This appendix refers to the EPD MD-23108-EN, developed according to EN 15804:2012+A2:2019. Results in the appendix communicates LCA results in the format described in EN15804:2012+A1:2013, in order to accommodate a need in the transition period between the two standard revisions. The appendix cannot stand alone, as the reference EPD describes the basis of the assessment.

ENVIRONMENTAL IMPACTS PER 1 Wp – BIPV facade cladding										
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP	[kg CO_2-eq.]	9.59E-01	7.78E-03	4.00E-02	MND	3.87E-02	2.10E-02	4.68E-02	4.30E-04	-3.00E-01
ODP	[kg CFC11-eq.]	1.44E-07	1.39E-10	5.25E-10	MND	4.99E-10	3.76E-10	3.55E-10	1.07E-11	-5.70E-09
AP	[kg SO_2-eq.]	4.74E-03	2.16E-05	1.31E-04	MND	1.25E-04	6.10E-05	2.85E-03	2.47E-06	-2.07E-03
EP	[kg PO_4^{3-}-eq.]	2.09E-03	4.78E-06	2.71E-05	MND	2.40E-05	1.33E-05	2.34E-04	3.13E-06	-7.40E-04
POCP	[kg ethene-eq.]	2.40E-04	1.17E-06	9.04E-06	MND	8.80E-06	3.29E-06	6.19E-06	1.08E-07	-1.50E-04
ADPE	[kg Sb-eq.]	6.32E-05	2.50E-08	1.72E-08	MND	1.35E-08	6.77E-08	1.41E-06	4.78E-10	-8.20E-06
ADPF	[MJ]	1.07E+01	1.07E-01	5.18E-01	MND	5.01E-01	2.92E-01	2.21E-01	9.56E-03	-3.15E+00
Caption	GWP = Global warming potential; ODP = Ozone depletion potential; AP = Acidification potential of soil and water; EP = Eutrophication potential; POCP = Photochemical ozone creation potential; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources									
	The numbers are declared in scientific notation, e.g. 1.95E+02. This number can also be written as: $1.95*10^2$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0.0000000000112.									

RESOURCE USE PER 1 Wp – BIPV facade cladding										
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	3.45E+00	1.92E-03	3.52E-01	MND	2.87E-03	4.63E-03	2.87E-02	2.60E-04	-1.22E+00
PERM	[MJ]	3.48E-01	0.00E+00	-3.48E-01	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	[MJ]	3.95E+00	1.92E-03	3.96E-03	MND	2.87E-03	4.63E-03	2.87E-02	2.60E-04	-1.22E+00
PENRE	[MJ]	1.23E+01	1.10E-01	5.24E-01	MND	5.04E-01	2.99E-01	5.65E-01	9.76E-03	-3.80E+00
PENRM	[MJ]	3.06E-01	0.00E+00	0.00E+00	MND	0.00E+00	0.00E+00	-3.06E-01	0.00E+00	0.00E+00
PENRT	[MJ]	1.26E+01	1.10E-01	5.24E-01	MND	5.04E-01	2.99E-01	2.59E-01	9.76E-03	-3.80E+00
SM	[kg]	3.06E-03	0.00E+00	0.00E+00	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	MND	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	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	[m^3]	2.30E-02	1.59E-05	4.96E-05	MND	3.96E-05	4.26E-05	1.87E-04	1.15E-05	-6.37E-03
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water									

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 Wp – BIPV facade cladding										
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	9.78E-04	7.00E-07	3.52E-06	MND	3.39E-06	1.90E-06	8.19E-07	4.74E-08	-8.98E-06
NHWD	[kg]	1.84E-01	4.54E-03	2.62E-02	MND	7.22E-04	1.46E-02	8.10E-02	6.60E-02	-6.98E-02
RWD	[kg]	2.67E-05	4.36E-08	8.98E-08	MND	5.53E-08	9.69E-08	5.81E-07	2.83E-09	-9.98E-06
CRU	[kg]	3.06E-03	0.00E+00	0.00E+00	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	2.71E-03	0.00E+00	1.05E-02	MND	0.00E+00	0.00E+00	3.47E-02	0.00E+00	0.00E+00
MER	[kg]	4.13E-03	0.00E+00	0.00E+00	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	4.06E-02	MND	0.00E+00	0.00E+00	8.71E-02	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	1.52E-01	MND	0.00E+00	0.00E+00	1.63E-01	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EE = Exported energy									

