



**Rooftop Solar PV System  
Implementation Procedures for Registration of Contractors**

**Distribution Code Review Panel**

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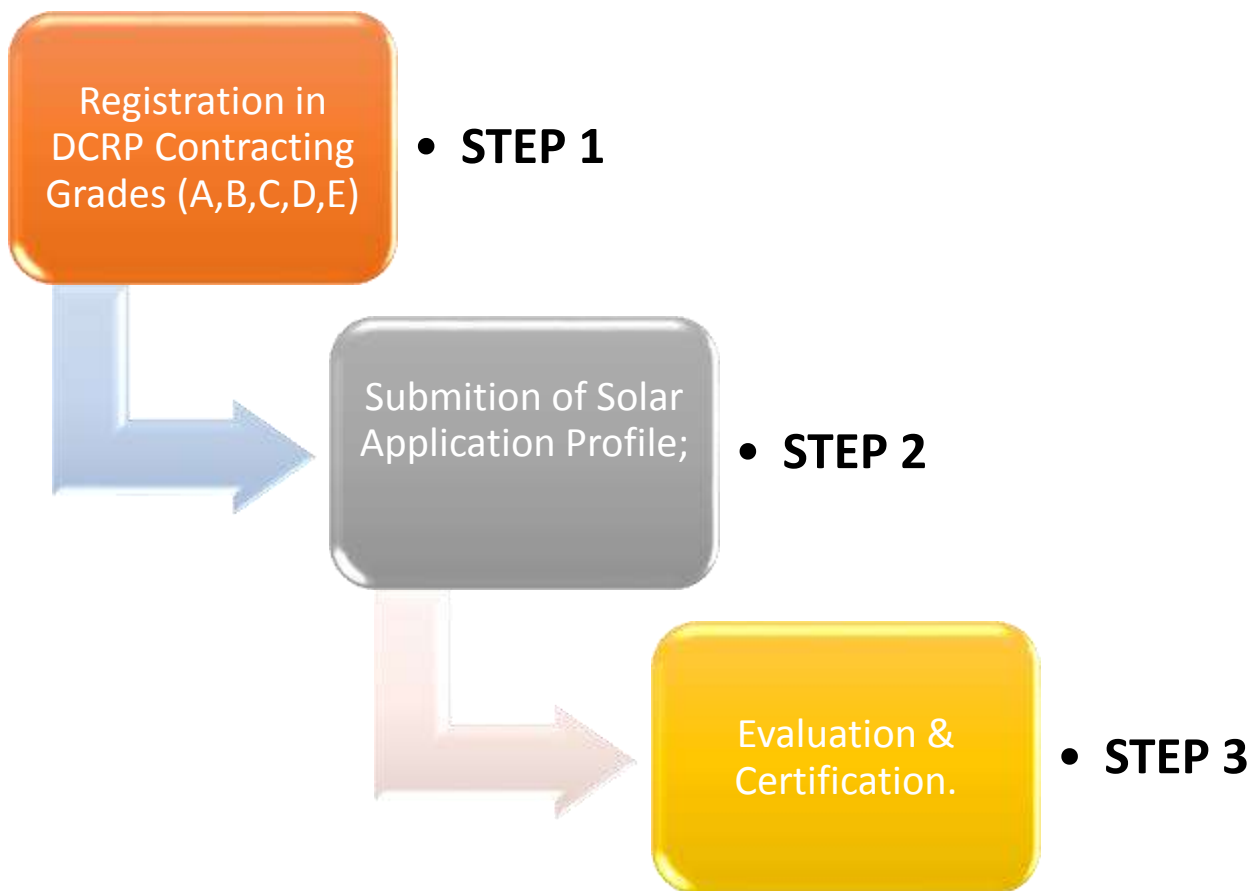
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## 1. Introduction

This document is presented to provide a guideline on the minimum Registration Requirements in terms of Experience, Competence, education & Training for Rooftop Solar PV system Installer certification for Contractors & Consultants Registered in DCRP based on the framework study prepared by CESI consultant for AER Oman.

## 2. Registration Process :



## **STEP 1: Registration in DCRP Contracting Grades**

Since the applicants are for on grid connections, Certification as an electrical Contractor is a key element in order to apply for Solar PV installer License. Contractors are required to register in DCRP in order to be certified within one of its Electrical grades. The system of contractor's registration within DCRP comprises five grades (A, B, C, D, and E). New applicants are advised to apply in Grade E (due to easier requirements).



