

10 April 2015


GLOBAL TRENDS IN CLEAN ENERGY INVESTMENT

South Africa stands out in subdued
Q1 for clean energy investment

Luke Mills

Bloomberg
NEW ENERGY FINANCE

1. Annual clean energy investment overview
2. Quarterly trends in clean energy: new investment
3. Quarterly trends in clean energy: funds in circulation
4. Clean energy indexes

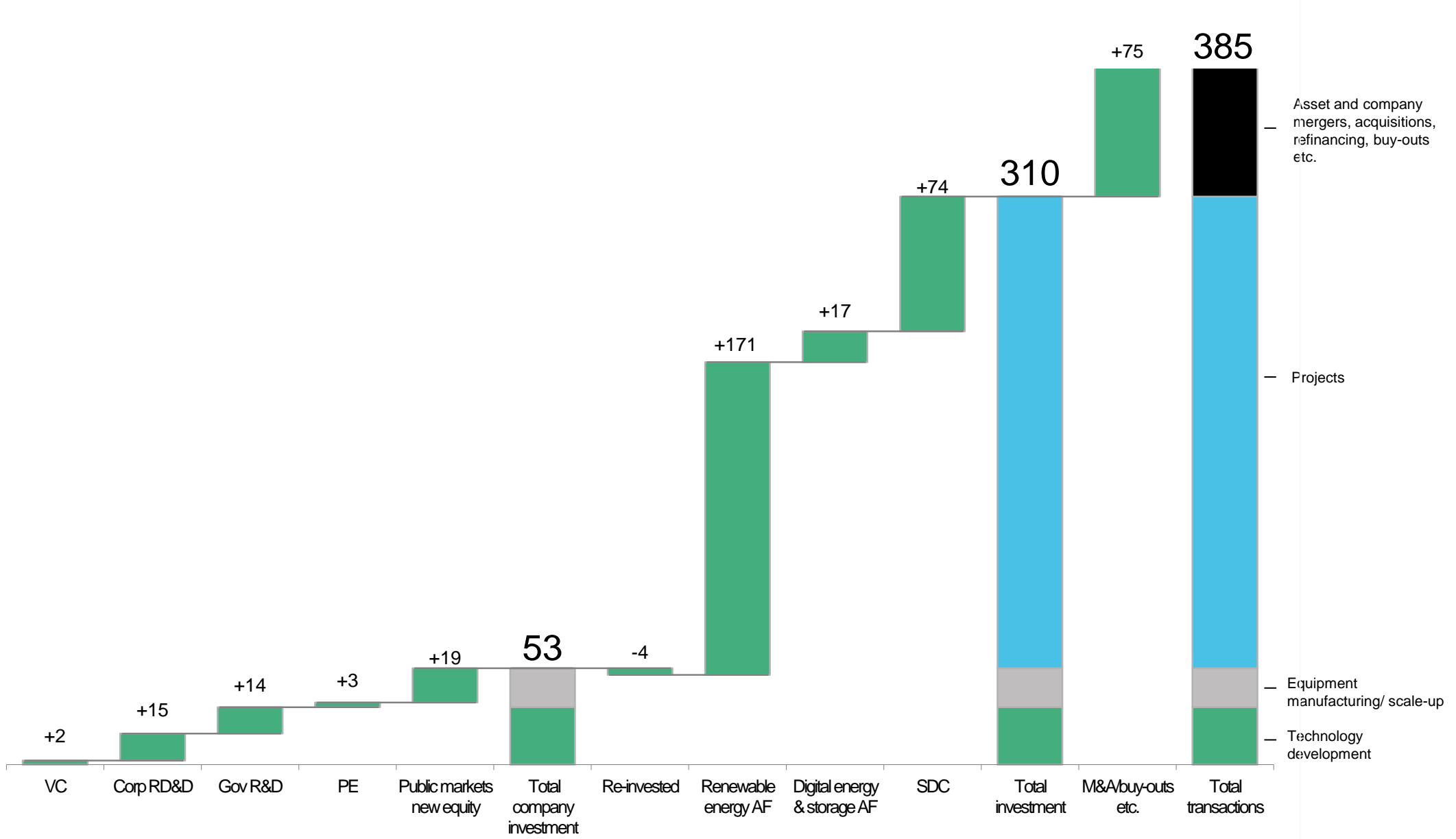


**ANNUAL CLEAN
ENERGY
INVESTMENT
OVERVIEW**

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2014 CLEAN ENERGY INVESTMENT TYPES & FLOWS

(\$BN)

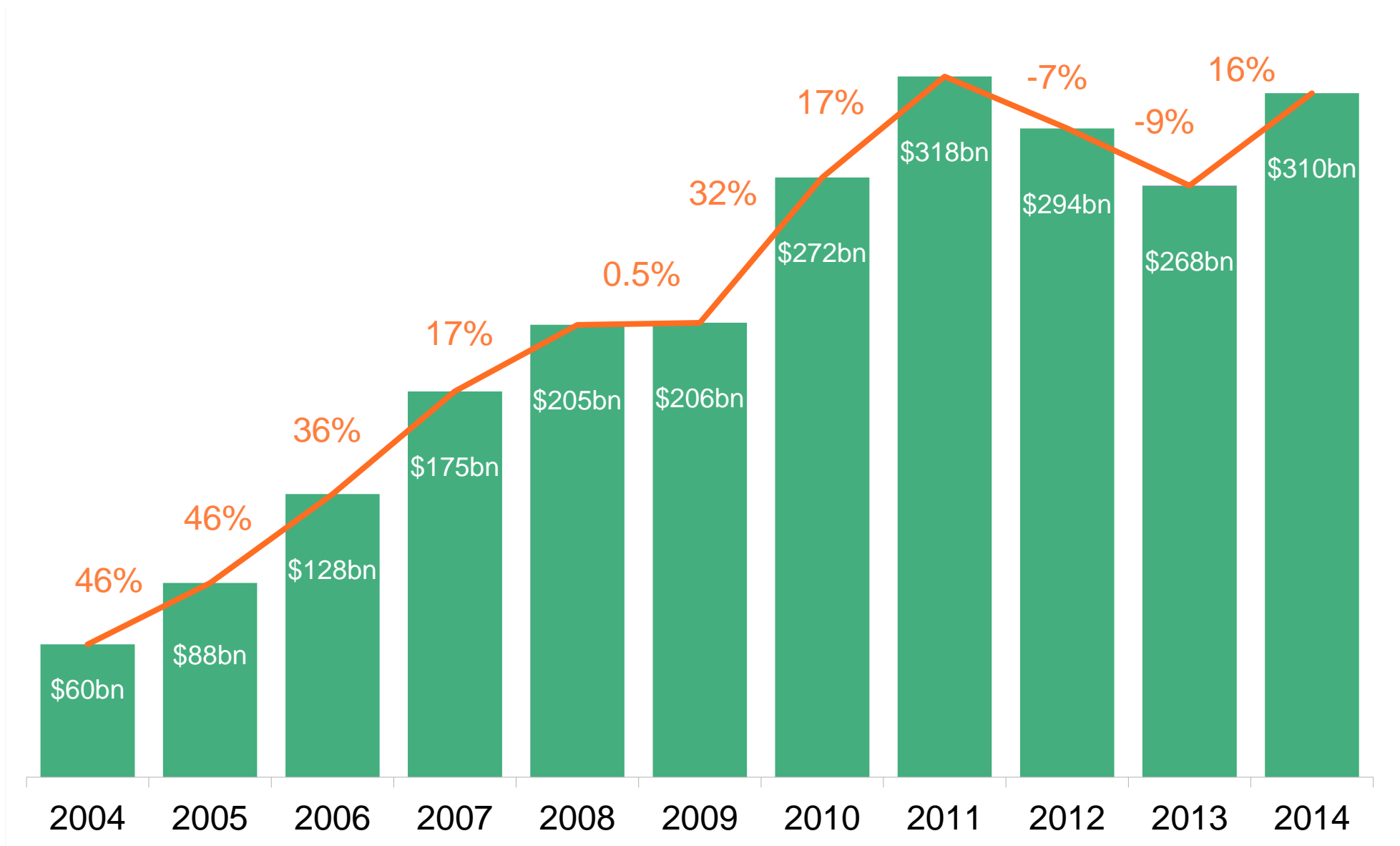


Note: Total values include estimates for undisclosed deals. AF = asset finance, SDC = small distributed capacity.

Source: Bloomberg New Energy Finance

NEW INVESTMENT IN CLEAN ENERGY

2004-14 (\$BN)

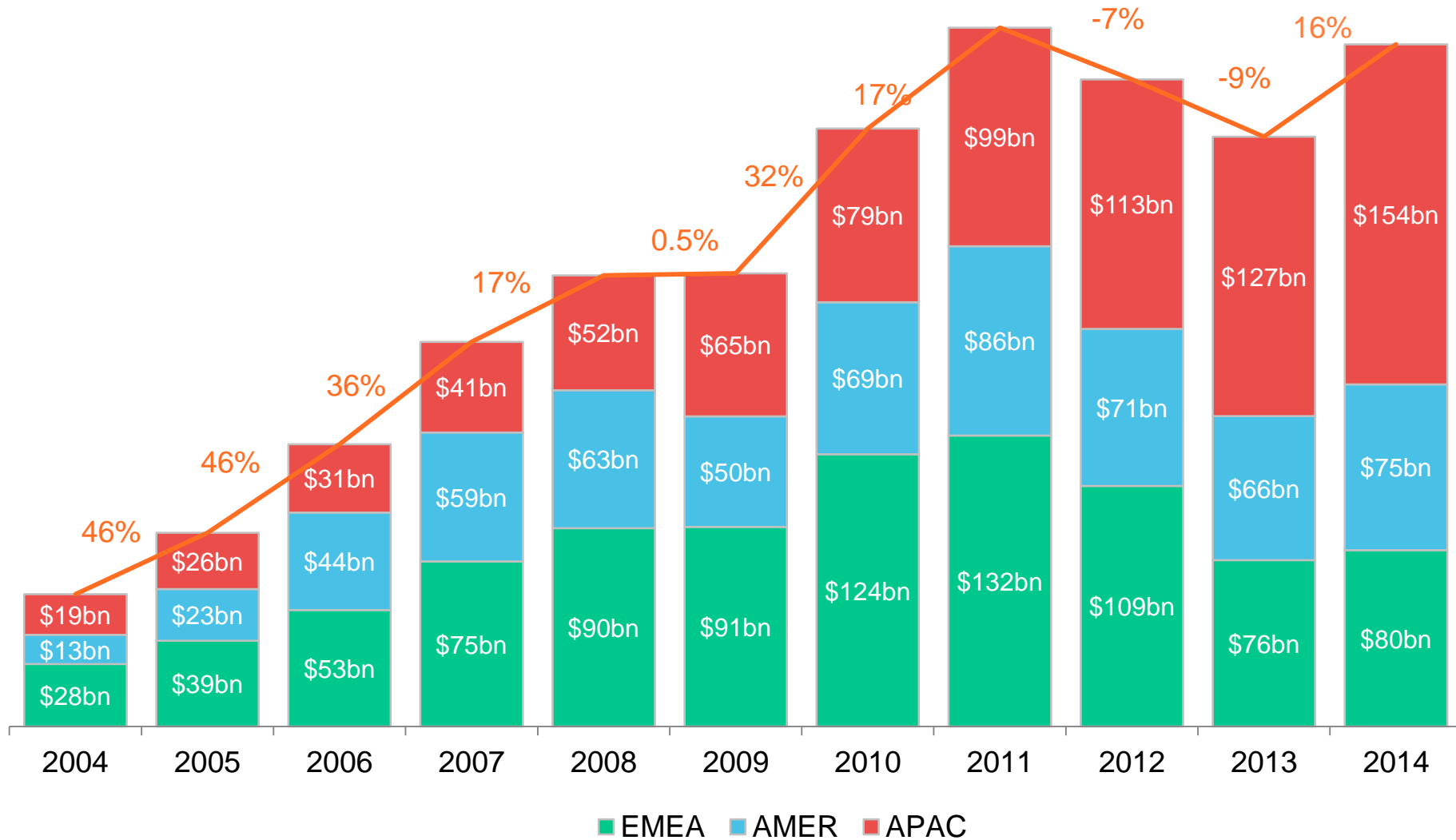


Note: Total values include estimates for undisclosed deals. Includes corporate and government R&D, and spending for digital energy and energy storage projects (not reported in quarterly statistics).

