ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804

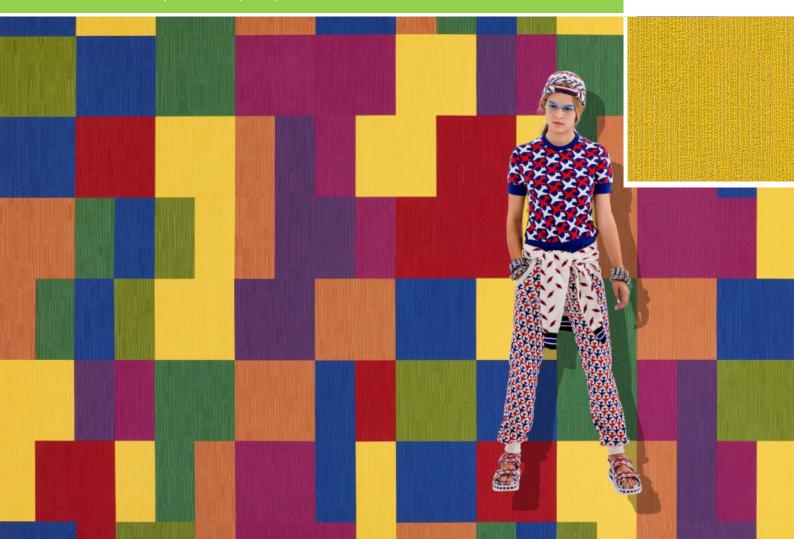
Owner of the Declaration	modulyss®
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-MOD-20170095-CBC1-EN
Issue date	09/06/2017
Valid to	08/06/2022

Tufted carpet tiles with a maximum total pile weight of 1300 g/m², pile material of polyamide 6, colored by aqueous dyeing methods, Back2Back backing

modulyss®



www.ibu-epd.com / https://epd-online.com





General Information

modulyss®

Programme holder

IBU - Institut Bauen und Umwelt e.V. Panoramastr. 1 10178 Berlin Germany

Declaration number

EPD-MOD-20170095-CBC1-EN

This Declaration is based on the Product Category Rules: Floor coverings, 07.2016 (PCR tested and approved by the SVR)

Issue date

09/06/2017

Valid to 08/06/2022

Wermanes

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

Mann

Dr. Burkhart Lehmann (Managing Director IBU)

Product

Product description / Product definition

Tufted carpet tiles having a surface pile of polyamide 6 and a Back2Back backing.

Back2Back backing: Bitumen based heavy backing with recycled content. Recycled content includes recycled limestone and recycled production waste 'B2B' (see more information on the website www.modulyss.com).

The carpet is colored by aqueous dyeing methods. The percentage of the recycled content out of total weight depends on the total pile weight of the product. For a total pile weight of 1300 g/m² the recycled content amounts to 43%. For a total pile weight up to 600 g/m² the recycled content amounts to at least 50%.

The declaration applies to a group of products with a

Tufted carpet tiles

max. total pile weight 1300 g/m² PA 6, aqueous dyeing methods, Back2Back backing

Owner of the Declaration

modulyss Zevensterrestraat 21 9240 Zele Belgium

Declared product / Declared unit

1 m² tufted carpet tiles with a surface pile of PA 6 and a Back2Back backing

Scope:

The manufacturer declaration applies to a group of similar products with a maximum total pile weight of 1300 g/m².

The products are manufactured in the modulyss production site Zele, Belgium.

Specific LCA results of products having a lower total pile weight can be taken from the corresponding tables of the annex or can be calculated by using equation 1 given in the annex (see annex chapter: 'General Information on the annex'). The result tables of the annex refer to categories of total pile weights in steps of 100 g/m². The declaration is only valid in conjunction with a valid GUT-/PRODIS/ license of the product.

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

The CEN Norm /EN 15804/ serves as the core PCR

Independent verification of the declaration according to /ISO 14025/

internally x externally

chindle,

Angela Schindler (Independent verifier appointed by SVR)

maximum total pile weight of 1300 g/m². LCA results are calculated for products with the maximum total pile weight.

More specific LCA results of products having a lower total pile weight can be taken from the corresponding tables of the annex. These result tables refer to categories of total pile weights in steps of 100 g/m². The LCA results always refer to the highest total pile weight of the corresponding pile weight category. Results for similar products with any other total pile weight can be calculated by using equation 1 given in the annex (see annex chapter: 'General Information on the annex').



For the placing on the market of the product in the EU/EFTA (with the exception of Switzerland) Regulation (EU) No. 305/2011 /CPR/ applies. The Declaration of Performance of the products taking into consideration /EN 14041/ and the CE-marking of the products can be found on the manufacturer's technical information section (www.modulyss.com).

Application

The products can be used in commercial areas. The use class as defined in /EN 1307/ can be found on the Product Information System /PRODIS/ using the /PRODIS/ registration number of the product (www.pro-dis.info) or on the manufacturer's technical information section.

Technical Data

Name	Value	Unit
Type of manufacture	Tufted tiles, aqueous dyeing methods	-
Product Form	Tiles 50 cm x 50 cm	-
Secondary backing	Back2Back backing	-
Yarn type	Polyamide 6	-
Total pile weight	max. 1300	g/m²
Total carpet weight	max. 5300	g/m ²

Additional product properties in accordance with /EN 1307/ and performance data of the product in accordance with the Declaration of Performance with respect to its Essential Characteristics according to /EN 14041/ can be found on the Product Information System /PRODIS/ using the /PRODIS/ registration number of the product (www.pro-dis.info) or on the manufacturer's technical information section (www.modulyss.com).

LCA: Calculation rules

Declared Unit

Name	Value	Unit
Declared unit	1	m ²
Conversion factor to 1 kg	0.19	m²/kg
Mass reference	5.30	kg/m²

The declared unit refers to 1 m² produced textile floor covering. Output of module A5 'Assembly' is 1 m² installed textile floor covering.

System boundary

Type of EPD: Cradle-to-grave

System boundaries of modules A, B, C, D:

A1-A3 Production:

Energy supply and production of the basic material, processing of secondary material, auxiliary material, transport of the material to the manufacturing site, emissions, waste water treatment, packaging material and waste processing up to the landfill disposal of residual waste (except radioactive waste). Benefits for generated electricity and steam due to the incineration of production waste are aggregated.

Base materials / Ancillary materials

Name	Value	Unit
Polyamide 6	24.5	%
Polyester	3.3	%
Polypropylene	0.5	%
Limestone	48.2	%
Aluminiumhydroxide	5.6	%
SBR-latex/SBS-copolymer	4.9	%
Bitumen	12.5	%
Glass fibre	0.2	%
Additives	0.2	%

The products are registered in the GUT-/PRODIS/ Information System. The /PRODIS/ system ensures the compliance with limitations of various chemicals and VOC-emissions and a ban on use of all substances that are listed as 'Substances of Very High Concern' (SVHC) under /REACH/.

Reference service life

A calculation of the reference service life according to /ISO 15686/ is not possible.

The service life of textile floor coverings strongly depends on the correct installation taking into account the declared use classification and the adherence to cleaning and maintenance instructions. A minimum service life of 10 years can be assumed, technical service life can be considerably longer.

A4 Transport:

Transport of the packed textile floor covering from factory gate to the place of installation.

A5 Installation:

Installation of the textile floor covering, processing of installation waste and packaging waste up to the landfill disposal of residual waste (except radioactive waste), the production of the amount of carpet that occurs as installation waste including its transport to the place of installation.

Generated electricity and steam due to the incineration of waste are listed in the result table as exported energy.

Preparing of the floor and auxiliary materials (adhesives, fixing agents, PET connectors) are beyond the system boundaries and not taken into account.

<u>B1 Use:</u>

Indoor emissions during the use stage. After the first year, no product related VOC emissions are relevant due to known VOC decay curves of the product.

B2 Maintenance:

Cleaning of the textile floor covering for a period of 1 year:



Vacuum cleaning – electricity supply Wet cleaning – electricity, water consumption, production of the cleaning agent, waste water treatment.

The declared values in this module have to be multiplied by the assumed service life of the floor covering in the building in question (see annex, chapter 'General information on use stage').

<u>B3 - B7:</u>

The modules are not relevant and therefore not declared.

C1 De-construction:

The floor covering is de-constructed manually and no additional environmental impact is caused.

C2 Transport:

Transport of the carpet waste to a landfill, to the municipal waste incineration plant (MWI) or to the waste collection facility for recycling.

C3 Waste processing:

C3-1: Landfill disposal need no waste processing. C3-2: Impact from waste incineration (plant with R1>0.1), generated electricity and steam are listed in the result table as exported energy.

C3-3: Collection of the carpet waste, waste processing (granulating).

C4 Disposal

C4-1: Impact from landfill disposal, C4-2: The carpet waste leaves the system in module C3-2.

C4-3: The pre-processed carpet waste leaves the system in module C3-3

D Recycling potential:

D-A5: Benefits for generated energy due to incineration of packaging and installation waste (incineration plant with R1 > 0.6),

D-1: Benefits for generated energy due to landfill disposal of carpet waste at the end-of-life,

D-2: Benefits for generated energy due to incineration of carpet waste at the end-of-life (incineration plant with R1 > 0.6),

D-3: Benefits for saved fossil energy and saved inorganic material due to recovery of the carpet in a cement plant at the end-of-life, transport from the reprocessing plant to the cement kiln.

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. . Background data are taken from the /GaBi database 2017/, service pack 33 and from the /ecoinvent 3.3/ database.

LCA: Scenarios and additional technical information

The following information refer to the declared modules and are the basis for calculations or can be used for further calculations. The indicated values refer to the declared functional unit of all products with a total pile weight up to 1300 g/m². Specific information on products having a lower total pile weight can be taken from the annex.

