

The Sector Skills Council  
for Building Services Engineering

Summit<sup>SKILLS</sup>

**advanced  
apprenticeship  
framework**

for the electrotechnical industry

For England And Wales

Framework code 105. Issue number: EAA01/07/04. Approved by AAG 15 July 2004

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## 1 DETAILS OF THE SECTOR

Item	Detail
Advanced Apprenticeship	Electrotechnical (England and Wales)
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## 1.1 Plans for the Framework

SummitSkills is the Sector Skills Council (SSC) for the building services engineering sector. The sector embraces the industries of:

- Air Conditioning & Refrigeration
- Electrotechnical
- Heating & Ventilation
- Plumbing.

These industries are responsible for the design, installation, maintenance and management of the systems and services that provide:

- climate control
- communication
- heating
- lighting
- power
- security
- water

to outlets, equipment and machines which are located in buildings and 'on-site' (floodlighting, public highways, petrol stations, quarries, storage and processing plants).

In terms of this Advanced Apprenticeship framework, SummitSkills has the responsibility of representing, and being accountable to, the building services engineering sector for;

- Developing National Occupational Standards (NOS), National Vocational Qualifications (NVQ) and Scottish Vocational Qualifications (SVQ)
- Endorsing qualifications, such as NVQs, SVQs and Technical Certificates, which reflect the National Occupational Standards
- Working with sector employers, manufacturers, vocational education & training providers, funding agencies, awarding and accrediting bodies to develop and establish deliverable education and training programmes
- Monitoring education/training frameworks
- Identifying skills gaps and shortages
- Developing and establishing career pathways
- To act as developers and guardians of the framework, ensuring that the framework's outcomes reflect the skills need within the electrotechnical industry



	<b>plus</b> Certificate in Electrotechnical Technology – 100/3602/7	3
Additional employer requirements	Additional Requirements (4.4): Apprenticeship Occupation Practical Performance Assessment (PPA)	3
Employment rights and responsibilities	Employment Rights and Responsibilities (4.5 & Annex 2):  Integrated in the Induction Programme, the NVQ and the Technical Certificate Requirements	

### 3 OVERVIEW OF THE FRAMEWORK

#### 3.1 Rationale for Framework

##### 3.1.1 The Electrotechnical Industry

The electrotechnical industry embraces technical operations and projects relevant to:

- installing electrotechnical systems and equipment
- maintaining electrotechnical systems and equipment
- repairing and assembling electrotechnical equipment and machines.

Directly associated with these operations and projects are occupation areas which are specific to a particular job role, the key ones of which are:

- Electrical Installations (Buildings and Structures)
- Electrotechnical Panel Building
- Electrical Machine Repair and Rewind
- Installing Instrumentation and Associated Equipment
- Maintenance of Electrotechnical Systems and Equipment
- Installing Highway Electrical Systems

##### 3.1.2 Companies, Organisations and Employees <sup>[1]</sup>

The industry consists, in broad terms, of four types of company/organisation:

**Electrical Contracting:** electrical installation (buildings & structures): 14,000

**Multi-disciplined:** maintenance; instrumentation; electrical installation; communication and security systems; power generation and distribution: 3,000

**Specialists:** electrotechnical panel building; instrumentation; security systems; communication systems; electrical equipment & machine repair and rewind: 2,000

**Local Authorities and Councils; Health Trusts; Water and Gas Companies:** electrotechnical facilities installation & management; public lighting systems; process control systems: 1,500

The estimated population of these companies/organisations, employed in *electrotechnical occupations*, is 315,000. Add to this the estimated 31,400 employed in *electrotechnical occupations* in organisations that are in other sectors such as manufacturing, telecommunications and transport, and the total industry population is estimated at 346,400.

**NOTE [1]:** Data in this section is taken from *The Skills and Labour Market Survey for the Electrotechnical Sector, NET, 2002 (England, Northern Ireland, Scotland and Wales)*

### 3.1.3 The Industry's Breadth and Depth

The industry is increasingly carrying out a wider range of tasks and projects, which include:

- principal contractors on construction engineering projects such as shopping and entertainment complexes, sports stadiums, hospitals and new housing projects
- advanced data-cabling, data-handling systems and fibre-optic systems
- computer controlled building management systems – lighting; heating; air conditioning; security
- high-tech alarm and CCTV installations
- complex installations in buildings and structures for domestic, commercial, industrial, recreational and transport purposes
- design, construction, installation and maintenance of control equipment for complex industrial manufacturing and processing
- design, construction and installation of equipment and systems to control high-voltage power supplies

The Electrotechnical Advanced Apprenticeship Framework with its associated training and assessment programmes is seen by the industry as an opportunity to introduce young people into the industry, providing them with a nucleus of skills at an identifiable level of competence relevant to their employment circumstances. The framework is designed to prepare apprentices for a career as an *Electrotechnical Operative* (See 3.1.4) and equip them with the competencies for further career progression in such job roles as:

