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| Title | **Install and commission off-grid solar PV system** | | |
| Level | **3** | **Credits** | **20** |

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| Purpose | This competency standard is intended for those who carry out Installation of off-grid solar PV system. People holding credit for this module are able to describe Designing (software tools) and off-grid solar PV systems |

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| Classification ISCED | 0713 Electricity and energy |

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| Available grade | Competent / Not yet competent |

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| Modification history | N/A |

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| **Competency Unit** | **Performance Criteria** | **Knowledge and Understanding** |
| * 1. **A1:**   2. **Designing (software tools)** | **P1-** Use software for system sizing  **P2-** Use of software in selection of solar system | **K1-** Software techniques ,skills , guidelines , graphs and reports  **K2-** Electrical system, renewable energy system, planning and design software, energy usage, system performance, solar characteristics, usage profiles, generation, load storage calculations, on-grid and off-grid, residential, commercial, system sizing, utility rate plans, rate comparison, utility costs and energy savings |
| * 1. **A2:**   **Installation of off-grid solar PV systems** | **P1-** Follow safety and other regulatory requirements for Domestic Solar Water Heating System.  **P2-** Draw off-grid solar PV systems Layout  **P3-** Identify and select tools and equipment for installation  **P4-** Install solar array  **P5-**Join solar plates and connections  **P6-**Perform installation | **K1-** Safety requirements and hazards identifications  **K2-** Drawing and symbol specifications  **K3-** Tools and equipment for Commissioning, Operation and Maintenance  **K4-** Installation procedures  **K5-** Jointing techniques ,methods of connections and specification requirements |