**TUGAS 4**

**KAJIAN TEKNOLOGI DAN VOKASI**

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**UNIVERSITAS PENDIDIKAN INDONESIA**

**2021**

**UEE42020 Certificate IV in Electrical - Photovoltaic systems**

**Modification History**

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| Release 2: This minor update is the second release of this qualification in the UEE Electrotechnology Training Package.  Two units added to general electives. Imported elective units updated. |
| Release 1. This is the first release of this qualification in the UEE Electrotechnology Training Package |

**Qualification Description**

This qualification provides competencies to select, install, set up, test, fault find, repair and maintain electrical systems and equipment in buildings and premises.

It includes requirements and competencies to select, install, set up, test, fault find, repair and maintain photovoltaic (PV) systems and associated equipment.

No licensing, legislative or certification requirements apply to this qualification at the time of publication.

**Entry Requirements**

The entry requirement for this qualification is:

* UEE30820 Certificate III in Electrotechnology Electrician or
* a current ‘Unrestricted Electricians Licence’ or its equivalent issued in an Australian state or territory.

**Packaging Rules**

A total of **440 weighting points** comprising:

**260 core weighting points** listed below; **plus**

**180 general elective weighting points** from the general elective units listed below.

Choose a total of 180 **weighting points** elective units from the list below, of which between 0 and 90 **weighting points** can be taken from Group A; between 0 and 90 **weighting points** can be taken from Group B; and between 90 and 180 **weighting points** can be taken from Group C (or all electives units of 180 **weighting points** can be taken from Group C).

**Up to 90 weighting points of the general elective units Group A**, may be selected, with appropriate contextualisation, from any relevant nationally endorsed Training Package or

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| accredited course, provided that selected units contribute to the vocational outcome of the qualification. Previously assigned weighting points are listed in the UEE Electrotechnology Training Package Companion Volume Implementation Guide (CVIG), if not listed weighting points will be 10 points, unless directed from the Electrotechnology Industry Reference Committee (IRC).  There are units of competency within this qualification that contain pre-requisites. Units of competency that have a pre-requisite requirement are identified by this symbol \*. Refer directly to the units of competency to identify pre-requisite requirements to ensure all are complied with. A list of all pre-requisites is also provided in the UEE Pre-requisite Companion Volume.  Where imported units are selected, care must be taken to ensure all pre-requisite units specified are complied with. | | |
| **Core units** |  | **Weighting Points** |
| UEECD0010 | Compile and produce an energy sector detailed report | 60 |
| UEECD0024 | Implement and monitor energy sector WHS policies and procedures | 20 |
| UEECD0027 | Participate in development and follow a personal competency development plan | 20 |
| UEEEL0013 | Install, set up and commission interval metering\* | 20 |
| UEERE0011 | Design grid-connected photovoltaic power supply systems\* | 60 |
| UEERE0015 | Implement and monitor energy sector environmental and sustainable policies and procedures | 20 |
| UEERE0016 | Install, configure and commission LV grid-connected photovoltaic power systems\* | 40 |
| UEERE0022 | Solve basic problems in photovoltaic energy apparatus and systems\* | 20 |
| **Group A: Imported and common elective units** | | **Weighting Points** |
| BSBOPS203 | Deliver a service to customers | 20 |
| CPCCWHS1001 | Prepare to work safely in the construction industry | 10 |
| HLTAID009 | Provide cardiopulmonary resuscitation | 10 |
| ICTICT214 | Operate application software packages | 20 |

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| UEECD0011 | Comply with scheduled and preventative maintenance program processes | 20 |
| UEECD0035 | Provide basic instruction in the use of electrotechnology apparatus | 20 |
| UEECO0002 | Maintain documentation | 20 |
| UEECO0015 | Provide quotations for installation or service jobs | 20 |
| UEECO0017 | Source and purchase material/parts for installation or service jobs | 20 |
| **Group B: Qualification elective units** | | **Weighting Points** |
| UEECD0030 | Prepare electrotechnology/utilities drawings using manual drafting and CAD equipment and software\* | 60 |
| UEECD0031 | Prepare engineering drawings using manual drafting and CAD for electrotechnology applications\* | 60 |
| UEECS0033 | Use engineering applications software on personal computers | 40 |
| UEEEL0069 | Select and arrange equipment for special LV electrical installations\* | 60 |
| UEEIC0002 | Assemble, enter and verify operating instructions in microprocessor equipped devices\* | 20 |
| UEEIC0013 | Develop, enter and verify discrete control programs for programmable controllers\* | 60 |
| UEERE0025 | Carry out basic repairs to renewable energy (RE) apparatus\* | 80 |
| UEERE0034 | Diagnose and rectify faults in renewable energy (RE) control systems\* | 60 |
| UEERE0035 | Install ELV stand-alone photovoltaic power systems\* | 60 |
| UEERE0036 | Install small wind energy conversion systems rated up to 10 kW for ELV stand-alone applications\* | 20 |
| UEERE0037 | Install, configure and commission LV micro-hydro systems rated up to 6.4 kW\* | 20 |
| UEERE0038 | Install, configure and commission LV wind energy | 40 |

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|  | conversion systems rated up to 10 kW\* |  |
| UEERE0039 | Install, set up and maintain ELV micro-hydro systems rated up to 6.4 kW\* | 20 |
| UEERE0045 | Solve basic problems in micro-hydro systems\* | 20 |
| UEERE0046 | Solve problems in stand-alone renewable energy (RE) systems\* | 60 |
| UEERE0047 | Solve problems in wind energy conversion systems (WECS) rated up to 10 kW\* | 60 |
| UEERE0049 | Apply safe work practices in the rooftop solar industry | 20 |
| UEERE0050 | Identify and isolate multiple supply systems\* | 20 |
| UEERE4001 | Install, maintain and fault find battery storage systems for grid-connected photovoltaic systems\* | 60 |
| **Group C: Qualification elective units** | | **Weighting Points** |
| UEECD0032 | Produce detailed electrotechnology/utilities drawings using CAD equipment and software\* | 60 |
| UEECO0001 | Estimate electrotechnology projects | 40 |
| UEECO0013 | Prepare specifications for the supply of materials and equipment for electrotechnology projects | 40 |
| UEEEL0007 | Develop detailed electrical drawings\* | 60 |
| UEEEL0029 | Conduct compliance inspection of LV electrical installations with demand exceeding 100 A per phase\* | 40 |
| UEEEL0030 | Conduct compliance inspection of single phase LV electrical installations\* | 60 |
| UEEEL0031 | Conduct compliance inspection of special LV electrical installations\* | 60 |
| UEEEL0040 | Develop compliance policies and plans to conduct an electrical contracting business\* | 80 |
| UEEEL0050 | Install and replace low voltage current transformer metering\* | 20 |

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| UEEEL0051 | Investigate and report on electrical incidents and causes\* | 60 |
| UEEEL0057 | Plan electrical installations with a low voltage demand up to 400 A per phase\* | 40 |
| UEEEL0073 | Verify compliance and functionality of special LV electrical installations\* | 40 |
| UEEIC0014 | Develop, enter and verify programs in supervisory control and data acquisition systems\* | 60 |
| UEEIC0015 | Develop, enter and verify word and analogue control programs for programmable logic controllers\* | 60 |
| UEERE0014 | Develop strategies to address sustainability issues for electrical installations\* | 20 |

**Qualification Mapping Information**

This qualification replaces and is not equivalent to UEE42011 Certificate IV in Electrical - Photovoltaic systems

**Links**

Companion Volume Implementation Guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>