

## Tracking of versions

Version	Kommentar	date
1.0	Introduction of version numbers and tracking of versions. Addition of information blocks concerning submitted verification documents, type of reports (initial, intermediate or final reports), verifiers must only be listed with their names, no institutions in system of individual persons.	2022-01-24
2.0	<b>Supplementary regulations for the application of the "marked-based" approach in the modelling of electricity data and gas data.</b> <b>Note: These regulations were proposed to the ECO Platform by Bau EPD GmbH and are being discussed among experts in the Technical Working Group (TEWOG) of the ECO Platform. Until the final text is published by ECO Platform, the checklist is to be applied in this version.</b>	2022-08-24

This document is based on the ECO Platform's guidance „Audit and Verification Guidelines for ECO EPD Programme Operators, chapter 4 „core checklist on verification“, version 3.2 of July 2020. At the end of the document an overview matrix showing the assignment in the respective numbering systems can be found.

It also includes verification requirements launched by the German Ministry (Bundesministerium BBSR) to fulfil application criteria for the database OEKOBAUDAT.

Additional criteria of Bau EPD GmbH following decisions of the PCR panel are included.

The document must be used as a template for the verification report. Verifiers may add additional issues but must not shorten the list. Additional comments must be indicated in M-document 19a. Alternatively the commenting can be done in M-document 19a and the document on hand can be used for the final report.

For a transition period until October 2022 both versions EN15804:2012+A2:2019 and EN15804:2012+A1:2013 are valid. The EPD must be verified against either one complete version. The version must be stated.

# Report on verification

of the Austrian Bau-EPD Ltd. (Bau-EPD GmbH) Environmental Product Declaration

**EPD-Company-YYYY-00** for **Product** by **Company/Holder of Declaration**

As per EN 15804:2012+A2:2019 ☐

As per EN 15804:2012+A1:2013 ☐

Initial report ☐ Date:

Intermediate report Nr.  Date:

Final report



Date:

**List of data packages submitted for the evaluation:**

Inventory documents, project report, EPD documents, additional documents, DATE

**Verification statement:**

We hereby confirm as independent verifiers that the Environmental Product Declaration EPD-20XX-Y prepared for product XXX of company XXX and the related project report have been examined in detail. No relevant deviations from the applicable requirements according to ÖNORM EN 15804 as well as CEN TR 16970 (as far as its interpretations have been adopted by the ECO Platform) as well as the general programme guidance (for A2: MS-HB and M-documents, for A1 according to the basic document, LCA rules-PKR Part A) and corresponding product category rules on the appropriate standard basis (PKR Part B - XXX - X.Y.Z) of Bau EPD GmbH were found. All checkpoints from the ECO Platform checklist were positively ticked off. The documentation of the verification process (comments of the verifiers, answers and improvements of the assessment team) is available at the verifier team and will be kept for at least 10 years.

The company-specific data were checked for plausibility and consistency. The owner of the EPD is responsible for its factual integrity.

The project report on the LCA and other environmentally relevant aspects is filed with the Bau EPD GmbH team (verifier, balancer). M-Document 19a was used and is attached to the report/was not used.

Name and signature of

**External inspector 1 – Name/Institution**

**Place and date**

**External inspector 2 – Name/Institution**

**Place and date**

## Verification of the project report:

### Checklist:

This checklist is applicable for EPDs according to both current versions of the core PCR: EN15804:2012+A1:2013 and EN15804:2012+A2:2019.

Where differences occur in requirements or references, the checklist is divided, to accommodate these.

Clauses that are therefore not relevant can be crossed out.

The following issues must be checked. The check consists of checking if the issue is described in the LCA project report and if it is line with the requirements and guidelines in the applicable reference (EN15804, other standards or a PCR). Most issues are mandatory to check, some can be optional. If the issue is in line with the requirements and/or accepted by the verifier, the box “done” can be ticked.

*The verifier shall report any deviations from the requirements. The dialogue between verifier and LCA practitioner should be made transparent as well as any improvements made during the verification process. This can be done separately from the checklist (M-Document 19a is referenced below the checklist).*

Note: many verifiers prefer to use M-Doc 19a. Therefore, in M-Doc 19 template file the verification column is filled with a default “checked and approved” to save time. If M-Doc 19a is not used, the default shall be adapted and comments must be filled in.

Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	1	General information - availability	Mandatory / Optional	Reference	Checked and approved or Checked with remark
1.1		1.1	Commissioner of LCA study, LCA practitioner	M	EN15804+A1/EN15804+A2 ch.8.2	
1.2		1.2	Date of issue of LCA report	M	EN15804+A1/EN15804+A2 ch.8.2	
1.3		1.3	Statement that the Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804 and applicable PCRs (Version, Date)	M	EN15804+A1/EN15804+A2 ch.8.1/8.2 + applicable PCR	
1.4		1.4	Statement of the version of EN15804+A1:2013 or EN15804+A2:2019 used for the study and EPD	M	EN15804+A1/EN15804+A2 ch.8.2	
1.5		1.5	Any other independent verification of the data given in the LCI/LCA documentation?	O		

Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	2.	Study goal – availability of info	Mandatory / Optional	Reference	Checked and approved or Checked with remark
2.1		2.1	Reasons for performing the Life Cycle Assessment	M	EN15804+A1/EN15804+A2 ch.8.2	
2.2		2.2	Intended application – (e.g. for EPD, databases, publication etc.) Is the LCA designed in such a way that it allows B2B communication for environmental assessments of buildings?	M	EN15804+A1/EN15804+A2 ch.8.2	
Additional Bau EPD GmbH		2.3	Is the LCA prepared in a way that a B2B communication for building assessment systems is possible? If the product is a base material: Can the LCA be used in a Product-EPD?	V		
2.3		2.4	Target group (B2B, B2C, ...)	M	EN15804+A1/EN15804+A2 ch.8.2	
Additional Bau EPD GmbH		2.5	Type of EPD: cradle to gate, cradle to grave etc.	M		
		3.	Analysed product system			
Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	3.1	Product description – availability of info	Mandatory / Optional	Reference	Checked and approved or Checked with remark
4.1		3.1.1	Composition of the product The level of detail: the main components necessary to understand what type of product is concerned (detailed mass description is not necessary if confidential). In case of average EPD: at minimum qualitative description of averages and qualitative description of ranges.	M	ISO 14025	
4.2		3.1.2	Description of technical and functional characteristics and area of intended application in the building. In case of average EPD: at minimum qualitative description of averages and qualitative description of ranges of functions	M	Applicable European product standard or c-PCR; PCR part B	
4.3		3.1.3	Flow diagram of main production processes and visualization of system boundaries; Level of detail: see 3.1.1	M	ISO 14025	

Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	3.2	Specific LCA Rules	Mandatory / Optional	Reference	Checked and approved or Checked with remark
Additional Bau EPD GmbH		3.2.1	The specific rules for LCA for certain product groups (to be found in the respective product c-PCR (PCR Part B documents) are fulfilled.	M	PCR B	
Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	3.3	Functional unit / Declared unit – availability of info	Mandatory / Optional	Reference	Checked and approved or Checked with remark
3.1		3.3.1	Functional / Declared unit, including relevant technical specification The functional unit of a construction product shall specify: — the application of a product or product groups covered by the functional unit; — the reference quantity for the functional unit when integrated in the construction works; — the quantified key properties, when integrated into a building, for the functional use, quantified performance characteristics or minimum performance of the construction product, taking into account the functional equivalent of the building; — the minimum performance characteristics under defined conditions shall be fulfilled over the defined time period of the functional unit; — a specified period of time under reference in-use conditions considering the RSL. If the functional unit uses a different time period than the RSL, the RSL shall be given as technical information in the EPD	M	EN15804+A1: ch.6.3.1-6.3.2 or EN15804+A2: ch. 6.3.1-6.3.3 and/or applicable PCR or additional specific requirements for certain product groups	
3.2		3.2.2	Indication of a clear factor for recalculation into kg	M	PCR B-parts Bau EPD GmbH	

3.3		3.3.3	<p>If product groups (similar products from one manufacturer and/or from different production plants) are formed as averages:</p> <ul style="list-style-type: none"> <li>Description of type of average</li> <li>Description of calculation rules for the formation of averages (The scope of the study must be described clearly, the calculation approach for building average values must be shown transparently. Indication of production mass per product, if possible)</li> <li>Representativeness of averages: Description of the approach for building the average (market situation, cost shares, average on product level, average on site level...). The main drivers must be located to justify that the average is representative. Verifiers must check if A) a qualitative description of the assumptions and approach (i.e. because of lack of data) or B) a sensitivity analysis has been carried out. In no sensitivity analysis has been made, this is to justify.</li> </ul>	M	EN15804+A1/EN15804+A2 : ch.8.2	
Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	3.4 +A1	System boundaries in accordance with the modular design of the EN 15804+A1	Mandatory / Optional (Not applicable if EN15804+A2 is used)	Reference	Checked and approved or Checked with remark
5.1+A1		3.4.1+A1	<p>Description of the LC stages/modules declared.</p> <p>Omissions of life cycle stages declared.</p>	M		
5.2+A1		3.4.2+A1	Comprehensive declaration of modules A1 to A3 as a minimum requirement, if necessary as an aggregated module A1- A3	M	EN15804+A1 ch. 6.3.4	