Source: Bloomberg New Energy Finance

NEW INVESTMENT IN CLEAN ENERGY BY REGION

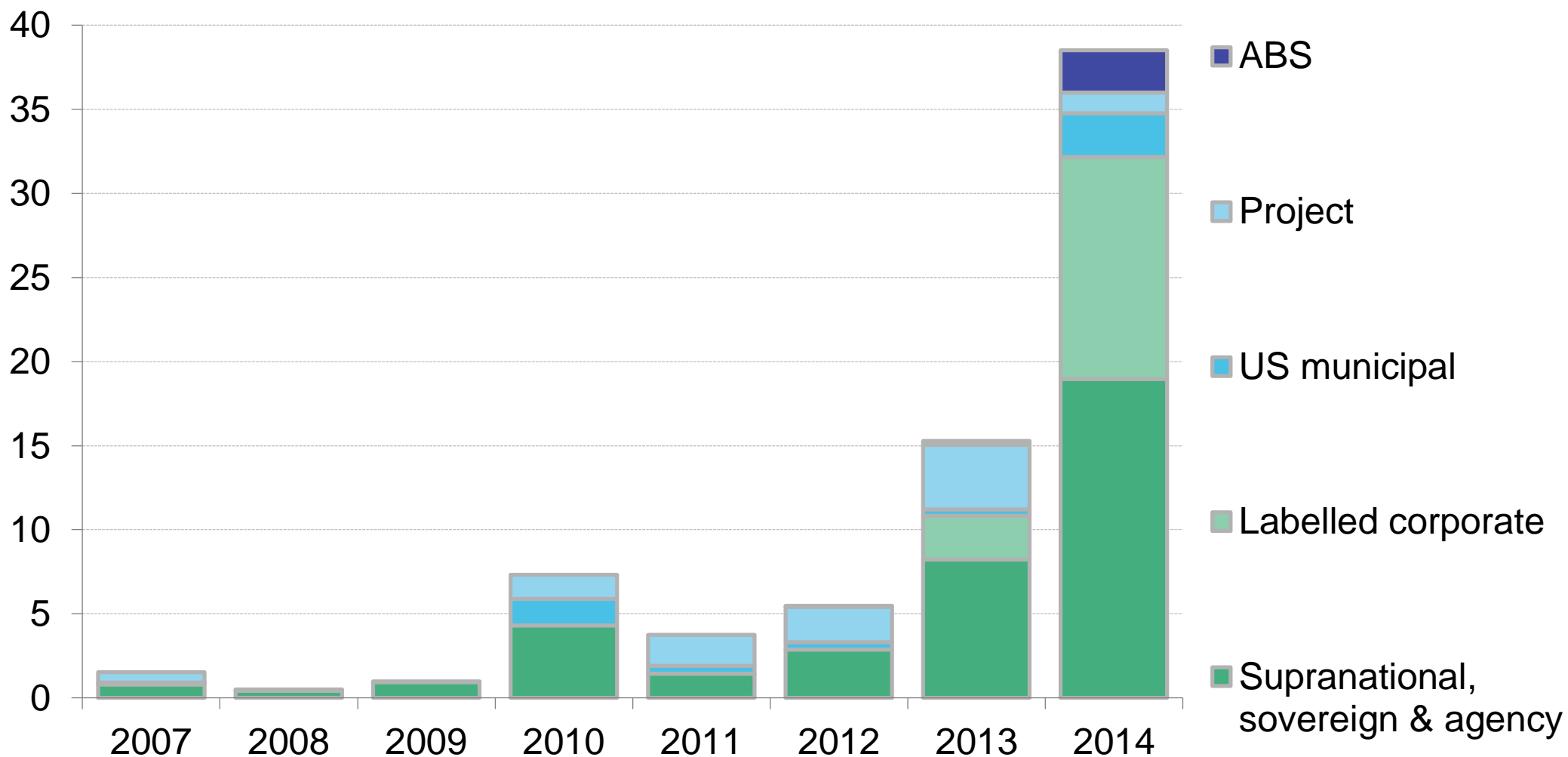
2004-14 (\$BN)



Note: Total values include estimates for undisclosed deals. Includes corporate and government R&D, and spending for digital energy and energy storage projects (not reported in quarterly statistics).

Source: Bloomberg New Energy Finance

ANNUAL HISTORICAL GREEN BOND ISSUANCE, BY TYPE, 2007-14 (\$BN)



Notes: The funds raised by green bonds are neither entirely inclusive nor exclusive of figures for clean energy asset finance. Bloomberg New Energy Finance will release additional further details on green bond investment activity in a future press release. 'Sovereign, supranational & agency' includes bonds issued by international financial institutions, agencies and provinces to finance green projects. 'Labelled corporate' includes bonds issued by companies and explicitly labelled as green. 'US municipal' refers to bonds issued by US municipalities to finance green projects. 'Project' refers to project bonds backed by renewable energy projects. 'ABS' refers to asset-backed securities whose cashflows come from a portfolio of underlying receivables such as loans, leases and PPAs associated with green projects.

Source: Bloomberg New Energy Finance

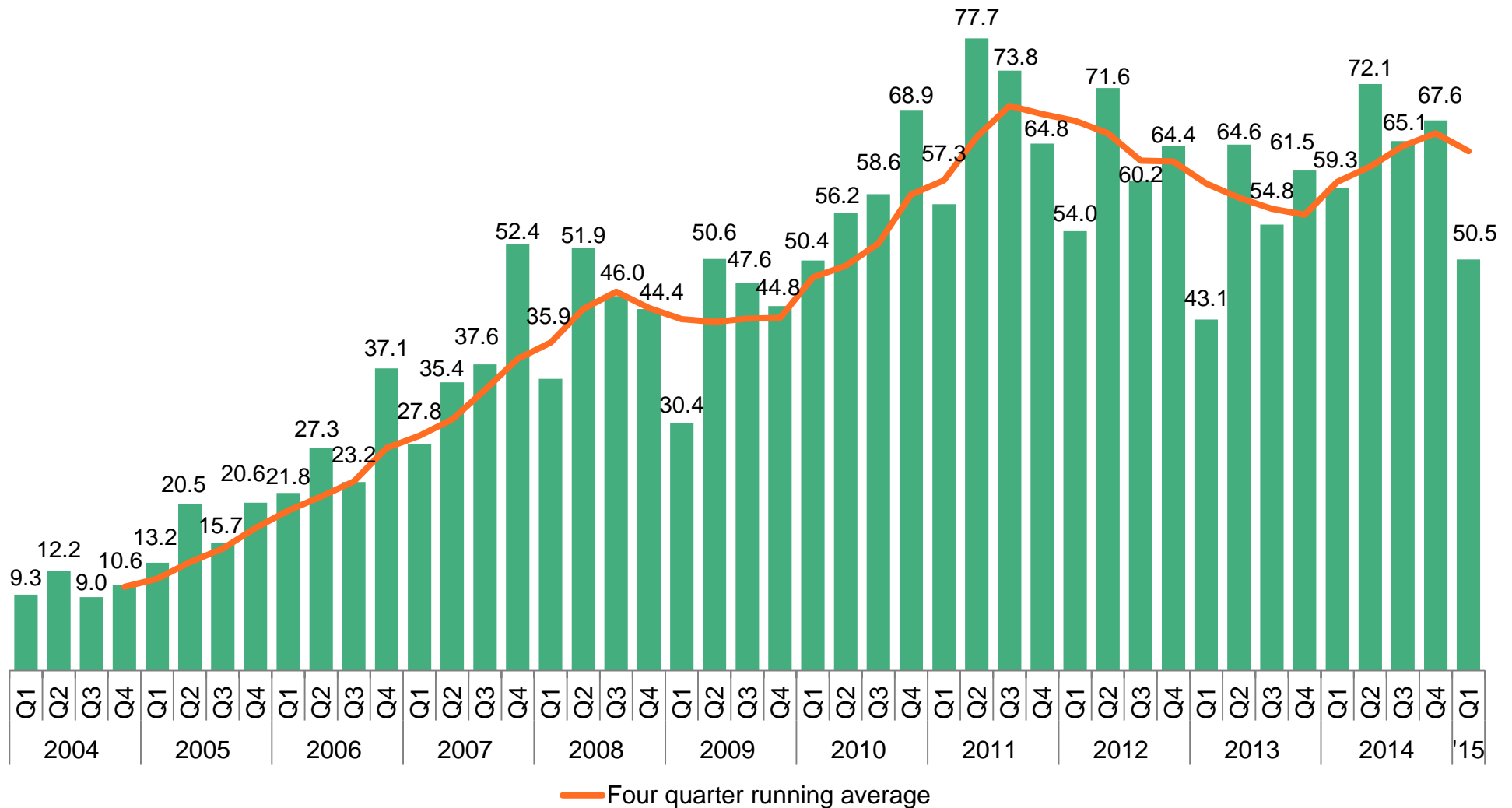


**QUARTERLY TRENDS
IN CLEAN ENERGY:
NEW INVESTMENT**

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NEW INVESTMENT IN CLEAN ENERGY

Q1 2004-Q1 2015 (\$BN)

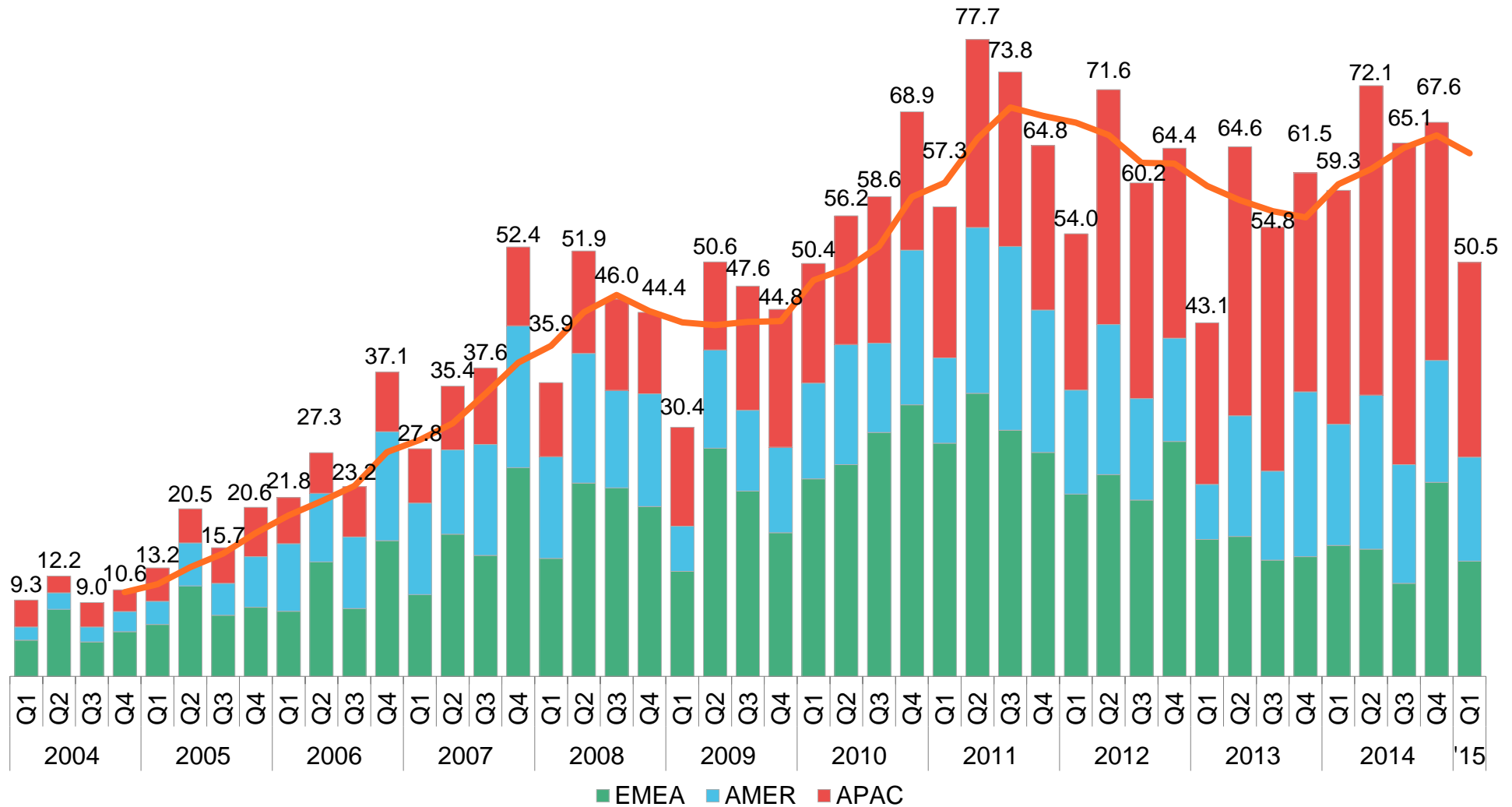


Note: Total values include estimates for undisclosed deals. Excludes corporate and government R&D, and spending for digital energy and energy storage projects (reported in annual statistics only).

