# DESIGN & PROJECT MANAGEMENT UTILITY SCALE PHOTOVOLTAIC (PV) SYSTEM

## **COURSE OVERVIEW**

This is an advanced level course for engineers having knowledge and experience in designing grid connected PV systems. This course will include the concepts and skills required to design Utility Scale PV Power Plants: how to plan and implement the project; how to plan the system design and performance according to the various contractual and financing models currently used by developers and the finance industry; how to determine whether a project should proceed based on prescribed performance and financial criteria.

## **COURSE OBJECTIVES**

On successful completion of this course, the candidate will be able to:

- Design a utility scale PV power plant
- Determine the project management outline for the system's installation
- Understand the basic contractual requirements for projects of this scale
- Understand the construction requirements of the system
- Commission the system
- Understand the various, relevant financial models
- Understand the relevant software tools that are available
- Determine the power plant's design performance such that this data is used to support the project's contractual and financing agreement, eg: Power Purchase Agreement; PPP, etc

## 28 SCEM PDUs AWARDED

PDUs TO BE AWARDED TO PROFESSIONAL ENGINEERS

APPLICABLE FOR PRODUCTIVITY AND INNOVATION CREDIT (PIC)

Organised by:

Supported by:





**11 - 14 OCTOBER 2016** 9:00AM - 5:00PM

SEAS Training Centre 9 Penang Road, #08-02 Park Mall, Singapore 238459



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SEAS



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## **PROGRAMME OUTLINE**

#### Day 1:

- Overview of Utility Scale Grid Connect PV Systems
- Planning PV Projects
- Contractual Requirements
- Solar Resource Assessment
- System Performance

#### Day 2:

Detailed Plant Design

#### **Day 3:**

- Construction
- Commissioning of Power Plant
- Operation and Maintenance

#### Day 4:

- Power Plant financing and contrauctural Agreements
- Economics and Financial Models

### **ABOUT THE TRAINER**



**Mr. Christopher Martell** is a Principal Engineer with Global Sustainable Energy Solutions Pty. Ltd (GSES). He oversees the inspection program for Australia's Clean Energy Regulator (CER) as well as independent inspections for private industry. Chris also provides training to industry professional which satisfies the requirements of the Clean Energy Council (CEC) accreditation programs, lead for creating the design specification for feasibility card business development for CECS expectations.

studies and tenders and business development for GSES consultancy projects.

Chris graducated from Unversity of New South Wales, holding a Masters of Science in P hotovoltaics Engineering. Prior to joining GSES, Chris has been active in the solar industry for more than 10 years.

#### **RATES**

EARLY BIRD (before 30 June)	NORMAL FEE	GROUP FEE	
SEAS Member: \$\$1,710 (U.P: \$1,900)	SEAS Member: \$\$2,060 (U,P: \$2,280)	.,	
Non Member: \$\$2,060 (U.P: \$2,280)	Non Member: S\$2,465 (U.P: \$2,736)	from 1 orginization)	

\* EENP member is entitled to SEAS member rate

- \* All fees stated are after WDA funding
- \* Fees inclusive of GST
- \* SEAS reserve the right to make changes to the trainer, programme, venue, cancel or reschedule programme if necessary or warranted by circumstances beyond our control

\* Enjoy group discount for 4 or more delegates registered at the same time from the same organisation and same billing source

\* Only one type of discount scheme is applicable at any one time

\* Payment to SEAS & Address: Please send a crossed cheque to: Sustainable Energy Association of Singapore, 9 Penang Road, #08-02 Park Mall, Singapore 238459

## CALL US AT 6337 9886 TO ENQUIRE

#### **REGISTRATION FORM** Yes! I would like to register for this programme I am unable to attend but please put me on your mailing list

PARTICIPANT'S DETAILS Number of Delegates		Fees Payable				
Name (Dr/Mr/Mrs/Ms)		NRIC No		Designation		
10	Email				PEB SCEM	
2 Name (Dr/Mr/Mrs/Ms)		NRIC No		Designation		
10	Email			PEB SCEM		
ORGANIZATION'S DETAILS						
Company Name						
Company Address						
Contact Name			Tel			
Email			Fax			
	lo le (Dr/Mr/Mrs/Ms) lo ANIZATION'S DETAILS y Name y Address	lo Email le (Dr/Mr/Mrs/Ms) lo Email ANIZATION'S DETAILS y Name y Address	lo Email le (Dr/Mr/Mrs/Ms) lo Email ANIZATION'S DETAILS y Name y Address	Io Email Ic (Dr/Mr/Mrs/Ms) Ic (Dr/Mr/Mrs/Ms) Ic Email Ic International I	Image:	