# Assessment plan Junior Energy Manager Apprentice

#### 1. Introduction and Overview

The apprenticeship Standard has been designed to operate as the professional standard for people working as Junior Energy Managers. This Assessment plan document complements the Standard.

The principles driving the design of the assessment plan are as follows:

- 1. Maximum relevance to the job wherever possible
- 2. Integration with day-to-day responsibilities wherever possible
- 3. Added value to the Junior Energy Manager's journey, both during and at the end of the apprenticeship
- 4. The expected take up in the first year is thought to be 40 to 80 Junior Energy Managers rising to 100 to 200 the following year. This will be delivered through organisations on the apprenticeship provider and assessment register (APAR) and specialist training providers across England.

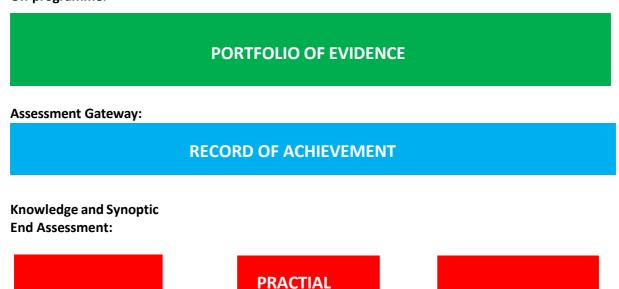
#### **Tools for assessment:**

This paper describes the Assessment plan at the level requested for submission. Work is complete by the Junior Energy Manager Trailblazer group to design the sample tools which we recommend are used for delivering the final Assessment in the live environment. These sample tools are published on the Energy Manager Association website. They may support the teaching and end assessment of this apprenticeship. All EPA materials developed by an End-Point Assessment Organisation (EPAO) must adhere to the requirements set out in this plan.

# On-programme:

**KNOWLEDGE** 

**TEST** 



Crown copyright 2023 You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. Visit www.nationalarchives.gov.uk/doc/open-government-licence

**ASSESSMENT** 

(ENERGY AUDIT) **ASSESSMENT** 

**INTERVIEW** 

# 2. Learning Content

The content of the standard has been translated into the <u>Technical Training Programme Specification</u><sup>1</sup> for the Providers, for assessment organisations on the Register of End-Point Assessment Organisations and Recognised Professional bodies. It will cover the competence, skills and knowledge requirements of the role. There is no requirement for any of the learning content to have to be evidenced through an accredited qualification, though this could be part of a delivery solution.

#### 3. Assessment Methods

	Coverage	Assessed by	Grading
Knowledge Test*	Knowledge	APAR approved body	Pass/Distinction/ Fail
Practical assessment: Energy Audit*	Synoptic Practical / Applied	APAR approved body	Pass/Distinction/ Fail
Assessment Interview* (behaviours, professional attitude, and skills not covered in practical task)	Synoptic	APAR approved body	Pass/Distinction/Fail
Portfolio of Evidence +to be reviewed at interview	Discrete competencies and Behaviours	Employer/Training Provider(s)	

<sup>\*</sup>EPA to be completed within three months of the assessment gateway.

The methodology has been designed, taking into account that this is a practical standard that is underpinned by technical knowledge, that will allow the Junior Energy Manager to develop the skills and knowledge across different types of activities and premises. It is recommended that there is a large proportion of on-programme assessment, documented in the Portfolio of Evidence, to ensure Junior Energy Managers have demonstrated the application of knowledge and the skills in the workplace under working conditions before being able to access the knowledge and synoptic end assessment.

# **On-programme Assessment**

It is recommended that the on-programme assessment comprises of a portfolio of evidence which will contain logbooks of work done, performance review records and evidence of discrete competencies and discrete occupational tasks that evidence the KSBs assigned to the assessment interview as outlined in the appendix. This is to ensure candidates' competence across the various tasks in the workplace required in undertaking the role of the Junior Energy Manager (the number and type of acceptable evidence will be specified by an organisation on the APAR).

<sup>1</sup> The Technical Training Programme Specification can be found at 190204-Apprenticeship-Technical-Specification.pdf (theema.org.uk) .

To ensure assessment is efficient and to minimise any burden upon employers and Junior Energy Managers, the behavioural assessment should be incorporated into the portfolio of evidence. Whilst the evidence itself does not contribute to the overall grade, it should be completed in order to progress to the End assessment.

The assessment of the Junior Energy Manager behaviours will be returned to in the Assessment Interview of the End Assessment where Junior Energy Managers will be orally assessed on performance review records, completed work and evidence of competencies and occupation tasks collected in their portfolio of evidence.

#### **Assessment Gateway**

It is recommended that by using the 'Portfolio of Evidence' the employer should agree and sign off that the Junior Energy Manager has met the requirements of the Standard and Technical Training Specification (skills, knowledge and behaviours). This will then allow Junior Energy Managers to access the End Assessment.

