



amarenco

Ireland's Solar Energy Future Conference

29th January 2016



Cork Dublin London Nice Gaillac

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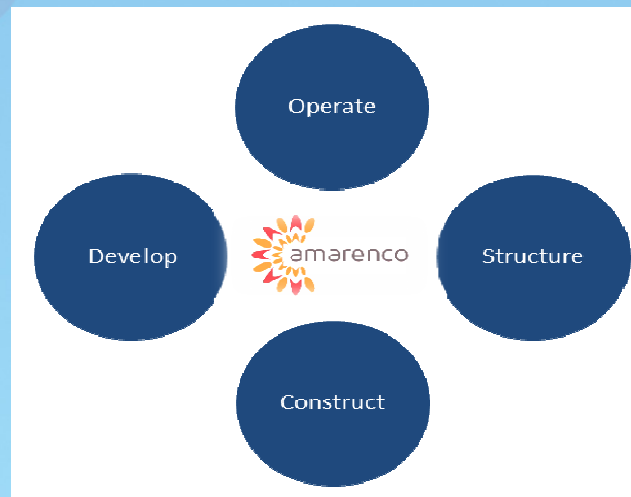


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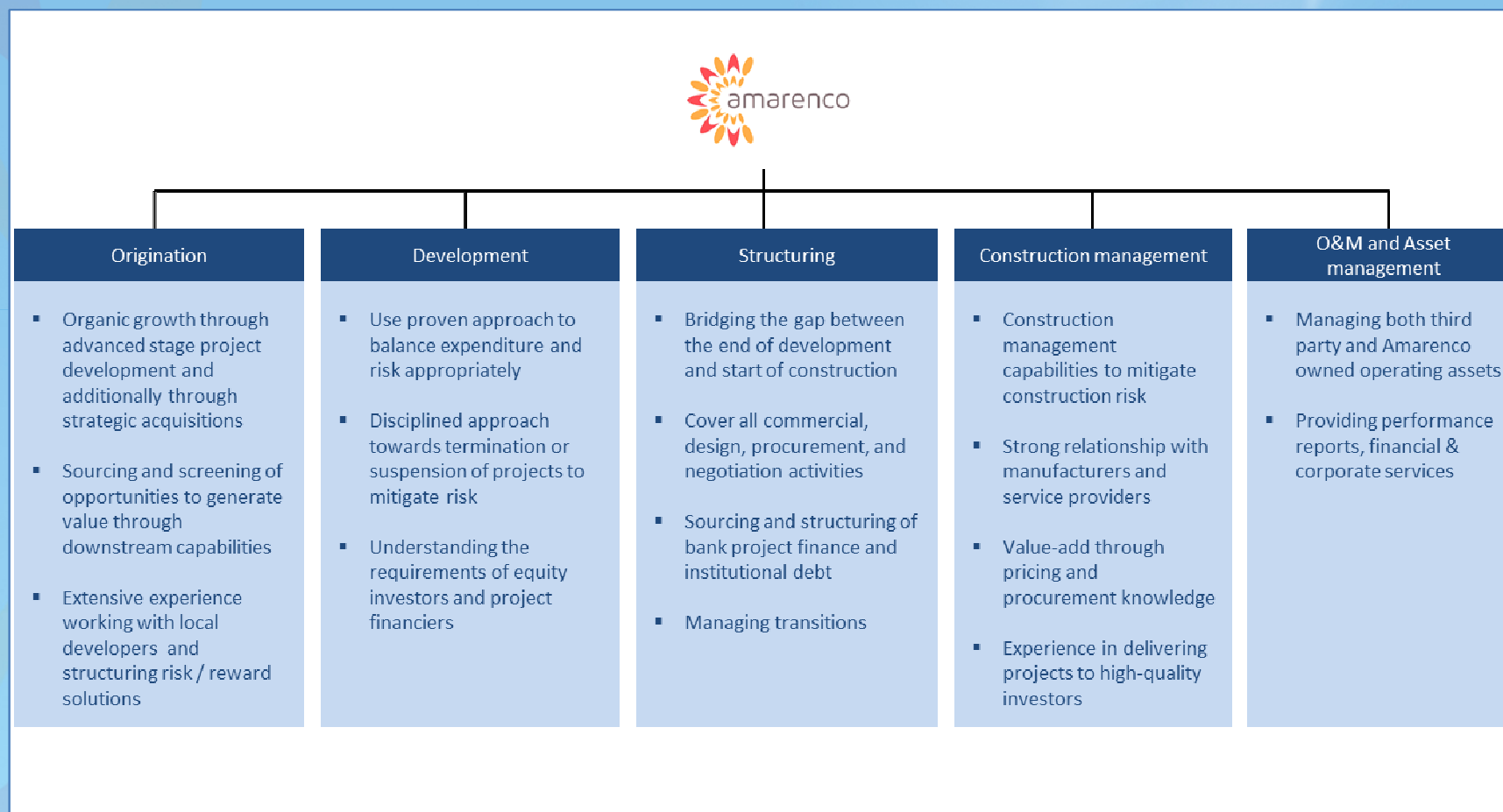
Amarenco's Work - Varen Construction



<https://vimeo.com/120828223>



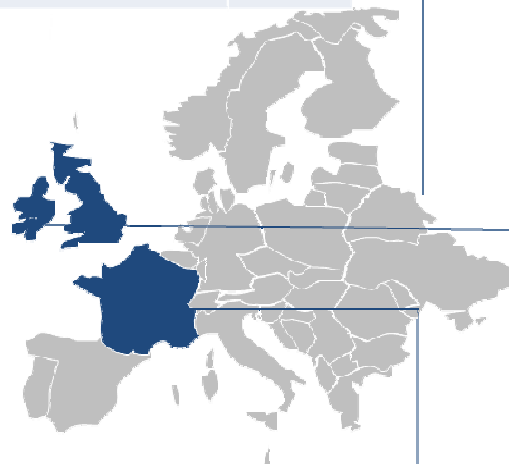
Amarenco Value Chain



Amarenco Pipeline



Summary of projects and pipeline	
Operating	65 MW
Construction	46 MW
Development	438 MW
Total	549 MW





United Kingdom	
Operating	-
Construction	-
Development*	140 MW
Total	140 MW

Ireland	
Operating	-
Construction	-
Development	250 MW
Total	250 MW

France	
Operating*	65 MW
Construction	46 MW
Development	48 MW
Total	159 MW

Amarenco Assets

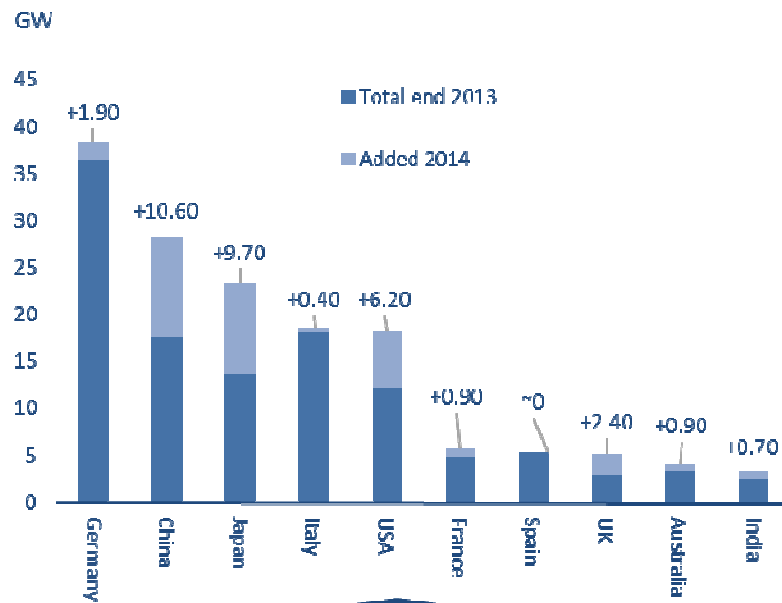


Skills and experience	Developing the pipeline					Delivering projects - Case studies	
<ul style="list-style-type: none">Operating and Asset managementInvestment optimizationRisk managementM&A and structuringConstruction managementFinancingProject developmentGrid servicesDeep understanding of markets and projects	<ul style="list-style-type: none">Creating market positions – ability to identify strategic market opportunities and work with local developersCoverage across the project lifecycle – track record of moving project through development						CPG, Avignon Project Details: 11.57 MWp project Location: Estezargues, near Avignon Connection date: August 2013 Expected production: 1,462 MWh
	Executing optimal project structure						
	<ul style="list-style-type: none">Strong M&A capabilities – in-house capability to manage acquisition and disposal of projects						Perpignan Project Details: 9.6MWp project Location: Toreilles, close to Perpignan Connection: October 2014 Expected production: 1,422 MWh
	Project	MW	EV (€mn)	Equity (€mn)	Levered IRR		
	Avignon	11.9	19.5	5.3	13.4%		Varen Project Details: 8.1 MWp project Location: 60km north of Toulouse Connection date: February 2015 Expected production: 1,326 MWh
	Pissos	3.8	13.6	4.7	10.3%		
	Brassemonte	12.2	29.6	8.6	10.8%		
	Varen	8.1	11.3	2.4	15.2%		
	Perpignan	9.6	30	6.5	14.8%		
	Solar Watt 2	19.2	49.4	8.3	15.6%		
Total	65	104.1	27.6				

Global Solar Market

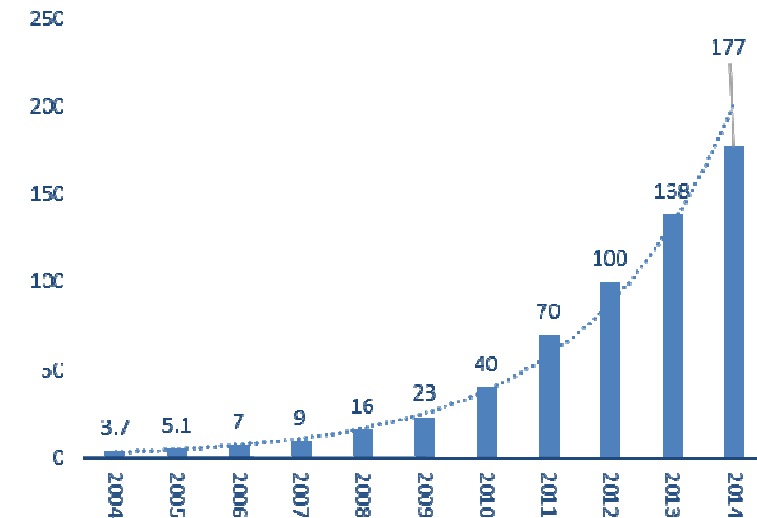


More than 60% of all PV capacity operation worldwide at the end of 2014 was added over the past three years



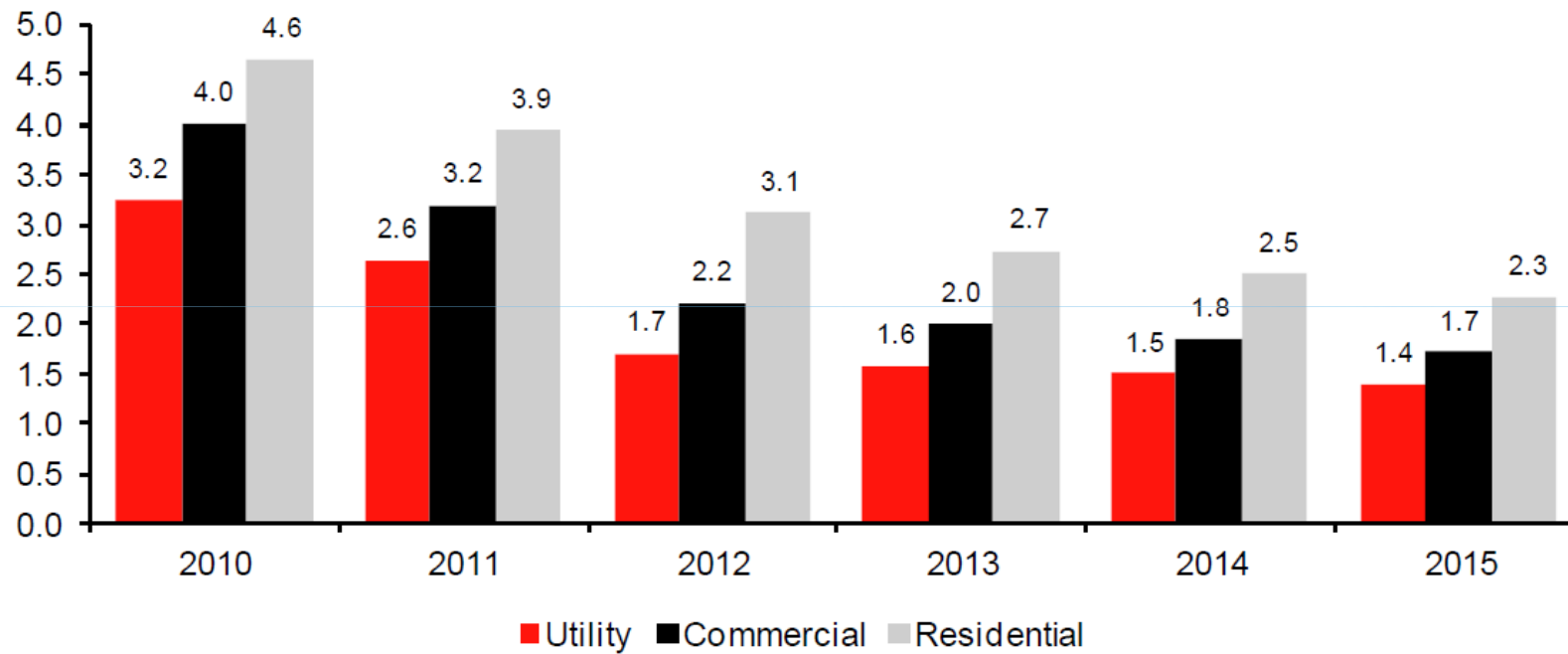
40 GW solar PV capacity added in 2014

World total GW



