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| Title | **Test electrical machines and mechanical components** | | |
| Level | **2** | **Credits** | **12** |

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| Purpose | This competency standard is intended for those who test electrical machines and mechanical components in a variety of contexts. People holding credit for this competency standard are able to: Test machine and/or component for faults; diagnose faults; and remove faults. |

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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** |
| **H1:**  **Test machine and/or component for faults** | **Trainee will be able to:**  **P1-** Obtain and interpret testing procedures  **P2-** Conduct visual inspection  **P3-**Implement testing procedures  **P4-** Record test results | **K1-** Damage identification in terms of cracks, noise, disorder in shape and structure, broken parts  **K2-** Electrical machines may include but are not limited to:  **-** Alternator/Generator; load control governor, control panel & protection; transformer; power lines  **K3-** Mechanical components may include but are not limited to:  **-** Turbine and drive system components  **K4-** Procedures for different tests; Electrical and mechanical parameters |
| **H2:**  **Diagnose faults** | **Trainee will be able to:**  **P1-** Interpret test results  **P2-** Implement troubleshooting procedures  **P3-** Locate and identify fault | **K1-** Interpretation of drawings and circuit diagrams  **K2-** Troubleshooting procedures; Electrical and mechanical parameters |
| **H3:**  **Remove faults** | **Trainee will be able to:**  **P1-** Repair or replace component parts  **P2-** Carry out operational testing  **P3-** Record repair process  **P4-** Report to supervisor | **K1-** Interpretation of engineering drawings and circuit diagrams; product knowledge  **K2-** Product knowledge; Testing procedures and equipment |