The candidate would be required to demonstrate the skills, knowledge/understanding and behaviours of a competent Junior Energy Manager **before** undertaking the knowledge test, practical assessment and assessment interview, at the gateway stage. If unsuccessful, feedback would be given and remedial action would be required by the apprentice before progressing to the knowledge test, practical assessment and assessment interview.

#### **End Assessment**

End Assessment forms the largest part of the assessment of the Junior Energy Manager. The assessment will be developed, implemented and assessed by organisations on the APAR. The assessment comprises three components. All of the three components will contribute to grading and all components must be passed, for the Junior Energy Manager to be deemed competent.

The three components of the End Assessment, all contributing to grading, are:

- A Knowledge test to consist of multiple-choice questions or structured questions (short-answer) to assess the bulk of the technical knowledge across the apprenticeship. These will be sat under invigilated conditions and assessed by the chosen APAR body (ie. external and independent). This will be graded pass/distinction/fail. There will be a sample Knowledge test specification available publically on a relevant Recognised Professional Body website, such as the Energy Managers Association (http://www.theema.org.uk/).
- 2. A synoptic Practical assessment assessed by independent assessors, in the form of an Energy Audit that requires the Junior Energy Manager to complete a large, synoptic and complex (multi-stage) challenge that draws together core practical occupational responsibilities and is done under controlled conditions. The practical assessment may involve a pre-set assessment with pre-set resources and will include relevant source data provided by the EPAO and developed in conjunction with employers. Evidence will be externally marked. This will be graded pass/distinction/fail. There will be a sample Practical Assessment specification available publically on a relevant Recognised Professional Body website, such as the Energy Managers Association (http://www.theema.org.uk/).
- **3. Assessment Interview** (professional conversation) to assess the Junior Energy Manager on:
  - i. Skills not covered by the Practical assessment
  - Behaviours using the portfolio of evidence as a basis for the oral assessment and discussion.

This will be carried out by the independent assessor and represent the third stage of the End Assessment. The assessment interview will act as an assessment device.

The role of the assessment interview - an assessment device - will orally examine Junior Energy Manager's skills, knowledge and behaviour and it will be graded as Pass/Distinction and Fail.

The 'Portfolio of Evidence' can be used to inform questioning during this interview. There will be a sample interview schedule and Specification made available publicly.

## Key requirements of assessment:

The different assessment components in the apprenticeship will be graded (either pass/distinction or pass/fail) and will contribute to the final overall grade for the Junior Energy Manager. When developing the assessments; opportunities will be sought to differentiate Junior Energy Managers who have improved skills or knowledge (where possible). Where a Junior Energy Manager achieves a variety of grades across the assessments the grades will be aggregated as outlined in this EPA plan. Where a Junior Energy Manager fails an assessment, any re-sits will be awarded a maximum of a pass.

The assessments will assess the skills, knowledge and behaviours covered in the Technical Specification, and will cover all of the outcomes set out in the apprenticeship Standard. An Assessment Specification will be developed for the Knowledge assessment to ensure consistency. This will be accessible to all on the Energy Managers Association website (http://www.theema.org.uk/).

# Junior Energy Manager Knowledge Test Specification:

The Knowledge test will consist of 60 multiple-choice questions, 90 min duration, closed book.

The knowledge test must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method as outlined in the appendix. The knowledge test can be computer based.

The questions must have four options, including one correct answer. A correct answer gets 1 mark. Any incorrect or missing answers get zero marks.

The EPAO is responsible for overseeing the marking of the knowledge test. The EPAO must ensure standardisation and moderation of knowledge test.

# **Junior Energy Manager Synoptic Practical Assessment Specification:**

The practical assessment must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest grade available as outlined in the appendix. The practical assessment may consist of:

- Stage 1: Site audit proposal agreed between EPAO and employer.
- Stage 2: Observation of an on-site or off-site energy audit in-line with the employer's practices and policies typically 3 hours.
- Stage 3: Compile and submit the energy report within 2 weeks. The report will be between 3,000 and 4,500 words excluding tables, charts and appendices.

The Practical Assessment will consist of an Energy Audit built around the competencies and occupational tasks associated with the Junior Energy Manager role. Within the Energy Audit the Junior Energy Manager will be required to undertake a number of appropriate, integrated key activities that s/he has been taught and has been practicing throughout their apprenticeship programme, but now assessed in a more holistic, authentic and rounded manner.

There will be a list of sample Energy Audit Assessment instruments (Synoptic Practical Assessment Specifications) available on a Recognised Professional Body website, specifying criteria by which locations for the energy audit are selected. The requirements will be directed around pre-agreed audit areas to ensure that as far as possible a standard environment and questions can be formulated. This is to ensure consistency. Once developed, this will be accessible to all on the Energy Managers Association website: http://www.theema.org.uk/.