Source: Bloomberg New Energy Finance

NEW INVESTMENT IN CLEAN ENERGY BY REGION

Q1 2004-Q1 2015 (\$BN)

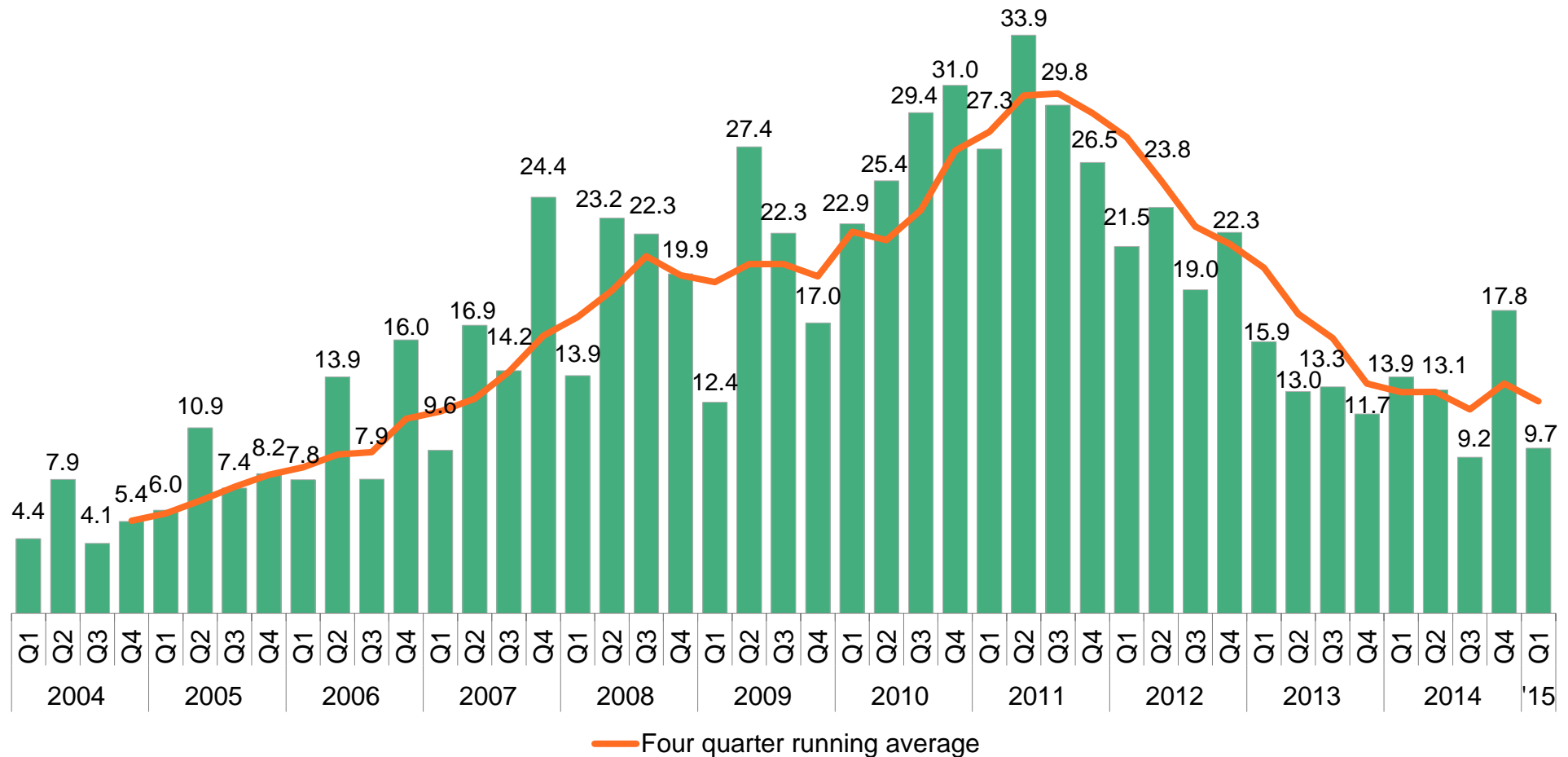


Note: Total values include estimates for undisclosed deals. Excludes corporate and government R&D, and spending for digital energy and energy storage projects (reported in annual statistics only).

Source: Bloomberg New Energy Finance

NEW INVESTMENT IN CLEAN ENERGY IN EUROPE

Q1 2004-Q1 2015 (\$BN)

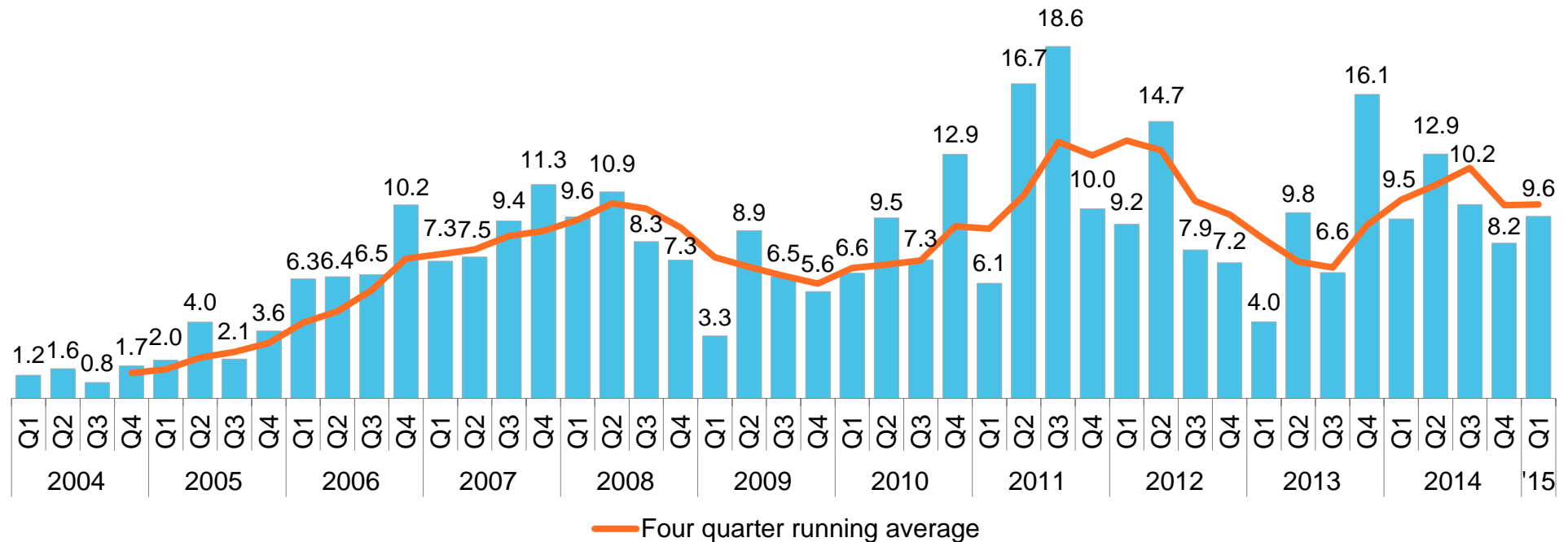


Note: Total values include estimates for undisclosed deals. Excludes corporate and government R&D, and spending for digital energy and energy storage projects (reported in annual statistics only).

Source: Bloomberg New Energy Finance

NEW INVESTMENT IN CLEAN ENERGY IN THE US

Q1 2004-Q1 2015 (\$BN)

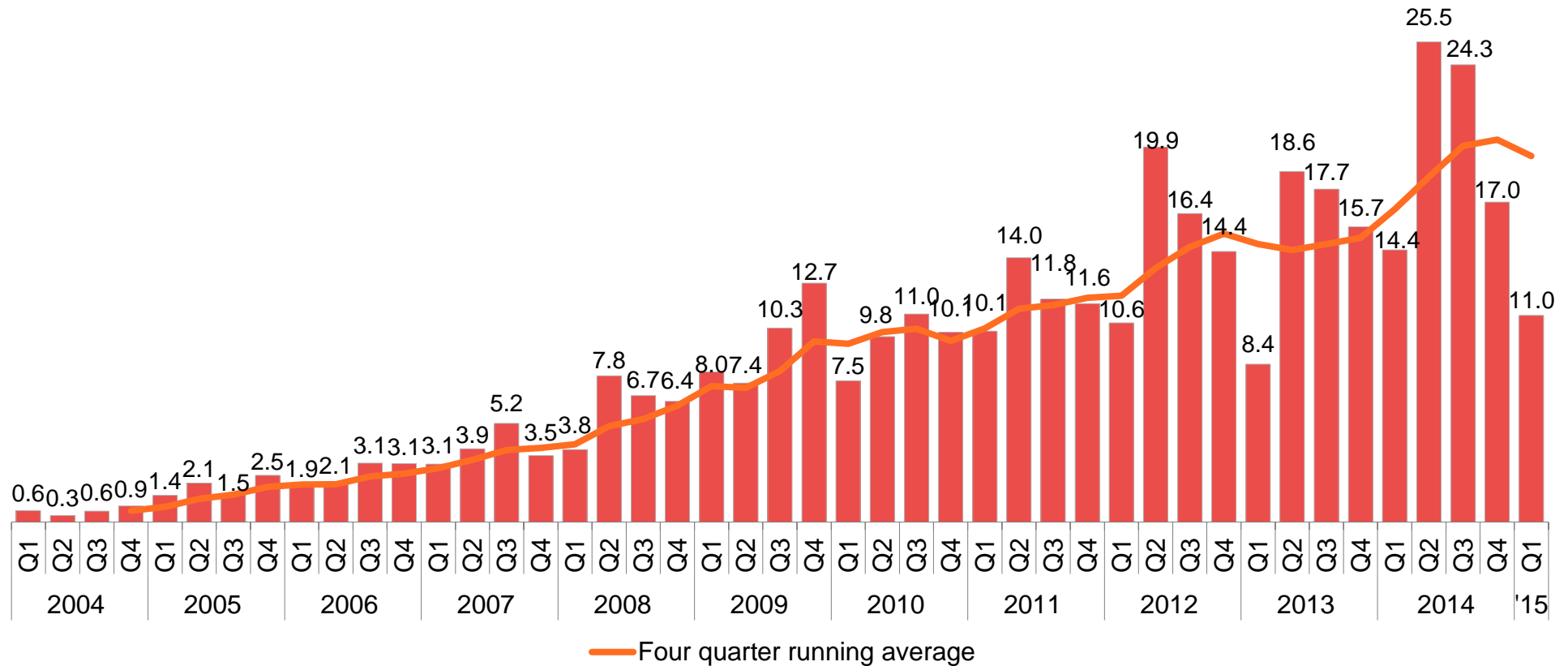


Note: Total values include estimates for undisclosed deals. Excludes corporate and government R&D, and spending for digital energy and energy storage projects (reported in annual statistics only).

