

Application for Recognition of a New Technology in SBEM

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Introduction

The procedure described in this application is to allow technologies not currently represented in SBEM to be included and to have their energy saving benefits evaluated and taken into account for Building Regulation and Energy Performance Certification purposes. These may be new technologies or advanced versions of existing technologies (This may include technologies which can already be represented in one or more Dynamic Simulation Models (DSMs). While SBEM estimates will usually be more general – and therefore perhaps more cautious – than those from DSMs, consistency will be important).

The Building Research Establishment (BRE) is the contractor currently responsible for developing and managing SBEM on behalf of the Department for Communities and Local Government (DCLG). References to BRE in this document should be read in that context.

To maintain the integrity of SBEM, any technology considered for inclusion must have an energy calculation methodology agreed and accepted. Once this has been achieved, it can be added within the iSBEM/SBEM software.

It should be appreciated that in considering technologies, the SBEM calculation methodologies must maintain fairness and impartiality. Analytical treatment must remain proportionate to the scope, purpose, and resolution of SBEM, and not conflict with existing SBEM methodology or with the requirements of Building Regulations documents such as the Building Services Compliance Guides.

It should be recognised that new ideas and products may be difficult to assess if they fall outside the traditional assessment methodologies. Reports and test results from other independent third parties can be submitted for consideration. However, these may not be relevant to SBEM's requirements. Where they exist, relevant EN and BS standards will be considered and reviewed although they may not be satisfactory in assessing a new technology.

The inclusion procedure requires DCLG to approve the incorporation of any new technology, whose benefits have been robustly proven, into the SBEM system. It is important to clarify that DCLG requires that generic technologies, not commercial product names, be directly incorporated into the SBEM system.

Applications from any company attempting to distort the energy savings of a product or products, including falsifying data or reports from independent third parties, will be refused, and where applicable, the relevant third party(s) will be notified.

Application Process

To have a technology considered for inclusion in the SBEM system, the application form (part of this document) should be completed and emailed to sbemq@bre.co.uk.

The application should include:

- Brief description of the technology, specifying the scope of its application and the mechanism by which it operates (received in confidence by BRE)
- Any relevant standards governing all or part of the technology
- Any limitations as to its application
- Key parameters which will affect the energy use and standardised methods to measure them if applicable
- Any theoretical or empirical data supporting the energy performance of the system, if available.
- Any existing testing and/or modelling track-record – for example via DSMs, SAP Appendix Q, Eurovent Certification, etc
- Any additional information

The application process for inclusion into the SBEM system is outlined within the flow chart in Figure 1. As the diagram shows, the first phase of the application process requires the acceptable completion and submission of the application form.

Once the application is received (Stage 1), it will be reviewed by BRE and a decision made as to whether an initial preliminary meeting should be held (Stage 2). This preliminary meeting will be held free of charge between the applicant and a member of the SBEM team to consider any additional relevant information and review the application framework (Stage 3). If an application is unsuccessful during any part of the application process, a formal letter will be issued detailing the reasons.

If the outcome of the preliminary meeting is successful, the application will proceed to a feasibility assessment at a standard upfront fee of £2,000 (Stage 4). This single-page assessment will consider the empirical and theoretical research required for progression of the application to the next stage of the application – the scoping study (Stage 5). The intention of this assessment is a low-risk method for determining the probable scale of the application process.

The purpose of the scoping study (Stage 5) is to devise a potential implementation process, provide an indication of the probable energy savings that can be represented within SBEM, and to make an initial assessment of the performance and other information that would be required.

Depending on the application and availability of theoretical or empirical information, this stage could, in addition to the development of a modelling process, involve laboratory or field measurements, or comparisons with DSM calculations. This last possibility might, for example, involve the following steps:

- a) Establishment of modelling framework for the analysis of the suggested technology
- b) Configure base case scenarios on DSM models and SBEM for calibration
- c) Configure technology specific scenarios on DSM models
- d) Suggest and explore feasibility of technical solutions adapted to a monthly methodology to reflect results from detailed procedures. Low level modifications of development SBEM engine.
- e) Calibrate SBEM methods with DSM results.

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The scale and extent of the study will be highly variable between technologies depending upon the complexity of the technology concerned and the availability of existing information.

Stage 6 (Software implementation) includes upgrades/enhancements of interface (iSBEM), conversion tool for backward compatibility (nctconvert.mdb), public calculation engine (SBEM), compliance/EPC modules (BRUKL, EPCgen) – if required, user guides, technical manuals, SBEM SDK, etc.

BRE will provide quotations for devising a modelling process and for software implementation. Where appropriate, BRE will also provide a quotation for the collection of information and for comparison studies with DSM results. There is no obligation on applicants to employ BRE for this work, but data provided in support of implementation must meet agreed requirements for scope and quality.