- Technician
- Designer/Estimator
- Project Manager
- Site/Workshop Manager
- Electrical/Electronic Engineer
- Sales Engineer/Commercial Manager (e.g. Manufacturer/Electrical Wholesaler)

The apprenticeship programme is also recognised in the industry as a vehicle to address the skills gaps identified in the *Electrotechnical Industry Workforce Development Plan, February 2002 (England, Northern Ireland, Scotland and Wales)*

### 3.1.4 Electrotechnical Operatives

Electrotechnical Operatives are individuals qualified to the appropriate industry standards (NVQ Level 3) for the occupations of:

- Installation Electrician (Building & Structures)
- Instrumentation Electrician (Installing Instrumentation & Associated Equipment)
- Highway Systems Electrician (Installing Highway Electrical Systems)
- Maintenance Electrician (Maintaining Electrotechnical Systems & Equipment)
- Electrotechnical Panel Building Technician (the construction, testing & commissioning of electrical/electronic control panels and switchgear)
- Electrical Machine Technician (the rewind, repair, assembly, testing and commissioning of electric motors, generators and transformers)

The apprentice will undertake a job role and a relevant vocational education & training programme compatible to the occupation of their choice.

This revised Advanced Apprenticeship framework has been amended to accommodate the new “Technical Certificate Requirement”, identified in Section 2, which reflects the Job Knowledge requirements of the ‘Occupational NVQs’ which are also identified in Section 2. There are no changes to the Advanced Apprenticeship Frameworks’ structure and Mandatory Outcome requirements.

### 3.1.5 Number of Apprentices On Programme

- Current Framework Starts (August 2003/January 2004) – 3,753
- Total Average ‘In Learning’ (August 2003/January 2004) – 12,153
- Projected Starts for Advanced Framework **EAA01/07/04** (August 2004/January 2005) – 3,800

## 3.2 Employed Status

3.2.1 For advanced apprentices, employed status is the preferred route, unless there are exceptional circumstances.

3.2.2 In accordance with national guidelines electrotechnical advanced apprentices must have employed status

## 4 CONTENT OF FRAMEWORK

### 4.1 NVQ(s)

One of six occupational options subject to job role

NVQ 3: Electrotechnical Services (4 routes) - 100/2854/7

- Installation – Buildings & Structures
- Electrical Maintenance
- Installing Instrumentation & Associated Equipment
- Installing Highway Electrical Systems

NVQ 3: Electrotechnical Panel Building – 100/2853/5

NVQ 3: Electrical Machine Rewind & Repair – 100/2852/3

The National Occupational Standards reflected by the competencies of the above qualifications are recognised in the industry as the benchmark for qualified electrotechnical operatives (3.1.4)

### 4.2 Key Skills

4.2.1 Key Skills are essential skills which apprentices need in order to function effectively as members of a flexible, adaptable and competitive workforce.

4.2.2 The mandatory Key Skills requirement for the Electrotechnical Advanced Apprenticeship framework, and therefore **must** be separately certificated, is:

- Communication: Level 2
- Application of Number: Level 2
- Information Technology: Level 1

4.2.3 SummitSkills acknowledges that the wider key skills of *Improving Own Learning and Performance, Problem Solving and Working with Others* are integrated into the requirements of the Level 3 NVQs identified above (4.1). Therefore separate certification is **not** required.

*Also see **Annex 1** for “Apprenticeship Completion Certificate” Key Skills requirements*

- 4.2.4 Apprenticeship candidates who have achieved a good (A\*-C) GCSE in English (Welsh) or Maths need not be asked to attempt levels 1 or 2 key skill qualifications in communication or application of number. This applies only to those apprentices starting on or after 1 September 2001. If a Welsh GCSE proxy is being claimed, then the portfolio must either be entirely in Welsh, or dual language - Welsh and English with no particular minimum percentage. A portfolio entirely through the medium of English would not be acceptable. Where GCSE A\*-C English (Welsh) or Maths are being claimed as a 'concession' against the whole level 1 or 2 key skills qualification, a maximum period of five years will be allowed between the award (i.e. date of certification) of the GCSE and the registration (start) date of the MA – check programme.
- 4.2.5 The Welsh Assembly Government has agreed that where SSCs require the same key skills mandatory outcomes in both England and Wales, then the Apprenticeship Approvals group (AAG) will act as the approvals body. However, where the key skills requirements are different for Wales, Welsh Assembly Government approval must be sought. Welsh Assembly Government will expect to see evidence of consultation with employers to justify the key skills components of frameworks.

### **4.3 Technical Certificates**

- 4.3.1 Technical Certificates focus on the knowledge and understanding which underpins the NVQ competencies and can have knowledge to facilitate progression to HE or higher levels of working. Technical Certificates may also cover wider aspects of the occupation/sector as determined by SummitSkills. They are a structured approach to progressive learning and assessment, including external assessment, and are capable of being delivered through a taught programme of off-the-job learning that should reflect the on-the-job learning and experience at the appropriate level of the occupational NVQ (4.1).
- 4.3.2 There may be instances where an apprentice will be exempt from achievement of a technical certificate as part of their apprenticeship, for example, if they have already achieved an award that is one of the recognised qualifications that meet the requirements for a technical certificate and has been agreed by the SSC, or if the apprentice has achieved an award that is a level higher than that required by the framework.