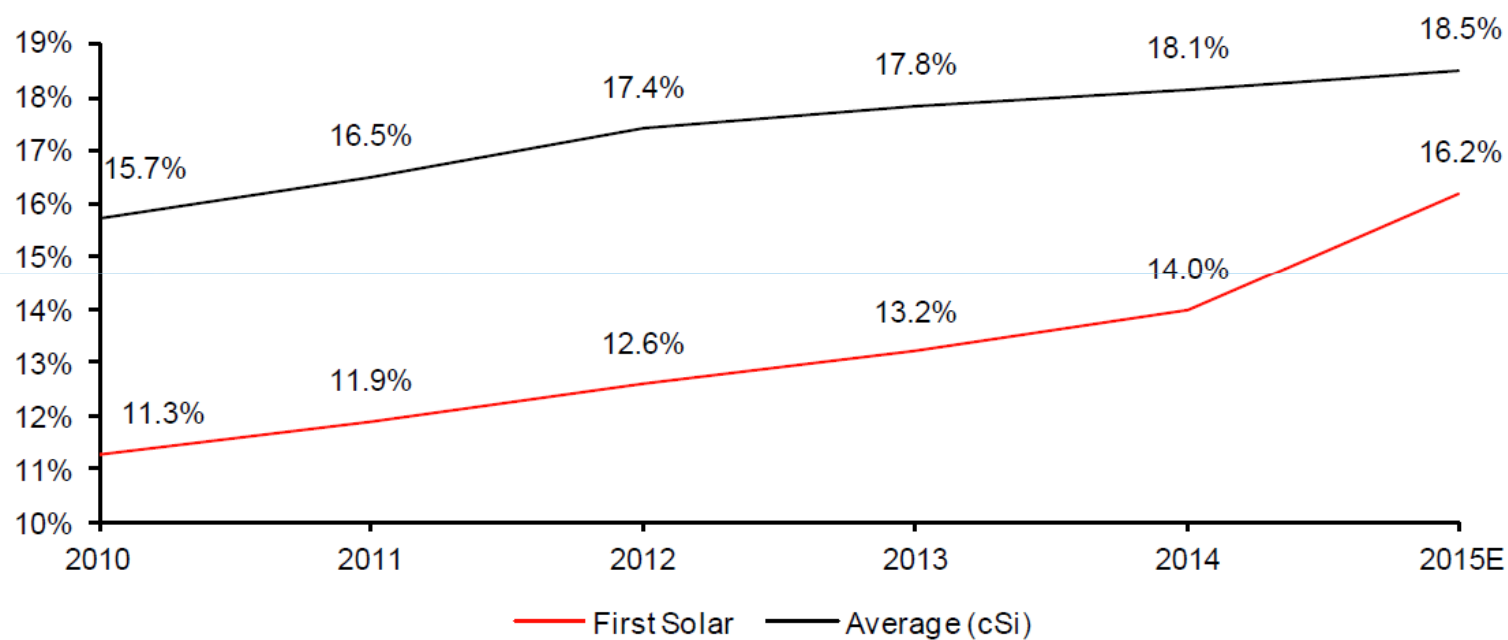
Exponential growth in capacity additions

Solar System PV Cost \$/W



