

The Assessor shall determine the business's commitment and support to good and safe working practices; also that it has a positive culture in all aspects of its work. In particular, the assessor shall check that the business's health, safety and environmental arrangements are followed while the work is carried. The details that the assessor will expect to find in use, are given in the BESCA standard BS.5 and BS.6. The level of assessment will be appropriate for, the size and the complexity of the business.

Controls systems technical standards			
BECA standard	Scheme Requirement	Typical evidence required	
		Work done in domestic premises	Work done in non-domestic premises
TS.14.1	<p>Control systems.</p> <p>Technical standards that apply to this work:</p> <p><i>The Building Regulations Approved Documents Compliance guides</i></p> <p><i>The Water Regulations Electricity at Work Regulations 1989 as amended.</i></p> <p><i>Electricity Safety, Quality and Continuity Regulations 2002 as amended.</i></p> <p><i>BS 7671- Requirements for electrical installations</i></p> <p><i>IET Guidance Notes No's 1 to 7 and "On-Site Guide"</i></p> <p><i>British Standards</i></p> <p><i>BESA standards</i></p> <p><i>Manufacturer's instructions</i></p>	<ul style="list-style-type: none"> • Only Competent individuals, who have the necessary skills, knowledge and experience, as set out in BESCA standard BS.9, shall undertake the work so that it meets the standards set by BESCA. The business's training and/or subcontract records shall identify these people, as set out in BESCA standards BS.9 and/or BS.10. • Control systems, including plant time, temperature and interlock controls; as well as individual space and/or zone temperature controls, shall comply with the requirements set out in Part L of the Building Regulations; including the applicable Approved Documents, Compliance Guides and General Guidance. A control system may comprise one element, or more, of the following: <ul style="list-style-type: none"> ○ Zone controls for rooms or areas that may need to be maintained at different temperatures and/or at different times, each requiring independent control; such as with Thermostatic Radiator Valves (TRVs). ○ Sequence controls that enables two or more items of HVAC plant to be controlled in order to achieve the desired output temperature. ○ Weather compensating controls that directly allow HVAC plant to vary the operating flow temperature automatically, to suit weather conditions and the temperatures inside the building; or which operate one or more motorised valves that blend or divert flow and/or return water, instead of by altering the plant temperature. ○ Optimisers that start the plant operation at the latest time possible to achieve specified conditions at the start of the occupancy period, and/or which stop the operation of the plant at the earliest possible time; such that internal conditions will not deteriorate beyond preset limits. ○ A building-wide electronic network which allows communication with and control of items of HVAC plant (and other building systems) from a single remote control centre. ○ A full Building Management System that provides automated control over all aspects of the building engineering and electrical systems. • Control devices shall be sited in accordance with the manufacturer's and the designer's instructions; and have adequate clearances around them for maintenance and servicing. The control devices shall be correctly orientated and set e.g. Thermostatic Radiator Valves. • Electrical control systems shall be wired as required by BS 7671- 'Requirements for electrical installations'. If carried out as part of the installation, the electrical control system shall be installed and tested as set out in BESCA standard TS.13. The energy supplies to the components shall be installed so that there is sufficient space between and around them to allow the energy that it uses to be monitored. • Where specified, isolating and regulating valves shall be fitted to the pipework serving the inlet and outlet of control valve/s. Pipework services around the control valve/s shall be insulated, as specified by the designer and as set out in BESCA standard TS.5.9. • Mechanical control valves shall be subject to leakage checks, and where required pressure tests; which shall be carried out when the installation of the control and the associated plant and pipework is completed. This shall be done as set out in BESCA standard TS.5.8. • The control systems, high/low limit protection devices, and/or other safety features, shall be tested and then shall be reset at the correct operating point before being set to work and commissioned. This shall be done in accordance with the manufacturer's instructions and the requirements set out in BESCA standard TS.3. • On completion, notes shall be made or a drawing of the installation marked to show any deviations from the original specification or envisaged layout. This information shall be passed back to the office to use when the final record drawings are produced. 	