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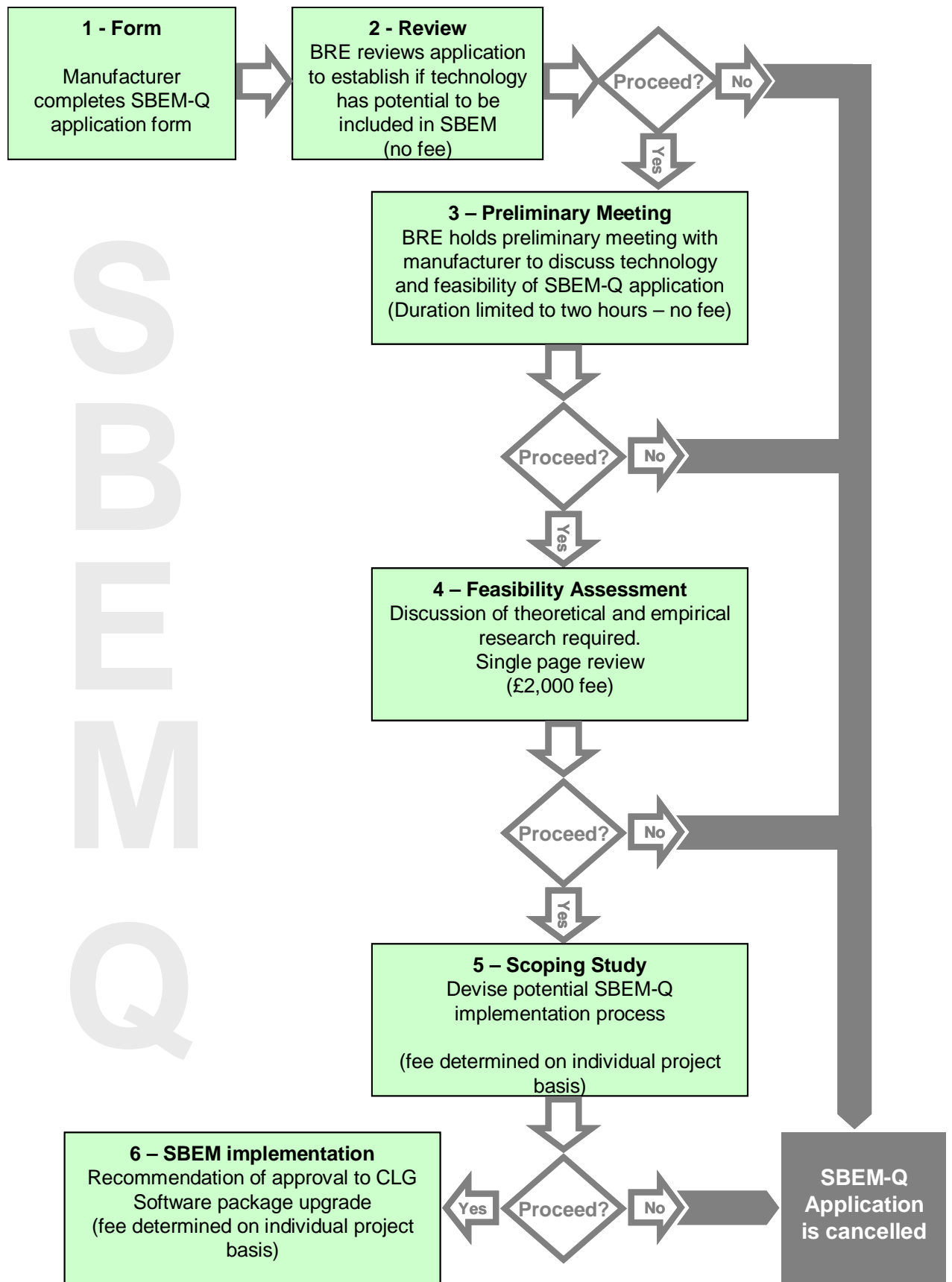


Figure 1 – Inclusion into SBEM-Q Application Process

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Notes:

The inclusion procedure requires DCLG to approve the incorporation of any new technology. BRE will contact DCLG at stage 2 to raise awareness of the process, keep officials updated at stage 3 and request final approval at stage 6 after BRE's recommendation for inclusion

All details of the technology provided by the manufacturer will be handled in strict confidence by BRE until and unless incorporated within SBEM, at which point any publicity will be to the extent agreed between BRE and the applicant.

Important Note

The SBEM application process can take some time to complete, depending on the nature of the technology and the complexity of the analysis required. The application costs can therefore be quite high. Applicants may wish to consider applying for support under HMRC's R&D Tax Credits programme. More information can be found at: <http://www.hmrc.gov.uk/ct/forms-rates/claims/randd.htm>

Terms and Conditions

1. When a technology has been included into the SBEM system, it may be said to be 'recognised in SBEM', or 'SBEM eligible'.
2. Note that SBEM is a calculation methodology, and as such, inclusion of a manufacturer's product or system in SBEM:
 - does not represent any form of accreditation, certification, approval, or recommendation, by DCLG or BRE. Promotional or other literature must not suggest this.
 - does not grant the manufacturer any right to use the DCLG or BRE logos.
3. The presence of a technology in SBEM does not mean that equally good or better results may not be obtained from other products and building designs.
4. Any calculation methodology included in SBEM can only be developed for generic technologies, and will not be restricted to a particular product. The technology generic name will be different to the product name, and will be agreed with BRE and DCLG.

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Application Form

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1. Company Details

Company Name:

Company Address:

Contact Person:

Manufacturer or Supplier?

Telephone Number:

Email Address:

2. Product/Technology Details

Product/Technology Name:

Type of Product:

Relevant Calculation and/or Testing standards:

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Brief description of the technology, specifying the scope of its application and the mechanism by which the technology works:

Limitations to its application:

Additional Information: