

IAF / TECHNICAL ASSURANCE WORKBOOK

Automotive Resource and Efficiency Standard

Assessment checklist

SOURCE-REFERENCED / INTERACTIVE PDF

Working Draft 0.1

Technical review and pilot use; source adoption remains pending.

ORGANIZATION / CLIENT

ASSESSMENT REFERENCE

ASSESSMENT DATE / PERIOD

LEAD ASSESSOR / TEAM

SITE / LOCATION

ASSESSED OBJECT / SYSTEM / CONFIGURATION

ASSESSMENT PURPOSE AND CLAIMED SCOPE

371

check records

37

mapped sections

41

source pages

Scope, applicability & evidence rules

ASSESSMENT MODULES AND RESOURCE STREAMS

FUNCTIONAL OUTPUT, UNITS AND SYSTEM BOUNDARY

BASELINE PERIOD, CONFIGURATION AND DENOMINATOR

EVALUATION PERIOD AND NORMALIZATION VARIABLES

ALLOCATION, MEASUREMENT AND UNCERTAINTY RULES

SAFEGUARDS, CLAIM BOUNDARY AND BENCHMARK PROFILE

APPLICABILITY REGISTER / EXCLUSIONS / APPROVING REVIEWER

STANDARD-SPECIFIC ASSESSMENT RULE

Freeze the boundary, functional output, baseline, allocation rules and uncertainty decision before comparison. Efficiency improvements cannot offset failed safety, quality or service safeguards.

HOW TO COMPLETE EACH CHECK

Pass	All applicable source conditions are met by identified evidence.
Fail	An applicable requirement or required protective gate is not met.
Not demonstrated	Evidence is absent, incomplete, invalid or inconclusive; this is not a pass.
Not applicable	The trigger is absent and the rationale and reviewer are recorded.

Source schedules, methods and record templates are assessed for correct application. For adverse conditions, verify prevention or effective closure. Do not treat illustrative values as mandatory limits. No result is preselected and no overall result is calculated.

Requirement map

Checklist identifiers are workbook record numbers. Source clause numbers, native requirement IDs and PDF page references are preserved separately. Several records may address one source clause.

SOURCE SECTION	CHECKS	PDF PAGE
1 Purpose and scope	5	6
2 Document status and application rules	5	7
3 Terms and measurement language	3	8
4 Assessment boundaries and functional output	7	9
5 Governance and responsibility	6	11
6 Resource mapping and opportunity planning	6	12
7 Data architecture and measurement quality	8	14
8 Baselines and normalization	7	16
9 Indicators and performance reporting	6	17
10 Verification of improvement and uncertainty	8	19
11 Safety quality and service safeguards	7	21
12 Product and process design	6	23
13 Vehicle energy performance	8	24
14 Components materials and subsystems	6	26
15 Manufacturing and assembly operations	7	28
16 Facilities utilities and water	7	29
17 Supply chain and distribution	7	31
18 Fleet and mobility services	8	33
19 Charging refuelling and energy storage	9	35
20 Digital systems and artificial intelligence	8	37
21 Maintenance repair and circular service	7	39
22 Lifecycle effects and environmental interfaces	7	41
23 Resilience and future technologies	7	43
24 Economic and operational value	6	44
25 Improvement control and persistence	6	46
26 Assessment process and evidence	8	47
27 Decisions findings and comparative claims	6	49
28 Performance passport and public statements	7	51
29 Continuing validity and corrective action	6	53
30 Impartiality and scheme stewardship	7	54

Requirement map - continued

Checklist identifiers are workbook record numbers. Source clause numbers, native requirement IDs and PDF page references are preserved separately. Several records may address one source clause.

SOURCE SECTION	CHECKS	PDF PAGE
Annex A Applicability and scope register	24	57
Annex B Indicator dictionary and calculation rules	49	63
Annex C Evidence coverage and sampling	12	76
Annex D Test and evaluation protocols	33	79
Annex E Application profiles and benchmarks	17	88
Annex F Assessment records and decision gates	17	93
Annex G Performance passport data fields	18	98

Source control & use of the workbook

CONTROLLED SOURCE

IAF_ARES_First_Edition_Corporate(2).pdf

Working Draft 0.1

Source length: 41 pages. Checklist revision: 1.0, dated 15 September 2026.

SOURCE SHA-256

39507d013cd86b0a371057f8a9e0506e7b91165a0bdc263f87f3d0d2b8758039

INTERPRETATION AND COVERAGE

This workbook reproduces source requirement text and source schedule entries as assessment criteria. Long clauses and schedules may have several separately numbered check records. A clause is not complete until every applicable record and required source condition has been dispositioned.

Read each record with its complete source clause, definitions, referenced methods, numerical rules and applicability conditions. The source document controls if an extraction, layout or interpretation issue is found. Record the discrepancy and resolve it before a positive conclusion.

Normative annexes in the source are included where applicable. Informative annexes are reading aids and do not independently create conformity obligations. Context-only main clauses and definitions without assessment duties are read with the requirements.

Assign responsibility for each applicable record in the controlled applicability register. Duties addressed to IAF or an assessment body must be reviewed against that role. They are not automatically duties of a manufacturer, operator or other applicant.

Record document/test IDs, revision, sample/configuration, measured result and limit where relevant. Explain every Fail, Not demonstrated and Not applicable result. Add a finding ID for any required action.

Text areas are sized for concise entries and limit input to reduce hidden content. Use the continuation sheet or an identified external evidence record for longer notes. Save a local copy, reopen it and check entered values before issuing the completed workbook.

Every Fail or unresolved critical gate requires the relevant scope to remain blocked. An observation is not a substitute for a failed requirement. A positive pilot conclusion is not certification, a product authorization or permission to use an IAF mark.

INFORMATIVE READING SUPPORT

Annex H, Annex I, Annex J

Requirements & evidence

1 | Purpose and scope

CHECK 0001 | 1.2

Source p. 4

Purpose and scope

It applies to organizations of any size and to combustion, hybrid, battery electric, fuel cell and other propulsion architectures. Passenger cars, two and three wheelers, commercial vehicles, buses, trailers, special purpose road vehicles and their supporting services are within scope. Off road equipment may use an expressly defined application profile; an assessment shall not imply road vehicle comparability.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0002 | 1.3

Source p. 4

Purpose and scope

An assessment shall identify its object as a product, component, site, operational service, fleet, infrastructure installation or defined portfolio. Product development, sourcing, conversion, distribution, use, maintenance, repair, reuse, remanufacturing and recovery shall be considered when their resource effects are material to the claim.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0003 | 1.4

Source p. 4

Purpose and scope

The intended outcomes are reliable resource accounts, representative performance indicators, protected service quality, defensible comparisons and verified improvement. Financial savings, lower emissions, higher utilization and technical innovation may support these outcomes, but shall not substitute for evidence of physical resource performance.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0004 | 1.5

Source p. 4

Purpose and scope

This document complements environmental and energy programmes through outcome measurement. Conformity does not by itself establish complete environmental sustainability, product safety approval, vehicle market authorization or compliance with every applicable legal requirement. An organization shall maintain those obligations separately and apply the safeguards in Clause 11.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0005 | 1.6

Source p. 4

Purpose and scope

The mandatory core consists of Clauses 1 to 12 and 24 to 30. Operational modules in Clauses 13 to 23 shall apply where the assessed object performs, controls or materially depends on the corresponding activity. Annex A governs selection. Selecting one module does not entitle an organization to claim that its entire business conforms.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

2 | Document status and application rules

CHECK 0006 | 2.2

Source p. 4

Document status and application rules

Within this draft, "shall" indicates a proposed requirement, "should" a recommendation, "may" a permission and "can" a possibility. Clauses and annexes marked normative form the proposed conformity criteria. Informative annexes explain implementation and do not create additional conformity requirements.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0007 | 2.3

Source p. 4

Document status and application rules

This document contains no external normative references. Its requirements are stated within the document. Applicable legislation shall be identified in the organization's own obligations register without being reproduced as an external reference in this standard.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0008 | 2.4

Source p. 4-5

Document status and application rules

Numerical limits in this working draft are proposed IAF procedural rules for pilot evaluation unless expressly identified as a mathematical identity or an illustrative example. They are not established world averages, statutory limits or claims of proven universal technical feasibility. Annex J records the required validation of these choices.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0009 | 2.5

Source p. 5

Document status and application rules

The draft supports scoped pilot assessment and preparation of evidence. An official conformity mark, public comparative class or claim of IAF approval shall not be issued from this working draft. Numerical performance results may be communicated as pilot results when their scope, status and limitations are visible.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0010 | 2.6

Source p. 5

Document status and application rules

Following adoption, each assessment shall use an identified edition, module set and approved application profile. Where a needed comparative profile is absent, measured results and specifically verified improvements may be reported; a universal ranking or equivalence to another product class shall not be inferred.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

3 | Terms and measurement language

CHECK 0011 | 3

Source p. 5

Terms and measurement language

The terms below apply throughout the document. Each organization shall add application specific terms to its measurement plan where necessary without changing these meanings.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0012 | 3.1

Source p. 6

Terms and measurement language

Energy quantities shall be reported in kWh or MJ, with the identity 1 kWh = 3.6 MJ applied exactly. Electricity, liquid fuels, gaseous fuels and heat shall also retain their carrier specific quantities where useful. Fuel energy conversions shall state the heating value basis, composition, density and reference conditions used.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0013 | 3.2

Source p. 6

Terms and measurement language

Symbols and abbreviations shall be defined at first use in an assessment report. State of charge is abbreviated SoC; state of health is SoH; alternating current and direct current are AC and DC. A displayed SoC percentage shall not be treated as a calibrated measurement of stored energy.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

4 | Assessment boundaries and functional output

CHECK 0014 | 4.1

Source p. 6

Assessment boundaries and functional output

Before data collection, the organization shall approve a boundary description identifying physical interfaces, sites, outsourced processes, assets, data systems, geographic coverage, time period and the claim to be supported. The description shall distinguish controlled operations, purchased services, upstream inputs and downstream consequences.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0015 | 4.2

Source p. 6

Assessment boundaries and functional output

Each claim shall use a functional unit and service envelope suited to the decision. At minimum, report vehicle energy per distance, passenger transport energy per passenger distance, freight energy per freight mass distance, and manufacturing energy per accepted product specification where those activities apply. Installed capacity and nominal seats shall not replace actual output.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0016 | 4.3

Source p. 6-7

Assessment boundaries and functional output

Product comparisons shall disclose capacity, vehicle class, payload, mass, aerodynamics, intended use, climate, operational speed and relevant configuration. A per tonne vehicle mass indicator may be diagnostic but shall not be the sole consumer efficiency indicator because increasing vehicle mass can improve that ratio without reducing consumption.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0017 | 4.4

Source p. 7

Assessment boundaries and functional output

Shared activities shall first be subdivided using physical measurements. Where subdivision is impracticable, allocation shall follow a justified causal driver such as machine hours, processed mass, thermal demand or occupied space. Revenue allocation is permitted only as a separately disclosed fallback, with sensitivity analysis and no unsupported physical efficiency inference.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0018 | 4.5

Source p. 7

Assessment boundaries and functional output

Individually excluded noncritical flows shall each be less than 1% of the relevant resource total, and all such exclusions together shall be no more than 5%. These draft cutoffs apply separately to energy, material mass and water. Safety critical, hazardous, scarce resource and conclusion changing flows shall not be excluded regardless of size.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0019 | 4.6

Source p. 7

Assessment boundaries and functional output

An excluded flow shall still have a conservative estimate, rationale, owner and sensitivity check. Outsourcing, replacing suppliers or transferring a process shall not create a saving by removing its consumption from the account. Original and revised boundaries shall be reconciled.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0020 | 4.7

Source p. 7

Assessment boundaries and functional output

Resource flows at different lifecycle stages shall be reported separately before aggregation. Product and site accounts may share the same underlying data but shall identify the overlap; their totals shall not be added as though they were independent consumption.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

5 | Governance and responsibility

CHECK 0021 | 5.1

Source p. 7

Governance and responsibility

Top management shall approve the assessed scope, resource efficiency policy, decision rights, targets and required resources. It shall assign an accountable efficiency owner with authority to obtain data and to challenge claims unsupported by evidence.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0022 | 5.2

Source p. 7

Governance and responsibility

Responsibilities shall cover resource accounting, metrology, production or operational control, product engineering, procurement, information security, environmental safeguards, financial analysis and claims approval. A smaller organization may combine roles, but the final assessment review shall be independent of the work being judged.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0023 | 5.3

Source p. 7

Governance and responsibility

Incentives shall not reward lower recorded consumption through unreported shutdowns, deficient product quality, unsafe workloads, data suppression or reduced service. Staff shall be able to report suspected manipulation or unintended effects through a protected review process.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0024 | 5.4

Source p. 7

Governance and responsibility

The organization shall maintain a risk and opportunity register covering supply scarcity, grid constraints, extreme weather, product changes, data failure, technology obsolescence and resource dependency. Actions shall be prioritized using expected physical benefit, feasibility, uncertainty, service consequences and whole life effects.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0025 | 5.5

Source p. 7

Governance and responsibility

Personnel performing tests, calculations and reviews shall demonstrate competence through relevant training, supervised work, practical evaluation or documented experience. Authorization shall identify the methods and equipment for which each person is competent.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0026 | 5.6

Source p. 7

Governance and responsibility

Management shall review the programme at least annually and after a material change or serious integrity event. The review shall address absolute consumption, normalized performance, target progress, adverse effects, corrective actions, data quality and continuing validity of public statements.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

