

Cleantech industry performance

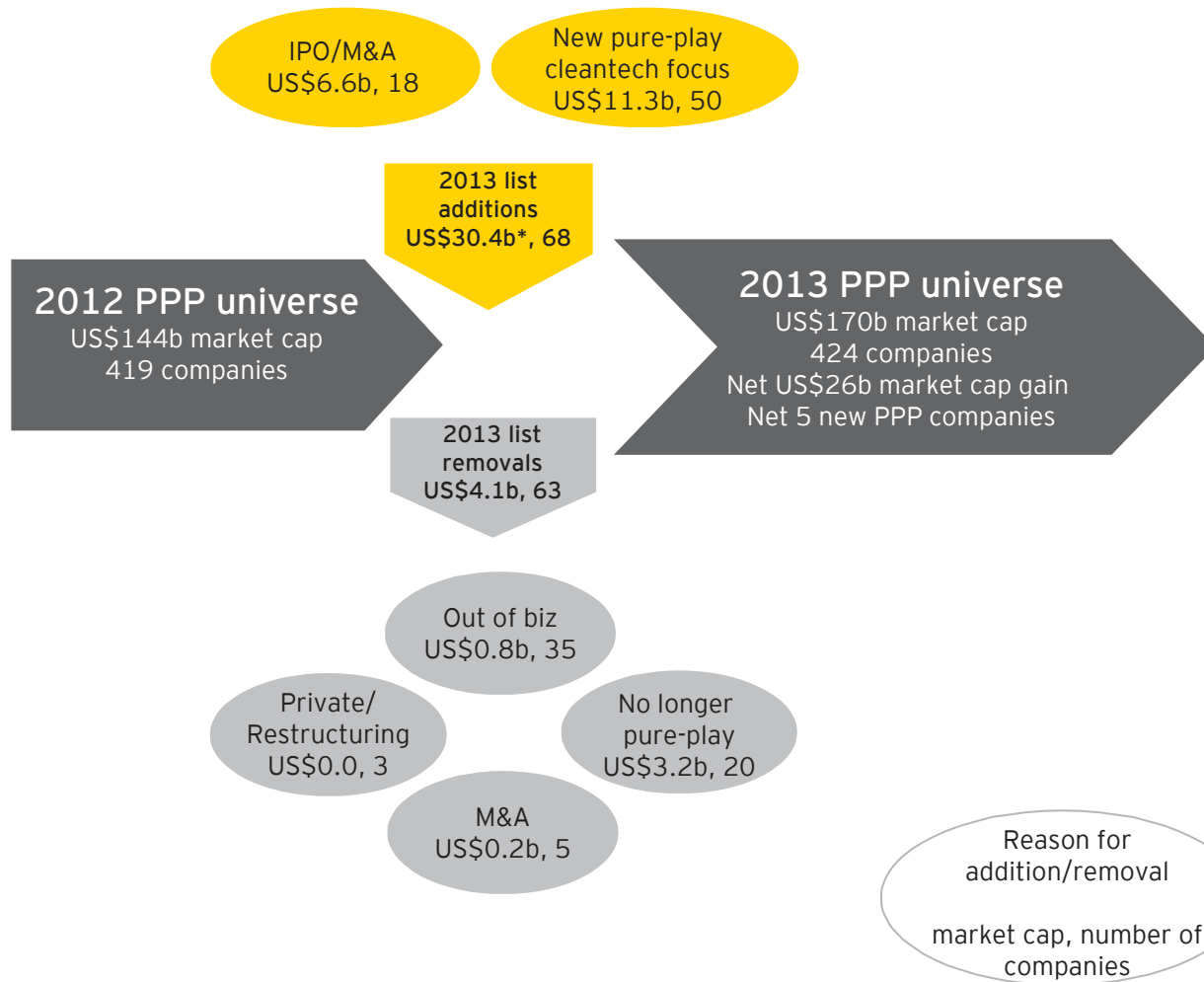
Global cleantech public pure-play (PPP) company analysis

08 August 2013



Building a better
working world

Cleantech PPP universe grows despite a challenging year



Profile of current population

US\$170b market cap **424** companies

US\$149b revenues **512,504** employees

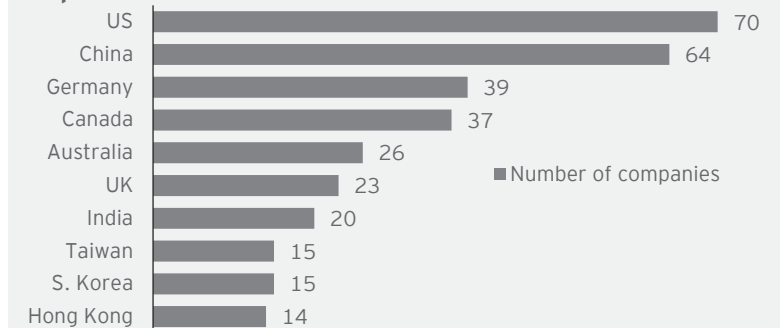
Market cap by sector/number of companies



Market cap by region (\$b)



Top 10 markets



*Includes US\$12.4b of increase as a result of change in market cap of companies retained from last year; total may not match due to rounding.

The PPP universe comprises the public companies in the Bloomberg New Energy Finance (BNEF) database, classified as deriving 50% to 100% of their total value from clean energy as of April 2013.

Methodology

- ▶ The PPP universe comprises the public companies in the Bloomberg New Energy Finance (BNEF) database classified as deriving 50% to 100% of their total value from clean energy as of April 2013. Public investment funds and acquisition vehicles are excluded. Companies participating in carbon markets activities are also excluded.
- ▶ Company revenue and market cap data is drawn from their fiscal year 2012 annual reports and S&P Capital IQ. Market cap figures were recorded as on 29 April 2013.
- ▶ The financial results of companies that report in non-US currencies were converted to US dollars using the exchange rate that was obtained (via oanda.com) at the end of their respective fiscal years.

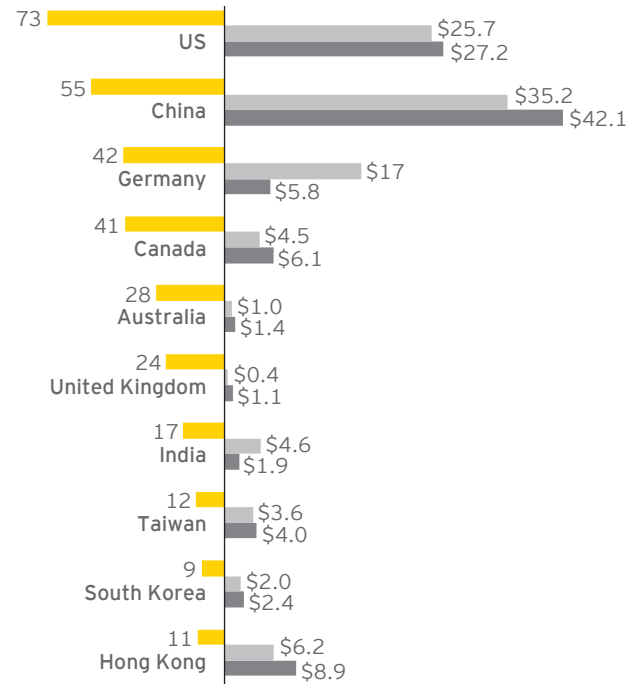
Global cleantech PPP company benchmark

- Despite a challenging year, market capitalization increases by 18%
- China and US consolidate their leadership

