SYNTHETIC SAMPLE - NOT OFFICIALLY ISSUED

SP Services GmbH

EU Circularity & Digital Product Passport Assessment

Regulatory Assessment Report

Assess relevant EU circularity, product lifecycle and digital product passport requirements, and identify data, evidence and action needs.

Case	Assessment date	Issued on
MiraVolt industrial energy buffer	2026-10-30	2026-10-30T07:00:00+01:00

Assessment subject

Product, market, actor and object boundaries for the assessed case.

Subject / requirement	Status
Product and configuration	MiraVolt industrial energy buffer / MEB-320 / R2
Market, market event and assessment	DE · 2028-05-15 · Assessed on: 2026-10-30
Recorded actor roles	Own brand: yes; Importer involved: no; Distributor involved: yes; Distance selling: no; Determine the legal role separately for each regime
Affected object types	packaging: 1, battery: 1, EEE: 1

Outcome and assessment boundaries

> **Synthetic case assessment with bounded evidence**

Regulatory routes identified: Batteries, PPWR, WEEE. Further assessment required: ESPR.

Synthetic case; legal sources and customer documents have not been independently qualified.

Prioritized next steps

1. **Provide product group, model/revision and market date; arrange a dated source-based review of the applicable ESPR measures.** · Priority: Urgent
2. **Complete battery passport dataset for BAT-MEB-320.** · Priority: Urgent
3. **Determine and document the German WEEE producer role and registration/EPR/take-back requirements for this placing on the market.** · Priority: Urgent
4. **Close QR/labelling readiness for BAT-MEB-320.** · Priority: High
5. **Clarify the German PPWR packaging role and applicable registration/EPR/deposit requirements for this case.** · Priority: High

Key regulatory routes

Subject / requirement	Status	Basis
ESPR	Review pending	The dynamic ESPR product-measure state is not currently verified.

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Subject / requirement	Status	Basis
Battery Regulation	Relevant	Battery route active for 1 battery object(s).
PPWR	Relevant	PPWR route active for 1 packaging object(s).
WEEE	Relevant	WEEE EU route active for 1 EEE object(s).

Actions and closure criteria in detail

Provide product group, model/revision and market date; arrange a dated source-based review of the applicable ESPR measures.

Priority: Urgent

Owner: Assign responsible function within the organisation

Closure criterion: Product/configuration facts and a dated source-based product-measure determination

Complete battery passport dataset for BAT-MEB-320.

Priority: Urgent

Owner: Assign responsible function within the organisation

Closure criterion: Article 77 / Annex XIII data, identifiers, access/update responsibilities

Determine and document the German WEEE producer role and registration/EPR/take-back requirements for this placing on the market.

Priority: Urgent

Owner: Assign responsible function within the organisation

Closure criterion: Dated case-specific WEEE register, EPR, authorized-representative and guarantee evidence as applicable

Close QR/labelling readiness for BAT-MEB-320.

Priority: High

Owner: Assign responsible function within the organisation

Closure criterion: Article 13 label/QR evidence

Clarify the German PPWR packaging role and applicable registration/EPR/deposit requirements for this case.

Priority: High

Owner: Assign responsible function within the organisation

Closure criterion: Dated Member State authority and register/compliance-scheme/deposit review evidence

For battery BAT-MEB-320 in market DE, determine the responsible producer/EPR role and registration evidence.

Priority: High

Object: BAT-MEB-320 · Owner: Battery/EPR coordinator in the company

Closure criterion: Dated battery/market-specific role determination and registration status or documented non-applicability for BAT-MEB-320 / DE.

Verify supplier identity/data and match them to battery passport BAT-MEB-320.

Priority: High

Object: BAT-MEB-320 · Owner: Product/supplier data owner

Closure criterion: Battery ID ↔ supplier identity match and supplied passport dataset.

Determine the economic-operator and EPR roles for the relevant regimes using the contractual and distribution facts.