6 | Resource mapping and opportunity planning

CHECK 0027 | 6.1

Source p. 8

Resource mapping and opportunity planning

A resource inventory shall identify electricity, fuels, process heat, water, virgin and recovered materials, consumables, critical components, waste streams and externally provided digital services. Quantities, measurement points, estimates, data owners and relevant output drivers shall be recorded.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0028 | 6.2

Source p. 8

Resource mapping and opportunity planning

Resource balances shall cover normal production or service, startup, shutdown, idle periods, failed operations, test activities, maintenance and recovery. An energy flow shall be counted once at the declared boundary; internal conversion shall not create a second input.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0029 | 6.3

Source p. 8

Resource mapping and opportunity planning

Significant uses shall be identified by quantity, improvement potential, variability, supply risk and effect on claims. The organization shall examine losses attributable to friction, thermal rejection, leakage, standby, rework, low loading, empty movement, degradation, incompatible interfaces and unnecessary computation where relevant.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0030 | 6.4

Source p. 8

Resource mapping and opportunity planning

An opportunity register shall state the current condition, proposed change, affected resource, expected outcome, implementation cost, accountable owner, interaction risks, measurement method and review date. Expected savings shall be distinguished from measured savings.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0031 | 6.5

Source p. 8

Resource mapping and opportunity planning

Targets shall include at least one physical outcome for every selected operational module and all material resource categories within it. Targets shall have a defined baseline, functional output, service safeguards, time period and measurement uncertainty. A universal annual reduction percentage is not imposed by this draft.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0032 | 6.6

Source p. 8

Resource mapping and opportunity planning

A resource reduction target shall be accompanied by an absolute consumption budget or explanation of demand growth. Where lower intensity coincides with higher total use, both outcomes shall be disclosed. Efficiency projects shall not be described as absolute resource reduction projects unless the totals support that description.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

7 | Data architecture and measurement quality

CHECK 0033 | 7.1

Source p. 8

Data architecture and measurement quality

The measurement plan shall identify each quantity, unit, boundary point, instrument, sampling interval, calibration basis, uncertainty, time reference, retention period and responsible person. It shall describe how raw records become reported indicators, including every conversion and allocation.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0034 | 7.2

Source p. 8

Data architecture and measurement quality

For a verified quantitative claim, at least 95% of its relevant resource total shall be supported by direct measurement or validated calculations using measured inputs. Material output denominators shall be independently reconciled. Proxy estimates shall be identified, conservatively bounded and included in the remaining share; exclusion limits in Clause 4 apply independently.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0035 | 7.3

Source p. 8

Data architecture and measurement quality

Instruments shall be suitable for their operating range, environment, waveform or fluid properties and direction of flow. Calibration and intermediate checks shall establish traceability through documented measurement comparisons. A supplier specification alone shall not establish the uncertainty of an installed measurement system.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0036 | 7.4

Source p. 8

Data architecture and measurement quality

As pilot targets, integrated test energy shall have expanded uncertainty no greater than 2% and distance, payload or accepted production output no greater than 1%. A larger uncertainty shall be declared and assessed under Clause 10; it shall not be concealed by reporting additional decimal places.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0037 | 7.5

Source p. 8-9

Data architecture and measurement quality

Dynamic vehicle measurements shall normally record energy related signals at least once per second, with faster acquisition where required to capture switching, transient charging or regeneration. The plan shall justify sample rates, anti aliasing, integration and clock alignment. An interval counter may replace high rate logging where its integrated accuracy is demonstrated.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0038 | 7.6

Source p. 9

Data architecture and measurement quality

Facilities shall retain resource totals at least daily for significant uses where technically feasible. Billing records may support reconciliation but shall not by themselves establish process attribution. Charging and digital services shall record transaction or task level totals with sufficient detail to separate active, waiting and failed states.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0039 | 7.7

Source p. 9

Data architecture and measurement quality

Missing, duplicated, out of range and substituted records shall be flagged. Imputation shall follow a predeclared method; the fraction and effect of imputed data shall be reported. Unexplained gaps affecting critical events or a conclusion shall require additional evidence or an inconclusive decision.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0040 | 7.8

Source p. 9

Data architecture and measurement quality

Raw data, calculations, software versions, approvals and evidence supporting a public claim shall be retained for the life of that claim and at least five years after its last use, subject to longer applicable obligations. Identifiable personal data shall be minimized and retained only for a justified lawful purpose; aggregation shall preserve auditability without unnecessary tracking.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

8 | Baselines and normalization

CHECK 0041 | 8.1

Source p. 9

Baselines and normalization

A baseline shall be established before evaluating a claimed intervention. It shall represent the actual reference system and relevant seasonal and operational variation. Selecting only unusually inefficient reference days or unusually favourable reporting days is prohibited.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0042 | 8.2

Source p. 9

Baselines and normalization

An annual organization or service claim shall normally use twelve consecutive months for both reference and reporting periods. A shorter pilot shall cover at least ninety consecutive days and be labelled with that period; annual extrapolation shall remain a modelled estimate until seasonality and operating conditions have been validated.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0043 | 8.3

Source p. 9

Baselines and normalization

Product and component tests shall instead use the controlled repeated procedures in Annex D. A new product without historical data may report a measured baseline or a comparison with a valid reference product, but shall not claim historical improvement from an invented previous condition.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0044 | 8.4

Source p. 9

Baselines and normalization

Relevant variables shall include output volume and mix, payload, distance, climate, operating time, congestion, equipment condition and service specification as applicable. Adjustments shall be based on physical reasoning or a validated statistical relationship. Variables changed by the efficiency intervention itself shall not be adjusted away as if they were unrelated causes.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0045 | 8.5

Source p. 9

Baselines and normalization

Model selection, parameters, exclusions and validation data shall be recorded. Performance shall be checked on data not used to fit the model where sample size permits; residuals, systematic bias, autocorrelation and extrapolation shall be evaluated. A high goodness of fit alone is insufficient evidence of causal savings.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0046 | 8.6

Source p. 9

Baselines and normalization

A structural change shall trigger a documented decision to retain the baseline with a nonroutine adjustment or establish a new one. Both versions, the reason and the effect shall be preserved. A new baseline shall not erase prior underperformance or remove a disclosed obligation.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0047 | 8.7

Source p. 9

Baselines and normalization

Reports shall show unadjusted totals, functional output, raw intensity, adjusted baseline, reporting period use and the adjustment contribution. Normalized values from incompatible models shall not be placed in one ranking without a validated harmonization method.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

9 | Indicators and performance reporting

CHECK 0048 | 9.1

Source p. 10

Indicators and performance reporting

The organization shall maintain an indicator register using Annex B. Each indicator shall identify its purpose, numerator, denominator, unit, boundary, reporting frequency, method version, direction of improvement, data coverage and uncertainty. Indicators shall be linked to accountable decisions.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0049 | 9.2

Source p. 10

Indicators and performance reporting

The core dashboard shall show absolute energy by carrier, normalized energy intensity, relevant material and water use, useful output, quality or service performance, availability, and all material adverse effects. A nonapplicable resource shall be justified; an unmeasured resource shall be marked "not measured", not zero.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0050 | 9.3

Source p. 10

Indicators and performance reporting

Aggregate intensity shall be calculated from summed inputs divided by summed compatible outputs. Averaging individual intensity ratios without appropriate output weighting is prohibited. Where functional units differ, separate results shall be retained or combined only through a predeclared equivalent output method.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0051 | 9.4

Source p. 10

Indicators and performance reporting

Energy efficiency, energy cost, grid peak reduction and emission intensity shall remain separate indicators. Procuring a lower emission energy source or shifting charging time may change emissions or cost without lowering physical energy use. Those changes shall not automatically be recorded as energy efficiency improvement.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0052 | 9.5

Source p. 10

Indicators and performance reporting

Resource categories shall not be added in incompatible units. A dashboard may present energy, water, materials, time and cost together, but a single composite value requires an approved weighting method, transparent tradeoffs and sensitivity analysis. This draft does not authorize a universal composite score.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0053 | 9.6

Source p. 10

Indicators and performance reporting

Achieved results shall be shown against targets with explanations of variance. Negative results and regression in material indicators shall receive the same visibility as gains. A claim shall use sensible precision and disclose the applicable period and sample population.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

10 | Verification of improvement and uncertainty

CHECK 0054 | 10.1

Source p. 10

Verification of improvement and uncertainty

The verification plan shall be approved before implementation or comparative testing. It shall define the hypothesis, counterfactual, boundaries, service equivalence, measurement design, sampling, uncertainty calculation, decision rule and treatment of interactions.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0055 | 10.2

Source p. 10

Verification of improvement and uncertainty

Savings shall equal the adjusted baseline resource requirement minus measured reporting period use, subject to separately stated corrections for leakage, overlap and material rebound outside that measured boundary. Changes already included in reporting period use shall not be subtracted a second time.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0056 | 10.3

Source p. 10

Verification of improvement and uncertainty

A positive verified saving shall be declared only when the lower bound of the approximately 95% coverage interval for that saving is greater than zero and all relevant safeguards pass. If the interval includes zero, the conclusion shall be "improvement not demonstrated at the stated confidence", even where the point estimate is favourable.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0057 | 10.4

Source p. 10

Verification of improvement and uncertainty

A claim of "at least x% improvement" shall use the lower supported percentage bound rather than the point estimate. A measured point estimate may be reported with its interval and explicitly identified as such. Uncertainty in the adjusted baseline denominator and correlation with savings shall be included.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0058 | 10.5

Source p. 10

Verification of improvement and uncertainty

Uncertainty shall include metering, sample variability, output measurement, imputation, allocation, model fit, nonroutine adjustments and conversion factors where relevant. Correlations shall be evaluated rather than assuming every input is independent. Approximate normal coverage with factor 2 is permitted only when justified; small samples require an appropriate distribution or resampling method.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0059 | 10.6

Source p. 11

Verification of improvement and uncertainty

The primary comparison shall be specified before results are examined. Multiple tests, optional stopping, selective subgroup reporting and repeated model tuning shall be controlled so that favourable chance findings are not presented as confirmed improvement.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0060 | 10.7

Source p. 11

Verification of improvement and uncertainty

Savings from interacting projects shall be assessed together or assigned with a documented order and interaction adjustment. Project totals shall be reconciled to the larger resource account. The same physical saving shall not be sold or reported repeatedly as an additive benefit by multiple parties.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0061 | 10.8

Source p. 11

Verification of improvement and uncertainty

Persistence shall be checked over the claim period. Early test results shall not be extrapolated to vehicle life, an entire production year or an entire fleet without supporting durability, representativeness and uncertainty evidence.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

11 | Safety quality and service safeguards

CHECK 0062 | 11.1

Source p. 11

Safety quality and service safeguards

Efficiency actions shall preserve applicable safety functions, roadworthiness, braking, visibility, protective equipment, emissions control, cybersecurity, privacy and occupational health. No resource benefit shall compensate for an unresolved critical failure in these areas.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0063 | 11.2

Source p. 11

Safety quality and service safeguards

Before assessment, the organization shall define measurable service acceptance limits for capacity, product tolerances, defect rates, comfort, noise where relevant, delivery completion, accessibility, response time and operating availability. Limits shall reflect the promised service and applicable obligations; they shall not be weakened after results are known.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0064 | 11.3

Source p. 11

Safety quality and service safeguards

Vehicle tests shall preserve specified tyre condition and pressure, payload security, battery protection, driver assistance and thermal protection. Disabling a function solely to obtain a favourable test result shall invalidate the representative claim unless the disabled configuration is the actual declared product and remains lawful and safe.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0065 | 11.4

Source p. 11

Safety quality and service safeguards

Manufacturing improvements shall be checked for defects, rework, premature failure, hazardous exposure and ergonomic overload. Faster cycle time or lower staffing shall not by itself establish resource efficiency where quality or safe work conditions deteriorate.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0066 | 11.5

Source p. 11

Safety quality and service safeguards

Service optimization shall consider people with reduced mobility, essential rural access, emergency operations and required waiting times. Eliminating an essential low utilization service may be a policy or service change, but shall not be represented as like for like efficiency improvement.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0067 | 11.6

Source p. 11

Safety quality and service safeguards

Durability and maintenance requirements shall remain explicit. Where a change reduces current energy use while increasing replacement frequency, scarce material consumption or repair difficulty, the tradeoff shall be quantified and the claim qualified.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0068 | 11.7

Source p. 11

Safety quality and service safeguards

A critical safeguard breach shall immediately stop the affected claim and trigger containment, investigation and independent review. An average score, cost benefit calculation or favourable result in another module shall not override this gate.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

12 | Product and process design

CHECK 0069 | 12.1

Source p. 11

Product and process design

Design requirements shall establish functional output, expected duty, service life, resource budgets, repair strategy and foreseeable degradation. Alternatives shall be compared at equivalent service and under realistic use assumptions, including regional conditions.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0070 | 12.2

Source p. 12

Product and process design

The design review shall examine mass, aerodynamics, rolling and mechanical losses, conversion efficiency, thermal management, component sizing, standby demand, packaging, modularity, manufacturing yield and software demand where relevant. Adoption of a named technology shall not be treated as proof of efficiency.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0071 | 12.3

Source p. 12

Product and process design

Resource budgets shall be allocated to subsystems and reconciled with measured system performance. Interactions shall be assessed, including lightweight materials requiring greater production energy, fast charging requiring additional cooling, or software improvements increasing computational demand.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0072 | 12.4

Source p. 12

Product and process design

Design validation shall include representative operation, extreme but intended conditions, degraded components and user misuse that can reasonably affect resource use. Simulation may support design, but final public physical performance claims shall include measured validation within the claimed domain.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0073 | 12.5

