

# GLOBAL TRENDS IN CLEAN ENERGY INVESTMENT

**WORLD CLEAN ENERGY INVESTMENT HEADS FOR SECOND  
SUCCESSIVE ANNUAL FALL**

**FACT PACK AS AT Q3 2013**

**14 JULY 2013**



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1. Quarterly trends in clean energy: new investment

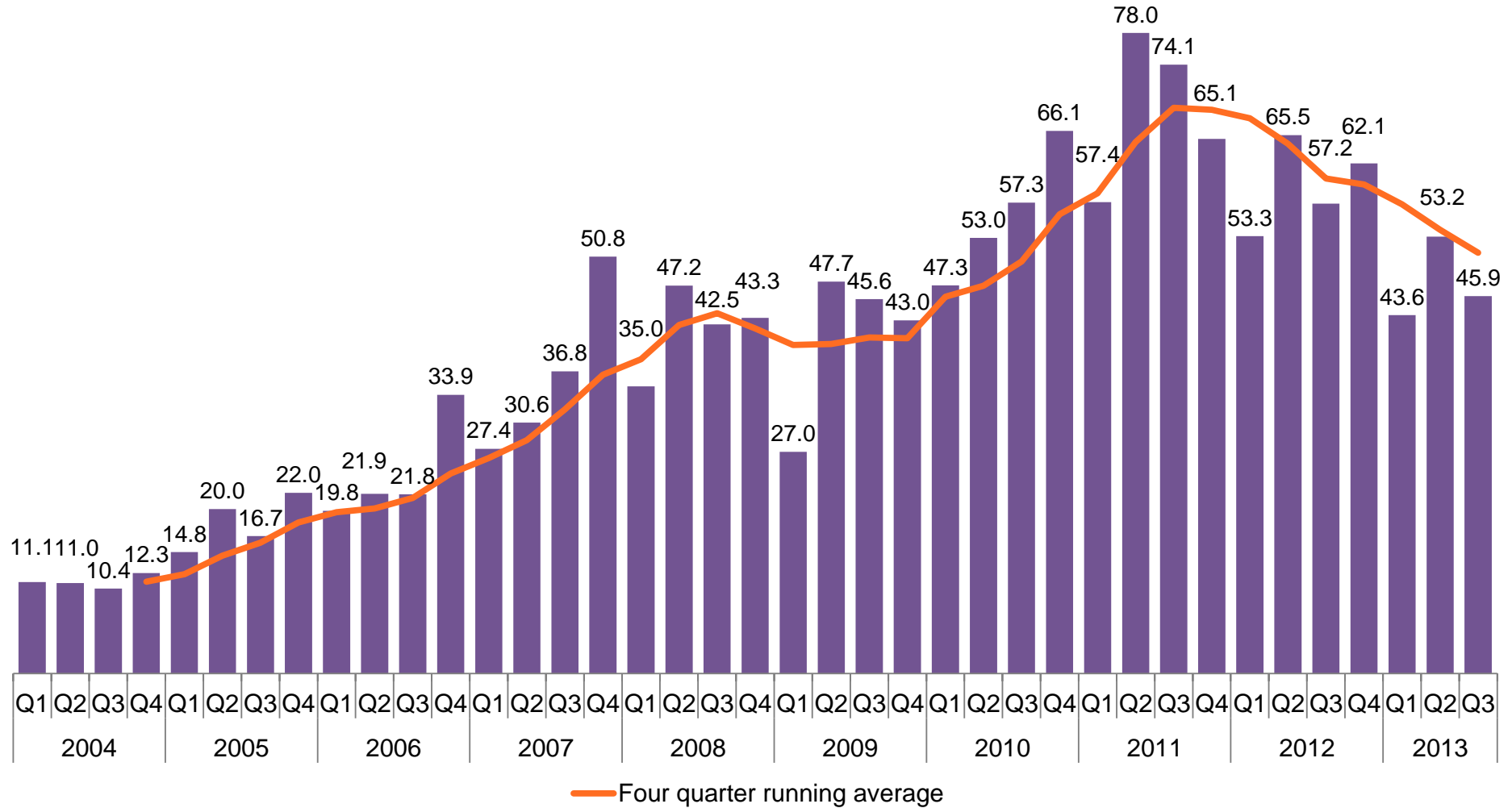
2. Quarterly trends in clean energy: funds in circulation

3. Clean energy indexes

4. Annual overview & cross-border investment ~ NEW

# NEW INVESTMENT IN CLEAN ENERGY

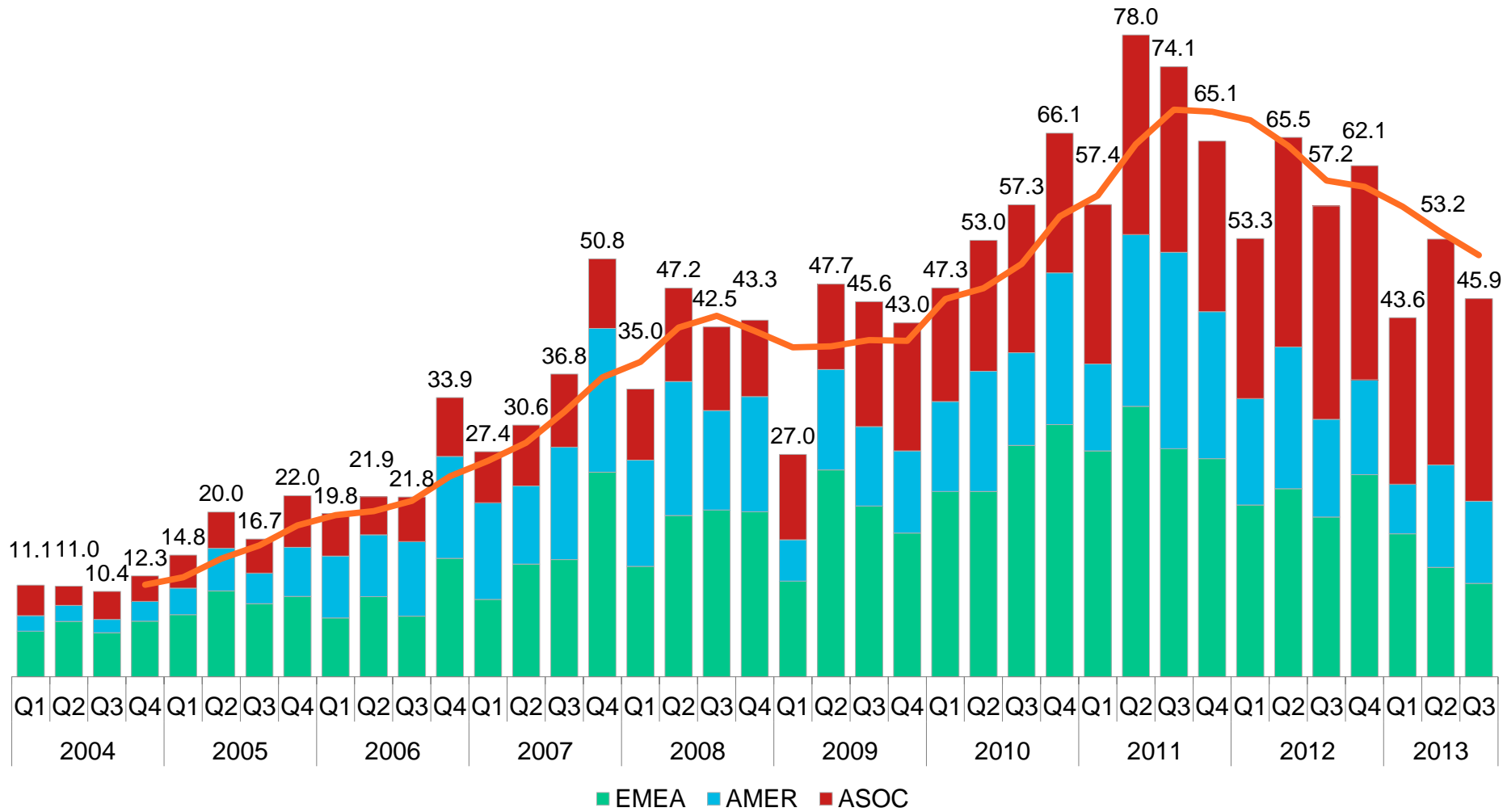
Q1 2004–Q3 2013 (\$BN)



Note: Total values include estimates for undisclosed deals. Excludes corporate R&D, government R&D, digital energy asset investment and energy storage asset investment (only available annually) Source: Bloomberg New Energy Finance

# NEW INVESTMENT IN CLEAN ENERGY BY REGION

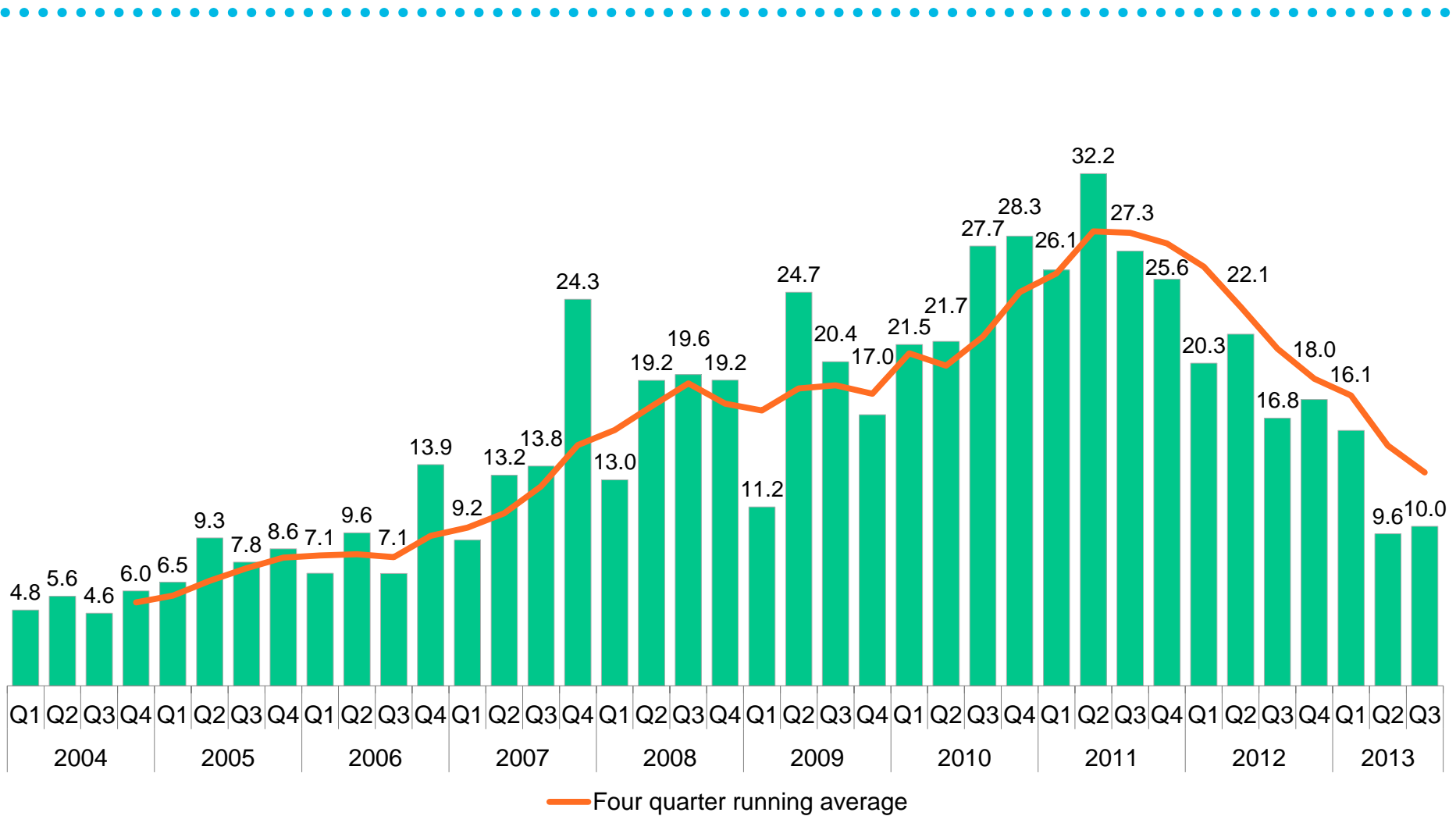
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# NEW INVESTMENT IN CLEAN ENERGY IN EUROPE

