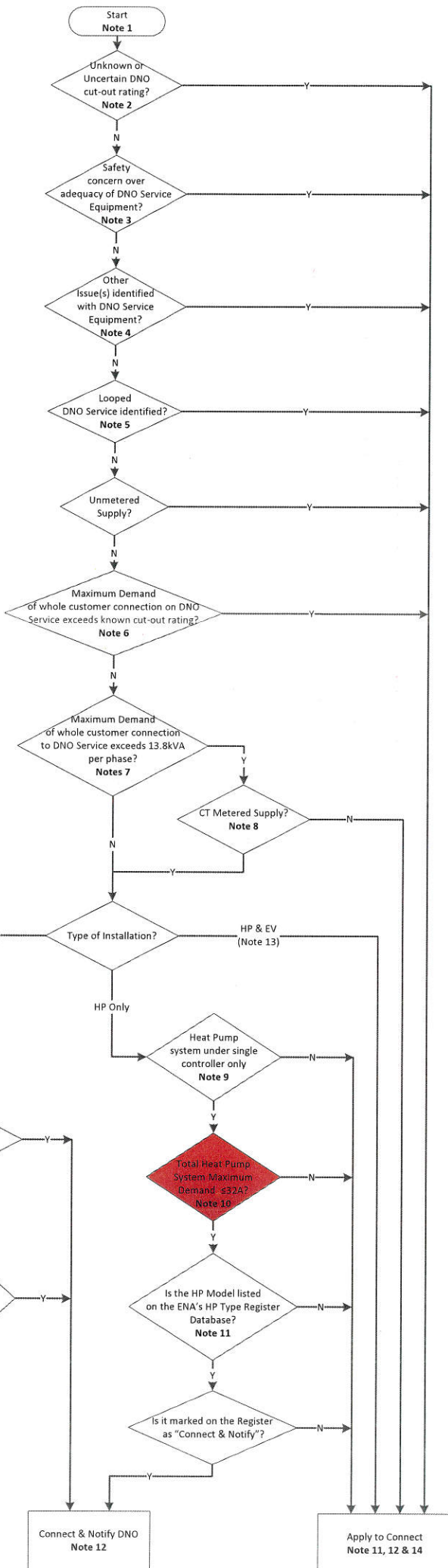


# Electric Vehicle & Heat Pump Process



**Note 1:** This process should be used for premises with an existing DNO connection. For new DNO connections, this process should be followed in addition to a new electricity connection application.

DNO Service Equipment comprises DNO service cable, DNO cut-out (service head) and DNO earth terminal.

**Note 2:** If the cut-out rating is unknown or uncertain, it can be established by raising an enquiry with the DNO. If the supply capacity still cannot be established, the 'Apply to Connect' process must be followed. Please note that the cut-out should not be opened. Guidance on cut-out ratings is available on the ENA website.

The rating of the DNO service equipment must be established as adequate. BS 7671 – the Wiring Regulations – gives 132-16 'Additions or alterations to an installation': 'No addition or alteration, temporary or permanent, shall be made to an existing installation, unless it has been ascertained that the rating and condition of any existing equipment, including that of the distributor, will be adequate for the altered circumstances.'

**Note 3: Safety concern over adequacy of DNO Service Equipment**  
Safety concerns over adequacy of DNO Service Equipment should be reported to the DNO in accordance with the MOCOPA Service Termination Issues Guidance available on the MOCOPA website: <https://mocopa.org.uk/wp-content/uploads/2018/03/MOCOPA-guide-version-3.5.pdf>

The guide gives specific examples of issues that can give rise to danger, classified as "Category A Situations", and how these should be reported to the DNO. All emergency issues (Category A Situations) must be reported to the DNO using telephone number 105 (GB only).

**Note 4: Other Issue(s) identified with DNO Service Equipment**  
Other issues with DNO equipment that do not necessarily give rise to danger are described in the MOCOPA Service Termination Issues Guide: <https://mocopa.org.uk/wp-content/uploads/2018/03/MOCOPA-guide-version-3.5.pdf>

These issues are covered in the Category B and Category C Situations sections of the guidance document where specific examples are given of what is reportable to the DNO. All Category B and Category C Situations (non-emergency issues) should be reported to the DNO using their general enquiries number found on the customer's bill or online.

**Note 5:** Some DNO cut-outs have more than one DNO service cable terminated in the DNO cut-out. Such a situation indicates a 'Looped Service' where there are one or more services connected via the cut-out. Note this may impact on the adequacy of the DNO Service Equipment. Looped services can be found anywhere, but are often found in rural areas and terraced housing.

**Note 6:** Maximum Demand is the highest level of new demand that could occur on the whole customer connection, and includes all new HP and EV devices. The maximum cut-out rating may be visible on the cut-out. Ratings below 60A are possible (e.g. 30A, 40A and 45A), especially in rural areas. Note that the cut-out rating will be reduced from its stated value if the ambient temperature at the cut-out location is high e.g. due to inadequate ventilation, adjacent heat sources etc.

**Note 7:** IET Guidance Note 1, Appendix H gives qualified electricians guidance on the assessment of Maximum Demand for the whole customer connection.

**Note 8:** CT Metering is typically any meter rated at over 100A. This rating should be found on the meter name plate. CT metered installations are typically subject to a Maximum Import Capacity (also known as Agreed Supply Capacity).

**Note 9:** Multiple heat pump systems or DC Electric Vehicle charge point installations must be 'Apply to Connect.'

This means a single heat pump system under a single controller (but potentially with multiple devices) being installed in one property in isolation, as opposed to a cluster of separate heat pumps in the same or adjacent properties.

**Note 10:** Including any additional components, i.e. boost, back-up or immersion heaters. A boost heater is a Direct Electric Resistance (DER) heater to supplement heat output when the HP cannot provide the necessary heat located in the primary heating circuit. A water heater/immersion heater is a DER heater located in the sanitary hot water cylinder and used to top up heat or pasteurise for legionella control. A back-up heater is a DER heater that is capable of replacing all or some of the heat output from the heat pump in the event of the heat pump not being operational. This would be positioned in the primary heating circuit.

**Note 11:** Please see ENA HP Type Register Database on the ENA website here: <http://www.enanetworks.org/electricity/futures/electric-vehicles-and-heat-pumps.html> It is the installers responsibility to provide all information required to populate the Heat Pump Type Register Database, as well as ensure any existing information within the Database is correct.

If the heat pump is not registered you must gather all of the required information and submit to ENA for inclusion in the Database.

**NB:** the Register is not an endorsement or recommendation of a particular heat pump model but is a means of simplifying the application and connection process.

**Note 12:** Please note that to ensure you comply with GDPR requirements, applications and notifications should only be sent to the relevant DNO that corresponds to the MPAN.

**Note 13:** With combined Heat Pump and Electric Vehicle Charge Point installations, the DNO will need to consider the Power Quality implications, and hence one must 'Apply to Connect.'

**Note 14:** Depending on the size and/or number of devices being connected, the DNO may ask for additional information to be supplied.

Where the maximum demand of the whole customer connection is less than 23kVA, the DNO will respond within ten working days, assuming the complete set of required information has been provided.