5.3+A1		3.4.3+A1	A1 to A3: System boundary <ul style="list-style-type: none"> <li>Description of all processes the modules cover</li> <li>System boundary to nature (e.g. between forest and technosphere in wood production)</li> <li>Use of secondary materials and secondary fuels and waste produced</li> <li>Specification of the "end-of-waste state" for material leaving A1-A3 as waste</li> <li>If part of the energy calculation: Reference to the contract/certificate of green electricity. Note: up to further decision green electricity can only be calculated and shown in a second set of results marked as additional information</li> <li>No offsetting allowed</li> </ul>	M	EN15804+A1 ch. 6.3.4.2 and applicable c-PCR	
5.5+A1		3.4.4+A1	A4 to A5 (optional module): Description of all processes the modules cover	M	EN15804+A1 ch.6.3.4.3 and applicable PCR	
5.6+A1		3.4.5+A1	Accounting losses in the modules in which they arise (e.g. A4, transport to construction site)	M	EN15804+A1 ch.6.3.4.1	
5.7+A1		3.4.6+A1	B1 to B5 (optional module): Description of all processes the modules cover	M	EN15804+A1 ch.6.3.4.4 and applicable PCR	
5.8+A1		3.4.7+A1	B6 and B7 (optional module) Description of all processes the modules cover	M	EN15804+A1 ch.6.3.4.4 and applicable PCR	
5.9+A1		3.4.8+A1	C1 to C4 (optional module): Description of all processes the modules cover	M	EN15804+A1 ch.6.3.4.5 and applicable PCR	
5.10+A1		3.4.9+A1	C3 (optional module): Waste treatment Materials for recycling Impacts of recycling processes to achieve end of waste Justification of the "end-of-waste state": Existing purpose Existing market or demand Compliance with technical requirements and legal guidelines Fulfills limit values for Substances of Very High Concern (SVHC)	M	EN15804+A1 ch.6.3.4.5 + annex B.1 and applicable PCR	
5.11+A1		3.4.10+A1	C4 (optional module): Is the complete waste disposal process included in this module? Is its inclusion described transparently and is it plausible?	M	EN15804+A1 ch.6.3.4.6	
5.12+A1		3.4.11+A1	D (optional module): System boundary and contents of Module justified Assumptions with regard to substituted processes in D incl. year of reference, e.g. assumptions with regard to substitution of electricity and power production.	M	EN15804+A1 ch.6.3.4.6 and 6.4.3.3	

5.13+A1		3.4.12+A1	D (optional module): Is the calculation of the net flows documented, described transparently and is it plausible, particularly regarding: losses during collection and pre-processing; inputs in modules A1 to A3 (and A4 to B5, if applicable); processing losses over the whole life cycle, including life cycle stages A, B and C; the reaching of the end-of-waste state by all waste flows considered for module D?	M	EN15804+A1 ch.6.4.3.3	
5.14+A1		3.4.13+A1	D (optional module): No benefits or loads of allocated co-products	M	EN15804+A1 ch.6.4.3.3	
			<b>System boundaries in accordance with the modular design of the EN 15804+A2</b>	<b>Mandatory / Optional</b> (Not applicable if EN15804+A1 is used)	<b>Reference</b>	<b>Checked and approved or Checked with remark</b>
5.1+A2		3.4.1+A2	Description of Life Cycle stages/modules declared. Omissions of the life cycle stages declared	M	EN15804+A2 ch. 5.2	
5.2+A2		3.4.2+A2	Comprehensive declaration of modules A1-A3, C and D as a minimum requirement. If necessary, A1-A3 can be reported as an aggregated module. The minimum requirement can be omitted – are the requirements for exemptions met? Only products which fulfill all three of the conditions below shall be permitted to be exempt from this requirement: — the product or material is physically integrated with other products during installation so they cannot be physically separated from them at end of life, and — the product or material is no longer identifiable at end of life as a result of a physical or chemical transformation process, and — the product or material does not contain biogenic carbon. NOTE 1 This means any product containing biogenic carbon cannot omit the declaration of modules C1–C4 and module D.	M	EN15804+A2 ch. 6.3.5	



5.3+A2		3.4.3+A2	<p>A1 to A3: System boundary</p> <ul style="list-style-type: none"> <li>• Clear description of what the modules cover;</li> <li>• System boundary to nature (e.g. in the case of forests between nature and technosphere);</li> <li>• Use of secondary materials and secondary fuels and waste produced (check end-of-waste state);</li> <li>• Specification of the “end-of-waste-state” for material leaving A1-A3 as waste;</li> <li>• If applicable: Reference to the contract/certificate of green electricity. Note: only as a second set of calculation displayed as additional information</li> </ul> <p>No off-setting allowed</p>	M  certificates optional	EN15804+A2 ch. 6.3.5.2 and applicable c-PCR	
5.5+A2		3.4.4+A2	A4 to A5 optional module, thus if covered: Clear description and content of modules	M	EN15804+A2 ch. 6.3.5.3 and applicable PCR	
5.6+A2		3.4.5+A2	Accounting losses in the modules in which they arise (e.g. A4, transport to construction site)	M	EN15804+A2 ch. 6.3.5.1	
5.7+A2		3.4.6+A2	B1 to B5 (optional module, thus if covered): Clear description and content of modules	M	EN15804+A2 ch. 6.3.5.4 and applicable PCR	
5.8+A2		3.4.7+A2	B6 and B7 (optional module, thus if covered): Clear description and content of modules	M	EN15804+A2 ch. 6.3.5.4 and applicable PCR	
5.9+A2		3.4.8+A2	C1 to C4: Clear description and content of modules	M	EN15804+A2 ch. 6.3.5.5 and applicable PCR	
5.10+A2		3.4.9+A2	<p>C3:</p> <ul style="list-style-type: none"> <li>• Waste treatment</li> <li>• Materials for recycling</li> <li>• Impacts of recycling processes to achieve end of waste</li> <li>• Justification of the “end-of-waste state”               <ul style="list-style-type: none"> <li>○ Existing purpose</li> <li>○ Existing market or demand</li> <li>○ Compliance with technical requirements and legal guidelines</li> </ul> </li> </ul> <p>Fulfills limit values for Substances of Very High Concern (SVHC)</p>	M	<p>EN15804+A2 ch. 6.3.5.5 + table 8 + ch. 7.2.4.4 + annex B.1</p> <p>and applicable PCR</p>	

5.11+A2		3.4.10+A2	C4: Is the complete waste disposal process included in this module? Is its inclusion described transparently and is it plausible? Carefully check the correct allocation for deposition of biogenic material: The degradation of a product's biogenic carbon content in a solid waste disposal site, declared as GWP-biogenic, shall be calculated without time limit. Any remaining biogenic carbon is treated as an emission of biogenic CO <sub>2</sub> from the technosphere to nature.	M	EN15804+A2 ch. 6.3.5.5 and ch. 6.3.5.6	
5.12+A2		3.4.11+A2	D: System boundary and contents of Module justified  Assumptions with regard to substituted processes in D incl. year of reference (e.g. assumptions with regard to substitution of electricity and power production).	M	EN15804+A2 ch. 6.3.5.6	
5.13+A2		3.4.12+A2	D: Check if the net flow calculation is done correctly taking into consideration relevant factors, e.g.: <ul style="list-style-type: none"> <li>• Processing losses over the whole life cycle (including collection and pre-processing);</li> <li>• Inputs in Modules A1 to A3 (and A4 to B5 if necessary);</li> <li>• The reaching of end-of-waste-state by all waste flows considered in module D.</li> </ul>	M	EN15804+A2 ch. 6.3.5.6 and 6.4.3.3	
5.14+A2		3.4.13+A2	D: No benefits or loads of allocated co-products	M	EN15804+A2 ch. 6.3.6.5 and ch.6.4.3.3	