## **Junior Energy Manager Assessment Interview Specification:**

The assessment interview must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest grade available as outlined in the appendix. The assessment interview will last between 60 and 90 minutes. The Assessment Interview will be the Crown copyright 2023 You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. Visit www.nationalarchives.gov.uk/doc/open-government-licence

## ST0161/AP03/V1.1

professional conversation where an assessor from the designated APAR body must be an experienced professional in energy management (Member of a Recognised Professional Body), and will interview to assess the experience, knowledgebase and behaviours of a Junior Energy Manager. It must be assured that the Assessment Interview is conducted externally, i.e. the assessor must have no links to the Junior Energy Manager's employer/training provider/apprentice.

During the assessment Interview, the Junior Energy Manager's skills, knowledge and behaviours will be orally examined. The 'Portfolio of Evidence' can be used to inform questioning during the interview. The assessment Interview will be graded as Pass/Distinction and Fail.

The Interview may also be designed to determine professional recognition status. The Junior Energy Manager has to pass all assessments to be awarded the final certificate. There will be a sample interview schedule and Specification made available publically.

# **End Assessment Timings and Activities:**

It is suggested that the process of setting up the End Assessment, as recommended and outlined in the table below, should begin around 3 months before the completion of the apprenticeship:

Timescale	Activity
Continuing during the On- programme	<ul> <li>To keep evidence of completed tasks in the workplace (e.g. logbooks of work done, performance review records, learning/training evidence) covering competencies, behaviours and performance on occupational tasks</li> <li>To review progress and ensure on track as part of regular tracking of progress</li> <li>Employer and Training Provider to identify any gaps and produce a plan for the final 3 months to complete the learning</li> </ul>
Up to 3 months prior completion	Employer to decide timing of the end assessment based on the outcomes of the on-program assessment demonstrated in the apprentice's portfolio of evidence
Assessment Gateway	<ul> <li>The apprentice's employer must confirm that they think the apprentice is working at or above the level of occupational competence as a junior energy manager. The apprentice will then enter the gateway. The employer may take advice from the apprentice's training provider(s), but the employer must make the decision.</li> <li>The apprentice must:         <ul> <li>confirm they are ready to take the EPA</li> <li>have achieved English and maths qualifications in line with the apprenticeship funding rules</li> <li>submit a portfolio of evidence for the assessment interview</li> </ul> </li> </ul>

Examples of the End Practical Assessment (synoptic) are expected to be made freely available to employers and training providers from organisations on the APAR and/or a Recognised Professional Body's website such as the Energy Managers Association <a href="http://www.theema.org.uk/">http://www.theema.org.uk/</a>.

It is recommended that a variety of versions of the Practical Assessment is administered on rotation to apprentices randomly. If re-sitting, a different version should be administered.

#### The Training Provider Role:

It is envisaged that multiple training providers covering the different parts of the UK will offer the apprenticeship programme to employers.

The training providers will play a key part in the final assessment process by:

- Supporting the Employer to organise and coordinate the process
- Supporting the Employer in contacting and securing the services of an appropriately qualified APAR body as appointed assessors
- Providing training in the on-programme assessment process (including use of tools and application to ensure consistency) for staff involved in the formative on-programme assessment

Training Providers, with their experience, can support and add value to the employer. The precise relationship and its balance between Employer and Training Provider support will depend on negotiation between the Employer and Training Provider on services and cost of the services.

# 4. Ensuring Independence/Impartiality

We are very keen to be as inclusive as possible allowing a range of awarding and assessing agencies, organisations or services the opportunity to independently assess and/or assure the Junior Energy Manager apprentice assessment.

The End Assessment will be assessed and verified independently of the employer or training provider used in the on-programme assessment.

The APAR bodies will provide external and independent assessment through the requirement by external marking including the standardisation of markers.

## **Assessor Roles:**

Employers	<ul> <li>Creates opportunity for the Junior Energy Manager to carry out work and produce outcomes</li> <li>Brings a view of the Junior Energy Manager working with them in the workplace through the apprenticeship</li> </ul>
	workplace through the apprehiticeship

