

The Future of SAP and RdSAP

PEPA Conference

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Department for
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& Net Zero





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Agenda

1. RdSAP 10
2. Conventions
3. Home Energy Model (SAP 11)



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RdSAP 10





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**26
September**
First stage of
software
release

4 October
Specification
published on
BRE website

Early Nov
Second half
of software
release

**Mid
November**
RdSAP 10
Conventions

**March 2024
(TBC)**
RdSAP goes
live



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RdSAP 10 Changes

- The RdSAP specification has been developed by BRE and the **RdSAP Advisory Group**, which includes representatives from the accreditation schemes.
- The Government is committed to making the **RdSAP methodology more robust, and supportive of our Net Zero objectives**.
- We appreciate the time and resource impact it will have on assessors, and we want to ensure the transition is as smooth as possible.

1. Ventilation parameters allow for:
a) Details of heatloss via chimneys, flues, fans (in place of defaults);
b) Pressure test can be used if available.

2. PV
a) Calculation accounts for exported electricity;
b) Solar PV battery and divertors introduced.

3. Roof insulation
a) More details of insulation added

4. Wall area and insulation
a) Rate of heatloss via walls was revised,
b) Details updated for solid brick and stone walls
c) Wall area is more accurate as a result of accurate measurement of windows



5. Approach to Room Roof revised
a) Types of RR differentiated
b) RdSAP10 allows for the actual details of RR walls and to account gable(s).

6. Windows
a) All windows are measured;
b) Table of windows expanded
c) this allows accurate estimate of wall area and heatloss via walls.

