

There's a lot more to Swiss Re than reinsurance.
Isn't it time you found out how much more?

Corporate Solutions

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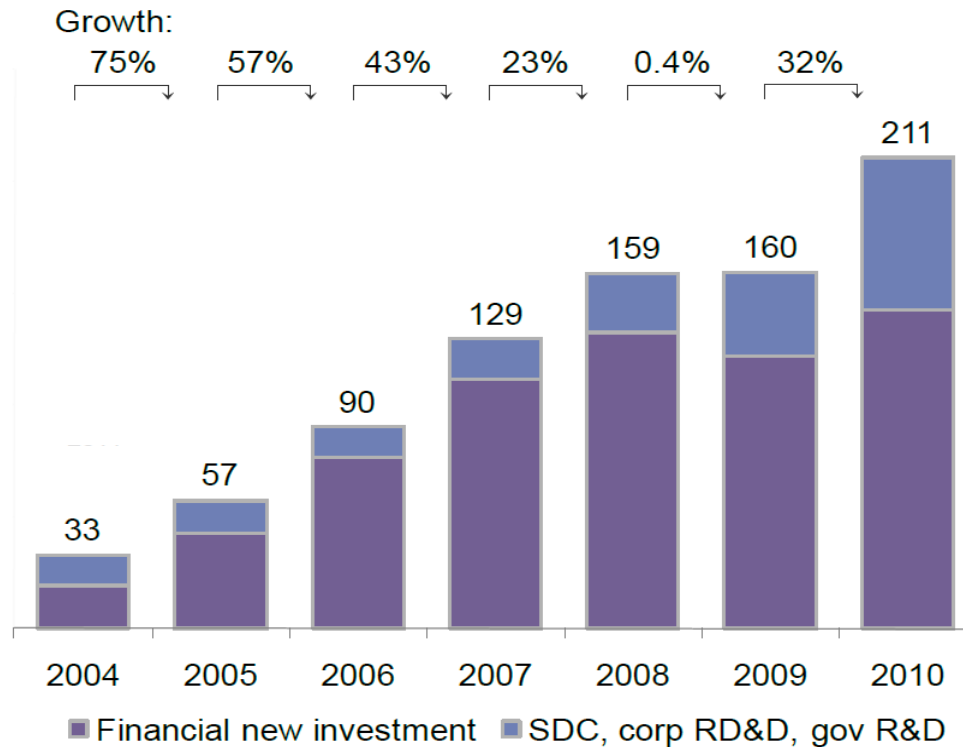
Renewable energy survey launch

Juerg Trueb, Head Environmental and Commodity Markets
London, 29 November 2011

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Investments in renewable energy have increased rapidly



Global new investment in renewable energy, 2004-2010 (in USD billion)

Note: SDC = small distributed capacity. New investment volume adjusts for reinvested equity. Total values include estimates for undisclosed deals. Source: UNEP, Bloomberg Finance.



Risks in renewable energy projects are increasing

A Coal Region's Quest to Switch to Renewables

By Frank Dohmen and Barbara Schmid



"...The wind and the sun are extremely unreliable as sources of energy in Germany. Under certain conditions – a cloudy day with no wind – the production of green energy could sink to almost zero."

Source: Spiegel Online, 11 Sep 2011

Drax biomass plans 'threatened' by subsidy levels



"...The company said it was "disappointed" with the proposed level of subsidy for biomass...This makes the investment case for our planned dedicated biomass developments highly challenging."

Source: BBC online, 16 Nov 2011

Euro zone crisis to widen climate fund gap: report



LONDON / Thu Nov 17, 2011 4:05am EST

"...A worsening of the euro zone debt crisis could increase a climate funding gap to \$45 billion by 2015 as governments struggle to maintain levels of climate change investment due to austerity measures."

Source: Reuters, 17 Nov 2011



EIU survey interviewees face similar risks

There's still some uncertainty within the financial community, which affects wind energy, in part because it's a very capital-intensive technology.

(Christian Kjaer, European Wind Energy Association)

[In the early stages], you're not sure if your project is going to fit into the currently policy regime, so you're exposed to policy risk.

(Thomas Timmins, Gowling Lafleur Henderson)

Budgetary constraints in the public sector and the need to implement severe austerity measures in some countries are calling into question the sustainability of financial support for renewable energy development in Europe

(Standard & Poor's)

The main risks coming from instability are on the shorter-term weather risks. It creates volatility of earnings

year to year
(Hans Bünting, RWE Innogy)

In the UK, I was looking at 40 solar installations, which we were asked to insure. And overnight, when the UK government said that it was going to cut the feed-in tariff, the 40 installations literally went down to four.