	<ul> <li>Supports the generation of workplace evidence to show how the Junior Energy Manager has demonstrated the competencies required of the standard and technical specification – this may be done in adherence to the sample assessment strategy</li> <li>Participates in consensus decision with training provider on the behaviours of the Junior Energy Manager</li> <li>Decides on the timing of final assessment with the support of the Training Provider</li> <li>Works with the training provider to carry out a continuous review of the evidence generated by the Junior Energy Manager against the training manual as part of the formative on-programme assessment process</li> </ul>
Training Providers	<ul> <li>Brings a view of the Junior Energy Manager from supporting them through the apprenticeship</li> <li>Maps and assesses work against the Technical Specification (specifies the technical content that must be taught and potentially assessed)</li> <li>Participates in consensus decision with the employer on the behaviours of the Junior Energy Manager</li> <li>Supports the employer on deciding the timing of final assessment</li> <li>Works with the employer to carry out a continuous review of the evidence generated by the Junior Energy Manager against the standard and meeting the sample assessment strategy as part of the formative on-programme assessment</li> </ul>
Organisation on the APAR	<ul> <li>External and independent assessment of knowledge through the examination requirement</li> <li>Independent view as they will not have any prior involvement in the apprenticeship or with the Junior Energy Manager</li> <li>Brings added rigour and consistency to the assessment through their wider industry perspective, knowledge and experience</li> <li>Supplies assessor guidance and templates</li> <li>Delivers the assessment interview and practical assessment</li> <li>Assesses against pass and distinction criteria</li> <li>Participates/Hosts annual standardisation event for Junior Energy Managers' assessors</li> </ul>
Recognised Professional Body	<ul> <li>Where the recognised professional body is the EPAO:</li> <li>External and independent view as they will not have had any prior involvement in the apprenticeship process or with the Junior Energy Manager</li> <li>Brings added rigour and consistency to the assessment through their wider industry perspective, knowledge and experience</li> <li>Scores all components of the final practical assessment independently</li> <li>Delivers the assessment Interview and knowledge test</li> <li>Assess against pass and distinction criteria</li> <li>Make the final decision on whether the Junior Energy Manager has passed the End assessment</li> <li>Participates/Hosts annual standardisation event for Junior Energy Managers' assessors</li> </ul>

# 5. Delivering Consistent (Reliable) Judgements

In order to ensure consistency and assure employers' confidence in the Junior Energy Manager's assessment in different parts of the country, at different times, by different assessors, all assessment and external quality assurance organisations will be asked to sample the skills, knowledge and behaviours covered in the occupational standard.

Consistency of approach by assessors will be achieved not only through standardisation of all assessment documents but also through training the EPAO assessors in the standardised assessment process. The training may be provided by the Energy Managers Association and will cover an understanding of the overall apprenticeship programme, knowledge of the detailed Standard, the grading standards, the examples of relevant evidence and sample assessment scoring exercises.

Whilst the standardised assessment documents and training of EPAO's assessors will ensure the consistency and reliability of judgements on the reached occupation competence of the Junior Energy Manager, a sample Assessment Strategy has been produced by the Junior Energy Manager Apprentice Trailblazer Group, together with training providers and relevant employers (if not part of the Trailblazer Group already) to ensure consistent implementation and administration of the apprenticeship by employers and training providers. As an example it may include: type and quantity of evidence acceptable, who can carry out the implementation and administration roles (qualification, experience etc). The sample Assessment Strategy will be available freely and publicly on a Recognised Professional Body website, such as the Energy Managers Association website: http://www.theema.org.uk/.

Consistency of approach by employers and training providers may be achieved by the sample Assessment Strategy and training of the employers' and training providers' representatives in applying the Strategy. The training may be provided by the Energy Managers Association and will focus on understanding of the overall apprenticeship, the implementation of the apprenticeship as well as the administrative evidence required to produce during the apprenticeship.

Annual standardisation events for employers, training providers, EPAOs and Recognised Professional Bodies may take place to further ensure consistency of the sample Assessment Strategy and sample Assessment Specification. These events may be coordinated by the Recognised Professional Body and/or EPAOs.

# 6. Delivering Accurate (Valid) Judgments

The final Knowledge Test and synoptic Practical assessment interventions, and the accompanying Assessment Interview, all have high intrinsic validity representing processes directly commensurate with occupational skillsets and actual workspace task. In addition, the use of the representative content will encourage a focus on establishing the competence throughout the length of the apprenticeship.

Training Providers involved in the assessment of this role would have to be specialists in the field of Energy Management. This would be a key requirement for any employer in selecting a Training Provider partner.

The assessors must have met the criteria and be registered with the EPAO.

As independence is ensured through an approved EPAO assessing the End assessment, there will be a standard appeals' policy in relation to all elements of the End Assessment (Practical, Knowledge and Interview).

#### 7. Knowledge Test and Synoptic Practical and Interview Assessments

The final assessments are assessing higher order occupational competencies as complex occupational tasks and as required by the Apprenticeship Standard. The core occupational competencies that the assessment focuses on are: Technical and Operational; Energy Assessment and Measurement &

Verification; Behavioural Changes and Motivation; Regulatory and Legal Compliance, and Carbon Management; Energy Management Strategy/Plan; Waste Management; Procurement; Transport; Water and Information Technology and will be described in more detail in the sample Technical Specification document. The implications of being assessed to be fully competent, is that the Junior Energy Manager can take a high measure of responsibility for core energy management related occupational tasks within the workplace.

Knowledge Test and Synoptic Practical and Interview Assessments will be the final stage of the Junior Energy Manager's journey. A Junior Energy Manager will not be recommended for a final assessment until s/he has undertaken and achieved the necessary pre-requisite indications of suitability and readiness by completing the portfolio of evidence or similar method of tracking the Junior Energy Manager's progress as seen appropriate by their employer. This would involve learning/assessment against the sample Technical Specification, with the employer and training provider regularly discussing the Junior Energy Manager's performance and progress. The implications of being assessed as competent, in the final stage of the apprenticeship is very onerous on the individuals and will have undergone rigorous training and assessment to get to the end point.