The scope of work for each grade are illustrated in the below table:

S. No	Grade	Scope of work
1	A	Works on 33 KV and above (< 132 kV) and 33/11 KV substations
2	B	33 KV overhead lines and cables, 11/33 KV Out door substation up to 6MVA without Breaker, 11/33KV in door termination work
3	C	Overhead lines and underground cables, 11 KV Overhead lines and underground cable extensions, and 11KV/415V Distribution substation/11KV in door termination work.
4	D	LV U/G Cable and LV O/H Line works (415v) and Internal wiring of buildings more than two floors
5	E	Internal wiring of buildings up to two floors



Detailed Staff Requirements for each Grade are illustrated in the below table:

Sr.	Grade	Category	Min. No.	Min. Qualifications	Min. Experience	Documents Required along with Application
1	A	Electrical Engineer	1	University Degree in Electrical Engineering	7 Years	Attested Copy of Degree
2		Site Engineer	1	University Degree/ 3 Years Diploma in Electrical Engineering	5/7 Years	Attested Copy of Degree /Diploma
3		Protection Engineer	1	Bachelor's Degree	5 Years	Protection Engineer License from DCRP
4		Testing & Commissioning Engineer	1	Bachelor's Degree / Diploma in Electrical Engineer	5/7 Years	Testing & Commissioning Engineer License from DCRP
5		Forman	3	3 Years Diploma in Electrical Engineering	5 Years	Attested Copy of Diploma
6		Lineman	4	Secondary School or Technical Certificate	6 Years	Copy of Secondary School Certificate with or Technical Certificate
7		Electrician	3	For Omani: Secondary School Certificate Or Six months Vocational Training in Electrical  For foreigners: Six months Vocational Training in Electrical.	Omani: Nil. Foreigners: 3 Years	Electrician License & Copy of Secondary School Certificate with & Technical Certificate
8		Cable Jointer	1	Cable Jointer Certificate ( Issued by Raychem) & Secondary School or Technical Certificate	5 Years	Cable Jointer Certificate
9		Draughtsman	1	Secondary School with Vocational Training in Draughtsman/ Surveyor	5 Years	Copy of Secondary School Certificate with & Technical Certificate
10		Surveyor	1	Secondary School with Vocational Training in Surveyor	5 Years	Copy of Secondary School Certificate with & Technical Certificate
11		Helper	6	Shall be literate	2 Years	Copy of Certificate
12		HSE Officer	1	Diploma in HSE	2 Years	Attested Copy of Degree

Sr.	Grade	Category	Min. No.	Min. Qualifications	Min. Experience	Documents Required along with Application
1	B	Electrical Engineer	1	University Degree in Electrical Engineering	7 Years	Attested Copy of Degree
2		Site Engineer	1	University Degree/ 3 Years Diploma in Electrical Engineering	5/7 Years	Attested Copy of Degree /Diploma
3		Testing & Commissioning Engineer	1	Bachelor's Degree / Diploma in Electrical Engineer	5/7 Years	Testing & Commissioning Engineer License from DCRP
4		Forman	2	3 Years Diploma in Electrical Engineering	5 Years	Attested Copy of Diploma
5		Lineman	4	Secondary School or Technical Certificate	6 Years	Copy of Secondary School Certificate with or Technical Certificate
6		Electrician	2	For Omani: Secondary School Certificate Or Six months Vocational Training in Electrical  For foreigners: Six months Vocational Training in Electrical.	Omani: Nil. Foreigners: 3 Years	Electrician License & Copy of Secondary School Certificate with & Technical Certificate
7		Cable Jointer	1	Cable Jointer Certificate ( Issued by Raychem) Secondary School or Technical Certificate	5 Years	Cable Jointer Certificate
8		Draughtsman	1	Secondary School with Vocational Training in Draughtsman/ Surveyor	5 Years	Copy of Secondary School Certificate with & Technical Certificate
9		Surveyor	1	Secondary School with Vocational Training in Surveyor	5 Years	Copy of Secondary School Certificate with & Technical Certificate
10		Helper	4	Shall be literate	2 Years	Copy of School Certificate
11		HSE Officer	1	Diploma in HSE	2 Years	Attested Copy of Degree

Sr.	Grade	Category	Min. No.	Min. Qualifications	Min. Experience	Documents Required along with Application
1	C	Electrical Engineer	1	University Degree / 3 Diploma in Electrical Engineering	3/ 5 Years	Attested Copy of Degree
2		Forman	1	3 Years Diploma in Electrical Engineering	5 Years	Attested Copy of Diploma
3		Lineman	3	Secondary School or Technical Certificate	4 Years	Copy of Secondary School Certificate with or Technical Certificate
4		Electrician	2	For Omani: Secondary School Certificate Or Six months Vocational Training in Electrical  For foreigners: Six months Vocational Training in Electrical.	Omani: Nil. Foreigners: 3 Years	Electrician License & Copy of Secondary School Certificate with & Technical Certificate
5		Cable Jointer	1	Cable Jointer Certificate ( Issued by Raychem) & Secondary School or Technical Certificate	5 Years	Cable Jointer Certificate
6		Helper	2	Shall be literate	2 Years	Copy of Certificate

Sr.	Grade	Category	Min. No.	Min. Qualifications	Min. Experience	Documents Required along with Application
1	D	Forman	1	3 Years Diploma in Electrical Engineering	3 Years	Attested Copy of Diploma
2		Lineman	2	Secondary School or Technical Certificate	4 Years	Copy of Secondary School Certificate or Technical Certificate
3		Electrician	2	For Omani: Secondary School Certificate Or Six months Vocational Training in Electrical  For foreigners: Six months Vocational Training in Electrical.	Omani: Nil. Foreigners: 3 Years	Electrician License & Copy of Secondary School Certificate with & Technical Certificate