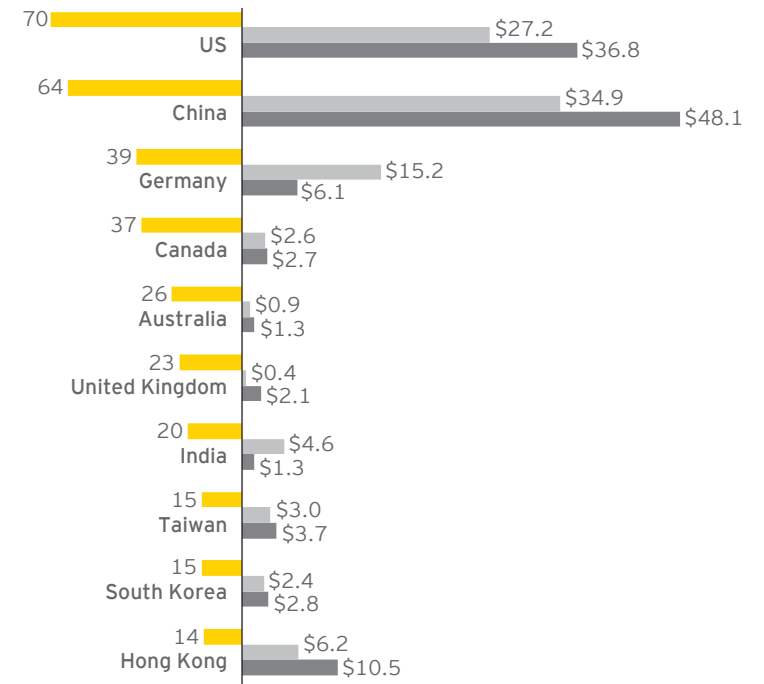
Global total



2012



2013



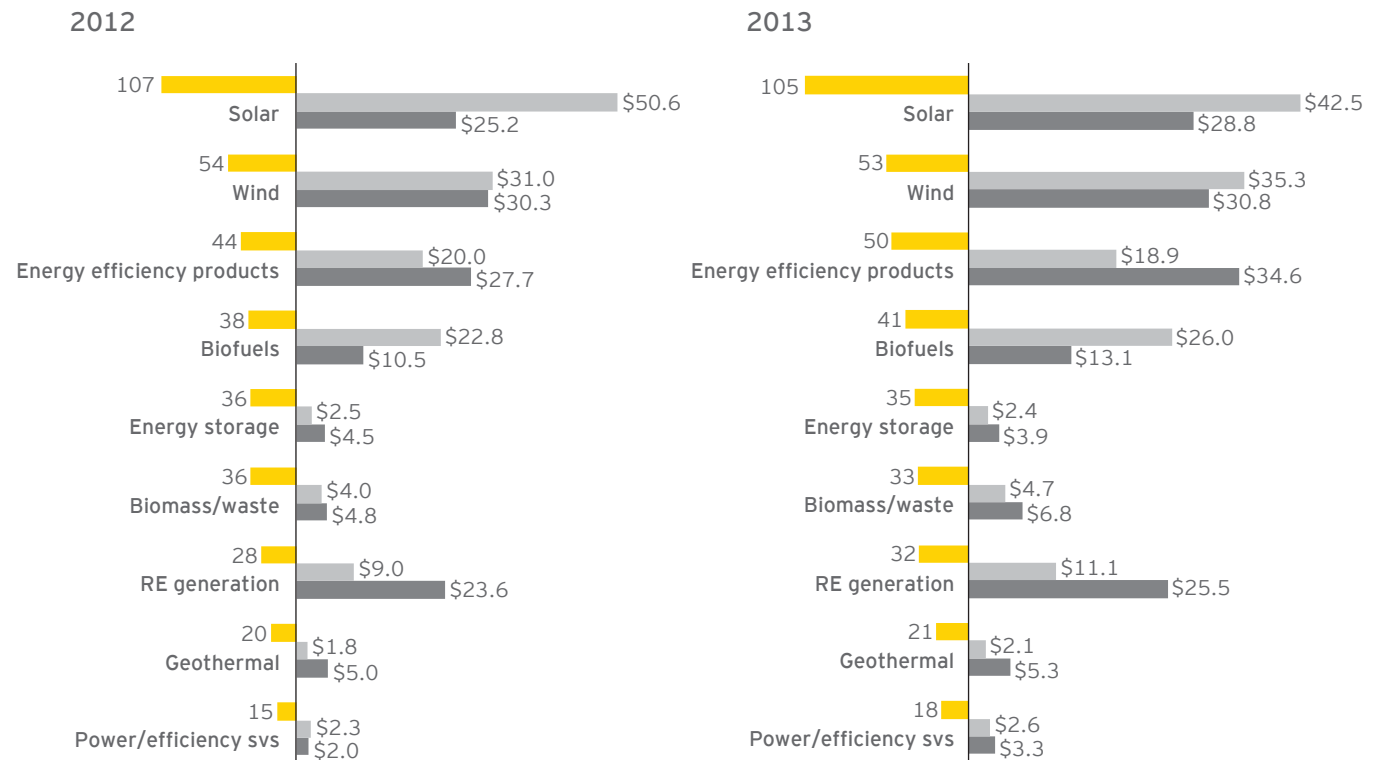
Companies Market Revenues (US\$b) Market cap (US\$b)

Note: solar and wind encompasses technology companies; renewable energy generation includes project developers.

Source: EY analysis

Global cleantech PPP company benchmark by sector

- ▶ Energy efficiency takes the lead in market cap
- ▶ Solar retains leadership in revenues and in number of companies



Companies Revenues (US\$b)
Sector Market cap (US\$b)

