

The Scottish Government's Net Zero Public Sector Buildings Standard

Role of 3rd Party Verifier

David MacConnell
Director
Carbon Futures



SCOTTISH
FUTURES
TRUST





NET ZERO PUBLIC SECTOR BUILDINGS STANDARD UPDATES 26/27

Third Party Verification

The role, the requirements, and their application in practice

AGENDA

What this covers

- | | | |
|-----------|-----------------------------------|---|
| 01 | An Overview | A brief description of the Third Party Verifier in relation to the requirements of The Standard |
| 02 | The Objectives | The Objectives a Project is assessed against, and which require third party verification |
| 03 | How Conformance is checked | When, and at what Stage |
| 04 | The Third Party Verifier | Their role, responsibilities and their experience |
| 05 | Our Approach | How Carbon Futures has executed the role of Third Party Verifier on projects |
| 06 | The NZPSBS Updates | Refining the role of the Third Party Verifier (<i>a suggestion</i>) |

INTRODUCTION

An established principle, but an unfamiliar requirement

Third party verification is not a new concept. But it is perhaps less familiar to those of us in the built environment and construction industry.

Therefore, it is probably one of the more challenging requirements of the Standard, but is a value-added role.



Established practice

Independent verification is standard practice in manufacturing, pharmaceuticals and food and beverage, and SER – to a lesser extent.

The UK Net Zero Carbon Buildings Standard (Version 1, March 2026) also mandates it, with verification open since July 2026.



The Standard is not prescriptive

The NZPSBS does not set out every aspect of third party verification, or of the verifier's role. This is most likely deliberate: it affords Participants and Projects flexibility in how the requirement is addressed, and scope to scale the commission to the Project.



Can be ambiguous

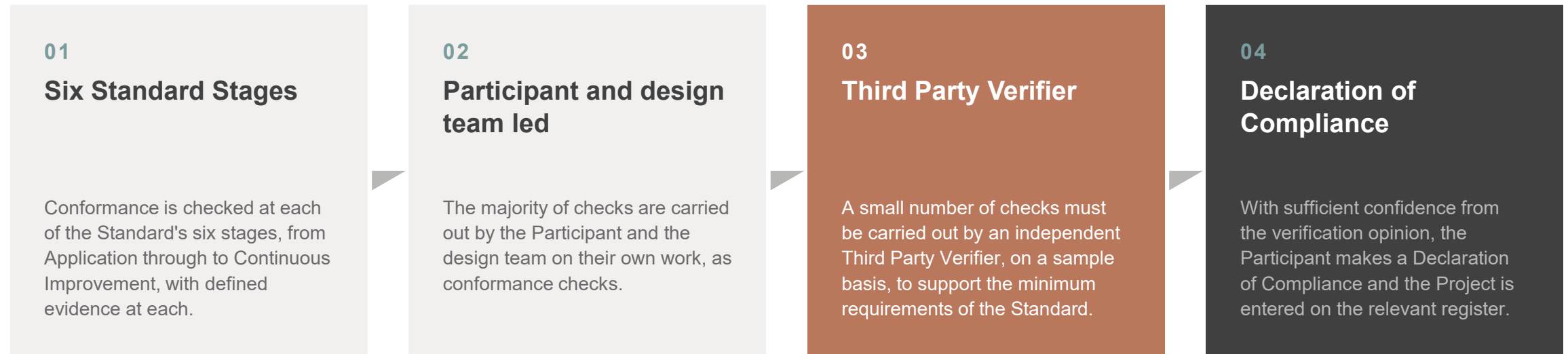
That same flexibility has left genuine uncertainty in execution: how the role should be scoped, at what point the verifier should be appointed, who that should be, and what evidence should be made available to them.

What does The Standard say

It provides the framework for a Participant to set exemplary targets and to embed performance from the outset, so that what is designed is capable of being measured and validated.

The majority of that validation is led by the Participant and the design team.

A limited number of checks must be independent, and it is that independence which sustains the rigour of the process through to the Declaration of Compliance.



02 THE OBJECTIVES

Six Objectives within the Standard

PLACE OB.1 CARBON OB.2 OB.3 OB.4

ENVIRONMENT OB.5 OB.6

OB.1

Inclusive Net Zero Economy Outcomes

How the Project contributes to an inclusive net zero economy and to the place in which it sits

OB.2

Construction Embodied Carbon

Upfront carbon from materials and construction

OB.3

Operational Energy

Energy consumption, and associated emissions, once the building is in use

OB.4

Other Whole Life Carbon

Embodied carbon across the remainder of the building's lifecycle

OB.5

Indoor Environmental Quality

Occupant comfort, health and wellbeing within the building

OB.6

Environmental Aspects

Project-specific environmental priorities set by the Participant

02 THE OBJECTIVES

Five of the six require Third Party Verification

OB.1 is verified at the Application Stage. OB.2 to OB.5 fall within the selected aspects checked at Detailed Design.