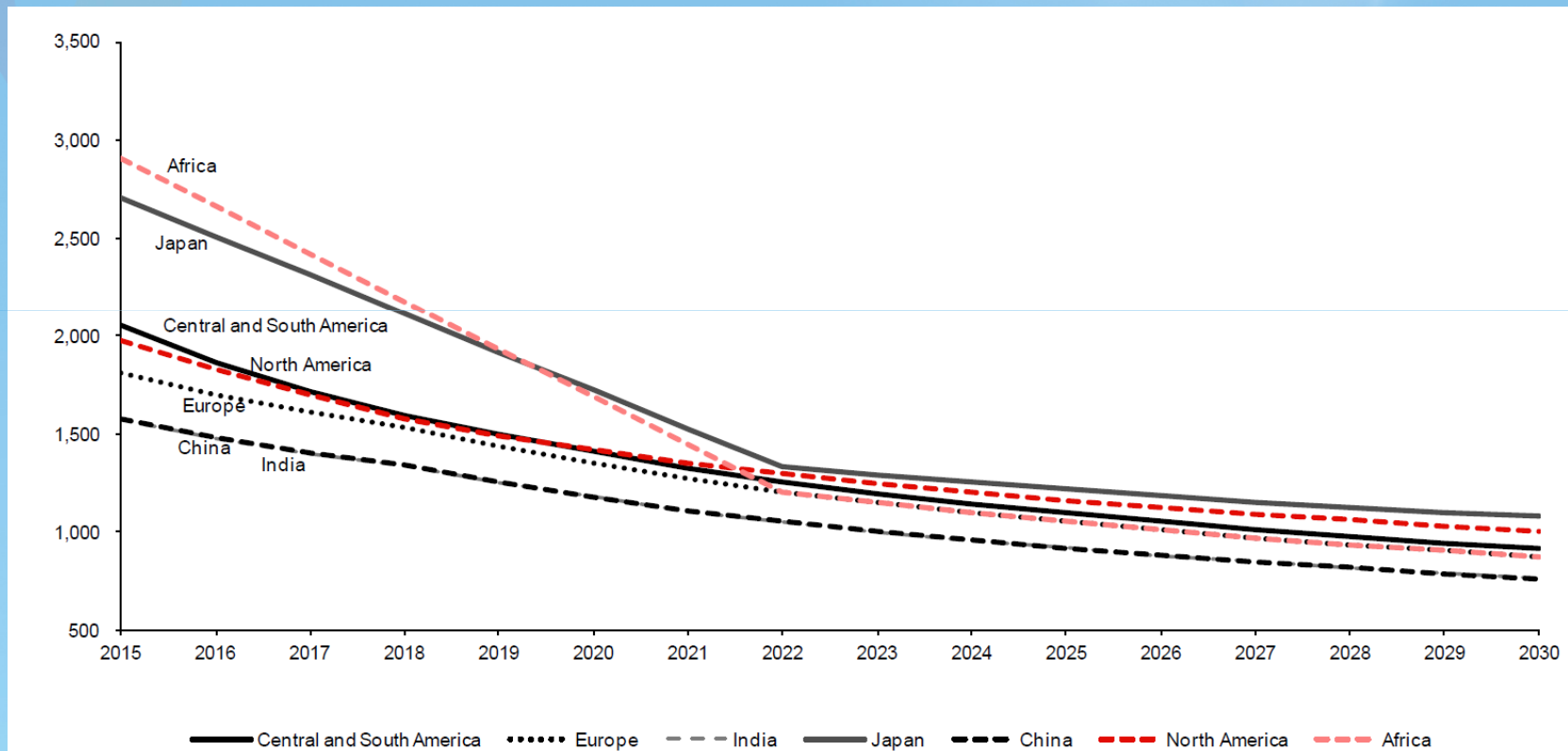
Source: BNEF, Macquarie Research, November 2015