(James Green, JLT Specialty)



Why should we invest in renewable energy infrastructure?



Opportunities

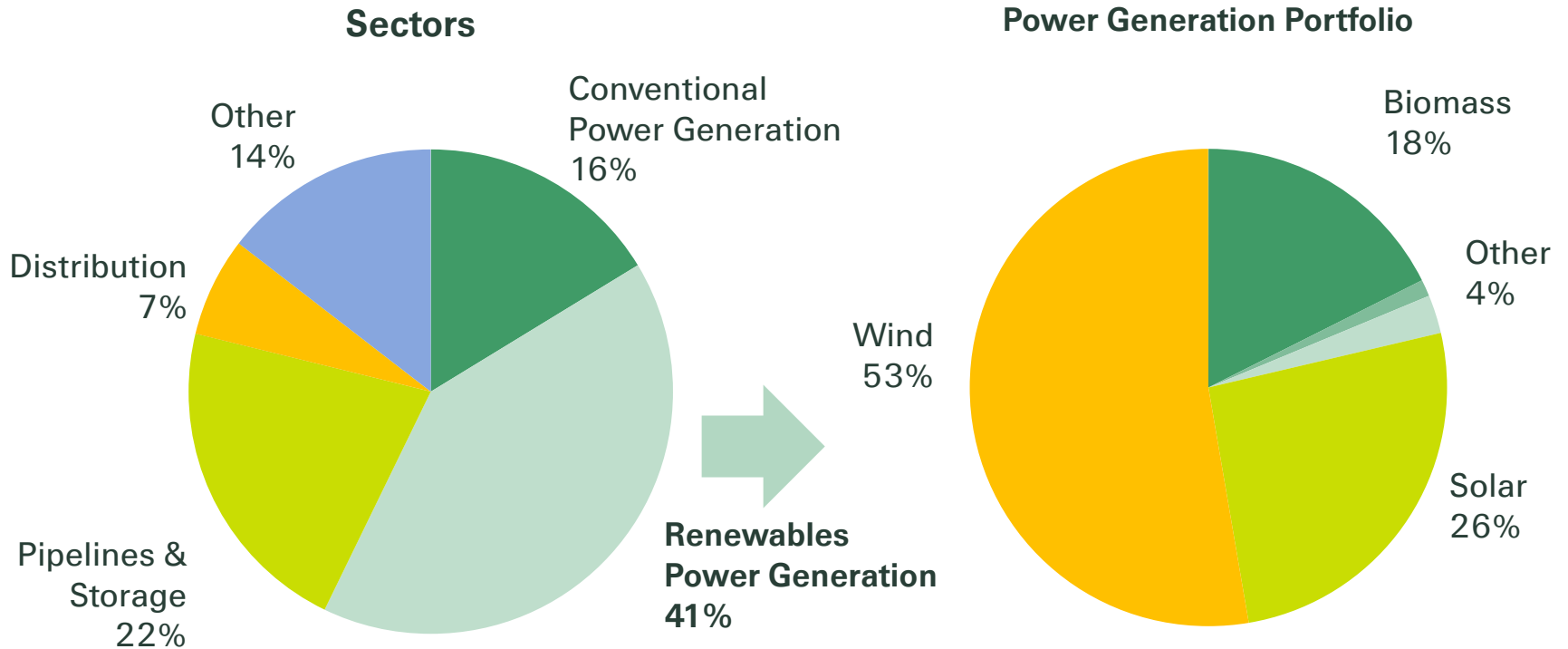
- Massive build-up underway. Significant CAPEX requirements. Significant drop in equipment costs (e.g. solar panels) due to oversupply
- Strong support by governments through various mechanisms (Feed-in tariffs, tax credits)

Challenges

- Not break-even yet. Dependencies on subsidies to be competitive
- Significant system costs required to absorb and manage the additional power capacity
- Some technology risks (e.g. offshore wind)

Source: Swiss Re Private Equity Partners, An introduction to renewable energy infrastructure investing

Swiss Re has a diversified energy infrastructure portfolio



Note: As of 31 March 2011
(On fair values of investments)