Source: Bloomberg New Energy Finance

NEW INVESTMENT IN CLEAN ENERGY IN CHINA

Q1 2004-Q1 2015 (\$BN)

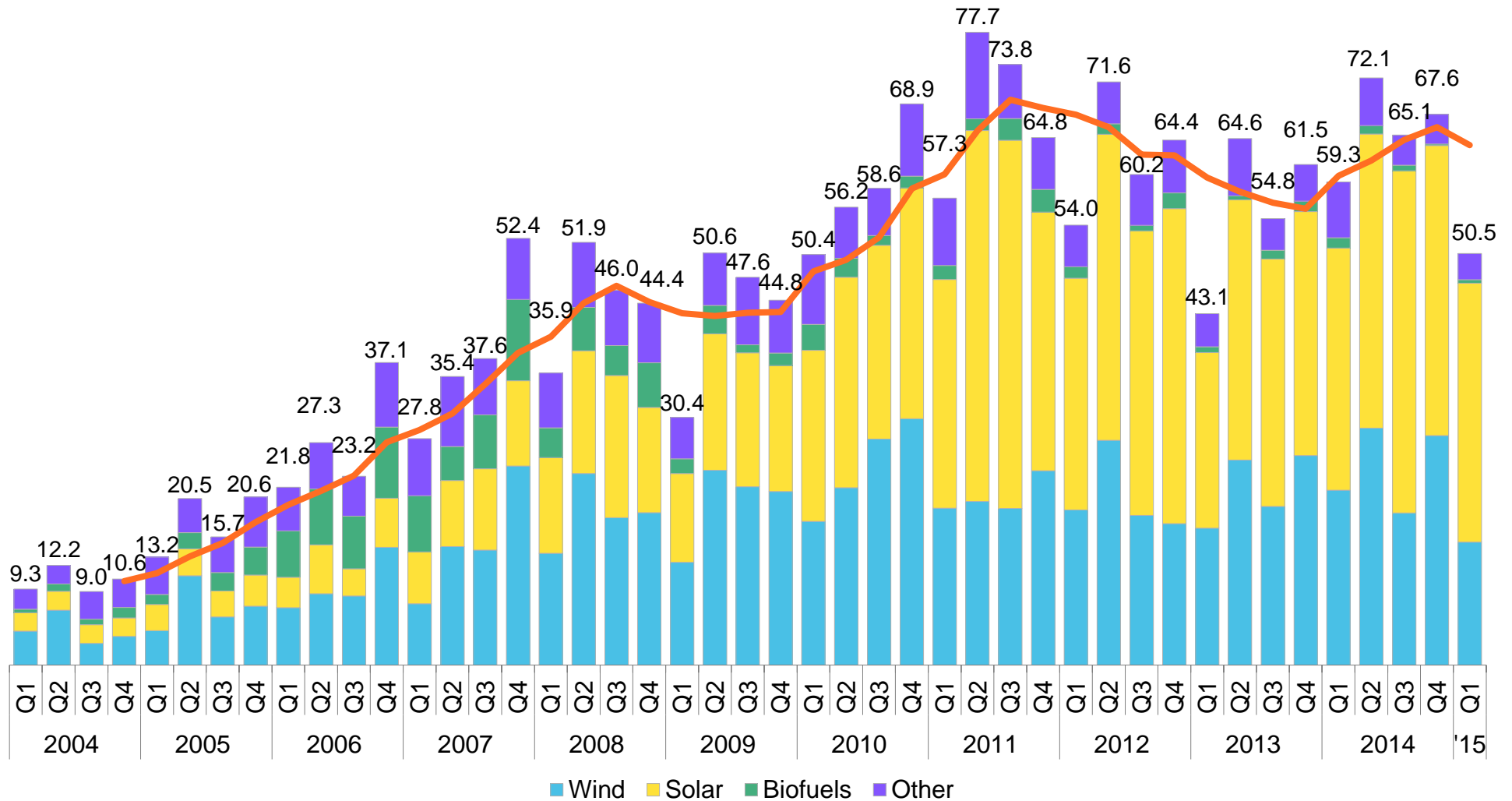


Note: Total values include estimates for undisclosed deals. Excludes corporate and government R&D, and spending for digital energy and energy storage projects (reported in annual statistics only).

Source: Bloomberg New Energy Finance

NEW INVESTMENT IN CLEAN ENERGY BY SECTOR

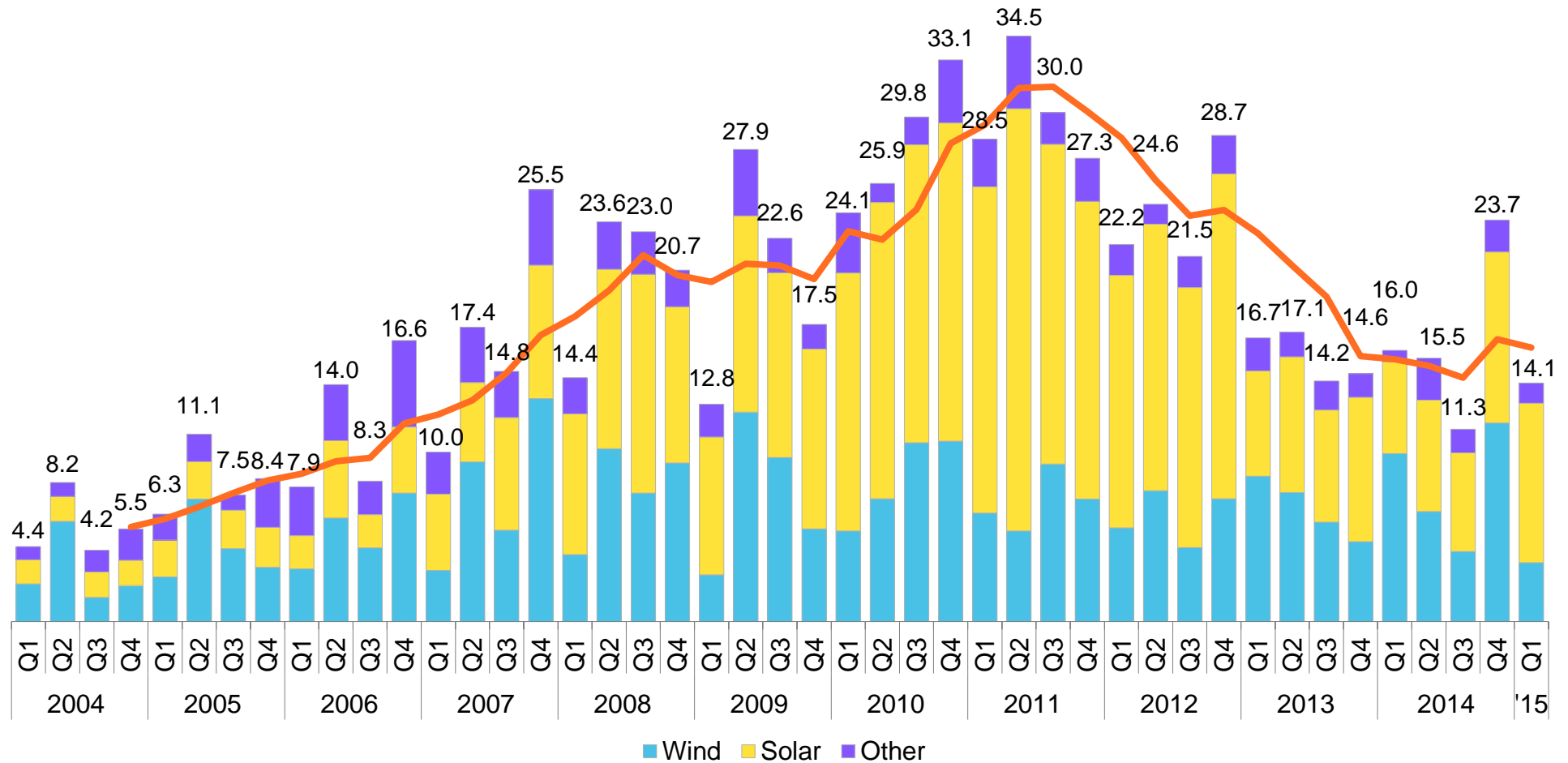
Q1 2004-Q1 2015 (\$BN)



Note: Total values include estimates for undisclosed deals. Excludes corporate and government R&D, and spending for digital energy and energy storage projects (reported in annual statistics only).

Source: Bloomberg New Energy Finance

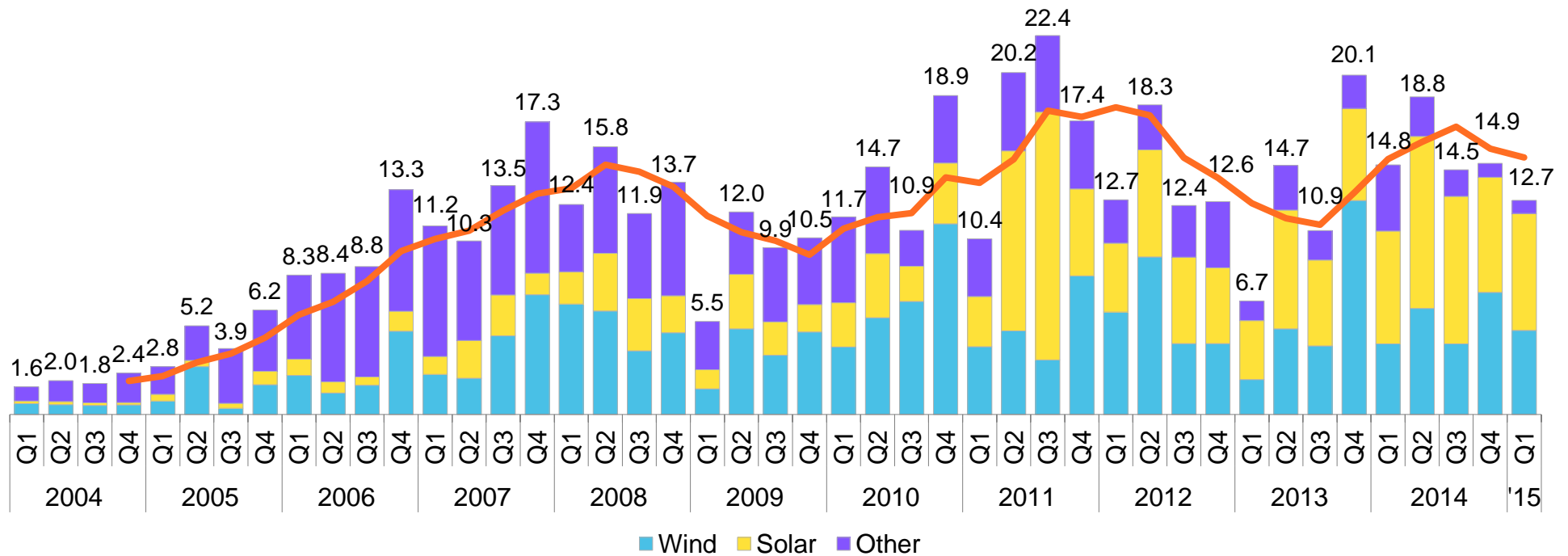
EMEA NEW INVESTMENT IN CLEAN ENERGY BY SECTOR Q1 2004-Q1 2015 (\$BN)



Note: Total values include estimates for undisclosed deals. Excludes corporate and government R&D, and spending for digital energy and energy storage projects (reported in annual statistics only).

Source: Bloomberg New Energy Finance

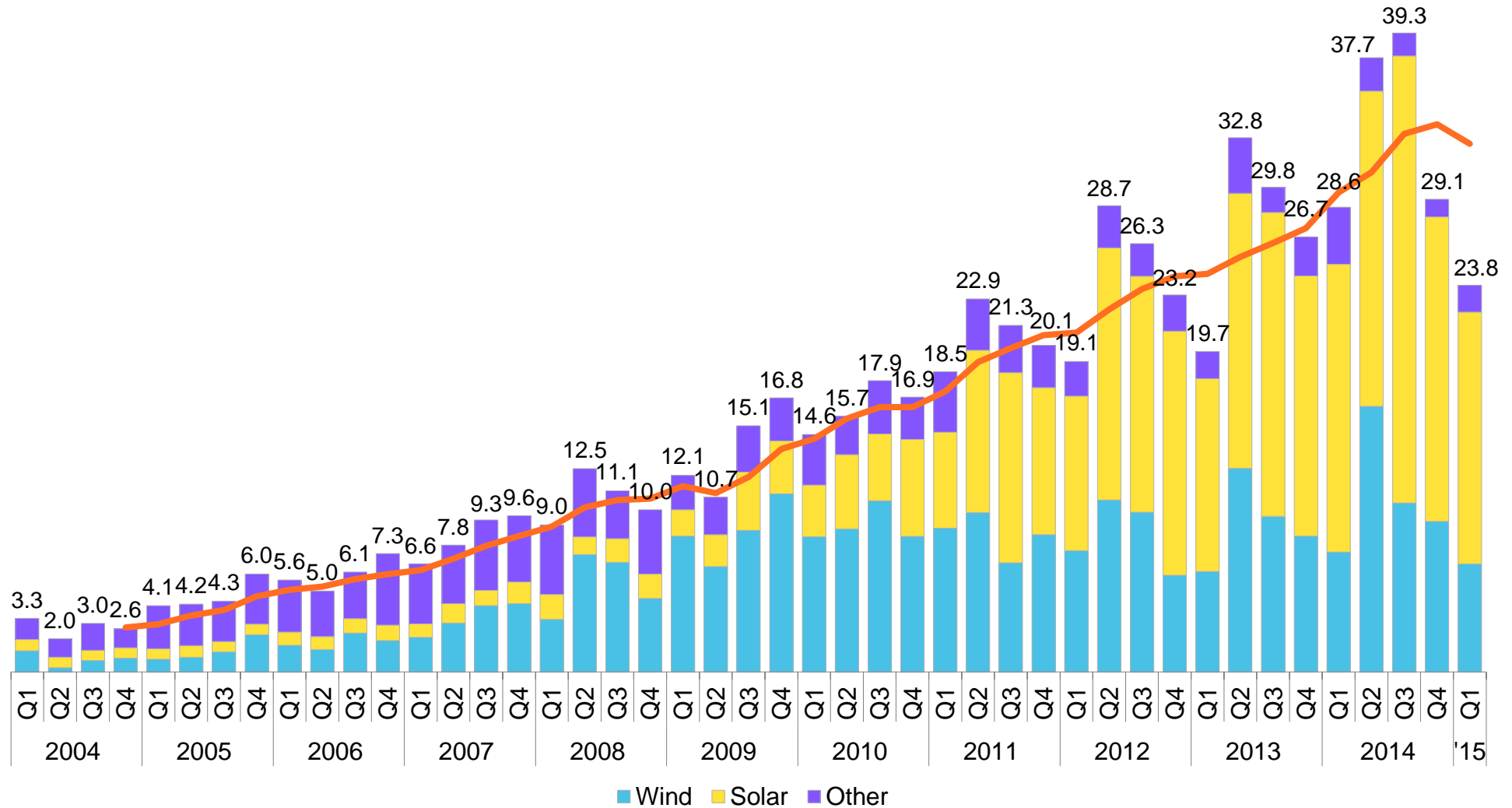
AMER NEW INVESTMENT IN CLEAN ENERGY BY SECTOR Q1 2004-Q1 2015 (\$BN)



Note: Total values include estimates for undisclosed deals. Excludes corporate and government R&D, and spending for digital energy and energy storage projects (reported in annual statistics only).

