World Petroleum Council
UK National Committee

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Financing challenges for a transforming energy industry
5 June 2019





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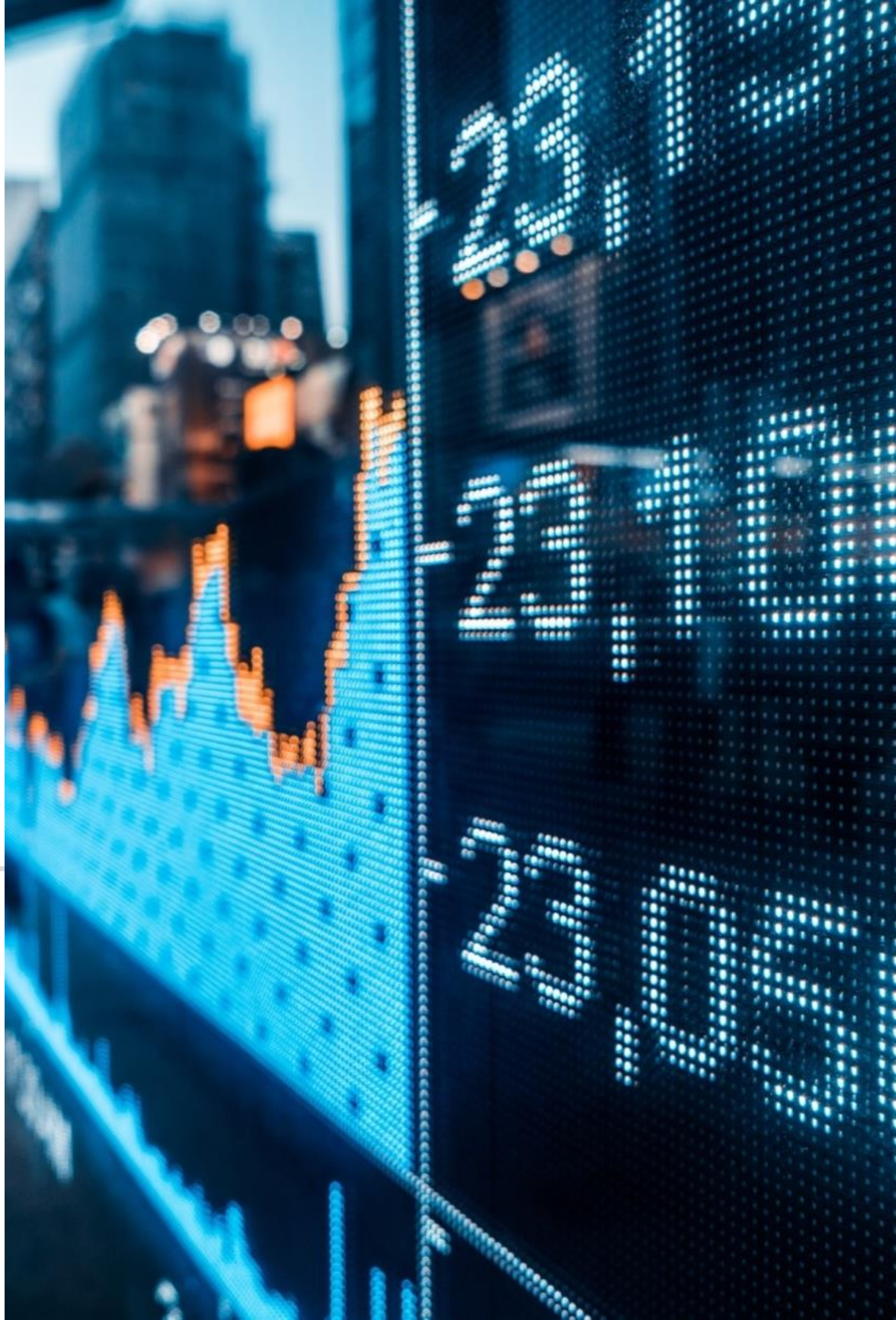
World Energy Investment 2019