ENVIRONMENTAL IMPACTS PER 1 m² (140 Wp) – BIPV facade cladding										
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP	[kg CO_2-eq.]	1.35E+02	1.09E+00	5.62E+00	MND	5.43E+00	2.94E+00	6.57E+00	6.04E-02	-4.21E+01
ODP	[kg CFC11-eq.]	2.01E-05	1.95E-08	7.37E-08	MND	7.00E-08	5.28E-08	4.98E-08	1.50E-09	-8.00E-07
AP	[kg SO_2-eq.]	6.65E-01	3.03E-03	1.84E-02	MND	1.75E-02	8.56E-03	4.00E-01	3.47E-04	-2.91E-01
EP	[kg PO_4^{3-}-eq.]	2.94E-01	6.71E-04	3.80E-03	MND	3.37E-03	1.87E-03	3.28E-02	4.39E-04	-1.04E-01
POCP	[kg ethene-eq.]	3.37E-02	1.64E-04	1.27E-03	MND	1.24E-03	4.62E-04	8.69E-04	1.52E-05	-2.11E-02
ADPE	[kg Sb-eq.]	8.87E-03	3.51E-06	2.41E-06	MND	1.89E-06	9.50E-06	1.98E-04	6.71E-08	-1.15E-03
ADPF	[MJ]	1.51E+03	1.50E+01	7.26E+01	MND	7.03E+01	4.10E+01	3.10E+01	1.34E+00	-4.42E+02
Caption	GWP = Global warming potential; ODP = Ozone depletion potential; AP = Acidification potential of soil and water; EP = Eutrophication potential; POCP = Photochemical ozone creation potential; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources									
	The numbers are declared in scientific notation, e.g. 1.95E+02. This number can also be written as: $1.95*10^2$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0.0000000000112.									

RESOURCE USE PER 1 m² (140 Wp) – BIPV facade cladding										
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	4.85E+02	2.69E-01	4.94E+01	MND	4.03E-01	6.50E-01	4.02E+00	3.65E-02	-1.71E+02
PERM	[MJ]	4.88E+01	0.00E+00	-4.88E+01	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	[MJ]	5.55E+02	2.69E-01	5.56E-01	MND	4.03E-01	6.50E-01	4.02E+00	3.65E-02	-1.71E+02
PENRE	[MJ]	1.72E+03	1.54E+01	7.35E+01	MND	7.08E+01	4.19E+01	7.93E+01	1.37E+00	-5.34E+02
PENRM	[MJ]	4.29E+01	0.00E+00	0.00E+00	MND	0.00E+00	0.00E+00	-4.29E+01	0.00E+00	0.00E+00
PENRT	[MJ]	1.77E+03	1.54E+01	7.35E+01	MND	7.08E+01	4.19E+01	3.64E+01	1.37E+00	-5.34E+02
SM	[kg]	4.30E-01	0.00E+00	0.00E+00	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	MND	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	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	[m^3]	3.22E+00	2.23E-03	6.96E-03	MND	5.56E-03	5.97E-03	2.62E-02	1.62E-03	-8.94E-01
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water									

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 m² (140 Wp) – BIPV facade cladding										
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	1.37E-01	9.82E-05	4.94E-04	MND	4.76E-04	2.67E-04	1.15E-04	6.65E-06	-1.26E-03
NHWD	[kg]	2.59E+01	6.37E-01	3.68E+00	MND	1.01E-01	2.05E+00	1.14E+01	9.26E+00	-9.79E+00
RWD	[kg]	3.75E-03	6.12E-06	1.26E-05	MND	7.76E-06	1.36E-05	8.15E-05	3.97E-07	-1.40E-03
CRU	[kg]	4.30E-01	0.00E+00	0.00E+00	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	3.80E-01	0.00E+00	1.47E+00	MND	0.00E+00	0.00E+00	4.87E+00	0.00E+00	0.00E+00
MER	[kg]	5.80E-01	0.00E+00	0.00E+00	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	5.70E+00	MND	0.00E+00	0.00E+00	1.22E+01	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	2.14E+01	MND	0.00E+00	0.00E+00	2.28E+01	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EE = Exported energy									

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