Source: Bloomberg New Energy Finance

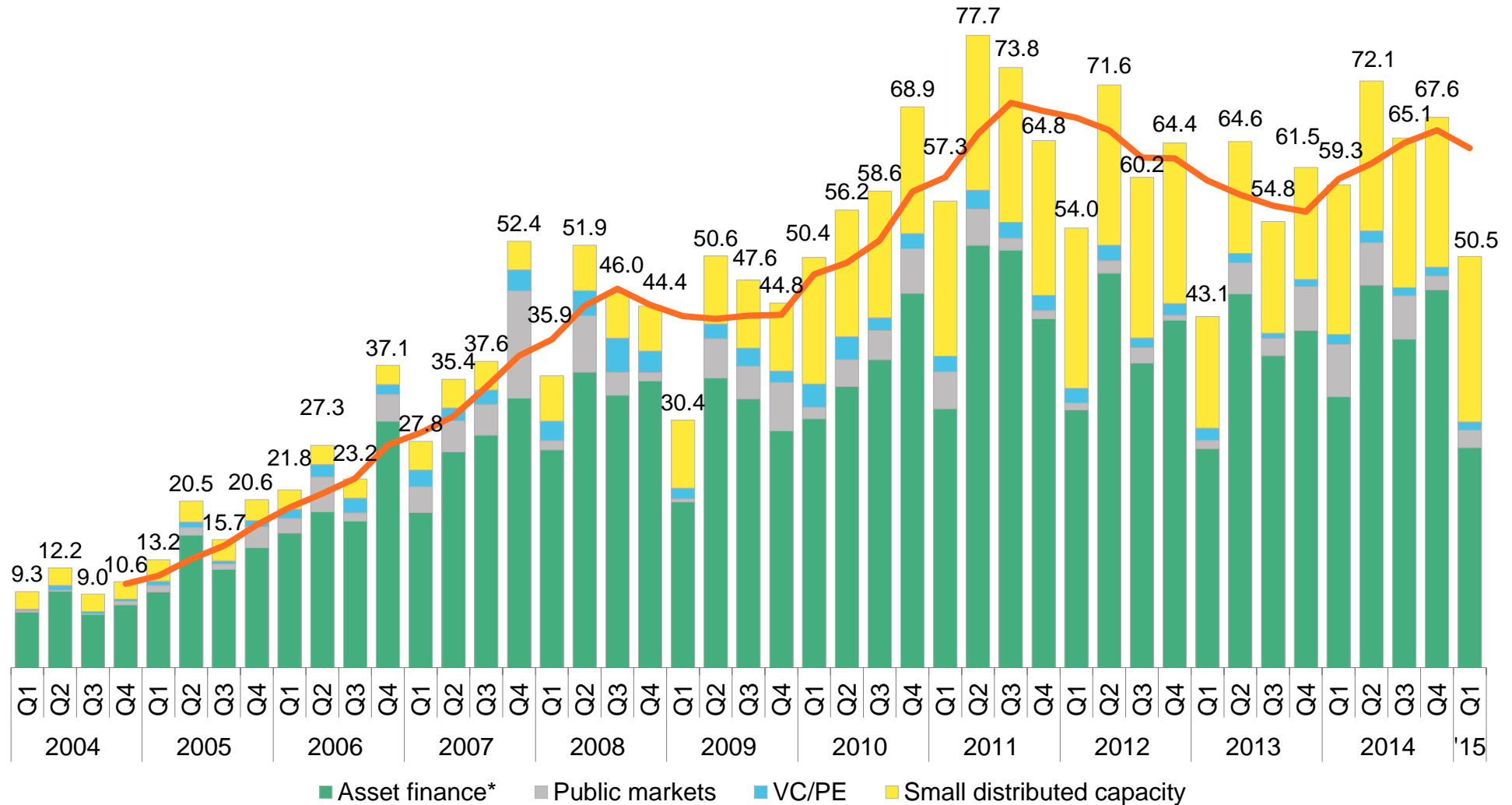
APAC NEW INVESTMENT IN CLEAN ENERGY BY SECTOR Q1 2004-Q1 2015 (\$BN)



Note: Total values include estimates for undisclosed deals. Excludes corporate and government R&D, and spending for digital energy and energy storage projects (reported in annual statistics only).

Source: Bloomberg New Energy Finance

NEW INVESTMENT IN CLEAN ENERGY BY ASSET CLASS Q1 2004-Q1 2015 (\$BN)

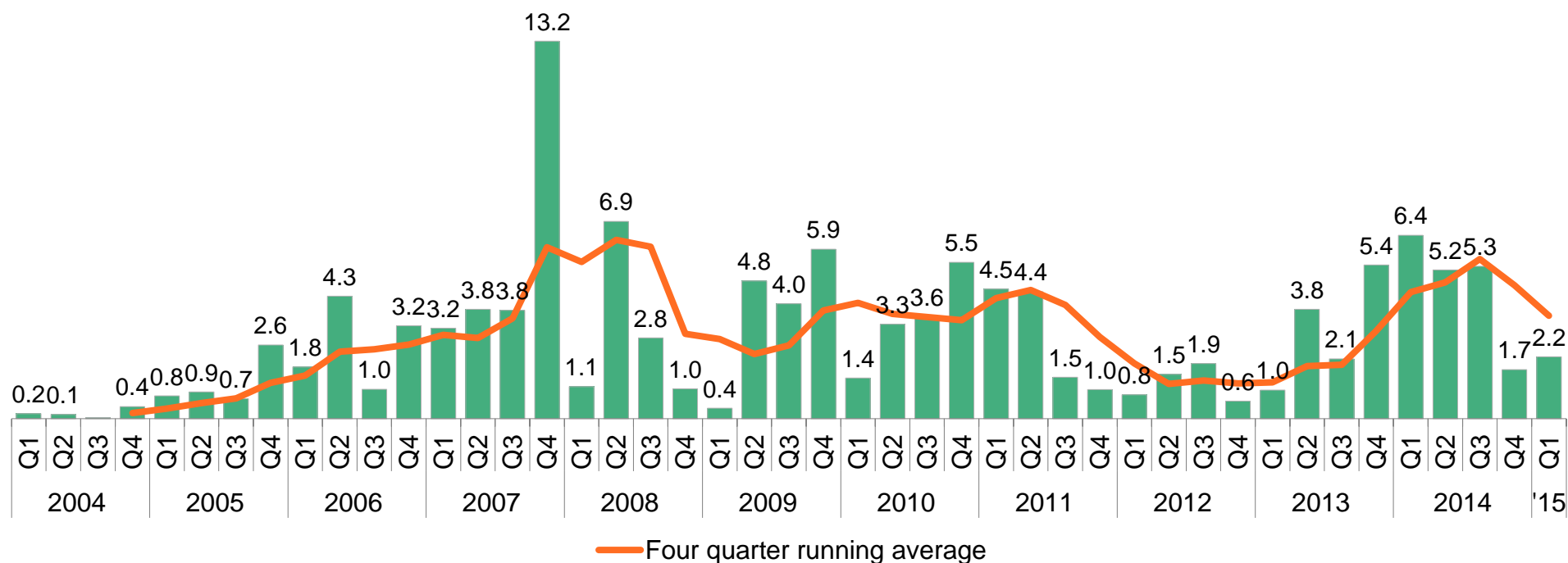


*Asset finance adjusted for re-invested equity

Note: Total values include estimates for undisclosed deals. Excludes corporate and government R&D, and spending for digital energy and energy storage projects (reported in annual statistics only).

Source: Bloomberg New Energy Finance

PUBLIC MARKET NEW INVESTMENT IN CLEAN ENERGY Q1 2004-Q1 2015 (\$BN)



Note: Total values include estimates for undisclosed deals.

Source: Bloomberg New Energy Finance

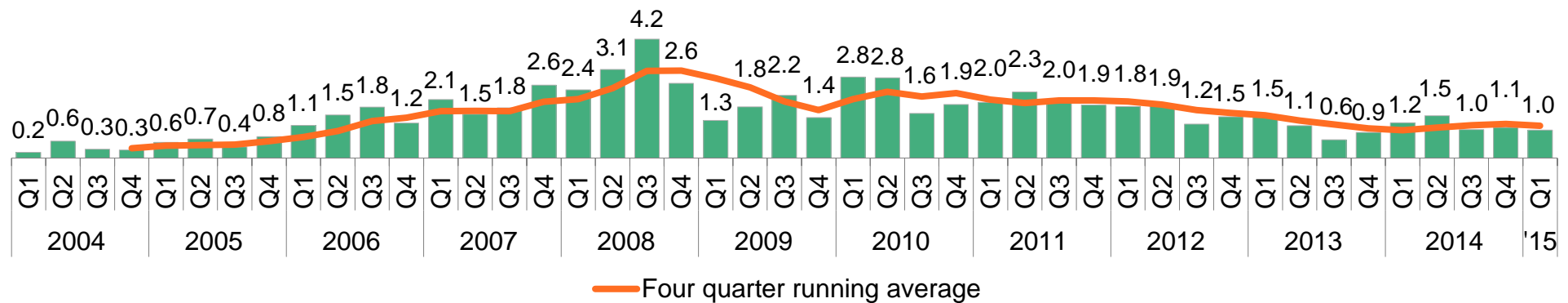
TOP PUBLIC MARKET TRANSACTIONS OF THE QUARTER Q1 2015

Organisation	Stock exchange	Sector	Type of transaction	New equity raised	Total offering size
SunEdison	New York Stock Exchange (NYSE)	Solar	Convertible	\$460m	\$460m
TerraForm Power	NASDAQ Global Select Market (GS)	Solar	Secondary	\$404.8m	\$404.8m
Pattern Energy	NASDAQ Global Select Market (GS)	Wind	Secondary	\$204.8m	\$351.m
Xinyi Solar Holdings	Hong Kong Stock Exchange (HKEX)	Solar	Secondary	\$148.2m	\$148.2m
SolarEdge Technologies	NASDAQ Global Select Market (GS)	Solar	IPO	\$144.9m	\$144.9m

Source: Bloomberg New Energy Finance

VC/PE NEW INVESTMENT IN CLEAN ENERGY

Q1 2004-Q1 2015 (\$BN)



Note: Total values include estimates for undisclosed deals.