Priority: Medium

Owner: assign manufacturer/import/distribution coordination

Closure criterion: Documented role/contract matrix by relevant legal regime and target market

Specific duties and conditions

Subject / requirement	Status	Basis
Battery labelling / QR information	Regulatory route activated	from 2027-02-18
Producer registration / EPR route by target Member State	Conditional – verify triggers	Per first making-available in each Member State
Producer registration and EPR execution by target Member State	Conditional – verify triggers	Member-State specific
National producer registration	Regulatory route activated	Before placing EEE on the relevant Member-State market

Required deliverables and reported evidence

Required / TARGET	Reported / ACTUAL	Status
Battery passport dataset – BAT-MEB-320	Not available	**Verification required** Clarification or request for records required
Battery QR/labelling – BAT-MEB-320	Not determined	**Verification required** Clarification needed; no statutory non-compliance established
Carbon-footprint evidence – BAT-MEB-320	Not determined	**Verification required** Clarification needed; no statutory non-compliance established
Recycled-content evidence – BAT-MEB-320	Not determined	**Verification required** Clarification needed; no statutory non-compliance established
Performance/durability/safety evidence – BAT-MEB-320	Assessment with open items	No confirmed required deliverable for this evidence

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Required / TARGET	Reported / ACTUAL	Status
Battery due-diligence readiness – BAT-MEB-320	Not determined	Verification required Clarification needed; no statutory non-compliance established
WEEE producer registration – EEE-MEB-320	Not determined	Verification required Clarification needed; no statutory non-compliance established
EAR registration – EEE-MEB-320	Not determined	Verification required Clarification needed; no statutory non-compliance established
ESPR dynamic authority snapshot not current	Not determined	Verification required Clarification needed; no statutory non-compliance established
Battery secondary-act/catalogue snapshot not current	Not determined	Verification required Clarification needed; no statutory non-compliance established
Battery EPR execution unresolved for DE	Not determined	Verification required Clarification needed; no statutory non-compliance established
LUCID registration status unknown for PKG-MEB-320	Not determined	Verification required Clarification needed; no statutory non-compliance established
PPWR national execution unresolved for DE	Not determined	Verification required Clarification needed; no statutory non-compliance established
WEEE national execution unresolved for DE	Not determined	Verification required Clarification needed; no statutory non-compliance established
For battery BAT-MEB-320 in market DE, determine the responsible producer/EPR role and registration evidence.	Availability not established	Verification required Clarify the facts and any supporting records
Verify supplier identity/data and match them to battery passport BAT-MEB-320.	Not determined	Verification required Clarification needed; no statutory non-compliance established
Battery passport data for BAT-MEB-320 is MISSING	Clarification evidence pending	Open review item – no asserted statutory deliverable
Carbon-footprint evidence for BAT-MEB-320 is UNKNOWN	Clarification evidence pending	Open review item – no asserted statutory deliverable
Recycled-content evidence for BAT-MEB-320 is UNKNOWN	Clarification evidence pending	Open review item – no asserted statutory deliverable
Performance/durability/safety evidence for BAT-MEB-320 is PARTIAL	Clarification evidence pending	Open review item – no asserted statutory deliverable

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Required / TARGET	Reported / ACTUAL	Status
Battery due-diligence readiness for BAT-MEB-320 is UNKNOWN	Clarification evidence pending	Open review item – no asserted statutory deliverable
Registration/EPR evidence status unresolved	Clarification evidence pending	Open review item – no asserted statutory deliverable

Assessed product and lifecycle objects

Feature	Value
Target markets	DE
Manufacturer location (fact, not legal role)	EU
Market event	2028-05-15
Configuration	MEB-320
Legal-source verification date	2026-10-29
Assessment date	2026-10-30

Regulatory routes and reasons

Route	State	Reason	Legal-source verification date
Regulation (EU) 2024/1781 (ESPR)	Unresolved	The dynamic ESPR product-measure state is not currently verified.	Source review pending
Regulation (EU) 2023/1542 on batteries and waste batteries	Regulatory route activated	Battery route active for 1 battery object(s).	Source status at stated verification date
Regulation (EU) 2025/40 (PPWR)	Regulatory route activated	PPWR route active for 1 packaging object(s).	Source review pending
Directive 2012/19/EU (WEEE)	Regulatory route activated	WEEE EU route active for 1 EEE object(s).	Source status at stated verification date
Regulation (EU) 2024/1157 on shipments of waste	Not triggered for this case	No actual/planned waste shipment or used-good/waste-borderline shipment is in scope.	Bound to documented source state