# 8. Graded Assessments

The Junior Energy Manager Standard specifies that there will be two levels of grading within this apprenticeship: Pass and Distinction.

A grading profile as outlined in the appendix, will articulate the knowledge and behaviours expected of a pass, and distinction Junior Energy Manager. A pass will be associated with a minimum acceptable standard for the industry, with distinction referring to a Junior Energy Manager's skills and abilities in planning, quality and time. The overall final grade will be calculated depending on the grade achieved by the Junior Energy Manager for each of the graded assessment contributions.

Grading will be based on three contributions. These are:

- 1. Knowledge Test (knowledge assessment) that will consist of 60 multiple-choice questions, 90 minutes duration, closed book format, where Pass/Distinction/Fail grading will be applied.
- 2. Performance in the Energy Audit (synoptic practical assessment) that will consist of on-site or offsite energy audit task and written report in-line with the practices and policies of the employer; where Pass/Distinction/Fail grading will be applied.
- 3. Performance in the Interview (synoptic assessment) that will consist of the Assessment Interview assessing Junior Energy Manager's overall skills, knowledge and behaviours, where Pass/Distinction/Fail grading will be applied.

All assessments must be passed to achieve an overall pass graded apprenticeship. To achieve an apprenticeship graded at distinction grade, a Junior Energy Manager must achieve a distinction at least in two assessments, one of which must be the synoptic practical assessment (Energy Audit).

Following the Interview, the Junior Energy Managers will be either confirmed the final grade and given opportunity to apply to be awarded a professional recognition, or be advised on what further training they would need to undertake to reach the necessary standard.

## 9. Affordability and Flexibility

The presence of control documentation governing the assessment conditions and requirements for each assessment component will allow for efficiency and give assessing and assuring agencies the ability to manage any risk. This will bring cost savings. This control documentation, specifying the Knowledge test, Practical assessment and Assessment Interview, will be developed by a panel of experts from the EPAO.

The ability to access standardised, pre-moderated assessment materials should also represent a financial saving while also helping with consistency.

Crown copyright 2023 You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. Visit www.nationalarchives.gov.uk/doc/open-government-licence

Though there is an initial resource implication connected with ensuring assessors are appropriately trained and professionally recognised, once suitably qualified/recognised assessors are in place, the operating cost lessens.

# 10. Professional Body Recognition

Professional Body recognition is an intrinsic feature of the assessment strategy and is able to be awarded with the certificate if the requirements are met.

Apprentices who successfully and fully completed the apprenticeship programme, including on-programme training, knowledge test, energy audit, and underwent the assessment interview, may be given an opportunity to apply to be awarded a Technical Member status of the Energy Institute (TMEI). Whilst this step is voluntary, it enables candidates to become a part of a Recognised Professional Body and its network of energy management professionals. It is also envisaged that this qualification will have a positive financial effect on paygrade.

## 11. Progression

Completing this apprenticeship programme with its transferable skills will enable progression into roles such as Senior Energy Manager, Chartered Energy Manager, or specialised as Energy Procurement Manager, Energy Efficiency Manager, Facilities Managers with Energy Management focus etc. across a wide range of sectors.

# **APPENDIX: MAPPING AND GRADING**

# **Knowledge Test**

To achieve a pass in the knowledge test, apprentices must achieve at least 37 marks.

To achieve a distinction in the knowledge test, apprentices must achieve at least 51 marks.

Ref	Knowledge statement
TK1	Relevant level of theory and practices at Junior Energy Manager level that underpins how energy flows in and out of buildings, equipment and processes and how key energy systems operate.
TK4	Understand the economics of energy consumption, supply and demand of energy, sustainability issues and role of the organisation in tackling them.
TK5	Understand the principles of energy loss assessment.
TK6	Understand the principles of industry regulations, and environmental and regulatory requirements, and EU directives relevant to energy and climate change within the context of the Junior Energy Manager's workplace.
TK7	Test and maintain procedures of equipment and processes used to determine energy performance and how inefficiencies arise and how to improve energy performance.
TK8	Know how to read meters and sub-meters, collect, record and analyse metered data and interpret manufacturer's installation and maintenance requirements.
TK9	Understand how to estimate energy used from solid or liquid fuels that are not metered.
TK10	Know how to understand a bill, set an energy baseline and identify variables that affect energy consumption in organisations, and how to query and challenge bills with suppliers.
TK11	Understand energy tariffs.
TK14	Understand the importance of water management to the business' utility costs and carbon emissions.
TK15	Understand and continually improve an energy management contribution to strategic planning based on energy, carbon and water and key performance indicators for measuring and verifying success.

# **Practical Assessment**

To achieve a pass in the practical assessment, apprentices must achieve all the pass descriptors.