Source: Bloomberg New Energy Finance

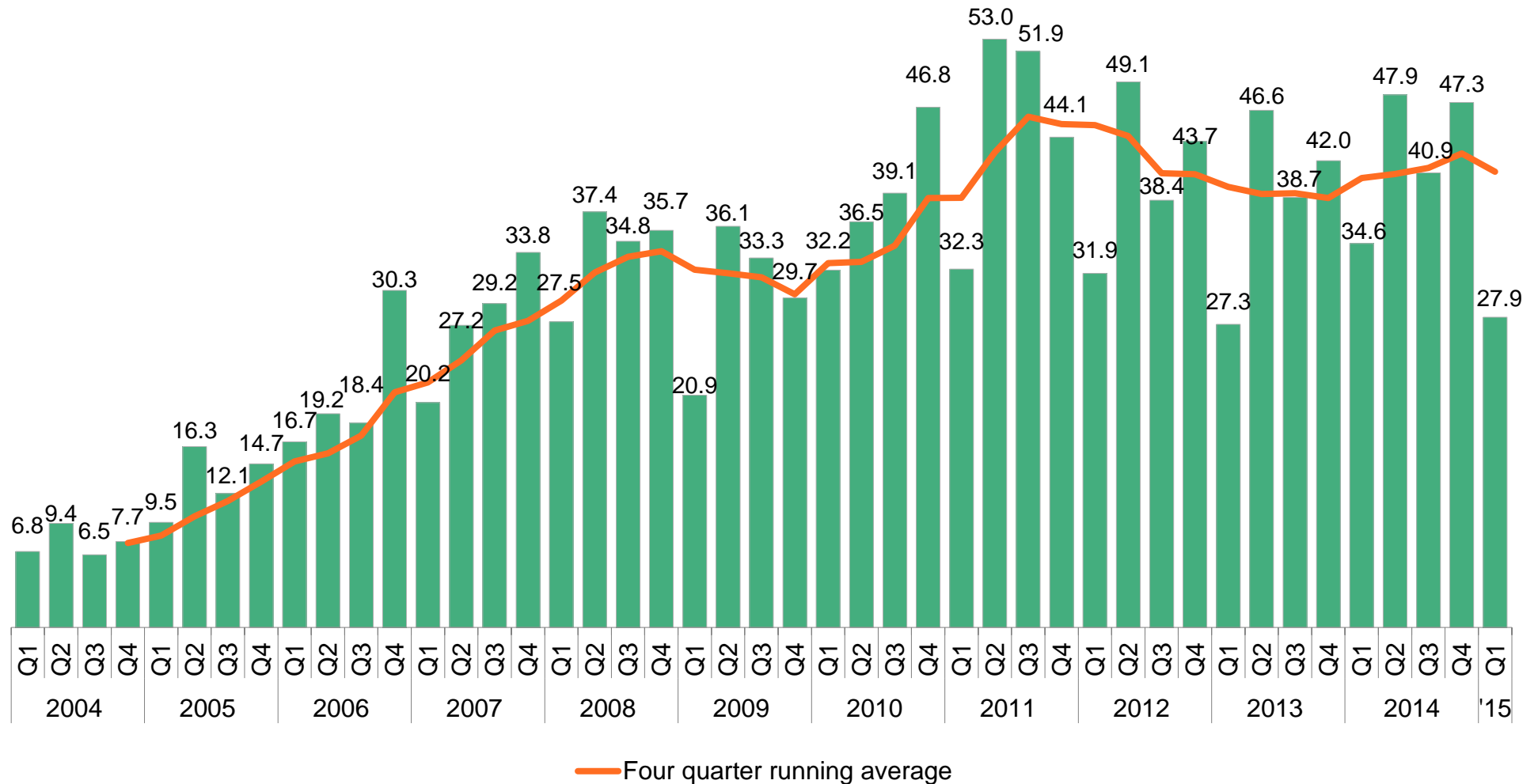
TOP VC/PE TRANSACTIONS OF THE QUARTER

Q1 2015

Organisation	Country	Sector	Type of transaction	Value
Green Biologics	UK	Biofuels	PE Expansion Capital	\$76m
Leaf Solar Power	US	Solar	PE Expansion Capital	\$75m
Renmatix	US	Biofuels	VC Late Stage	\$50m
Apex Clean Energy	US	Wind	PE Expansion Capital	\$50m
Conergy	Germany	Solar	PE Expansion Capital	\$45m

Source: Bloomberg New Energy Finance

ASSET FINANCING FOR NEW BUILD RENEWABLE ENERGY ASSETS Q1 2004-Q1 2015 (\$BN)



Note: Total values include estimates for undisclosed deals. Excludes spending for digital energy and energy storage projects (reported in annual statistics only).

Source: Bloomberg New Energy Finance

TOP ASSET FINANCE TRANSACTIONS OF THE QUARTER Q1 2015

Project name	Country	Sector	Type of transaction	Capacity	Value
Nordsee 1 Offshore Wind Farm	Germany	Wind	Term loan	332MW	\$1279m
Xina Solar One STEG Plant	South Africa	Solar	Term loan	100MW	\$888m
Ilangaletu Karoshoek Solar Valley STEG Plant	South Africa	Solar	Term loan	100MW	Undisclosed
Apex Kay Wind Farm	US	Wind	Construction loan	300MW	\$427m
Balko Wind Farm	US	Wind	Construction loan	300MW	Undisclosed

Source: Bloomberg New Energy Finance

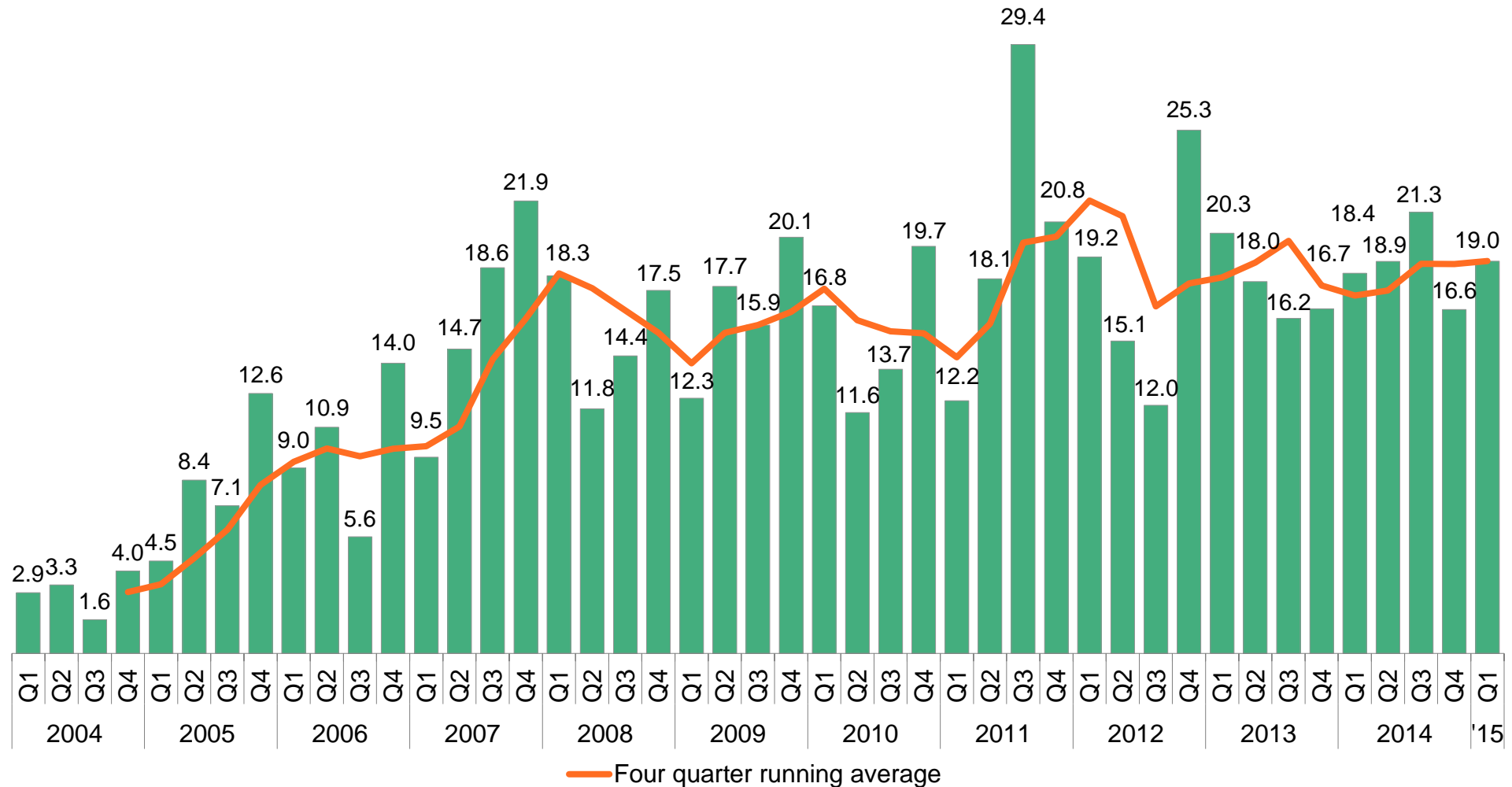


**QUARTERLY TRENDS
IN CLEAN ENERGY:
FUNDS IN
CIRCULATION**

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FUNDS IN CIRCULATION IN CLEAN ENERGY

Q1 2004-Q1 2015 (\$BN)



Note: Total values include estimates for undisclosed deals. Excludes spending for digital energy and energy storage projects (reported in annual statistics only).

Source: Bloomberg New Energy Finance

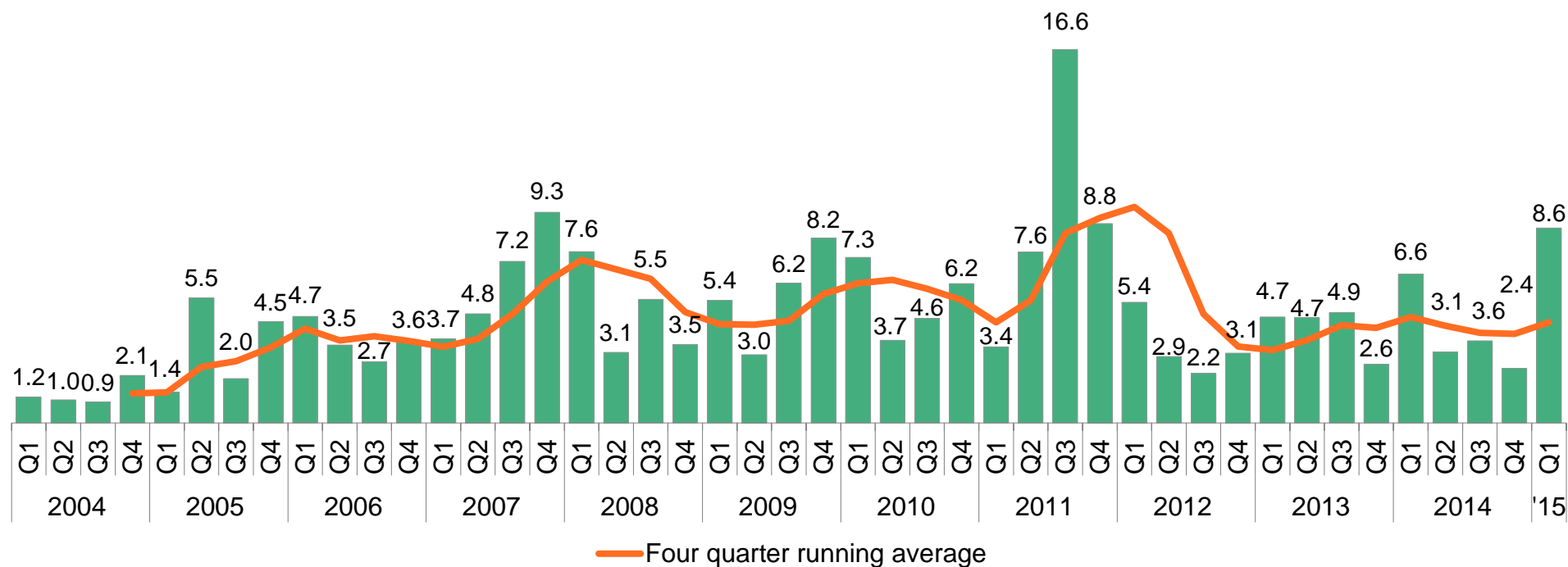
TOP TRANSACTIONS FOR FUNDS IN CIRCULATION

Q1 2015

Organisation	Country	Sector	Type of transaction	Acquirer	Value
First Wind Holdings	US	Wind	Equity (company)	SunEdison, TerraForm Power	\$1898m
Ormat Industries	Israel	Geothermal	Equity (company)	Ormat Technologies	\$1642m
NRG Energy	US	Wind	Asset	NRG Yield	\$1226m
Saeta Yield	Spain	Wind	Investor Exit	Undisclosed	\$503m
NRG US Portfolio NRG Yield Acquisition	US	Wind	Balance Sheet	NRG Yield	Undisclosed (785MW)

