





# Routes into SAP – Q&A

Dr Neil Cutland, Director, Sava





#### About me



- Energy in the built environment consultant.
- Specialism: low energy housing (including modelling).
- One of the people who developed MKECI (1988), NHER (1990), SAP (1993 ff).
- Have sat on SAPSIG, Ofgem's TAP, BRAC's Part L and ZC working groups.
- Currently assisting innovators in the Net Zero Heat Cohort (and SECHA today).

Please excuse any 'English-isms'

### The usual ways into SAP for new tech



- (It matters: B.Regs/Standards compliance, EPCs for existing and newbuild homes, ECO, GBIS and other funding streams, UK policy modelling...)
- Engage, discuss and lobby DESNZ and its contractors (currently BRE). Then get in either
  - via the conventions list and/or a technical note
  - by making an entry in the Products Characteristics Database (PCDB)
  - by carrying out an 'Appendix Q' application
  - by explicit inclusion in the next full version of SAP

## Appendix Q / PCDB / PCDF ("Special Features")



(For new tech, consider them to be the same thing).

- 1. Explain the energy (cost) saving mechanism.
- 2. Map it onto the SAP equations if possible.
- 3. Prove it.
- 4. Evaluate the saving and plug it into SAP box 236 & 237.
  - Appendix Q tech usually needs a 'pre-SAP calc' spreadsheet
  - and ideally a PCDB/F entry too.

#### Frequently heard issues with Appendix Q



- "It takes forever".
  - 1. the dialogue; 2. the proof (esp. monitoring).
- "It costs a fortune".
  - 1. the process map; 2. the testing/monitoring.
- "The burden of proof is very high".

Yes – but so it should be; this is science. And national policy.

"BRE are unresponsive".

They *really* know their stuff. But IMO they are under-resourced.

#### Home Energy Model (HEM)



- Previously "SAP 11".
- Medium-resolution dynamic model (half-hour steps). With 'wrappers'.
- It's probably time (new tech is increasingly dynamic).
- But beware regulatory uses will still require standard occupancy patterns.
- Latest pronouncement by DESNZ: SAP Q tech will be grandfathered in
- but "on a case by case basis".
- Part L (FHS) compliance version due "2025" (England).

# Over to you



• Q&A