OB.1 Inclusive Net Zero Economy Outcomes

Verified · Application Stage

OB.2 Construction Embodied Carbon

Verified · Detailed Design

OB.3 Operational Energy

Verified · Detailed Design

OB.4 Other Whole Life Carbon

Verified · Detailed Design

OB.5 Indoor Environmental Quality

Verified where complex · Detailed Design

OB.6 Environmental Aspects

No third party verification · Participant-led

OB.5 Indoor Environmental Quality requires third party verification where the design is complex. On less complex projects, the Participant and design team may self-verify.

03 HOW CONFORMANCE IS CHECKED

When, and at what Stage

NZPSBS Stages	Application		Concept Design	Detailed Design		Delivery	Verify Performance	Continuous Improvement
RIBA PoW Stages	0. Strategic Definition	1. Preparation & Brief	2. Concept Design	3. Spatial Coordination	4. Technical Design	5. Construction	6. Handover	7. In-Use

 **Objective 1**
Third party verification
Application
 RIBA Preparation & Brief
 The Project's response to OB.1 Inclusive Net Zero Economy Outcomes. Ideally created and concluded in the very early part of the Application Stage.

 **Objectives 2 – 5**
Third party verification
Detailed Design
 RIBA Technical Design
 Selected aspects of the completed design, including the Verification Plan setting out how each Objective target will be proven. For OB.3, an M&V Plan approved by a CMVP.

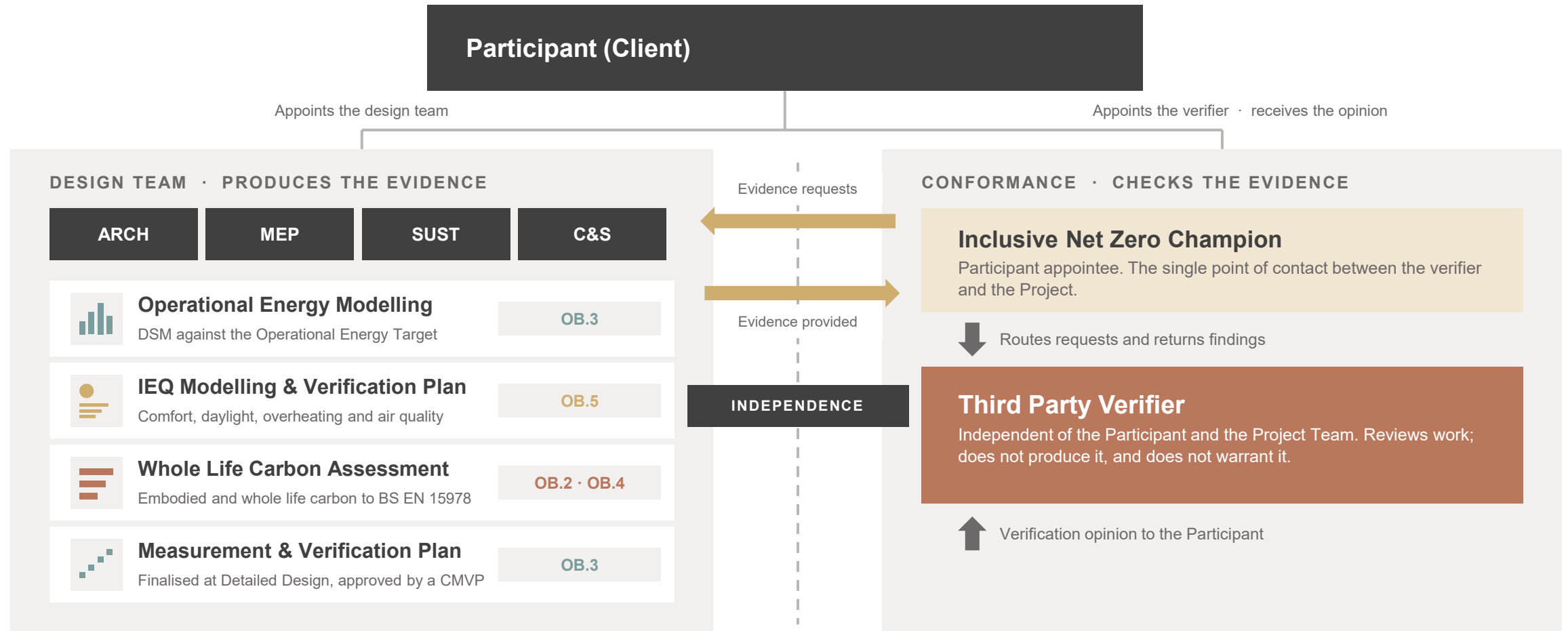
 **Objectives 3 – 6**
Participant-led
Verify Performance
 RIBA In-Use
 Participant conformance checks on in-use performance against the targets set for the Project.