Transport to the construction site (A4)

Name	Value	Unit
Litres of fuel (truck, EURO 0-5 mix)	0.0106	l/100km
Transport distance	700	km
Capacity utilisation (including empty runs)	85	%

Installation in the building (A5)

Name	Value	Unit			
Material loss	0.16	kg			
Packaging waste and installation waste are considere					

to be incinerated in a municipal waste incineration plant.

Preparation of the floor and auxiliaries (adhesives, fixing agents, PET connectors, etc.) are not taken into account.

Maintenance (B2)

Indication per m² floor covering and per year (see annex, chapter 'General Information on use stage')

Name	Value	Unit
Maintenance cycle (wet cleaning)	1.5	1/year
Maintenance cycle (vacuum cleaning)	208	1/year
Water consumption (wet cleaning)	0.004	m ³
Cleaning agent (wet cleaning)	0.09	kg
Electricity consumption	0.314	kWh

Further information on cleaning and maintenance see www.modulyss.com

End of Life (C1-C4)

Three different end-of-life scenarios are declared and the results are indicated separately in module C. Each scenario is calculated as a 100% scenario.

Scenario 1: 100% landfill disposal

Scenario 2: 100% municipal waste incineration (MWI) with R1>0.6

Scenario 3: 100% recycling in the cement industry

If combinations of these scenarios have to be calculated this should be done according to the following scheme:

EOL-impact = x% impact (Scenario 1)

- + y% impact (Scenario 2)
- + z% impact (Scenario 3)

Name	Value	Unit
Collected as mixed construction waste (scenario 1 and 2)	5.3	kg
Collected separately (scenario 3)	5.3	kg
Landfilling (scenario 1)	5.3	kg
Energy recovery (scenario 2)	5.3	kg
Energy recovery (scenario 3)	2.44	kg
Recycling (scenario 3)	2.86	kg

4



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

Recovery or recycling potentials due to the three endof-life scenarios (module C) are indicated separately.

<u>Recycling in the cement industry (scenario 3)</u> /VDZ e.V./

The organic material of the carpet is used as secondary fuel in a cement kiln. It mainly substitutes for lignite (61.9%), hard coal (26.8%) and petrol coke (11.3%).

The inorganic material is substantially integrated in the cement clinker and substitutes for original material input.



6

LCA: Results

The results are valid for all declared products with a maximum total pile weight of 1300 g/m².

LCA results for product groups having a lower total pile weight can be taken from the corresponding tables of the annex. The LCA results always refer to the highest total pile weight of the corresponding pile weight category. Results for similar products with any other total pile weight can be calculated by using equation 1 given in the annex (see annex chapter: 'General Information on the annex').

The declared result figures in module B2 have to be multiplied by the assumed service life (in years) of the floor covering in the building under consideration (see annex, chapter 'General Information on use stage').

Information on un-declared modules:

Modules B3 - B7 are not relevant during the service life of the carpet and are therefore not declared. Modules C1, C3/1 and C4/2 cause no additional impact (see "LCA: Calculation rules") and are therefore not declared. Module C2 represents the transport for scenarios 1, 2 and 3. Column D represents module D/A5. The CML characterisation factors version April 2015 are applied.

| DESC | RIPT | ION C

 | F THE
 | SYST | | | 1 2015 a
RY (X =
 | INCLU | | LCA: | IND = | MOD
 | ULEN | | ECLA
 | RED) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | |

 |
 | | | |
 | | | | |
 | | | BENEF
 | ITS AND |
| PROF | DUCT S | STAGE

 | CONST
ON PR
 | OCESS | | USE STAGE |
 | | | | FΝΓ |) OF LI
 | FE STA | AGE |
 | ADS |
| | |

 | STA
 | AGE | | | 0020
 | | | | |
 | 0., | | SYS
 | STEM |
| | |

 |
 | | | |
 | _ | | | |
 | | | BOUN
 | IDARIES |
| _ | | 0

 | Transport from the gate to the site
 | | | | |
 | . + | Operational energy
use | ter | 5 |
 | Waste processing | |
 | |
| eria | Ę | Lin

 | sit
 | ≥ | | ЭС |
 | ner | ene | wa | l a ti | t
 | SSS | _ | . ,
 | ~ p = |
| ply
ply | ods | ctu

 | the
 | a
u
u
u | Use | nai | aur
em
 | shr | al e | lar
se | liti fi | bds
 | l ö | OS6 | ISe.
 | ntis
D |
| w matei
supply | Transport | ufa

 | to of
 | Assembly | _≍ | nte | Kepair
 | L ji | ional
use | tiona
use | -constructi
demolition | Transport
 | pr | Disposal | Reuse-
 | Recycling |
| Raw material
supply | Ē | Manufacturing

 | ansport from th
gate to the site
 | ¥ | | Maintenance | Repair
Renlacement
 | Refurbishment | erat | Operational water
use | De-construction
demolition | Ē
 | ste | | <u> </u>
 | Å Å Å |
| ш. | | 2

 | l ra
g:
 | | | 2 | "
 | | be | do | ă |
 | Na Na | |
 | |
| A1 | A2 | A3

 | A4
 | A5 | B1 | B2 | 33 B
 | 4 B5 | B6 | B7 | C1 | C2
 | C3 | C4 |
 | D |
| X | X | X

 | X
 | X | X | | ND MN
 | - | - | MND | MND | X
 | X | X | _
 | X |
| RESU | | OF TH

 |
 | | /IRONN | |
 | | | | | ~
 | | |
 | ~ |
| Param | |

 |
 | | | | |
 | | | | |
 | | |
 | |
| eter | U | nit

 | A1-A3
 | A4 | A5 | B1 | B2
 | C2 | C3/2 | C3/3 | C4/1 |
 |) | D/1 | D/2
 | D/3 |
| GWP | | O₂-Eq.]

 | 1.69E+1
 | _ | | |
 | | | | - | _
 | | | -3.11E+0
 | -6.19E-1 |
| ODP
AP | | C11-Eq.]
D ₂ -Eq.]

 | 2.72E-8
 | | 4 7.95E-1 | |
 | | 5 2.19E-12
4.31E-3 | | _ | 13 -3.19
3 -2.63
 | | .00E+0
.00E+0 | -5.80E-11
-4.80E-3
 | -1.53E-11
-2.40E-3 |
| EP | | 0 ₄)³-Eq.]

 | 4.39E-3
 | 3 2.32E- | 4 1.76E- | 4 0.00E+ | 0 3.21E-
 | 4 1.29E-5 | 1.08E-3 | 8.45E-6 | 3 1.04E- | 3 -2.78
 | | .00E+0 | -5.07E-4
 | -2.51E-4 |
| POCP | | ene-Eq.]

 | 4.36E-3
 | - | | |
 | | _ | | _ | -
 | | .00E+0 | -4.58E-4
 | -3.08E-4 |
| ADPE
ADPF | | b-Eq.]
/J]

 | 1.09E-5
 | - | 8 3.31E-
0 1.00E+ | | -
 | 6 9.90E-10
0 1.70E-1 | _ | | _ |
 | | .00E+0
.00E+0 | -5.93E-7
-4.35E+1
 | -2.24E-7
-8.84E+1 |
| | GW | P = Glob

 | al warmir
 | ng potenti | al; ODP = | Depletion | potential c
 | f the strato | spheric oz | one layer | ; AP = Ac | dificatio
 | n poten | tial of la | nd and wa
 | ater; EP = |
| Captio | n Eutr | ophicatio

 | on potenti
 | al; POCP | | |
 | spheric ozo
Abiotic der | | | |
 | Abiotic | depletio | n potentia
 | l for non- |
| RESU | JLTS | OF TH

 |
 | A - RES | | fossil resources; ADPF = Abiotic depletion potential for fossil resources
RESULTS OF THE LCA - RESOURCE USE: 1 m ² floorcovering | |
 | | | | |
 | | |
 | |
| | |

 |
 | | | | |
 | | ering | | |
 | | |
 | |
| Parame | eter | Unit

 | A1-A3
 | A4 | A5 | B1 | B2
 | C2 | C3/2 | C3/3 | C4/1 | D
 | , | D/1 | D/2
 | D/3 |
| Parame
PERI | E | [MJ] 3

 | 3.28E+1
 | A4
1.54E-1 | A5
9.87E-1 | B1
0.00E+0 | B2
9.87E-1
 | C2
8.56E-3 | C3/2
4.43E-1 | 1.95E-1 | 4.15E-1 | -4.30
 | E-1 0.0 | 00E+0 | -7.81E+0
 | -6.07E-1 |
| Parame
PERI
PERI | E
M | [MJ] 3
[MJ] 0

 | 3.28E+1
).00E+0
 | A4
1.54E-1
0.00E+0 | A5
9.87E-1
0.00E+0 | B1
0.00E+0
0.00E+0 | B2
9.87E-1
0.00E+0
 | C2
8.56E-3
0.00E+0 | C3/2
4.43E-1
0.00E+0 | 1.95E-1
0.00E+0 | 4.15E-1 | -4.30
0.00E
 | E-1 0.0 | 00E+0
00E+0 | -7.81E+0
0.00E+0
 | -6.07E-1
0.00E+0 |
| Parame
PERI | E
M
T | [MJ] 3
[MJ] 0
[MJ] 3

 | 3.28E+1
).00E+0
3.28E+1
 | A4
1.54E-1 | A5
9.87E-1 | B1
0.00E+0 | B2
9.87E-1
0.00E+0
9.87E-1
 | C2
8.56E-3 | C3/2
4.43E-1 | 1.95E-1 | 4.15E-1 | -4.30
0.00E
-4.30
 | E-1 0.0
E+0 0.0
E-1 0.0 | 00E+0
00E+0
00E+0 | -7.81E+0
 | -6.07E-1 |
| Paramo
PERI
PERI
PERF
PENF | E
M
T
RE | [MJ] 3
[MJ] 0
[MJ] 3
[MJ] 2
[MJ] 8