		4.	Life Cycle Inventory Analysis			
Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	4.1	Development of scenarios at product level in modules A4-A5-B-C-D	Mandatory / Optional	Reference	Checked and approved or Checked with remark
11.1		4.1.1	Statement that the scenarios included are currently in use and are representative for one of the most likely scenario alternatives. 100% scenarios shall be given.  Additional declaration of representative mixes for the relevant region is permissible.	M	EN15804 ch. 6.3.8 CEN TR 16970 Ch.6.3.8 Applicable PCR	
11.2		4.1.2	Documentation of the relevant technical information, e.g. recycling or reuse rates, with reference to the literature source?	M		

Addition Bau EPD GmbH		4.1.3	Manufacturing data should be reproducible, e.g. by available data management systems Random checks could be carried out, or based on importance; some data could be checked in the verification.	O		
11.3		4.1.3	Default values in CEN TC c-PCR are preferred. Deviations from these values must be justified.	M		
Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	4.2	Criteria for excluding inputs and outputs	Mandatory / Optional	Reference	Checked and approved or Checked with remark
8.1		4.2.1	Selection of the cut-off criteria, description of application of the criteria and assumptions in line with standard and PCR? (A complete mass balance is normally not possible without high effort. This is why cut off decisions are often based on assumptions about the effect of the flow that has been cut off).	M	EN15804+A1: ch. 6.3.5 and ch. 8.2 OR EN15804+A2: ch. 6.3.6 and ch. 8.2  and applicable PCR	
8.2		4.2.2	List of excluded processes available		EN15804+A1/EN15804+A2 ch. 8.2	
Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	4.3	Data collection/ selecting of foreground and background data, validity of data	Mandatory / Optional	Reference	Checked and approved or Checked with remark
9.1		4.3.1	Selection and use of generic data and background data justified and validity demonstrated	M	EN15804+A1: ch. 6.3.6 OR EN15804+A2: ch. 6.3.7  And - EN 15941 applicable PCR	
9.2		4.3.2	Documentation on background data: Name of the (background) data record, its source (data base, literary source etc.)	M	EN 15941 and applicable PCR + EN15804+A2: ch. 6.3.7	

9.3		4.3.3	<p>Data collection, including data quality issues, according to LCA rules:          Assessment period for each module considered in the Life Cycle Assessment (e. g. one year average, etc.)          Appropriateness of background data (temporal, geographical, technological)          Other assumptions concerning background data, e.g. about data gaps</p> <p>Omissions of life cycle stages, processes</p> <ul style="list-style-type: none"> <li>Assumptions regarding energy and electricity production incl. year of reference. It should also be transparent which electricity/energy model is applied as avoided product if energy recovery is included in the (optional) Module D (A1: if applicable, A2: statement is mandatory).</li> </ul> <p>Assumptions concerning other relevant background data where relevant for the system boundary</p>	M	<p>ISO 14044:2006, section 4.3.2; Documentation ISO 14040</p> <p>And          EN15804+A1 ch. 6.3.6          Or          EN15804+A2 ch. 6.3.7 + ch. 6.3.8</p>	
10.1		4.3.4	<p>Validity of data          &lt; 10 years for background data          &lt; 5 years for manufacturer's data          Data manufacturer based on 1 year average          Time period of 100 years in case of a landfill scenario, longer if relevant          Technical background complies with physical reality          Integrity of generic data records, system limit and cut- off criteria for generic data records validity demonstrated, any adaptations in generic data sets are marked and plausible (possible in ecoinvent)</p> <p>Applicable if using EN15804+A2: does the documentation format follow the current ILCD format and nomenclature?</p>	M	<p>EN15804+A1 ch. 6.3.7          Or          EN15804+A2 ch. 6.3.8</p> <p>and          EN15941 and applicable PCR</p>	

10.2		<b>4.3.5</b>	<p>Documentation on generic data:</p> <ul style="list-style-type: none"> <li>- name of the (generic) data record,</li> <li>- its source (database, bibliographic source, etc.),</li> <li>- year of data collection and its representativeness</li> </ul> <p>Handling missing data</p> <p>Assessing data quality (time, geographical and technological representativeness). For 15804+A2: document data quality for all data sets contributing to at least 80% each of the core impacts.</p> <p>Check on plausibility, comparison of indicators with others from datasets verified after the same standards or comparison of flows and/or indicators of other significant sources of information!</p>	M	EN15941 and applicable PCR	
10.3		<b>4.3.6</b>	<p>Generic data (see Table 1, EN 15804) shall include data quality assessment information according to EN ISO 14044:2006, 4.2.3.6. The data quality assessment information shall cover at least the following elements:</p> <ul style="list-style-type: none"> <li>— time-related coverage;</li> <li>— geography coverage;</li> <li>— technology coverage.</li> </ul> <p>It shall be based on either of the two systems described in Annex E. the data quality assessment must cover at least 80% of each core impact.</p> <p>The quality of the life cycle inventory data established for the EPD shall also be assessed accordingly</p> <p>Random checks could be carried out or based on importance; some data should be checked in the verification.</p>	M	15804+A2, 6.3.8.3 and Annex E	

Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	4.4	Power mix (e.g. electricity)	Mandatory / Optional	Reference	Checked and approved or Checked with remark
<b>6.1</b>		<b>4.4.1</b>	<p>Selection of the power mix in accordance with the location of the production site(s)</p> <p>Is the reference year for the dataset documented?</p>	M	CEN TR 16970 + CEN TR 15941 and applicable PCR	

Note: ECO Platform Chapters 6.1.1 to 6.2.2 are from the draft version of the ECO Platform checklist dated 18.7.2022. Final numbering in the numbering system of Bau EPD will be done after official publication by the ECO Platform. The list can be used for verification as it is until further notice.

6.1.1			Electricity (rules in addition to ISO 14067)	Mandatory	Reference	Checked and approved
6.1.2			Does the PO accept the application of GuOs and market based approach for contractual purchase electricity? If applicable: Validity period of the certificates for GuOs (date of purchase must be related to period of production and primary data collection on site) in accordance with the PCR and general program rules of the issuing PO Is the GuO document and documentation about the purchased electricity available for the EPD verification?	M	Applicable PCR	
6.1.3			Requirements of Pr EN15941:2022 fulfilled?	M	PrEN15941:2022	
6.1.4			<p><b>Tracking, Traceability</b></p> <p><b>Case 1: Manufacturer produces energy on site (is physically linked to plants nearby):</b></p> <p>Check on energy amounts from accounts. Check if GuOs are generated and supplied into the market (in case of (partial) supply into market, respective tracking of amounts used for production of products and/or supply into grid. GuO (RECs, informing on sort of power mix and origin/site of energy providers) documents must be provided)</p> <p>Note 1: Attention: LCA-models for CO2 figures (or other indicators in GuOs and/or on energy bills may be different from LCA models needed to fulfil EN 15804/ISO 21930 and construction related PCRs/this guidance paper on hand. The figures cannot replace each other.</p> <p>Note 2: if a producer sells GuOs from their own renewable plants on site, they must not use it themselves! They must buy GuOs from other energy suppliers or use residual mix</p> <p><b>Case 2: Electricity provider chosen from national state with legislation for electricity labelling (2022: Austria and Switzerland):</b></p> <p>Energy mix is found in detail on contracts/bills, registry for proof of origin existing, no residual mix, everything is marked. Task: Energy providers must</p>	M	ISO 14067 Pr EN 15941	

