	4.70E+00	0.00E+00	1.57E+02	0.00E+00	4.27E+03	0.00E+00	0.00E+00	8.06E+01	6.91E+01	5.72E+01	-5.41E+03
PENRM	[MJ]	1.21E+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	0.00E+00	0.00E+00	0.00E+00
PENRT	[MJ]	2.27E+04	5.49E+02	4.70E+00	0.00E+00	1.57E+02	0.00E+00	4.27E+03	0.00E+00	0.00E+00	8.06E+01	6.91E+01	5.72E+01	-5.41E+03
SM	[kg]	5.26E+01	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	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	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	0.00E+00	0.00E+00	0.00E+00
FW	[m ³]	9.99E+00	4.36E-02	7.61E-03	0.00E+00	5.48E-02	0.00E+00	2.06E+00	0.00E+00	0.00E+00	6.40E-03	5.04E-01	6.20E-04	-4.54E+00
Caption	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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water													

WASTE CATEGORIES AND OUTPUT FLOWS PER AM1200														
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B5	B6	B7	C1	C2	C3	C4	D
HWD	[kg]	4.54E-03	1.70E-09	2.44E-11	0.00E+00	6.45E-09	0.00E+00	-3.34E-07	0.00E+00	0.00E+00	2.49E-10	3.88E-09	4.75E-09	-3.87E-06
NHWD	[kg]	1.33E+02	8.37E-02	1.72E-01	0.00E+00	4.03E-01	0.00E+00	3.14E+00	0.00E+00	0.00E+00	1.23E-02	2.63E+00	7.40E+01	-7.85E+01
RWD	[kg]	4.64E-01	1.03E-03	7.50E-05	0.00E+00	5.27E-04	0.00E+00	6.78E-01	0.00E+00	0.00E+00	1.51E-04	3.74E-03	6.68E-04	-3.41E-01
CRU	[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	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	2.39E+01	0.00E+00	2.27E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.84E+02	0.00E+00	0.00E+00
MER	[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	0.00E+00	0.00E+00	0.00E+00
EEE	[M]	9.00E+00	0.00E+00	3.89E+00	0.00E+00	3.09E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.60E+02	0.00E+00	0.00E+00
EET	[M]	2.05E+01	0.00E+00	7.02E+00	0.00E+00	5.80E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.65E+02	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy													

BIOGENIC CARBON CONTENT PER DECLARED UNIT								
Parameter	Unit	At the factory gate						
		AM150	AM300	AM500	AM800	AM900	AM1000	AM1200
Biogenic carbon content in product	[kg C]	1.6	2.0	4.0	4.0	3.1	0.0	31.2
Biogenic carbon content in accompanying packaging	[kg C]	9.1	9.1	6.7	9.9-10.1	8.9	13.1	9.1
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂							

Additional information

LCA interpretation

The results of the EPD shows the environmental impact associated with the DVUs. Through a contribution analysis, the production of the steel cabinet is generally the most dominant source of impact in several of the impact categories. Next to steel, the production of printed circuit board contributes the most. The packaging materials (wooden pallets and cardboard) and MDF contribute to a biogenic CO₂ uptake in respectively A1 and A3 and appertaining CO₂ release in A5 and C3.

Technical information on scenarios

Transport to the building site (A4)

Scenario information	Truck	Ship	Unit
Fuel type	Diesel	Diesel	-
Vehicle type	Truck, Euro 5, 28 - 32t gross weight / 18.4t payload capacity	Container ship, 5,000 to 200,000 dwt payload capacity, ocean going	-
Transport distance	704 (average)	12 (average)	km
Capacity utilisation (including empty runs)	61	70	%
Gross density of products transported (incl. packaging)	64.3 - 536.6		kg/unit

Installation of the product in the building (A5)

Scenario information	AM150	AM300	AM500	AM800	AM900	AM1000	AM1200	Unit
Waste materials (from packaging)	9.8	10.1	17.7	26.5-27	34.9	38.9	47.3	kg

Reference service life

RSL information	Unit
Reference service Life	25 Years
Declared product properties	The declared unit is one piece of decentralised ventilation unit with an air capacity of 115-1050 m ³ /h.
Assumed quality of work	Technical specifications and guidance can be obtained at https://airmaster-as.com/products/ventilation-units-wall-mounted and https://airmaster-as.com/products/ventilation-units-floor-standing or by directly contacting Airmaster A/S.
Maintenance	The DVUs require change of filters once a year during its reference service life.

Use (B1-B7)

Scenario information	Value							Unit
B2 - Maintenance								
Maintenance process	To maintain the DVUs, it is necessary to replace filters once a year throughout its reference service life.							
Maintenance cycle	1							/year
Unit	AM150	AM300	AM500	AM800	AM900	AM1000	AM1200	
Ancillary materials for maintenance (filters)	0.40	0.19	0.32	0.42-0.58	0.66	1.28	2.40	kg/cycle
Waste materials resulting from maintenance (filters)	0.40	0.19	0.32	0.42-0.58	0.66	1.28	2.40	kg
B6 + B7 – Use of energy and water								
Unit	AM150	AM300	AM500	AM800	AM900	AM1000	AM1200	
Electricity	114	219	333	534	613	788	657	kWh
Further assumptions for scenario development	The filter class is ePM10 50% (ISO 16890 compliant). A European energy mix is used to model the use of energy. The scenarios are based on Ecodesign requirements which determines a reference flow rate of 70% of the maximum flow rate. The annual operating hours are set to 8760 hours as a conservative approach which is in accordance with the default value in the Ecodesign directive for calculating SEC (specific energy consumption)							

End of life (C1-C4)

Scenario information	AM150	AM300	AM500	AM800	AM900	AM1000	AM1200	Unit
Collected separately	54.5	83.8	145.3	166.6-168.5	190.5	322.4	489.3	kg
Collected with mixed waste	0	0	0	0	0	0	0	kg
For reuse	0	0	0	0	0	0	0	kg
For recycling	29.2	45.7	91.5	98.7-98.9	115.6	234.9	287.7	kg
For energy recovery	13.8	18.9	25.7	31.9-33.6	33.7	22.1	122.1	kg
For final disposal	11.5	19.3	28.2	35.9-36	41.3	65.4	79.5	kg
Assumptions for scenario development	The geographical scope of the waste treatment scenario is Europe. European grid mix is used to model the energy for shredding.							

Re-use, recovery and recycling potential (D)

Scenario information (energy recovery)	AM150	AM300	AM500	AM800	AM900	AM1000	AM1200	Unit
Module A5	1.90	1.90	92	128	205	230	10.9	MJ
Module B2	1.62	0.81	1.29	2.34	2.83	5.17	9.69	MJ
Module C3	111	137	172	240	237	200	702	MJ

Scenario information (recycling)	AM150	AM300	AM500	AM800	AM900	AM1000	AM1200	Unit
Module A5	1.67	2.24	3.05	6.44	2.44	2.43	4.07	kg
Module C3	31.4	46.8	93	99-102	115	238	293	kg

Indoor air

The EPD does not give information on release of dangerous substances to indoor air because the horizontal standards on the relevant measurements are not available. Read more in EN15804+A1 chapter 7.4.1.

Soil and water

The EPD does not give information on release of dangerous substances to soil and water because the horizontal standards on the relevant measurements are not available. Read more in EN15804+A1 chapter 7.4.2.

References

<p>Publisher</p>	 www.epddanmark.dk
<p>Programme operator</p>	Danish Technological Institute Buildings & Environment Gregersensvej DK-2630 Taastrup www.teknologisk.dk
<p>LCA-practitioner</p>	Mathilde Sørensen Nilsson Artelia A/S Mariane Thomsens Gade 1c 8000 Aarhus C Denmark 
<p>LCA software / background data</p>	Sphera LCA for Experts, professional database, version 2023.2 and EcoInvent vers. 3.10.
<p>3rd party verifier</p>	Mirko Miseljic Force Technology 

General programme instructions

General Programme Instructions, version 2.0, spring 2020
 www.epddanmark.dk

EN 15804

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

EN 15942

DS/EN 15942:2011 – " Sustainability of construction works – Environmental product declarations – Communication format business-to-business"

ISO 14025

DS/EN ISO 14025:2010 – " Environmental labels and declarations – Type III environmental declarations – Principles and procedures"

ISO 14040

DS/EN ISO 14040:2008 – " Environmental management – Life cycle assessment – Principles and framework"

ISO 14044

DS/EN ISO 14044:2008 – " Environmental management – Life cycle assessment – Requirements and guidelines"

EN 50693:2019

EN 50693:2019 – "Product category rules for life cycle assessments of electronic and electrical products and systems"

Sphera LCA for Experts (formerly GaBi)

Professional Database, version 2023.2 <https://sphera.com/product-sustainability-software/>

EcoInvent

Ecoinvent version 3.10