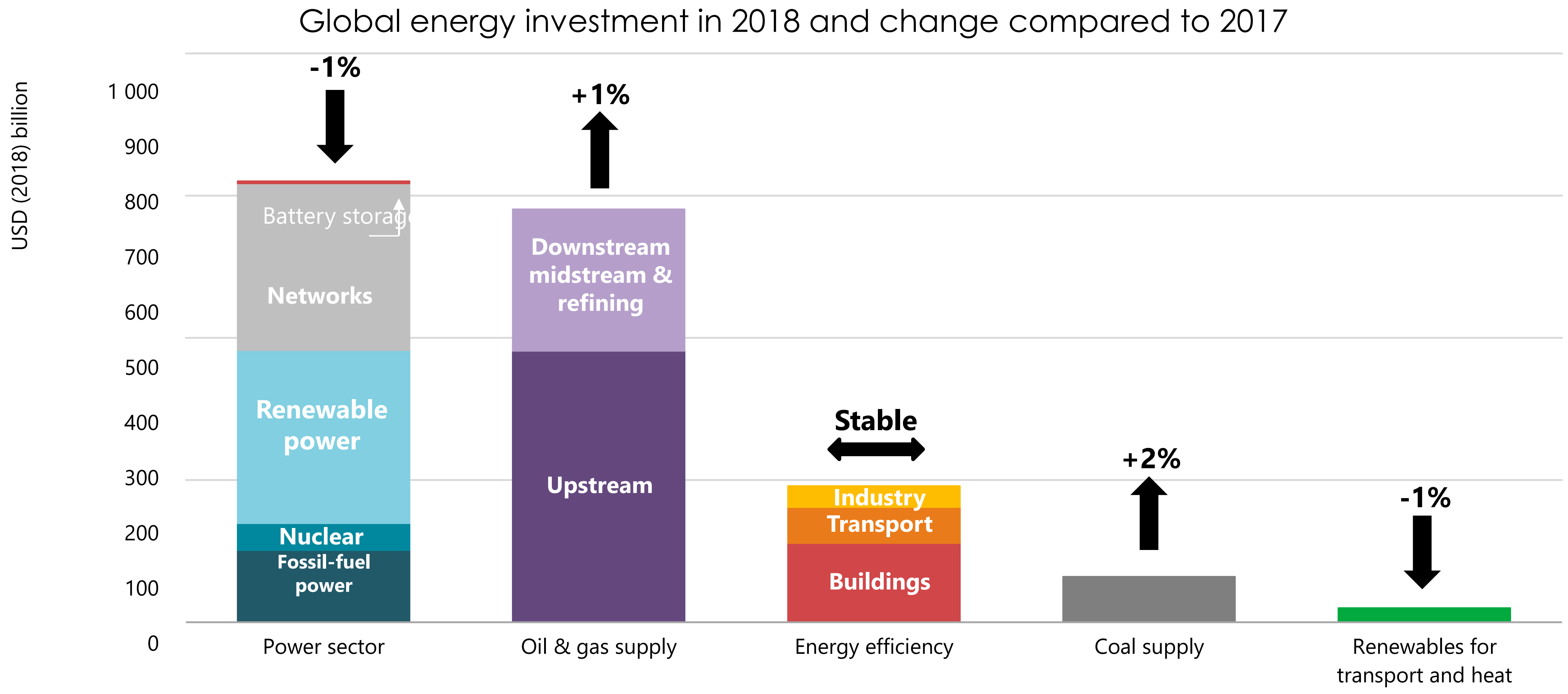
Alessandro Blasi,

Special Advisor to Executive Director, London 5 June

IEA



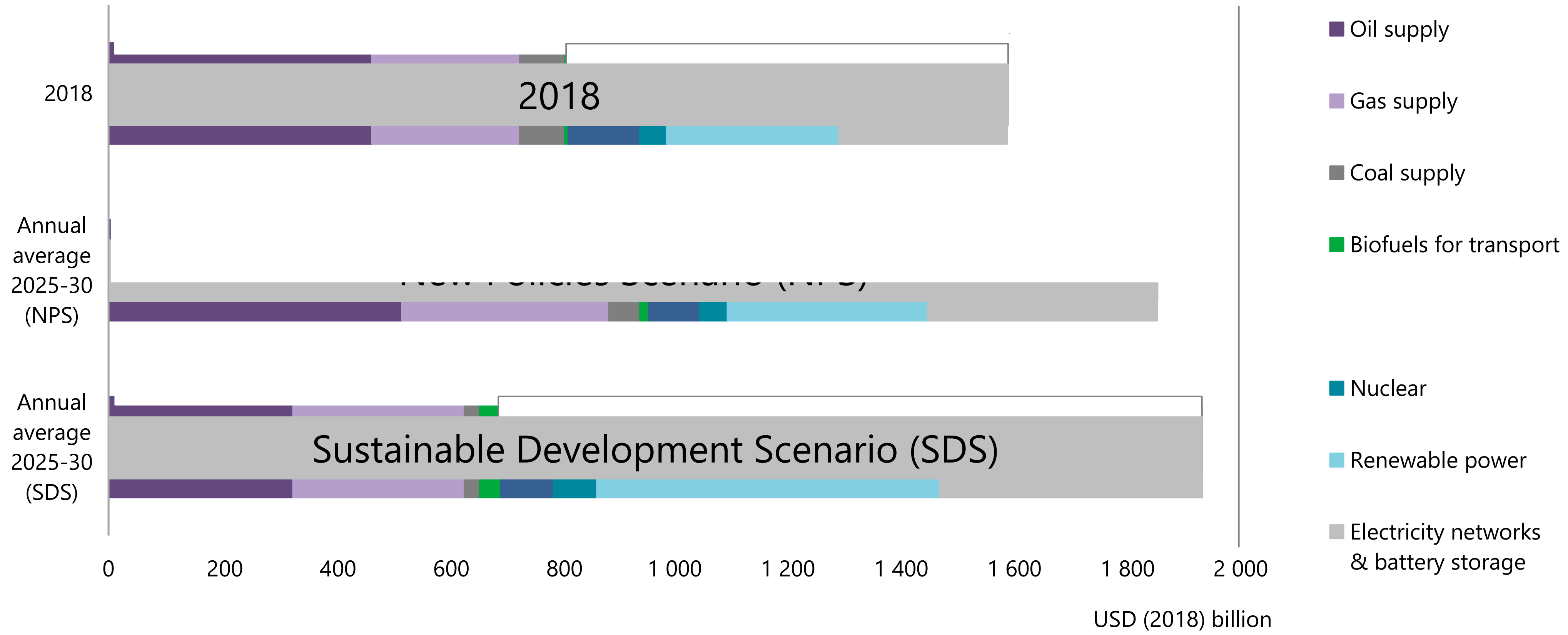
Global energy investment stabilised in 2018 after 3 years of decline



Energy investment remained at USD 1.85 trillion