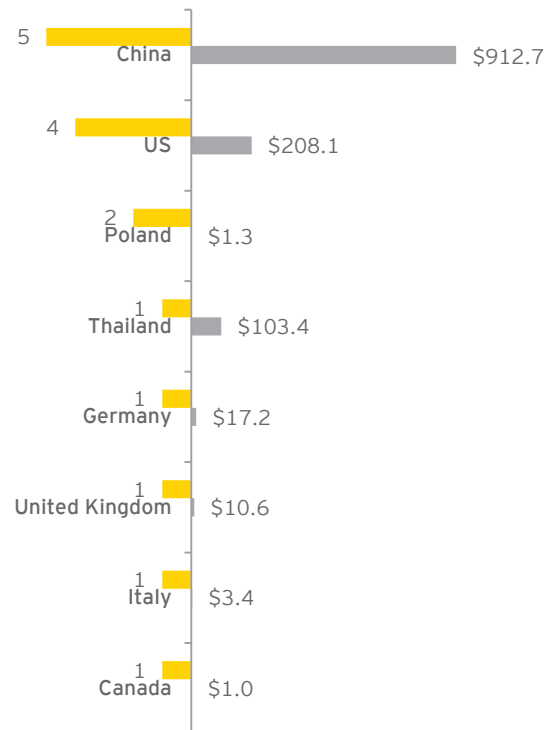
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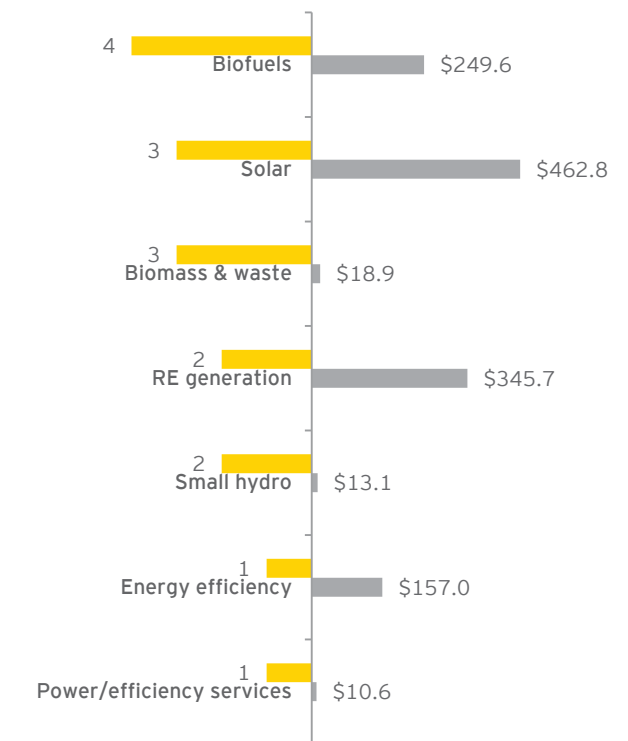
2012 cleantech PPP IPOs by market and segment

- ▶ China saw the most IPOs, with the total amount raised close to US\$900m
- ▶ Biofuels accounted for most IPOs; solar raised more than one-third of the total IPO proceeds