*To avoid any difficulties at the point of claiming the Advanced Apprenticeship completion certificate, providers must gain written agreement to any exemptions during the initial development of the apprentice's Individual Apprenticeship Plan from SummitSkills.*

Where an apprentice is exempt from the technical certificate, they may be encouraged to achieve an alternative acceptable qualification or one at a higher level that meets the requirement for a technical certificate.

## 4.4 Additional Requirements

### Apprenticeship Occupation Practical Performance Assessments (PPA)

- 4.4.1 Due to the electrotechnical industry's safety-critical awareness and the nature of the occupational disciplines within the sector, correctly carrying out the methods and techniques applied to technical and Health and Safety activities is of fundamental importance. This is of particular importance in the **safety and technically critical** aspects of the appropriate National Occupational Standards as reflected in the identified NVQs (4.1).
- 4.4.2 Apprenticeship PPAs assess the safety and technically critical aspects of the appropriate National Occupational Standards and must be undertaken and administered in an approved *Independent Assessment Structure* and in accordance with the 'Assessment Strategy for Electrotechnical NVQs – 2004'
- 4.4.3 Evidence of suitable experience in the relevant safety and technically critical aspects of the appropriate National Occupational Standards **must pre-support** the apprentice undertaking an Apprenticeship Occupation Practical Performance Assessment.

***NOTE:*** Although the PPA is a mandatory requirement for completion of the framework it is **not** a Technical Certificate, a certificate of success in the assessment is issued in accordance with the associated procedures (6.1.3)

## 4.5 Employment Rights and Responsibilities

- 4.5.1 Employment Rights and Responsibilities (ERR) include material covering:
- the rights and responsibilities of workers (including equal opportunities legislation)
  - the organisation, disciplines and representative structures of the industries concerned
  - the impact on the sector of public law and policies.
- 4.5.2 The ERR component of the framework is covered through a combination of the induction programme, the NVQ and the Technical Certificate. See **Annex 2** for evidence sources.

## 5 IMPLEMENTATION OF FRAMEWORK

### 5.1 Entry Requirements

5.1.1 Whilst there are generally no nationally laid down minimum entry or previous experience requirements for the Electrotechnical Advanced Apprenticeship, for young people who:

- have an aptitude for technical subjects and/or are practically orientated
- have an interest in technology
- demonstrate an ability to solve practical problems and
- have successfully completed an appropriate Apprenticeship programme,

a career in the electrotechnical industry is one which will not only reward their potential, but also offer the opportunities to enhance their technical capability.

5.1.2 Examples of personal skills and attributes appropriate to the successful completion of an Electrotechnical Advanced Apprenticeship are:

- Motivation to succeed within the industry/sector
- Willingness to learn and apply that learning in the workplace
- Ability to demonstrate that they have the potential to complete the qualifications which are part of the apprenticeship
- Willingness to communicate effectively with a range of people
- Being numerate and literate
- Willingness to undergo a police check, for example when working with children and vulnerable adults (police checks are mandatory for all those working with young people under the age of 18, e.g. in the Early Years Care and Education sector).

5.1.3 Examples of formal qualifications that could indicate that a applicant has the potential to complete the Electrotechnical Advanced Apprenticeship successfully are:

- GCSE grade A-C in communication subjects, maths and/or science/technical based subjects
- GNVQs (Levels 1 or 2) in relevant vocational/technical subjects
- successful completion of an appropriate Apprenticeship programme.

### 5.2 On- and Off-the-Job Learning

5.2.1 Provision and undertaking of a **Training Agreement (see 5.3)**.

5.2.2 A formal induction process is a requirement of electrotechnical apprenticeship programmes. The specific company/organisation elements of induction are the responsibility of the employer. Other elements are undertaken by the employer or provider.

5.2.3 **Induction** should be seen as a process, rather than a one-off event and employers and providers will need to select the most appropriate method and timescales for inclusion in the Individual Apprenticeship Plan (5.4).

5.2.4 On completion of the induction programme, an apprentice must:

- understand and be trained in the organisation's health and safety policies and procedures (including fire, accident and emergency)
- health & safety issues that are specific to the electrotechnical industry and that will impact on themselves and others
- have an awareness and understanding of equal opportunities and anti-discriminatory issues
- understand their own and the organisation's responsibilities, including the procedure for making a complaint
- have an overview of the organisation's business, the sector within which it operates, its structure, personnel and terms and conditions
- be familiar with the physical working environment
- be introduced to the key people who will be involved in their training, assessment and supervision
- have an awareness and understanding of the organisation's policies, procedures and values
- understand the purpose and requirements of apprenticeship, including NVQ training and assessment, technical certificates and key skills
- understand and have agreed their Individual Apprenticeship Plan (5.4) and contract of employment which will be signed by the apprentice, employer and provider
- understand and have agreed and signed their Training Agreement.

