

## **Client questionnaire prepared by David Coote of Analytical Engines**

David presented on Smart Energy Reviews at the Lighter Footprints Home Assessment seminar in July 2024. He has developed the questionnaire below after working for some time with residential clients electrifying their houses. Answering these questions can help people focus on what they want from their house energy systems. Considering the following questions before contacting a home energy/comfort assessor or energy advisor may help achieve a positive outcome.

For any questions on how to use the questionnaire David can be contacted by email:

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### **Client's main goals**

- Reduce electricity cost?
- Decrease GHG emissions?
- Electrify house?
- Warmer in winter?
- Cooler in summer?

### **Site occupancy**

- Over 2 years?

### **Interval data/bills**

- Will need:
  - Authorisation to access electricity interval data or the data supplied by client
  - Current gas bill
  - Current electricity bill
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### **Switchboards**

- Please send photo of your switchboard

### **Rooftop solar**

- Client would like to install solar/more solar?

### **Battery**

- Interested in battery with solar?
- Interested in resilient solution that can go off-grid for periods when grid is unavailable?

### **Thermal envelope**

- Has there been a recent thermal assessment? If not, suggest starting with a thermal assessment which would include checking insulation and draught-proofing.
- Are there blinds designed to keep out heat and a retractable awning to reduce solar gain during summer on larger north and west facing glazing?
- Windows are:
  - sash?
  - sliding?
  - Any double glazed?

### **Reverse-cycle air-conditioning units used for cooling**

- Any units currently installed?
- Are any rooms too hot during summer?

### **Heating**

- Main heater is gas central heating? Hydronic?
- Would client like to replace gas central heating with heatpump? Perhaps supplemented with reverse cycle air-conditioning?
- Are any rooms too cold in winter?
- Any other supplementary heating systems? Fan heater?

### **Hot-water**

- Currently gas hot-water heater?
- Replace with hot water heatpump?

**Water**

- Any garden irrigation pumps or pool pumps?

**Electric Vehicle charger**

- Interest in electric vehicle? If so, how many annual kms?

**Induction Cooking range**

- Client would like to replace gas range with induction range?

**Smart grid**

- Client is interested in inhouse energy system display and internal temperature monitoring?
- Internal temperature monitoring will identify house performance with ambient temperature which can be used to optimise energy system use
- To use PV generation and cheap tariff periods more effectively can potentially monitor and control
  - Reverse cycle AC heating and cooling
  - Battery
  - PV
  - Hot-water resistance heater or heatpump
  - water pumps if any irrigation