By market



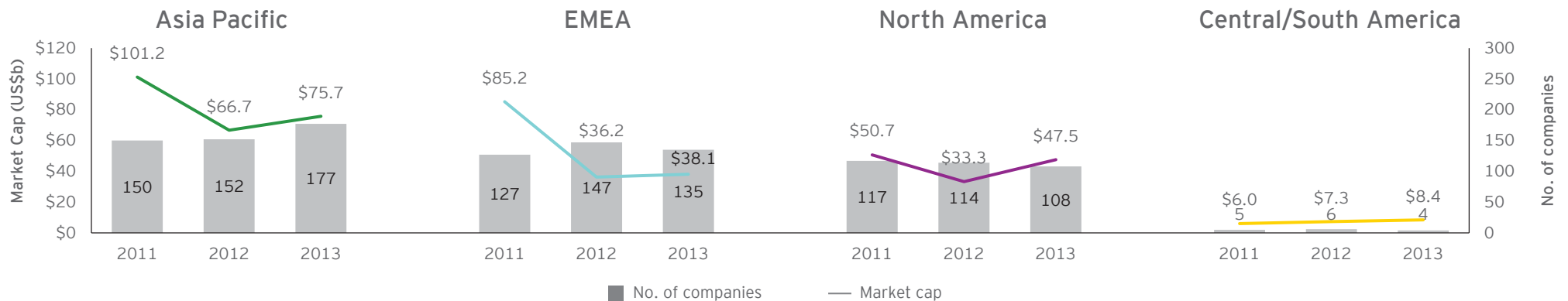
By segment



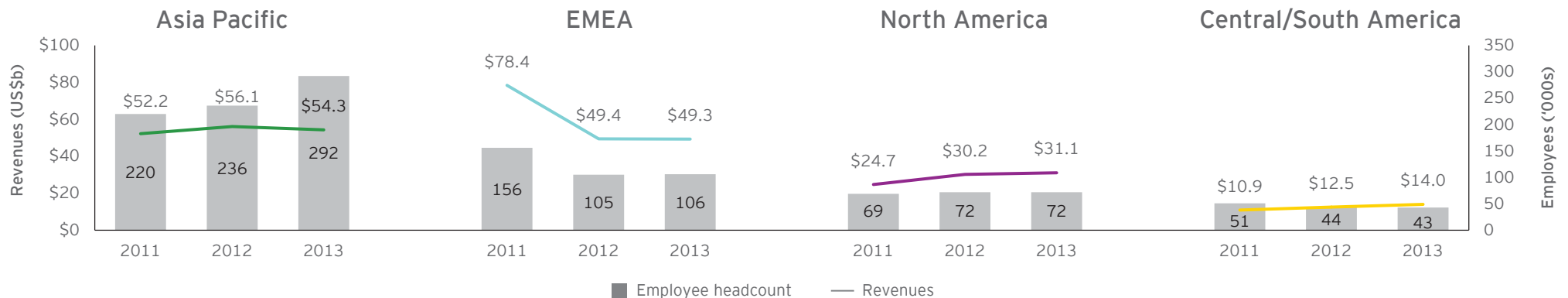
Companies  Market/Sector |  Amount raised US\$m

Cleantech PPP regional analysis

- ▶ The market cap of companies in all the regions has bounced back from the lows seen last year
- ▶ The number of companies in cleantech has increased in Asia Pacific, mirroring the growth of renewable energy in this region

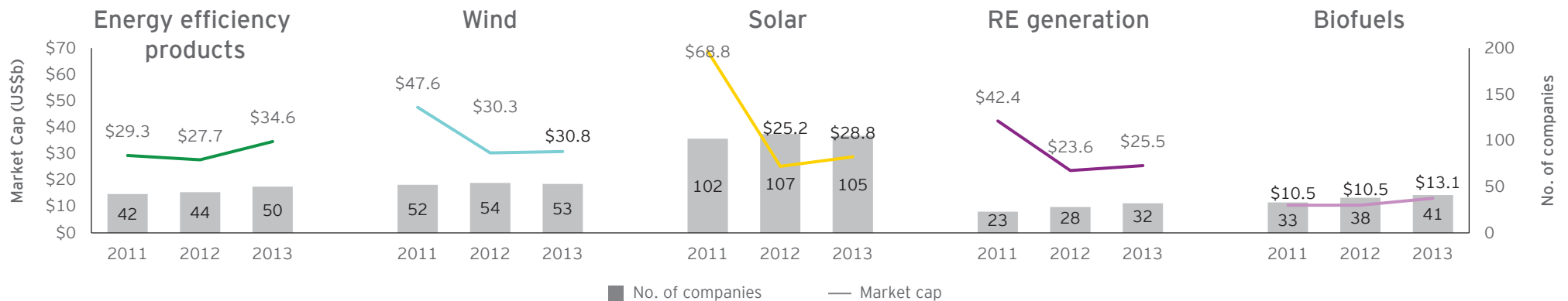


- ▶ Revenue growth was strongest in Central and South America and was marginally negative in EMEA and Asia Pacific
- ▶ Employee headcount increased by 24% y-o-y in Asia Pacific while remaining virtually stagnant in other regions

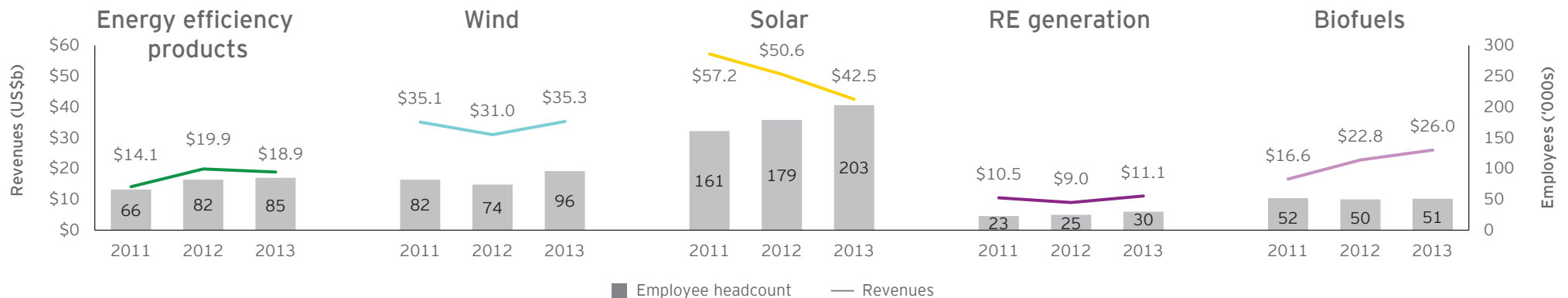


Cleantech PPP business segment analysis

- ▶ Energy efficiency products registered the strongest growth both in terms of market cap and the number of companies
- ▶ Solar, wind and renewable energy generation sectors saw stability after significant erosion in market cap in the last two years