			<p>deliver proof of origin (Contract papers, if possible with addresses of plants, sites). Energy amounts from contracts/accounting documents must correspond to energy consumption in LCA</p> <p>Note: tracking numbers could sometimes only be provided from national energy control bodies. These systems are fully digitalized and the “book and claim” method is fully automatized. Energy providers book and within seconds the energy amounts are cancelled in the AIB system. That is done MWh per MWh and so the Excel sheets verifiers could ask for would be thousands of lines. This should only be an obligation in case of justified doubt of all other documents delivered by energy providers/certification bodies.</p> <p><b>Case 3: Electricity provider chosen from national state with registry</b></p> <p>As above, GuOs must be provided with tracking numbers, check on double counting: used tracking numbers must be cancelled in registry. (Note: Tracking numbers are in most cases (but not all!) deleted automatically in national systems, sometimes energy providers are able to deliver excel files to check on energy amounts versus number of certificates. Show proof for tracking or documentation of justification if tracking was not possible</p> <p>Documentation shall be checked on the following information (if available), GuO documents must be provided:</p> <ul style="list-style-type: none"> <li>• Energy provider</li> <li>• Client</li> <li>• Electricity mix, attributes of electricity</li> <li>• Energy amounts</li> <li>• Addresses of power plants</li> <li>• Tracking numbers</li> <li>• Time periods for issue and validity of GuOs</li> <li>• Information on (direct) coupling yes/no if available</li> </ul> <p>Note: Proof from external verification bodies (accredited bodies) may contain less information</p> <p>Note: sometimes only 100% green energy products are deleted from registry. Mixes</p>			
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			<p>of green energy and non-renewable energy are sometimes not deleted. (Example: Energy providers may only state that they have certain amounts of renewables in the mix, but no GuOs available):</p> <p>Conclusion : A sensitivity analysis shall be carried out, in case that significant amounts of electricity cannot be tracked:          No tracking numbers and transparent GuOs: No acceptance-&gt; residual Mix.          Solution for ECO Platform: "significant" means "if the change in amounts of electricity lead to more than 10% change in results of GWPTotal", see EN 15804.</p> <p>Note for upstream data: products with a high percentage of electricity in upstream data should be looked at with attention/check if specific data for upstream processes is available.</p> <p>Intermediate conclusion if GuOs are available but without confirmation of cancelling: proof that manufacturers have asked for cancellation confirmation is sufficient for a period of up to a max. of the validity of the EPD.</p> <p>Case 4: Energy provider from national state with no registry: No benefit of GoOs, use consumption mix (residual mix would be consumption mix)</p> <p>If GO are accepted and applied:</p> <ul style="list-style-type: none"> <li>• specific data for energy generation shall be used whenever available             <ul style="list-style-type: none"> <li>○ i.e. have the foreground processes been calculated with the specific data from the supplier of the green electricity?</li> <li>○ has the residual mix been used for the quantification of all electricity generation without GuOs <i>for foreground data</i>?</li> </ul> </li> <li>• <i>background data</i>:             <ul style="list-style-type: none"> <li>○ has been calculated using the residual mix for the relevant</li> </ul> </li> </ul>			
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			<p>electricity generation without GoO?</p> <ul style="list-style-type: none"> <li>○ a justification has been provided if relevant electricity generation without GuO has not been calculated with residual mix?</li> <li>• Has the consumption mix (= national production + imports – exports), been applied for any modules beyond the modules A1-A3 (i.e. the factory gate), for which no GuOs are used?</li> </ul> <p>Note 1: The factory gate can sometimes also include A4 and A5 (e.g. ready-mix concrete).          Note 2: Only if the EPD owner has direct control over a particular process in any of the B modules and/or C modules (which, e.g., may be the case for construction services or for recycling), generation of electricity used in this process may be modelled with GuO and residual mix.</p>			
6.1.5			<p>If a PO decides that GuOs cannot be used for the quantification of the LCA with respect to electricity generation, all EPD shall be calculated applying the national consumption mix.</p>	M	Applicable PCR	
6.1.6			<p>Reporting and communication done as required in Pr EN 15941:2022          Reporting an additional quantification in the project report is recommended:</p> <ul style="list-style-type: none"> <li>• market based approach: using GuOs and residual mix,</li> <li>• location based approach: using the actual consumption mix (= national production + imports – exports),</li> <li>• If a double quantification is reported in the project report, options are:             <ul style="list-style-type: none"> <li>○ to provide 2 EPD</li> <li>○ to declare two result tables in the EPD</li> <li>○ to provide an interpretation of the different results in the EPD</li> </ul> </li> </ul>	M	Pr EN 15941	
6.1.7			<p>If the contractual situation is not clear (see last position in ISO 14067) a sensitivity analysis shall be reported in the project report.</p>	M	ISO 14067	

			Note: In some countries, parts of the electricity from renewable energy sources might be sold/exported as renewable electricity without being excluded from the supplied mix. For this reason, in such cases a sensitivity analysis applying the relevant consumption grid mix shall be conducted and reported in the project report to demonstrate the difference in results of the electricity tracking instruments.			
6.1.8			<p>Calculation of residual mixes as long as GaBi/Ecoinvent are not providing appropriate datasets:</p> <p>Open questions, Solution still to be found:</p> <ul style="list-style-type: none"> <li>First idea was to model the residual mixes following the 2020 AIB Guide <a href="https://www.aib-net.org/facts/european-residual-mix">https://www.aib-net.org/facts/european-residual-mix</a></li> <li>The prior versions of 2019 etc. follow a different approach – that makes comparison difficult.</li> <li>Even if a rule could be found like “Everything is 2020 rules, the following detailed questions are open:</li> </ul> <p>Priority 1: If available: all datasets from used database must be taken and the AIB Method implemented within must be documented (in EPD as well as in project report)</p> <p>Priority 2: in case of „self-modelling“ the following questions should be regulated (no exhaustive list of questions, not resulting from a complete analysis of the AIB 2020 methodology rules, it is just a first screening!):</p> <ul style="list-style-type: none"> <li>Which method and which reference year must be taken? Latest methodology paper from AIB 2020 → Issuing based methodology - shifted issuance date? Is it more relevant to use a new method with new research results considered or be consistent with the method for the consumption year of the manufacturer? (Austria suggests the new method to be used in any case).</li> </ul>			

			<ul style="list-style-type: none"> <li>- How to model transmission losses?</li> <li>- How to deal with “renewable unspecified” / “fossil unspecified” amounts?</li> <li>- How to deal correctly with regional declaration of electricity imports? Those cannot be extracted from the shares of different energy carriers? A pragmatic way would be to calculate with the energy-carrier-specific electricity data sets of the national state in question and not to consider other countries of origin of energy provision, knowing that this is an uncertainty but living with it. This would have to be documented.</li> </ul>			
<b>6.2</b>			<b>Biogas</b>	<b>M</b>	<b>prEN15941 annex E2.3</b>	
<b>6.1.2</b>			<p>Biogas can be handled in analogy to 6.1 green electricity. The tracking must be done as transparent as possible, see pr EN 15941</p> <p>Is the modelling of biogas in line with the following description?</p> <p><u>Biogas from the gas network:</u>          Biogas certificates/GoO shall be used when the supplier is able to guarantee that the biogas meets the requirements for tracking and traceability, see pr EN 15941 E.2.1. For gas purchased without the certificates the residual mix shall be applied. If the requirements tracking and traceability are not fulfilled the consumption mix shall be used.</p> <p><u>Biogas from a directly connected supplier:</u>          Life cycle data for the biogas supplied may be used if there is a dedicated pipeline or supply between the organization and the biogas plant from which the life cycle data is derived, and no contractual instruments have been sold to a third party for that consumed biogas. Otherwise, the residual mix shall be used.</p> <p><u>Internally generated biogas:</u>          For internally generated and consumed biogas, where no contractual instruments</p>	M	prEN15941 annex E2.3	

			<p>have been sold to a third party, the life cycle data for the biogas shall be used for that product. Otherwise, the residual mix shall be used.</p> <p><u>Residual gas mix:</u></p> <p>As long as the AIB system does not provide Guidance and/or data sets for residual gas mixes and the data bases GaBi/Ecoinvent also do not give appropriate data sets, the residual mix must be calculated following the AIB guidance for green electricity as closely as possible.</p> <p>Note1: in 2022 only Austria has established a system for mandatory full declaration of gas production (no residual gas, biogas GuOs are handled with the same automatic "Book-Claim-Cancel in Registry Approach" as green electricity.          All other countries may have already installed systems for tracking/national registries.          The GuOs and proof documents for cancellation in the system must be shown, else residual gas mix or worst case (= fossile) must be calculated. Alternatively, a sensitivity analysis as stated in prEN 15941 Annex E2.3 must be carried out to avoid double counting.</p> <p>Note2: For biogas it is not always clear at which geographical point in the gas grid the biogas is put into the pipe system nor are the pipe systems connected in a way as electricity grids are connected. Until further notice a physical connection of gas grid systems is not required to accept GuOs for biogas.</p> <p>Note3: The above rules are meant only for input as energy carrier (not as feedstock).</p>			
6.3			<p>Additional information for transparency:</p> <p>— Provide in the EPD the GWP of the applied electricity mix for A1-A3 in kg CO<sub>2</sub>e/kWh;          — Provide the GWP of the applied gas mix for A1-A3 in kg CO<sub>2</sub>e/MJ.          Justification shall be given in the Project Report if any information is not provided. "</p> <ul style="list-style-type: none"> <li>• Minimum: use of Residual Mix or of modelled energy mix shall be</li> </ul>			

			declared. Information if GoOs are used must be declared. <ul style="list-style-type: none"> <li>Detailed description of Energy datasets should be provided</li> </ul>			

Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	4.5	Allocations	Mandatory / Optional	Reference	Checked and approved or Checked with remark
12.1		4.5.1	General allocation principles applied (avoidance of allocation, no double counting / omissions, uniform application of the allocation rules, sum of inputs and outputs of a unit process after allocation must be equivalent to sum of inputs and outputs before allocation etc.)	M	ISO14044:2006 ch.4.3.4	
12.2		4.5.2	Presentation and justification of allocations in the use of secondary materials or secondary fuels as raw materials	M	EN15804+A1/EN15804+A2 Ch. 6.4.3 and 8.2  and applicable PCR	
12.3		4.5.3	Presentation and justification of allocations in the plant (delineation from other products in a plant)	M		
12.4		4.5.4	If applicable: Presentation and justification of allocation of multi-input processes (e.g. landfilling or incineration)	M		

