



## **Turning Panels into Projects**

**Renewable Energy Project Development** 

Mark Schneider 18 September 2014 School of Photovoltaic and Renewable Energy Engineering The University of New South Wales

### Agenda

	Slide Name	Slide No
1	What is "Utility-scale Renewable Energy Development"?	3
2	The Joys of Utility-scale Renewable Energy Development	4
3	The Challenges of Utility-scale Renewable Energy Development	5
4	Necessary Conditions for Success	6
5	The Outlook	7



#### What is "Utility-scale Renewable Energy Development"?

- Creating Renewable Energy Projects
  - ☐ From scratch
- Similar to Property Development
  - ☐ Find a site
  - Secure Permits
  - Negotiate connection
  - ☐ Lock-in off-take
  - Contract Procurement and Construction
  - Finance
- Generate a Development Profit

#### The Joys of Utility-scale Renewable Energy Development

- Generating profit sustainably
- Helping to unlock the unique potential of renewable energy
- Riding a wave
  - ☐ Reducing renewable energy costs
  - ☐ Increasing energy costs generally
- The assistance of ARENA and the CEFC
- Combining all the practical disciplines to achieve success
- Leaving a meaningful physical legacy

# The Challenges of Utility-scale Renewable Energy Development

- Generating profit sporadically
  - ☐ Requires patience, funding, belief
- Political Risk and uncertainty
  - 2012 Renewable Energy Target Review
  - 2013 Federal Election
  - ☐ 2014 Renewable Energy Target Review
- Uncertain future for ARENA and the CEFC

#### **Necessary Conditions for Success**

- It is all about securing the revenues
- Yes, we do need:
  - ☐ Ready Access to Debt and Equity Finance
  - Confidence in the Technology
  - ☐ A Positive Permitting environment
  - Dependable contractors
  - Consultants with expertise
  - But in Australia, we have all of these
- In other jurisdictions, it is often different

#### **The Outlook**

- It depends on securing the revenues
- Mechanisms to accomplish this include:
  - RET certainty first
  - ☐ Higher power prices
  - ☐ Reduced renewable energy costs
  - Declining demand for grid-connected power
  - ☐ Disintermediation of Energy Companies
  - ☐ Taking a bet on future prices
- So the outlook is positive, but not certain