## **SAP Calculations**

At AJ Energy we work proactively with developers and designers, undertaking preliminary SAP calculations to establish the required fabric performance before any working drawings are produced. This can save time and money for design and drawing production, as well as allowing time to discuss options and alternatives.



When working through SAP calculations, it is important that all options are explored and the most appropriate solution for the client is achieved. For some clients this may be the lowest capital cost, but for others it may be lower running costs, or a quicker payback period for measures installed.

You might think it's just a case of getting the U-values right, but it's not that simple. With the law of diminishing returns, it may not be practical or cost-effective to increase insulation provision, and other more carefully considered strategies may be required, such as thermal bridging details or heating options.

## Working in partnership

"I've found AJ Energy to be invaluable in controlling our capital expenditure on a scheme, thanks to their in-depth knowledge and rigorous process. They always make sure they undertake a full examination of all the options, and ensure that everything has been specified to optimise value while meeting regulatory requirements." Brad Davies

Associate Director, Mersea Homes

"I would like to take this opportunity to thank you for your ongoing support and timely provision of SAP & EPC services. In particular, your detailed analysis and support at design stage has contributed greatly to another successful outcome and we look forward to working with you again in the near future."

## Dave Tumbridge

Construction Director, Indecon Building Ltd.

"Landcharter Homes are happy to recommend AJ Energy Consultants Limited. They have carried out all our SAP/EPC services for the last five years. They are very helpful and responsive to any questions we may have, and provide plenty of positive solutions and support." **Leigh Knevett** 

**Construction Partner, Landcharter Homes** 

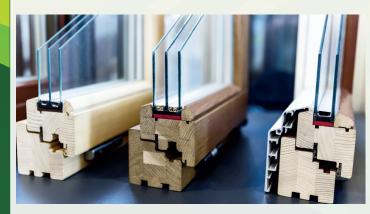
"AJ Energy provides an efficient and reliable service to cover all of our SAP and EPC requirements for our new build housing developments, from early stage design input through to production of the final EPC. We would recommend their services to anyone who is in need of the same." **Stephen Williams** 

Associate Director, Hills Building Group

## How much can be saved?

Here's a real-life example. On a recent six-flat scheme we were asked to review the recommended strategy that had been received from another SAP assessor. We found that they had not considered thermal bridging at all, or potential heating options, which meant they had significantly overextended the SAP requirements – and so recommended unnecessary expenditure:

Element	Original specification	Our recommendation	Cost saving
Heating	Gas combi boiler (min SEDBUK rating of 89%) with weather compensator	Selected combi boiler, no weather compensator	£600
Glazing and external doors	1.2 U-value	1.4 U-value	£4,420
Renewable energy	3 kWp Photovoltaic (i.e. 0.5/flat)	None	£4,500
Floor	200mm insulation	150mm insulation	£1,170
Walls	120mm PIR board in 140mm timber frame studs, with 24.5 PIR board over inside face of wall	120mm PIR board in 140mm timber frame studs	£3,610
Ceilings / sloping ceilings	240mm mineral wool between 600 centre studs and 24.5 PIR board under joists	240mm mineral wool between 600 centre studs	£1,550
Air tightness	4	6	£600
Total			£16,450



To find out more please visit our website www.ajenergy.com