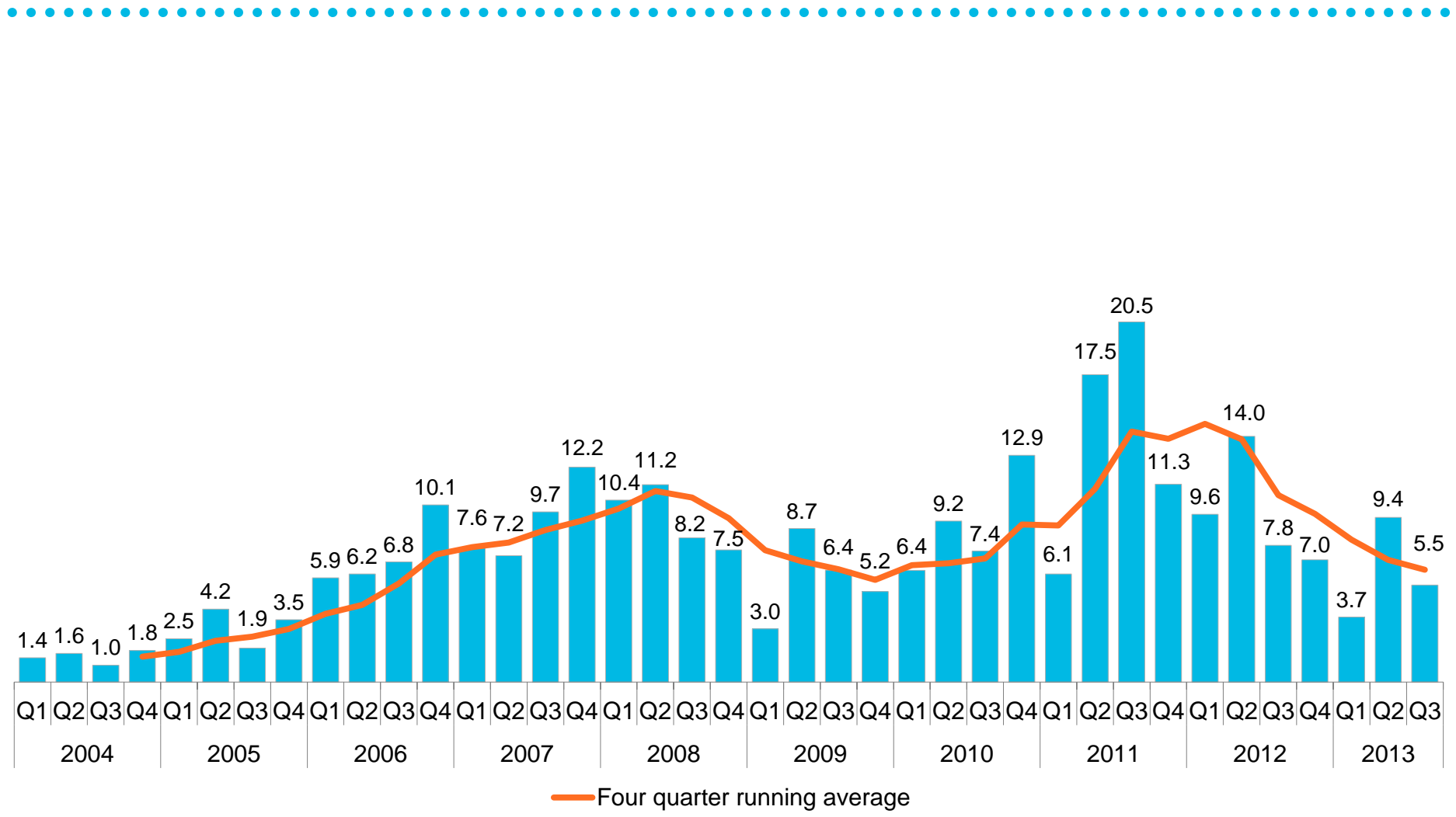
Q1 2004–Q3 2013 (\$BN)



Note: Total values include estimates for undisclosed deals. Excludes corporate R&D, government R&D, digital energy asset investment and energy storage asset investment (only available annually) Source: Bloomberg New Energy Finance

# NEW INVESTMENT IN CLEAN ENERGY IN THE US

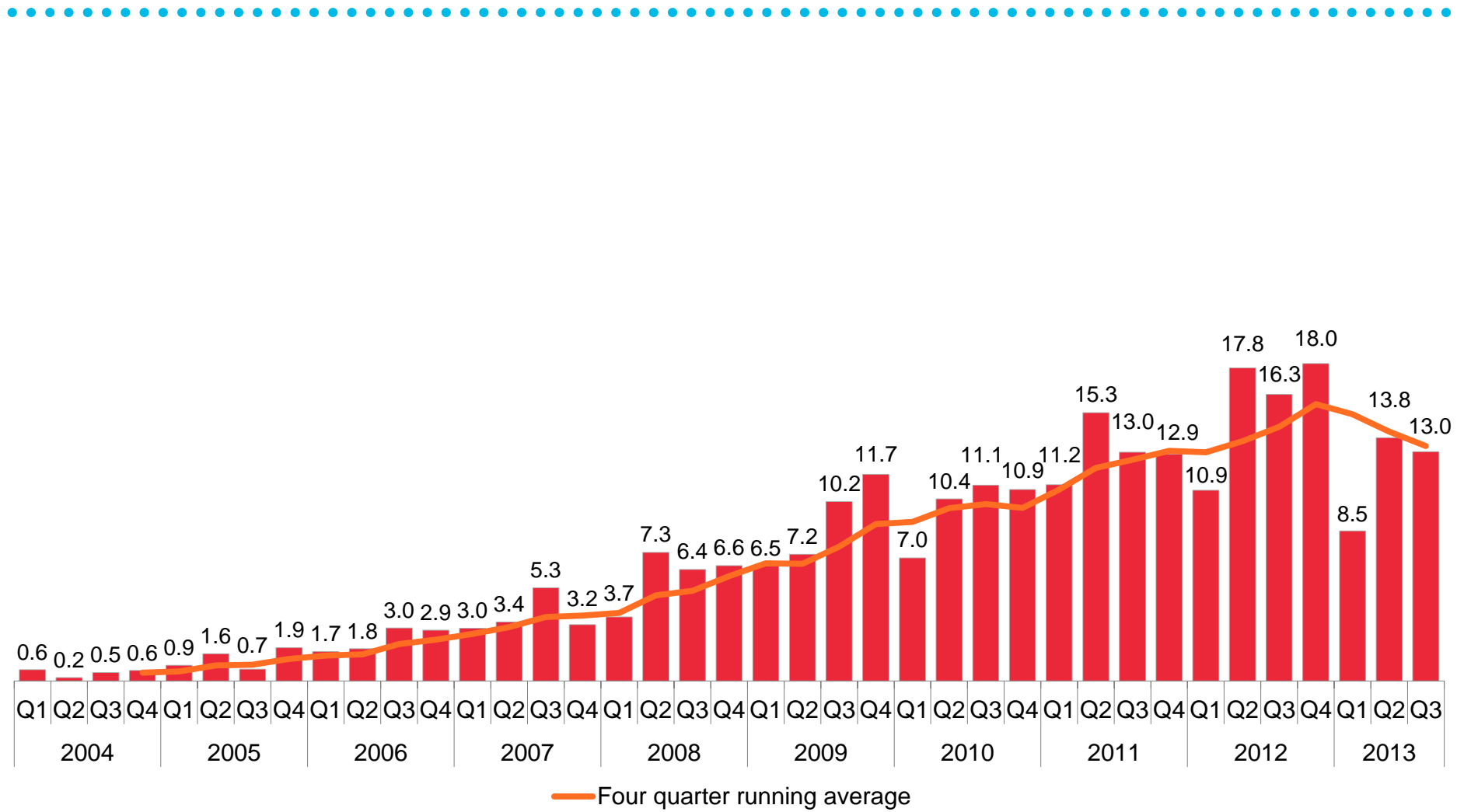
Q1 2004–Q3 2013 (\$BN)



Note: Total values include estimates for undisclosed deals. Excludes corporate R&D, government R&D, digital energy asset investment and energy storage asset investment (only available annually) Source: Bloomberg New Energy Finance