- ▶ Revenue growth was the strongest in wind and biofuel sectors during the last year; solar sector revenues continued to decline
- ▶ China saw 85% of solar headcount growth probably due to low level of production automation compared to developed markets



US cleantech PPP snapshot

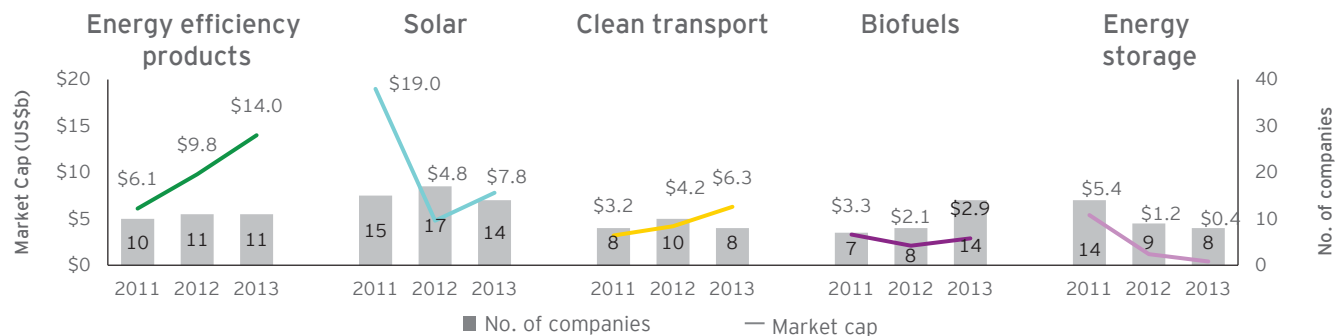
Country profile

- ▶ Market cap: US\$36.8b
- ▶ Revenue: US\$27.2b
- ▶ No. of companies: 70
- ▶ Headcount: 58,866
- ▶ Net income/(loss): (US\$2.2b)
- ▶ Debt: US\$9.1b

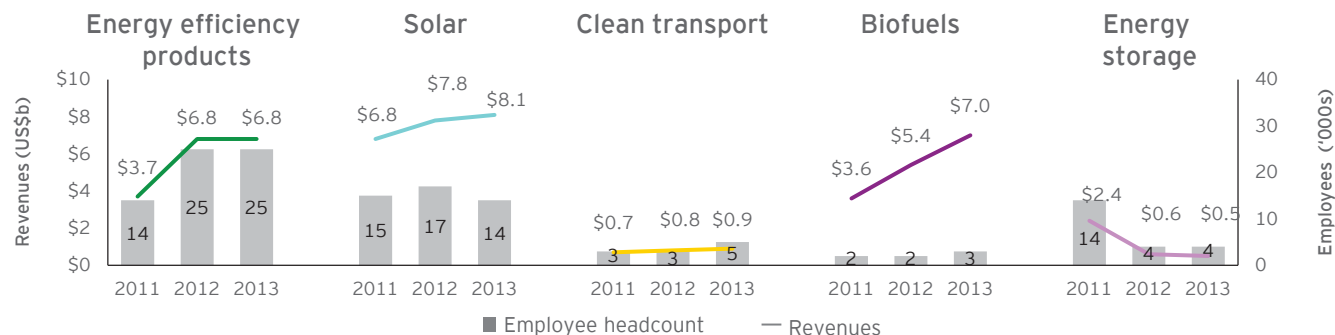
Key points

- ▶ IPOs accounted for 50% (4/8) additions to the US pure-play cleantech companies.
- ▶ While gains in energy efficiency, solar and clean transport sectors helped drive an overall 35% y-o-y market cap growth, energy storage continues to lose ground with market cap falling a further 62% y-o-y (92% since 2011).
- ▶ Revenues for the biofuels segment have grown 98% since 2011, in proportion to the 100% increase (7 to 14) in the number of companies in this segment.