 | 3.28E+1
0.00E+0
3.28E+1
2.65E+2
3.55E+1
 | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
0.00E+0 | B1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0 | B2
9.87E-1
0.00E+0
9.87E-1
8.05E+0
0.00E+0
 | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0 | C3/2
4.43E-1
0.00E+0
4.43E-1
8.91E+1
-8.55E+1 | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
-8.55E+1 | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(| -4.30
0 0.00E
-4.30
0 -2.87I
0 0.00E
 | E-1 0.0
E+0 0.0
E-1 0.0
E+0 0.0
E+0 0.0 | 00E+0
00E+0
00E+0
00E+0
00E+0 | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
 | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0 |
| Parame
PERI
PERI
PERF
PENF
PENF | E
M
T
RE
RM
RT | [MJ] 3
[MJ] 0
[MJ] 3
[MJ] 2
[MJ] 8
[MJ] 8

 | 3.28E+1
0.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
 | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
3.06E+0 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
0.00E+0
1.05E+1 | B1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0 | B2
9.87E-1
0.00E+0
9.87E-1
8.05E+0
0.00E+0
8.05E+0
 | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
1.71E-1 | C3/2
4.43E-1
0.00E+0
4.43E-1
8.91E+1
-8.55E+1
3.66E+0 | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
-8.55E+1
5.73E-1 | 4.15E-1
0.00E+0
4.15E-1
5.66E+0
0.00E+0
5.66E+0 | -4.30
0.00E
-4.30
0.2.871
0.00E
0.00E
 | E-1 0.0
E+0 0.0
E-1 0.0
E+0 0.0
E+0 0.0
E+0 0.0 | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0 | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
 | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1 |
| Parama
PERI
PERI
PENF
PENF
SM
RSF | | [MJ] 3
[MJ] 0
[MJ] 3
[MJ] 2
[MJ] 8
[MJ] 3
[kg] 2
[MJ] 0

 | 3.28E+1
0.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
0.00E+0
 | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
3.06E+0
0.00E+0
0.00E+0 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
0.00E+0
1.05E+1
7.29E-2
0.00E+0 | B1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0 | B2
9.87E-1
9.87E-1
8.05E+0
0.00E+0
8.05E+0
0.00E+0
0.00E+0
 | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
1.71E-1
0.00E+0
0.00E+0 | C3/2
4.43E-1
0.00E+0
4.43E-1
8.91E+1
8.55E+1
3.66E+0
0.00E+0
0.00E+0 | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
8.55E+1
5.73E-1
0.00E+0
0.00E+0 | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(| -4.30
0.00E
-4.30
0.2.871
0.00E
0.00E
0.00E
0.00E
0.00E
 | E-1 0.0
E-1 0.0
E-1 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0 | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0 | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
 | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0 |
| Parama
PER
PER
PEN
PEN
PEN
SM
RSF
NRS | E
M
T
RE
RM
RT
F | [MJ] 3
[MJ] 0
[MJ] 3
[MJ] 2
[MJ] 8
[MJ] 3
[kg] 2
[MJ] 0
[MJ] 0

 | 3.28E+1
0.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
0.00E+0
0.00E+0
 | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
3.06E+0
0.00E+0
0.00E+0
0.00E+0 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
0.00E+0
1.05E+1
7.29E-2
0.00E+0
0.00E+0 | B1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0 | B2
9.87E-1
0.00E+0
9.87E-1
8.05E+0
0.00E+0
8.05E+0
0.00E+0
0.00E+0
0.00E+0
 | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
1.71E-1
0.00E+0
0.00E+0
0.00E+0 | C3/2
4.43E-1
0.00E+0
4.43E-1
8.91E+1
-8.55E+1
3.66E+0
0.00E+0
0.00E+0
0.00E+0 | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0 | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(| -4.30
0.00E
-4.30
0.2.871
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
 | E-1 0.0
E-1 0.0
E-1 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0 | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0 | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
 | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
8.55E+1 |
| Parama
PERI
PERI
PENF
PENF
SM
RSF | E
M
T
RE
RM
RT
F | [MJ] 3 [MJ] 0 [MJ] 3 [MJ] 3 [MJ] 3 [MJ] 3 [MJ] 4 [MJ] 5 [MJ] 5 [MJ] 5 [MJ] 6 [MJ] 0 [MJ] 0 [MJ] 0 [MJ] 0 [MJ] 0

 | 3.28E+1
0.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
0.00E+0
0.00E+0
5.29E-2
 | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.84E-4 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
0.00E+0
1.05E+1
7.29E-2
0.00E+0
0.00E+0
2.79E-3 | B1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0 | B2
9.87E-1
0.00E+0
9.87E-1
8.05E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
4.25E-3
 | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
1.71E-1
0.00E+0
0.00E+0
0.00E+0
1.59E-5 | C3/2
4.43E-1
0.00E+0
4.43E-1
8.91E+1
-8.55E+1
3.66E+0
0.00E+0
0.00E+0
0.00E+0
2.25E-2 | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
-8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
2.79E-4 | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
1.36E-5 | -4.30
0.00E
-4.30
02.871
0.00E
0.2.871
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
 | E-1 0.0
E+0 0.0
E+1 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0 | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0 | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
 | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
8.55E+1
-7.98E-3 |
| Parama
PER
PER
PEN
PEN
PEN
SM
RSF
NRS | E
M
RE
RT
F
F
F
F | [MJ] 3
[MJ] 0
[MJ] 3
[MJ] 2
[MJ] 8
[MJ] 3
[kg] 2
[MJ] 0
[MJ] 0
[m ³] 4
PERE = 1
[wable provide the second

 | 3.28E+1
1.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
1.00E+0
1.00E+0
1.00E+0
1.00E+0
1.00E+0
1.00E+0
1.00E+0
1.00E+0
1.00E+0
1.28E+1
1.25E+2
1.25E+1
1.25E+2
1.25E+1
1.25E+2
1.25E+2
1.25E+1
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.25E+2
1.2 | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.84E-4
newable
nergy res
 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
0.05E+1
7.29E-2
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.79E-3
primary eources us | B1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0 | B2
9.87E-1
0.00E+0
9.87E-1
8.05E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
9.87E-1
1.8.95E+0
0.00E+0
9.87E-1
1.8.95E+0
0.00E+0
9.87E-1
0.00E+0
9.87E-1
0.00E+0
9.87E+1
0.00E+0
9.87E+1
0.00E+0
9.87E+1
0.00E+0
9.87E+1
0.00E+0
9.87E+1
0.00E+0
9.87E+1
0.00E+0
9.87E+1
0.00E+0
9.87E+1
0.00E+0
9.87E+1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0 | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
1.71E-1
0.00E+0
0.00E+0
0.00E+0
1.59E-5
mewable p
s; PERT =
 | C3/2
4.43E-1
0.00E+0
4.43E-1
8.91E+1
-8.55E+1
3.66E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
rimary ene
Total use | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.79E-4
ergy resc
of renew | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
1.36E-5
vurces us
vable prin | -4.30
0 0.00E
-4.30
0 -2.871
0 0.00E
0 -2.871
0 0.00E
0 0.00E
0 0.00E
5 -6.14
ed as ra
hary end
 | E-1 0.0
E-1 0.0
E-1 0.0
E-0 0.0
E+0 | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
erials; F
sources | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
PERM = L
; PENRE | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
= Use of |
| Parama
PER
PER
PEN
PEN
PEN
SM
RSF
NRS | E
M
T
RE
RM
RT
F
F
F
F
F
F
F
F | [MJ] 3 [MJ] 0 [MJ] 3 [MJ] 2 [MJ] 2 [MJ] 3 [MJ] 2 [MJ] 3 [MJ] 3 [MJ] 3 [MJ] 3 [MJ] 4 [MJ] 4 [MJ] 4 [MJ] 5 [MJ] 6 [MJ] 6 [MJ] 6 [MJ] 6 [MJ] 6 [MJ] 6 [MJ] 7 [MJ] 6 [MJ] 7

 | 3.28E+1
0.00E+0
3.28E+1
2.65E+2
3.55E+1
3.55E+1
3.51E+2
2.49E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+
 | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.84E-4
enewable
bergy ress
imary en | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
0.00E+0
1.05E+1
7.29E-2
0.00E+0
0.00E+0
2.79E-3
primary e
ources us
ergy exclu | B1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
energy ex
ed as raw
uding non | B2
9.87E-1
0.00E+0
9.87E-1
8.05E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
vaterials-
renewab
 | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
1.71E-1
0.00E+0
0.00E+0
1.59E-5
mewable p
s; PERT =
e primary | C3/2
4.43E-1
0.00E+0
4.43E-1
8.91E+1
8.55E+1
3.66E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.25E-2
rimary energy re- | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
-8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.79E-4
ergy resc
of renew
sources | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
5.66E+(
0.00E+(
0.00E+(
0.00E+(
1.36E-5))
0.00E+(
1.36E-5))
0.00E+(
1.36E-5)) | -4.30 0.00E -4.30 -2.87 0.00E
 | E-1 0.0
E-0 0.0
E-1 0.0
E-1 0.0
E+0 | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
erials; F
sources
PENRM | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
PERM = L
S; PENRE
I = Use of | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
= Use of
f non- |
| Parama
PERI
PERI
PENF
PENF
SM
RSF
NRS
FW | E
M
T
RE
RM
RT
F
F
F
rene" | [MJ] 3 [MJ] 3 [MJ] 3 [MJ] 2 [MJ] 2 [MJ] 3 [MJ] 3 [MJ] 3 [MJ] 3 [MJ] 3 [MJ] 3 [MJ] 4 [MJ] 5 [MJ] 5 PERE = 1 wable p 1 oon-rene 1 wable p 1

