

A. Lifecycle phases skills matrix. (Download it from www.solarpowereurope.org)

LIFECYCLE PHASE	TASK CATEGORY	TASK	REQUIRED CERTIFICATION	REQUIRED SKILLS	SKILLED PERSONNEL AVAILABLE?	NAME	SURNAME	CONTACT
Development, engineering, and procurement	Site assessment	Risk Assessment – health and occupational	Certification (postgrad) of Occupational Health & Safety					
		Risk Assessment – mechanical	Static engineer					
	Authorisation	Related party solar specific regulations (heritage protection, building authority)	Engineer / Architect					
		Communication with Electricity Provider	Certified electric engineer	Knowledge about actual standards and regulation, managerial and communication skills				
		Create and submit authorisation documentation	Country related licence for designing renewable energy structures					
Construction and operation under EPC warranty	Procurement	Purchasing PV modules, Frames, Inverters, electrical materials etc. Manage Supplier Relationships.						
		Managing transportation of personnel, materials and tools						
	Logistics, organisation	Organization planning on site						
		PV Module	Certified electrician	Basic knowledge about the installed product (e.g., handling, general safety guidelines, installation, etc.). See also recommendations by module manufacturer/installation manual, thermography and power measurements				
		Inverter	Certified electrician	Power Electronics (e.g. experience with specific product and type of inverter), Learning Tools interoperability (LT)				
	Construction & installation	Electric - General	Certified electrician with MV certification (MV in case of plants with HV connection)	Other relevant skills (e.g. Specific inspection & Test training, relevant accredited courses etc.)				
		Data & Comms	Certified electrician	Termination of specific communication cabling, monitoring/SCADA, and satellite/broadband systems				
		Security Systems	Certified electrician	Specific experience with security systems for site protection				
		Mounting	Company or country relevant requirements (e.g. working at height, Certified industrial alpinist, asbestos awareness, use of specific equipment, construction/installation certificate etc.)	Basic knowledge about the installed product (e.g., handling, general safety guidelines, installation etc.; see also recommendations by supplier/installation manual), technical experience				
		Preparatory works if needed (e.g., earthwork, roof works, etc.)	Specific job-related certification	Specific job-related skills				
		Technical Lead – Electrical (responsible for all electrical works and guides electric installers)	Electric engineer or certified electrician with country-related licence and certification	Advanced knowledge and experience in solar systems electric works. Managerial skills, experience in supervision and coordination of teams				
		Technical Lead – Mechanical (responsible for all mechanical works, such as mounting, and guides installers)	Country-related licence and certification	Advanced knowledge and experience in mounting solar systems. Managerial skills, experience in supervision and coordination of teams				
		Mechanical - Structural						

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Construction and operation under EPC warranty	Health & Safety	High Voltage (HV) Substation Access						
		Inspection - electrical work (Touch protection, tests etc)	Certified electrician. Country-related licence and certification for touch protection control	Accuracy, advanced knowledge about related standards. Experience in measuring process				
		Risk Assessment	Certification of Occupational Health & Safety					
		Occupational Health & Safety training course	First Aid at Work					
		(Sub)contractors' assessment and control						
		Company's Services Introduction						
		Health & Safety assessment test						
		Manual handling						
		Display Screen Equipment						
		Other task, company or country relevant requirements (e.g. working at height, asbestos awareness, use of specific equipment,						
	Environment	Training course and/or certificate	Certificate of Environmental Management					
		Any further, relevant training in environmental and waste management	Waste disposal and handling authorisation					
	Monitoring & metering	Installing monitoring system (WIFI, SCADA, Connection, Settings)	Monitoring tool training. Other relevant skills (e.g. data handling tool)	Knowledge of using monitoring tools				
		Meter accreditation and calibration	Only personnel authorised by electricity provider					
	Warranty services	Handling during construction as well as ensure warranty conditions are kept.						

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Operation under ownership	Health & Safety	Company's Services Introduction						
		Health & Safety assessment test						
		Manual handling						
		Display Screen Equipment						
		Risk assessment	Certification of Occupational Health & Safety					
		Occupational Health & Safety training course						
		Training to handle Health & Safety in a team						
		First Aid at Work						
		MV/HV Substation Access						
		(Sub)contractors' assessment and control						
	Environment	Other task, company or country relevant requirements (e.g. working at height, asbestos awareness, use of specific equipment, construction/installation certificate etc)						
		Training course and/or certificate	Certificate of Environmental Management and Assessment					
		Any further, relevant training in environmental and waste management	Waste disposal and handling authorisation					
		Operating and maintaining monitoring system (WFI, SCADA, Connection, Settings)	Monitoring tool training. Other relevant skills (e.g. data handling tool)					
		Meter operation, maintenance, accreditation, and calibration						
		Operating and maintaining PV Modules	Basic knowledge about the installed product (e.g. handling, general safety guidelines, installation, etc.). See also recommendations by module manufacturer/installation manual, thermography and power measurements					
		Operating and maintaining the inverter	Power electronics, learning tools interoperability (LTI)	Experience with the specific product and type of inverter used				
		Operating and maintaining the electrical systems in a PV plant	Certified electrician	Other relevant skills (e.g. Specific inspection & Test training, relevant accredited courses etc.)				
		Operating and maintaining the data & comms infrastructure	Certified electrician	Termination of specific communication cabling, monitoring/SCADA, and satellite/broadband systems				
		Operating and maintaining the security system	Certified electrician	Experience with the specific product and type of system installed				

B Annex

A. Skills matrix for Asset Managers. (Download it from www.solarpowereurope.org)

Planned	Not required	Required	Update required