

“Overinvestment or credit crunch”

The case for VC Equity in the scale-up of
Clean Energy Sector

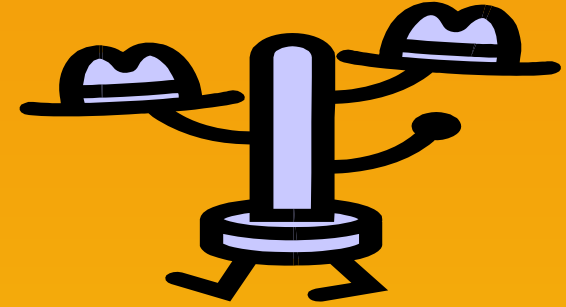
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REEEP



Background - 'my hats'



- ✓ *Project Development* - On Grid/Off Grid
CBD Energy Ltd – Executive Director – Publicly Listed RE Development Company.
- ✓ *Funds Management*
CVC Group.
 - CVC Sustainable Investment Fund .
 - CVC REEF (Renewable Energy Equity Fund)
 - NSW Sustainable Energy Investment Fund .
- ✓ *Impact Investment* – REEEP
 - REEEP SE Asia + Pacific
 - REEEP International Governing Board
 - Energy for All –SG .



1/3 of the planet

15 countries

9 million people

30% access to energy

The vulnerability of exposure to high oil prices is far greater for Pacific Island Countries



Presentation Overview



The published theme -it's a question?

Objectives of this presentation;

- Review with a focus on Asia - it's *Clean Energy Investment Environment* in the post 'GFC' environment
- Confirm the critical importance of *private equity* in the financial continuum if scale-up of clean energy is to be achieved.
- Outline a framework for *private equity* involvement
- Outline the practical application of such investment including a focus on the '*off grid*' market.

Asia's Clean Energy Investment Outlook

'1. the Broad Economic Picture'



During GFC - 'strong and swift'

- ✓ 5.2% GDP worst in 8 years – supported by India and PRC and Indonesia in the sub-region – macro economic stimulus packages.

Post GFC – 'prudence and discipline'

- ✓ rebound forecast with 2010- 7.5% and 2011 -7.3% - PRC -9.6% East Asia -8.3% SE Asia 5.1% Pacific 3.7%

The features underpinning this outlook.

- ✓ robust regional growth to spurn domestic demand .
- ✓ creating more jobs and eliminating anxiety over eroded personal wealth.
- ✓ adjustment of monetary exchange rates –fiscal policies to foster macro economic stability and sustainable growth -.
- ✓ winding back stimulus Q ?

Asia's Clean Energy Investment Outlook

'2. the Broad Economic Risks'



- Some uncertainty still clouds the global economic picture- Eurozone and US
- At best we are looking at mild recovery with GDP in the major economies of 1.7% to 2.00% -Japan, US, Europe.
- However debt to GDP ratios are still alarming high –US in 2007 = 42.6% and 2011 forecasts = 76.2% of GDP
- Underlying – ongoing weakness in the US housing market.
- Mis-timed withdrawal of stimulus measures.
- For *Asia potentially* .
 - higher interest rates inducing volatility in capital flows.
 - higher inflation
 - less flexible exchange rate mechanisms
 - higher food prices ,commodity and *energy costs*.

..... Q ?

Asia's Clean Energy Investment Outlook

3. 'the Cost of Energy'

- A significant increase in our energy costs world wide – *our existing fossil fuel resources , our centralised energy systems and networks, our environmental objectives etc etc.*
- On fossil fuel – we subsidize – extraction, transport. distribution.
- For Asia we appreciate the risk of exposure to oil prices .
- We acknowledge that the price of oil is a driver/catalyst increasingly as we embrace a demand scenario of 1.2mb/d.
- In terms of price prior to GFC – we reached \$140/b
- GFC- with fall in demand - December 09 we fell to \$40/b
- Feb 2010 - \$70/b
- 2011 – we expect \$85/b
- 2015 –we expect \$100/bQ





Equity Investment and the 'Off-Grid' Market.

4. Scaling up access and the case for VC equity .

- In clean energy debate - much concentration on the obvious major drivers –the compelling **scientific** arguments and the need to promote energy **security**.
- The third and equally important and sometimes overlooked issue of providing **access** is often overlooked.
- Facilitating access to energy and facilitating development – inexorably linked
- Over 20% of the global population – 1.4 billion people – lack access to electricity.
- Some 40% of the global population – 2.7 billion people – rely today on the traditional use of biomass for cooking
- IEA estimates that an investment of \$36 billion per year (\$756b by 2030) is needed to ensure that every person in the world benefits from access to electricity and clean cooking facilities by 2030.
- The Public Funding on it's own can't fund this challenge .
- All 'hands to the wheel' financing will need to be tapped – international funds, **public/private equity** ,multilateral, bilateral, mirco –financing and targeted subsidies.**Q ?**