Sr.	Grade	Category	Min. No.	Min. Qualifications	Min. Experience	Documents Required along with Application
1	E	Electrician	2	For Omani: Secondary School Certificate Or Six months Vocational Training in Electrical  For foreigners: Six months Vocational Training in Electrical.	Omani: Nil. Foreigners: 3 Years	Electrician License & Copy of Secondary School Certificate with & Technical Certificate
2		Helper	1	Shall be literate	2 Years	Copy of Certificate

## STEP 2: Submission of Solar Profile

Contractors to submit a Solar Profile containing the company's overall relevant experience in Solar PV installation with the minimum technical team requirements for registrations as Solar PV installers. To become accredited for each Scope, each contractor should have in his sponsorship as follows:

Sl.No	Category	Scope of work	Minimum Requirements
1	S1	LV Plants $\leq$ 20 KW	1 junior PV Expert
2	S2	All LV Plants	1 junior PV Expert + 1 Senior PV Expert
3	S3	MV Plants	2 juniors PV Experts + 1 Senior PV Expert

- For S3 Registration, the contractor shall be registered in Grade C or above.

The minimum requirements are as follows:

Requirements for Solar PV Expert "Junior"				Additional requirements for Solar PV Expert "Senior"
Subject	Age	Education*	Work Experience	Work Experience
Contractors	At least 24 years old	Technical degree in Electrical or Mechanical or Civil issued authenticated by attestation from relevant authorities	Minimum 4 years of Electrical Installation and Construction related works.	Experience of two (2) years and at least three (3) Solar PV plants in: <ul style="list-style-type: none"> <li>- Designing</li> <li>- Building</li> <li>- Verification/Testing</li> </ul>

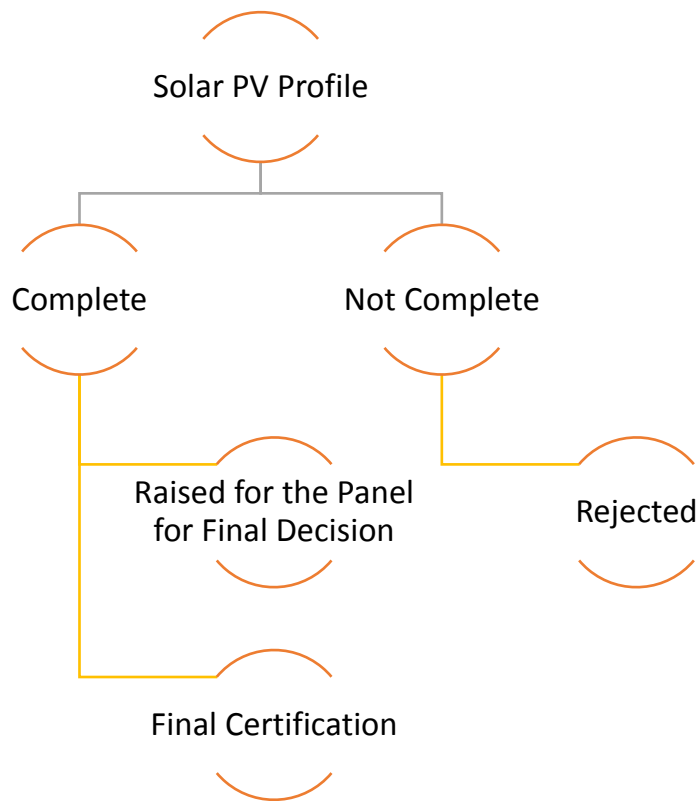


### **STEP 3: Evaluation & Certification**

The registration application will be evaluated by Contractors & Consultants Approval Section. The evaluation will be focused mainly on three aspects:

1. Technical team proposed
2. Relevant Solar training of the technical team.
3. Relevant experience in Solar PV systems.

A detailed evaluation report shall be raised to the Panel for Final Decision.





## **Frequent Asked Questions (FAQs):**

**Q: Why do I need to be certified as electrical contractor (A, B, C, and D &E) for solar registration?**

**A:** DCRP certifies contractors to execute electrical works in the electrical network. Applicants for Solar on grid connections need to be certified as electrical contractor to carry out any relevant electrical works such as electrical wiring, metering installations, etc.

**Q: what are the training Areas required for PV experts and can be accepted by DCRP?**

**A:** the following can be considered as fundamental training areas which can be accepted in order to work safely and efficiently in PV Sector:

- PV Plant Design and Installation
- Network Assessment
- Standards and regulations
- Tools & Techniques for PV Plant Inspection.

**Q: Are joint Ventures with International Solar PV companies acceptable for registration?**

**A:** Applicants for joint ventures should submit a full profile of the desired joint venture company and shall be reviewed and raised for the panel for final decision.

**Q: What are the available scope of work for certified Solar PV installers from DCRP?**

**A:** There are three scope of works available for Solar PV Contractors which are:

- LV plants less than or equal 20 KW
- All LV Plants
- MV Plants