Source: Bloomberg New Energy Finance

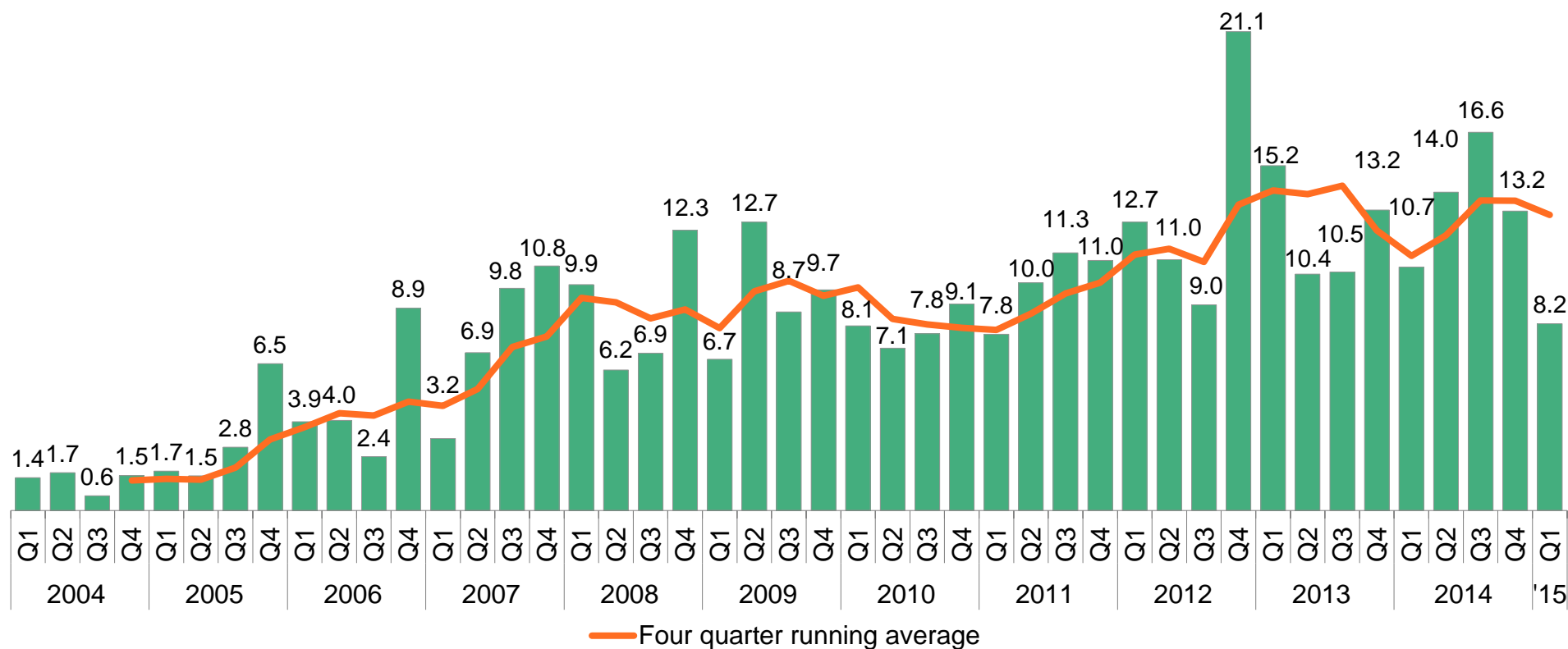
CORPORATE M&A TRANSACTIONS IN CLEAN ENERGY Q1 2004-Q1 2015 (\$BN)



Note: Total values include estimates for undisclosed deals

Source: Bloomberg New Energy Finance

RENEWABLE ENERGY ASSET ACQUISITIONS & REFINANCING Q1 2004-Q1 2015 (\$BN)



Note: Total values include estimates for undisclosed deals

Source: Bloomberg New Energy Finance

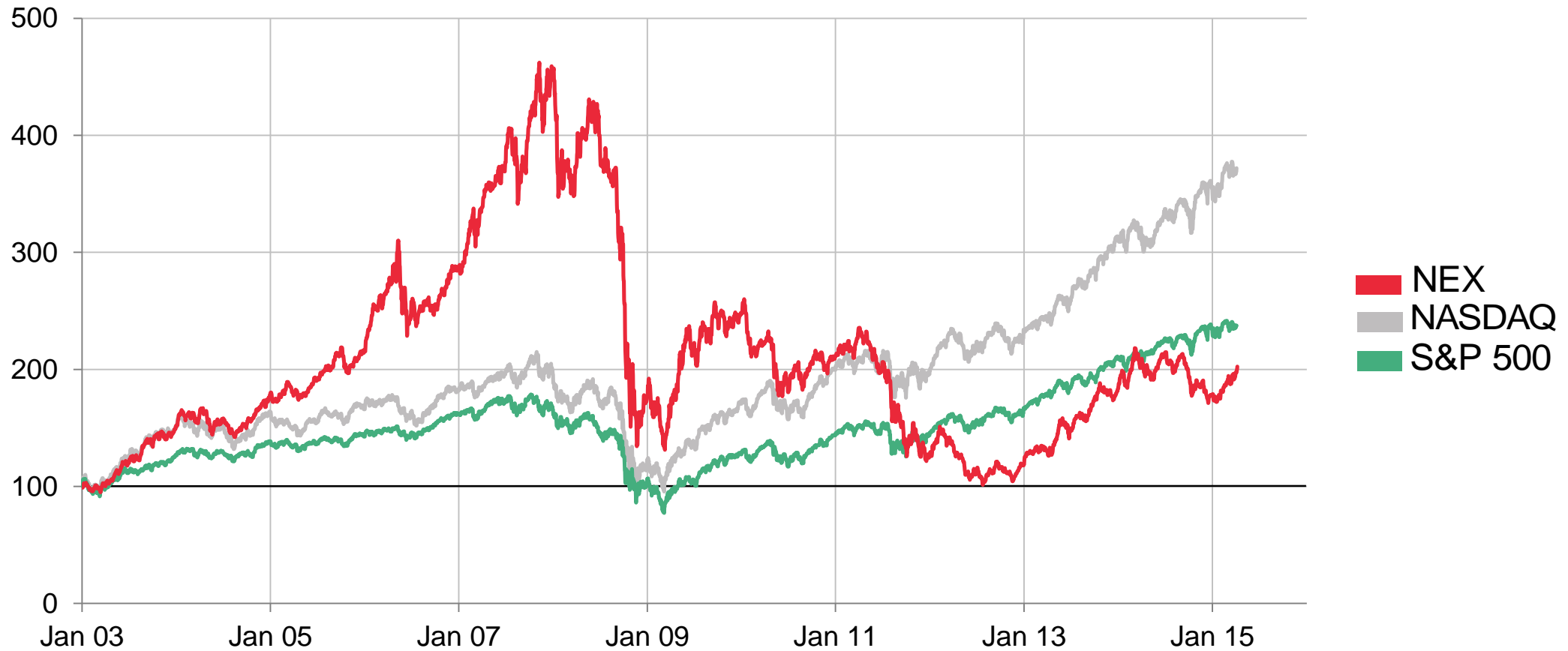


CLEAN ENERGY INDEXES

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NEX CLEAN ENERGY INDEX

2003–15 YTD

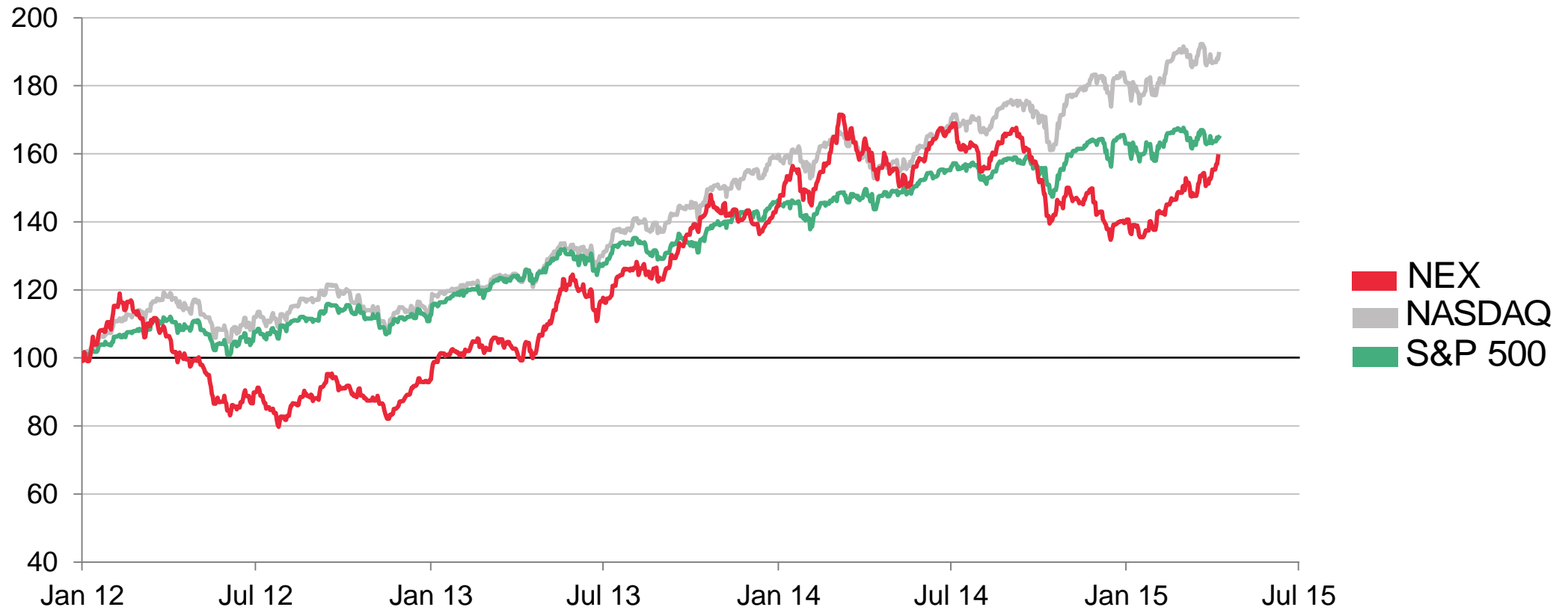


Note: Values as of 09 April 2015; NASDAQ and S&P 500 rebased to 100 on 1 Jan 2003

Source: Bloomberg New Energy Finance

NEX CLEAN ENERGY INDEX

2012–15 YTD

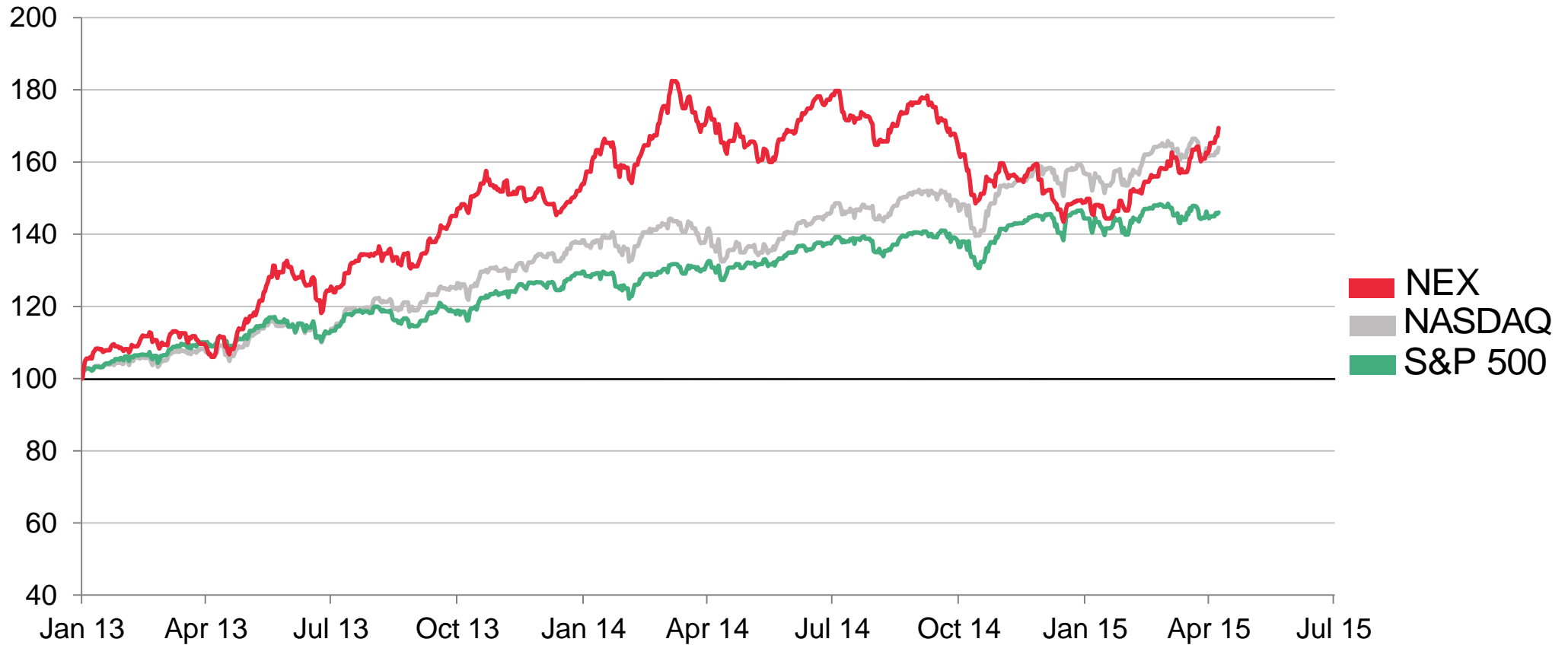


Note: Values as of 09 April 2015; NASDAQ and S&P 500 rebased to 100 on 1 Jan 2011

