Reduced Data SAP – amendments for 2011

RdSAP will be changed to RdSAP 2009 on 17 April 2011 in all countries (England & Wales, Scotland, Northern Ireland).

Changes to data collection

1. **Position of flat in block of flats**

   Instead of asking for the number of storeys in the block, ask whether it is basement, ground-floor, mid-floor or top-floor.

   Data collection/user interface. Pick-list of above options instead of number of storeys.

   Calculation. This value is not itself used in calculations (basement flats and ground-floor flats are treated the same). The purpose is to give the assessor control of what is written for dwelling type at the top of the EPC, e.g. "Ground-floor flat" or "Top-floor maisonette".

   EPC. For 'Dwelling type' at the top of page 1 use directly the assessor's selection of this plus "flat" or "maisonette", instead of working it out from flat level and number of storeys.

2. **Number of extensions**

   Allow up to 4 extensions. There remains only one alternative wall, which can be in the main dwelling or any of the extensions.

   Calculations. No change (other than the need to allow for more walls, floors and roofs than before).

   EPC. To avoid an excessive number of walls etc being listed on page 3 of EPCs, the following rules are applied (written for walls but also applies to floors and roofs).

   Apply rules in this order:

   1) Any wall that is less than 10% of the total wall area is disregarded
   2) Merge walls that have the same description
   3) If that leaves more than three retain only the three with the largest areas, if two have the same area the order of selection is main dwelling, extension 1, extension 2, etc.

   Thus at most 3 walls will be shown.

3. **Vertical extensions and identifying links between building parts**

   An extension can be either:
   - alongside the rest of the dwelling, or
   - above another part of the dwelling

   Note. It is possible for an extension to be both above and alongside the rest of the dwelling. Such a building part is not defined in RdSAP and in this case the assessor divides the extension into two, one above and the other alongside.

   For each building part (main part and all extensions), the assessor identifies:

   a) whether lowest floor is/has
      - ground floor
      - above partially/intermittently heated space (commercial premises)
      - above unheated space
      - to external air

- same dwelling below
- another dwelling below

and

b) whether the highest floor has
- pitched roof (slates or tiles), access to loft
- pitched roof (slates or tiles), no access
- pitched roof (thatch)
- flat roof
- same dwelling above
- another dwelling above

Data collection. Floors – the above to be collected for all building parts, not just for flats. There is an additional option of same dwelling below, to be used for vertical extensions. Roofs – additional option of same dwelling above, to be used when an extension has been built above the original.

Calculations. No heat loss through a floor or 'roof' to the same dwelling.

4. **Insulation of timber frame walls**

Allow "with internal insulation" as a possible option for insulation of a timber frame wall.

Data collection/user interface. This is intended primarily for old timber frame walls that have had insulation added. Documentary evidence is required. "With internal insulation" is a possible option for the wall insulation.

Calculation. Additional U-values for timber frame wall with internal insulation.

EPC. Wall description becomes "Timber frame with additional insulation".

5. **Roof insulation (retrofit)**

For flat roof insulation, rafter insulation and insulation of roof rooms, there is at present an option to say they are insulated (based on visual or documentary evidence) but no possibility to specify a thickness of insulation.

Data collection/user interface. When there is visual or documentary evidence of insulation of a flat roof, at rafters or of a roof room other than the flat ceiling of the roof room, assessor indicates the insulation thickness as
- unknown
- 50 mm
- 100 mm
- 150 mm or more

Unknown might apply in the case of rafter insulation where it can be seen but its thickness cannot be measured.

Calculation. Additional U-values for 100 mm and 150 mm. If thickness is unknown use U-value for 50 mm..

6. **Additional heating systems (from those in the SAP 2009 list)**

- solid fuel boilers: 4 permutations – heated/unheated space, manual/auto feed (151, 152, 153, 154)
- wood chip/pellet independent boiler (155)
- pellet stove with radiators (159)
- biooethanol room heater (625)
- dry pellet stove (635)

- pellet stove with DHW boiler (636)
- water or oil filled electric radiators (694)

Data collection/user interface. Include the above as selectable options.

Calculation. Normal calculation using characteristics defined in Table 4a.