DPP and battery passport matrix

Route	State	Object	Timing / applicability	Granularity	Actor	Legal-source verification date
ESPR DPP	Verification required – binding product	MiraVolt industrial energy buffer	Pending current resolver	Unresolved	To be clarified	Source review pending

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Route	State	Object	Timing / applicability	Granularity	Actor	Legal-source verification date
	measure unresolved					
Battery Passport	Active for assessed event	BAT-MEB-320	2027-02-18	INDUSTRIAL_BATTERY_OBJECT	Responsible economic operator under Article 77	Source review pending

Passport data and legal basis

Route	Basis / legal source	Carrier	Data / review points	Source references
ESPR DPP	Regulation (EU) 2024/1781 (ESPR)	Unresolved	—	CELEX 02024R1781-20240628 – Arts. 9–12; applicable delegated act
Battery Passport	Regulation (EU) 2023/1542 on batteries and waste batteries	QR	battery model/identity, manufacturing and sustainability data, performance/state data, supply-chain data	CELEX 02023R1542-20260813 – Art. 77(1), CELEX 02023R1542-20260813 – Art. 77(4)-(8), CELEX 02023R1542-20260813 – Art. 77(2), (9); Annex XIII, CELEX 02023R1542-20260813 – Art. 77(10); Art. 78

Data and evidence readiness

Data / review points	Route	State	Verification	Reason
Battery passport dataset – BAT-MEB-320	Battery Regulation	MISSING	Checked within synthetic case (no external assurance)	Passport data must be complete and current for the applicable passport object.
Battery QR/labelling – BAT-MEB-320	Battery Regulation	Unresolved	Checked within synthetic case (no external assurance)	QR/labelling route is time-sensitive.
Carbon-footprint evidence – BAT-MEB-320	Battery Regulation	Unresolved	Source review pending	Applicability/timing is category- and authority-state dependent.
Recycled-content evidence – BAT-MEB-320	Battery Regulation	Unresolved	Source review pending	Applicability/timing is category- and authority-state dependent.

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Data / review points	Route	State	Verification	Reason
Performance/durability/safety evidence – BAT-MEB-320	Battery Regulation	Assessment with open items	Source review pending	Applicability/timing is category- and authority-state dependent.
Battery due-diligence readiness – BAT-MEB-320	Battery Regulation	Unresolved	Source review pending	Applicability/timing is category- and authority-state dependent.
WEEE producer registration – EEE-MEB-320	WEEE	Unresolved	Checked within synthetic case (no external assurance)	Producer registration is a national execution requirement.
EAR registration – EEE-MEB-320	WEEE	Unresolved	Checked within synthetic case (no external assurance)	German ElektroG registration is device-type/brand specific.
ESPR dynamic authority snapshot not current	ESPR	Unresolved	Source review pending	Review facts/source evidence needed; this is not a separately established statutory document duty.
Battery secondary-act/catalogue snapshot not current	Battery Regulation	Unresolved	Source review pending	Review facts/source evidence needed; this is not a separately established statutory document duty.
Battery EPR execution unresolved for DE	Battery Regulation	Unresolved	Source review pending	Review facts/source evidence needed; this is not a separately established statutory document duty.
LUCID registration status unknown for PKG-MEB-320	PPWR	Unresolved	Source review pending	Review facts/source evidence needed; this is not a separately established statutory document duty.
PPWR national execution unresolved for DE	PPWR	Unresolved	Source review pending	Review facts/source evidence needed; this is not a separately established statutory document duty.
WEEE national execution unresolved for DE	WEEE	Unresolved	Source review pending	Review facts/source evidence needed; this is not a separately established statutory document duty.