in 2018. A rise in fossil fuel supply investment offset lower power and stable efficiency spend. Despite the shift, power was the largest sector for the third year in a row.

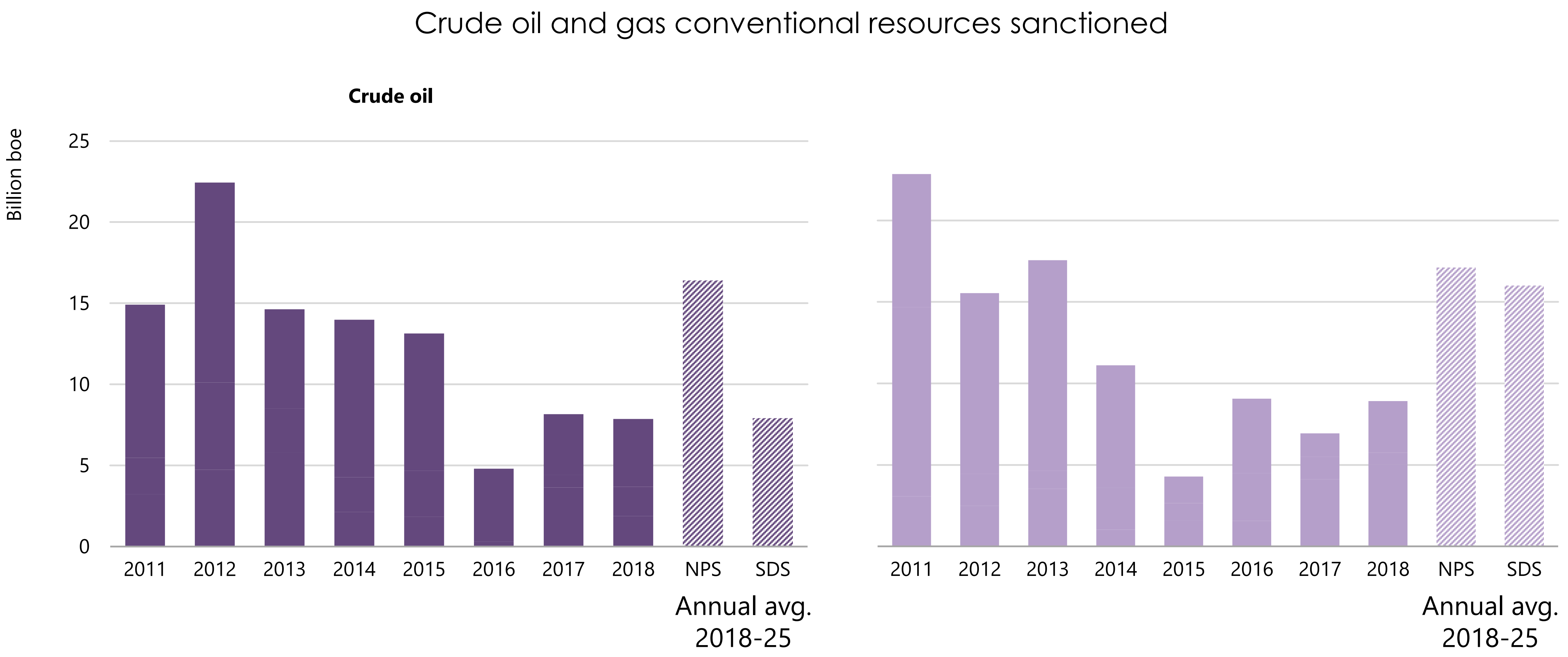
Energy supply investment needs to rise, whatever the scenario