Number of companies and market capitalization (US\$b)



Employee headcount and revenues (US\$b)



Pure-play cleantech IPOs

Company	Segment	Stock exchange	Pricing date	Total deal value (US\$m)	Market cap (US\$m) (IPO date)	Market cap (US\$m) (29 April 2013)	Change in market cap (%)
Ceres Inc.	Biofuels	NASDAQ GM	22 Feb 2012	74.8	270.0	59.5	78
Renewable Energy Group Inc.	Biofuels	NASDAQ GS	18 Jan 2012	72.0	140.7	304.4	116
Enphase Energy Inc.	Solar	NASDAQ GS	29 Mar 2012	61.9	288.4	298.9	4
Methes Energies International Ltd.	Biofuels	NASDAQ GS	25 Nov 2012	2.8	28.8	25.9	10

China cleantech PPP snapshot

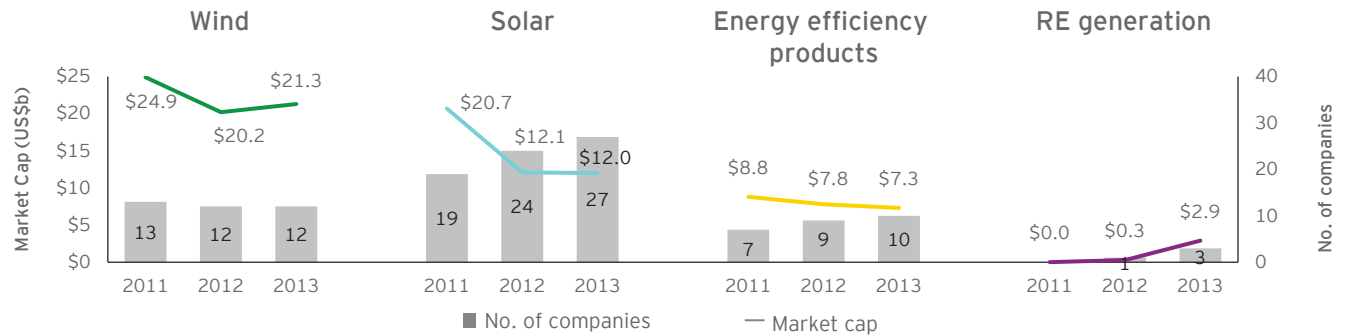
Country profile

- ▶ Market cap: US\$48.1b
- ▶ Revenue: US\$34.9b
- ▶ No. of companies: 64
- ▶ Headcount: 214,704
- ▶ Net income/(loss): (US\$2.9b)
- ▶ Debt: US\$53.2b

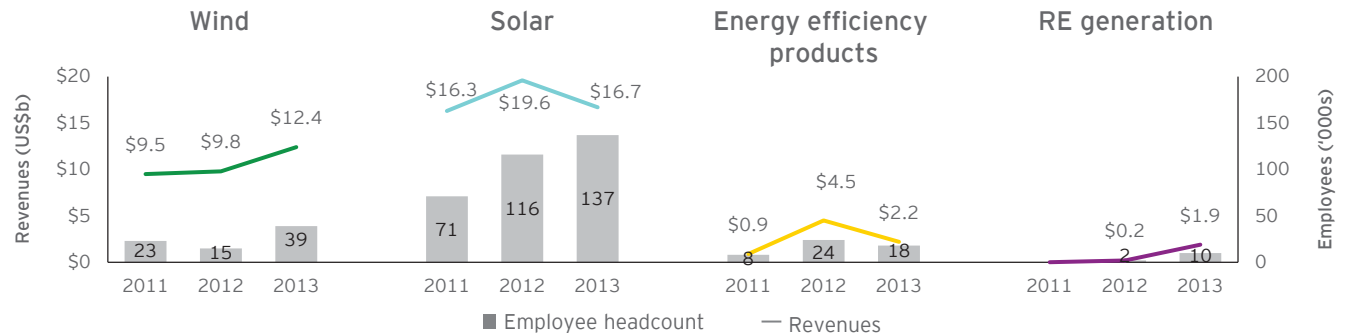
Key points

- ▶ With 16% growth in the total number of companies, China is closing the gap with the US.
- ▶ Market cap has bounced back from the low of last year, with RE generation, power and efficiency management services and wind more than making up for the marginal declines in solar and energy efficiency products.
- ▶ New RE generation companies in China propelled growth in the segment– with market cap growth of 773% and revenue growth of 415%.
- ▶ Employee headcount saw a growth of 29% y-o-y growth, with wind and RE generation sectors being the main sources of growth.