# NEW INVESTMENT IN CLEAN ENERGY IN CHINA

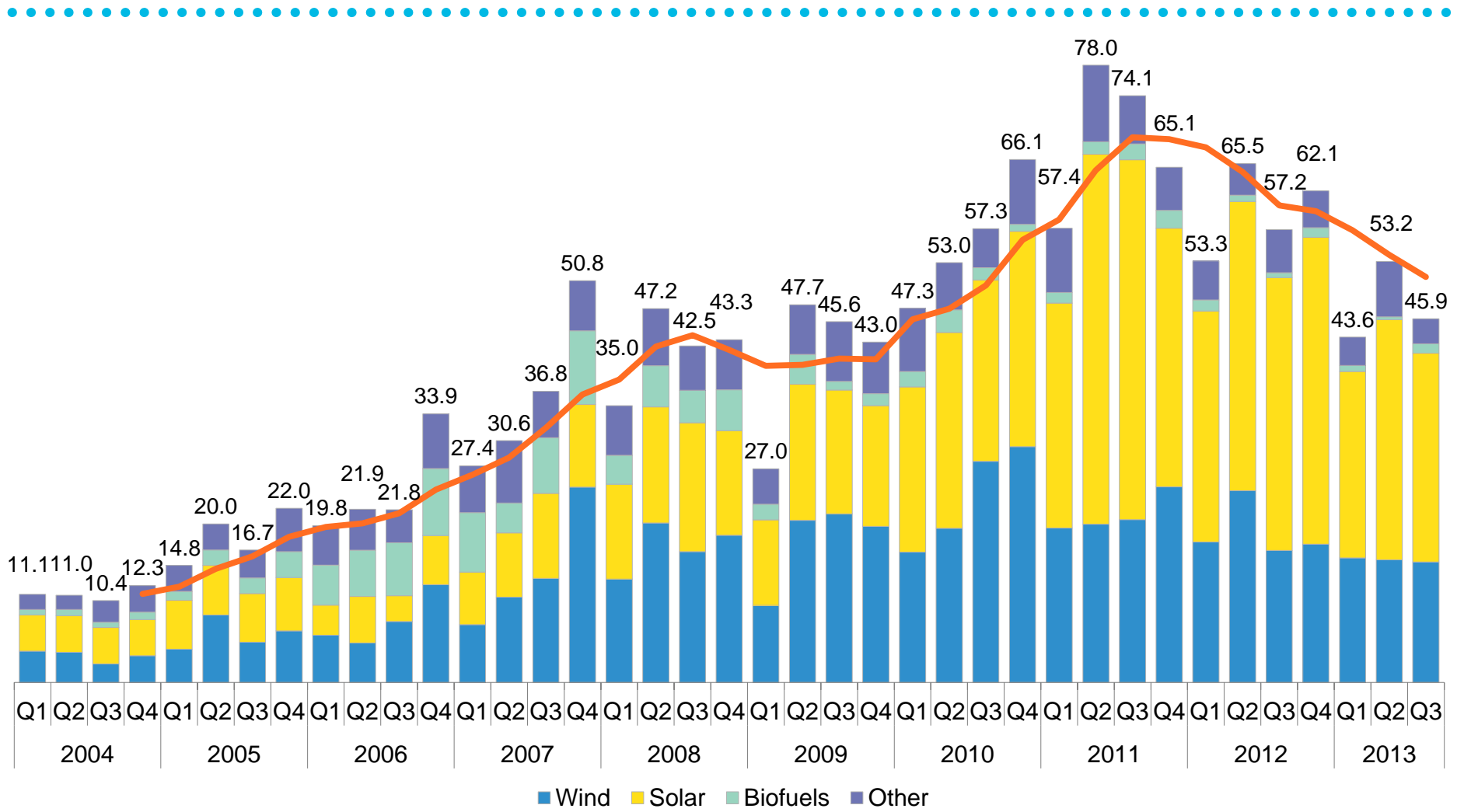
Q1 2004–Q3 2013 (\$BN)



Note: Total values include estimates for undisclosed deals. Excludes corporate R&D, government R&D, digital energy asset investment and energy storage asset investment (only available annually) Source: Bloomberg New Energy Finance

# NEW INVESTMENT IN CLEAN ENERGY BY SECTOR

Q1 2004–Q3 2013 (\$BN)

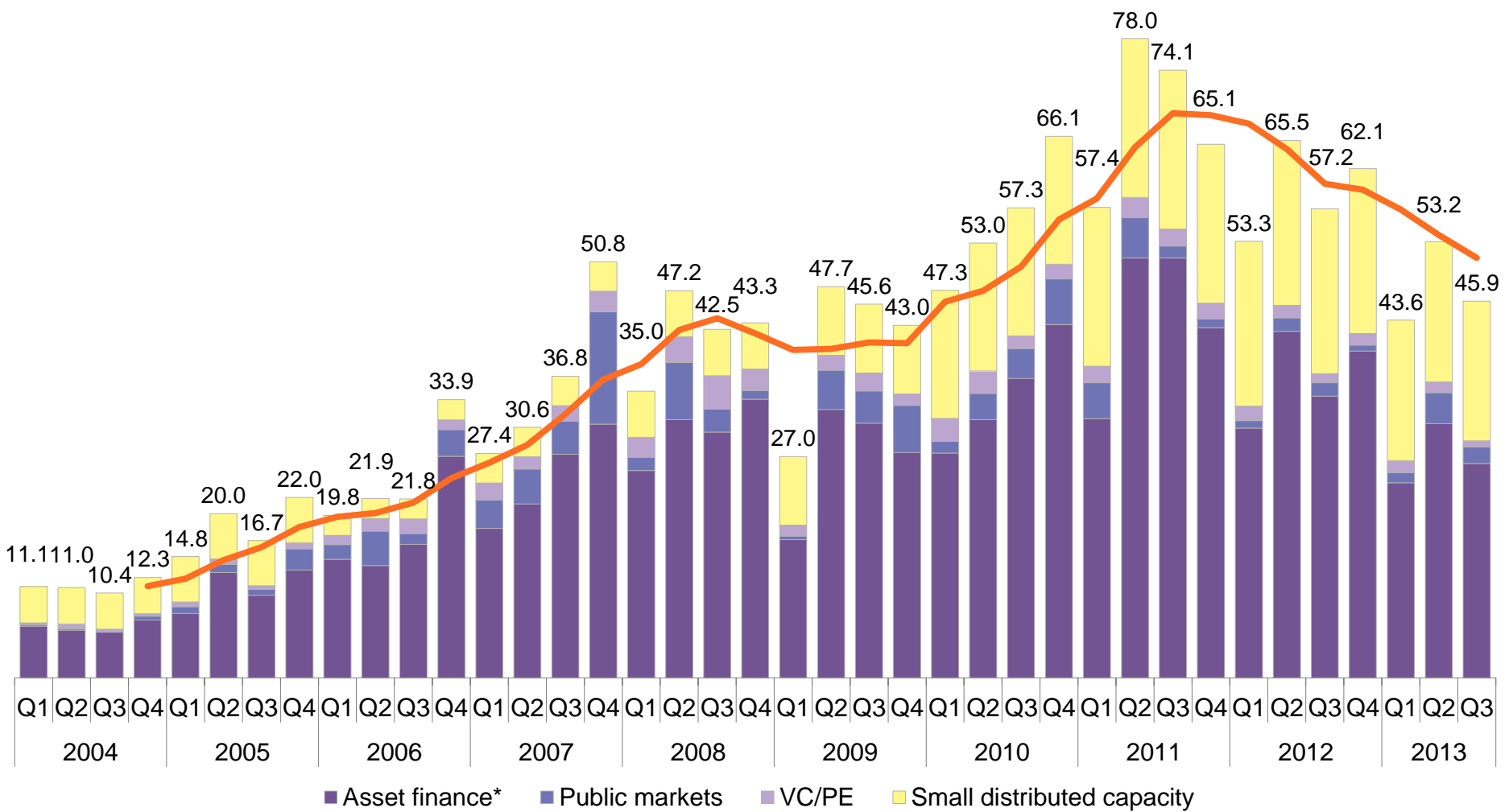


Note: Total values include estimates for undisclosed deals. Excludes corporate R&D, government R&D, digital energy asset investment and energy storage asset investment (only available annually) Source: Bloomberg New Energy Finance



# NEW INVESTMENT IN CLEAN ENERGY BY ASSET CLASS

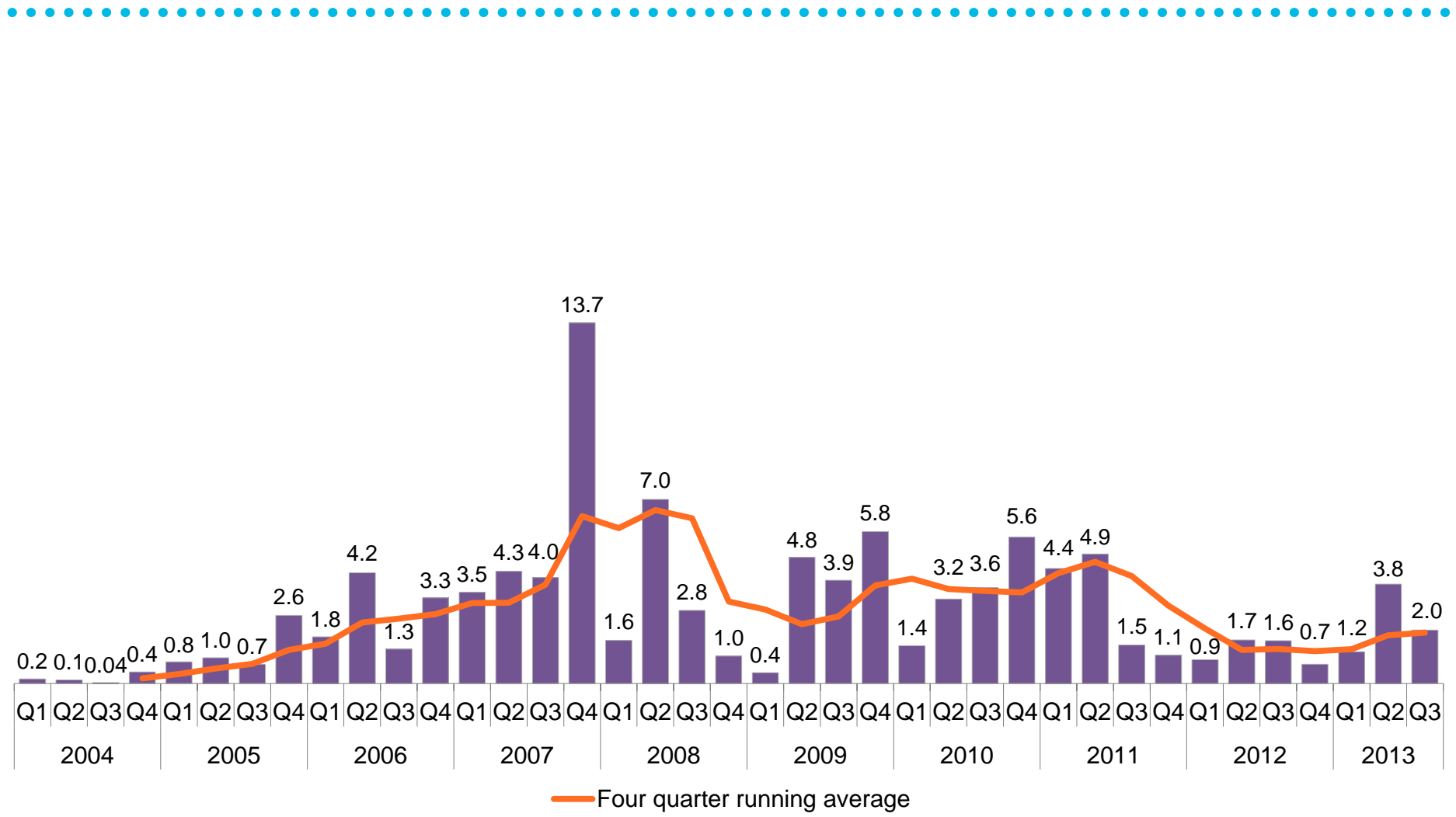
Q1 2004–Q3 2013 (\$BN)



Note: Total values include estimates for undisclosed deals. Excludes corporate R&D, government R&D, digital energy asset investment and energy storage asset investment (only available annually) Source: Bloomberg New Energy Finance

# PUBLIC MARKET NEW INVESTMENT IN CLEAN ENERGY

Q1 2004–Q3 2013 (\$BN)



