

Investment Grade Solar System Feasibility

–Underwriting, Production, and Presentation of Investment Grade Studies.
X430

EDP #318543

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Texts

Planning and Installing Photovoltaic Systems[“Planning”], Second Edition

ISBN-13: 978-1-84407-442-6

<http://www.amazon.com/Planning-Installing-Photovoltaic-Systems-Installers/dp/1844074420>

The New Strategic Selling[“Selling”],

ISBN-13: 978-0446695190

<http://www.amazon.com/New-Strategic-Selling-Successful-Companies/dp/044669519X>

Online Repository

<http://groups.google.com/group/investment-solar-ucbx430-fall-2010>

Course Executive Summary

This course is designed to help industry practitioners identify and articulate the shortest possible path to successful commercial solar projects. Course objectives include:

- understanding how make better commercial solar investment decisions,
- articulating feasible projects, and
- further developing a student’s solar community of practice.

The course covers the current range of financial, technical, permitting, marketing/sales and capitalization options for commercial solar systems in the western United States. Solar can be a key component of value for a customer, for a solar developer, and for the places we leave behind.

The capstone of this course is the presentation by student teams of feasibility analysis on a potential investment grade solar project of their choice.

This course is delivered at a fast tempo, and is designed for those who already understand basic finance concepts such as internal rates of return, net present value, and discounted cash flows. Students should be familiar with Microsoft Excel. **THIS IS NOT AN INTRODUCTORY LEVEL COURSE.**

I will hold office hours for open questions thirty minutes before the start of each Tuesday evening class.

Saturday 11SEP10 9A—>>**Getting Up to Speed**

Preparation: Read Chapters 1 and 2 of Planning, and chapter 1 of Selling. Download Moscone Case Study from Google Groups site.

<i>when</i>	<i>what</i>	<i>Support Media</i>
9A	Welcome, Introductions,	
915A	Course Intro and Concepts— Expectations Resources Google Groups Site Texts Introduction Learning method	Intro.ppt
11A	How We Got Here Grid energy Prices AB 32 Government Mandates and Incentives Renewables Portfolio Standard Global Component Supply Investment Tax Credits PV is a Global Market The Math Behind Renewables The Variable, Distributed Gen Future	Roadmap.pdf
1130A	Walkthrough of Moscone Center Solar Array	
12N	<i>Lunch break</i>	
1P	Introducing the Solar Warrior Finance Pack --Robert Mason	
2P	What we Have to Work With Solar Resource, radiation data, radiation calculations Google Earth Google Sketchup	resource.pdf
3P	Introducing Instant Feasibility How it saves Time, Wear & Tear Framing the Win Team Assignments Site Assignments	Case Studies.pdf
445P	Introducing Case Study One	SolarCS1.pdf

Tuesday 14SEP10 630P—>>**Instant Feasibility**

Preparation: Read Chapters 3 of Planning. Download Study Material from Google Groups site.

<i>when</i>	<i>What</i>	<i>Support Media</i>
630P	Expectations Objective: Quit spending time on bad deals.	Feas Intro.pdf

640P	Instant Feasibility Techniques—Google Earth Know your Customer Tariffs Harvestable Area—Google Sketchup Energy Productivity—Net Metering—Loads De-Risking the Deal Capitalization	Instant_feas.pdf
740P	Crafting the Feasibility Checklist	checklist.pdf
830P	Walkthrough a Solar Feasibility Report	SolarFeasRpt.pdf
9P	Review Case Study One	
925P	Introduce Case Study Two	

Tuesday 21SEP10 630P—>>**Capitalizing a Solar Deal**

Preparation: Download Financial Model and financing materials from Google Groups site.

<i>when</i>	<i>What</i>	<i>Support Media</i>
630P	Expectations	Cap Intro.ppt
640P	Tax Benefits and Capitalization Stephen Tracy, CPA, Partner Novogradac & Co.	
830P	Components of Value Treasury Cash Grants Prepays, deferred revenue recognition DOE Loan Guarantee Program Federal Section 48 Investment Tax Credit CSI PBI suspension AB811 redux? Local—tax abatements, permit fee waivers California Feed in Tariffs SREC's & Carbon Credits Residual Value	ppas & leases.pdf
910P	Review Case Study Two	SolarCS2.pdf
925P	Introduce Case Study Three	SolarCS3.pdf

Tuesday 28SEP10 630P—>>**Harvesting and System Design**

Preparation: Read Chapters 4,5,6 and 7 of Planning. Download design materials from Google Groups site.

<i>when</i>	<i>What</i>	<i>Support Media</i>
630P	Expectations	Design Intro.pdf
640P	Guest Lecturer—Laks Sampath, Senior Manager, Investment Department, Trina Solar Component overview Designing for Thirty Year Life System Performance Tradeoffs Balance of Systems Costs and Design	

	How to work with a PV Engineer The independent Engineer's Report	
840P	Design Criteria and performance design optimization	Design wrap.pdf
910P	Review Case Study Three	

Tuesday 5OCT10 630P—>>Host Customer Recruitment

Preparation: Read Chapter 10 of Planning and Chapters 5 to 15 of Selling.

<i>When</i>	<i>What</i>	<i>Support Media</i>
630P	Expectations	Selling_intro.pdf
640P	Guest Lecturer: Dan Shugar, CEO, Solaria Corporation. We Love Vertical Markets Selling Solar The Four Buying Influences Solar Sales Role Playing	shugar.ppt
830P	Using the Feasibility Study as a tool to close the Deal	Host_recruitment.pdf
925P	Student feasibility project review	

Tuesday 12OCT10 630P—>>Finding the Shortest Possible Path to Profitable Projects

Preparation: Download report materials from Google Groups site.

<i>When</i>	<i>What</i>	<i>Support Media</i>
630P	Expectations	pulling_intro.pdf
640P	Guest Lecturer—Marc Culpepper, CTO SunEdison—Operations, Maintenance and Maximizing your IRR Project Contingency	
730P	Pulling It All Together on Your Project	Together.pdf
830P	Course Evaluation Forms Completed	

12-14 OCT10 [Solar Power International 2010](#), LA Convention Center. Optional meetup at the Convention.

Presentation Submittal:

All presentations are required to be emailed in .pdf format to the Instructor no later than 5P Pacific Daylight Time, Friday 22OCT10. Presentations emailed after this time will not be accepted for presentation.

Saturday 23OCT10 9A-5P— Saturday >> **Presentations**

<i>when</i>	<i>what</i>	<i>Support Media</i>
9A	Team 1	
930A	Team 2	
10A	Team 3	
11A	Team 4	
1130A	Team 5	
12N	Team 6	
1230P	Team 7	
1P	Team 8	
130P	Team 9	
2P	Team 10	
230P	Team 11	
3P	Course Debrief at Pizza Orgasmica EC2	

Grading

Students will be evaluated on their contribution of the following to the class learning and experience.

Preparation	10%
Class Participation	20%
Preparation of Potential Solar Investment Feasibility Report	50%
Presentation of Report before class and Jury	20%

Public transportation is highly recommended to this site. The Montgomery BART and Muni station is close by on Market Street. SamTrans and Golden Gate Transit serve the Transbay Terminal which is three blocks away.