Number of companies and market capitalization (US\$b)



Employee headcount and revenues (US\$b)



Pure-play cleantech IPOs

Company	Segment	Stock exchange	Pricing date	Total deal value (US\$m)	Market cap (US\$m) (IPO date)	Market cap (US\$m) (29 April 2013)	Change in market cap (%)
Huadian Fuxin Energy Corp.	RE generation	HKSE	28 Jun 2012	345.1	1,672.2	1,993.1	19
Jiangsu Sunrain Solar Energy Co Ltd.	Solar	SHSE	21 May 2012	339.9	1267.9	941.4	26
HC SemiTek Corp.	Energy efficiency	SZSE	1 Jun 2012	157.0	625.0	363.4	42
Shenzhen Jiawei Photovoltaic Lighting Co. Ltd.	Solar	SZSE	11 May 2012	61.0	289.0	177.5	39
Haitian Hydropower International Ltd.	Small hydro	HKSE	6 Jul 2012	9.7	46.9	85.0	81

Germany cleantech PPP snapshot

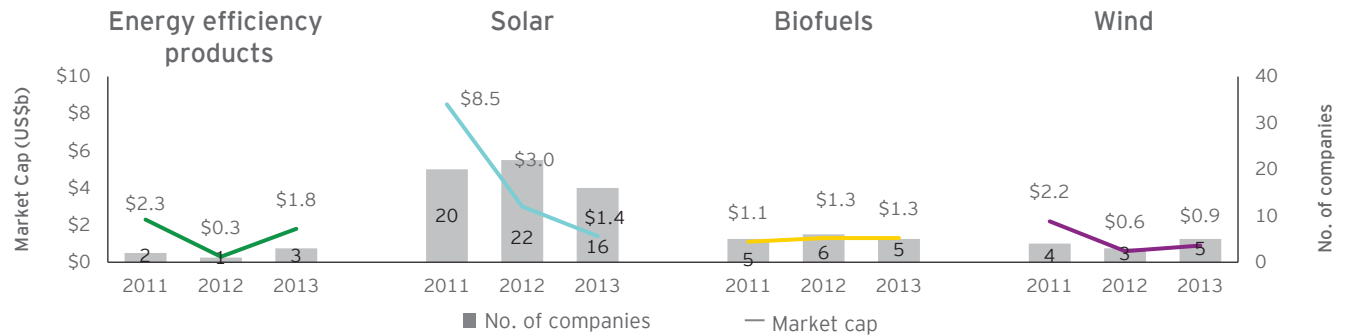
Country profile

- ▶ Market cap: US\$6.1b
- ▶ Revenue: US\$15.2b
- ▶ No. of companies: 39
- ▶ Headcount: 29,848
- ▶ Net income/(loss): (US\$2.2b)
- ▶ Debt: US\$5.2b

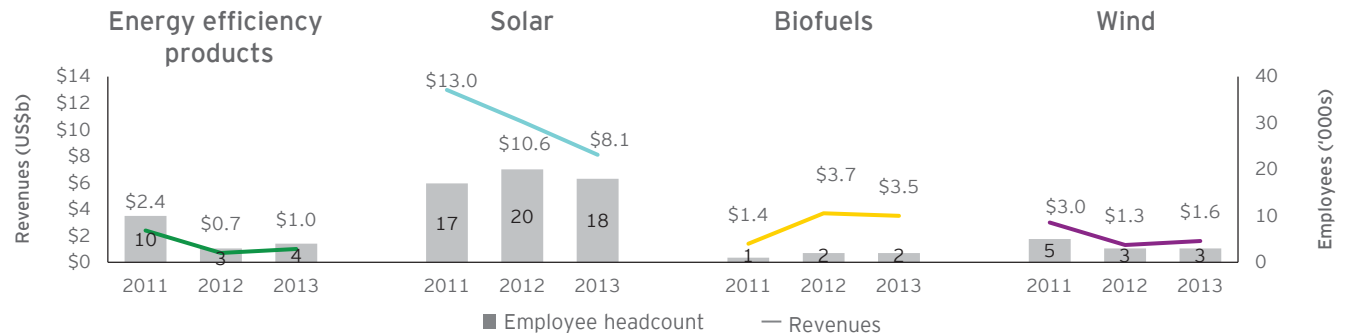
Key points

- ▶ The number of German companies in the PPP universe continues to fall, with the solar sector accounting for 27% (6/22) of eliminations.
- ▶ Overall market cap growth of 5% belies the fact that one new entrant this year accounted for 24.4% of total market cap. Excluding this company, Germany registered a 20.4% market cap decline.
- ▶ The slump in solar is further evidenced by the 25% decline since 2011 (10.5% y-o-y) in the overall revenues. The solar segment, which makes up for more than 50% of the overall revenues, fell 23% this year.

Number of companies and market capitalization (US\$b)



Employee headcount and revenues (US\$b)



Pure-play cleantech IPOs

Company	Segment	Stock exchange	Pricing date	Total deal value (US\$m)	Market cap (US\$m) (IPO date)	Market cap (US\$m) (29 April 2013)	Change in market cap (%)
KTG Energie AG	Biomass and waste	Deutsche Börse – Official Market	29 Jun 2012	17.2	91.3	88.8	■ 3

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