Sample basis as a minimum. Participants may extend a verifier's commission to a greater scope or larger sample than the Standard requires.

04 THE THIRD PARTY VERIFIER

The Structure

- 1 Independent of the design team
- 2 Appointed by the Participant, and reports to the Participant
- 3 Coordinated through the Net Zero Champion



04 THE THIRD PARTY VERIFIER

The role, and the experience

THE ROLE IS

- An independent opinion on the aspects commissioned
- A sample-based check of the evidence behind the results / outputs
- The basis for the Participant's Declaration of Compliance

THE ROLE IS NOT

- A replication or warranty of the design team's work
- A substitute for the project team's own quality assurance and due diligence
- A guarantee of outcomes

SKILLS AND EXPERIENCE

Requirements of the party appointed to the role



Requisite subject matter expertise

Demonstrable competence in the areas being verified — dynamic energy modelling, whole life carbon assessment and indoor environmental quality.



Independence

No interest in the design or delivery of the Project. Independent of both the Participant and the Project Team.



Certified M&V capability

For Objective 3, the M&V Plan must be approved by a Certified Measurement and Verification Professional or have the equivalent industry experience.

How Carbon Futures delivers Third Party Verification

1 Agree scope and sample

We confirm the Objectives, sub-criteria and stages within scope, together with the sampling basis. We issue a **Menu** of the available checks, agree the selection with the Participant and NZC, and provide that schedule to the design team so that the required evidence can be assembled.

2 Interrogate the evidence

We examine model inputs, assumptions, benchmarks, calculation methods and reported results, reviewing each for consistency, robustness, and alignment with the Project brief.

3 Test against Requirements

We check the reported position against the Participant's agreed targets, and against the Requirements of the Standard.

4 Report and close out

We issue findings, discrepancies and required remediation (if applicable) to the Participant and NZC, and confirm close-out, so that the Declaration rests on a sound evidential basis.

Where the checks fall across the Standard's six stages

Application

OB.1 response

Concept Design

Options appraisal

Detailed Design

Verification check

Delivery

Construction

Verify Performance

In-use measurement

Continuous Improvement

Review and update

Our experience - Park Mains High School Extension

Extension and refurbishment · Renfrewshire Council · NZPSBS project

Net Zero Champion and Verifier

Our appointment as Net Zero Champion provided the opportunity to undertake the Third Party Verification role under the same commission.

Issues resolved in advance of verification

Having set the targets and conducted the peer reviews as the design developed, the majority of challenges were resolved well before the formal checks. This was deliberate approach based on previous experience.

Verification proceeded efficiently

A degree of iteration was still required to close out each third party check, but the process was straightforward as the evidence had already been structured around the Menu we had provided.

Operational energy

77

kWh/m²/yr predicted
Target range 65–80 kWh/m²/yr

Embodied carbon

540

kgCO₂e/m² predicted
Target 600 kgCO₂e/m²

Extension and refurbishment, assessed against new build targets

Refining Verification



Third Party Verification Scope

A standardised scope defining what the Verifier is required to check and to what level of detail, including the minimum number of checks needed to satisfy the Requirements and the form in which evidence should be presented.



Required Skills and Experience

A skills and experience matrix setting out who may be considered and commissioned as a Third Party Verifier. Experience-based in the first instance, with the potential to move to an accreditation basis in due course.



Programme of appointment and checks

A schedule setting out when the Third Party Verifier should be appointed, ideally at an early stage, and the points at which they are required to engage with the design and construction programme.



Summary

Together, these updates would give Participants clarity on the role, its requirements and the timing of the Verifier's engagement, allowing the role to be included within appointments scopes from the outset, related costs included within the overall project fees.



**Independent verification, delivered
by experienced experts.**

David MacConnell

Director

Carbon Futures (Consultancy) Ltd

davidmacconnell@carbonfutures.co.uk

Glasgow · Edinburgh · London