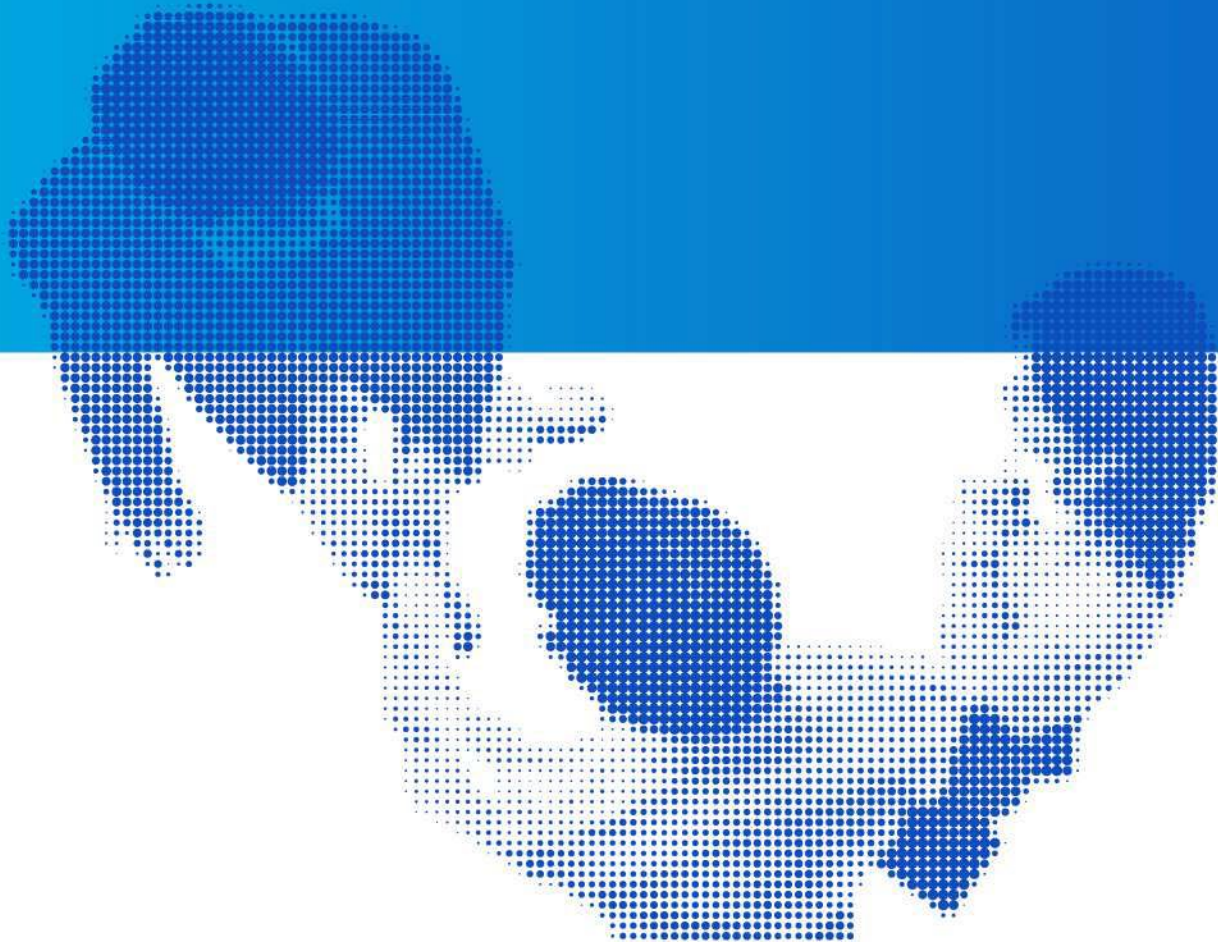
Source: Swiss Re Private Equity Partners, An introduction to renewable energy infrastructure investing



Construction risks	Operational risks	Weather & price risks
<p>Key markets:</p> <ul style="list-style-type: none"> Offshore wind UK, Germany Solar PV in Spain, USA Biomass in Europe countries Hydro business to expand in Asia, S. America and Africa <div data-bbox="226 639 649 862"> </div> <p>Coverage:</p> <ul style="list-style-type: none"> Construction, erection and builder's all-risk Delay in start-up Third-party liability Construction plant/equipment Existing assets Marine cargo 	<p>Key markets:</p> <ul style="list-style-type: none"> Large wind farms in US, stand-alone wind farms in Europe Cat losses, with focus on hydro projects, in Canada <div data-bbox="790 639 1250 862"> </div> <p>Coverage:</p> <ul style="list-style-type: none"> Property and Casualty exposure of plants in operation 	<p>Key markets:</p> <ul style="list-style-type: none"> Market for weather and price risks is intensifying, esp. in Germany, UK, US, China, Australia <div data-bbox="1354 629 1802 853"> </div> <p>Coverage:</p> <ul style="list-style-type: none"> Weather-related volume exposures, also in combination with energy price exposure Electricity price volatility combined with unplanned power outages



Thank you





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