5.2.5 Knowledge gained during induction can be used as evidence for the Employment Responsibilities and Rights requirements of this framework (4.5 & Annex 2).

5.2.6 Should the apprentice change employer during the apprenticeship, the induction process should be repeated to ensure that all relevant information concerning the new organisation (or provider) has been provided. Where an apprentice moves around within a large organisation, is on a placement with another organisation, or is working with a provider as well as an employer, an induction to each setting will be required.

5.2.7 Off-the-job learning, particularly that associated with the Technical Certificate requirement (4.3), should be compatible to the experience and maturity the apprentice gains on the job and reflect the requirements of the relevant NVQ (4.1).

### **5.3 Training Agreement**

In keeping with sector recruitment practices the employer, provider and apprentice should sign a training agreement, normally within four weeks of starting the apprenticeship programme. This agreement lays down the commitment and responsibility of each party to the apprenticeship. A sample Training Agreement is provided in Annex 3.

## 5.4 Individual Apprenticeship/Learning Plan

All apprentices must have an Individual Apprenticeship/Learning Plan which is agreed and signed by the employer, apprentice and provider. It:

- clearly identifies the person and includes their signature
- sets out the start date and the intended duration of their learning
- contains a brief statement of the apprentice's employment or career objectives
- sets out planned attendance both on and off the job learning as required
- includes the apprentice's prior learning and assessed needs and specifies a duration which allows the apprentice a reasonable prospect of successful completion of the framework
- specifies by name, level and reference number NVQ qualification(s) which the apprentice aims to achieve
- specifies all units which the NVQ and any other agreed qualifications, key skills, technical certificates and additional requirements which will be achieved during the apprenticeship, and the timescales in which these are likely to be achieved
- sets out any agreed support arrangements, including review of progress
- provides adequate information on how units of the whole NVQ and any other agreed elements of the training are learnt and assessed
- ensures that apprentices will have unrestricted access to information on the arrangements
- take into account best practice drawing on good practice guides, inspection, evidence and other relevant sources.

## 5.5 Minimum Duration of Training

The expected duration of an Electrotechnical Advanced Apprenticeship is **42 months**. This timescale takes into account the delivery and provision of the on- and off-the-job training and assessment associated with the framework's mandatory outcomes – e.g. the compatibility between the Technical Certificate requirement, the occupational NVQ and the Occupation Practical Performance Assessment (4.4).

## 5.6 Health and Safety

5.6.1 All partners involved in the implementation of apprenticeships must adhere to their statutory responsibilities for **health and safety** as follows:

- A safe working environment for apprentices must be provided whilst they are at work or in training
- Appropriate training on health and safety in the workplace must be given to each apprentice
- Awareness of, and compliance with, legislation relating to the Health & Safety at Work Act 1974, the Working Time Regulations 1998 and Health & Safety (Young Persons) Regulations 1997 must be demonstrated
- Awareness of, and compliance with as appropriate, the Electricity at Work Regulations 1989

- The apprentice must be aware of and comply with their statutory responsibility for health and safety at work. This relates to their own safety and to the safety of others in the work place. They must also be aware of, and comply with, any additional health and safety procedures laid down by their employer/provider
- Local LSCs/ELWa regional offices are responsible for monitoring the compliance of providers to their statutory health and safety obligations and will carry this out through their Quality Assurance procedures
- Providers will monitor the compliance of employers with health and safety statutory requirements.

5.6.2 Risk Assessment: Employers, as part of their statutory responsibilities under the Management of the Health and Safety at Work Regulations 1999, are required to:

- assess risk to young people before they start work
- take account of their inexperience and lack of awareness of existing or potential risks and immaturity
- address specific factors in the risk assessment
- take account of the risk assessment in determining whether the young person should be prohibited from certain work activities, except where it is necessary for their training
- ensure risks are reduced as far as reasonably practicable
- ensure proper supervision is provided by a competent person
- check their employers' liability insurance to ensure that no exclusions apply.

## **5.7 Equality and Inclusion**

5.7.1 Whilst equal opportunities has been identified here under a separate heading, the principles relate to all those systems and procedures which have the potential to discriminate against apprentices at any point during the programme – from recruitment and selection and induction, through to successful completion.

5.7.2 There should be open recruitment of advanced apprentices to the programme, which is available to all young people, regardless of gender, ethnic origin, religion/belief, sexual orientation or disability who meet the stated selection criteria.

5.7.3 All partners involved in the delivery of the apprenticeship - local LSCs/ELWa regional offices, providers, assessment centres and employers must be committed to a policy of equal opportunities and must have a stated equal opportunities policy and procedure.