Source: Bloomberg New Energy Finance

# TOP PUBLIC MARKET TRANSACTIONS OF THE QUARTER

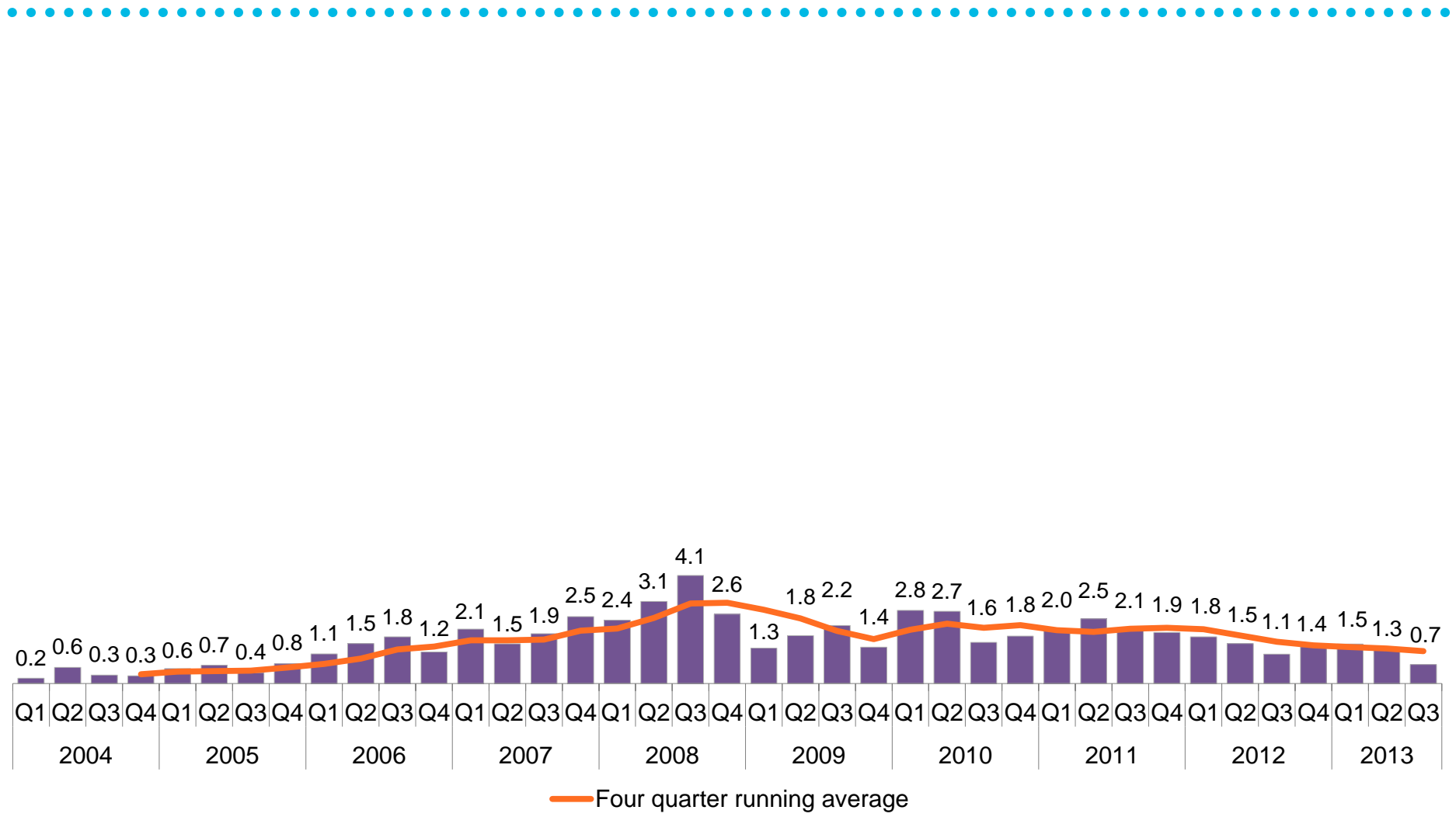
Q3 2013

ORGANISATION	STOCK EXCHANGE	SECTOR	TYPE OF TRANSACTION	NEW EQUITY RAISED	TOTAL OFFERING SIZE
Renewables Infrastructure Group	London Stock Exchange	Wind	IPO	\$461.5m	\$461.5m
Pattern Energy Group	NASDAQ Global Select Market (GS)	Wind	IPO	\$352m	\$352m
SunEdison	New York Stock Exchange (NYSE)	Solar	Secondary	\$250.1m	\$250.1m
TransAlta Renewables	Toronto Stock Exchange (TSX)	Wind	IPO	\$214m	\$214m
CPFL Energias Renovaveis	São Paulo (BOVESPA)	Wind	IPO	\$163.7m	\$410.6m

Source: Bloomberg New Energy Finance

# VC/PE NEW INVESTMENT IN CLEAN ENERGY

Q1 2004–Q3 2013 (\$BN)



Note: Total values include estimates for undisclosed deals

Source: Bloomberg New Energy Finance

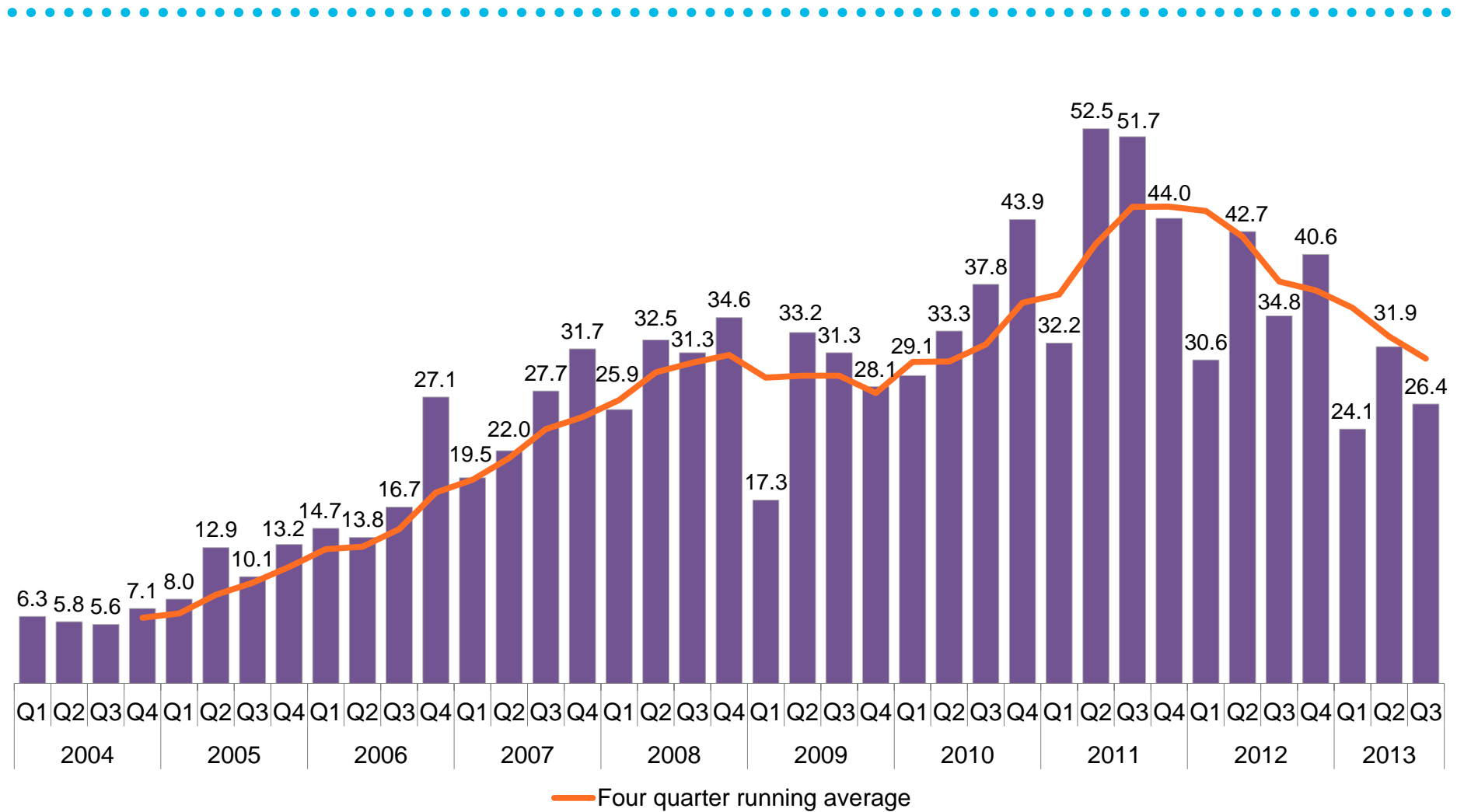
# TOP VC/PE TRANSACTIONS OF THE QUARTER

Q3 2013

ORGANISATION	COUNTRY	SECTOR	TYPE OF TRANSACTION	VALUE
Joule Unlimited	United States	Biofuels	VC - Series D / Fourth round	\$50m
eSolar	United States	Solar	PE - Expansion capital	\$22m
Fluidic	United States	Energy Storage	VC - Series D / Fourth round	\$20.8m
Gradient Resources	United States	Geothermal	PE - Expansion capital	\$20.5m
Urban Green Energy	United States	Advanced Transportation	PE - Expansion capital	\$20m
Space-Time Insight	United States	Digital Energy	VC - Series C / Third round	\$20m

Source: Bloomberg New Energy Finance

# ASSET FINANCING FOR NEW BUILD RENEWABLE ENERGY ASSETS, Q1 2004–Q3 2013 (\$BN)



Note: Total values include estimates for undisclosed deals. Excludes digital energy asset investment and energy storage asset investment (only available annually)

Source: Bloomberg New Energy Finance

# TOP ASSET FINANCE TRANSACTIONS OF THE QUARTER

Q3 2013

PROJECT NAME	COUNTRY	SECTOR	TYPE OF TRANSACTION	CAPACITY	VALUE
AGL Nyngan & Broken Hill PV Portfolio	Australia	Solar - PV	Balance Sheet	182.4MW	\$406.4m
Shenzhen Jinfan Energy Technology Akesai Aletangxiang STEG Plant	China	Solar - Thermal	Balance Sheet	50MW	\$313.9m
China Huadian Corp Bayinaobao Damao Bayin 1 Wind Farm Batch 1	China	Wind - Onshore	Balance Sheet	201MW	\$277.73m
Gouda Wind Farm	South Africa	Wind - Onshore	Term loan	135MW	\$267.4m
NLUPC Pagudpud Wind Portfolio	Philippines	Wind - Onshore	Term loan	81MW	\$265m