 | 3.28E+1
0.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
0.00E+0
0.00E+0
5.29E-2
Use of re-
rimary en-
wable pr-
rimary en-
 | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.84E-4
mewable
bergy res
imary en
mergy res | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
0.00E+0
1.05E+1
7.29E-2
0.00E+0
0.00E+0
2.79E-3
primary e
ources us
ergy excl(| B1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.0 |
B2
9.87E-1
0.00E+0
9.87E-1
8.05E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.0 | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
1.71E-1
0.00E+0
0.00E+0
0.00E+0
1.59E-5
mewable p
s; PERT = | C3/2
4.43E-1
0.00E+0
4.43E-1
8.91E+1
8.55E+1
3.66E+0
0.00E+0
0.00E+0
0.00E+0
2.25E-2
rimary ene
Total use
energy re:
= Total us | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
-8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.79E-4
ergy resc
of renew
sources be of non | 4.15E-1
0.00E+4
4.15E-1
5.66E+4
0.00E+4
0.00E+4
0.00E+4
0.00E+4
1.36E-5
urces us
rable prin
used as r
-renewab
 | -4.30
0.00E
-4.30
0.2.87(
0.00E
0.2.87(
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E | E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E-0 | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
erials; F
sources
PENRM
ergy res | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
PERM = L
; PENRE
; PURRE
 | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
= Use of
f non-
M = Use |
| Parama
PERI
PERI
PENI
PENI
PENI
SIM
RSF
NRS
FW | E I
M I
T I
RE I
RT I
F I
F I
F I
rene
of se | [MJ] 3
[MJ] 4
[MJ] 3
[MJ] 3
[MJ] 3
[MJ] 3
[MJ] 3
[MJ] 3
[MJ] 4
[MJ] 4
[MJ] 6
[MJ] 6
[MJ] 6
[MJ] 6
[MJ] 6
[MJ] 6
[MJ] 6
[MJ] 6
[MJ] 7
[MJ] 7
[M

 | 3.28E+1
1.00E+0
1.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
1.00E+0
1.00E+0
1.00E+0
1.29E-2
Use of re-
rimary er-
wable pr-
rimary er-
wable pr-
rimary er-
water all all all all all all all all all al | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.54E-1
2.84E-4
mergy res
imary en
mergy res
l; RSF =
 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
7.29E-2
0.00E+0
0.00E+0
2.79E-3
primary e
ources us
ergy exclusiources us
use of re | B1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
anergy ex
ed as raw
dding non
sed as raw
newables | B2
9.87E-1
0.00E+0
9.87E-1
8.05E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
4.25E-3
cluding re
v materials
-renewab
v materials | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
1.71E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.59E-5
newable p
s; PERT =
e primary
s; PERT
fuels; NR
fuels; NR
wat
 | C3/2
4.43E-1
0.00E+0
4.43E-1
8.91E+1
-8.55E+1
3.66E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.25E-2
rimary ene
Total use
energy re=
Total use
sF = Use
er | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
-8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.79E-4
ergy resc
of renew
sources is
se of non-resc | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
5.66E+(
0.00E+(
0.00E+(
0.00E+(
1.36E-5
urces us
rable prin
used as r
-renewable | -4.30
0.00E
-4.30
0.2.87(
0.00E
0.2.87(
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
 | E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E-0 | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
erials; F
sources
PENRM
ergy res | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
PERM = L
; PENRE
; PURRE | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
= Use of
f non-
M = Use |
| Parama
PERI
PERI
PENI
PENI
PENI
SM
RSF
NRS
FW
Caption | E M
M
RE R
R
R
F F
F
F
F
F
F
F
F
F
F
F
F
F
F
F
F | MJ 2
MJ 2
MJ 2
MJ 2
MJ 2
MJ 2
MJ 2
MJ 2

 | 3.28E+1
1.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
1.00E+0
5.29E-2
Use of re-
rimary er-
wable pr
rimary er-
wable pr
rimary er-
wable pr
rimary er-
wable pr
rimary er-
wable pr
rimary er-
wable pr
rimary er-
solution (Complete to the complete to the complet | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.54E-1
2.84E-4
mergy ress
imary en
mergy ress
il, RSF =
 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
7.29E-2
0.00E+0
0.00E+0
2.79E-3
primary e
ources us
ergy exclusiources us
use of re | B1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
anergy ex
ed as raw
dding non
sed as raw
newables | B2
9.87E-1
0.00E+0
9.87E-1
8.05E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
4.25E-3
cluding re
v materials
-renewab
v materials | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.59E-5
newable p
s; PERT =
e primary
s; PENRT =
 | C3/2
4.43E-1
0.00E+0
4.43E-1
8.91E+1
-8.55E+1
3.66E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.25E-2
rimary ene
Total use
energy re=
Total use
sF = Use
er | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
-8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.79E-4
ergy resc
of renew
sources is
se of non-resc | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
5.66E+(
0.00E+(
0.00E+(
0.00E+(
1.36E-5
urces us
rable prin
used as r
-renewable | -4.30
0.00E
-4.30
0.2.87(
0.00E
0.2.87(
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
0.00E
 | E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E-0 | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
erials; F
sources
PENRM
ergy res | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
PERM = L
; PENRE
; PURRE | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
= Use of
f non-
M = Use |
| Parama
PER
PER
PEN
PEN
PEN
SM
RS
FW
Caption | E M T RE T | MJ 2
MJ 2
MJ 2
MJ 2
MJ 2
MJ 2
MJ 2
MJ 2

 | 3.28E+1
0.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.29E-2
Use of rerimary er
wable pr
rimary er
wable pr
rimary er
material
1.2 LCA
 | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.54E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
0.00E+0
1.05E+1
7.29E-2
0.00E+0
0.00E+0
2.79E-3
primary c
ources us
ergy exclu-
ources us
Use of re | B1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
ed as raw
uding non
sed as raw |
B2
9.87E-1
0.00E+0
9.87E-1
8.05E+0
0.00E+0
8.05E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
9.87E-1
0.00E+0
0.00E+0
9.87E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.0 | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
1.71E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.59E-5
mewable p
s; PERT =
e primary
s; PENRT
fuels; NR
wat | C3/2
4.43E-1
0.00E+0
4.43E-1
8.91E+1
3.66E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.25E-2
rimary energy real
= Total use
SF = Use
er
CATEGO | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
-8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
2.79E-4
2.79E-4
2.79E-4
ergy resc
of renew
sources to
se of non-re | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
1.36E-5
urces us
vable prin
used as r
-renewable
 | 4.30 0.000 4.30 -2.871 0.000 -2.871 0.000 0.0000 0.000 <li< td=""><td>E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E+0 0.</td><td>00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
erials; F
v</td><td>-7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
FERM = L
s; PENRE
I = Use of
ources; S
= Use of</td><td>-6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
8.55E+1
2.86E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
= Use of
f non-
M = Use
net fresh</td></li<> | E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E+0 0. | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
erials; F
v | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
FERM = L
s; PENRE
I = Use of
ources; S
= Use of | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
8.55E+1
2.86E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
= Use of
f non-
M = Use
net fresh |
| Paramo
PER
PER
PEN
PEN
SM
RSF
NRS
FW
Caption | E M
M
T M
RE M | MJ 2
MJ 2
PERE =
wable pron-rene
wable pron-rene

 | 3.28E+1
1.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.00E+0
1.00E+0
1.229E-2
Use of re-
rimary er
wable pr
rimary er
wable pr
rimary er
v materia
IE LCA
1.2
1.2
1.2
1.2
1.2
1.2
1.2
1.2 | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
7.29E-2
0.00E+0
0.00E+0
2.79E-3
primary e
ources us
use of re
TPUT F
A5
 | B1 0.00E+0 0.00 | B2 9.87E-1 0.00E+0 9.87E-1 8.05E+00 0.00E+0 4.25E-3 cluding re- vmaterials -renewab vmaterials cecondary AND W B2 | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
1.71E-1
0.00E+0
0.00E+0
0.00E+0
1.59E-5
newable p
s; PERT =
e primary
s; PERT
fuels; NR
wat
ASTE C | C3/2
4.43E-1
0.00E+0
4.43E-1
8.91E+1
-8.55E+1
3.66E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.25E-2
rimary energy re-
energy re-
energy re-
sF = Use
energy
C3/2
C3/2 | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
-8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.79E-4
ergy resc
of renew
sources is
se of non-resc
ORIES
 | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0 | -4.30 0.00E -4.30 0.00E -4.30 -2.871 0.00E -2.877 0.00E 0.00E 0.00E 0.00E 0.00E -6.14 ed as ra nary end aw mat ble prim second | E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E+0 | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
PENRM
ergy reseals; FW
 | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
PERM = L
;; PENRE
I = Use of
ources; S
= Use of
D/2 | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
= Use of
f non-
SM = Use
net fresh |
| Parama
PER
PER
PEN
PEN
PEN
SM
RS
FW
Caption | M M T J RE J F J F J Image: Second S | MJ 2 MJ 2 MJ 3 MJ 2 MJ 3 Value 1 Wable prion-rene wable prion-rene wable percondary 0 OF TH 0 OVerin 1 (kg) 2

 | 3.28E+1
1.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.24E-2
Use of re-
rimary er
wable pr
rimary er
wable pr
rimary er
wable pr
rimary er
wable pr
rimary er
wable pr
rimary er
A1-A3
2.48E-5 |
A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.54E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
0.00E+0
1.05E+1
7.29E-2
0.00E+0
0.00E+0
2.79E-3
primary e
ources us
ergy exclu-
ources us
Use of re
TPUT F
A5
7.30E-7 | B1 0.00E+0 nergy exercises ed as raw newable s LOWS B1 0.00E+0 | B2 9.87E-1 0.00E+0 9.87E-1 8.05E+00 0.00E+0 4.25E-3 cluding re- materials- renewab wraterials- renewab wraterials- endation B2 1.13E-9
 | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
1.71E-1
0.00E+0
1.59E-5
newable p
s; PERT =
e primary
s; PERT =
fuels; NR
wat
ASTE C
C2
8.96E-9 | C3/2
4.43E-1
0.00E+0
4.43E-1
8.91E+1
8.55E+1
3.66E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.25E-2
rimary ene
Total use
energy rea
Total use
energy rea
Total use
energy rea
Total use
energy rea
Total use
Energy rea
C3/2
1.97E-8 | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
-8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.79E-4
ergy resc
of renew
sources is
se of non-res
DRIES
C3/3
2.32E-10 | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
5.66E+(
0.00E+(
0.00E+(
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1.36E-5)
0.00E+(
1. |
 | E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E+0 | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
PENRM
ergy res
els; FW | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
PERM = L
; PENRE
I = Use of
D/2
-1.27E-8 | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
= Use of
f non-
iM = Use
net fresh
D/3
-4.08E-9 |
| Paramo
PER
PER
PEN
PEN
SM
RSF
NRS
FW
Caption | E I I I I I I I I I I I I I I I I I I I | MJ 3 MJ 3 MJ 3 MJ 3 MJ 4 MJ 3 PERE wable prion-rene wable prion-rene wable prion-rene wable prion-rene wable prion-rene Wable The secondary 0 OF TH 1 Witt [kg] [kg] 2