Source p. 12

Product and process design

Product variants shall be grouped only where efficiency relevant differences are bounded. The selection shall include an adverse configuration where it could change the claim. Changes in tyres, wheels, mass, battery, inverter, software, body or thermal system shall trigger review of family coverage.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0074 | 12.6

Source p. 12

Product and process design

End of support, parts availability, diagnostics and repair access shall be considered as resource efficiency factors. A short support life or an avoidable whole assembly replacement shall be recorded when it changes expected lifetime resource demand.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

13 | Vehicle energy performance

CHECK 0075 | 13.1

Source p. 12

Vehicle energy performance

This module applies to complete vehicles and propulsion systems. Tests shall identify vehicle configuration, accumulated distance, maintenance condition, software, tyres, accessories, payload, fuels, electrical states, ambient conditions and operating mode.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0076 | 13.2

Source p. 12

Vehicle energy performance

Delivered energy shall include the energy needed to restore the vehicle to an equivalent initial energy state. For electric vehicles, charging losses and conditioning energy shall be included in the declared supply boundary metric. Battery terminal discharge shall also be reported where measured, with its narrower boundary clearly labelled.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0077 | 13.3

Source p. 12

Vehicle energy performance

Combustion and gaseous fuel systems shall measure consumed quantity and fuel properties. Hybrid tests shall achieve comparable initial and final stored energy or use a validated correction. Plug in hybrid results shall report fuel and grid electricity separately for charge depleting and charge sustaining operation; any combined usage weighting shall be explicit and supported by actual use or a declared scenario.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0078 | 13.4

Source p. 12

Vehicle energy performance

Assessments shall include urban, interurban and higher speed operation appropriate to the intended class, together with relevant load and climate cases. A single favourable journey shall not represent year round performance. The baseline test sequence and repeatability rules are given in Annex D.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0079 | 13.5

Source p. 12

Vehicle energy performance

Auxiliary energy shall include cabin conditioning, battery heating and cooling, pumps, lighting, powered work equipment, trailer loads and electronics as applicable. Cabin comfort and task output shall be recorded so lower auxiliary energy cannot conceal a degraded service.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0080 | 13.6

Source p. 12

Vehicle energy performance

Regenerative energy is an internal recovery flow and shall not be added to useful transport output or subtracted twice from supply energy. The assessment shall distinguish gross discharge, recovered energy and net battery energy when these are presented.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0081 | 13.7

Source p. 13

Vehicle energy performance

Range claims shall distinguish directly measured range from range estimated using usable battery energy and measured consumption. Estimated range shall state climate, loading, speed, SoH and auxiliary assumptions. Refuelling time, charging time and energy intensity shall remain separate results.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0082 | 13.8

Source p. 13

Vehicle energy performance

Vehicle improvement claims shall cover sensitivity to ageing, tyre wear, alignment, temperature and software changes. The absence of long term evidence shall be disclosed instead of assuming that initial performance persists unchanged.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

14 | Components materials and subsystems

CHECK 0083 | 14.1

Source p. 13

Components materials and subsystems

This module applies to components whose operation or production affects vehicle or industrial resource use. The component specification shall define required output, allowable losses, operating map, life, interfaces and the system boundary for any claimed benefit.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0084 | 14.2

Source p. 13

Components materials and subsystems

Motors, transmissions, inverters, pumps, compressors and thermal devices shall be evaluated over a representative distribution of operating points, including partial load and transients. Peak efficiency at one point shall not serve as a duty cycle efficiency claim.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0085 | 14.3

Source p. 13

Components materials and subsystems

Tyres, wheels, bearings, lubricants, seals and aerodynamic devices shall be assessed with relevant speed, load, temperature and ageing conditions. Any change in grip, braking, wear, noise or service life shall be included in the safeguard review.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0086 | 14.4

Source p. 13

Components materials and subsystems

A component loss reduction shall not automatically be expressed as an equal whole vehicle saving. Integration effects, control behaviour, additional mass, cooling demand and usage shall be measured or modelled and validated at system level.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0087 | 14.5

Source p. 13

Components materials and subsystems

Battery and storage assessments shall distinguish usable energy capacity, round trip efficiency, power capability, ageing and resource composition. Capacity retention shall not be used as a synonym for energy efficiency retention. Results shall identify charge and discharge windows, temperature and rate.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0088 | 14.6

Source p. 13

Components materials and subsystems

Material substitution shall quantify accepted product yield, process scrap, input mass, service life and recovery options. A reduction in purchased mass caused by thinner parts or lower specification shall qualify as efficiency improvement only if the required performance and life are preserved.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

15 | Manufacturing and assembly operations

CHECK 0089 | 15.1

Source p. 13

Manufacturing and assembly operations

This module covers forming, casting, machining, moulding, joining, coating, heat treatment, cell and battery production, electronics manufacture and final assembly as applicable. The site shall map resource use to accepted product families and supporting services.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0090 | 15.2

Source p. 13

Manufacturing and assembly operations

Resource intensity shall use accepted output of a specified quality and complexity. Scrap, rework loops and process trials shall remain in the numerator. Product mix shall be normalized using validated process drivers; nominal unit counts shall not conceal a shift to easier products.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0091 | 15.3

Source p. 13

Manufacturing and assembly operations

The organization shall distinguish productive operation, idle readiness, changeover, startup, shutdown, unplanned stops and maintenance. Significant base load shall be reported independently of production so higher utilization does not conceal unchanged losses.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0092 | 15.4

Source p. 13

Manufacturing and assembly operations

Significant equipment shall have operating windows, shutdown rules, inspection and maintenance controls addressing leaks, insulation, fouling, lubrication, alignment, motor loading, cooling and control tuning. Override conditions shall be logged with their reasons.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0093 | 15.5

Source p. 14

Manufacturing and assembly operations

Process improvements shall be assessed using first pass yield, total resource use, accepted throughput, scrap, rework, downtime and field quality as relevant. Equipment utilization and cycle time may support diagnosis, but shall not substitute for resource outcomes.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0094 | 15.6

Source p. 14

Manufacturing and assembly operations

Heat recovery, process integration, electrification and shared utilities shall identify the resource input displaced, new inputs introduced, thermal quality, seasonal demand and simultaneous operation. Recovered heat shall not be credited where no useful demand is served.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0095 | 15.7

Source p. 14

Manufacturing and assembly operations

Battery cell and electronics operations shall address dry rooms, controlled environments, formation, ageing, yield loss, solvent handling, cleaning, compressed gases and supporting computation where material. Energy per accepted storage capacity shall retain cell specification and usable capacity assumptions.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

16 | Facilities utilities and water

CHECK 0096 | 16.1

Source p. 14

Facilities utilities and water

This module applies to buildings and utility systems supporting the assessed activity. Electricity, combustion fuels, purchased heat or cooling, self generation, compressed air, water treatment and common infrastructure shall be included as relevant.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0097 | 16.2

Source p. 14

Facilities utilities and water

Supply and end use meters shall be reconciled. Onsite generation, grid import, export, storage charge and storage discharge shall be separately recorded. Renewable generation shall not be treated as a physical reduction in facility demand merely because grid purchases fall.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0098 | 16.3

Source p. 14

Facilities utilities and water

Compressed air, steam, heating, cooling, ventilation and extraction shall have defined service conditions. Efficiency changes shall preserve process pressure, air quality, temperature, humidity, ventilation and worker protection. Unnecessary pressure or conditioning shall be identified without weakening necessary controls.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0099 | 16.4

Source p. 14

Facilities utilities and water

Water accounts shall separately record withdrawal by source, consumed water, discharge, internally reused water and losses. Circulated water may be reported as a process flow, but repeated circulation of the same water shall not be counted repeatedly as new withdrawal or as newly created savings.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0100 | 16.5

Source p. 14

Facilities utilities and water

Water reduction projects shall assess water quality, treatment energy, chemicals, concentrate disposal and local scarcity. A lower water withdrawal result shall not imply lower consumption or reduced ecosystem impact without the corresponding evidence.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0101 | 16.6

Source p. 14

Facilities utilities and water

Peak demand, load flexibility and resilience shall be reported with resource consumption. Shifting load may be beneficial but is not automatically an energy saving. Backup generation tests, outages and recovery shall remain in the account for the stated reporting period.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0102 | 16.7

Source p. 14

Facilities utilities and water

Facility boundaries shall identify shared tenants, laboratories, offices, charging depots and contracted utilities. Changes in occupied area or weather shall be normalized only using validated relationships and shall not conceal a change in production responsibility.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

17 | Supply chain and distribution

CHECK 0103 | 17.1

Source p. 14

Supply chain and distribution

This module covers inbound materials, intersite movements, packaging, storage and product or spare parts distribution. The organization shall identify relevant suppliers, logistics stages, handling processes and outsourced resource consumption.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0104 | 17.2

Source p. 14

Supply chain and distribution

Supplier evidence shall state product specification, boundary, period, allocation, primary data share and uncertainty. Data from one site or product shall not be assigned to a different supply without documented representativeness. Unknown upstream values shall be shown as unknown or estimated rather than zero.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0105 | 17.3

Source p. 15

Supply chain and distribution

Freight metrics shall include vehicle distance, actual cargo mass, cargo volume where constraining, tonne kilometres, empty distance, failed deliveries, consolidation and damage. The return leg and repositioning shall be included when attributable to the service.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0106 | 17.4

Source p. 15

Supply chain and distribution

Packaging changes shall evaluate packaging mass and reuse, product protection, transport loading, cleaning and return logistics. Lower packaging mass is not an improvement if damaged products or additional shipments offset the saving.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0107 | 17.5

Source p. 15

Supply chain and distribution

Warehouse performance shall include energy, accepted dispatches, handling activity, storage duration, temperature control and order accuracy. Resource savings from moving stock or outsourced fulfilment shall account for the receiving operation.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0108 | 17.6

Source p. 15

Supply chain and distribution

Procurement decisions shall consider measured use phase demand, service life, repairability, maintenance, spare parts and data access. Contractual efficiency guarantees shall state the operational conditions, measurement method and responsibility for deviations.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0109 | 17.7

Source p. 15

Supply chain and distribution

Consolidation and route changes shall preserve delivery commitments, hazardous material controls, driver welfare and product integrity. Faster delivery, lower price or higher load factor shall not be represented as lower energy use without quantified evidence.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

18 | Fleet and mobility services

CHECK 0110 | 18.1

Source p. 15

Fleet and mobility services

This module applies to owned, leased and contracted fleets, public passenger services, freight operations, shared mobility and road based automated services. The assessed fleet shall have an asset list, duty categories, operating territory and defined service requirements.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0111 | 18.2

Source p. 15

Fleet and mobility services

Passenger kilometre totals shall use actual passengers and travelled distance. Drivers and crew shall not be counted as passenger service output. Freight tonne kilometres shall use actual carried cargo and distance. Zero payload and empty vehicle travel shall remain in resource totals while contributing no payload output.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0112 | 18.3

Source p. 15

Fleet and mobility services

Route planning shall evaluate traffic, terrain, weather, charging access, payload and delivery or passenger commitments. Energy optimization shall not rely on unsafe speed, shortened rest, unapproved loading or avoiding essential services.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0113 | 18.4

Source p. 15

Fleet and mobility services

Fleet indicators shall include energy per vehicle kilometre and per useful transport output, utilization, empty travel, idling, availability, punctuality or completed delivery, and maintenance condition. Aggregation shall follow Clause 9 and retain meaningful duty groups.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0114 | 18.5

Source p. 15

Fleet and mobility services

Driver guidance shall be based on safe operation and representative evidence. Comparisons between drivers shall account for route, traffic, load and vehicle condition; personal monitoring shall be necessary, proportionate and subject to appropriate access controls.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0115 | 18.6

Source p. 15

Fleet and mobility services

Electrification or propulsion replacement shall compare equivalent delivered services. Infrastructure losses, downtime, backup vehicles, charging detours and relevant upstream scenarios shall be disclosed. Local energy reduction shall not be represented as a complete lifecycle result.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0116 | 18.7

Source p. 15

Fleet and mobility services

Automated and shared services shall count empty repositioning, remote assistance, cleaning, charging trips, computing and induced activity where attributable. Higher occupancy or smoother driving may improve efficiency, but the total service account shall establish the net result.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0117 | 18.8

Source p. 16

Fleet and mobility services

Emergency and special purpose fleets shall use task appropriate functional units such as completed intervention or powered equipment operating hour alongside distance measures. Readiness and response obligations shall remain within the protected service envelope.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

19 | Charging refuelling and energy storage

CHECK 0118 | 19.1

Source p. 16

Charging refuelling and energy storage

This module applies to charging, refuelling, battery swapping and associated stationary storage. The boundary shall identify supply connection, transformer, conversion equipment, cables, dispensers, cooling, communications, onsite storage and vehicle interface as applicable.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0119 | 19.2

Source p. 16

Charging refuelling and energy storage

Charging assessment shall distinguish station conversion efficiency, vehicle charging efficiency and supply to usable discharge efficiency. These quantities use different boundaries and shall not share an unqualified "charging efficiency" label. Each energy measurement point and direction shall be identified.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0120 | 19.3

Source p. 16

Charging refuelling and energy storage

Tests shall cover relevant supply configurations, power levels, battery states and temperatures. Active transfer, plugged waiting, disconnected standby, failed starts, cooling after transfer and communication demand shall be recorded separately. Annual energy claims shall include the applicable state durations and utilization assumptions.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0121 | 19.4