Global energy supply investment compared with annual average investment needs 2025-30 by IEA scenario



Today's capital allocation would need to shift rapidly towards cleaner sources and electricity networks in order to align with the Sustainable Development Scenario and the Paris Agreement.

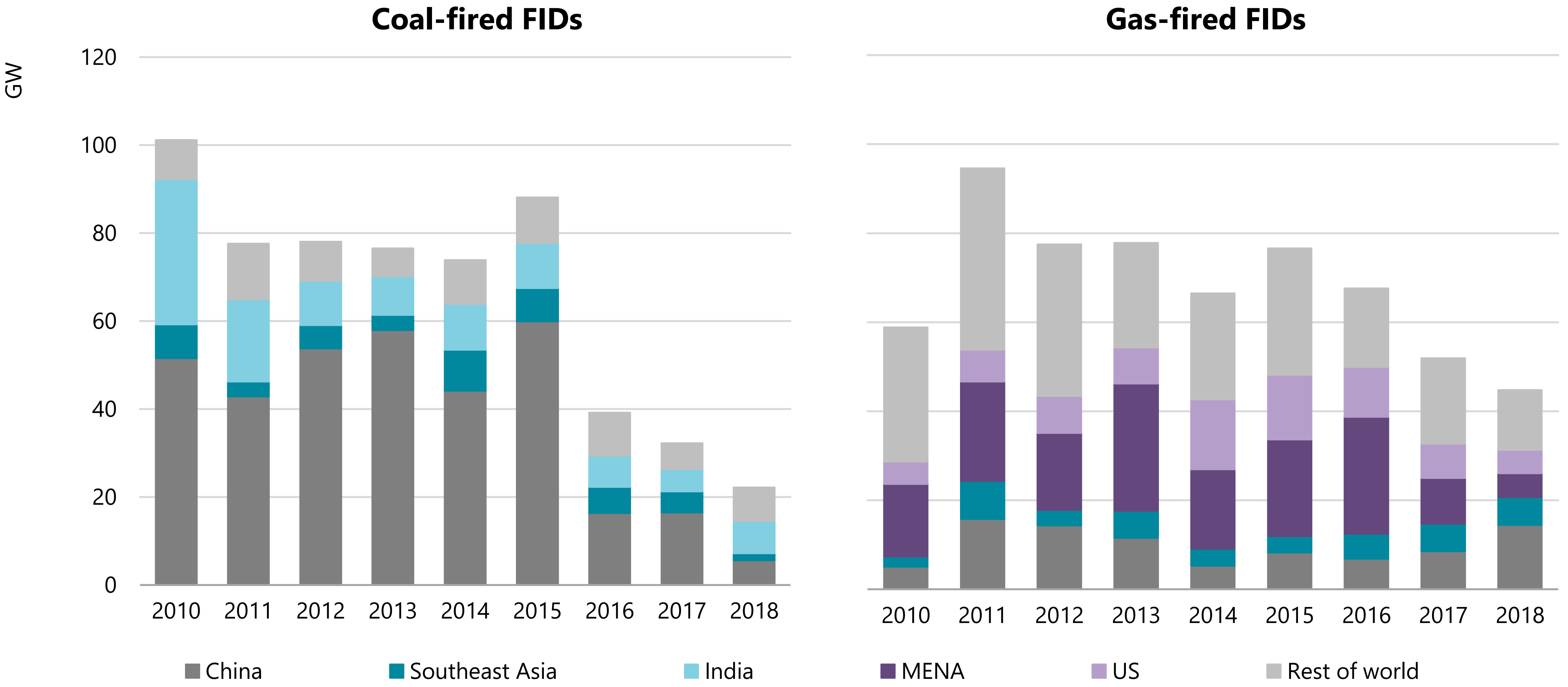
Decision time for new oil and gas projects



Decisions to sanction new oil & gas projects have picked up slightly, and could rise further in 2019, but remain short of what would be required if demand continues to grow strongly.