5.7.4 Employers/providers must be able to demonstrate that there are no overt or covert discriminatory practices in selection and employment. All promotional, selection and training activities must comply with relevant legislation, such as:

- The Sex Discrimination Act, 1975 and Code of Practice
- The Race Relations Act, 1976 and Code of Practice
- The Disability Discrimination Act, 1995 and Code of Practice

- 5.7.5 The apprentice's knowledge about equal opportunities policies and procedures can be used as evidence for the Employment Responsibilities and Rights component of this framework (4.5 and Annex 2).
- 5.7.6 Providers will monitor equality of opportunity practice and procedures within their own organisation and take positive action when necessary. It is also recommended that employers/providers conduct an exit interview if the apprentice leaves the programme before completion.
- 5.7.7 SummitSkills will retain overall responsibility for the development of the Advanced Apprenticeship framework and for monitoring equality of opportunity, primarily by the analysis of the LSC/National Council-ELWa statistical returns. Where questions arise concerning policy and practice, SummitSkills will work closely with the local LSC(s)/ELWa regional offices concerned to identify causes and to implement positive action where appropriate.

## **5.8 Transfer Arrangements From Previous Framework**

### **5.8.1 Electrotechnical Advanced Apprenticeship Framework Registration Arrangements**

- The final registration date for the Electrotechnical Advanced Apprenticeship framework (September 2003 – RF02/09/03) is **31 July 2004**
- The start registration date for the new Electrotechnical Advanced Apprenticeship framework ( EAA01/07/04) is **01 August 2004**
- Any decision to retain existing apprentices under the preceding frameworks, or transfer them onto the new framework **must** be made in the best interests of the apprentice, agreed by them and their employer and both **must** record the decision on a revised Individual Apprenticeship Plan.
- The Sector Code for this framework is **105** which is also recorded on the Individual Apprenticeship Plan (5.4).

### **5.8.2 Any exemptions for an apprentice who is starting the Electrotechnical Advanced Apprenticeship (EAA01/07/04) programme in terms of Key Skills and Technical Certificate requirements **must** be formally endorsed by SummitSkills.**

## 6 ACHIEVEMENT AND PROGRESSION

### 6.1 Certification

- 6.1.1 The successful apprentice will receive an Electrotechnical Advanced Apprenticeship Completion Certificate from SummitSkills. This is separate from, and in addition to, those certificates awarded for the achievement of the individual components of the framework, e.g., NVQ, Key Skills, PPA and Technical Certificate.
- 6.1.2 Providers are responsible for claiming the National Completion Certificate from SummitSkills and for providing evidence of completion of the mandatory outcomes. They are also responsible for ensuring that the apprentice receives the Completion Certificate when awarded by SummitSkills
- 6.1.3 SummitSkills' requirements for claiming the certificate are:
- Relevant Level 3 NVQ certificate (4.1)
  - Certification for Key Skills (4.2 and Annex 1)
    - Communication: Level 2
    - Application of Number: Level 2
    - IT: Level 1
  - Technical Certificate [s] (4.3)
  - Apprenticeship Occupation Practical Performance Assessment Certificate (4.4)

*NOTE: Certificate Request Forms are available from SummitSkills, Fairbourne Drive, Atterbury, Milton Keynes, MK10 9RG*

### 6.2 Progression

On successful completion of the Electrotechnical Advanced Apprenticeship, an apprentice will have the skills, knowledge and qualifications to:

- register on the *Electrotechnical Certification Scheme* as a qualified electrotechnical operative (3.1.4)
- enhance their technical competence by undertaking learning & assessment programmes that lead to other Electrotechnical Level 3 NVQs (4.1) or sector related Level 4 NVQs
- undertake appropriate Further/Higher Education learning programmes such as sector related HNC/HNDs (Electrical/Electronic Engineering; Building Services)
- progress in their career into such job roles as Technician, Designer Estimator, Project Manager; Site/Workshop Supervisor/Manager, Electrical Electronic Engineer, Sales Engineer or Commercial Manager (e.g. Electrical Wholesaler)

*Also see **Annex 4: Electrotechnical Industry Career Paths***

## **7      MARKETING AND PROMOTION**

Our marketing strategy has been agreed with our key partners and will promote this framework effectively to all interested parties through such channels as:

- Producing careers guidance information for young people which
  - actively promotes equality of opportunity for all apprentices
  - illustrates progression routes within the sector/industry
  - promotes a range of job opportunities
- Producing information for Connexions/Careers Services/Careers Wales
- Producing information for employers and providers – e.g. framework, leaflets, posters, website, journals, newsletter; handbook
- Producing information for local LSC/ELWa regional offices, e.g. frameworks
- Producing information for parents
- Participating in local careers events
- Participating in national events – e.g. recruitment fairs, conferences and exhibitions.

Our marketing strategy will be reviewed and revised as part of the evaluation of this framework.