Source: Bloomberg New Energy Finance

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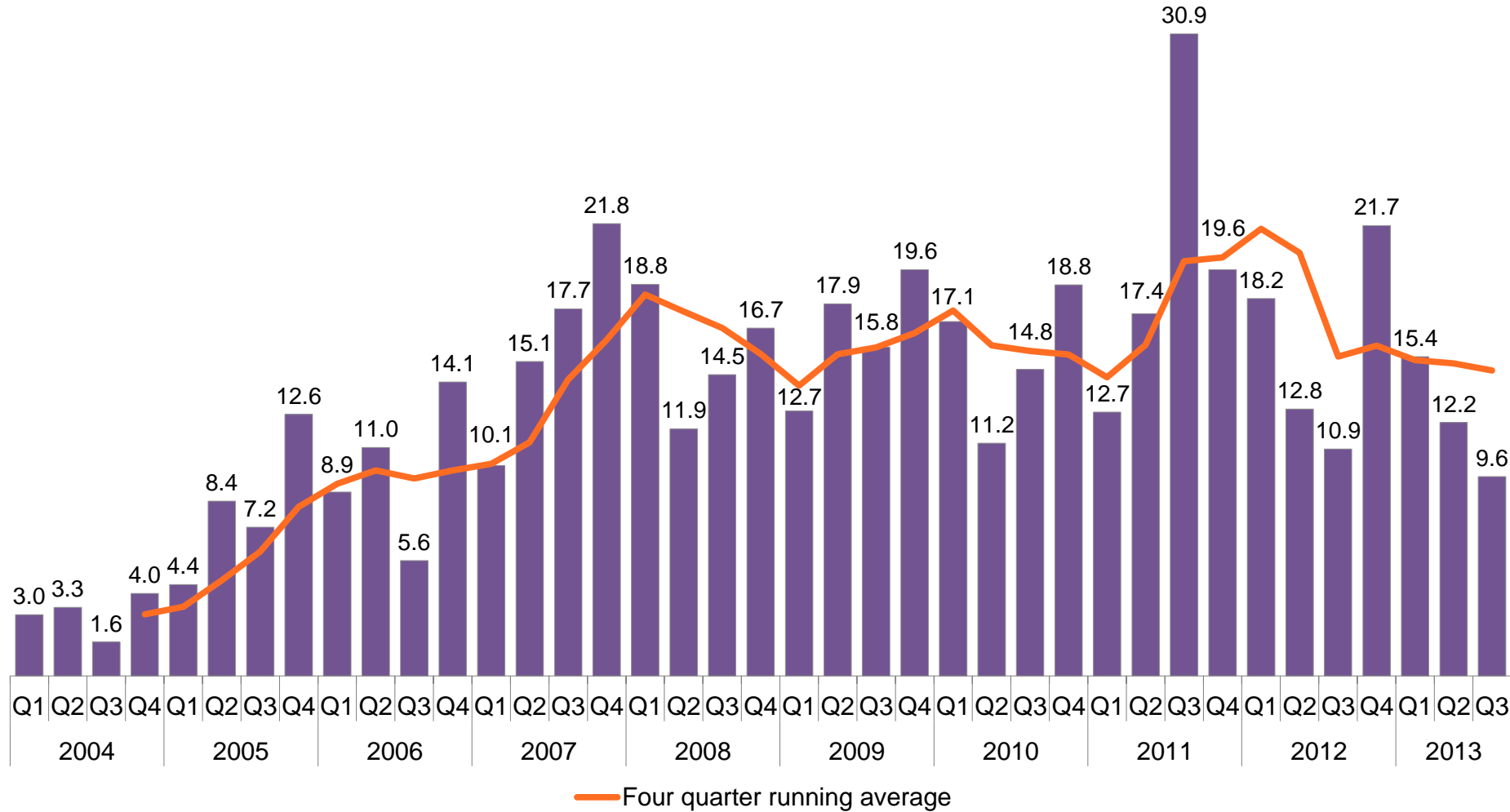
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# FUNDS IN CIRCULATION IN CLEAN ENERGY

Q1 2004–Q3 2013 (\$BN)

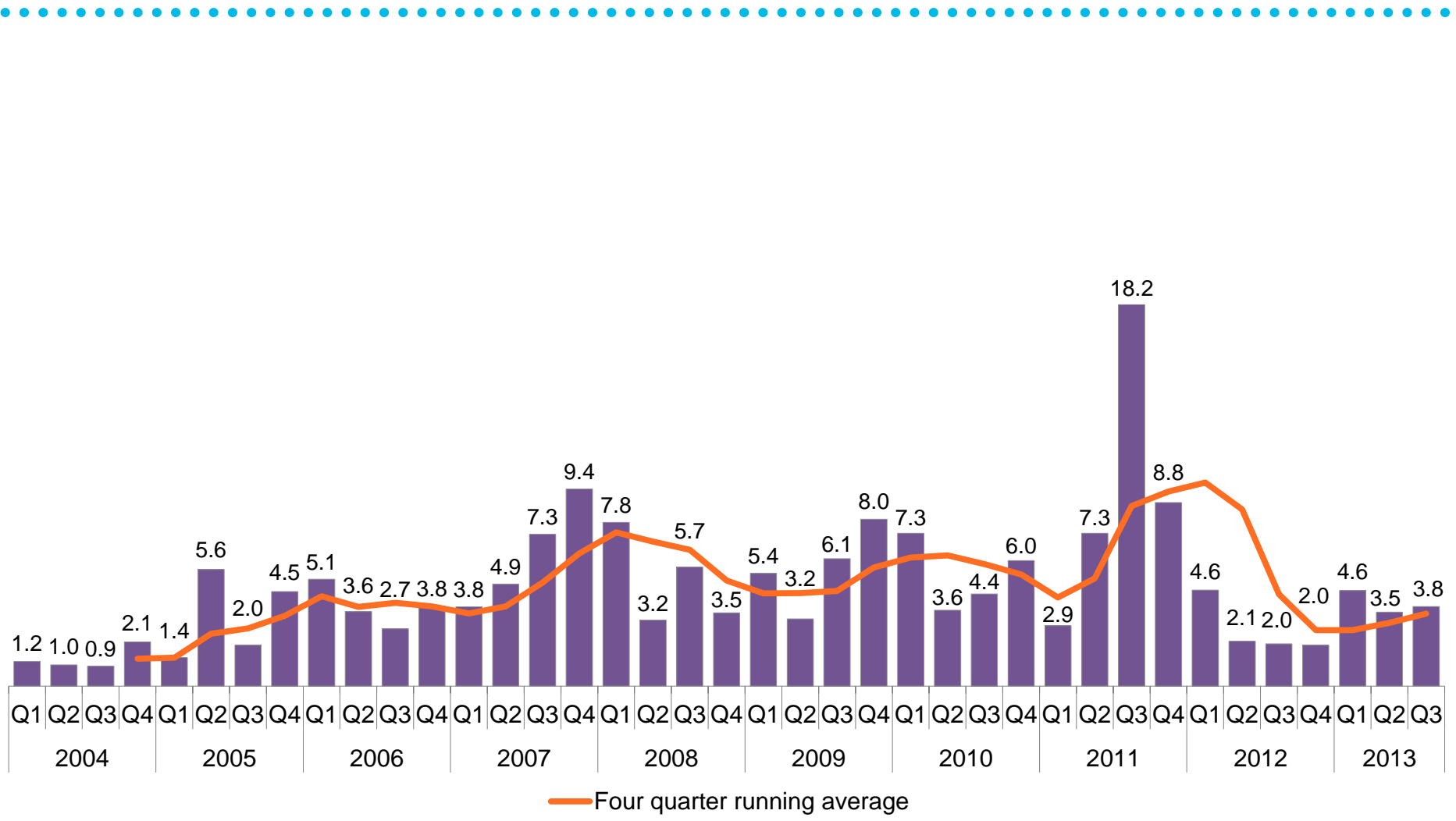


Note: This includes asset acquisitions & refinancing, corporate M&A, public market investor exits and private equity buy-outs. Total values include estimates for undisclosed deals

Source: Bloomberg New Energy Finance

# CORPORATE M&A TRANSACTIONS IN CLEAN ENERGY

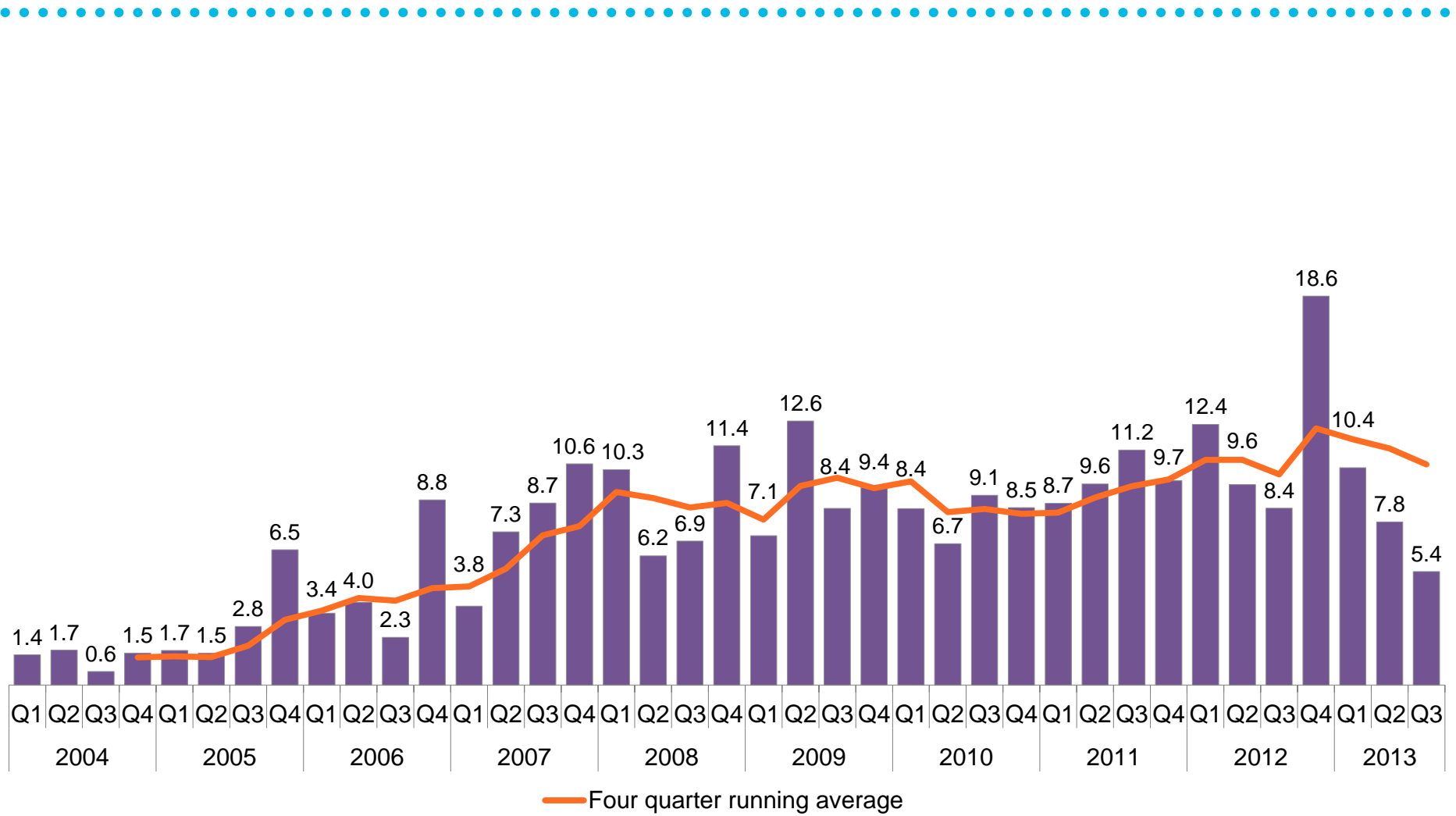
Q1 2004–Q3 2013 (\$BN)