Large-scale deployment of renewables - Tuvalu



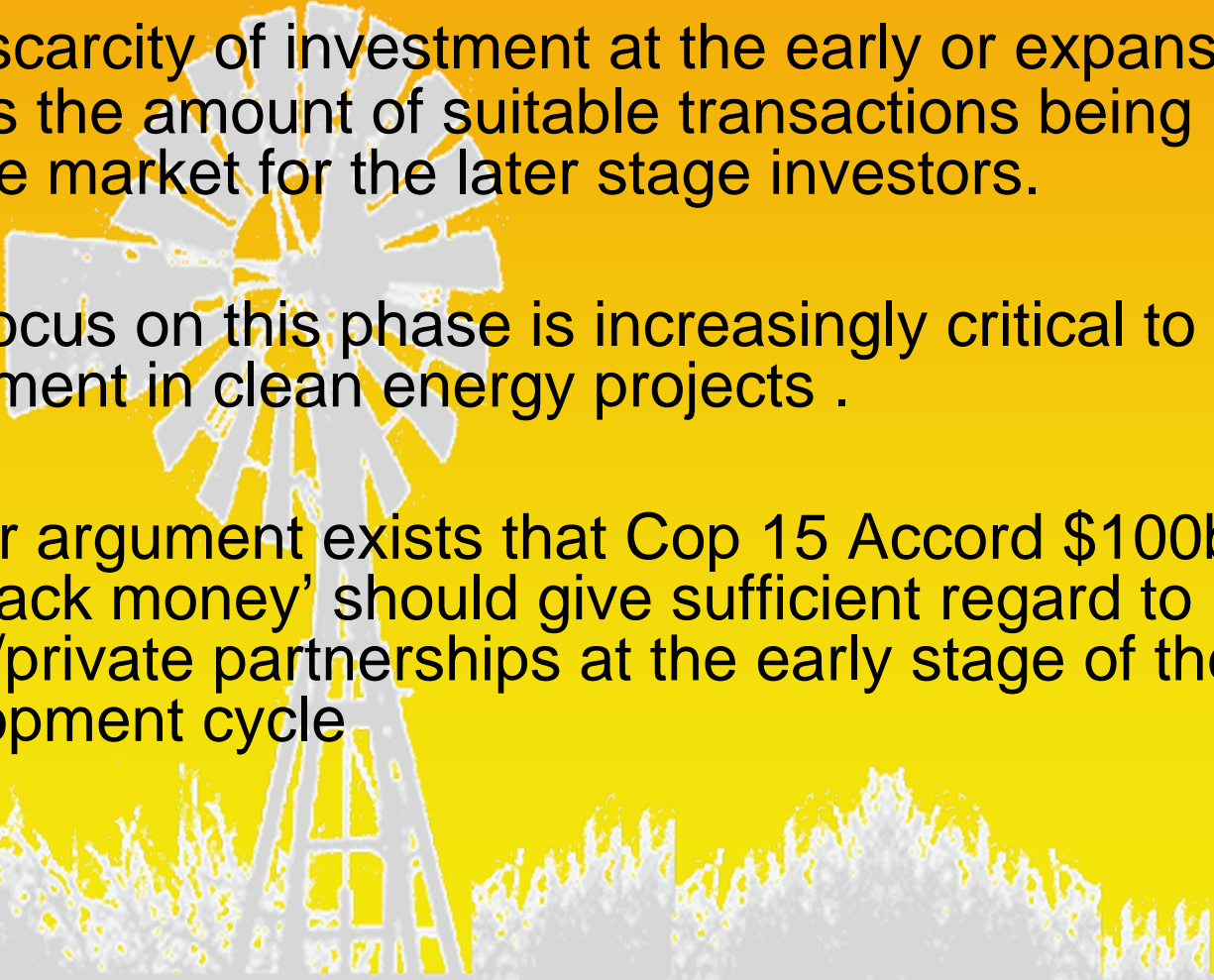
Equity Investment and the clean energy Market.