## Annex 1

### ELECTROTECHNICAL APPRENTICESHIP (EA) AND ADVANCED APPRENTICESHIP (EAA) & KEY SKILLS

The minimum mandatory Key Skills requirements for both of the above frameworks are **Information Technology – Level 1, Application of Number – Level 2 and Communication – Level 2**. The means of attaining these requirements and the evidence required for Apprenticeship and Advanced Apprenticeship completion certification will be subject to whether or not the apprentice is undertaking a Key Skills qualification. The chart below identifies means of attainment and evidence requirements for certification.

APPRENTICE-SHIP REGISTRATION	MEANS OF ATTAINMENT FOR APPRENTICES <i>UNDERTAKING</i> A KEY SKILLS QUALIFICATION	EVIDENCE FOR EA or EAA CERTIFICATION	MEANS OF ATTAINMENT FOR APPRENTICES <i>NOT UNDERTAKING</i> A KEY SKILLS QUALIFICATION	EVIDENCE FOR EA or EAA CERTIFICATION
PRIOR TO SEPTEMBER 2001	1. Portfolio of evidence and external test or 2. Portfolio of evidence and proxy qualification (GCSE Grades A -C in Maths, English/Welsh and GCSE Grades A – G in ICT awarded no more than five years before start of apprenticeship )	Key Skills Awarding Body Certificates for, <ul style="list-style-type: none"> <li>• Communication</li> <li>• Application of Number</li> <li>• IT</li> </ul> <b>For levels see above</b>	GNVQ in; <ul style="list-style-type: none"> <li>• IT</li> <li>• Communications</li> <li>• Application of Number</li> </ul> awarded no more than five years before start of apprenticeship <b>For levels see above</b>	Awarding Body Certificates
POST SEPTEMBER 2001	1. Portfolio of evidence and external test or 2. Portfolio of evidence and proxy qualification (GCSE Grades A -C Maths, English/Welsh and GCSE Grades A – G in ICT awarded no more than five years before start of apprenticeship )	Key Skills Awarding Body Certificates for, <ul style="list-style-type: none"> <li>• Communication</li> <li>• Application of Number</li> <li>• IT</li> </ul> <b>For levels see above</b>	1. GCSE Grades A -C in Maths, English/Welsh and GCSE Grades A – G in ICT or 2. GNVQ in; <ul style="list-style-type: none"> <li>• IT</li> <li>• Communications</li> <li>• Application of Number</li> </ul> GCSEs and GNVQs must be awarded no more than five years before start of apprenticeship <b>For levels see above</b>	Awarding Body Certificates  Awarding Body Certificates

Annex 2

**EMPLOYMENT RESPONSIBILITIES AND RIGHTS: Themes, Outcomes & Evidence Source**

THEME	OUTCOMES	EVIDENCE SOURCE		
		INDUCTION	TECHNICAL CERTIFICATE	NVQ
	<i>The candidate can demonstrate knowledge and understanding of .....</i>			
<b>1. LEGISLATION, PROCEDURES and INFORMATION</b>	Aspects of employment law including - Contracts of employment; Anti-discrimination provisions (gender, race, disability, age); Working hours and holiday entitlements; Sickness absence and sick pay; Data Protection; Health & Safety	*	*	
	Industry specific areas of legislation and regulation relevant to their occupation and organisation	*	*	*
	Rights and responsibilities of individuals, organisations and the public	*	*	
	Grievance Procedures at work/ training and what they can expect to happen, e.g. Sex and Race Discrimination Acts; Bullying; Disciplinary actions	*		
	Procedures for requesting/recording time off work for - illness; medical/dental reasons; holidays; family reasons; public duties (e.g. acting as a juror); trades union duties	*		
	Personal Information – Personnel Record; Statement of Earnings	*		
	Health & Safety regulations and codes of practice applicable to their workplace and job	*	*	*
	Safety of self and others while at work - environment, materials, tools and activities involved	*	*	*
	Sources and types of information and advice on employment issues; <ul style="list-style-type: none"> <li>within their organisation – guidelines and manuals, managers and other officials</li> </ul>	*		
	<ul style="list-style-type: none"> <li>from outside their organisation - citizen’s advice bureaux, trades unions, internet, trade associations, professional bodies</li> </ul>	*		