Note: Total values include estimates for undisclosed deals

Source: Bloomberg New Energy Finance

# RENEWABLE ENERGY ASSET ACQUISITIONS & REFINANCING, Q1 2004–Q3 2013 (\$BN)



Note: Total values include estimates for undisclosed deals

Source: Bloomberg New Energy Finance

# TOP TRANSACTIONS FOR FUNDS IN CIRCULATION

Q3 2013

ORGANISATION	COUNTRY	SECTOR	TYPE OF TRANSACTION	ACQUIRER	VALUE
Power-One Inc	United States	Solar - PV	Corporate M&A	ABB Ltd	\$748.5m
London Array Offshore Wind Farm Phase I Transmission Facility	United Kingdom	Wind - transmission	Asset acquisition	Blue Transmission London Array	\$722m
Eoliatec del Pacifico Santo Domingo Wind Farm Refinancing	Mexico	Wind - onshore	Asset refinancing	-	\$287.24m
CPFL Energias Renovaveis SA	Brazil	Wind - onshore	IPO investor exit	-	\$246.9m
Viento II Wind Portfolio Refinancing II	United States	Wind - onshore	Asset refinancing	-	\$236.6m

Source: Bloomberg New Energy Finance

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# NEX CLEAN ENERGY INDEX

2003–13 YTD

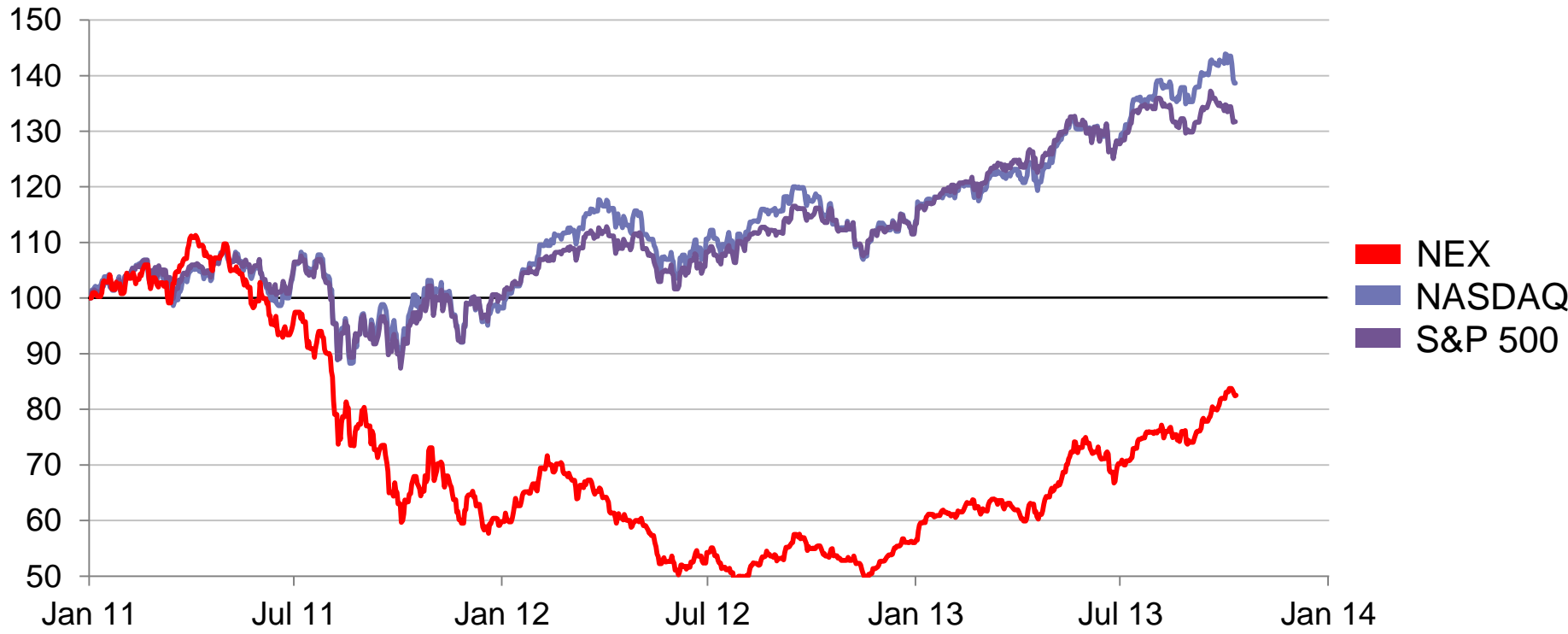


Note: Values as of 10 October 2013; NASDAQ and S&P 500 rebased to 100 on 1 January 2003

Source: Bloomberg New Energy Finance

# NEX CLEAN ENERGY INDEX

2011-13 YTD

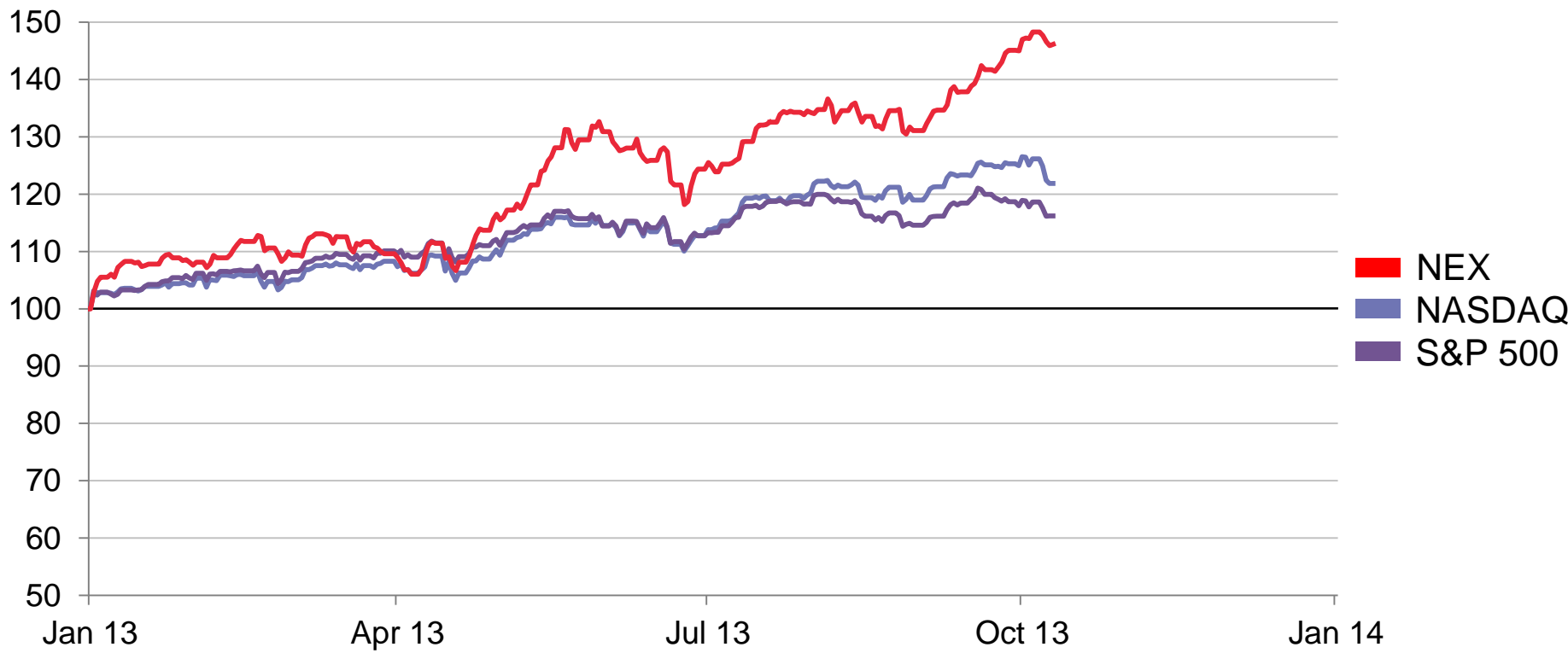


Note: Values as of 10 October 2013; NASDAQ and S&P 500 rebased to 100 on 1 January 2011.

Source: Bloomberg New Energy Finance

# NEX CLEAN ENERGY INDEX

2013 YTD



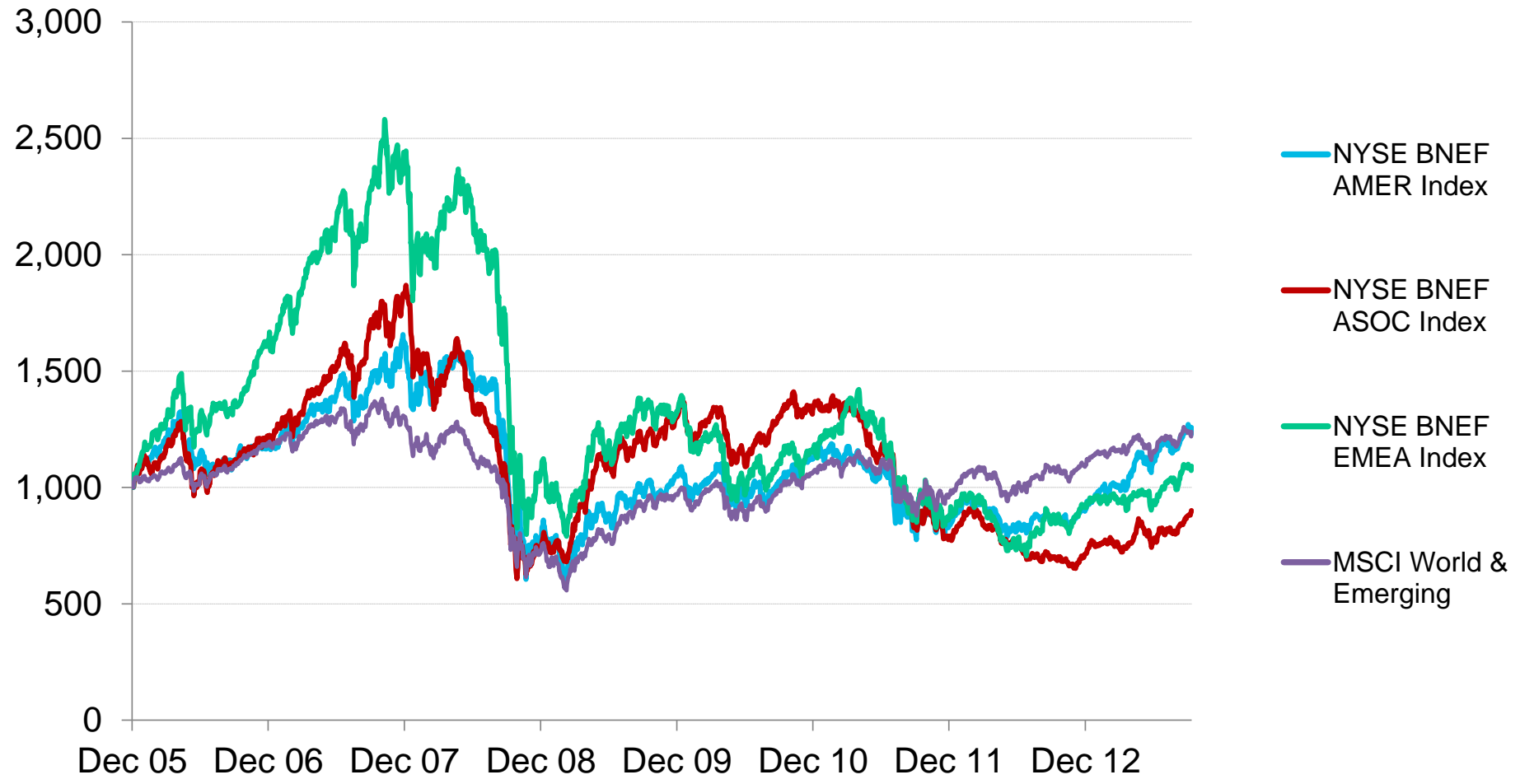
Note: Values as of 10 October 2013; NASDAQ and S&P 500 rebased to 100 on 1 January 2012.