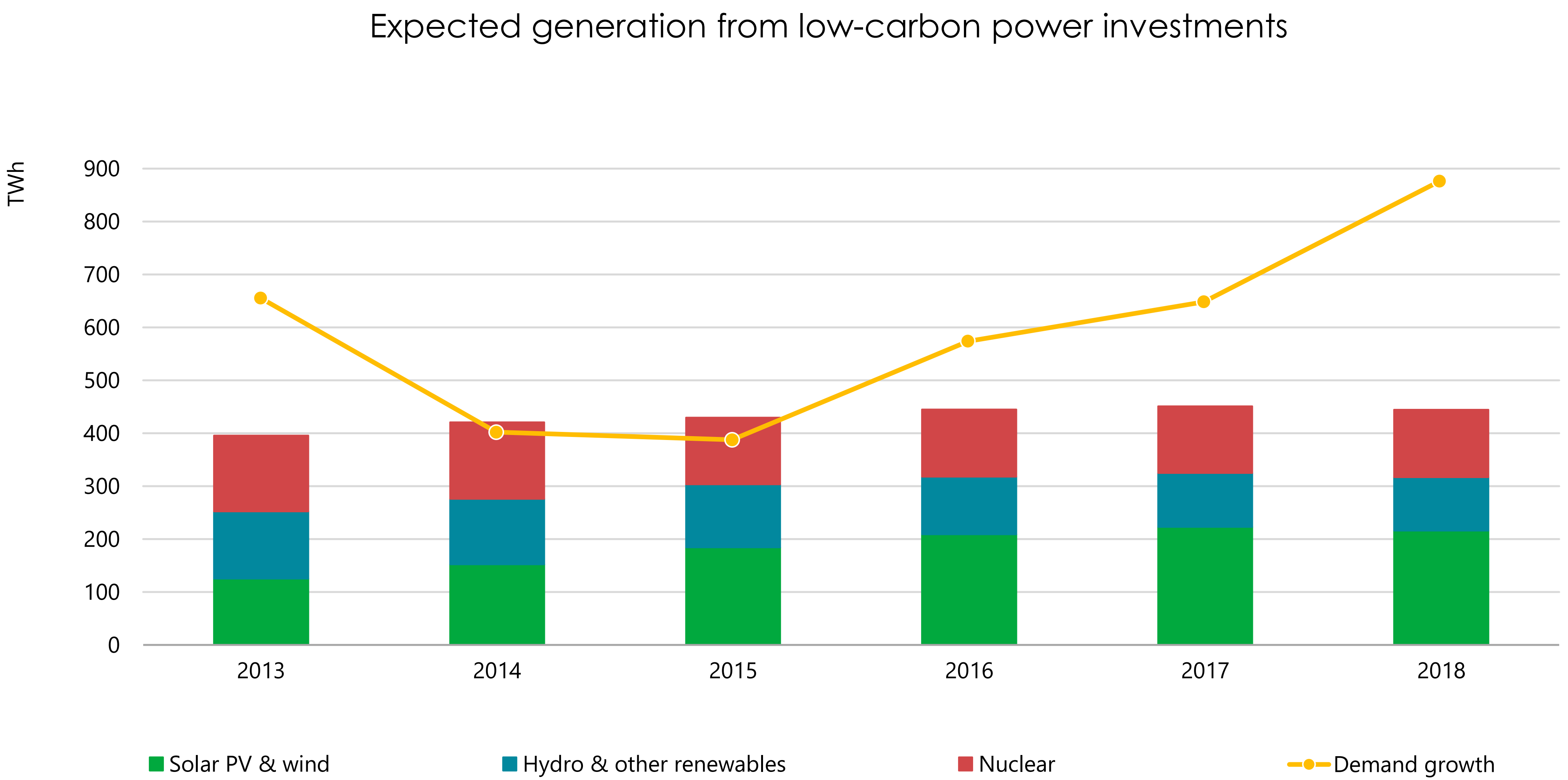
Fossil fuel generation investments are down, but the global fleet is still growing

Final investment decisions (FIDs) for coal-fired generation and gas-fired generation



Investment decisions for new fossil fuel generation are down for the fourth consecutive year, with coal power in China, and gas power in the United States and MENA region.