To achieve a distinction in the practical assessment, apprentices must achieve all the distinction descriptors.

Ref	KSBs	Pass Descriptors	Distinction descriptors
S2 TK2	Relate the workings of plant, processes and equipment to energy consumption.  Relevant level of theory and practices that underpin the energy efficient use of equipment, processes and IT systems.	Identifies specific examples of plant, processes and equipment workings related to energy consumption.  Helps to assure the energy efficient use of equipment, processes and systems within the workplace.  Demonstrates an understanding of the energy efficient use of equipment, processes and systems within the workplace.  Explains with modest impact and few identified improvements for efficient use of equipment, processes and systems.	Explains specific examples of plant, processes and equipment workings related to energy consumption and evidences where she/he driven results to improve the plant, process and equipment workings to reduce energy consumption.  Applies techniques to manage the energy efficient use of equipment, processes and systems within the workplace.  Demonstrates and explains more complex understanding of the energy efficient use of equipment, processes and
			systems within the workplace.  Actively reviews performance of the equipment, processes and systems and recommends corrective actions to deal with the energy efficient use of equipment, process and systems.
S3	Identify and explain variables that vary the energy consumption of a building and process (Building operation: summer/winter; day/night, etc.)	Identifies specific variables that vary the energy consumption of the workplace building and process.	Explains specific variables that vary the energy consumption of the workplace building and process, and shows an understanding of influencing the variables to reduce energy consumption and optimise the building use and processes.
S4 TK3	Identify and explain suitable and measurable energy performance indicators (energy use, consumption, efficiency).	Demonstrates an understanding of a range of measurable energy performance indicators and applies these effectively in the workplace.	Can demonstrate positive outcomes of effectively impacting energy performance indicators in the workplace.
	Energy performance, water measurement and verification	Demonstrates an understanding of energy performance and water	Demonstrates an understanding of energy performance and water measurement with extensive and

			ST0161/AP03/V1.1
	of measured data.	measurement. Understands how to measure and verify the collected data.  Completes the measurement and verification tasks without instructions.	far reaching outcomes demonstrating very significant impact and well thought out identified improvements.  Takes a detailed approach to completing the measurement and verification tasks and actively reviews energy performance in the workplace to looks for ways to maximise efficiency.
S5 TK8	Implement and/or maintain metering and measurement plans and undertake basic analysis of the outputs.  Know how to read meters and sub-meters, collect, record and analyse metered data and interpret manufacturer's installation and maintenance requirements.	Demonstrates an understanding of the metering and measurement plans requirement.  Able to evidence basic analysis of the outputs.  Demonstrates ability to analyse metered data.  Works to collect, record and analyse metered data and can spot possible anomalies without any instructions or support.  Can interpret installation and maintenance requirements accurately and plan action to manage technology/system replacement if required.	Explains how to implement and maintain metering and measurement plans, and shows basic analysis of the outputs.  Proactively identifies opportunities arising from maintaining metering and measurement plans.  Actively reviews performance of metering technology and uses collected data for ways to maximise energy/water efficiency and performance.  Demonstrates a proactive approach to installation and maintenance requirements.  Identifies and anticipates problems related to the workplace energy performance as a result of installation and maintenance action.
S7	Contribute to all aspects of the energy and water use audits: conduct energy and water assessments and/or audits, and identify products, systems and processes solutions that reduce energy and water consumption.	Demonstrates an understanding of all aspects of the energy and water use audits: conduct energy and water assessments and/or audits, and identify products, systems and processes solutions that reduce energy and water consumption.  Able to evidence instances of his/her contribution to all aspects of the energy and water use audits: conduct energy and water assessments and/or audits, and identify products, systems and	Evidences detailed comprehensive energy and water use audits undertaken without supervision.

ST0161/AP03/V1.1 processes solutions that reduce energy and water consumption. Carry out basic financial **S11** Demonstrates an ability to Demonstrates an understanding calculations relating to energy undertake financial calculations of financial calculations related to costs and savings. related to energy costs and energy costs and savings and can savings and complete work manipulate the figures to without instructions. calculate payback period, potential return on investment and similar. В7 Comply responsibly with current Demonstrates understanding of Demonstrates knowledge of new and relevant industry standards all current and relevant industry industry standards and regulation TK6 and regulations. standards and regulations related and can anticipate likely and to be adhered by the forthcoming changes through an organisation. understanding of current political Understand the principles of focus. industry regulations, and environmental and regulatory Describes application and Explains recommended requirements, and EU directives understanding of the principles of suggestions and evidence based relevant to energy and climate industry regulations, and improvements / corrective change within the context of the environmental and regulatory actions to deal with regulatory Junior Energy Manager's requirements, and EU directives compliance within the workplace. workplace. relevant to energy and climate change within the context of the Junior Energy Manager's workplace. Works in accordance with the workplace relevant regulations and regulatory requirements and EU directives. B11 Completes work responsibly and Exercise responsibilities in an Evidences strong work ethic and

works in accordance with ethical

procedures.

responsibility.

ethical manner.