Source: Bloomberg New Energy Finance



# NYSE BNEF REGIONAL CLEAN ENERGY INDEXES

2006–13 YTD

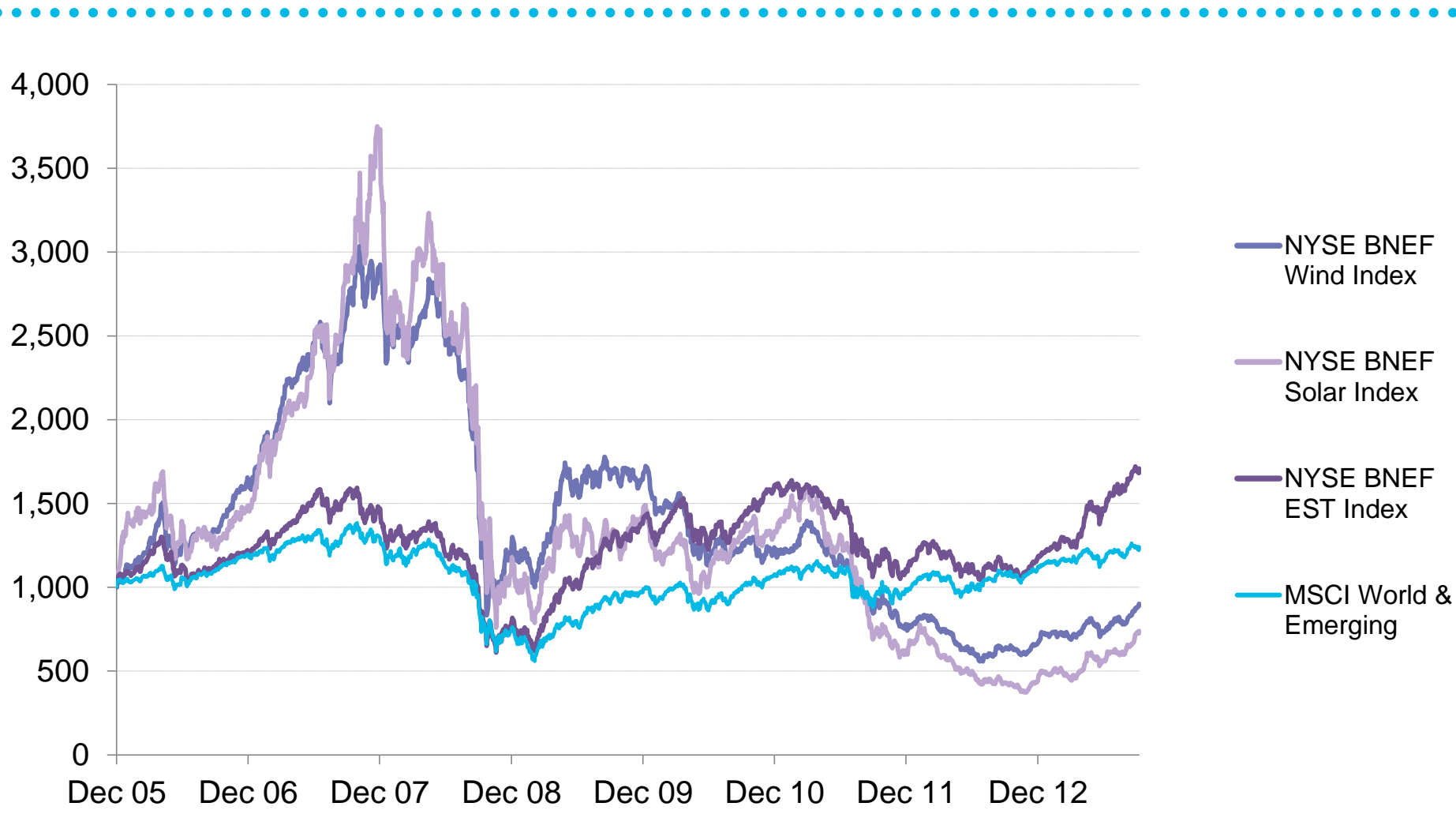


Note: Values as of 10 October 2013; rebased to 1000 on 30 December 2005

Source: NYSE; Bloomberg New Energy Finance

# NYSE GLOBAL CLEAN ENERGY SECTOR INDEXES

2006–13 YTD



Note: Values as of 10 October 2013; rebased to 1000 on 30 Dec 2005

Source: NYSE; Bloomberg New Energy Finance

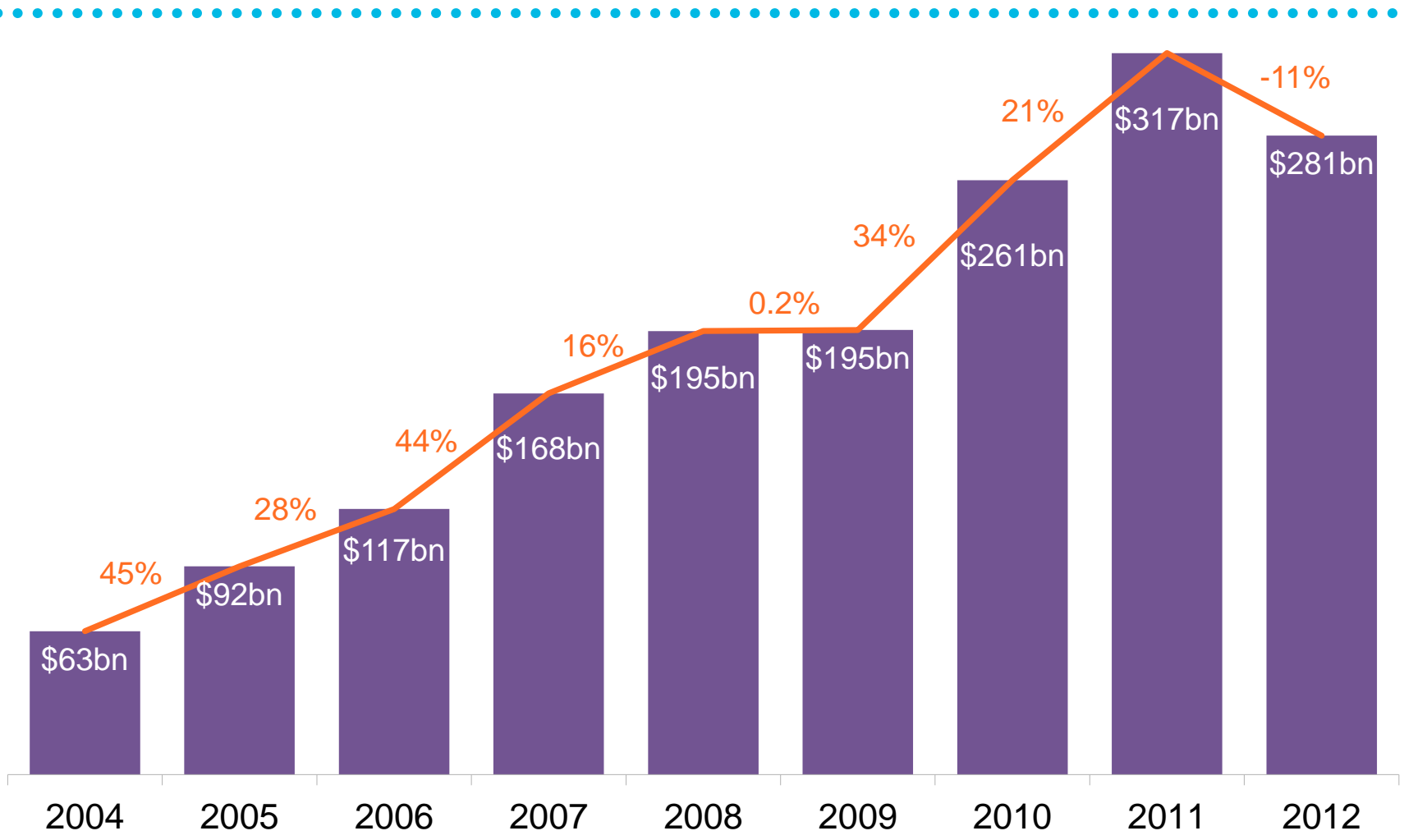
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# NEW INVESTMENT IN CLEAN ENERGY

2004–12 (\$BN)

