UNIVERSITY OF CAPE TOWN

FINANCE, CONTRACTS AND RISK MITIGATION FOR PRIVATE POWER INVESTMENT IN AFRICA - 2021 EXECUTIVE EDUCATION SHORT COURSE

17 - 28 MAY 2021

https://www.gsb.uct.ac.za/power-financing

	Friday 14-May-2021 Pre-course basics	Monday 17-May-2021 Intro to Project Finance	Tuesday 18-May-2021 Debt and Equity	Wednesday 19-May-2021 Debt & risk	Thursday 20-May-2021 Renewable energy & grid issues	Friday 21-May-2021 Power Purchase Agreements		
		Videos can be watched at any time but before the scheduled afternoon sessions						
08h00 - 13h00	Videos 0.12 Intro to debt and equity (6 min) 0.13 Benefits of leverage (3 min) 0.14 Present value math (18 min) 0.15 NPV Function (5 min) 0.16 IRR (8 min) 3.3. WACC (14 min) (Excel functions videos: 14 min) (Best practice videos: 30 min) Reading:	Videos 1.1 What is project finance (7 min) 1.2 Investment structure (8 min) 1.4 Role of parties and cashflow (14 min) 1.5 Risk allocation (8 min) 1.6. Total cashflow (3 min) Reading: Principles of project finance (Yescombe, Ch2)	Videos 3.1. Refresh on impact of leverage (10 min)	Videos 3.26. Types of credit facilities (5 min) 3.27. Recitals and definitions (7 min) 3.28. Reps and warranties (9 min) 3.29. Conditions precedent (3 min) 3.30. Covenants (4 min) 3.31. The waterfall (4 min) 3.32. Events of default and remedies (5 min) 3.33. Amendments, waivers,	Videos 4.1. Capacity vs. energy (1 min) 4.2. Capacity factors (3 min) 4.5. Wind forecasting (24 min) 4.6. P-factors and long-terms vs. 1- year distribution (11 min) 4.7. Probabilistic analysis and normal distribution functions in excel (17 min) Reading: Independent Engineers Reports (OE	Videos 5.1. PPA overview (13 min) 5.2. PPA risk (6 min) 5.3. PPA legal (6 min) 5.4. Capacity payments (7 min) Reading: Wind PPA (REI4P)		
	IPPs in SSA article (Eberhard et al, 2017)	(Latham & Watkins)	Summarise term sheet	consents (2 min) Credit ratings Reading: Fitch: RE project rating criteria Moodys Rating Methodology: Power projects	& LE)			
	Afternoon Live Online Sessions							
13h00-14h00	Test Run	Wikus Kruger Welcome Course Overview Learning approach	Debt term sheet exercise feedback	Tutor session: Questions, clarifications	Live Exercise: Financial model Impact of RE resource/capacity factors on LCOE/PPA price	Tutor session: Questions, clarifications		
		Anton Eberhard Power sector investment trends	Alastair Campbell & Daniel Gross Debt capital markets Debt pricing (cost of capital)	Daniel Gross Credit rating agencies	Bernard Magoro	Daniel Gross & Jay Govender Power Purchase Agreement		
14h00-14h30		Daniel Gross Recap of introduction to project finance	Lisa Pinsley & Daniel Gross Equity CAPM	Daniel Gross Interest rate & currency swops	Emmanuel Namanya Role of IE Owners vs Lenders IE	Daniel Gross & Jay Govender Power Purchase Agreement (cont.)		
14h40-15h10 15h20-16h30		Live Exercise: Intro to the financial model	Live Exercise: Financial model Impact of cost of debt and equity on LCOE/ PPA price	Live Exercise: Financial model Impact of credit ratings downgrades on LCOE/ PPA price Impact of local vs foreign currency on LCOE/PPA price	BREAK	Daniel Gross/(Wikus Kruger) Best practices for reading and summarising legal documents		

Monday 24-May-2021 Offtake agreements	Tuesday 25-May-2021 Costs: construction, operation	Wednesday 26-May-2021 Risk mitigation	Thursday 27-May-2021 Auctions Social & econmic development	Friday 28-May-2021 Recap					
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Videos: Collateral/security package Implementation Agreements Off-grid investment trends & features (Ben Attia) Exercise: Creating a PPA term sheet (REI4P PPA) Optional: SAPVIA Contracts and Agreements webinar Reading: Implementation Agreement	Videos 6.1. Operating costs (6 min) 11.1. EPC contract (36 min) 12.1. Depreciation (20 min) Africa GreenCo (Cathy Oxby) Reading: Connecting the dots - the case for transmission PPPs in Africa Optional: SAPVIA EPC webinar	Videos SAPVIA project development webinar (135 min) Reading: Government guarantees for mobilising private finance in infrastructure (PPIAF) World Bank guarantees products matrix World Bank group guarantee products	Videos Procurement (Wikus Kruger - TBD) Optional: SAPVIA Economic Development Impact Webinar (115 min) Reading: IFC Performance Standards Localisation paper (Morris et al, 2020)	Revision					
(REI4P) Direct Agreement (REI4P)									
		Afternoon Live Online Sessions							
PPA Term sheet exercise feedback	Exercise feedback: Tx Project Finance Model/ Intermediary Offtaker Project Finance Model	Tutor session: Questions, clarifications	Live exercise: procurement	Tutors: Questions, clarifications					
Daniel Gross & Jay Govender Security package	Daniel Gross Taxation	Wikus Kruger & Daniel Gross Review of project risks	Stephan van den Berg Environmental, social & governance risks	Daniel Gross Recap					
Daniel Gross Innovation in offtake agreements	Daniel Gross EPC & O&M	Shingira Masanzu Mitigating risk	Glen Robbins Localisation/local content	Anton Eberhard/Wikus Kruger Thanks & Farewell					
Live Exercise: Financial model Impact of chancing take-or-pay clause to take-and-pay clause on LCOE/PPA price	Live Exercise: Financial model Impact of different depreciation models on LCOE/ PPA price	Live exercise: Financial model Impact of MIGA cover on LCOE/PPA price	Live Exercise: Financial model Impact of various (S)ED criteria on project LCOE/PPA price (e.g. local content, ownership, ED spend)						