Source: Bloomberg New Energy Finance

NEX CLEAN ENERGY INDEX

2013–15 YTD

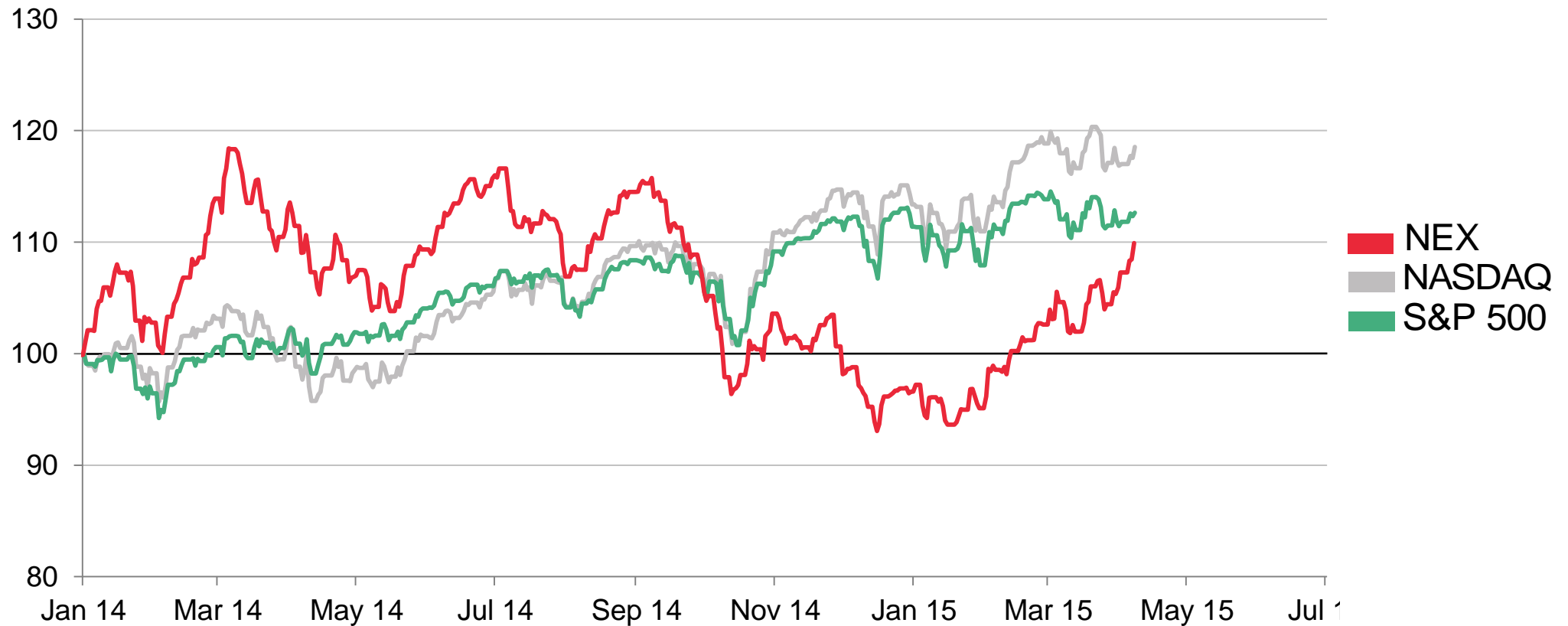


Note: Values as of 09 April 2015; NASDAQ and S&P 500 rebased to 100 on 1 Jan 2011

Source: Bloomberg New Energy Finance

NEX CLEAN ENERGY INDEX

2014–15 YTD

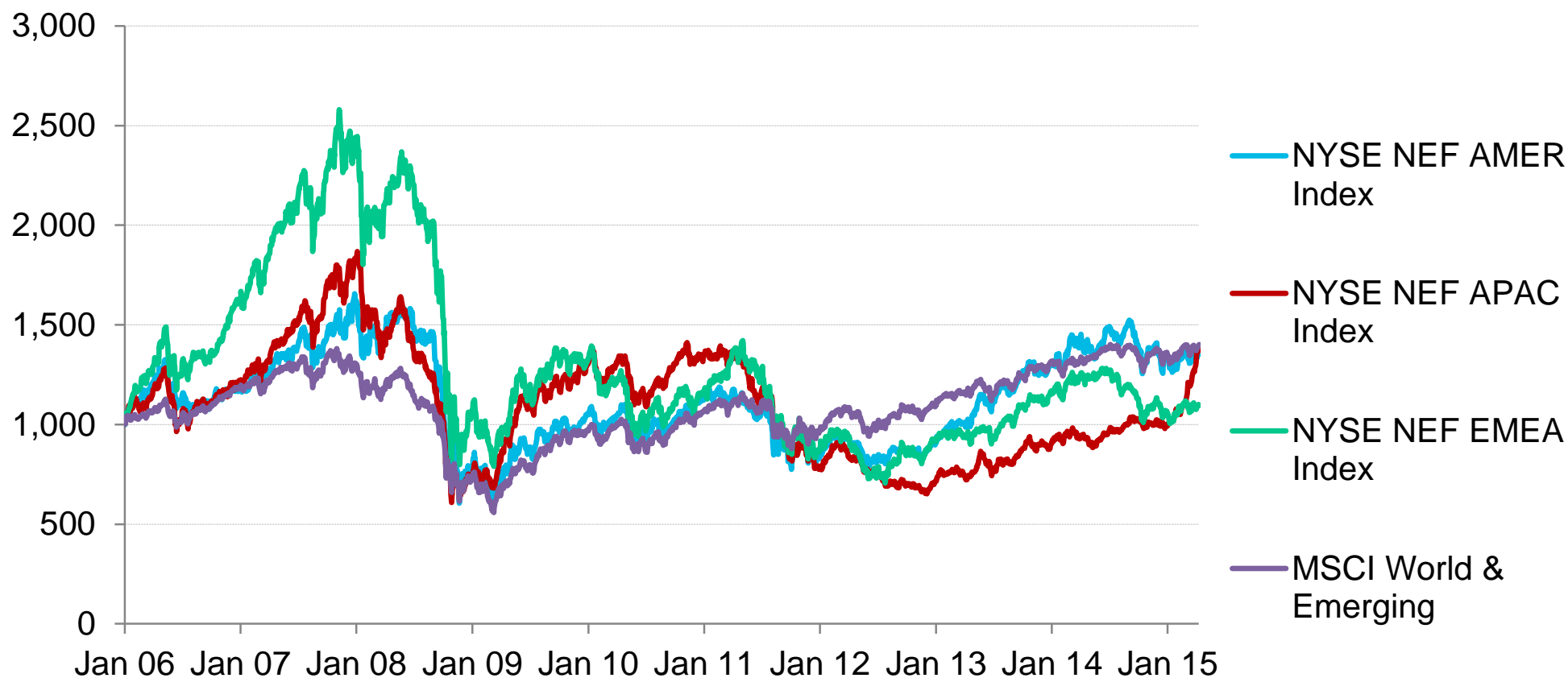


Note: Values as of 10 April 2015; NASDAQ and S&P 500 rebased to 100 on 1 Jan 2011

Source: Bloomberg New Energy Finance

NYSE BNEF REGIONAL CLEAN ENERGY INDEXES

2006-15 YTD

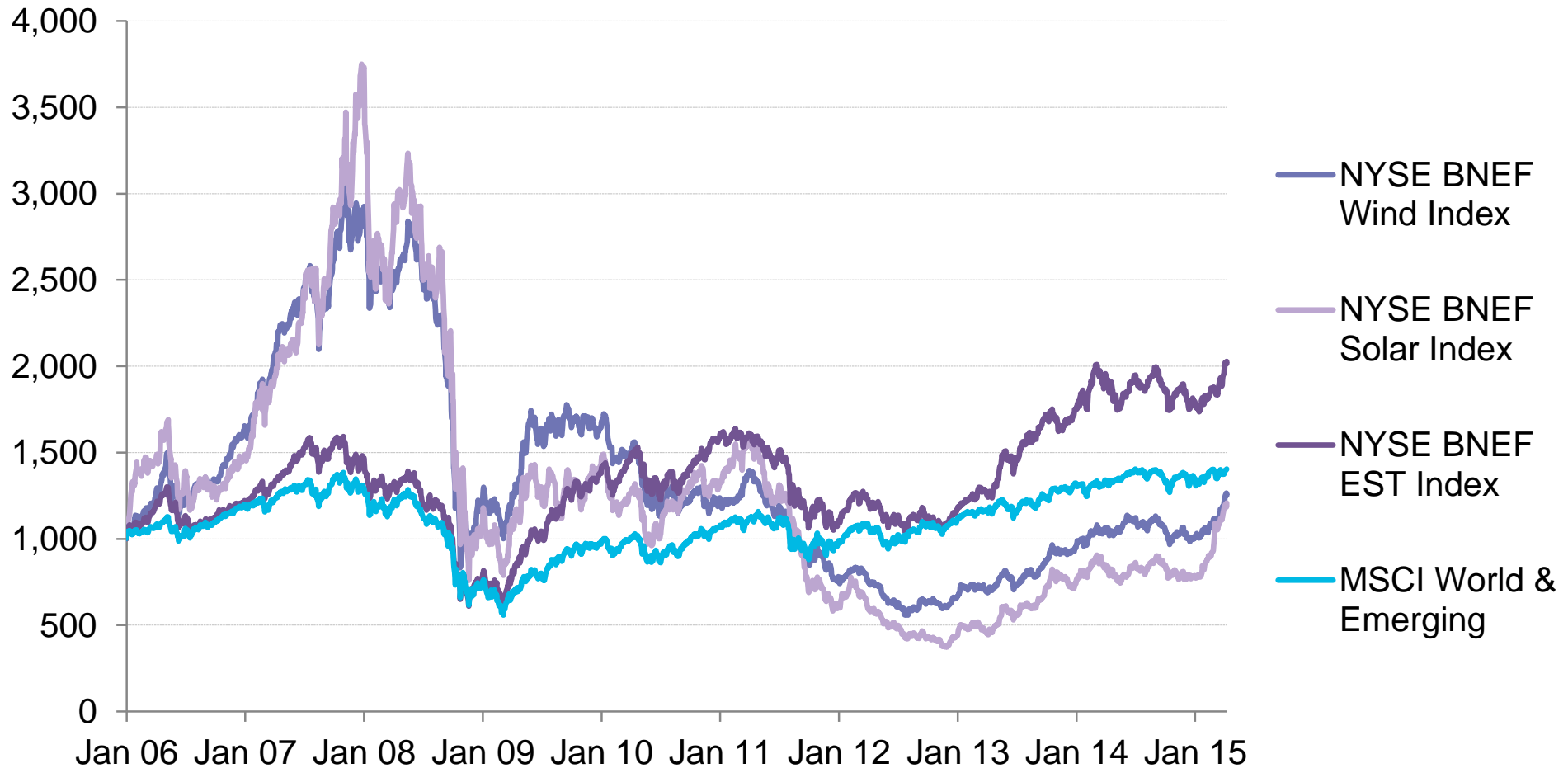


Note: Values as of 10 April 2015; NASDAQ and S&P 500 rebased to 1,000 on 30 December 2005

Source: Bloomberg New Energy Finance

NYSE GLOBAL CLEAN ENERGY SECTOR INDEXES

2006-15 YTD



Note: Values as of 10 April 2015; NASDAQ and S&P 500 rebased to 1,000 on 30 December 2005

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