12.5 + 5.4+A1		4.5.5+A1	Co-product allocation correctly applied? A1 to A3: Allocation of co-products: Selection of the allocation factors for co-product allocation Justification of selected allocation method (economic, physical) Justification of specific allocation processes (e.g. if data are not available to allocate according to the EN15804 rules) NOTE: Application of the "polluter pays principle" to the use of waste as substitute for primary fuels or materials is left to the programme operator Presentation of the energy and material flows as a result of deviating allocation processes No declaration of loads and benefits in Module D from allocation of co-products in A1-A3	M	EN15804 ch. 6.4.3.2 + annex B.1  CEN TR 16970 ch.6.4.3.2 ff	
12.5+5.4+A2		4.5.5+A2	Co-product allocation correctly applied?  A1 to A3: Allocation of co-products: <ul style="list-style-type: none"> <li>• Selection of the allocation factors for co-product allocation and justification of allocation method;</li> <li>• Justification of specific allocation processes (e.g. if data are not available to allocate according to the EN15804 rules);</li> <li>• Presentation of the energy and material flows in case of deviating allocation processes;</li> <li>• No declaration of loads and benefits in Module D from allocation in A1-A3.</li> </ul>	M	EN15804+A2 ch. 6.4.3.2  CEN TR 16970 ch. 6.4.3.2	
12.6		4.5.6	Documentation of allocation factors used and their (independent) sources	M		

12.7		4.5.7	<p>Allocation process for reuse, recycling and recovery, check specifically:</p> <ul style="list-style-type: none"> <li>• End-of-waste state, Consistency with other scenarios of waste management</li> <li>• Conventional average technologies and practices</li> <li>• Specification and justification of end-of-waste state where applicable</li> <li>• If applicable (module D): Selecting substituted processes in accordance with the PCR or (if no PCR is available) representative actual processes</li> </ul> <p>NOTE: Application of the “polluter pays” principle to the use of waste as substitute for primary fuels or materials is left to the programme operator- see applicable PCR B parts</p> <ul style="list-style-type: none"> <li>• If applicable (substitution in Module D): Calculation of net flows</li> <li>• Conservative approach, i.e. choice of those scenarios and calculation rules that reflect the highest environmental impacts in comparison to other choices</li> </ul> <p>Note: Modules C and D are optional when using EN15804+A1 and mandatory according to EN15804+A2</p>	M	EN15804+A1/EN15804+A2 ch.6.4.3.3  and applicable PCR	
12.8		4.5.8	<p>Justification if generic data is applied which does not comply with the allocation principles, or where this compliance is not known and there are reasons to doubt it. Expert guess of how this influences the indicator results should be provided.</p>	M	Applicable PCR	

E:\006 - QM PKR PGF\PKR Allgemein-MS-HB+M-Docs\English-MS-HB and M-Docs\BAU-EPD-M-DOCUMENT-19-template-verification-report-checklist-for-verification-A1+A2-version-version2.0-date-2022-08-24-English.docx

12.9		4.5.9	If applicable: calculation of biogenic carbon content in CO <sub>2</sub> –eq documented in transparent ways?			
Additional Bau EPD GmbH		4.6	Mass balance	V		
Additional Bau EPD GmbH		4.6.1	Documentation of the complete mass balance for all relevant modules and processes. <ul style="list-style-type: none"> <li>– Documentation of all input and output flows</li> <li>– Indication of all upstream and downstream data including source of the data (data set)</li> <li>– Description of uncertainties if mass result is not balanced</li> <li>– Documentation of water balance</li> <li>– Description of cut-off input and output flows</li> <li>– Documentation of corrections in case of allocations including considered material inherent features (biogenic carbon, energy content etc.)</li> </ul>	v		

		5.	Environmental Parameters			
Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	5.1	Parameters of the Life Cycle Inventory Analysis and Life Cycle Impact Assessment	Mandatory / Optional	Reference	Checked and approved or Checked with remark
14.1		5.1.1	Presentation of the parameters in tabular form for all modules A1 to D.	M	EN15804+A1/EN15804+A2 ch. 7.2.2  EN15978 ch.12.5	



14.2		5.1.2	<p>Presentation of the parameters describing:          EN15804+A1:</p> <ul style="list-style-type: none"> <li>• environmental impacts (7 parameters),</li> <li>• the use of resources (10 parameters),</li> <li>• the waste categories (3 parameters)</li> <li>• output material flows (4 parameters)</li> </ul> <p>EN15804+A2:</p> <ul style="list-style-type: none"> <li>• Core environmental impacts (13 indicators),</li> <li>• Additional environmental impacts (6 indicators) and coherent disclaimers. Table 4 shall be included in the EPD for the declared additional environmental indicators. If additional indicators are not declared, they shall be mentioned in the EPD, e.g. as an entry of "ND" to Table 4 or as text.</li> <li>• the use of resources (10 indicators),</li> <li>• the waste categories (3 indicators)</li> <li>• output material flows (4 indicators)</li> <li>• biogenic carbon content (in product and packaging)</li> </ul> <p>Note: The sum of GWP fossil + GWP Land use and land use change must be equivalent to GWP Total</p> <p>Justification in case of constraints/indicators not declared given and plausible?</p>	M	<p>EN15804+A1/EN15804+A2          ch. 6.5, 7.2.3 – 7.2.5          Table 4</p> <p>Note: the requirements differ between the standard revisions, although chapter numbers align</p>	
14.3		5.1.3	Has the packaging been included in the declaration of the LCI related indicators, e.g. in the quantification of the content of primary energy?	M		
14.4		5.1.4	Selection of correct characterization factors and elimination of long-term emissions (> 100 years)	M	<p>EN15804+A1/EN15804+A2          ch.8.2 and annex C</p> <p>and applicable PCR</p> <p>Note: the characterisation factors differ between the standard revisions, although chapter numbers align</p>	
14.4		5.1.5	Justification of characterization factors applied in case of input/output flows that are not on the list of characterization factors of the EN15804 and applicable PCR	M		

14.5		5.1.6	Information on the environmental impacts in the project report: Reference to characterization models and factors Statement that the estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks	M	EN15804+A1/EN15804+A2 ch.8.2  Note: the requirements and characterization factors differ between the standard revisions, although chapter numbers align	
Additional Bau EPD GmbH		5.1.7	Check on plausibility considering results of comparable studies with regards of the listed material and energy flows (i.e. similar products from other EPD programs...)	M		
Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	5.2	Interpretation	Mandatory / Optional	Reference	Checked and approved or Checked with remark
15.1		5.2.1	Interpretation of the results based on a dominance/contribution analysis of selected indicators  Bau EPD GmbH: separate declaration of Module D in Interpretation (separate picture in addition to pictures for Life Cycle) and statement that benefits and loads are beyond the system boundary	O		
15.2		5.2.2	Relationship between the results of the Life Cycle Inventory Assessment and the results of the Life Cycle Impact Assessment (LCIA)	M	EN15804+A1/EN15804+A2 ch.8.2	
15.3		5.2.3	Assumptions and restrictions as regards the interpretation of results in the EPD, in terms of both methods and data	M	EN15804+A1/EN15804+A2 ch.8.2	
15.4		5.2.4	In the case where an EPD is declared as an average environmental performance for a number of products a statement to that effect shall be included in the declaration together with a description of the range/variability of the LCIA results if significant; The description of the range can be qualitative or quantitative	M	EN15804+A1/EN15804+A2 ch. 7.1i and 8.2  CEN TR 16970 ch. 7.1.	
15.5		5.2.5	Interpretation of the influence of data quality. An assessment of data quality should be provided if the data quality differs for significant data.	M	EN15804+A1 ch. 6.3.7 and 8.2 Or EN15804+A2 ch. 6.3.8, ch. 8.2 + annex E  and ISO 14040	
15.6		5.2.6	Comprehensive transparency as regards value decisions, justifications and expert opinions, i.e. transparency to avoid misinterpretation.	M	EN15804+A1/EN15804+A2 ch.8.2	

Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	6.	Life cycle modelling information	Mandatory / Optional	Reference	Checked and approved or Checked with remark
13.1		6.1	Transparent presentation of Life Cycle Assessment modeling (for example by tables, screenshots from Life Cycle Assessment software programs etc.)	M	EN15804+A1/EN15804+A2 ch.8.4	
13.2		6.2	Clear description how company data are used in which data records in Life Cycle Assessment software programs	M	EN15804+A1/EN15804+A2 ch.8.4	
13.3		6.3	Assignment of process data to the Life Cycle Assessment modules	M	EN15804+A1/EN15804+A2 ch.8.4	
13.4		6.4	For several locations/products: Presentation of modeling of all locations and products as well as weighting thereof	M		
13.5 see Extra point 7						
Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	7	Plausibility and consistency of data (mass balance, energy balance)	Mandatory / Optional	Reference	Checked and approved or Checked with remark
13.5		7.1	Check on mass balance of each life cycle stage	M	EN15804+A1/EN15804+A2 ch.8.4	
13.5		7.2	Mass balance between reference flow and wastes for cradle to grave data	M	EN15804+A1/EN15804+A2 ch.8.4	
13.5		7.3	Check if masses of non-energetic resources are coherent with the reference flow	M	EN15804+A1/EN15804+A2 ch.8.4	
13.5		7.4	Mass balance of inputs and outputs, e. g. mass balance of material resources (feedstock) input and output (product/waste/emissions/secondary material)		EN15804+A1/EN15804+A2 ch.8.4	
13.5		7.5	CO and CO2 emissions coherent with the mass of fossil energetic resources	M	EN15804+A1/EN15804+A2 ch.8.4	
13.5		7.6	Check of the sum of non-renewable and renewable parts or between feedstock and fuel parts	M	EN15804+A1/EN15804+A2 ch.8.4	
13.5		7.7	Are the energy indicators coherent with the energetic resources used?	M	EN15804+A1/EN15804+A2 ch.8.4	
Additional Bau EPD GmbH		7.8	The data appears plausible in comparison to public data of related products or reference values (that means the data results show the same dimensions resp. deviations are explainable).	M		

Additional Bau EPD GmbH		7.9	The figures of the environmental parameters seem plausible with reference to the data of the inventory analysis (i.e. relatively high AP in case of use of coal)	M		
Additional Bau EPD GmbH		7.10	Figures of correlating environmental parameters seem plausible (i.e. PEI non-renewable and ADP fossil)	M		
Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	8.	Documentation of additional information	Mandatory / Optional	Reference	Checked and approved or Checked with remark
16.1		8.1	If additional information is given, check the documentation:  Laboratory results/measurements listed in the content declaration Laboratory results/measurements listed in the functional/technical performance Documentation on the declared technical information on individual life cycle stages not taken into consideration in the construction product's LCA (but applicable building assessment (e.g. transport routes, energy consumption during the use stage, cleaning cycles etc.)  Laboratory results/measurements pertaining to the declared emissions in indoor air, oil or water during the use stage	M	EN15804+A1/EN15804+A2 ch.8.3	
16.2		8.2	Where relevant: ensure that information additional to EN15804 is verifiable e.g. by reference to standards or other publicly accepted test requirements.	M	Applicable PCR	
7.1		8.3	Certificates: If applicable: Selecting allowable certificates in accordance with the PCR? Example: green power certificates Note: Until further decision no green power certificates are allowed in the programme of Bau EPD GmbH. A second set of result tables showing green power certificates may be displayed but clearly market as additional information.	M	Applicable PCR	
Equivalent to Clause X in ECO Platform Verification Checklist	Found in Chapter / Clause/ Page X	9.	Documentation for calculating the reference service life (RSL)	Mandatory / Optional	Reference	Checked and approved or Checked with remark
17.1		9.1	Necessary if the entire life cycle A1-C4 is declared: Documentation for calculating the reference service life (RSL), should be representative for the declared product	M	EN15804 ch.6.3.3	

		10	Specific requirements for modelling and calculation of indicators for LCA data sets in OEKOBAUDAT			
			<b>Formal OEKOBAUDAT-Requirements</b>			
		10.1	<b>Allocation of data sets to OEKOBAUDAT-category:</b> It must be indicated, to which OEKOBAUDAT product category a delivered data set should be allocated to. In cases of doubt the German BMUB / BBSR will determine the category <u>Note for verification:</u> Must be checked when uploading the data into OEKOBAUDAT. Only verifiable, if indicated in the project report.			
		10.2	<b>Language</b> In the field of federal responsibility, datasets available in German should be used preferably. However, the data fields "Name (of data set)" and "Technical purpose of product or process" must be delivered bilingually in English and German. Only in this case the dataset can be made available in the international network node of InData (International Open Data Network for Sustainable Construction; prerequisite for "InData Compliance")			
		10.3	<b>4.3.8 Obligation to provide information in case of significant data changes</b> Extension of an EPD: It is mandatory to declare in a separate block in the project report: Reasons for deviations of results of single indicators of more than 15% compared to the results before. This serves as an information for verifiers and enhances legal compliance. Users of the data can be informed of such facts. Claims that can be published (i.e. same framework conditions, different electricity mix) can be declared in the EPD, if desired. Rules come from chapter „interpretation“ in PCR-B.			
			<b>Requirements on modelling (Chapter. 5.3 in in OEKOBAUDAT principles)</b>			

		10.4	<b>Application of the product category rules of the CEN Product TC's (Technical Committee)</b> The complementary Product Category Rules developed by product-related CEN Technical Committees and examined by CEN/TC 350 shall be considered as far as ECO Platform rules do require this. Alternatively, a scenario can be given as alternative information. Regulated in MS-HB.			
		10.5	<b>Averaging and representativeness</b> Regulated in chapters 1.1, 2.1.3 and 3.3.3 of the verification checklist.			
		10.6+10.7	<b>Declaration of Life Cycle stages (Modules)</b> References to EN 15804 and regulated in MS-HB. Note: at Bau EPD GmbH principally all modules must be declared (Exception: pre-products)			
		10.8	<b>Description of Scenarios</b> Covered with chapters 2 and 4 in each PKR-B.			
		10.9	<b>Modules A1-A3</b> If a co-product allocation in the foreground data is not possible in a meaningful way, e.g. o if a co-product allocation of production waste (e.g. in the case of scrap) makes a coherent recording of the net quantity for offsetting impossible, o if exported energy from the thermal utilisation of waste in a waste incineration plant can no longer be associated with the manufacturing process for an allocation, the flows that leave the product system in modules A1-A3 are declared as outputs, as is usual for the C modules. The advantages and burdens without allocation can be declared outside the product system in module D as additional information (see ISO 21930-7.1.7.2.7).  That shall be marked clearly as module D* or in a separate table. It shall not be declared as an aggregated sum.			
		10.10	<b>Module B</b> If module B is declared, a value for the reference service life is mandatory.			
		10.11	In Module B1 only product inherent properties may be regarded.			

		10.12	<b>Module C and D (end of life phase)</b> End-of-life scenarios: It is allowed that several scenarios for module C and module D are given. Each scenario shall be calculated and declared separately. Example: Two end-of-life scenarios are given for waste wood: Scenario 1 'Material recovery/recycling' and Scenario 2 'Energy recovery' where Scenario 1 comprises also the energy recovery of waste wood which is not recyclable. Each scenario shall be displayed separately in ÖKOBAUDAT. In addition, mixed scenarios (e.g. Scenario 3 '80 % Material recovery/recycling (Scenario 1) and 20 % Energy recovery (Scenario 2)') can be described.			
		10.13	For the modelling of the end of life phase, the rules described in Appendix B "Modelling of the end of life phase (modules C and D)" must be observed.			
		10.14	<b>Characterisation factors</b> In compliance with EN 15804			
		10.15+10.16	<b>Calculation rules for Global Warming Potential</b> In compliance with MS-HB and EN 15804.			
		10.17	<b>Additional environmental impact indicators and Disclaimers</b> No relevance for verification			
			<b>Calculation of primary energy which is used as raw material (PERM, PENRM)</b> Regulated in MS-HB			
			<b>Fresh water consumption</b> Regulated in MS-HB			
			<b>Information on biogenic carbon content at the factory gate</b> In compliance with EN 15804			

Dialogue between verifier/programme operator and EPD owner/practitioner as per M-document 19a:

index					Comment of verifiers		If column H is not market "done"	
Initials	Document	Chapter, figure, table...	Type	documentation of non-conformities	Answer of author of LCA/EPD documentatio	Statement Verifier	2. answer LCA practitioner	
1 verifier 1	project report EPD 1	number, reference	ed	Text				
2 verifier 2	project report EPD 2	number, reference	ge	Text				
3 verifier 2	EPD Document 1	number, reference	te	Text				

E:\006 - QM PKR PGF\PKR Allgemein-MS-HB+M-Docs\English-MS-HB and M-Docs\BAU-EPD-M-DOCUMENT-19-template-verification-report-checklist-for-verification-A1+A2-version-version2.0-date-2022-08-24-English.docx

## Verification of the EPD document:

### Checklist:

This whole section is mandatory to verify. The format of an EPD must comply with EN 15804 ch.7 and EN 15942. Bau-EPD GmbH provides a corresponding format template on the webpage. All data that is included in the master Excel Table (that is based on the ITM information transfer matrix) should somewhere be documented in the EPD.