THEME	OUTCOMES	EVIDENCE SOURCE		
		INDUCTION	TECHNICAL CERTIFICATE	NVQ
	<i>The candidate can demonstrate knowledge and understanding of .....</i>			
<b>2. THE ELECTROTECHNICAL SECTOR;</b> - Industries and occupations - Roles and responsibilities - Representative bodies - Organisations - Industry/organisation principles and codes of practice - Public Relations	The principle industries and supply chains	*	*	*
	What their organisation does and its characteristics	*		
	Recent developments/changes to their industry and how these have affected their organisation and occupation	*	*	
	Their main responsibilities at work and how their occupation fits into the organisation's structure and supports its operation	*		
	The importance of effective interactions with colleagues and contacts in the workplace	*		*
	The main types of representative bodies relevant to their industry, occupation and organisation, to include as appropriate:	*		
	Trades Unions	*		
	Professional Bodies	*	*	
	Trade and Employer Associations	*		
	Consumer Groups	*		
	Regulatory Bodies responsible for protecting public interests	*		
	Sector Skills Council (SSC) responsible for their industry and occupation	*		
	How their organisation interacts with different groups, both directly and through representative bodies, and why this is relevant to the organisation's operation	*		*
	The principles by which their organisation operates and how these are made known to – employees; customers; suppliers; the community	*		
	The codes of practice which apply to their occupation, industry and organisation	*	*	*
	Consequences that might arise from failure to meet these codes of practice	*	*	*
	Standards of good practice expected of their occupation	*	*	*
Issues of public concern that are relevant to their industry, organisation and/or occupation, e.g. environmental	*	*	*	
The main effects on their organisation of any changes that have occurred in public opinion on relevant issues	*	*		
The steps their organisation and/or representative bodies in the industry have taken to address issues of public concern	*	*		

THEME	OUTCOMES	EVIDENCE SOURCE		
		INDUCTION	TECHNICAL CERTIFICATE	NVQ
	<i>The candidate can demonstrate knowledge and understanding of:</i>			
<b>3. CAREER PROGRESSION, PATHWAYS and DEVELOPMENT</b>	The occupation that their development programme prepares them to enter	*		
	The main career pathways into which their occupation fits	*		
	The education, training and development opportunities provided for them by their organisation and what they need to do to make use of them	*		
	Sources of information and advice about their industry, organisation, occupation, training, education and career are available, and how to use them; - within their organisation, e.g. personal development plans, training materials, organisational brochures	*		
	- From outside sources, e.g. education and training providers, careers advisers, professional bodies, internet, trade and general press	*		

**Annex 3**

**Example Training Agreement**

**This Agreement between:**

**Employer** \_\_\_\_\_  
\_\_\_\_\_

**of**  
\_\_\_\_\_  
\_\_\_\_\_

**and Apprentice**  
\_\_\_\_\_

**and Parent/Guardian**  
\_\_\_\_\_  
**(if aged under 18)**

**and Training Provider** \_\_\_\_\_

**is made** \_\_\_\_\_ **on date**  
\_\_\_\_\_

**1. The Employer’s Responsibilities**

- 1.1 To employ, or sponsor, and pay the Apprentice in accordance with agreed terms and conditions.
- 1.2 To agree jointly with the Training Provider and Apprentice, an Apprenticeship Plan ensuring that satisfactory progress is maintained. Any changes to the plan to be agreed at review stages.
- 1.3 To provide, as far as is reasonably practical, the experience, facilities and training necessary to achieve the training objectives specified in the Apprenticeship Plan without loss of wages and to treat the Apprentice fairly and reasonably as an employee would be treated.
- 1.4 If the Apprenticeship is terminated due to redundancy, to attempt, with the assistance of relevant organisations, to arrange employment for the Apprentice, for the duration of the Apprenticeship, with another company.
- 1.5 To undertake legal and contractual responsibilities for the health and safety of the Apprentice.
- 1.6 To ensure conformity with the employer’s equal opportunities policy

## 2. The Apprentice's Responsibilities

- 2.1 To work for the Employer to the best of her or his ability and in accordance with the Employer's policies and procedures.
- 2.2 To observe the Employer's terms and conditions of employment.
- 2.3 In both working and training, to be diligent and punctual and to attend courses, keep records, take part in and contribute to the review process, undertake assessments in order to achieve Apprenticeship Plan objectives and keep the employer informed of progress towards those objectives.
- 2.4 At all times to behave in a safe and responsible manner and in accordance with the requirements of health and safety legislation relating to the individual's responsibilities and to promote and act in the Employer's best interests.

## 3. The Training Provider's Responsibilities

- 3.1 To check that the contents of the Apprenticeship Plan fulfil the nationally and industry/sector agreed criteria for the Modern Apprenticeship.
- 3.2 To ensure that the training meets the requirements set out in the Contract between the Training Provider and the Learning and Skills Council in particular in relation to Quality Assurance process including Health and Safety obligations.
- 3.3 If the Employer is unable to complete the Apprenticeship, then the Training Provider shall use its best endeavours to ensure that the Apprentice is offered the opportunity to transfer to another organisation that will be able to provide a Apprenticeship Plan substantially similar to the existing Apprenticeship Plan.