Source p. 16

Charging refuelling and energy storage

A complete matched boundary charge and discharge round trip shall begin and end at equivalent stored energy and thermal conditions. Grid export shall be reported separately from vehicle propulsion demand. Exported energy shall not make driving energy negative or be deducted from a driving numerator without a defined allocation method.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0122 | 19.5

Source p. 16

Charging refuelling and energy storage

Fast charging reports shall state the complete power curve, transferred energy, start and end SoC, temperature, preconditioning energy, elapsed time and interruptions. Peak power alone shall not establish overall charging performance or energy efficiency.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0123 | 19.6

Source p. 16

Charging refuelling and energy storage

Wireless and dynamic charging shall include alignment, air gap, speed where relevant, transfer availability, road or station standby and distribution losses. The assessment shall report the validated operating envelope and avoid extrapolating laboratory alignment to all field operation.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0124 | 19.7

Source p. 16

Charging refuelling and energy storage

Hydrogen and other pressurized fuel services shall account for compression, cooling, storage losses, dispensing and relevant standby use. Fuel production may be assessed in an upstream scenario, but shall not be omitted from a claim described as covering the complete energy chain.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0125 | 19.8

Source p. 16

Charging refuelling and energy storage

Battery swapping shall account for inventory charging, conditioning, handling, station demand, waiting inventory and pack condition. Allocation shall reflect actual delivered usable energy and service, with pack identity and degradation traceable across swaps.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0126 | 19.9

Source p. 16

Charging refuelling and energy storage

Station availability and successful transaction rate shall accompany resource metrics. A station that consumes less energy by remaining unavailable shall not receive a service equivalent efficiency improvement claim.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

20 | Digital systems and artificial intelligence

CHECK 0127 | 20.1

Source p. 16

Digital systems and artificial intelligence

This module applies where vehicle electronics, embedded computation, cloud services, artificial intelligence, simulation or digital operations materially affect the assessed resource use. The organization shall map hardware, software versions, operating states, external dependencies and required task performance.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0128 | 20.2

Source p. 17

Digital systems and artificial intelligence

Energy budgets shall distinguish onboard computing, sensors, communications, storage, data transfer, remote processing and associated cooling. Training and development energy shall be reported separately from inference or operational task energy and allocated transparently when included in lifecycle claims.

RESULT FINDING / ACTION ID EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0129 | 20.3

Source p. 17

Digital systems and artificial intelligence

Digital efficiency shall use a useful task denominator with required accuracy, latency, availability and safety performance. Energy per computation, model parameter or transaction shall not imply service efficiency where the task, accuracy or workload has changed.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0130 | 20.4

Source p. 17

Digital systems and artificial intelligence

Resource optimization shall preserve security monitoring, cryptographic protection, diagnostic capability and safety functions. Reducing sensor coverage, model accuracy or redundancy requires validated service equivalence and the applicable safety review before an efficiency claim is accepted.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0131 | 20.5

Source p. 17

Digital systems and artificial intelligence

Software releases shall undergo regression testing for energy, standby, thermal demand and task performance. The organization shall identify changes in default settings, background activity, remote polling and update frequency. A material regression shall trigger review of the passport and affected claims.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0132 | 20.6

Source p. 17

Digital systems and artificial intelligence

Adaptive systems shall log model and policy versions, operational domain and relevant change events. Continuous learning shall have bounded deployment conditions, monitoring, rollback capability and a method to distinguish software drift from changes in workload or hardware condition.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0133 | 20.7

Source p. 17

Digital systems and artificial intelligence

Digital twins and optimization models shall be validated against independent physical measurements, with errors, extrapolation limits and recalibration triggers disclosed. A simulation shall be labelled as such and shall not be substituted for a measured outcome without explaining the validated linkage.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0134 | 20.8

Source p. 17

Digital systems and artificial intelligence

Shared computing and communications shall use a documented allocation method. Provider averages may support estimates but shall not be presented as task specific measurements. Claims of computational savings shall include any additional data preparation, transfer, storage or displaced processing that materially affects the result.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

21 | Maintenance repair and circular service

CHECK 0135 | 21.1

Source p. 17

Maintenance repair and circular service

This module applies to vehicle servicing, workshops, repair, refurbishment, remanufacturing and recovery operations. The assessment shall define the accepted service result, restored capability, expected remaining life and associated resource inputs.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0136 | 21.2

Source p. 17

Maintenance repair and circular service

Maintenance shall monitor factors that materially affect efficiency, including tyre pressure, alignment, brakes, bearings, lubrication, filters, thermal systems, battery condition and software. Deferred necessary maintenance shall not be used to reduce reported workshop resource use.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0137 | 21.3

Source p. 17

Maintenance repair and circular service

Repair and replacement alternatives shall compare equivalent restored service over a defined remaining life. Inputs shall include parts, diagnostics, transport, cleaning, test energy, repeated repairs and disposal where material. A lower repair cost alone shall not establish lower resource use.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0138 | 21.4

Source p. 17

Maintenance repair and circular service

Remanufacturing shall identify incoming core condition, recovery yield, replacement content, accepted output quality and durability evidence. Resource claims shall include rejected cores and test failures. Avoided new production shall be presented as a separate counterfactual scenario, not automatically subtracted from measured process use.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0139 | 21.5

Source p. 17

Maintenance repair and circular service

Recovery accounts shall distinguish collected material, sorted material, recovered output and material actually accepted for a useful subsequent application. Collection rate and theoretical recyclability shall not be described as realized recovery efficiency.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0140 | 21.6

Source p. 18

Maintenance repair and circular service

Second life storage or components shall have documented condition, usable capacity, safety suitability and expected duty. Allocation between first and subsequent life shall be explicit. The same avoided production benefit shall not be counted in full for every participating product.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0141 | 21.7

Source p. 18

Maintenance repair and circular service

The service provider shall track repeat visits, unresolved faults, service completion, parts wastage, downtime and customer access to necessary information. Digital diagnostics and predictive maintenance shall be evaluated for false alarms, missed faults and unnecessary replacement as well as potential savings.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

22 | Lifecycle effects and environmental interfaces

CHECK 0142 | 22.1

Source p. 18

Lifecycle effects and environmental interfaces

A lifecycle resource assessment shall identify raw material supply, manufacturing, distribution, use, maintenance, replacement and end of life. The assessed life, distance, service output, geography, technology and recovery scenarios shall be stated.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0143 | 22.2

Source p. 18

Lifecycle effects and environmental interfaces

Upstream energy and material estimates shall distinguish measured data, supplier data, models and default scenarios. Data age, regional relevance and completeness shall be evaluated. Operational delivered energy shall remain visible alongside upstream or lifecycle totals.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0144 | 22.3

Source p. 18

Lifecycle effects and environmental interfaces

Greenhouse gas results shall use declared emission factors, time periods, geographic assumptions and treatment of energy supply. Physical energy performance shall not be inferred from an emissions result alone. Purchased attributes, offsets and avoided emissions shall remain outside the physical efficiency numerator.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0145 | 22.4

Source p. 18

Lifecycle effects and environmental interfaces

Resource changes shall be screened for shifts in air pollution, hazardous substances, waste, water scarcity, land effects, noise and critical material demand where relevant. Quantitative claims shall be limited to impacts actually assessed; one favourable indicator shall not imply improvement in every environmental dimension.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0146 | 22.5

Source p. 18

Lifecycle effects and environmental interfaces

Service life and replacement assumptions shall be tested for sensitivity. A longer claimed life requires evidence from design, durability testing, field data or a defensible model. Future recovery routes shall be distinguished from existing demonstrated routes.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0147 | 22.6

Source p. 18

Lifecycle effects and environmental interfaces

Cross propulsion or technology comparisons shall disclose differences in delivered energy, upstream conversion, supply mix and service assumptions. A common energy unit permits arithmetic comparison but does not by itself establish equal lifecycle impact.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0148 | 22.7

Source p. 18

Lifecycle effects and environmental interfaces

Rebound and leakage shall be evaluated at the scale relevant to the claim. An improvement in energy per trip accompanied by more trips shall be reported with total energy. Unknown wider effects shall be described with scenarios rather than invented precise deductions.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

23 | Resilience and future technologies

CHECK 0149 | 23.1

Source p. 18

Resilience and future technologies

The organization shall maintain a technology and operating context review covering anticipated changes in propulsion, storage, fuels, manufacturing, digital control, mobility service and resource availability. Forecasts shall be presented as scenarios with assumptions, not guaranteed future outcomes.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0150 | 23.2

Source p. 18

Resilience and future technologies

Emerging batteries, fuel cells, synthetic fuels and new material systems shall use the same boundary, service and evidence principles as established technologies. No preferred chemistry or energy carrier is prescribed. Novelty alone shall not receive a performance credit.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0151 | 23.3

Source p. 19

Resilience and future technologies

Bidirectional energy services, coordinated fleets and flexible manufacturing shall demonstrate their net resource effect after conversion losses, degradation, communication, standby and the preserved primary service are included. Revenue from flexibility shall remain separate from energy savings.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0152 | 23.4

Source p. 19

Resilience and future technologies

Additive manufacturing, advanced recycling and autonomous production shall assess accepted yield, feedstock preparation, supporting facilities, post processing, quality assurance and service life. The disappearance of a conventional process step shall not be treated as a saving without accounting for the replacement process.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0153 | 23.5

Source p. 19

Resilience and future technologies

Extreme climate and disrupted supply scenarios shall identify minimum service, additional resource needs, backup arrangements and recovery performance. Resource resilience shall be described by measured or modelled capability; an efficiency result in normal conditions shall not imply resilience in all conditions.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0154 | 23.6

Source p. 19

Resilience and future technologies

Emerging technology pilot claims shall identify maturity, scale, test conditions, failure modes and the evidence required for scale up. Benefits projected for future hardware or an unavailable supply chain shall be excluded from a present measured performance statement.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0155 | 23.7

Source p. 19

Resilience and future technologies

Application profiles shall allow new technologies through documented extension and validation. Extensions shall preserve compatibility of units, boundaries and service requirements, and shall not retrospectively alter published results without a versioned correction.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

24 | Economic and operational value

CHECK 0156 | 24.1

Source p. 19

Economic and operational value

Economic evaluation shall support implementation decisions while retaining physical performance as the basis of efficiency claims. The organization shall state currency, price period, energy tariffs, utilization, asset life, discount assumptions where used and included cost categories.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0157 | 24.2

Source p. 19

Economic and operational value

Whole life cost shall consider purchase, installation, financing where applicable, resource use, maintenance, downtime, software support, replacement, recovery and residual value. Uncertain costs shall be evaluated with ranges appropriate to the decision.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0158 | 24.3

Source p. 19

Economic and operational value

Simple payback may be reported as an initial screening measure, but shall not be used as a complete account of lifetime value. Changing tariffs, grants or taxes shall not be described as physical resource savings.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0159 | 24.4

Source p. 19

Economic and operational value

Cost savings shall distinguish quantities avoided from unit price changes and timing effects. Monetized benefits from several projects shall be reconciled to avoid duplicate resource or downtime credits.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0160 | 24.5

Source p. 19

Economic and operational value

Output growth, lead time reduction and greater asset availability shall be disclosed as operational results with their own denominators and service limits. Workforce productivity shall not be represented as resource efficiency solely because fewer workers are employed.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0161 | 24.6

Source p. 19

Economic and operational value

Customer and user consequences shall include access, charging or refuelling time, downtime, necessary subscriptions and maintenance burden where material. A saving transferred to the supplier at the expense of increased user resource demand shall be visible.

RESULT **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE**

25 | Improvement control and persistence

CHECK 0162 | 25.1

Source p. 19

Improvement control and persistence

Each selected project shall have an approved change record linking the opportunity, baseline, expected result, service safeguards, verification plan, responsible owner and implementation evidence. The authorization shall precede normal deployment.

RESULT **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE****CHECK 0163 | 25.2**

Source p. 20

Improvement control and persistence

Commissioning shall confirm installation, control settings, instrument function and safe operation. Deviations from the design shall be recorded and the performance expectation updated before comparison.

RESULT **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE****CHECK 0164 | 25.3**

Source p. 20

Improvement control and persistence

Post implementation review shall compare measured results with the expected outcome and examine interactions, rebound, leakage and maintenance needs. Unexpected resource increases shall receive corrective action even where financial performance is favourable.