Solar PV Efficiency Map



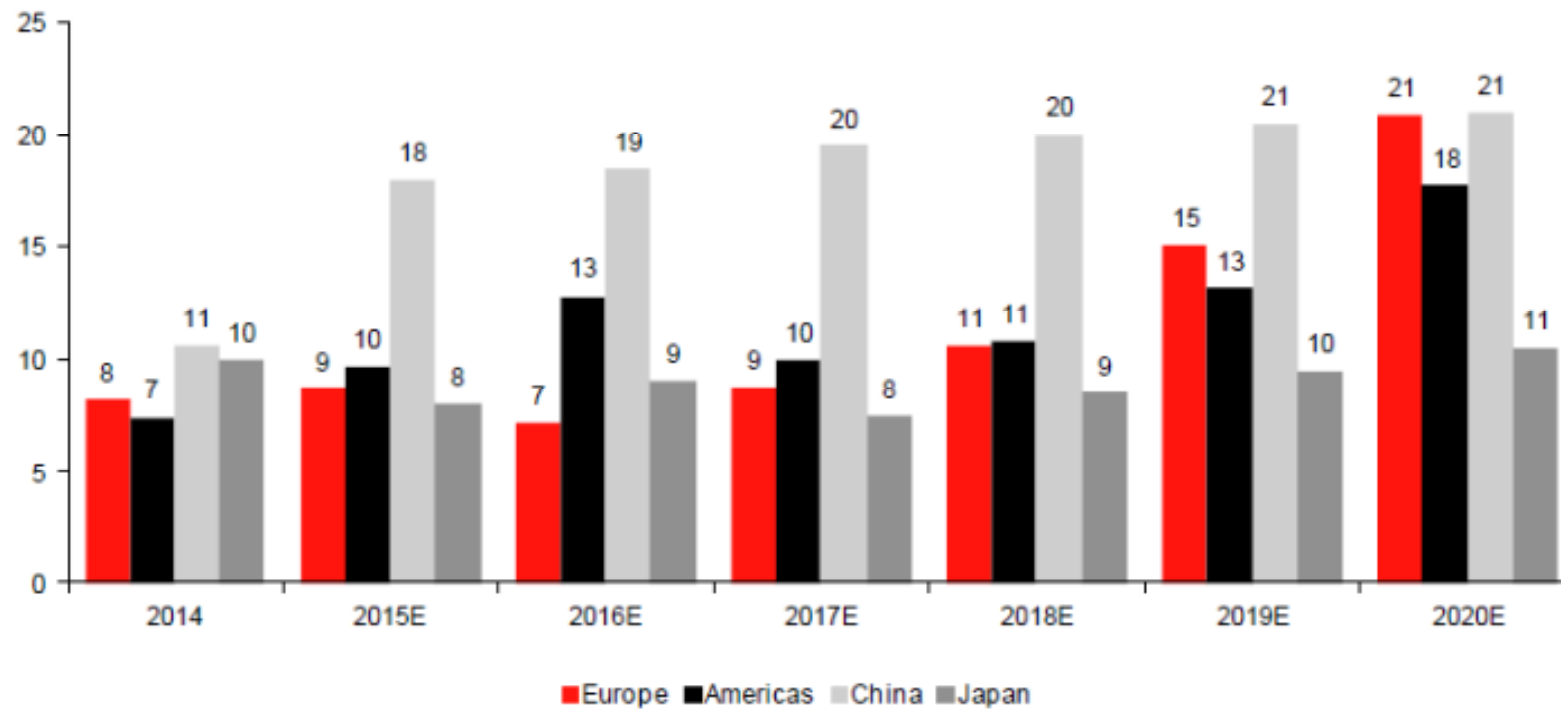
Source: Company data, Macquarie Research, November 2015

Solar System PV Cost \$/W



Source: Company data, Macquarie Research, November 2015

Global Solar Outlook



Source: Company data, Macquarie Research, November 2015

Conclusions



- Solar PV is now the No. 1 provider of new electricity globally;
- Costs will continue to fall;
- European market is not over;
- Irish market has not even begun!!
- It is at grid parity in some markets;
- It will reach grid parity and better in most markets;
- It is a real disruptor;
- Self consumption will boom worldwide;
- We are at the start of a distributed generation revolution – a new paradigm – an opportunity of headache for ESB!

Meeting Irish Renewable Targets



- After 25 years of wind power, we are half way to our 2020 targets;
- We have four more years to fill the gap;
- Wind starts and completions have declined;
- Valuations Office have trebled rates;
- Irish renewable cost is fourth lowest in EU;
- PSO cost just over €85m – less than “Peat the Polluter”
- Fines are imminent;

... Solar PV can help avoid the Fines! ...

White Paper



- Too late!
- Non-committal;
- Solar will be considered for RES-E in 2016;
- Solar
 - Increases security;
 - Contributes to targets (2020 and beyond);
 - Supports economic growth and jobs;
 - Quick deployment
- “It is not Wind”
- Community Schemes are welcome

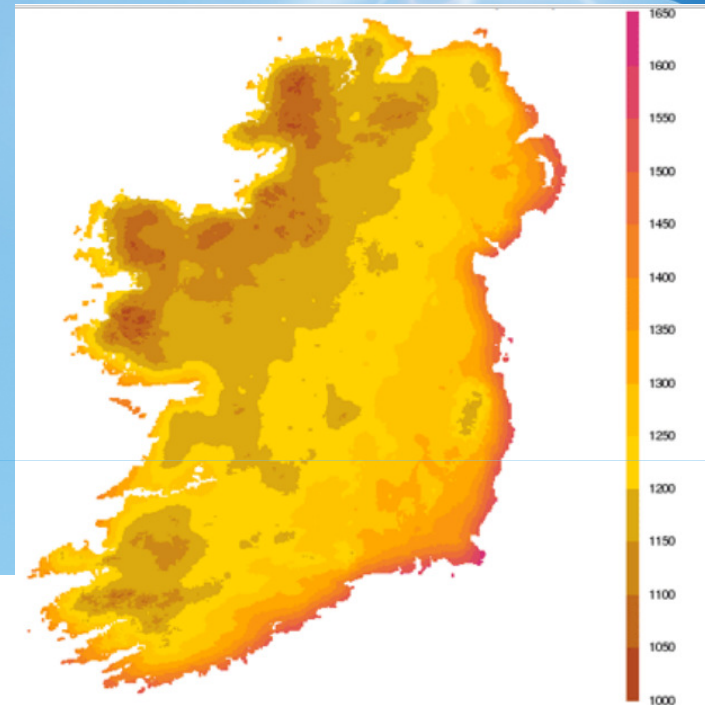
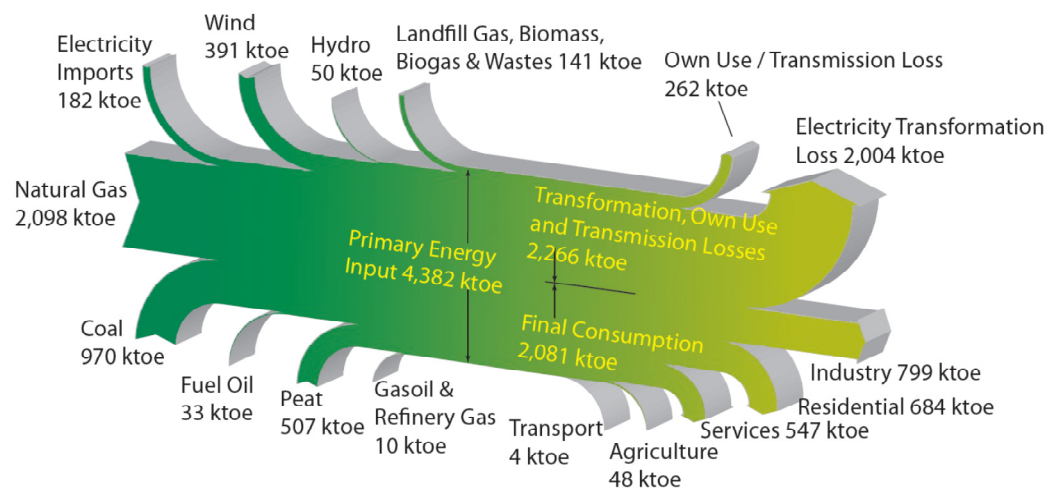
Solar Resource in Ireland



- 850-1050 kWh/kWp
- Similar to Germany/UK
- Germany 35GW installed
- UK 8GW installed
- Currently no Solar installation in Ireland

Time to start!

Energy Flow – Electricity Generation 2013



Connection Policy



- Consultation paper issue by CER;
- Proposes scrapping/revision of current arrangements;
- Current arrangements provided signals for development;
- Changing horses mid-stream not acceptable!!

Amarenco in Ireland



- Partnered with **Macquarie Capital** in Amarenco Solar Ireland Limited;
- Focused on ground mounted and rooftop;
- One of the first to meet landowners – a lonely furrow!
- Long term holder of assets – not in it for the turn!
- Will partner people in this room

Announcement

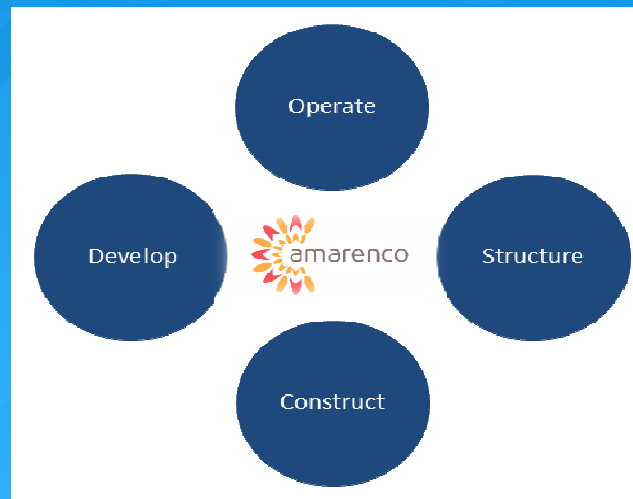


- Amarenco International HQ to be sited in Cork City
- 11 Anglesea Street
- 10 New Jobs





amarenco



www.amarencosolar.com