### Note:

ECO Platform has developed a “Best Practice example” for the EPD format. This document does not show or require a common design; it merely describes the agreed content of an EPD for members of the ECO Platform. In addition to the EPD content requirements of EN 15804 ch.7 and EN 15942 this includes:

- A statement of the applied background database and software,
- A description of representativity in average EPD,
- A table for declaring biogenic carbon to be applied when the program operator includes this in the PCR,
- A place for additional impact or LCI indicators,
- A place for additional environmental information dependent on the applicable PCR

All EPD of Bau EPD GmbH follow this list of content.



Equivalent to Clause X in ECO Platform Verification Checklist	1.	Formal requirements	Reference	Checked and approved or Checked with remark
1.1	1.1	<p>EPD include as general information:</p> <ul style="list-style-type: none"> <li>Text "Environmental Product Declaration in accordance with ISO 14025 and EN 15804", prominently visible in the EPD*</li> <li>Statement that "EPD of construction products may not be comparable if they do not comply with EN15804" <b>In Bau EPD GmbH documents extended to: "EPD of construction products of the same product group from different Program Operators may not be comparable."</b></li> <li>Publisher <b>and Program Operator</b> name*, address*, logo, website.</li> <li>Name of declared product*</li> <li>Declaration owner / Name and address of manufacturer/association</li> <li>Type of EPD, stages omitted if not full LCA</li> <li>Geographical area, i.e. market range, where the product is produced, where it may be applied and where the end-of-life is assumed</li> <li>A statement whether the EPD is a specific or an average EPD. Description of the kind of average.</li> <li>Names of manufacturer(s) when the EPD declares an average of several manufacturers (this is voluntary, in case of private labelling systems the names of the manufacturers and sites can be stated in the project report only. Anyway, the names of the declaration owner(s) must be stated in the EPD).</li> <li><b>Product composition</b></li> <li>Date of issue* + validity (5 years)/date of expiry* + date of update if relevant*</li> <li>EPD identification (registration number of the EPD on programme operator level and on ECO Platform level).</li> <li><b>Table 2 from EN 15804</b></li> </ul> <p>Note: *These items shall be declared on the front page of the EPD, the other items are voluntary</p>	EN15804+A1/EN15804+A2 ch. 7.1 ECO Platform List of content to declare in an ECO EPD (ECO Platform Audit and Verification Guidelines)	
1.2	1.2	<p>PCR name</p> <p>PCR version (MM YYYY)</p> <p>If applicable: c-PCR (complementary PCR from product TC)</p>	Applicable PCR-B, Applicable PCR from European Product TC	
1.3	1.3	<p>Demonstration of verification: external independent verification, name of third party verifier</p>	EN15804+A1/EN15804+A2 ch.7.1 Table 2	
1.4	1.4	<p>Information on the validity: Does it correspond with the specifications in the project report?</p>		

1.5	1.5	Appropriateness of logos of the company, programme operator and ECO Platform. Appropriateness of pictures.	ECO Platform List of content to declare in an ECO EPD (ECO Platform Audit and Verification Guidelines)	
		<b>Product</b>		
Equivalent to Clause X in ECO Platform Verification Checklist	2.1	<b>Product description</b>	<b>Reference</b>	<b>Checked and approved or Checked with remark</b>
Additional Bau EPD GmbH	2.1.1	General product description Information about the period of data collection (calculated time period of manufacturing processes)		
2.1	2.1.2	The product description is in line with the project report, and clearly enough described to identify the declared product unambiguously? Name and location of production site(s).	ECO Platform List of content to declare in an ECO EPD (ECO Platform Audit and Verification Guidelines)	
2.2	2.1.3	If applicable: Explanations on calculations of averages within a product group, and representativeness: Information on the most influencing parameters in the LCA; Information on restrictions to the use of the EPD; Useful information in the EPD for the representativity of average EPD; A technical description of the average product group (such as density or a property like U-value); The number of manufacturing plants included in the EPD; and/ or The names of manufacturing companies or brands or associations; Sampling process if only representative companies are chosen; Description of the relative production volume covered by the EPD; Geographical coverage;  The range of products for which the EPD is relevant, even if data from some products has not been used directly in producing the EPD	EN15804+A1/EN15804+A2 ch.7.1  ECO Platform List of content to declare in an ECO EPD (ECO Platform Audit and Verification Guidelines)	

2.3	2.1.4	Specification / identification (picture, name, model) Unambiguous identification of the product(s), by standards, concessions or other means	EN15804+A1/EN15804+A2 ch.7.1 ECO Platform List of content to declare in an ECO EPD (ECO Platform Audit and Verification Guidelines)	
Additional Bau EPD GmbH	2.1.5	Information about „Conditions of delivery and delivery status“	EN15804+A1/EN15804+A2 ch.7.1	
2.4	2.1.6	Indication of the intended use Application and technical functions of the product	EN15804+A1/EN15804+A2 ch.7.1 ECO Platform List of content to declare in an ECO EPD (ECO Platform Audit and Verification Guidelines)	
2.5	2.1.7	Relevant technical data (additional information is possible) including RSL if applicable (Average values or range in case of product groups)		
2.6	2.1.8	The test standards to which the technical data refers.		
Equivalent to Clause X in ECO Platform Verification Checklist	2.2	Description of the Life Cycle	Reference	Checked and approved or Checked with remark
2.7	2.2.1	A description of the main product components and or materials is provided in accordance with the specifications of the PCR (if available) and LCA project report. As a minimum, substances that are listed in the latest “Candidate List of Substances of Very High Concern for authorization” if their content exceeds the limits for registration	EN15804+A1/EN15804+A2 ch.7.1	
2.8	2.2.2	Description of the manufacturing process / all manufacturing processes if several locations are involved	EN15804+A1/EN15804+A2 ch.7.1	
Additional Bau EPD GmbH	2.2.3	Information about packaging material		

Additional Bau EPD GmbH	2.2.4	Description of the life cycle stages not declared can be found.		
Equivalent to Clause X in ECO Platform Verification Checklist	3	Life Cycle Analysis Rules	Reference	Checked and approved or Checked with remark
	3.1	Methodical assumptions		
3.1	3.1.1	Information on the declared / functional unit corresponds with the specifications of the PCR, if available, including conversion factor to 1 kg	Applicable PCR	
3.2	3.1.2	<p>Indication of the EPD type and declared/undeclared modules through a table of modules (A1: MND=Module not declared, A2: ND=Not declared)</p> <p>EPD types applicable in EN15804+A1:</p> <ul style="list-style-type: none"> <li>- cradle-to-gate</li> <li>- cradle-to-gate with options</li> <li>- cradle-to-grave</li> </ul> <p>EPD types applicable in EN15804+A2:</p> <ul style="list-style-type: none"> <li>- cradle-to-gate with modules C1-C4 and module D</li> <li>- cradle-to-gate with options, modules C1-C4 and module D</li> <li>- cradle-to-grave and module D</li> <li>- cradle-to-gate (exemption requirements apply)</li> </ul> <p>cradle-to-gate with options (exemption requirements apply)</p>	<p>EN15804+A1/EN15804+A2 ch. 7.2.2</p> <p>Note: the requirements differ between the standard revisions, although chapter numbers align</p>	
3.3	3.1.3	EPD contains a (simple) flow diagram in accordance with the modular approach	EN15804+A1/EN15804+A2 ch. 7.2.1	
3.4	3.1.4	Description of the system boundary (can be simplified, as a picture or in wording), including the assignment of the analysed processes to the life cycle modules		
3.5	3.1.5	Indication of the key assumptions and estimates for interpretation which are not depicted elsewhere in the EPD	.	
3.6	3.1.6	Presentation of the application of cut-off criteria in accordance with the project report		
3.7	3.1.7	Source of background data used, name and dated version. Description of what upstream and/or downstream data has been applied is optional.	<p>ECO Platform List of content to declare in an ECO EPD (ECO Platform Audit and Verification Guidelines)</p>	