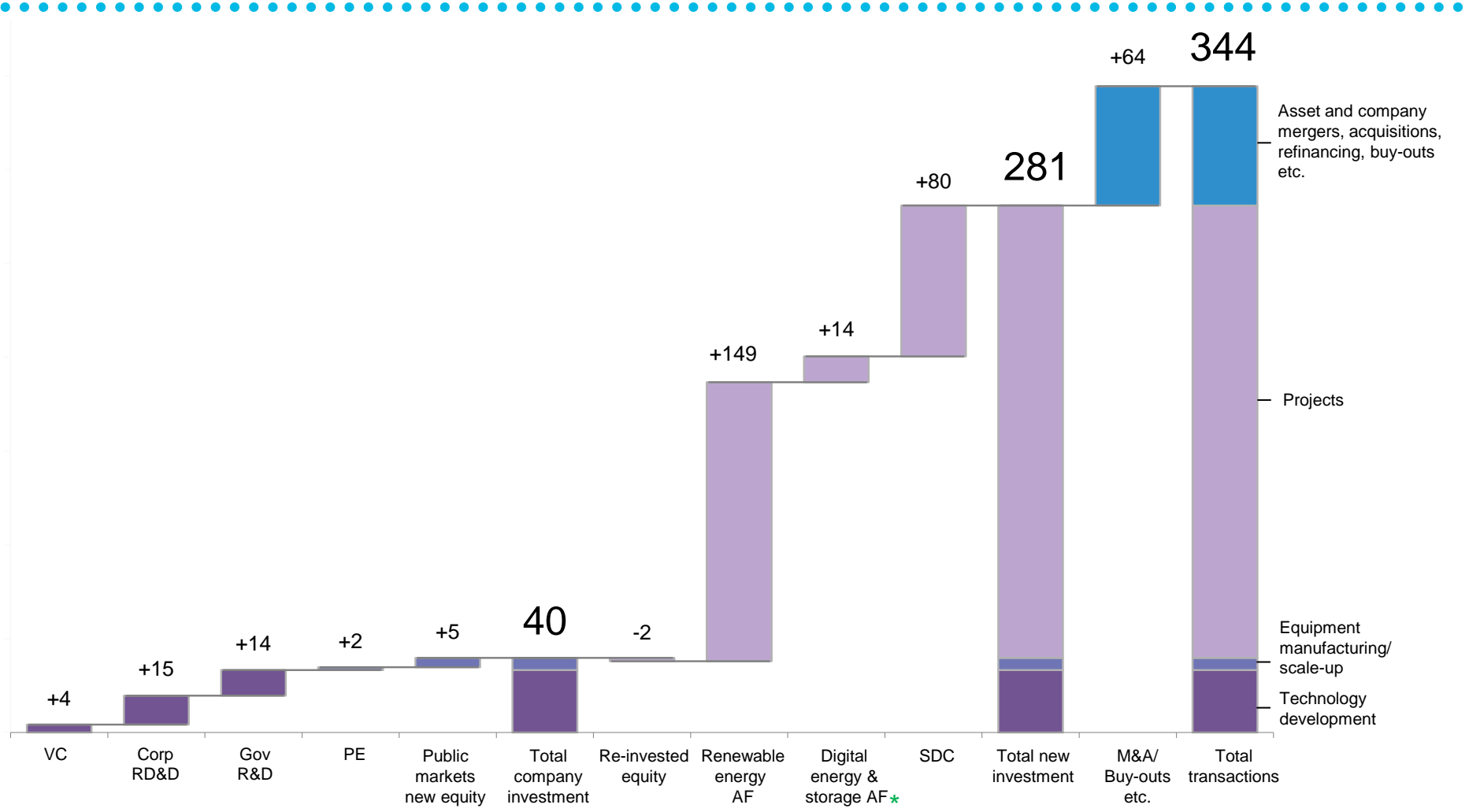


Note: Total values include estimates for undisclosed deals. Includes corporate and government R&D. Includes digital energy & energy storage asset investment. **NEW**

Source: Bloomberg New Energy Finance

# CLEAN ENERGY INVESTMENT TYPES & FLOWS

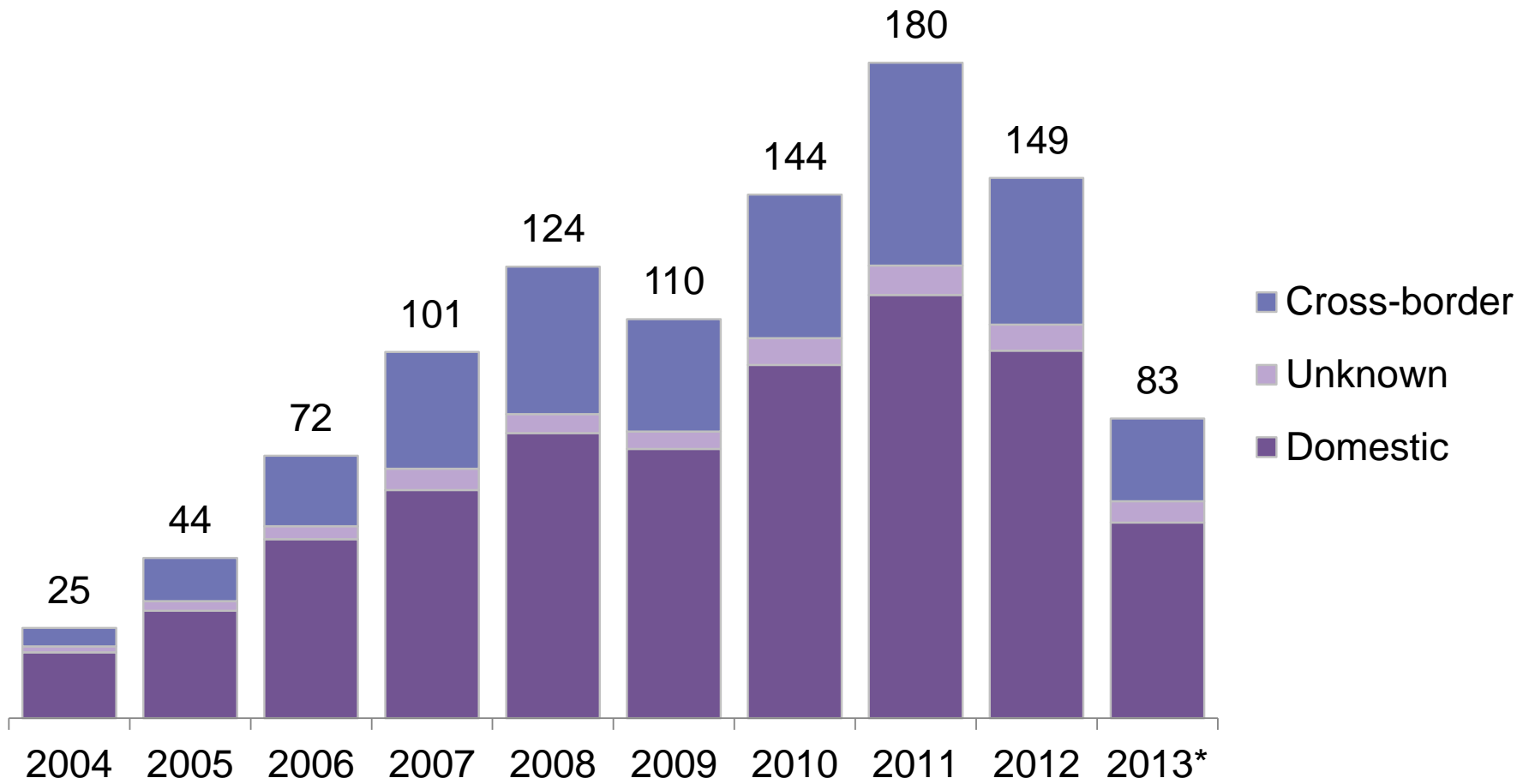
2012 (\$BN)



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

Source: Bloomberg New Energy Finance

# RENEWABLE ENERGY ASSET FINANCE INVESTMENT BY SOURCE, 2004–Q3 2013 (\$BN)

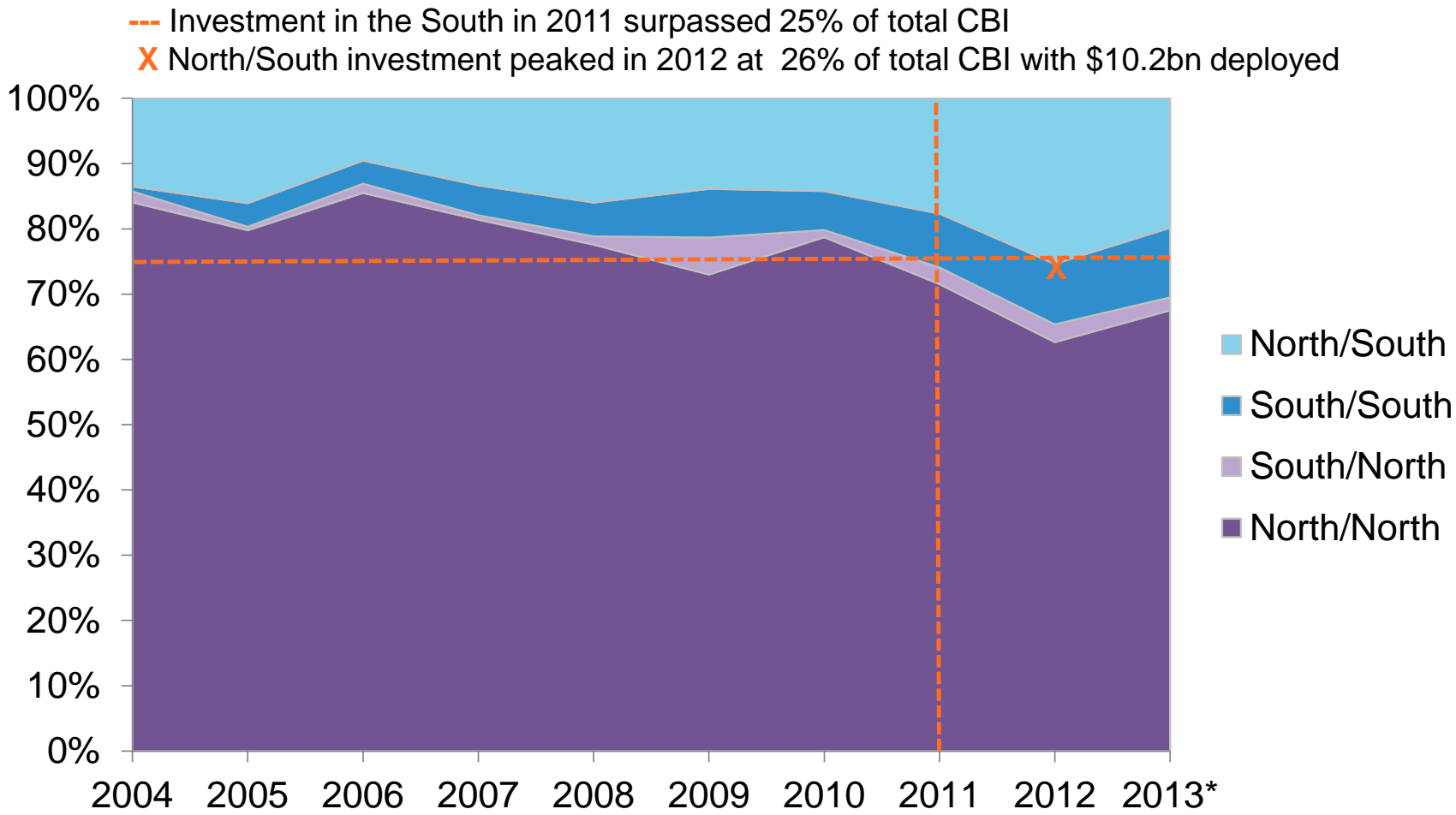


Note: Total values include estimates for undisclosed deals. Volumes show new build asset finance for renewable energy projects only. \* 2013 is through to Q3 only.

Source: Bloomberg New Energy Finance

# CROSS-BORDER RENEWABLE ENERGY ASSET FINANCE

## INVESTMENT BY FLOW, 2004–Q3 2013 (\$BN)



Note: 'North' is defined as OECD member countries, 'South' is defined as the rest of the world.  
 \* 2013 is through to Q3 only.

Source: Bloomberg New Energy Finance

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# GLOBAL TRENDS IN CLEAN ENERGY INVESTMENT

## MARKETS

Renewable Energy

Carbon Markets

Energy Smart Technologies

Renewable Energy Certificates

Carbon Capture & Storage

Power

Water

Nuclear

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