7. **Additional database items, main heating**

Data collection/user interface. Allow selection of the following from the database:

- heat pump
- solid fuel boiler
- micro-CHP

If a micro-CHP cannot be located in the database the current convention of a condensing boiler still applies. If a heat pump or solid fuel boiler cannot be located in the database a generic heat pump or boiler is to be selected instead.

In the case of an exhaust air heat pump signal an error if the ventilation type is not mechanical (MEV or MVHR).

Calculation. Calculate via SAP 2009 procedures.

8. **Additional fuels**

Data collection/user interface. Enable selection of these fuels:

- LPG Special Condition 18.
- B30K
- bioethanol (secondary heating only)
- all solid fuel types listed in SAP Table 12

The following apply only if boiler using the fuel is obtained from the database:
- biodiesel from any biomass source
- biodiesel from used cooking oil only
- rapeseed oil
- appliances able to use mineral oil or liquid biofuel
(thus the above four fuels are not provided as options for generic boilers)

Calculation. Use the data for the fuels from SAP 2009 Table 12.

9. **Two main heating systems**

Data collection/user interface.
(a) When two systems heat different parts of the property, allow selection of each system and the fraction of the total floor area served by each.
(b) When a database boiler is used for DHW only, allow it to be selected as 2nd main system and DEA sets the fraction of total floor area heated by second main system as 0.

Calculation. Per SAP 2009 procedures for two systems.

EPC. In the property summary include both systems unless one is doing hot water only.

Heating upgrades when there are two main systems

In the case of a boiler upgrade (or CPSU or range cooker) where both systems each use the same fuel, apply the improvement to both boilers as applicable (i.e. boiler is non-condensing) as a single step. If the result attains the SAP increase criterion make the recommendation on the EPC using the improvement text applicable to main system 1.

In the case of any other combination of main heating systems, apply the improvement to system 1 only.

Heating control upgrades when there are two main systems

Apply the improvement to the controls on system 1 only.

10. **Community heating**

    Data collection/user interface. Three options: CHP, boilers, heat pump, together with any of the community fuels in SAP 2009 Table 12 except waste heat from power station and geothermal. If fuel not known, gas is selected.

    CHP is understood to mean CHP and boilers.

    Calculation. For boilers or heat pump there is one community heat source with heat fraction = 1. For CHP there are two community heat sources (each using the same fuel), CHP and boilers.

11. **Secondary heating**

    There are two situations where there must be a secondary heater in the SAP calculation.

    a. The number of heated habitable rooms is less than the number of habitable rooms. If the assessor has not entered a secondary heater, the software inserts portable electric heaters (493) as the secondary heating. This is done automatically.

    b. The main heating is electric storage heaters or off-peak electric underfloor heating (401, 402, 404 and 421). This is done either as a. above or the user interface requires the assessor to enter a secondary heater (if none has been identified, 493 is to be entered). This does not apply to 408 or 422 which have an in-built direct-acting component.

12. **Water heating**

    Data collection/user interface. All options in water heating section of SAP 2009 Table 4a (except some range cookers): selection of type, plus fuel where not from main or secondary system.

    Note. Systems 911 to 913 and 921 to 931 are for generic boilers. If a database boiler is used for DHW only, assign it as a second main heating system with heated floor area fraction of 0 and the water heating is 914.

    Calculation. Efficiency from SAP 2009 Table 4a. In the case of DHW-only community heating CHP is understood to mean CHP only, so one community heat source with heat fraction = 1.

13. **Heating control options for community heating**

    Data collection/user interface. All options for community heating in SAP 2009 Table 4e.

    Calculation. Per SAP 2009 Table 4e.

14. **No heating system present**

    Data collection/user interface. When these is no heating system the number of heated rooms is to be entered as 0.

15. **Space cooling**

    Data collection/user interface. Tick-box or equivalent to record when a fixed system for space cooling is present.

Calculation. Space cooling is not included even where present (because of lack of data on system parameters; effect on ratings is usually small).

EPC. Under "What can I do today" add "The dwelling has a cooling system, which has not been taken into account in calculating the energy ratings. Use it to the minimum extent needed." (as in SAP 2005 for new build).