5. The role of VC equity investment

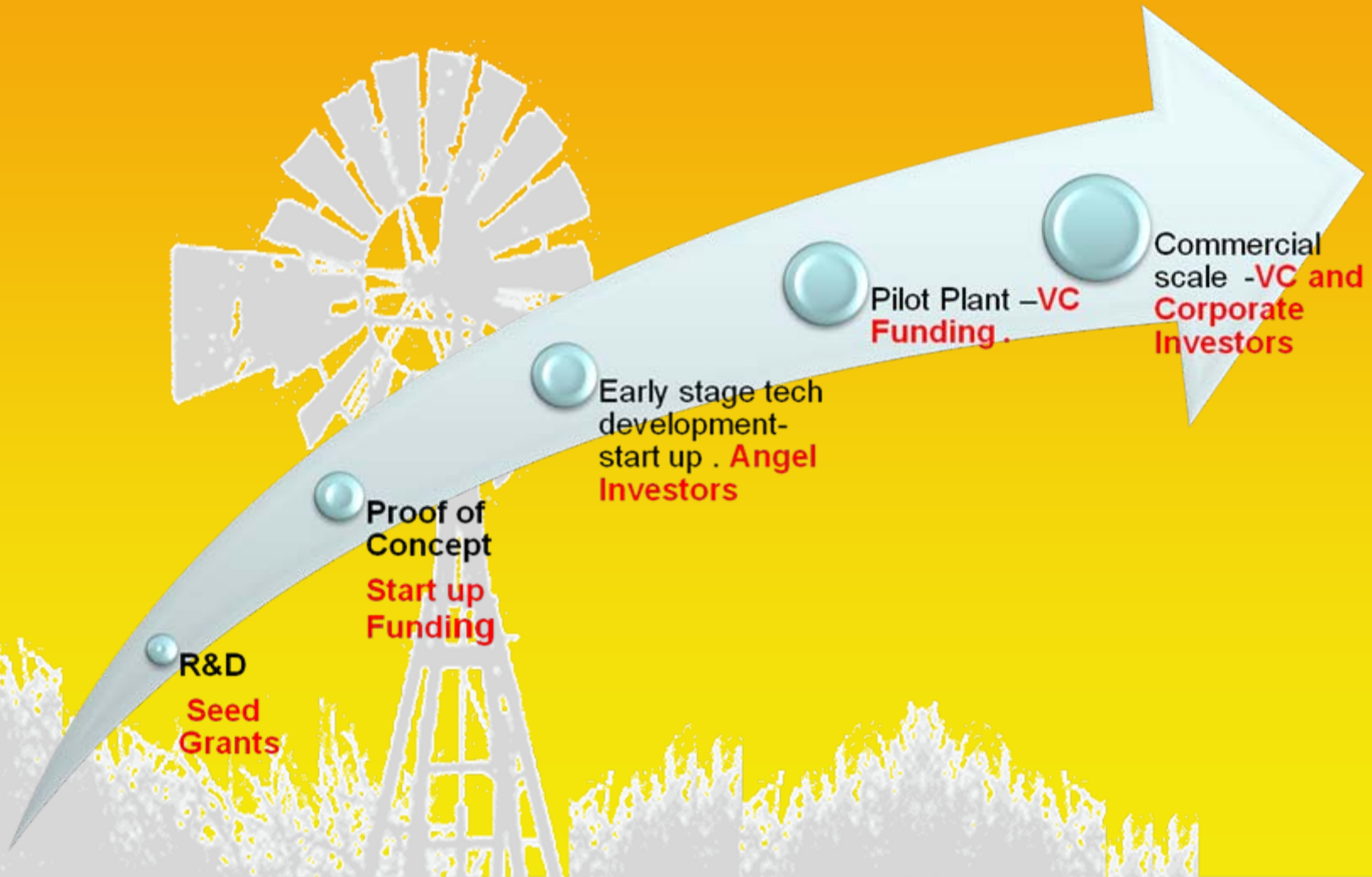
- ✓ Prevailing economics in Asia + The scale of the investment = need for both flexibility and private sector investment.
- ✓ The public sector is doing /should be doing – a constructive role on ‘policy and regulatory’ reform in support of clean energy. More needs to be done.
- ✓ **The capital and interest is there** - FDI and Institutional Investment interest in assets which offer de-carbonising solutions is evident.
- ? However there is ‘**a capital gap**’ at the early stage of the financial continuum –the development/expansion where FDI/Institutional investor does not always have the skills sets to facilitate an investee through the most crucial stage of the development cycle .

Equity Investment and the clean energy Market.

5.The role of VC equity investment (cont)

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- ? This scarcity of investment at the early or expansion phase inhibits the amount of suitable transactions being introduced into the market for the later stage investors.
 - ✓ The focus on this phase is increasingly critical to scaling up investment in clean energy projects .
 - ✓ A clear argument exists that Cop 15 Accord \$100b by 2020 'fast track money' should give sufficient regard to need for public/private partnerships at the early stage of the development cycle

Technology and Early stage Project Development Life Cycles and funding sources



Conclusions - Practical Applications .

- VC private equity perspective ;
- ✓ Market - Increasing number of bankable clean technologies and clean tech project opportunities .
- ✓ Bankable why ?
 - Regulatory risk is diminishing
 - Technology risk is low - proof of concept /demonstration
 - Technology costs are lower
 - Commercial proposition - valuation offtake -creditworthy counterparty.
 - Developers skill sets are improving
 - Growth Markets - China/India/Thailand/ Phillipines/Vietnam



In order to mobilize capital into the sector we need greater private sector - early stage involvement either in partnership or in sponsorship
This will ensure we don't have an overinvestment nor induce a credit crunch - it will set the platform for managed scale-up .