## **Assessment Interview**

To achieve a pass in the assessment interview, apprentices must achieve all the pass descriptors.

To achieve a distinction in the assessment interview, apprentices must achieve all the distinction descriptors.

Ref	KSBs	Pass Descriptors	Distinction descriptors
TK12	Know relevant initiatives/ policies associated with transport, travel planning and logistics operational system within the context of the Junior Energy Manager's workplace	Can describe and explain relevant initiatives/policies associated with transport, travel planning and logistics operational system with the context of the workplace.  Demonstrates an understanding of how to streamline travel planning and logistics within the workplace and can list alternative solutions.	Explains managing and reviewing the workplace initiatives/policies associated with transport, travel planning and logistics operational system.  Explains improving travel planning and logistics within the workplace.
TK13	Understand the impact of transport and logistics on climate change if relevant to the Junior Energy Manager's workplace.	Considers links between transport/logistical exercise and climate change and communicates them in the workplace.	Explains ensuring policies, procedures and management controls are in place within the workplace to diminish negative impact of transport/logistical exercise on climate change.
S1	Complete template reports and ensure records are maintained for audit and reporting purposes.	Explains understanding of the reporting elements, purpose and target audience.  Describes evidence of preparing energy reports and highlights areas of personal contribution.	Explains and provides examples of completing a range of energy reports that are different in tone to reflect their intended purpose and audience and how they resolved any challenging areas with respect to completing reports and maintaining the record.
\$6	Carry out basic checks on bills and other recorded data to verify accuracy and repeatability.	Demonstrates an understanding and can explain how to carry out basic checks on bills and other recorded data to verify accuracy and repeatability.	Can explain in detail and provide examples of personal contribution to carrying out basic bills' and other recorded data checks.
S7 TK3	Contribute to all aspects of the energy and water use audits: conduct energy and water assessments and/or audits, and identify products, systems and processes solutions that reduce energy and water consumption.  Energy performance, water	Outlines all aspects of the energy and water use audits: conduct energy and water assessments and/or audits, and identify products, systems and processes solutions that reduce energy and water consumption.  Able to offer examples of	Evidences detailed comprehensive energy and water use audits undertaken without supervision.  Makes positive suggestions for improvements of meter and submeter installations.

			ST0161/AP03/V1.1
	measurement and verification of measured data  (water audit aspects assessed in the assessment interview only when the practical task does not include a water audit)	instances of his/her contribution to all aspects of the energy and water use audits: conduct energy and water assessments and/or audits, and identify products, systems and processes solutions that reduce energy and water consumption.  Has an understanding of energy performance and water measurement.  Has an understanding how to measure and verify the collected data.  Explains completing the measurement and verification tasks without instructions.	Explains an assessment of energy performance and water measurement with extensive and far reaching outcomes demonstrating very significant impact and well thought out identified improvements.  Takes a detailed approach to completing the measurement and verification tasks and actively reviews energy performance in the workplace to looks for ways to maximise efficiency.
\$8	Contribute to the organisation's procurement process/products/services.	Able to evidence and describe his/her contribution to the organisation's procurement processes.	Able to outline and evaluate a proactive contribution and identification of opportunities for improvement of the organisation's procurement processes and proposing operational models to take advantage of these opportunities.
S9	Assist with the gathering of energy performance data and administration and implementation of energy awareness and motivation programmes and their associated communication strategies for reduced energy use.	Demonstrates knowledge of data gathering and administering.  Can explain developing a detailed action plan and timeline for implementing and communicating energy awareness and motivation programmes with the aim to reduce energy use.	Able to explain methods and describe measurement technologies for gathering energy performance data and utilising them to communicate better energy awareness.  Sets methods of raising energy awareness amongst a variety of audiences.  Explains successfully developing and implementing motivation programmes to reduce energy use.
S10	Identify, organise and use resources effectively to complete tasks as instructed, with consideration for efficiency, cost, quality, safety, security and environmental impact.	Describes and displays evidence of specific examples of organising and using resources to complete given task with the focus on efficiency, cost, quality, safety, security and environmental impact.	Can successfully identify risks and contingency plans to mitigate risks from an ineffective use of resources to complete tasks.