16. **Existing PV installation**

    If kWp of the existing installation can be determined, use that instead of the default.

    Data collection/user interface. Assessor looks for data sheet (example to follow) adjacent to electricity meter, if found checks installation credentials and records kWp. Thus two options: (a) enter kWp, (b) enter % of roof area as in RdSAP 2005.

    Calculation. Use kWp if known, otherwise estimate kWp from % roof area as in RdSAP 2005.

17. **Low energy lights**

    Collect total number of fixed outlets and LE outlets separately.

    User interface. Enter total and LE separately (if it does not already do that).

    Calculation. The ratio L_{LE}/L_{total} is to be rounded to the nearest 0.01 before being used in SAP Appendix L equation (L2).

Draft EPCs (before lodgement)

Draft EPCs must have:

a) a watermark DRAFT on each page
b) RRN shown as 0000-0000-0000-0000-0000
c) "PREVIEW – NOT FOR ISSUE" at the top and bottom of each page

It must not be possible for the assessor to obtain the actual EPC until it has been lodged. This is to be implemented such that the only way for the assessor to obtain the EPC is to lodge it and then retrieve it from the register. The software itself makes available only the draft form of the EPC as described above.

EPCs – England & Wales

1. **Page order**

   The previous pages 3 and 4 are interchanged.

2. **Total potential savings to be shown on page 1**

   a. Below the rating graph write "You could save up to £xxx per year" in 11 point bold, where xxx is the total of the potential savings (low cost and higher cost measures). It is rounded to nearest £1 and must be the same figure as is shown on the (re-ordered) page 2 as the total of low and higher cost measures. This line is omitted if xxx is less than 50.

   b. Omit the line "To see how this home can achieve its potential rating please see the recommended measures." previously put at the bottom of page 1.

3. **Costs of measures to be shown alongside projected annual savings**

   Costs for implementing the recommendations are to be indicated by adding another column to the table of recommended measures. Mostly this will be a cost range.

4. **Element banding**

   Instead of good/poor assessments these are changed to stars, Very poor becomes one star and Very good becomes 5 stars. The second sentence of the paragraph above the table is changed to "Each element is assessed by the national calculation methodology, 1 star means least efficient and 5 stars means most efficient.".

   Note. In the case of new build, we have been writing "Compliant" instead of Poor or Very poor. This is now to be a dash.

5. **Renewable heat incentive**

   Data is to be provided on EPCs that can be used for RHI. It is the annual demand for space heating and water heating, worksheet (98) and (64) respectively, i.e. the heat to be provided by the heating system without consideration of the characteristics of the system and not including solar water heating. The calculation is done with any loft insulation that is less than 150 mm increased to 150 mm and any cavity wall with cavity fill added if not already present.

6. **Recommendation texts**

   These have been amended.

7. **What can I do today**

   Add under "What can I do today?" section:

   - Check the draught-proofing of windows and replace it if appropriate.
   - If you have unused open chimneys, consider blocking them off (making provision for a ventilation opening and a cowl on top of the chimney to avoid dampness).
   - The dwelling has cooling system, which has not been taken into account in calculating the energy ratings. Use it to the minimum extent needed. [Only when a fixed cooling system is present]

8. **Addenda**

   Addenda 2, 3 and 7 and been deleted and the wording of 5 modified.

EPCs – Scotland

The position for Scotland re the above EPC changes listed for E&W are:

Page order – no change, keep page order used for SAP 2005

Total potential savings to be shown on page 1 – no

Costs of measures to be shown alongside projected annual savings – yes, as E&W

Element banding – yes, as E&W (difference in introductory paragraph)

Renewable heat incentive – yes, as E&W

Recommendation texts – only minor changes

What can I do today – yes, as E&W

Addenda – yes, as E&W

EPCs – Northern Ireland

The position for Northern Ireland re the above EPC changes listed for E&W are:

Page order – no change, keep page order used for SAP 2005

Total potential savings to be shown on page 1 – no

Costs of measures to be shown alongside projected annual savings – yes, as E&W

Element banding – yes, as E&W

Renewable heat incentive – no

Recommendation texts – only minor changes

What can I do today – yes, as E&W

Addenda – yes, as E&W