 | 3.28E+1
1.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.00E+0
1.00E+0
1.229E-2
Use of re-
rimary er
wable pr
rimary er
wable pr
rimary er
v materia
IE LCA
1.2
1.2
1.2
1.2
1.2
1.2
1.2
1.2
 | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4
2.84E-4 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
7.29E-2
0.00E+0
0.00E+0
2.79E-3
primary e
ources us
use of re
TPUT F
A5 | B1 0.00E+0 0.00 | B2 9.87E-1 0.00E+0 9.87E-1 8.05E+0 0.00E+0 8.05E+0 0.00E+0 waterials vecondary B2 1.13E-9 8.17E-3 | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
1.71E-1
0.00E+0
0.00E+0
1.59E-5
mewable p
s; PERT =
e primary
s; PENRT
fuels; NR
wat
ASTE (
8.96E-9
1.30E-5
 | C3/2
4.43E-1
0.00E+0
4.43E-1
8.91E+1
-8.55E+1
3.66E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.25E-2
rimary energy re-
energy re-
energy re-
sF = Use
energy
C3/2
C3/2 | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
-8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.79E-4
ergy resc
of renew
sources is
se of non-res
DRIES
C3/3
2.32E-10 | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
1.36E-5))
1.36E-5
urces us
vable prin
used as r
-renewable
enewable
C4/1
2.19E-5
5.29E+(|
 | E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E+0 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E-3 0.0 | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0 | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
PERM = L
;; PENRE
I = Use of
ources; S
= Use of
D/2 | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
8.55E+1
2.86E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
= Use of
f non-
M = Use
net fresh
D/3
-4.08E-9
-1.41E-1
 |
| Paramo
PER
PER
PEN
PEN
PEN
SM
SM
SM
SM
SM
Captio
Captio
Captio
RESU
1 m ² 1
Paramo
HWU
NHW
RWU
CRU | E I
M I
RE I
RE I
RT I
RE I
F
F
F
F
F
F
F
F
F
F
F
F
F
F
F
F
F
F
F | Image: Application of the second and the se

 | 3.28E+1
3.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
0.00E+0
5.29E-2
Use of re-
rimary er
wable pr
rimary er
wable pr
rimary er
wable pr
rimary er
wable pr
rimary er
1E LCA
13
12
14
14
13
14
14
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
15
16
16
16
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17
17 | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.54E-1
x8F =
- OU
A4
1.61E-7
2.34E4
4.18E-6
0.00E+0
 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
7.29E-2
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
TPUT F
A5
7.30E-7
5.31E-2
1.93E-4
0.00E+0 | B1 0.00E+0 | B2 9.87E-1 0.00E+0 9.87E-1 8.05E+0 0.00E+0 4.25E-3 cluding regeneration materials -renewab w materials econdary AND W B2 1.13E-9 8.17E-3 3.81E4 0.00E+0 | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
1.71E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.59E-5
newable p
s; PERT =
e primary
s; PERT =
tels; NR
fuels; NR
wat
ASTE (
8.96E-9
1.30E-5
2.33E-7
0.00E+0
 | C3/2 4.43E-1 0.00E+0 4.43E-1 4.43E-1 4.43E-1 4.43E-1 4.43E-1 3.66E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2.25E-2 charmary energy re- = Total use energy re- = Total use energy re- CATEGO C3/2 1.97E-8 1.27E+0 1.55E-4 0.00E+0 | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.79E-4
ergy resc
of renews
sources is
se of non-ref
DRIES
2.32E-10
3.77E-4
8.91E-5
0.00E+0 | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
5.66E+(
0.00E+(
0.00E+(
0.00E+(
1.36E-5
0.00E+(
1.36E-5
0.00E+(
1.36E-5
0.00E+(
2.19E-5
5.29E+(
8.57E-5
0.00E+(
0.00E+(
8.57E-5
0.00E+(
8.57E-5
0.00E+(
8.57E-5
0.00E+(
8.57E-5
0.00E+(
8.57E-5
0.00E+(
8.57E-5)) | -4.30 0.000 -4.30 0.2.871 0.000 -2.871 0.0000 0.2.871 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 | E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E-10 0.0 | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0 | -7.81E+0
-7.81E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
PERR = L
: PENRE
I = Use of
0.00ces; S
= Use of
D/2
-1.27E-8
-1.85E-2
-3.57E-3
0.00E+0 | -6.07E-1
-0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
= Use of
fron-
M = Use of
fron-
1.41E-1
-1.41E-1
-2.00E-4
0.00E+0 |
| Paramo
PER
PER
PENF
PENF
PENF
SM
SM
SM
SM
Captio
Captio | E | Image: Application of the second and second

 | 3.28E+1
3.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
0.00E+0
3.29E-2
Use of re-
rimary er-
wable pr
rimary er-
wable pr
rimary er-
y materia
IE LCA
1E LCA
1E LCA
13.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1 | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.54E-1
2.84E-4
mewable
hergy res
imary en
hergy res
imary en
hergy res
imary en
hergy res
1.5KE =
A -
OU
A4
1.61E-7
2.34E-4
4.18E-6
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.0 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
7.29E-2
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
F
7.30E-7
5.31E-2
1.93E-4
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E | B1 0.00E+0 | B2 9.87E-1 0.00E+0 9.87E-1 8.05E+0 0.00E+0 8.05E+0 0.00E+0 0.00E+0 4.25E-3 cluding re materials -renewab waterials -renewab Materials -renewab B2 1.13E-9 8.17E-3 3.81E-4 0.00E+0 0.00E+0 | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
1.71E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.59E-5
newable p
s; PERT =
e primary
s; PERT =
e primary
s; PERT =
e primary
s; PERT =
e
2.33E-7
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0 | C3/2 4.43E-1 0.00E+0 4.43E-1 8.91E+1 -8.55E+1 3.66E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 C3/2 1.97E-8 1.27E-4 1.55E-4 0.00E+0 0.00E+0 0.00E+0 | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.79E-4
ergy resc
of renew
sources is
se of non-resc
of non-resc
C3/3
2.32E-10
3.77E-4
8.91E-5
0.00E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E+0
2.85E | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
5.66E+(
0.00E+(
0.00E+(
1.36E-5
urces us
rable prin
used as r
-renewable
c4/1
2.19E-6
5.29E+(
8.57E-5
0.00E+(
0.00E+(
0.00E+(
0.00E+(
1.36E-5))) | -4.30 0 0.00E -4.30 0 -2.871 0 0.00E 0 -2.871 0 0.00E 0 -1.02 0 -1.02 0 -1.02 0 0.00E 0 0.00E
 | E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E+0 0.0
E-10 0.0
E-10 0.0
E-3 0.0
E-3 0.0
E-4 0.0
E-1 0.0
E | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0 | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
PERRE
I = Use of
D/2
-1.27E-8
-1.85E-2
-3.57E-3
0.00E+0
0.00E+0 | -6.07E-1
-0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
F use of
f non-
SM = Use of
f non-
SM = Use
net fresh
D/3
-1.41E-1
-2.00E4
0.00E+0
0.00E+0 |
| Paramo
PER
PER
PEN
PEN
PEN
SM
SM
SM
SM
SM
Captio
Captio
Captio
RESU
1 m ² 1
Paramo
HWU
NHW
RWU
CRU | M M T J RE J RE J RT J RT J RT J RT J F J F J F S J J R R | MJ 3 MJ 3 MJ 2 MJ 3 MJ 2 MJ 3 Wable pron-rene wable pron-rene wable pronocondary 3 OF Th 3 Covering 4 [kg] 3 [kg] 3 [kg] 4 [kg] 4