**I understand the responsibilities as defined above and agree to this undertaking.**

Signed \_\_\_\_\_ for Employer

Date \_\_\_\_\_

Signed \_\_\_\_\_ Apprentice

Date \_\_\_\_\_

Signed \_\_\_\_\_ Parent/Guardian (if aged under 18)

Date \_\_\_\_\_

Signed \_\_\_\_\_ For Training Provider

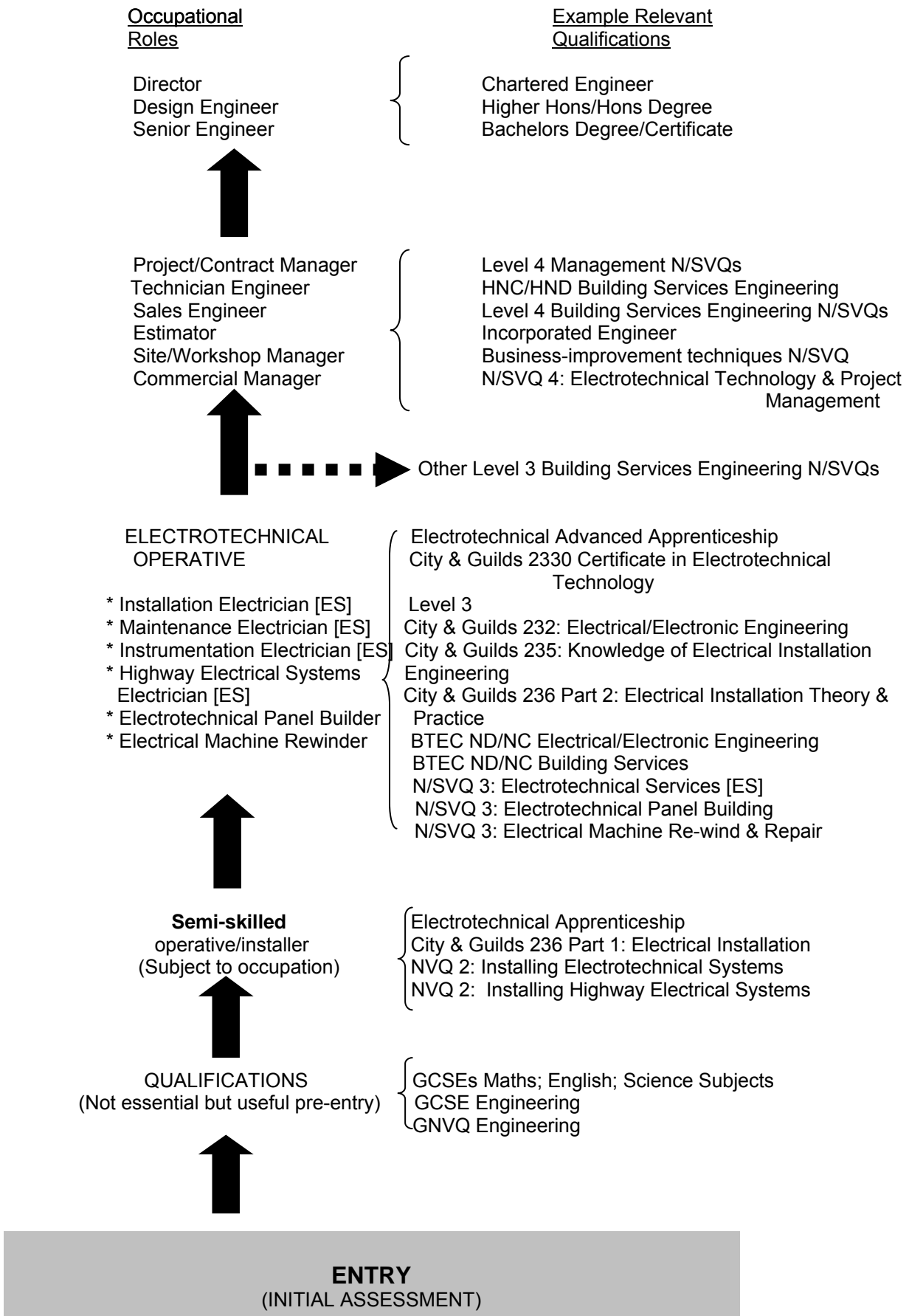
Date \_\_\_\_\_

Copies to:

- Apprentice
- Employer
- Provider

**Annex 4**

**Electrotechnical Career Paths**



**Annex 5**

**Technical Certificates Linked to NVQs for the Advanced Apprenticeship (AA) in**

**ELECTROTECHNICAL**

Title of qualification recognised as a technical certificate	Level	Awarding body	Qualification reference no.s	No of Guided Learning Hours	Qual. start Date	Qual. end Date	Certification end date	A or AA	Relevant NVQ title  <b>ALL LEVEL 3</b>
Certificate in Electrotechnical Technology	2	City & Guilds	100/3569/2	500	19/04/04	31/08/09	31/08/2011	AA	Electrotechnical Services (Installation – Buildings/Structures)
Plus									
Certificate in Electrotechnical Technology	3	City & Guilds	100/3602/7	250	19/04/04	31/08/09	31/08/2012	AA	Electrotechnical Services (Electrical Maintenance)
									Electrotechnical Services (Installing Instrumentation & Assoc. Equipment)
									Electrotechnical Services (Installing Highway Electrical Systems)
									Electrotechnical Panel Building
									Electrical Machine Rewind & Repair

# Summit<sup>SKILLS</sup>

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