			ST0161/AP03/V1.1
S12	Work effectively and safely when undertaking tasks to approved standards and safe working practices as part of a team, working alone or with appropriate supervision.	Shows awareness and evidence of working effectively and safely when undertaking tasks to approved standards and safe working practices.	Effectively details a combination of approaches to work effectively and safely when undertaking tasks to deliver them to approved standards and safe working practices.  Communicates effective and safe approaches to approved standards to others within the team and/or organisation.
S13 S15	Use a variety of appropriate communication methods to interact with others to give/receive information accurately, in a timely, positive and professional manner.  Communicate effectively using evidence-based reporting, communication and presentation skills.	Evidenced instances of effectively delivering presentations as part of the EPA and presenting evidence of communicating and interacting with others to give/receive information accurately, in a timely, positive and professional manner.  Evidences an effective delivery of presentations as part of the EPA.  Presents evidence of presenting in the workplace, subsequent discussion and demonstrates specific examples of delivering stakeholders events.	Can evidence positive outcomes of engagement events delivered using variety of appropriate communication methods.  Shows an understanding of the reason for engagement with stakeholders.  Can evidence interaction with others through quantitative outcomes and/or positive feedback.
S14	Demonstrate analytical and problem solving skills.	Demonstrates ability to effectively analyse and solve problems related to the role within the workplace and offers examples.	Able to evidence positive outcomes of analytical and problem-solving exercise undertaken without guidance within the workplace and sets out examples.
B1	Target and goal oriented.	Describes evidence of actions within the workplace that led to hitting performance or other targets.  Outlined 3 professional goals planning to achieve within the next 12 months.	Describes planning, process and outcome of an action that led to hitting a target within the workplace. Takes responsibilities for identifying possible targets and goals.  Outlines and describes 5 professional goals planning to achieve within the next 12 months.
B2	Forward thinking and proactive.	Explains occasions of proactively seeking opportunities for up-to-date information relevant to the workplace's energy management task.	Evidences detailed personal commitment to energy management principles and workplace values.

			ST0161/AP03/V1.1
		Provides examples of positive contributions to an energy management task by anticipating certain regulatory, industry, sector, event developments.	Actively seeks opportunities to make positive contributions to energy management practices and energy efficiency.
B3	Display a self-disciplined, self-motivated approach whilst recognising personal limitations and seeking advice from fact holders and specialists when required.	Completes work without instruction, plans work to ensure task are completed within set timescale, demonstrates flexibility to changing working environment and demands.  Co-ordinates with stakeholders to ensure the correct resources and processes are in place.  Able to identify and seek advice from relevant stakeholders when required.	Takes a detailed approach to planning work.  Actively reviews performance with a critical eye and looks for ways to maximise efficiency.  Demonstrates the ability and confidence to deputise for the line manager/senior energy managers when necessary.
B4	Deliver a supportive professional service to external and internal customers.	Evidences effective professional relationship throughout employment and effectively engages external and internal stakeholders and clients.	Demonstrates strong interpersonal skills in relationships with a broad range of stakeholders, including senior management and other internal and external stakeholders and clients.  Encourages and facilitates good working relationships.  Demonstrates a high level of consideration for people's opinions.
B5	Environmentally and economically focused.	Describes personal commitment to environmental and sustainability issues, and their impact on the economy.	Evaluates in detail own personal commitment to environmental principles and compares to those of the general population.  Evidences personal action to foster awareness of environmental issues.  Acts as a role model and encourages others to adopt environmental principles.  Challenges environmental and economic issues.

			ST0161/AP03/V1.1
B6	Focus on undertaking and completing work in a way that contributes to sustainable development.	Explains undertaking and completing work in a way that contributes to sustainable development.	Demonstrates learning from challenges experienced in practice, and details how these were altered to achieve sustainable development.  Details combination of approaches that work together to deliver sustainable development.  Considers anticipates factors that may affect undertaking and completing work
B8	Be quality and efficiency focussed, and professional in work and in personal standards.	Evidences focus on delivering quality service with focus on efficiency and building relationships.  Throughout employment effectively engages external and internal stakeholders and clients, develops objectives and completes an action.	Demonstrates high personal commitment to delivering quality service and can provide examples of how they resolved/would resolve challenging situations related to quality and efficiency of their or organisation's service.
		Assists in the monitoring of standards and practices to ensure energy quality is maintained.	
В9	Be aware of the needs and concerns of others, especially where related to diversity and equality.	Evidences strong team working and empathy through employment within the team.  Contributes to meetings and planning, supports team briefings.	Demonstrates the development of significant team building activities, proactively engages with other departments and/or wide range of stakeholders.
		Shows respect for others, adapts communication style for audience.  Understands different needs and requirements.	Demonstrates a high level of consideration for people's needs and concerns.
B10	Carry out and record Continuing Professional Development and professional training, necessary for maintaining and enhancing	Describes processes of carrying out and recording CPD and training.	Actively seeks a variety of CPD activities and professional training to upskill and maintain and enhance competence.
	competence.	Outlines activities outside of the apprenticeship programme that contributed to enhancing energy management skills and competencies.	Plans the Continuing Professional Development 12 months in advance.
			Can detail planned CPD activities.

		ST0161/AP03/V1.1	
			Takes responsibility for identifying possible development opportunities for other team members.
B12	Be able to adjust and respond effectively to unexpected change, and deal with contingency risks.	Describes instances of accurately assessing risk and planning an action to manage unexpected change and risk.	Explains instances of pro-actively and independently implementing effective change and risk management controls and communicating these controls to other stakeholders.