RESULT **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE**

Requirements & evidence

CHECK 0165 | 25.4

Source p. 20

Improvement control and persistence

Monitoring shall detect significant deterioration relative to the validated operating model. Alert thresholds shall reflect natural variability, measurement uncertainty and the consequence of a false or missed alarm. A universal fixed percentage alarm is not required.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0166 | 25.5

Source p. 20

Improvement control and persistence

The organization shall assign actions, deadlines and evidence of effectiveness for deviations. Repeated failures shall trigger review of design assumptions, controls, training and claims. Closing an action by completing paperwork without checking performance is insufficient.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0167 | 25.6

Source p. 20

Improvement control and persistence

Portfolio reviews shall retain unsuccessful projects and negative results. Improvement capability may be demonstrated through sound controls, but claims of achieved savings shall require the specific evidence in Clause 10.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

26 | Assessment process and evidence

CHECK 0168 | 26.1

Source p. 20

Assessment process and evidence

The assessment shall follow scope agreement, readiness review, assessment planning, evidence collection, calculation review, safeguard evaluation, findings resolution, independent decision and issue of a scoped result. Annex F defines the records at each stage.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0169 | 26.2

Source p. 20

Assessment process and evidence

The assessor shall examine the complete applicability register and all mandatory core requirements. Evidence shall include interviews, observation, records, source data, independent recalculation and witnessed or repeated measurements appropriate to the claim.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0170 | 26.3

Source p. 20

Assessment process and evidence

Sampling shall be risk based and predeclared. Sites, shifts, vehicle variants, climates, service types and adverse conditions likely to change the conclusion shall be represented. Convenience samples shall be labelled and shall not support an unrestricted population claim.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0171 | 26.4

Source p. 20

Assessment process and evidence

Every critical safeguard and every material resource flow shall be evaluated. Sampling may reduce repeated checks of homogeneous activities but shall not remove a material activity from the scope. Sample size and selection rationale shall be documented under Annex C.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0172 | 26.5

Source p. 20

Assessment process and evidence

The assessor shall record the clause, evidence, affected scope, uncertainty and significance for every finding. Lack of access to essential data shall lead to a limited or inconclusive result rather than a presumption of conformity.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0173 | 26.6

Source p. 20

Assessment process and evidence

Remote evidence may supplement onsite work where identity, completeness and integrity are established. Physical observation or testing shall be required when it is necessary to verify the actual boundary, equipment configuration, meter installation or suspected manipulation.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0174 | 26.7

Source p. 20

Assessment process and evidence

The assessor shall reproduce at least one end to end calculation for each material indicator family and all headline savings claims. Digital dashboards and screenshots shall not substitute for underlying records.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0175 | 26.8

Source p. 20

Assessment process and evidence

An assessment report shall identify which requirements were evaluated, which were not applicable, all unresolved findings, methods, limitations and the proposed conclusion. The independent decision maker shall have enough evidence to challenge that conclusion.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

27 | Decisions findings and comparative claims

CHECK 0176 | 27.1

Source p. 21

Decisions findings and comparative claims

The decision shall distinguish conformity of the selected controls, verification of measured performance and verification of an improvement claim. Passing the management and measurement requirements shall not automatically prove lower consumption or superior performance.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0177 | 27.2

Source p. 21

Decisions findings and comparative claims

A critical finding is an actual serious safeguard breach, intentional material data manipulation or misuse of identity that invalidates trust in the result. A major finding is a missing or ineffective required control, material unaccounted flow, unsupported headline claim or repeated systemic failure. A minor finding is an isolated lapse that does not undermine the result or a safeguard.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0178 | 27.3

Source p. 21

Decisions findings and comparative claims

Critical and major findings shall be resolved and their effectiveness verified before a positive conformity decision. Minor findings shall have accepted actions and completion dates; overdue or recurring minor findings shall be escalated. Efficiency values may still be reported as observations where the limitations are explicit and no approval is implied.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0179 | 27.4

Source p. 21

Decisions findings and comparative claims

Permitted result descriptions after formal adoption are "scoped conformity assessed", "measured performance verified" and "improvement verified", with the exact scope and evidence period. Pilot versions shall use "pilot assessment" and shall not use an official conformity mark.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0180 | 27.6

Source p. 21

Decisions findings and comparative claims

A benchmark shall not mix products with incompatible service, methods or boundaries. The cohort, date, coverage, weighting and uncertainty shall be public with the comparison. A rank change caused only by a new dataset shall be distinguished from a change in physical performance.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0181 | 27.7

Source p. 21

Decisions findings and comparative claims

A critical safeguard failure shall block a positive result regardless of quantitative efficiency. Strong energy performance shall not compensate for missing water, material or digital evidence that is material to the stated scope.

RESULT **FINDING / ACTION ID**

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

28 | Performance passport and public statements

CHECK 0182 | 28.1

Source p. 21

Performance passport and public statements

Each assessed object shall have a versioned performance passport using Annex G. It shall identify the object, owner, assessment basis, module set, application profile, period, functional units, indicators, uncertainty, data quality, findings status and assessment decision.

RESULT **FINDING / ACTION ID**

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0183 | 28.2

Source p. 21

Performance passport and public statements

A public statement shall be understandable without consulting confidential technical files. It shall display the measured object and scope, the type of result, the reference conditions, relevant limitations, date and a means to access the current passport status.

RESULT **FINDING / ACTION ID**

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0184 | 28.3

Source p. 21

Performance passport and public statements

Promotional language shall not enlarge the assessed scope. A single efficient component shall not establish conformity of the complete vehicle; one assessed factory shall not establish conformity of every company site. A measured reduction shall not be described as zero impact or unlimited sustainability.

RESULT **FINDING / ACTION ID**

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0185 | 28.4

Source p. 21

Performance passport and public statements

Quantified improvements shall state whether they are normalized, absolute, modelled or measured and whether they are point estimates or conservative lower bounds. Baseline period and preserved service conditions shall be visible with the claim or one directly accessible explanation.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0186 | 28.5

Source p. 22

Performance passport and public statements

Passports shall support human readable and machine readable forms with stable field definitions. Digital signing or equivalent tamper evidence may be used. A digital signature confirms provenance and integrity, not the scientific validity of the underlying result.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0187 | 28.6

Source p. 22

Performance passport and public statements

Public data shall be sufficient to assess the claim while confidential manufacturing data and personal information remain protected. The assessor shall retain access to the evidence needed to verify conclusions. Commercial confidentiality shall not justify hiding a material limitation.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0188 | 28.7

Source p. 22

Performance passport and public statements

Material hardware, software, duty, boundary or methodological changes shall trigger a passport review. Superseded versions shall remain traceable and their status clear. An obsolete passport shall not continue to appear current.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

29 | Continuing validity and corrective action

CHECK 0189 | 29.1

Source p. 22

Continuing validity and corrective action

A measured result is valid for the identified configuration, method, conditions and evidence period. This draft establishes no automatic multiyear product certificate. The continuing validity of a claim shall depend on its scope and the evidence that supports it.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0190 | 29.2

Source p. 22

Continuing validity and corrective action

The organization shall review ongoing operational claims at least annually and after material changes, serious complaints, integrity incidents or persistent deterioration. Product results shall be reviewed on relevant configuration and software changes even when the original test date remains unchanged.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0191 | 29.3

Source p. 22

Continuing validity and corrective action

When evidence becomes unreliable, the affected claim shall be suspended or qualified promptly. The organization shall investigate the cause, identify affected versions and users, correct public information and obtain an independent reassessment where required.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0192 | 29.4

Source p. 22

Continuing validity and corrective action

Corrections shall preserve the original record, reason, date, responsible person and quantitative effect. Data shall not be silently overwritten to maintain a favourable result. Where an incorrect claim has been distributed, the correction shall reach the same audience through appropriate channels.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0193 | 29.5

Source p. 22

Continuing validity and corrective action

Changes in an approved method shall have a defined transition period and comparability assessment. Retesting or recalculation shall be required when the change can alter a decision. Older results shall retain their original methodological identity.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0194 | 29.6

Source p. 22

Continuing validity and corrective action

Withdrawal, reinstatement and closure decisions shall be documented with evidence. Reinstatement shall require verified correction of the causes of suspension, not solely a new application or payment.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

30 | Impartiality and scheme stewardship

CHECK 0195 | 30.1

Source p. 22

Impartiality and scheme stewardship

The assessment provider shall manage financial, organizational and personal conflicts. Personnel shall not make an independent decision on their own design, consultancy or measurement work. Assessment fees shall not depend on achieving a favourable result.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0196 | 30.2

Source p. 22

Impartiality and scheme stewardship

Reviewers and decision makers shall have competence appropriate to the technical scope. Subcontracted testing and digital analysis shall remain subject to the same evidence, confidentiality and impartiality requirements.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0197 | 30.3

Source p. 22

Impartiality and scheme stewardship

Complaints and appeals shall have accessible submission, acknowledgement, independent review, documented reasons and communication of outcome. A person whose decision is appealed shall not control the appeal decision. Retaliation against a complainant is prohibited.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0198 | 30.4

Source p. 23

Impartiality and scheme stewardship

Before scheme launch, IAF shall establish transparent rules for approval of methods, assessor authorization, use of marks, public result status, fees, complaints, appeals and suspension. Drafting this standard does not imply that those operational services already exist.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0199 | 30.5

Source p. 23

Impartiality and scheme stewardship

Technical stewardship shall include balanced input from manufacturers, suppliers, operators, test specialists, digital developers, resource experts and users. Decisions shall record the evidence considered, unresolved dissent and reasons for numerical criteria.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0200 | 30.6

Source p. 23

Impartiality and scheme stewardship

Revisions shall consider field evidence, reproducibility, new technology, unintended incentives and accessibility for smaller organizations. Requirements may be proportionate in implementation effort while retaining the same integrity and safeguard expectations for comparable claims.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0201 | 30.7

Source p. 23

Impartiality and scheme stewardship

Annex J defines the current development work needed for adoption. It shall be maintained as an informative review record until the normative text and operational scheme are approved.

RESULT	Select result	FINDING / ACTION ID	
EVIDENCE / OBSERVED RESULT / N/A RATIONALE			

Requirements & evidence

Annex A | Applicability and scope register

CHECK 0202 | A.1 | part 1/13

Source p. 24

Applicability and scope register

The organization shall complete the following module register before collecting claim evidence. Applicability shall follow actual activities and material dependencies. The register shall identify the selected objects, included clauses, excluded activities, reasons, evidence owner and functional units.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0203 | A.1 | source schedule row | part 2/13

Source p. 24

C

Code: C

Module and clauses: Core 1 to 12 and 24 to 30

Application trigger: Every assessment.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0204 | A.1 | source schedule row | part 3/13

Source p. 24

V

Code: V

Module and clauses: Vehicle performance 13

Application trigger: Complete vehicle or propulsion performance claim.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0205 | A.1 | source schedule row | part 4/13

Source p. 24

P

Code: P

Module and clauses: Components 14

Application trigger: Component or material performance claim.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0206 | A.1 | source schedule row | part 5/13

Source p. 24

M

Code: M

Module and clauses: Manufacturing 15

Application trigger: Production or assembly within the assessed boundary.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0207 | A.1 | source schedule row | part 6/13

Source p. 24

U

Code: U

Module and clauses: Facilities and water 16

Application trigger: Material supporting utility or water use.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0208 | A.1 | source schedule row | part 7/13

Source p. 24

L

Code: L

Module and clauses: Supply and distribution 17

Application trigger: Sourcing or distribution within the claim.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0209 | A.1 | source schedule row | part 8/13

Source p. 24

F

Code: F

Module and clauses: Fleets and services 18

Application trigger: Actual transport or mobility service operation.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0210 | A.1 | source schedule row | part 9/13

Source p. 24

H

Code: H

Module and clauses: Energy infrastructure 19

Application trigger: Charging, refuelling, swapping or stationary storage.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0211 | A.1 | source schedule row | part 10/13

Source p. 24

D

Code: D

Module and clauses: Digital systems 20

Application trigger: Material onboard or external digital resource demand.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0212 | A.1 | source schedule row | part 11/13

Source p. 24

R

Code: R

Module and clauses: Circular service 21

Application trigger: Maintenance, repair, remanufacture or recovery claim.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0213 | A.1 | source schedule row | part 12/13

Source p. 24

X

Code: X

Module and clauses: Lifecycle effects 22

Application trigger: Lifecycle claim or material burden shifting assessment.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0214 | A.1 | source schedule row | part 13/13

Source p. 24

T

Code: T

Module and clauses: Future technologies 23

Application trigger: Emerging technology or resilience claim.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0215 | A.2

Source p. 24

Applicability and scope register

Every assessment shall screen all modules. Clauses 22.4 and 22.7 shall apply to the safeguard and burden shifting screen even when a full lifecycle study is outside scope. Clause 23.1 shall apply to the governance risk review; the remaining future technology requirements apply when their triggers are present.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0216 | A.3

Source p. 24

Applicability and scope register

A manufacturer assessing one assembly plant shall ordinarily select C, M and U, with L, D, R and X where material to the claim. This example does not create an automatic full lifecycle product assessment. A vehicle energy result ordinarily requires C and V, with P, H, D and X to the extent their interfaces form part of the stated measurement and claim.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0217 | A.4

Source p. 24

Applicability and scope register

A fleet operator shall include outsourced transport, charging or digital activities when their resource effects are material to the service claim, even if the operator does not own the equipment. Supplier evidence may satisfy the interface requirement when its scope and quality are verified.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0218 | A.5 | part 1/8

Source p. 24

Applicability and scope register

The following fields shall be completed for each scope line. They may be maintained in a controlled digital register rather than a paper table.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0219 | A.5 | source schedule row | part 2/8

Source p. 24

Object identity

Field: Object identity

Required record: Product or variant, site, asset group, service and responsible entity.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0220 | A.5 | source schedule row | part 3/8

Source p. 25

Boundary

Field: Boundary

Required record: Input and output interfaces, geography, outsourced stages and period.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0221 | A.5 | source schedule row | part 4/8

Source p. 25

Module decision

Field: Module decision

Required record: Applicable, not applicable with reason, or outside the expressly limited claim.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0222 | A.5 | source schedule row | part 5/8

Source p. 25

Functional output

Field: Functional output

Required record: Unit, accepted specification, service envelope and output source.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0223 | A.5 | source schedule row | part 6/8

Source p. 25

Resource coverage

Field: Resource coverage

Required record: Material flows, measured share, estimates and exclusions.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0224 | A.5 | source schedule row | part 7/8

Source p. 25

Assessment route

Field: Assessment route

Required record: Control conformity, measured performance, improvement or approved comparison.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0225 | A.5 | source schedule row | part 8/8

Source p. 25

Responsibility

Field: Responsibility

Required record: Data owner, technical approver and independent reviewer.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