3.8	3.1.8	Indication of the age of background data used (e.g. last update or version of the database)	ECO Platform List of content to declare in an ECO EPD (ECO Platform Audit and Verification Guidelines)	
3.9	3.1.9	Information on the data collection period and resulting averages	ECO Platform List of content to declare in an ECO EPD (ECO Platform Audit and Verification Guidelines)	
3.10	3.1.10	Presentation of the allocations of relevance for calculation in accordance with the minimum requirements of the PCR		
Equivalent to Clause X in ECO Platform Verification Checklist	3.2	LCA: Scenarios and additional technical information	Reference	Checked and approved or Checked with remark
4.1	3.2.1	Mandatory for all declared modules > A3: Presentation of the assumptions pertaining to the scenarios of the declared modules in accordance with the project report. Information on undeclared modules is optional.	EN15804+A1/EN15804+A2 ch. 7.3	
4.2	3.2.2	If a reference service life is declared in the EPD, presentation of the scenario on which the RSL is based, in accordance with the project report	EN15804+A1/EN15804+A2 ch. 7.3.3.2 + Annex A  Note: the requirements differ between the standard revisions, although chapter numbers align	

Additional Bau EPD GmbH	3.2.3	A1-A3 product stage: Description A1 – A3 If required in the PCR-B-part: Energy- and water demand for manufacturing Information about quantities and qualities of emissions, waste water and waste		
Equivalent to Clause X in ECO Platform Verification Checklist	3.3	LCA: Results	Reference	Checked and approved or Checked with remark
5.1	3.3.1	Description of the declared / functional unit		
5.2	3.3.2	Identification of the declared/undeclared modules: Table of Modules/indicators, illustrating the type of EPD MND = module not declared/INA = Indicator not assessed Full declaration of all indicators of EN 15804 required according to the modular approach Result Table contains: No blank cells, hyphens or other symbols. The value 0 only for parameters that have been calculated to be 0, or below a limit value (former MNR). Footnotes shall be used to explain any limitation to the result value.  If according to EN15804+A2: Additional indicators included or marked as Not Declared ("ND") in table or as text	EN15804 +A1 ch.7.2.3, 7.2.4, 7.2.5 and ch.7.5  ECO Platform List of content to declare in an ECO EPD (ECO Platform Audit and Verification Guidelines)	
5.3	3.3.3	Programme operators may allow optional additional impact indicators and LCI indicators. These shall be identified as "additional" to the indicator basket of EN 15804, either in the EPD itself or in an annex	ECO Platform List of content to declare in an ECO EPD (ECO Platform Audit and Verification Guidelines)	
5.4	3.3.4	The declared indicator and other quantitative results shall be identical with the respective values in the project report		
5.5	3.3.5	In case of product averages: description of the range / variability of the LCIA results—this may be qualitative information	EN15804+A 1/EN15804 +A2 ch.7	
5.6	3.3.6	Deletion of module columns which are not declared (permissible for the Results part) if programme allows	Program operator rules	
5.7	3.3.7	Formatting the table framework and parameter addressed in accordance with the specifications of the PCR or the Program Operator rules	Program operator rules	

Equivalent to Clause X in ECO Platform Verification Checklist	3.4	Interpretation of the LCA results	Reference	Checked and approved or Checked with remark
Additional Bau EPD GmbH	3.4.1	Interpretation of the indicator values in a dominance analysis		
Equivalent to Clause X in ECO Platform Verification Checklist	4.	Evidence for tests or certificates, depending on requirements in PCR	Reference	Checked and approved or Checked with remark
Additional Bau EPD GmbH	4.1	Declaration of components of high concern: As a minimum the substances from the current candidate list according to REACH "Candidate List of Substances of Very High Concern for authorisation" must be named if their share exceeds the limits of traceability.		
6.1	4.2	Additional information is provided to indoor air or soil / water, if applicable	EN15804+A1/EN15804+A2 ch.7.4	
6.2	4.4	Other additional environmental information if relevant for a country.	ECO Platform List of content to declare in an ECO EPD (ECO Platform Audit and Verification Guidelines)	
6.3	4.4	Declaration of the relevant evidence. Information where to find this evidence	EN15804+A1/EN15804+A2 ch.7.2 and applicable PCR, existing program rules	
6.4		Energy mix approach: Reporting is done as required in prEN15941. Market-oriented approach or country-specific consumption mix (reference to second EPD document in case of double reporting). Bau EPD GmbH: Market-oriented approach, reference on the cover page of the EPD	prEN15941	
Equivalent to Clause X in ECO Platform Verification Checklist	5.	References	Reference	Checked and approved or Checked with remark
7.1	5.1	Full indication of all referenced sources (excluding standards already quoted in full and standards concerning evidence)		

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		Annex	Reference	Checked and approved or Checked with remark
8.1	6.1	An Annex may contain all additional information required for specific national use in different countries.	ECO Platform List of content to declare in an ECO EPD (ECO Platform Audit and Verification Guidelines)	

Dialogue between verifier/programme operator and EPD owner/practitioner as per M-document 19a:

Index	Initials	Document	Chapter, figure, table...	Type	Comment of verifiers documentation of non-conformities	Answer of author of LCA/EPD documentatio	Statement Verifier	2. answer LCA practitioner	If column H is not marked "done"
1	verifier 1	project report EPD 1	number, reference	ed	Text				
2	verifier 2	project report EPD 2	number, reference	ge	Text				
3	verifier 2	EPD Document 1	number, reference	te	Text				



**Overview matrix showing the assignment of ECO-Platform checklist points to BAU EPD GmbH checklist points:**

**Note: the table is currently not up to date, as Chapter 6 Energy is currently being worked on by the ECO Platform. Will be updated in autumn 2022.**

**Part 1: Project report**

Eco Platform	Bau EPD	Eco Platform	Bau EPD	Eco Platform	Bau EPD	Eco Platform	Bau EPD
<b>1</b>		<b>2</b>		<b>3</b>		<b>4</b>	
1.1	1.1	2.1	2.1	3.1	3.3.1	4.1	3.1.1
1.2	1.2	2.2	2.2	3.2	3.3.2	4.2	3.1.2
1.3	1.3	2.3	2.4	3.3	3.3.3	4.3	3.1.3
1.4	1.4						
<b>5</b>		<b>6</b>		<b>7</b>		<b>8</b>	
5.1	3.4.1	6.1	4.4.1	7.1	8.3	8.1	4.2.1
5.2	3.4.2					8.2	4.2.2
5.3	3.4.3						
5.4	4.5.5						
5.5	3.4.4						
5.6	3.4.5						
5.7	3.4.6						
5.8	3.4.7						
5.9	3.4.8						
5.10	3.4.9						
5.11	3.4.10						
5.12	3.4.11						
5.13	3.4.12						
<b>9</b>		<b>10</b>		<b>11</b>		<b>12</b>	
9.1	4.3.1	10.1	4.3.4	11.1	4.1.1	12.1	4.5.1
9.2	4.3.2			11.2	4.1.2	12.2	4.5.2
9.3	4.3.3			11.3	4.1.3	12.3	4.5.3
				11.4	4.1.4	12.4	4.5.4
						12.5	4.5.5
						12.6	4.5.6
						12.7	4.5.7
						12.8	4.5.8

<b>13</b>		<b>14</b>		<b>15</b>		<b>16</b>	
13.1	6.1	14.1	5.1.1	15.1	5.2.1	16.1	8.1
13.2	6.2	14.2	5.1.2	15.2	5.2.2	16.2	8.2
13.3	6.3	14.3	5.1.3	15.3	5.2.3		
13.4	6.4	14.4	5.1.4	15.4	5.2.4	<b>17</b>	
13.5	7	14.5	5.1.5	15.5	5.2.5	17.1	9.1
		14.6	5.1.6	15.6	5.2.6		

## Part 2: EPD-Document

Eco Platform	Bau EPD	Eco Platform	Bau EPD	Eco Platform	Bau EPD	Eco Platform	Bau EPD
<b>1</b>		<b>2</b>		<b>3</b>		<b>4</b>	
1.1	1.1	2.1	2.1.2	3.1	3.1.1	4.1	3.2.1
1.2	1.2	2.2	2.1.3	3.2	3.1.2	4.2	3.2.2
1.3	1.3	2.3	2.1.4	3.3	3.1.3		
1.4	1.4	2.4	2.1.6	3.4	3.1.4		
1.5	1.5	2.5	2.1.7	3.5	3.1.5		
		2.6	2.1.8	3.6	3.1.6		
		2.7	2.2.1	3.7	3.1.7		
		2.8	2.2.2	3.8	3.1.8		
				3.9	3.1.9		
				3.10	3.1.10		
				3.11	3.1.11		
<b>5</b>		<b>6</b>		<b>7</b>		<b>8</b>	
5.1	3.3.1	6.1	4.2	7.1	5.1	8.1	6.1
5.2	3.3.2	6.2	4.3				
5.3	3.3.3	6.3	4.4				
5.4	3.3.4						
5.5	3.3.5						
5.6	3.3.6						
5.7	3.3.7						