 | 3.28E+1
1.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
1.00E+0
1.00E+0
1.00E+0
1.00E+0
1.00E+0
1.02E-1
3.52E-1
3.52E-1
3.52E-1
3.52E-1
1.52E-2
1.00E+0
1.62E-2
0.00E+0
 | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.54E-1
x8F =
- OU
A4
1.61E-7
2.34E4
4.18E-6
0.00E+0 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
7.29E-2
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
FPUT F
7.30E-7
5.31E-2
1.93E-4
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0 | B1 0.00E+0 | B2 9.87E-1 0.00E+0 9.87E-1 8.05E+00 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 4.25E-3 cluding re- materials- -renewab waterials -renewab MD W B2 1.13E-9 8.17E-3 3.81E-4 0.00E+0 0.00E+0 0.00E+0
 | C2
8.56E-3
0.00E+0
8.56E-3
1.71E-1
0.00E+0
1.71E-1
0.00E+0
0.00E+0
1.59E-5
newable p
s; PERT =
e primary
s; PERT =
e primary
s; PERT =
e primary
s; PERT =
e primary
s; PERT =
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+ | C3/2 4.43E-1 0.00E+0 4.43E-1 4.43E-1 4.43E-1 4.43E-1 4.43E-1 3.66E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2.25E-2 charmary energy re- = Total use energy re- = Total use energy re- CATEGO C3/2 1.97E-8 1.27E+0 1.55E-4 0.00E+0 | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
-8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.32E-10
3.77E-4
8.91E-5
0.00E+0
2.88E+0
2.88E+0
2.88E+0
2.44E+0 | 4.15E-1
0.00E+1
4.15E-1
5.66E+1
0.00E+1
5.66E+1
0.00E+1
0.00E+1
1.36E-5
urces us
rable prin
used as r
-renewable
c4/1
2.19E-6
5.29E+1
8.57E-5
0.00E+1
0.00E+1
0.00E+1 | -4.30 0 0.00E -4.30 0 -2.871 0 0.00E 0 -2.871 0 0.00E 0 -1.02 0 -1.02 0 0.00E 0 0.00E 0 0.00E
 | E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E-10 0.0
E-10 0.0
E-10 0.0
E-3 0.0
E-3 0.0
E-4 0.0
E-4 0.0
E-4 0.0
E-10 | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0 | -7.81E+0
-7.81E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
PERR = L
: PENRE
I = Use of
0.00ces; S
= Use of
D/2
-1.27E-8
-1.85E-2
-3.57E-3
0.00E+0 | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
= Use of
f non-
SM = Use
net fresh
D/3
-4.08E-9
-1.41E-1
-2.00E+0
0.00E+0
0.00E+0
 |
| Paramo
PER
PER
PEN
PEN
SM
RSF
NRS
FW
Caption | E M T M T | MJ 3 MJ 3 MJ 3 MJ 3 MJ 4 MJ 3 Wable proon-rene wable per condary OF TH coverin Unit [kg] [kg] (kg] (kg] (kg] (kg] (kg]

 | 3.28E+1
1.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.00E+0
1.02E+2
1.00E+0
1.02E+2
1.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.0
 | A4
1.54E-1
0.00E+0
1.54E-1
3.06E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.54E-7
2.34E-4
4.18E-6
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
7.29E-2
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
FPUT F
A5
7.30E-7
5.31E-2
1.93E-4
0.00E+0
0.00E+0 | B1 0.00E+0 nergy ex ed as raw newable s LOWS B1 0.00E+0 | B2 9.87E-1 0.00E+0 9.87E-1 8.05E+00 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 4.25E-3 cluding re- materials- -renewab waterials -renewab MD W B2 1.13E-9 8.17E-3 3.81E-4 0.00E+0 0.00E+0 0.00E+0
 | C2 8.56E-3 0.00E+0 8.56E-3 1.71E-1 0.00E+0 1.71E-1 0.00E+0 1.59E-5 newable p s; PERT = e primary s; PERT fuels; NR wat ASTE C 8.96E-9 1.30E-5 2.33E-7 0.00E+0 0.00E+0 0.00E+0 0.00E+0 | C3/2 4.43E-1 0.00E+0 4.43E-1 8.91E+1 8.55E+1 3.66E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2.25E-2 rimary ener Total use energy res Total use energy res Total use energy res Total use C3/2 1.97E-8 1.27E+0 1.55E-4 0.00E+0 0.00E+0 0.00E+0 1.02E+1 | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
-8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.79E-4
ergy resc
of renew
sources is
se of non-res
DRIES
C3/3
2.32E-10
3.77E-4
8.91E-5
0.00E+0
2.86E+0
2.86E+0
2.86E+0
2.86E+0
0.00E+0 | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
5.66E+(
0.00E+(
0.00E+(
0.00E+(
1.36E-5
urces us
rable prin
used as r
-renewable
c4/1
2.19E-6
5.29E+(
8.57E-5
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0 | -4.30 0 0.00E -4.30 0 -2.871 0 0.00E 0 -2.871 0 0.00E 0 -2.871 0 0.00E 0 -6.95E 0 -1.02 5 -1.96 0 0.00E 0 0.00E 0 0.00E 0 0.00E
 | E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E-10 0.0
E-10 0.0
E-10 0.0
E-3 0.0
E-3 0.0
E-4 0.0
E-4 0.0
E-4 0.0
E-10 | 00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0
00E+0 | -7.81E+0
0.00E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
-1.12E-2
ERM = L
; PENRE
I = Use of
0.00CE+0
-1.27E-8
-1.28E-2
-3.57E-3
0.00E+0
0.00E+0
0.00E+0
0.00E+0 | -6.07E-1
0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
= Use of
f non-
M = Use of
f non-
M = Use
net fresh
D/3
4.08E-9
-1.41E-1
-2.00E+0
0.00E+0
0.00E+0
0.00E+0
 |
| Paramo
PERI
PERI
PENF
PENF
PENF
SM
RSF
NRS
FW
Caption
Caption
RESU
1 m² 1
Paramo
HWC
NHW
RWL
CRL
MFF
EEE | E I I I I I I I I I I I I I I I I I I I | MJ 3 MJ 3 MJ 2 MJ 3 PERE 1 wable protonon-rene wable protonon-rene wable protonon-rene wable protonon-rene Wable 1 OF TH OF TH Init [kg] [kg] (kg) (kg) <t< td=""><td>3.28E+1
1.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.62E-2
0.00E+0
1.62E-2
0.00E+0
0.00E+0
0.00E+0
1.62E-2
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.0</td><td>A4 1.54E-1 0.00E+0 1.54E-1 3.06E+0 0.00E+0 3.06E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.61E-7 2.34E4 4.18E-6 0.00E+0 0.00</td><td>A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
0.00E+0
1.05E+1
7.29E-2
0.00E+0
0.00E+0
2.79E-3
primary 6
ources us
ergy exclusources us
ergy exclusources us
ergy exclusources us
tources us
tources us
0.00E+0
7.30E-7
5.31E-2
1.93E-4
0.00E+0
4.74E-4
0.00E+0
5.62E-1
1.33E+0
0
00Sed; NH</td><td>B1 0.00E+0 0.00E+0</td><td>B2 9.87E-1 0.00E+0 9.87E-1 8.05E+0 0.00E+0 waterials renewab waterials secondary B2 1.13E-9 8.17E-3 3.81E-4 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0</td><td>C2 8.56E-3 0.00E+0 8.56E-3 1.71E-1 0.00E+0 1.71E-1 0.00E+0 1.59E-5 newable p s; PERT = e primary s; PERT fuels; NR wat ASTE C 8.96E-9 1.30E-5 2.33E-7 0.00E+0 0.00E+0 0.00E+0 0.00E+0</td><td>C3/2 4.43E-1 0.00E+0 4.43E-1 8.91E+1 8.55E+1 3.66E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2.25E-2 rimary end total use energy re: = Total use SF = Use er CATEGO C3/2 1.97E-8 1.27E+0 1.55E-4 0.00E+0 0.00E+0 0.00E+0 1.02E+1 2.44E+1 disposed;</td><td>1.95E-1
0.00E+0
1.95E-1
8.61E+1
8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.79E-4
ergy resc
of renew
sources is
se of non-re
C3/3
2.32E-10
3.77E-4
8.91E-5
0.00E+0
2.84E+0
0.00E+0
0.00E+0
8.91E-5
0.00E+0
2.84E+0
0.00E+0
0.00E+0
8.91E-5
0.00E+0
2.84E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.0</td><td>4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
5.66E+(
0.00E+(
0.00E+(
1.36E-5
0.00E+(
1.36E-5
0.00E+(
1.36E-5
0.00E+(
1.36E-5
0.00E+(
8.57E-5
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+</td><td>-4.30 0.000 -4.30 0.2.871 0.000 -2.871 0.0000 -2.871 0.0000 -2.871 0.0000 -2.871 0.0000 -2.871 0.0000 0.0000 0.0000 0.0000 -6.14 ed as rational provided as mathematical prime second ble prime second ble prime second ble prime ble prime second ble prime ble prime second ble prime ble prim</td><td>E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E-3 0.0
E-3 0.0
E-4 0.0
E-3 0.0
E+0 0.0
E-1 0.0
E-1</td><td>00E+0 00E+0 00E+0</td><td>-7.81E+0
-7.81E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-</td><td>-6.07E-1
-0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
= Use of
f non
M = Use of
f non
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.0</td></t<> | 3.28E+1
1.00E+0
3.28E+1
2.65E+2
3.55E+1
3.51E+2
2.49E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.62E-2
0.00E+0
1.62E-2
0.00E+0
0.00E+0
0.00E+0
1.62E-2
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.0 | A4 1.54E-1 0.00E+0 1.54E-1 3.06E+0 0.00E+0 3.06E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.61E-7 2.34E4 4.18E-6 0.00E+0 0.00 | A5
9.87E-1
0.00E+0
9.87E-1
1.05E+1
0.00E+0
1.05E+1
7.29E-2
0.00E+0
0.00E+0
2.79E-3
primary 6
ources us
ergy exclusources us
ergy exclusources us
ergy exclusources us
tources us
tources us
0.00E+0
7.30E-7
5.31E-2
1.93E-4
0.00E+0
4.74E-4
0.00E+0
5.62E-1
1.33E+0
0
00Sed; NH | B1 0.00E+0 | B2 9.87E-1 0.00E+0 9.87E-1 8.05E+0 0.00E+0 waterials renewab waterials secondary B2 1.13E-9 8.17E-3 3.81E-4 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 | C2 8.56E-3 0.00E+0 8.56E-3 1.71E-1 0.00E+0 1.71E-1 0.00E+0 1.59E-5 newable p s; PERT = e primary s; PERT fuels; NR wat ASTE C 8.96E-9 1.30E-5 2.33E-7 0.00E+0 0.00E+0 0.00E+0 0.00E+0 | C3/2 4.43E-1 0.00E+0 4.43E-1 8.91E+1 8.55E+1 3.66E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2.25E-2 rimary end total use energy re: = Total use SF = Use er CATEGO C3/2 1.97E-8 1.27E+0 1.55E-4 0.00E+0 0.00E+0 0.00E+0 1.02E+1 2.44E+1 disposed; | 1.95E-1
0.00E+0
1.95E-1
8.61E+1
8.55E+1
5.73E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
2.79E-4
ergy resc
of renew
sources is
se of non-re
C3/3
2.32E-10
3.77E-4
8.91E-5
0.00E+0
2.84E+0
0.00E+0
0.00E+0
8.91E-5
0.00E+0
2.84E+0
0.00E+0
0.00E+0
8.91E-5
0.00E+0
2.84E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.0 | 4.15E-1
0.00E+(
4.15E-1
5.66E+(
0.00E+(
5.66E+(
0.00E+(
0.00E+(
1.36E-5
0.00E+(
1.36E-5
0.00E+(
1.36E-5
0.00E+(
1.36E-5
0.00E+(
8.57E-5
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+(
0.00E+ | -4.30 0.000 -4.30 0.2.871 0.000 -2.871 0.0000 -2.871 0.0000 -2.871 0.0000 -2.871 0.0000 -2.871 0.0000 0.0000 0.0000 0.0000 -6.14 ed as rational provided as mathematical prime second ble prime second ble prime second ble prime ble prime second ble prime ble prime second ble prime ble prim | E-1 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E+0 0.0
E-1 0.0
E-1 0.0
E-1 0.0
E-3 0.0
E-3 0.0
E-4 0.0
E-3 0.0
E+0 0.0
E-1 | 00E+0 00E+0 | -7.81E+0
-7.81E+0
-7.81E+0
-5.24E+1
0.00E+0
-5.24E+1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
-1.12E-2
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
-1.27E-8
- | -6.07E-1
-0.00E+0
-6.07E-1
-8.89E+1
0.00E+0
-8.89E+1
2.86E+0
0.00E+0
8.55E+1
-7.98E-3
Jse of
= Use of
f non
M = Use of
f non
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.0 |