Annex B | Indicator dictionary and calculation rules

CHECK 0226 | B.1 | part 1/41

Source p. 25

Indicator dictionary and calculation rules

The indicators below define a common reporting vocabulary. Each applicable module shall use its principal resource and useful output indicators and the safeguards necessary to interpret them. Diagnostic indicators are not mandatory when irrelevant, but their omission shall not remove a material resource category.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0227 | B.1 | source schedule row | part 2/41

Source p. 25

E01

ID: E01

Indicator and unit: Delivered energy kWh

Calculation and boundary: Sum of energy entering the assessed boundary by carrier; show exports separately.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0228 | B.1 | source schedule row | part 3/41

Source p. 25

E02

ID: E02

Indicator and unit: Vehicle energy kWh per 100 km

Calculation and boundary: Delivered energy divided by actual distance, multiplied by 100.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0229 | B.1 | source schedule row | part 4/41

Source p. 25

E03

ID: E03

Indicator and unit: Passenger intensity Wh per passenger km

Calculation and boundary: Total attributable energy in Wh divided by actual passenger kilometres.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0230 | B.1 | source schedule row | part 5/41

Source p. 25

E04

ID: E04

Indicator and unit: Freight intensity kWh per tonne km

Calculation and boundary: Total attributable energy divided by actual cargo tonne kilometres.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0231 | B.1 | source schedule row | part 6/41

Source p. 25

E05

ID: E05

Indicator and unit: Product energy kWh per accepted unit

Calculation and boundary: Production and allocated support energy divided by accepted specified output.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0232 | B.1 | source schedule row | part 7/41

Source p. 25

E06

ID: E06

Indicator and unit: Baseline ratio dimensionless

Calculation and boundary: Reporting energy divided by adjusted baseline energy at equivalent output.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0233 | B.1 | source schedule row | part 8/41

Source p. 25

E07

ID: E07

Indicator and unit: Verified saving kWh

Calculation and boundary: Adjusted baseline minus reporting use and applicable outside boundary adjustments.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0234 | B.1 | source schedule row | part 9/41

Source p. 25

E08

ID: E08

Indicator and unit: Saving percentage percent

Calculation and boundary: Verified saving divided by adjusted baseline, multiplied by 100.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0235 | B.1 | source schedule row | part 10/41

Source p. 25

E09

ID: E09

Indicator and unit: Idle energy share percent

Calculation and boundary: Energy in defined nonproductive states divided by total boundary energy.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0236 | B.1 | source schedule row | part 11/41

Source p. 25

E10

ID: E10

Indicator and unit: Peak demand kW

Calculation and boundary: Highest demand averaged over the declared interval; report the interval.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0237 | B.1 | source schedule row | part 12/41

Source p. 26

E11

ID: E11

Indicator and unit: Recovery flow kWh

Calculation and boundary: Measured internal recovered energy, reported separately from boundary input.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0238 | B.1 | source schedule row | part 13/41

Source p. 26

M01

ID: M01

Indicator and unit: Material intensity kg per accepted unit

Calculation and boundary: Input material mass divided by accepted specified output.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0239 | B.1 | source schedule row | part 14/41

Source p. 26

M02

ID: M02

Indicator and unit: First pass yield percent

Calculation and boundary: Units accepted without rework divided by units entering the defined process.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0240 | B.1 | source schedule row | part 15/41

Source p. 26

M03

ID: M03

Indicator and unit: Material yield percent

Calculation and boundary: Mass incorporated in accepted output divided by material input on a matched basis.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0241 | B.1 | source schedule row | part 16/41

Source p. 26

M04

ID: M04

Indicator and unit: Scrap intensity kg per accepted unit

Calculation and boundary: Process scrap mass divided by accepted output; distinguish reusable and disposed fractions.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0242 | B.1 | source schedule row | part 17/41

Source p. 26

M05

ID: M05

Indicator and unit: Recovered input share percent

Calculation and boundary: Verified recovered input mass divided by total equivalent input mass.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0243 | B.1 | source schedule row | part 18/41

Source p. 26

M06

ID: M06

Indicator and unit: Realized recovery yield percent

Calculation and boundary: Output accepted for defined recovery use divided by corresponding waste input.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0244 | B.1 | source schedule row | part 19/41

Source p. 26

M07

ID: M07

Indicator and unit: Critical material intensity g per service unit

Calculation and boundary: Mass of the named critical material divided by the specified useful output.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0245 | B.1 | source schedule row | part 20/41

Source p. 26

W01

ID: W01

Indicator and unit: Water withdrawal m³

Calculation and boundary: Water entering from external sources, distinguished by source.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0246 | B.1 | source schedule row | part 21/41

Source p. 26

W02

ID: W02

Indicator and unit: Water consumption m³**Calculation and boundary:** Water not returned to the same relevant water system over the period, with stock changes addressed.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0247 | B.1 | source schedule row | part 22/41

Source p. 26

W03

ID: W03

Indicator and unit: Water intensity litres per accepted unit**Calculation and boundary:** Defined withdrawal or consumption divided by output; specify which numerator.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0248 | B.1 | source schedule row | part 23/41

Source p. 26

W04

ID: W04

Indicator and unit: Reuse fraction percent**Calculation and boundary:** Reused supply to a defined process divided by its total water supply; do not equate this to withdrawal reduction.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0249 | B.1 | source schedule row | part 24/41

Source p. 26

O01

ID: O01

Indicator and unit: Useful availability percent**Calculation and boundary:** Time capable of required service divided by committed service time.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0250 | B.1 | source schedule row | part 25/41

Source p. 26

O02**ID:** O02**Indicator and unit:** Empty distance share percent**Calculation and boundary:** Empty repositioning and attributable empty travel divided by total vehicle distance.**RESULT** **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE**

CHECK 0251 | B.1 | source schedule row | part 26/41

Source p. 26

O03**ID:** O03**Indicator and unit:** Occupancy passengers per vehicle km**Calculation and boundary:** Passenger kilometres divided by vehicle kilometres.**RESULT** **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE**

CHECK 0252 | B.1 | source schedule row | part 27/41

Source p. 26

O04**ID:** O04**Indicator and unit:** Payload utilization percent**Calculation and boundary:** Actual tonne kilometres divided by available payload tonne kilometres for the same movements.**RESULT** **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE**

CHECK 0253 | B.1 | source schedule row | part 28/41

Source p. 26

O05**ID:** O05**Indicator and unit:** Service completion percent**Calculation and boundary:** Accepted completed tasks divided by all committed tasks in the stated period.**RESULT** **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE**

Requirements & evidence

CHECK 0254 | B.1 | source schedule row | part 29/41

Source p. 26

O06

ID: O06

Indicator and unit: Repeat repair share percent

Calculation and boundary: Repeated repairs for the same unresolved issue divided by completed repair cases.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0255 | B.1 | source schedule row | part 30/41

Source p. 26

H01

ID: H01

Indicator and unit: Station conversion percent

Calculation and boundary: Energy at the declared station output divided by station input during the matched transfer.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0256 | B.1 | source schedule row | part 31/41

Source p. 27

H02

ID: H02

Indicator and unit: Charge round trip percent

Calculation and boundary: Usable discharged energy divided by supply energy for a matched charge and discharge boundary.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0257 | B.1 | source schedule row | part 32/41

Source p. 27

H03

ID: H03

Indicator and unit: Standby demand W

Calculation and boundary: Average power during the specified nontransfer state and duration.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0258 | B.1 | source schedule row | part 33/41

Source p. 27

H04

ID: H04

Indicator and unit: Transaction success percent

Calculation and boundary: Successful requested transfers divided by all valid transfer attempts; exclusions disclosed.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0259 | B.1 | source schedule row | part 34/41

Source p. 27

H05

ID: H05

Indicator and unit: Refuelling support kWh per kg

Calculation and boundary: Attributable station electricity divided by dispensed fuel mass; identify the fuel.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0260 | B.1 | source schedule row | part 35/41

Source p. 27

D01

ID: D01

Indicator and unit: Digital task energy Wh per accepted task

Calculation and boundary: Onboard and attributable external energy divided by tasks meeting required performance.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0261 | B.1 | source schedule row | part 36/41

Source p. 27

D02

ID: D02

Indicator and unit: Digital operating demand W

Calculation and boundary: Average and peak demand in specified workload and operating states.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0262 | B.1 | source schedule row | part 37/41

Source p. 27

D03

ID: D03

Indicator and unit: Software energy change percent

Calculation and boundary: Change against a matched software reference at equivalent task quality and hardware.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0263 | B.1 | source schedule row | part 38/41

Source p. 27

R01

ID: R01

Indicator and unit: Restored service resource

Calculation and boundary: Energy or material input divided by accepted restored service with its remaining life.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0264 | B.1 | source schedule row | part 39/41

Source p. 27

Q01

ID: Q01

Indicator and unit: Data coverage percent

Calculation and boundary: Supported resource quantity divided by estimated complete resource total.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0265 | B.1 | source schedule row | part 40/41

Source p. 27

Q02

ID: Q02

Indicator and unit: Output acceptance percent

Calculation and boundary: Accepted output divided by attempted output under the stated acceptance rules.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0266 | B.1 | source schedule row | part 41/41

Source p. 27

Q03

ID: Q03

Indicator and unit: Relative expanded uncertainty percent

Calculation and boundary: Expanded uncertainty divided by the absolute reported estimate where meaningful.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0267 | B.2

Source p. 27

Indicator dictionary and calculation rules

The equations below use compatible units. E is resource energy input; Q is useful output; I is intensity; B is adjusted baseline use; R is reporting period use; L is leakage outside the measured boundary; J is the separately evidenced rebound adjustment outside that boundary; S is net saving; U is expanded uncertainty. L and J shall be zero when not applicable, and shall not duplicate changes already included in R. $E I = Q$

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0268 | B.3

Source p. 27

Indicator dictionary and calculation rules

A grouped intensity shall use the sum of inputs and sum of compatible outputs. In the following equation, i identifies a comparable record. Where Q is zero, intensity is undefined; input shall remain in the period total and shall not be discarded. $\sum E_i I = \sum Q_i$

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0269 | B.4

Source p. 27-28

Indicator dictionary and calculation rules

Net savings and the corresponding percentage shall use the same adjusted baseline and boundary. Additional effects that cannot be quantified reliably shall be disclosed and the claim narrowed rather than silently assigned zero. $S = B - R - L - J$ $S S = \times 100 B$

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0270 | B.5

Source p. 28

Indicator dictionary and calculation rules

The conservative lower bound is the point estimate minus its expanded uncertainty. A positive claim requires the lower bound to be greater than zero. For percentage claims, uncertainty of the ratio shall be calculated; dividing an energy lower bound by an uncertain baseline is not automatically a valid percentage bound. $S = S - U$

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0271 | B.6

Source p. 28

Indicator dictionary and calculation rules

Where independent input quantities support a linear difference, combined standard uncertainty may be calculated by root sum of squares. Where they are correlated, covariance terms with the appropriate signs shall be included. Multiplying by an appropriate coverage factor gives expanded uncertainty; the factor and coverage shall be reported. $U = k \times u$ Here u with subscript c is combined standard uncertainty and k is the justified coverage factor. The simplified multiplication does not remove the need to assess nonnormal distributions or correlations.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0272 | B.7

Source p. 28

Indicator dictionary and calculation rules

Passenger output and freight output shall use distance resolved actual payload records or a validated equivalent method. Occupancy changes during a route shall be represented by route segments; applying maximum occupancy to the entire journey is prohibited. $Q = \sum (n_i \times d_i)$ In this equation, n_i is the actual number of passengers on segment i and d_i is its distance. The corresponding freight calculation replaces passenger number with actual cargo mass in tonnes.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0273 | B.8

Source p. 28

Indicator dictionary and calculation rules

For a complete matched energy transfer, efficiency is useful measured output divided by measured input. If the result exceeds 100% for a process where this is physically impossible, check stock changes, boundaries, units, meters and synchronization before publication. Thermal performance coefficients are different quantities and shall not be mislabelled as this conversion efficiency. $E \eta = \times 100\% E$

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0274 | B.9

Source p. 28

Indicator dictionary and calculation rules

A lifecycle total shall identify the stages added and apply consistent allocation. Recycling or avoided production credits, if reported, shall be separate scenario results. They shall not create a negative measured resource input for the assessed physical operation.