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Data / review points	Route	State	Verification	Reason
For battery BAT-MEB-320 in market DE, determine the responsible producer/EPR role and registration evidence.	Battery Regulation	Availability not established	Document availability reported; not independently verified	Dated battery/market-specific role determination and registration status or documented non-applicability for BAT-MEB-320 / DE.
Verify supplier identity/data and match them to battery passport BAT-MEB-320.	Battery Regulation	Not determined	Fact or evidence review pending	Completeness check for an already established battery passport dataset; no independent supplier legal obligation inferred.
Registration/EPR evidence status unresolved	Battery Regulation	Unknown / review evidence pending	Not verified	Registration/EPR obligation not decided solely from unknown evidence.

National EPR / registration overview

Route	Target market	State	Reason
Battery Regulation	DE	National rule context required	EU battery EPR core is supported; national registration/execution requires a validated Member-State resolver/overlay.
PPWR	DE	Source review pending	Member-State EPR/registration/DRS execution is not resolved by a validated overlay in this build.
WEEE	DE	Source review pending	WEEE EU route is active but national producer registration/EPR execution requires a validated Member-State overlay/resolver.

Lifecycle obligations and effective dates

Route	Data / review points	State	Timing / applicability	Basis / legal source
Battery Regulation	Battery labelling / QR information	Regulatory route activated	from 2027-02-18	CELEX 02023R1542-20260813 – Art. 13(6)-(9)

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Route	Data / review points	State	Timing / applicability	Basis / legal source
Battery Regulation	Producer registration / EPR route by target Member State	Conditional – verify triggers	Per first making-available in each Member State	CELEX 02023R1542-20260813 – Art. 3(47); Art. 56 / CELEX 02023R1542-20260813 – Arts. 54-55
PPWR	Producer registration and EPR execution by target Member State	Conditional – verify triggers	Member-State specific	CELEX 32025R0040 – Art. 44 / CELEX 32025R0040 – Arts. 45-47 / CELEX 32025R0040 – Arts. 12, 29, 34, 40, 44-51, 68
WEEE	National producer registration	Regulatory route activated	Before placing EEE on the relevant Member-State market	2012/19/EU – Art. 16; Implementing Regulation 2019/290

Open facts, gaps and critical issues

Route	Data / review points	State	Reason
ESPR	ESPR dynamic authority snapshot not current	Critical	Product measures, application dates and DPP profiles are dynamic and may not be derived from a stale snapshot.
Battery Regulation	Battery secondary-act/catalogue snapshot not current	High	Affected timing/parameter conclusions require external verification.
Battery Regulation	Battery passport data for BAT-MEB-320 is MISSING	High	The passport route cannot be operationally ready without the required dataset.
Battery Regulation	Carbon-footprint evidence for BAT-MEB-320 is UNKNOWN	MEDIUM	Missing/partial evidence can block the affected battery duty.
Battery Regulation	Recycled-content evidence for BAT-MEB-320 is UNKNOWN	MEDIUM	Missing/partial evidence can block the affected battery duty.
Battery Regulation	Performance/durability/safety evidence for BAT-MEB-320 is PARTIAL	MEDIUM	Missing/partial evidence can block the affected battery duty.
Battery Regulation	Battery due-diligence readiness for BAT-MEB-320 is UNKNOWN	MEDIUM	Missing/partial evidence can block the affected battery duty.

Route	Data / review points	State	Reason
Battery Regulation	Battery EPR execution unresolved for DE	High	National producer registration/EPR execution is jurisdiction-specific.
PPWR	LUCID registration status unknown for PKG-MEB-320	High	German EPR readiness cannot be closed.
PPWR	PPWR national execution unresolved for DE	High	Missing national overlay must not be interpreted as no EPR/registration/DRS duty.
WEEE	WEEE national execution unresolved for DE	Critical	EU WEEE applicability does not establish market readiness in a Member State.
Battery Regulation	Registration/EPR evidence status unresolved	—	Registration/EPR obligation not decided solely from unknown evidence.

