



Implementation of an energy-based net zero housing policy – the B&NES perspective

GHA/TCPA Net Zero Planning Policy Webinar
18 April 2023



Application process

B&NES

Planning application submission

Applicant has submitted key information:
Sustainable Construction Checklist SPD, Energy Summary Tool and full SAP/PHPP data.

Application assessment

DM case officer initial check →
Reviewed by Climate Policy Officer →
Check with University of Bath academics if uncertain.

Compliant?

Assess overall compliance following review process.
No transitional arrangement.
Net zero takes precedent over affordable homes.

Offsetting

Offset residual on-site renewable energy generation as **last resort**.
£373/tCO₂
Funds spent installing solar PV on existing social housing and low-income households.

Approved application

Application process

Cornwall

Planning application submission



Applicant has submitted key information: **Energy Statement (includes full SAP/PHPP data) and Energy Summary Tool.**

Application assessment

DM case officer initial check →
Reviewed by independent external body if complex.

Compliant?

Transitional arrangement (only for 1st year) for EUI **OR** on-site renewable energy.
Viability clause allowing flexibility in line with the energy hierarchy.

Offsetting

Offset residual on-site renewable energy generation as **last resort.**
£10p/kWh
Funds spent installing solar PV on existing council housing as a pilot project.

Approved application

Issues with SAP

Issues

Part L calculations do not account for unregulated energy.

Unregulated energy in SAP can as high as **30 kWh/m²/year** – overestimation because equation is based on **1998 appliances**.

Unregulated energy takes up a large proportion of overall EUI – see graph.

Space heating demand is underestimated – likely to be **210-270% higher than indicated by SAP**.

Solution

Strong preference to use **Passive House Planning Package** for calculations – required for majors.

Allow applicant to use SAP calculations with **Energy Summary Tool** – adjusts EUI and space heating demand to realistic levels.

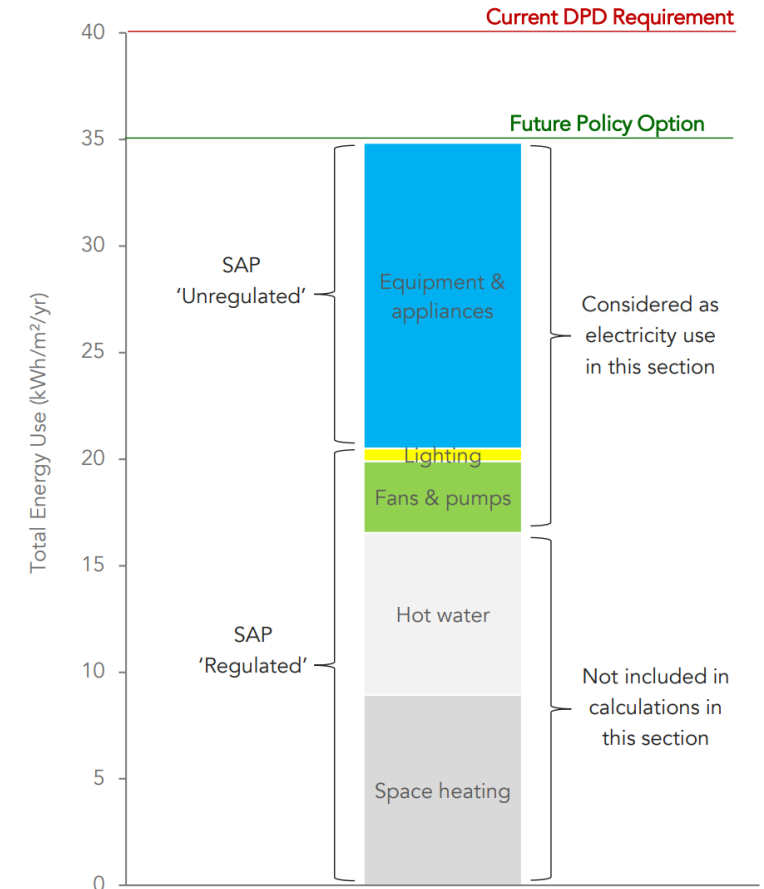


Figure 1 – EUI contributions for a semi-detached net zero home (Etude, 2021)

Training

Internal – Development Management team

Streamline the process

Have a clear system in place to decide when internal/external expert is consulted.

Select one or two individuals who can be a **net zero champion** within the DM team.

Technical understanding

Continuous training sessions on policy framing and how to apply the policy.

Technical sessions on U-values, heating/ventilation systems and passive design typically required for compliance.

Reliable decision-making

Increase confidence among DM officers to assess applications initially – expert advice on hand for review if possible.

Assist DM using a ‘hymn sheet’ with compliance scenarios, best-practice values and FAQs from industry.

Training

External – agents, developers and energy assessors

Maintain transparency

Notify agents when policy will be implemented and which applications may have to resubmit – **compliance required if an application is determined after adoption date.**

Encourage conversations at **pre-application stage** to ensure policy is sufficiently considered.

Effectively engage

Keep communication lines open with energy assessors, particularly at initial stages during industry adjustment.

Increased confidence and reduced reluctance to new policy approach.

Guidance documentation

Ensure policy guidance documents are clear on what is expected from applicants to minimise confusion and uncertainty.

Hold **engagement sessions** to go through documents with agents and energy assessors.

Reluctance to compliance

A slow start

No compliant applications – January

Lack of understanding on policy and application requirements.

Reluctance to engage and change, primarily due to separation from Part L.

Incorrect document submission and widespread non-compliance.



Signs of change

First few compliant applications – February

Applicants and energy assessors have increased understanding of approach following communication.

Correct document submission but majority of applications non-compliant.



Compliance

Steady flow of compliant applications – March

Fully compliant applications begin to come in.

Assessors understand the approach that is required for compliance.

Areas for further improvement

How can we improve policy implementation?

Monitoring

Monitor and report application data in detail – how have applications reached compliance?

Central database across LPAs to help inform future policy development and ease of compliance.

Collection of building energy performance and embodied carbon data to **strengthen industry standards** e.g. UKNZCBS, LETI.

Industry skills

Important to understand ease of implementation within development industry: **construction skills, availability of PHPP assessors, materials supply chain.**

University of Bath to produce report on industry experience of policy implementation following partnership period (ends July).

Post-occupancy

Crucial to collect data on in practice performance of buildings compliant with net zero policies.

- Are the building operating as intended?
- Is the use of PHPP reducing performance gap?

Refinement

This is the first policy of its kind in the UK, implementation will not be perfect. So, how can we refine implementation approaches to assist other LPAs setting similar policies?

Review process to ensure industry is best able to deliver on the delivery of truly net zero buildings.

Thank you. Questions?

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