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072204T4SPV

SOLAR PV INSTALATION LEVEL 4

ENG/OS/PVI/CR/01/4

Inspect Solar Photovoltaic System Installation Site

July/August 2025

TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION COUNCIL (TVET CDACC)

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PRACTICAL ASSESSMENT

INSTRUCTIONS TO ASSESSOR

1. Assess the candidate as the practical progresses observing the critical areas
2. You are required to mark the practical as the candidate perform the tasks
3. You are required to take video clips at critical points
4. Ensure the candidate has a name tag and registration code at the back and front

OBSERVATION CHECKLIST

Candidate's Name & Registration Code			
Assessors Name & Registration Code			
Venue of Assessment			
Date of Assessment			
Items to be Evaluated: *Please award marks as appropriate. Give a brief comment on your observation.*	**Marks Available**	**Marks Obtained**	**Comments**
1. Wore safety clothing i. Safety boots. *(Award 1 or 0)* ii. Apron. *(Award 1 or 0)* 2. Proper handling of tools. (*Measuring tape)* *(Award 2 or 0)* 3. Proper waste disposal. *(Award 1 or 0)*	1 1 2 1		
Sub-Total	**5**		
TASK 1			
Conducted site inspection 4. Established and recorded the total number of panels needed to supply the load (Award 4 marks or 0)	4		
5. Assessed and recorded the shading patterns of the area. (Award 4 marks or 0)	4		
Sub-Total	**8**		
TASK 2			
6. Measured and recorded solar irradiance *(Award 3 marks or 0)*	3		
7. Measured and recorded light intensity *(Award 3 marks or 0)*	3		
Sub-Total	**6**		

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TASK 3			
8. Drew a sketch map that contains i. Panel placement areas. (*Award 2 marks or 0)* ii. Shading sources (*Award 2 marks or 0)* iii. Wiring system (*Award 2 marks or 0)* iv. Battery bank *(Award 2 marks or 0)* v. Charge controller *(Award 2 marks or 0)* vi. Inverter *(Award 2 marks or 0)* *vii.* Neatness (*Award 1 marks or 0)*	2 2 2 2 2 2 1		
Sub-Total	**13**		
TASK 4			
9. Placed the solar PV at tilt angle 30^0 (*Award 3 marks or 0)*	3		
10. Measured short circuit current (Isc.) (*Award 2 marks or 0)*	2		
11. Measured the resistance (*Award 2 marks or 0)*	2		
12. Measured peak voltage (*Award 2 marks or 0)*	2		
13. Measured open circuit voltage (Voc.) (*Award 2 marks or 0)*	2		
Sub-Total	**11**		
TASK 5			

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14. Prepared a site inspection report containing: - i. Safety planning. (*Award 2 marks or 0)* ii. Site details and location information (*Award 2 marks or 0)* iii. Site conditions (roof tilt, shading, weather observations). (*Award 2 marks or 0)* iv. Proposed layout of the solar PV system (*Award 2 marks or 0)* v. System measurements (*Award 2 marks or 0)* vi. System design and mounting structure (*Award 2 marks or 0)* vii. Recommendations for installation (Award 2 marks or 0)	**2** **2** **2** **2** **2** **2** **2**		
Sub-Total	**14**		
GRAND TOTAL	**57**		
$\frac{X}{57} \times 100$			

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ASSESSMENT OUTCOME

The candidate was found to be:

Competent ☐ Not yet Competent ☐

(Please tick as appropriate)

(The candidate is competent if the candidate obtains at least 50%)

Feedback from the Candidate:

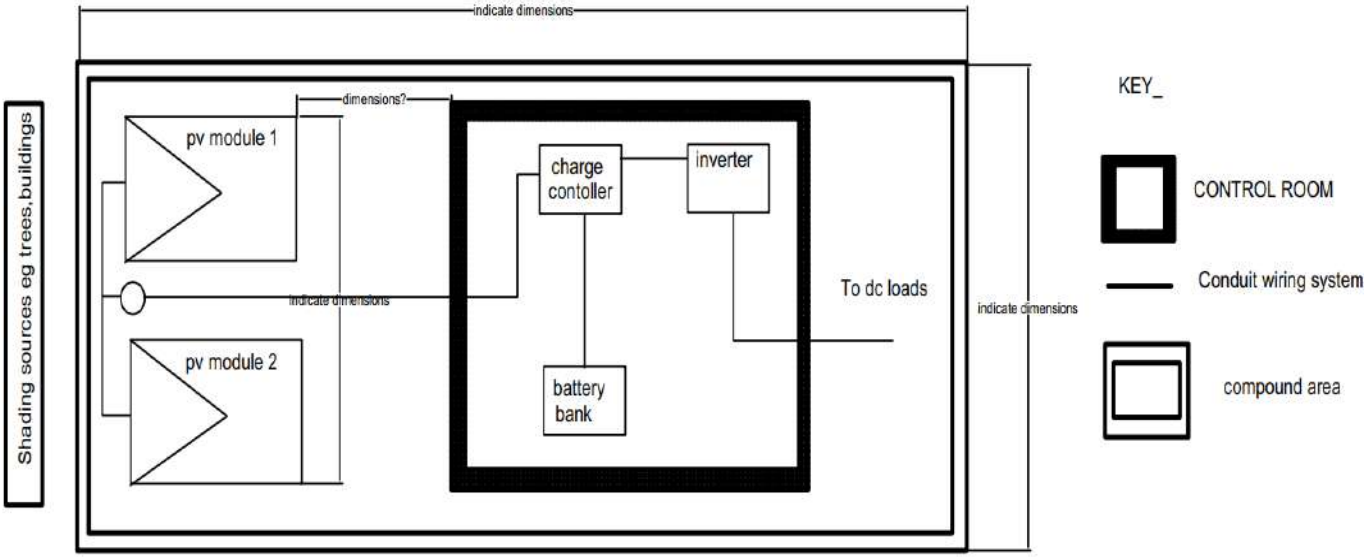
Feedback to the Candidate:

Candidate Signature _____	**Date:** _____
Assessor's Signature _____	**Date** _____

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Appendix: Print for The Assessor Only

Sample sketch



site sketch map 1

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