RESULT	Select result	FINDING / ACTION ID	
EVIDENCE / OBSERVED RESULT / N/A RATIONALE			

Requirements & evidence

Annex C | Evidence coverage and sampling

CHECK 0275 | C.1

Source p. 29

Evidence coverage and sampling

The sampling plan shall identify the target population, primary claim, material strata, selection mechanism, expected variation, required precision and confidence. The sample shall be selected before the headline results are known, with retained records of unsuccessful or invalid observations.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0276 | C.2

Source p. 29

Evidence coverage and sampling

Product testing shall have at least three valid repetitions for every primary test case. This minimum supports an initial repeatability check and does not establish population representativeness. Additional repetitions shall be collected when variance or uncertainty prevents the intended conclusion.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0277 | C.3

Source p. 29

Evidence coverage and sampling

A product family claim shall include independent physical units selected by the assessor. Three independent units is the pilot minimum where such units exist; one prototype may support only a result for that prototype. Large family or market claims shall use a statistically justified sample and configuration coverage beyond this minimum.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0278 | C.4

Source p. 29

Evidence coverage and sampling

Field datasets shall represent seasons, load, geography, duty, age and relevant technology. High frequency records from one vehicle or one day shall not be counted as independent vehicles or independent days. Clustering and autocorrelation shall be addressed in the precision calculation.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0279 | C.5

Source p. 29

Evidence coverage and sampling

For an initial estimate of an independent sample mean, sample size may be planned using the square of the product of the intended coverage multiplier and coefficient of variation divided by the relative precision target. This approximation shall be refined for small samples, finite populations, clustering, stratification and the actual decision method.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0280 | C.6

Source p. 29

Evidence coverage and sampling

As an informative calculation within this rule, a coefficient of variation of 20%, a multiplier of 1.96 and a relative precision target of 5% produce an initial estimate of 62 independent observations after rounding upward. This is not a universal sample size requirement and does not replace the validation required by C.5.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0281 | C.7

Source p. 29

Evidence coverage and sampling

Data shall be classified as directly measured, validated calculation from measured inputs, supplier specific estimate, generic proxy or unavailable. The first two classes count toward the coverage requirement in Clause 7. Their classification shall be supported by method and validation records.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0282 | C.8

Source p. 29

Evidence coverage and sampling

A measurement point balance shall compare independent supply totals with the sum of allocated uses, stock change and known losses. An unexplained difference greater than the combined uncertainty or 5% of supply, whichever is larger, shall trigger investigation under this pilot rule. A smaller difference shall still be investigated if it can change the claim or conceal a critical flow.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0283 | C.9

Source p. 29

Evidence coverage and sampling

Outliers shall be investigated using predeclared physical and statistical criteria. Legitimate adverse performance shall not be removed because it lowers the average. Invalid tests may be excluded only with a recorded cause, retained data and the effect of exclusion reported.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0284 | C.10

Source p. 29

Evidence coverage and sampling

Missing data and excluded flows shall be bounded conservatively. Where a conservative bound changes the decision, the result shall remain inconclusive until adequate evidence is obtained. A favourable point estimate shall not override inadequate coverage.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0285 | C.11

Source p. 29

Evidence coverage and sampling

Supplier data shall be checked for identity, period, product specification and boundary. A sample of material supplier calculations shall be independently challenged. Repeated unexplained discrepancies shall reduce reliance on that source and may require direct measurement.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0286 | C.12

Source p. 30

Evidence coverage and sampling

The assessment file shall retain the sampling frame, selected units, replacements, invalid tests, calibration checks, raw data, processing scripts or formulas, uncertainty budget and independent review record.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

Annex D | Test and evaluation protocols

CHECK 0287 | D1.1

Source p. 30

Test and evaluation protocols

Before testing, a protocol record shall freeze the object, variant, objective, boundary, service envelope, measurement points, test sequence, ambient conditions, loading, operating states, repetitions, acceptance limits, uncertainty method and decision rule. Deviations shall be recorded and evaluated before the result is accepted.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0288 | D1.2

Source p. 30

Test and evaluation protocols

This annex defines minimum protocol content and baseline pilot cases. It does not claim to provide a universal executable drive cycle for every vehicle class. Comparative class issuance remains blocked until the applicable detailed speed trace, tolerances and weighting are approved under Annex E.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0289 | D2.1

Source p. 30

Test and evaluation protocols

Inspect the vehicle, verify the configuration and instrument installation, document maintenance and select representative software settings. Weigh the test vehicle and payload and measure tyre pressures using the specified reference condition. Document battery or fuel state, ambient conditions and auxiliary settings.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0290 | D2.2 | part 1/9

Source p. 30

Test and evaluation protocols

Use the baseline cases below. The temperatures and payload points are proposed IAF pilot conditions for method development. Add more severe conditions where the product's intended use requires them. Testing shall remain within safe and authorized operating limits.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0291 | D2.2 | source schedule row | part 2/9

Source p. 30

V1

Case: V1

Pilot condition: Temperate ambient 23 ± 2 °C

Required output: Urban, interurban and higher speed energy results for the intended class.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0292 | D2.2 | source schedule row | part 3/9

Source p. 30

V2

Case: V2

Pilot condition: Cold ambient minus 10 ± 2 °C

Required output: Cold start, conditioning energy, cabin service and relevant route results.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0293 | D2.2 | source schedule row | part 4/9

Source p. 30

V3

Case: V3

Pilot condition: Hot ambient 35 ± 2 °C

Required output: Cooling energy, cabin service, thermal derating and relevant route results.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0294 | D2.2 | source schedule row | part 5/9

Source p. 30

V4

Case: V4

Pilot condition: Light and representative load

Required output: Actual mass, functional output and energy in each selected duty.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0295 | D2.2 | source schedule row | part 6/9

Source p. 30

V5

Case: V5

Pilot condition: High load at $90 \pm 5\%$ of rated payload

Required output: Capability, energy and any speed or thermal limitation; never exceed the rated payload.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0296 | D2.2 | source schedule row | part 7/9

Source p. 30

V6

Case: V6

Pilot condition: Default and optional efficient mode

Required output: Resource result with service, safety and user setting differences disclosed.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0297 | D2.2 | source schedule row | part 8/9

Source p. 30

V7

Case: V7

Pilot condition: Parked and connected states

Required output: Twenty four hour energy including wake events, conditioning and connectivity.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0298 | D2.2 | source schedule row | part 9/9

Source p. 31

V8

Case: V8

Pilot condition: Aged or degraded state

Required output: Energy intensity and service capability with declared age, condition and remaining usable energy.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0299 | D2.3

Source p. 31

Test and evaluation protocols

For thermal cases, condition the vehicle until representative battery or powertrain temperatures are within 2 °C of the target and stable within 1 °C over one hour, unless the method records a justified technology specific criterion. Record soak duration and any supply energy used. Ambient stability alone does not prove internal thermal equilibrium.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0300 | D2.4

Source p. 31

Test and evaluation protocols

Keep a fixed cabin setpoint of 22 °C for the baseline occupied vehicle pilot where cabin conditioning is fitted. Record achieved temperatures, humidity, warmup or cooldown time and occupants represented. A setpoint is a command rather than proof of equivalent comfort. Climate dependent service limits shall be fixed in the protocol.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0301 | D2.5

Source p. 31

Test and evaluation protocols

The route or laboratory trace shall state speed against time, distance, acceleration demand, stops, elevation, road surface and wind treatment. Route length and repetitions shall make the measurement uncertainty adequate for the claim. Public road tests shall obey traffic rules and shall record interruptions and actual achieved trace.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0302 | D2.6

Source p. 31

Test and evaluation protocols

At least three valid runs shall be obtained per primary case. Matched comparisons shall alternate or randomize reference and modified conditions where practicable. The laboratory shall investigate a coefficient of variation above 3% for controlled energy results as a pilot repeatability trigger; it shall not discard legitimate variation to meet that value.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0303 | D2.7

Source p. 31

Test and evaluation protocols

Restore energy state after the run and meter replenishment through the declared supply interface. Record battery temperature, rest time and stored energy correction. Small SoC differences may be accepted only when their energy effect is demonstrated to be immaterial within the uncertainty budget; dashboard percentages alone are insufficient.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0304 | D2.8

Source p. 31

Test and evaluation protocols

Report each case separately before any weighted result. Weightings shall sum to one and come from the registered application profile or a disclosed usage dataset. A user specific scenario shall not be presented as a universal driving result.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0305 | D3.1

Source p. 31

Test and evaluation protocols

Establish the required output map and representative duty distribution. Measure input and useful output at the selected load, speed, voltage, pressure and temperature points, including startup and partial load where material. Record control state and stabilize according to the registered method.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0306 | D3.2

Source p. 31

Test and evaluation protocols

Repeat primary points, integrate duty weighted input and output, and report the weighted efficiency together with the map. Do not average efficiencies arithmetically when input weighting is required. Validate the component to system translation before making a vehicle or site saving claim.

RESULT

Select result

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0307 | D4.1

Source p. 31

Test and evaluation protocols

Install synchronized meters at the supply and declared output interfaces. Record equipment rating, cable, firmware, supply voltage, active auxiliary systems and thermal conditions. Identify whether the onboard converter is inside or outside the test boundary.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0308 | D4.2

Source p. 32

Test and evaluation protocols

For controllable equipment, test approximately 10%, 25%, 50% and 100% of continuous rated output where safe and supported. Unsupported points shall be identified. Vehicle limited output shall be recorded as achieved output rather than assumed station capability.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0309 | D4.3

Source p. 32

Test and evaluation protocols

For a charging time comparison, use a declared 10% to 80% SoC window where the vehicle supports it, while also reporting actual transferred energy. This interval is a pilot reporting choice and is not a universal optimum operating window. Report temperature and preconditioning demand.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0310 | D4.4

Source p. 32

Test and evaluation protocols

Measure disconnected standby, connected waiting and post transfer cooling for representative periods, including at least one twenty four hour observation where scheduled wake events occur. A short quiet interval shall not represent daily standby demand when events are known to occur later.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0311 | D4.5

Source p. 32

Test and evaluation protocols

A round trip test shall return the storage system to an equivalent energy and thermal state. Compare supply input and useful delivered discharge over that complete process, including the declared rest and auxiliary periods. Meter checks shall distinguish actual losses from initial stock depletion.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0312 | D5.1

Source p. 32

Test and evaluation protocols

Map the affected system and its interactions, select a baseline model, meter the resource input and measure the useful production or service. Select isolated system measurement where the effect is too small to distinguish reliably from variability in a whole site account.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0313 | D5.2

Source p. 32

Test and evaluation protocols

Record commissioning and begin a reporting period representative of normal operation. Calculate the adjusted baseline using reporting period conditions, quantify uncertainty and reconcile the result with independent supply totals. Report short term results as short term until seasonal performance is established.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0314 | D6.1

Source p. 32

Test and evaluation protocols

Select representative assets and duty groups, record actual distance and passenger or payload segments, capture all attributable charging or refuelling, and include empty movement and failed service. Reconcile telematics totals with supply records and asset availability.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0315 | D6.2

Source p. 32

Test and evaluation protocols

Compare matched service conditions or use a validated normalization model. Report intensity, absolute energy, service completion and time performance. Route optimization shall include additional user access travel or displaced journeys where material to the claim boundary.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0316 | D7.1

Source p. 32

Test and evaluation protocols

Freeze hardware, software, workload, network conditions and required task accuracy or completion criteria. Measure active, idle, startup, update and remote processing contributions. Include cooling and communications where they fall within the claimed boundary.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0317 | D7.2

Source p. 32

Test and evaluation protocols

Compare versions using the same accepted task set and service limits. Randomize execution order where relevant and control caching and warmup. Report resource use per accepted task, failures, latency distribution, operating demand and uncertainty; synthetic tasks shall be labelled as such.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0318 | D8.1

Source p. 32

Test and evaluation protocols

Define accepted restored function and expected remaining life. Measure all incoming cores, replacements, energy, cleaning, rejects and test outcomes. Follow a representative sample for return failures or use a justified durability evaluation before extending claims to a long service period.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0319 | D8.2

Source p. 33

Test and evaluation protocols

Compare alternatives at equivalent restored output and life. Report measured process inputs separately from modelled avoided production. State the assumptions that determine whether repair, replacement or remanufacturing has the lower total resource demand.

RESULT**FINDING / ACTION ID****EVIDENCE / OBSERVED RESULT / N/A RATIONALE**

Requirements & evidence

Annex E | Application profiles and benchmarks

CHECK 0320 | E.1 | part 1/11

Source p. 33

Application profiles and benchmarks

An application profile shall translate the general requirements into reproducible criteria for a defined object and use. A profile shall be approved before it supports public comparative classification. A test record for one project is not automatically an approved profile.

RESULT **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE****CHECK 0321 | E.1 | source schedule row | part 2/11**

Source p. 33

Eligibility

Profile element: Eligibility**Required specification:** Vehicle, component, site or service classes; exclusions; family grouping.**RESULT** **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE****CHECK 0322 | E.1 | source schedule row | part 3/11**

Source p. 33

Useful output

Profile element: Useful output**Required specification:** Functional units and service acceptance limits.**RESULT** **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE****CHECK 0323 | E.1 | source schedule row | part 4/11**

Source p. 33

Boundary

Profile element: Boundary**Required specification:** Energy interfaces, upstream scope, auxiliaries, stock changes and allocations.**RESULT** **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE**

Requirements & evidence

CHECK 0324 | E.1 | source schedule row | part 5/11

Source p. 33

Test method

Profile element: Test method

Required specification: Executable trace or operating sequence, equipment, tolerances and validation.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0325 | E.1 | source schedule row | part 6/11

Source p. 33

Conditions

Profile element: Conditions

Required specification: Climate, load, age, operating states and software configuration.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0326 | E.1 | source schedule row | part 7/11

Source p. 33

Sampling

Profile element: Sampling

Required specification: Population, unit selection, repeats, precision and adverse variants.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0327 | E.1 | source schedule row | part 8/11

Source p. 33

Weighting

Profile element: Weighting

Required specification: Source of duty weights and handling of missing or unsupported cases.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0328 | E.1 | source schedule row | part 9/11

Source p. 33

Decision

Profile element: Decision

Required specification: Uncertainty method, guard bands, safeguard gates and permitted result language.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0329 | E.1 | source schedule row | part 10/11

Source p. 33

Benchmark

Profile element: Benchmark

Required specification: Dataset eligibility, representativeness, period, governance and update rules.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0330 | E.1 | source schedule row | part 11/11

Source p. 33

Disclosure

Profile element: Disclosure

Required specification: Passport fields, public limitations and method version.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0331 | E.2

Source p. 33

Application profiles and benchmarks

A benchmark dataset shall have verified provenance, compatible methods, defined geographic and temporal coverage, adequate sample size, and protection against duplicate or strategically selected entries. The approval record shall explain why the population is sufficient for the proposed decision.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0332 | E.3

Source p. 33

Application profiles and benchmarks

Thresholds shall be supported by observed distributions, reproducibility, relevant service requirements and policy intent. Thresholds chosen solely to create attractive marketing categories shall not be approved. Pilot data shall be checked for whether they represent the intended market rather than only volunteering high performers.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0333 | E.4

Source p. 33

Application profiles and benchmarks

Cohorts shall use meaningful service categories. Separate reports may show cross technology scenarios, but ranking shall not obscure differences in payload, utility, climate or duty. Any normalization model used to merge cohorts shall be independently validated and its uncertainty included.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0334 | E.5

Source p. 33

Application profiles and benchmarks

A class boundary shall have a documented uncertainty decision rule. A result whose uncertainty straddles that boundary shall receive an explicitly qualified or conservative classification under the approved rule. Point estimates shall not be rounded across a boundary to gain a class.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0335 | E.6

Source p. 34

Application profiles and benchmarks

No universal class thresholds or class names are set in this working draft. This deliberate hold prevents provisional numerical choices from being mistaken for established global performance levels. Clause 27 permits measured results and specific improvement verification without such classes.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0336 | E.7

Source p. 34

Application profiles and benchmarks

Benchmark revisions shall record changes in the eligible population, method, values and effect on existing decisions. Historical results shall remain identifiable. New benchmark versions shall not silently overwrite the basis of earlier passports.