Actions and closure evidence – detail

Route	Data / review points	Closure evidence	Timing / applicability
ESPR	Provide product group, model/revision and market date; arrange a dated source-based review of the applicable ESPR measures.	Product/configuration facts and a dated source-based product-measure determination	Before closing ESPR route
Battery Regulation	Complete battery passport dataset for BAT-MEB-320.	Article 77 / Annex XIII data, identifiers, access/update responsibilities	2027-02-18
WEEE	Determine and document the German WEEE producer role and registration/EPR/take-back requirements for this placing on the market.	Dated case-specific WEEE register, EPR, authorized-representative and guarantee evidence as applicable	Before placing EEE on that market
Battery Regulation	Close QR/labelling readiness for BAT-MEB-320.	Article 13 label/QR evidence	Before placing on market
PPWR	Clarify the German PPWR packaging role and applicable registration/EPR/deposit requirements for this case.	Dated Member State authority and register/compliance-scheme/deposit review evidence	Before market placement in that Member State
Battery Regulation	For battery BAT-MEB-320 in market DE, determine the responsible producer/EPR role and registration evidence.	Dated battery/market-specific role determination and registration status or documented non-applicability for BAT-MEB-320 / DE.	Before the relevant market event

Route	Data / review points	Closure evidence	Timing / applicability
Battery Regulation	Verify supplier identity/data and match them to battery passport BAT-MEB-320.	Battery ID ↔ supplier identity match and supplied passport dataset.	2027-02-18

Specialist resolution paths

- Material/substance evidence may require deeper chemicals and materials assessment without changing the conclusions of this assessment. – Chemicals & Materials (only where substance/material legal depth is needed)

Triggers for reassessment

- Legal-source changes: Reopen affected routes when a product measure, delegated/implementing act, national overlay, register rule, standard/method, country/waste list or passport profile changes.

Legal sources used

Source	Reference	Source date
Legal reference from native result	CELEX 02024R1781-20240628 – Arts. 4, 8, 18–20, 72; current delegated-act state	2026-10-29
Legal reference from native result	CELEX 02023R1542-20260813 – Art. 1(3); Art. 3(1)-(4)	2026-10-29
Legal reference from native result	CELEX 02023R1542-20260813 – Art. 3(9)-(14)	2026-10-29
Legal reference from native result	CELEX 32025R0040 – Art. 2; Art. 3(1)(1); Annex I	2026-10-29
Legal reference from native result	2012/19/EU – Art. 3(1)(a)	2026-10-29
Legal reference from native result	2012/19/EU – Art. 3(1)(f)(i)-(iv)	2026-10-29
Legal reference from native result	CELEX 02024R1157-20260730 – Arts. 2-3 and Art. 29	2026-10-29
Legal reference from native result	CELEX 02024R1781-20240628 – Arts. 9–12; applicable delegated act	2026-10-29
Legal reference from native result	CELEX 02023R1542-20260813 – Art. 77(1)	2026-10-29
Legal reference from native result	CELEX 02023R1542-20260813 – Art. 77(4)-(8)	2026-10-29
Legal reference from native result	CELEX 02023R1542-20260813 – Art. 77(2),(9); Annex XIII	2026-10-29
Legal reference from native result	CELEX 02023R1542-20260813 – Art. 77(10); Art. 78	2026-10-29
Legal reference from native result	CELEX 02023R1542-20260813 – Art. 13(6)-(9)	2026-10-29

Source	Reference	Source date
Legal reference from native result	CELEX 02023R1542-20260813 – Art. 3(47); Art. 56	2026-10-29
Legal reference from native result	CELEX 02023R1542-20260813 – Arts. 54-55	2026-10-29
Legal reference from native result	CELEX 32025R0040 – Art. 44	2026-10-29
Legal reference from native result	CELEX 32025R0040 – Arts. 45-47	2026-10-29
Legal reference from native result	CELEX 32025R0040 – Arts. 12, 29, 34, 40, 44-51, 68	2026-10-29
Legal reference from native result	2012/19/EU – Art. 16; Implementing Regulation 2019/290	2026-10-29

Source date: 2026-10-29

Limitations and source boundaries

Synthetic QA case; not an official report, certification or market authorization.

Reported documents are not confirmed as fulfilment evidence without an assessment of the specific requirement.

Source and evidence boundaries are case-specific; reported data is not a compliance certificate.

The result applies only to the documented configuration, supplied roles and assessed target markets.

This assessment is bounded by the supplied case facts and the separately stated market and legal-source dates.

Synthetic sample - no official report reference