7. Window shutters introduced
a) Uninsulated shutters
b) Insulated shutters

8. Floor insulation and ventilation
a) More options for insulation added



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RdSAP Conventions



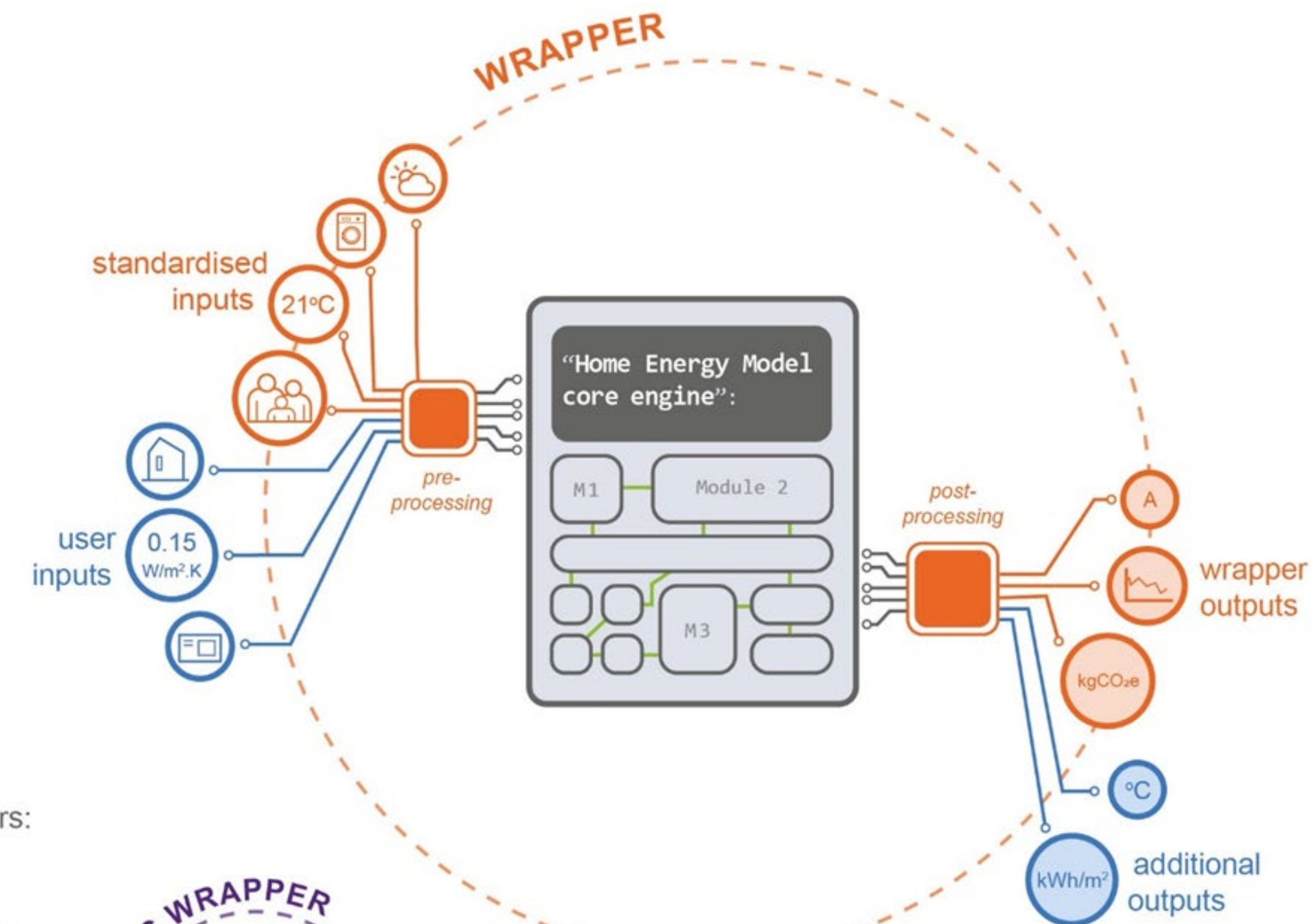


- Scheduled for 21st November
- Further Conventions in due course

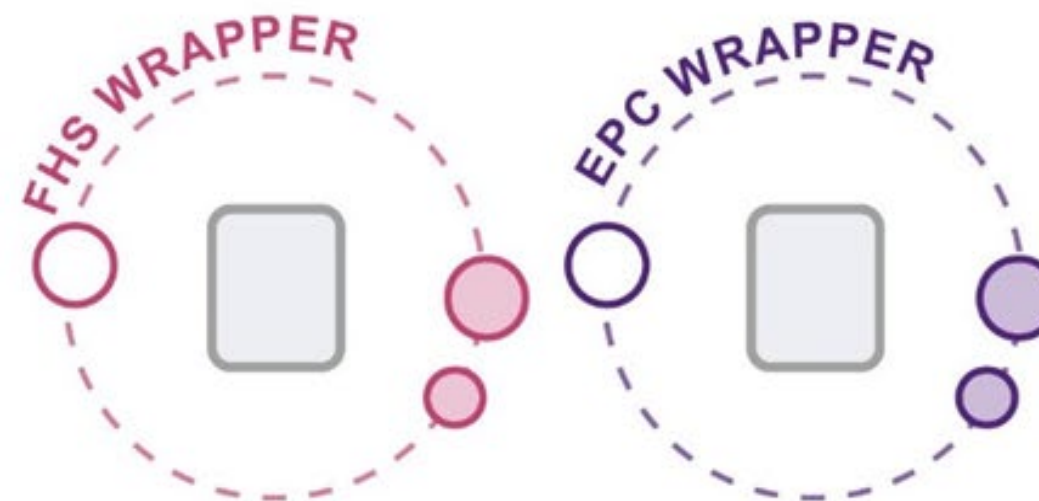


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Home Energy Model (SAP 11)



Example wrappers:





Home Energy Model: Key Changes

1

Modular:

The model will have a core engine and policy-specific wrappers e.g. for building regulations compliance or EPCs

2

More transparent:

We will make the code publicly available

3

More accurate:

Increased time resolution from monthly to half-hourly

4

New delivery model:

Energy Calculation as a Service

5

Products and new technologies:

Revised database of product characteristics and how new technologies are recognised in the model



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Home Energy Model Consultation

1. **Home Energy Model consultation:**
explains overhaul to SAP methodology,
seeks views on approach taken by new
model
2. **Home Energy Model: Future Homes
Standard assessment consultation** :
seeks views on proposed methodology for
demonstrating compliance with FHS
3. **Home Energy Model: FHS assessment
consultation tool**
4. **Home Energy Model technical
documentation**
5. **Home Energy Model reference code**



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The Home Energy Model

Making the Standard Assessment Procedure
fit for a net zero future

Closing date: [XX] Month 2023

[Month] 2023



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Home Energy Model Consultation

Consultation tool

- Browser-based application which can be used to interact with the model during the development process
- Has been tested by SAP users and housebuilders through the Future Homes Hub

Engagement with SAP assessors and accreditation schemes during the consultation period

- Consultation tool demonstration session
- Presentation on the new methodology



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Upcoming Home Energy Model workstreams

Home Energy Model core engine & Future Homes Standard wrapper

- Produce final core engine and Future Homes Standard assessment wrapper
- Publish Government responses to consultations

EPC wrapper

- Produce the EPC wrapper, including EPC metrics proposals and “RdSAP” assumptions and conventions
- Publish consultation and response on EPC wrapper

Validation and Quality Assurance

- Validate and QA the Home Energy Model core engine, FHS wrapper, and EPC wrapper

We intend to work with trade associations to understand how best to engage with users as part of this process.



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Upcoming Home Energy Model workstreams

Revising current Product Characteristics Data Base (PCDB) and Appendix Q

- Enabling product-specific performance data to be used in the Home Energy Model
- Enabling new technologies to be recognised in the Home Energy Model

Energy Calculation as a Service (ECaaS)

- Delivery of software to energy assessors

We intend to work with trade associations to understand how best to engage with users as part of this process.



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Energy Calculation as a Service (ECaaS)

What is ECaaS?

- Proposed as a cloud service that would be designed and maintained by DDaT professionals in the DLUHC Building Performance division.
- Software that calculates building energy performance based on the BRE/DESNZ methodology, which will guarantee consistent results and provide greater data for policy making.

What have we done so far?

Carried out an Alpha development. This focussed on;

- How building compliance works – this is the major area that ECaaS will support
- Established that ECaaS is feasible from a technical perspective

Scheme engagement

- Workshop with schemes, presented findings.
- Gained understanding of their requirements, hopes and fears

What next?

- Planning Beta development stage
- Procuring team
- Further Schemes and DESNZ engagement

We plan to start beta in January 2024, with a deadline matching 2025 FHS.



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Thank you