thermal energy



References

Institut Bauen und Umwelt

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

ISO 14025

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

EN 15804

EN 15804:2012-04+A1 2013: Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

PCR Part A

Institut Bauen und Umwelt e.V., Berlin (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, V1.5 August 2016 www.bau-umwelt.de

PCR Part B

Institut Bauen und Umwelt e.V., Berlin (pub.): Product Category Rules for Construction Products from the range of Environmental Product Declarations of Institut Bauen und Umwelt (IBU), Part B: Requirements on the EPD for floor coverings, V1.4, September 2016

www.bau-umwelt.de

EN 1307

DIN EN 1307: 2014+A1:2016: Textile floor coverings - Classification

EN 14041

DIN EN 14041: 2008-05: Resilient, textile and laminate floor coverings - Essential characteristics

ISO 10874

DIN EN ISO 10874:2012-04: Resilient, textile and laminate floor coverings - Classification

EN 13501-1

DIN EN 13501-1:2010-01: Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests

ISO 15686

ISO 15686: Buildings and constructed assets -Service life planning

ISO 15686-1: 2011-05: Part 1: General principles and framework

ISO 15686-2: 2012-05: Part 2: Service life prediction procedures

ISO 15686-7: 2006-03: Part 7: Performance evaluation for feedback of service life data from practice ISO 15686-8: 2008-06: Part 8: Reference service life and service-life estimation

VDZ e.V.

Umweltdaten der deutschen Zementindustrie 2015

CPR

Construction Producs Regulation, Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011

PRODIS

Product Information System (PRODIS) of the European Carpet Industry, Gemeinschaft umweltfreundlicher Teppichboden e.V (GUT) and European Carpet and Rug Association (ECRA), http://www.pro-dis.info

REACH

Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency (ECHA), European Union Regulation No 1907/2006, June 2017,

GaBi database 2017

GaBi Software-System and Database for Life Cycle Engeneering, thinkstep AG, Leinfelden-Echterdingen, service pack 33, 2017

ecoinvent 3.3

ecoinvent, Zurich, Switzerland, Database Version 3.3 15^{th} August 2016

7

Institut Bauen und Umwelt e.V.	Publisher Institut Bauen und Umwelt e.V. Panoramastr. 1 10178 Berlin Germany	Tel Fax Mail Web	+49 (0)30 3087748- 0 +49 (0)30 3087748- 29 info@ibu-epd.com www.ibu-epd.com
Institut Bauen und Umwelt e.V.	Programme holder Institut Bauen und Umwelt e.V. Panoramastr 1 10178 Berlin Germany	Tel Fax Mail Web	
AND CARPETS TO THE FORMULA STATES	Author of the Life Cycle Assessment Gemeinschaft umweltfreundlicher Teppichboden (GUT) e.V. Schönebergstraße 2 52068 Aachen Germany	Tel Fax Mail Web	
modu lyss [®]	Owner of the Declaration modulyss Zevensterrestraat 21 9240 Zele Belgium	Tel Fax Mail Web	+32 (0)52 45 72 11 +32 (0)52 44 90 99 info@modulyss.com www.modulyss.com

to the

ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804

Owner of the Declaration	modulyss
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-MOD-20170095-CBC1-EN
Issue date	09.06.2017
Valid to	08.06.2022

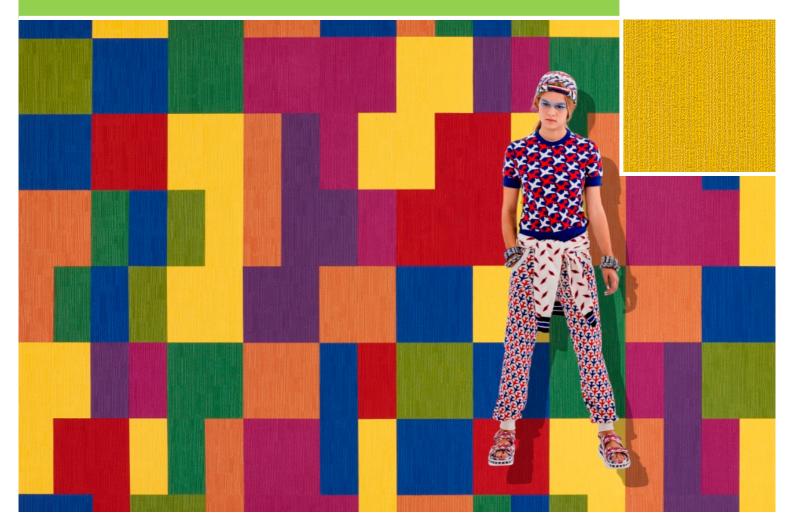
Tiles

with a maximum pile weight of 1300g/m² pile material polyamide 6, aqueous dyeing method Back2Back backing

modulyss

www.bau-umwelt.com / https://epd-online.com







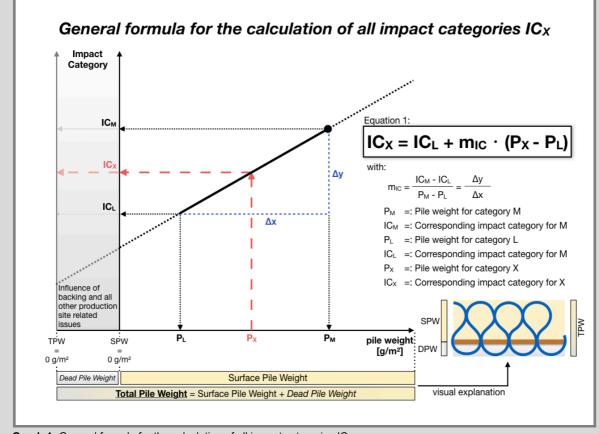
General Information on the annex

The EPD document is valid for all products with a total pile weight lower or equal to the declared maximum pile weight of 1300 g/m².

This annex provides calculated LCA results for a fixed set of structurally identical products with lower total pile weights in intervals of 100 g/m².

As, for all impact categories and all modules (A-D), LCA results show a linear correlation with the total pile weight, it is also possible to calculate LCA results for any product with a total pile weight P_x different from those already mentioned in the annex.

LCA results can be calculated by using general 'equation 1', as shown in the graph below.



Graph 1: General formula for the calculation of all impact categories ICx.

The following table gives the definition of pile weight categories used in this annex:

Category	L	X 1	X ₂	Xn	М
max. pile weight per category	lowest pile weight, as declared in the annex	L + 100 g/m²	X ₁ + 100 g/m²	X _{n-1} + 100 g/m²	max. pile weight, as declared in the EPD



General Information on use stages B1 to B7

LCA results indicate environmental impacts resulting from use stage B1 to B7.

For textile floor coverings only modules B1 (use) and B2 (maintenance) are taken into account. Modules B3 (repair), B4 (replacement), B5 (refurbishment), B6 (operational energy use) and B7 (operational water use) are not relevant during the service life of textile floor coverings.

Module B1 'use' includes emissions to the indoor air during the use stage. Relevant emissions only occur in the first year of life (see LCA: Calculation rules).

Module B2 'maintenance' includes cleaning procedures.

Reference service life (RSL)

The actual service life of textile floor coverings depends on a wide range of various impact factors such as the allocation of the application area to the use class, maintenance, intensity of use and most often fashion and building related aspects. Therefore, technical service life cannot be defined for textile floor coverings.

Total environmental impacts from module B2

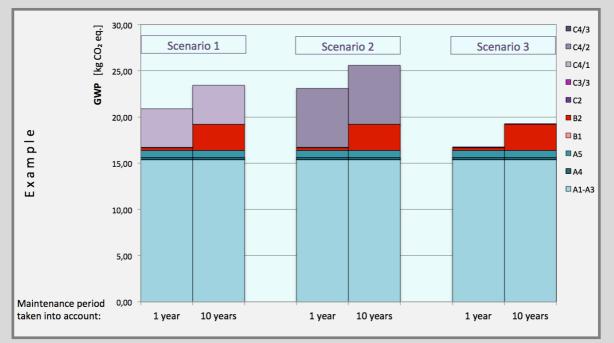
Total environmental impacts have to be calculated by taking into account the service life of textile floor coverings. Therefore, the assumed real life (ARSL) has to be used for the calculation of total environmental impacts taking into account the expected use conditions (see RSL). Module B2 (maintenance) is depending on the service life.

Values for module B2 given in the result tables are indicated for the period of one year. They have to be multiplied by the ARSL of the textile floor covering taking into account building related aspects.

The influence of the maintenance period on the Global Warming Potential (GWP) of the whole life cycle of a textile floor covering - differentiated for 3 end-of-life scenarios - is illustrated in the graph below.

3 end-of-life scenarios:

Scenario 1: 100 % Landfill disposal Scenario 2: 100 % Municipal waste incineration Scenario 3: 100 % Recycling in the cement industry



Graph 2: Global Warming Potential (GWP) - aggregation of module A to module C - taking into account a maintenance period of 1 year compared to a maintenance period of 10 years - for the three declared end-of-life scenarios.



1. Information on products with a total pile weight of max. 700 $\,\text{g/m}^2$

Product description

Name	Value	Unit
Type of manufacture	tufted tiles	-
Yarn type	polyamide 6, aqueous dyeing method	-
Max. total pile weight	700	g/m²
Secondary backing	Back2Back backing	-
Product Form	tiles 50 cm x 50 cm	
Max. total carpet weight	4700	g/m²

Base materials / Ancillary materials

Name	Value for category	Unit
Polyamide 6	14,9	%
Polyester	3,7	%
Polypropylene	0,6	%
Limestone	54,3	%
Aluminiumhydroxide	6,3	%
SBR-Latex	5,5	%
Bitumen	14,1	%
Glass fibre	0,2	%
Additives	0,3	%
Recycled content out of total weight	49	%

LCA: Declared Unit

Name	Value for category	Unit	
Declared unit	1,0	m²	
Conversion factor to 1 kg	0,21	m²/kg	
Mass reference	4,7	kg/m²	

LCA: Scenarios and additional technical information

All indicated values refer to the declared functional unit

Transport to the construction site (A4)

Name	Value for category	Unit
Litres of fuel (truck, EURO 0-5 mix)	0,0094	m²
Transport distance	700	m²/kg
Capacity utilisation (including empty runs)	85	kg/m ²

Installation in the building (A5)

Name	Value for category					
Material lost	0,14	kg				

Maintenance (B2)

Indication per m² and year

Name	Value for category	Unit
Maintenance cycle (wet cleaning)	1,5	1/year
Maintenance cycle (vacuum cleaning)	208	1/year
Water consumption (wet cleaning)	0,004	m³ 🛛
Cleaning agent (wet cleaning)	0,09	kg
Electricity consumption	0,314	kWh

End of Life (C1-C4)

Name	Value for category	Unit
Collected as mixed construction waste (scenario 1 and 2)	4,70	kg/m ²
Collected separately (scenario 3)	4,70	kg/m ²
Landfilling (scenario 1)	4,70	kg/m ²
Energy recovery (scenario 2)	4,70	kg/m ²
Energy recovery (scenario 3)	1,84	kg/m ²
Recycling (scenario 3)	2,86	kg/m ²



LCA: Results for products with a maximum total pile weight of 700 g/m²

The declared result figures in module B2 have to be multiplied by the assumed service time (in years) of the floor covering in the building considered (see chapter: 'General Information on use stages B1 to B7').

Information on un-declared modules:

Modules B3 - B7 are not relevant during the service life of the carpet and are therefore not declared. Modules C1, C3/1, C4/2 and C4/3 cause no additional impact and are therefore not declared. Module C2 represents the transport for scenarios 1, 2 and 3.

Description of the system boundary

State of construction phase State of production State of use End of life state Credits and loads after life stop of use / demolition waste management reuse, recovery and recycling potential raw material supply manufacturing maintenance replacement energy use installation water use transport renewal transport disposal delivery repair use A2 A3 B2 B3 B4 B5 C1 C2 C3 D A1 A4 A5 B6 B1 **B7** C4 X X X X MN D X MN D MN D MN D MN D X X MN D X X

(X = Included in LCA: MDN = Module not declared

Results of the LCA - Environmental impact: 1 m² floor covering

Para- meter	Unit	A1-A3	A4	A5	B1	B2	C2	C3/2	C3/3	C4/1	D/A5	D/1	D/2	D/3
GWP	[kg CO2-eq]	1,09E+01	1,96E-01	7,01E-01	0,00E+00	3,32E-01	1,09E-02	5,24E+00	2,89E-02	3,37E-01	-1,48E-01	0,00E+00	-2,38E+00	-5,01E-01
ODP	[kg CFC11-eq]	1,79E-08	6,59E-14	5,24E-10	0,00E+00	1,26E-08	3,66E-15	1,94E-12	1,28E-12	8,27E-13	-2,77E-12	0,00E+00	-4,41E-11	-1,48E-11
AP	[kg SO2-eq]	1,85E-02	8,26E-04	6,86E-04	0,00E+00	1,34E-03	4,59E-05	2,66E-03	8,28E-05	9,31E-04	-2,29E-04	0,00E+00	-3,65E-03	-1,97E-03
EP	[kg PO4)3-eq]	2,81E-03	2,06E-04	1,16E-04	0,00E+00	3,21E-04	1,14E-05	6,53E-04	7,50E-06	9,22E-04	-2,42E-05	0,00E+00	-3,87E-04	-2,06E-04
POCP	[kg ethen-eq]	2,75E-03	-3,37E-04	7,73E-05	6,29E-05	1,62E-04	-1,87E-05	1,77E-04	5,29E-06	1,06E-04	-2,19E-05	0,00E+00	-3,50E-04	-2,53E-04
ADPE	[kg Sb-eq]	7,77E-06	1,58E-08	2,38E-07	0,00E+00	1,14E-06	8,78E-10	2,13E-07	1,16E-08	6,96E-08	-2,83E-08	0,00E+00	-4,51E-07	-2,11E-07
ADPF	[MJ]	2,28E+02	2,72E+00	6,85E+00	0,00E+00	6,89E+00	1,51E-01	2,65E+00	3,10E-01	4,83E+00	-2,07E+00	0,00E+00	-3,33E+01	-6,88E+01

Caption Represented by the strate of the str



Results	Results of the LCA - Resource use: 1 m² floor covering													
Para- meter	Unit	A1-A3	A4	A5	B1	B2	C2	C3/2	C3/3	C4/1	D/A5	D/1	D/2	D/3
PERE	[MJ]	2,71E+01	1,37E-01	8,16E-01	0,00E+00	9,87E-01	7,59E-03	3,90E-01	1,73E-01	3,68E-01	-3,73E-01	0,00E+00	-5,94E+00	-5,08E-01
PERM	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00						
PERT	[MJ]	2,71E+01	1,37E-01	8,16E-01	0,00E+00	9,87E-01	7,59E-03	3,90E-01	1,73E-01	3,68E-01	-3,73E-01	0,00E+00	-5,94E+00	-5,08E-01
PENRE	[MJ]	1,72E+02	2,72E+00	7,18E+00	0,00E+00	8,05E+00	1,52E-01	6,92E+01	6,68E+01	5,02E+00	-2,50E+00	0,00E+00	-4,01E+01	-6,92E+01
PENRM	[MJ]	6,63E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-6,63E+01	-6,63E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	2,38E+02	2,72E+00	7,18E+00	0,00E+00	8,05E+00	1,52E-01	2,99E+00	5,08E-01	5,02E+00	-2,50E+00	0,00E+00	-4,01E+01	-6,92E+01
SM	[kg]	2,49E+00	0,00E+00	7,26E-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	2,86E+00
RSF	[MJ]	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	6,63E+01						
FW	[m³]	3,51E-02	2,53E-04	2,16E-03	0,00E+00	4,25E-03	1,41E-05	1,91E-02	2,47E-04	1,21E-05	-5,33E-04	0,00E+00	-8,49E-03	-6,27E-03

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 resources used as raw materials;PERT = Total use of non-renewable primary energy resources used as raw materials;PENRE = Use of non-renewable primary energy resources used as raw materials;PERT = Total use of non-renewable primary energy resources used as raw materials;PENRT = Total use of non-renewable primary energy resources;SM = Use of non-renewable primary energy resources used as raw materials;PENRT = Total use of non-renewable primary energy resources;SM = Use of non-renewable secondary fuels;NRSF = Use of non-renewable secondary fuels;FW = Use of net fresh water

Results of the LCA - Output flows and waste categories: 1 m² floor covering

Para- meter	Unit	A1-A3	A4	A5	B1	B2	C2	C3/2	C3/3	C4/1	D/A5	D/1	D/2	D/3
HWD	[kg]	2,03E-05	1,43E-07	5,97E-07	0,00E+00	1,13E-09	7,95E-09	1,95E-08	2,06E-10	1,94E-08	-6,05E-10	0,00E+00	-9,66E-09	-2,13E-09
NHWD	[kg]	2,97E-01	2,08E-04	5,14E-02	0,00E+00	8,17E-03	1,15E-05	1,27E+00	3,34E-04	4,69E+00	-8,87E-04	0,00E+00	-1,41E-02	-1,41E-01
RWD	[kg]	4,17E-03	3,71E-06	1,29E-04	0,00E+00	3,81E-04	2,06E-07	1,36E-04	7,90E-05	7,60E-05	-1,71E-04	0,00E+00	-2,71E-03	-1,70E-04
CRU	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00									
MFR	[kg]	9,35E-03	0,00E+00	2,73E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,86E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	[kg]	0,00E+00	1,84E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00						
EEE	[MJ]	0,00E+00	0,00E+00	4,89E-01	0,00E+00	0,00E+00	0,00E+00	7,76E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	0,00E+00	0,00E+00	1,16E+00	0,00E+00	0,00E+00	0,00E+00	1,87E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	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; **EEE** = Exported thermal energy