RESULT**FINDING / ACTION ID****EVIDENCE / OBSERVED RESULT / N/A RATIONALE**

Requirements & evidence

Annex F | Assessment records and decision gates

CHECK 0337 | F.1 | part 1/11

Source p. 34

Assessment records and decision gates

The following sequence shall be recorded for each assessment. Each gate shall have an owner, date, evidence reference and decision. Evidence may be managed electronically provided the complete sequence remains traceable.

RESULT	Select result	FINDING / ACTION ID	
EVIDENCE / OBSERVED RESULT / N/A RATIONALE			

CHECK 0338 | F.1 | source schedule row | part 2/11

Source p. 34

1 Scope

Gate: 1 Scope

Required evidence: Annex A register and proposed claim

Decision to proceed: Object and all material interfaces defined.

RESULT	Select result	FINDING / ACTION ID	
EVIDENCE / OBSERVED RESULT / N/A RATIONALE			

CHECK 0339 | F.1 | source schedule row | part 3/11

Source p. 34

2 Readiness

Gate: 2 Readiness

Required evidence: Obligations, safeguards, inventory and data plan

Decision to proceed: No known critical safeguard breach; test access available.

RESULT	Select result	FINDING / ACTION ID	
EVIDENCE / OBSERVED RESULT / N/A RATIONALE			

CHECK 0340 | F.1 | source schedule row | part 4/11

Source p. 34

3 Method

Gate: 3 Method

Required evidence: Registered protocol, baseline and sampling plan

Decision to proceed: Method adequate for the stated claim.

RESULT	Select result	FINDING / ACTION ID	
EVIDENCE / OBSERVED RESULT / N/A RATIONALE			

Requirements & evidence

CHECK 0341 | F.1 | source schedule row | part 5/11

Source p. 34

4 Evidence

Gate: 4 Evidence

Required evidence: Raw data, calibration, output and coverage

Decision to proceed: Completeness and quality adequate or limits declared.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0342 | F.1 | source schedule row | part 6/11

Source p. 34

5 Calculation

Gate: 5 Calculation

Required evidence: Reproduced indicators and uncertainty

Decision to proceed: Arithmetic and modelling support the conclusion.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0343 | F.1 | source schedule row | part 7/11

Source p. 34

6 Safeguards

Gate: 6 Safeguards

Required evidence: Quality, safety, service and burden review

Decision to proceed: All applicable critical gates pass.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0344 | F.1 | source schedule row | part 8/11

Source p. 34

7 Findings

Gate: 7 Findings

Required evidence: Classified findings and verified actions

Decision to proceed: No unresolved critical or major finding for positive conformity.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0345 | F.1 | source schedule row | part 9/11

Source p. 34

8 Decision

Gate: 8 Decision

Required evidence: Independent technical decision record

Decision to proceed: Exact result type and scope authorized.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0346 | F.1 | source schedule row | part 10/11

Source p. 34

9 Disclosure

Gate: 9 Disclosure

Required evidence: Passport and proposed public wording

Decision to proceed: Claims match evidence and draft or adopted status.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0347 | F.1 | source schedule row | part 11/11

Source p. 34

10 Follow up

Gate: 10 Follow up

Required evidence: Change triggers and monitoring plan

Decision to proceed: Continuing validity responsibilities assigned.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0348 | F.2

Source p. 34

Assessment records and decision gates

For every assessed clause, the file shall record requirement identity, applicability, evidence, observed condition, result, finding if any, responsible reviewer and closure evidence. Acceptable results are met, not met, not applicable with rationale and not determined. "Not determined" shall not be treated as met.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0349 | F.3

Source p. 35

Assessment records and decision gates

Headline claims shall have a claim record containing the exact proposed wording, supporting indicator, baseline, interval, service assumptions, module scope, evidence period, reviewer and approved use. Altering the wording to broaden the claim requires renewed review.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0350 | F.4

Source p. 35

Assessment records and decision gates

A finding record shall contain the requirement, objective evidence, affected claim or object, classification, immediate containment, cause, correction, prevention, deadline and effectiveness evidence. Closure shall be authorized by a competent person independent of the corrective work where the finding is major or critical.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0351 | F.5

Source p. 35

Assessment records and decision gates

The decision record shall distinguish control conformity, measured values, improvement and any approved comparison. It shall identify unresolved uncertainty, limitations and the reasons for a negative or inconclusive result. Commercial considerations shall not change the technical conclusion.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0352 | F.6

Source p. 35

Assessment records and decision gates

A sampled object with an adverse configuration shall not be replaced by a favourable object without a documented legitimate reason. If access is withdrawn, the limitation and its effect on the decision shall be recorded.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0353 | F.7

Source p. 35

Assessment records and decision gates

Assessment duration shall be sufficient for the object, modules, complexity, sampling and evidence. This draft sets no universal number of audit days. Any reduced effort shall retain complete evaluation of the core, critical safeguards and material claims.

RESULT	Select result	FINDING / ACTION ID	
EVIDENCE / OBSERVED RESULT / N/A RATIONALE			

Requirements & evidence

Annex G | Performance passport data fields

CHECK 0354 | G.1 | part 1/14

Source p. 35

Performance passport data fields

The passport shall contain the fields below in a controlled human readable record and, where used, a structured digital representation. Field names shall remain stable within a schema version. Units shall be explicit and quantities shall not be stored solely in formatted promotional text.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0355 | G.1 | source schedule row | part 2/14

Source p. 35

Identity

Field group: Identity

Mandatory content: Passport identifier; object identifier; owner; site or model; configuration.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0356 | G.1 | source schedule row | part 3/14

Source p. 35

Document basis

Field group: Document basis

Mandatory content: IAF ARES edition; draft status where applicable; module codes; profile version.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0357 | G.1 | source schedule row | part 4/14

Source p. 35

Scope

Field group: Scope

Mandatory content: Boundary; geography; included and excluded operations; resource categories.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0358 | G.1 | [source schedule row](#) | [part 5/14](#)

Source p. 35

Time

Field group: Time**Mandatory content:** Test dates; reference period; reporting period; issue date; review trigger.**RESULT** **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE****CHECK 0359** | G.1 | [source schedule row](#) | [part 6/14](#)

Source p. 35

Service

Field group: Service**Mandatory content:** Functional units; required capacity; quality and service limits.**RESULT** **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE****CHECK 0360** | G.1 | [source schedule row](#) | [part 7/14](#)

Source p. 35

Method

Field group: Method**Mandatory content:** Protocol identifier; measured or modelled status; baseline and allocation methods.**RESULT** **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE****CHECK 0361** | G.1 | [source schedule row](#) | [part 8/14](#)

Source p. 35

Results

Field group: Results**Mandatory content:** Each indicator identifier; value; unit; period; applicable test case.**RESULT** **FINDING / ACTION ID** **EVIDENCE / OBSERVED RESULT / N/A RATIONALE**

Requirements & evidence

CHECK 0362 | G.1 | source schedule row | part 9/14

Source p. 35

Confidence

Field group: Confidence

Mandatory content: Expanded uncertainty; coverage method; data coverage; material assumptions.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0363 | G.1 | source schedule row | part 10/14

Source p. 35

Comparison

Field group: Comparison

Mandatory content: Reference object or baseline; saving point estimate; interval; approved cohort if any.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0364 | G.1 | source schedule row | part 11/14

Source p. 35

Safeguards

Field group: Safeguards

Mandatory content: Gate result; material tradeoffs; unresolved limitations.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0365 | G.1 | source schedule row | part 12/14

Source p. 35

Assessment

Field group: Assessment

Mandatory content: Provider identity; reviewer; result type; decision date; finding status.

RESULT

FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0366 | G.1 | source schedule row | part 13/14

Source p. 35

Integrity

Field group: Integrity

Mandatory content: Version; creation and change timestamps; provenance; superseded record link.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0367 | G.1 | source schedule row | part 14/14

Source p. 36

Public status

Field group: Public status

Mandatory content: Pilot, current, under review, suspended, superseded or withdrawn as applicable.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0368 | G.2

Source p. 36

Performance passport data fields

A digital implementation shall distinguish missing, not applicable and zero values. It shall use explicit time zones and decimal precision. Unique identifiers shall not encode unnecessary personal data. The record shall support export without dependence on a single software provider.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0369 | G.3

Source p. 36

Performance passport data fields

Access controls shall separate raw evidence, confidential technical records and public results. Changes shall retain the actor, reason and previous value. Validation shall check units, required fields, time order and consistency between module scope and result types.

RESULT FINDING / ACTION ID

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Requirements & evidence

CHECK 0370 | G.4

Source p. 36

Performance passport data fields

Cryptographic or equivalent integrity controls shall protect released records from undetected alteration. The implementation shall support key or credential replacement and recovery without losing historical provenance. The existence of a digital record alone does not constitute an independent assessment.

RESULT **FINDING / ACTION ID**

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

CHECK 0371 | G.5

Source p. 36

Performance passport data fields

A public claim shall link to its specific passport version or a stable identifier that clearly exposes the current status and historical version used. Redirecting a claim to an unrelated favourable result is prohibited.

RESULT **FINDING / ACTION ID**

EVIDENCE / OBSERVED RESULT / N/A RATIONALE

Findings & corrective action

Use one record per finding. Link every affected checklist ID and source clause. Add identified continuation records for further findings. Preserve the original result and document retest evidence before closure.

CORRECTIVE ACTION RECORD 1

FINDING ID

CHECK / CLAUSE IDS

SOURCE SEVERITY / GATE

OBSERVATION, REQUIREMENT AND OBJECTIVE EVIDENCE

IMMEDIATE CONTAINMENT / AFFECTED CONFIGURATIONS

ROOT CAUSE AND CORRECTIVE ACTION

RESPONSIBLE OWNER / DUE DATE

RETEST EVIDENCE / REVIEWER / CLOSURE DATE

CORRECTIVE ACTION RECORD 2

FINDING ID

CHECK / CLAUSE IDS

SOURCE SEVERITY / GATE

OBSERVATION, REQUIREMENT AND OBJECTIVE EVIDENCE

IMMEDIATE CONTAINMENT / AFFECTED CONFIGURATIONS

ROOT CAUSE AND CORRECTIVE ACTION

RESPONSIBLE OWNER / DUE DATE

RETEST EVIDENCE / REVIEWER / CLOSURE DATE

Assessment conclusion & review

Summarize the assessed scope and source-specific decision. Counts are manual cross-checks and do not override an unresolved requirement, critical gate, score cap or mandatory evidence condition.

APPLICABLE CHECKS

PASS

FAIL

NOT DEMONSTRATED

NOT APPLICABLE

OPEN CRITICAL GATES / BLOCKED CONFIGURATIONS / REASSESSMENT TRIGGERS

ASSESSMENT LIMITATIONS, EXCLUSIONS AND UNRESOLVED EVIDENCE

SOURCE-SPECIFIC CONCLUSION AND SUPPORTING DECISION RECORD

- ☐ All applicable check records and source dependencies have been reviewed.
- ☐ No unresolved critical failure is being accepted through averaging or a general pass count.
- ☐ The conclusion is restricted to the identified scope, configuration, evidence and draft status.

ASSESSOR NAME / ROLE

INDEPENDENT REVIEWER NAME / ROLE

ASSESSOR SIGN-OFF (TYPED NAME)

REVIEWER SIGN-OFF (TYPED NAME)

DATE

DATE

Sign-off fields accept typed names; they are not cryptographic digital-signature fields. Apply the organization's approved signing process where a formal signature is required. Final conformity, certification or label authorization remains subject to the source scheme and its adoption controls.

Continuation & additional evidence

Identify every continuation record and its parent checklist or finding. Additional sheets may be retained as separately identified evidence; preserve the link in the parent field.

CHECK / FINDING ID AND CONTINUATION REFERENCE

ADDITIONAL EVIDENCE, MEASUREMENTS, RATIONALE OR VERIFICATION

CHECK / FINDING ID AND CONTINUATION REFERENCE

ADDITIONAL EVIDENCE, MEASUREMENTS, RATIONALE OR VERIFICATION

CHECK / FINDING ID AND CONTINUATION REFERENCE

ADDITIONAL EVIDENCE, MEASUREMENTS, RATIONALE OR VERIFICATION