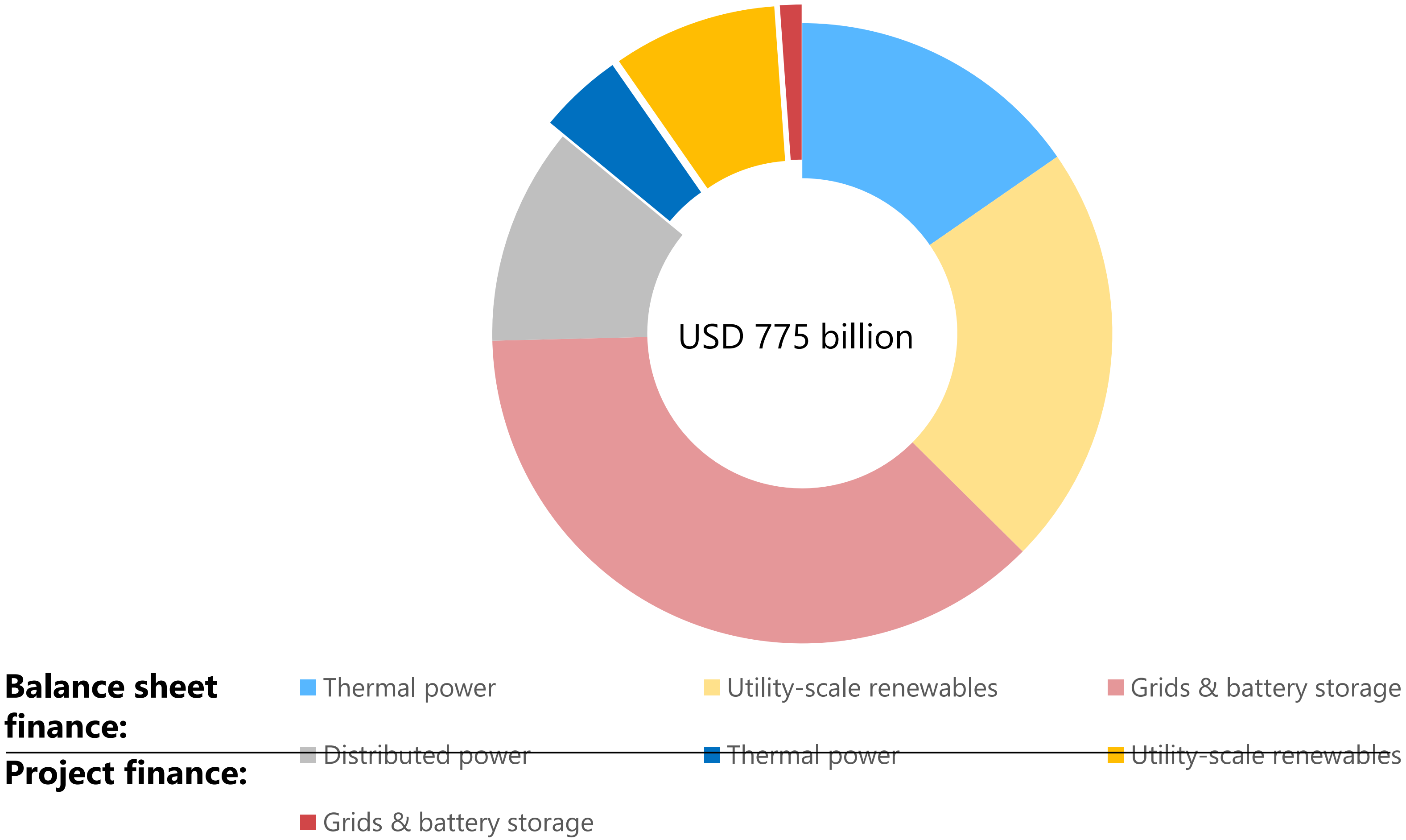
Low-carbon investment is not keeping pace with power demand



The output expected from investment in renewable & nuclear power levelled off in 2018 while demand growth soared. To meet sustainability goals, spending on renewable power would need to double.

Project finance has grown in importance for renewables investment

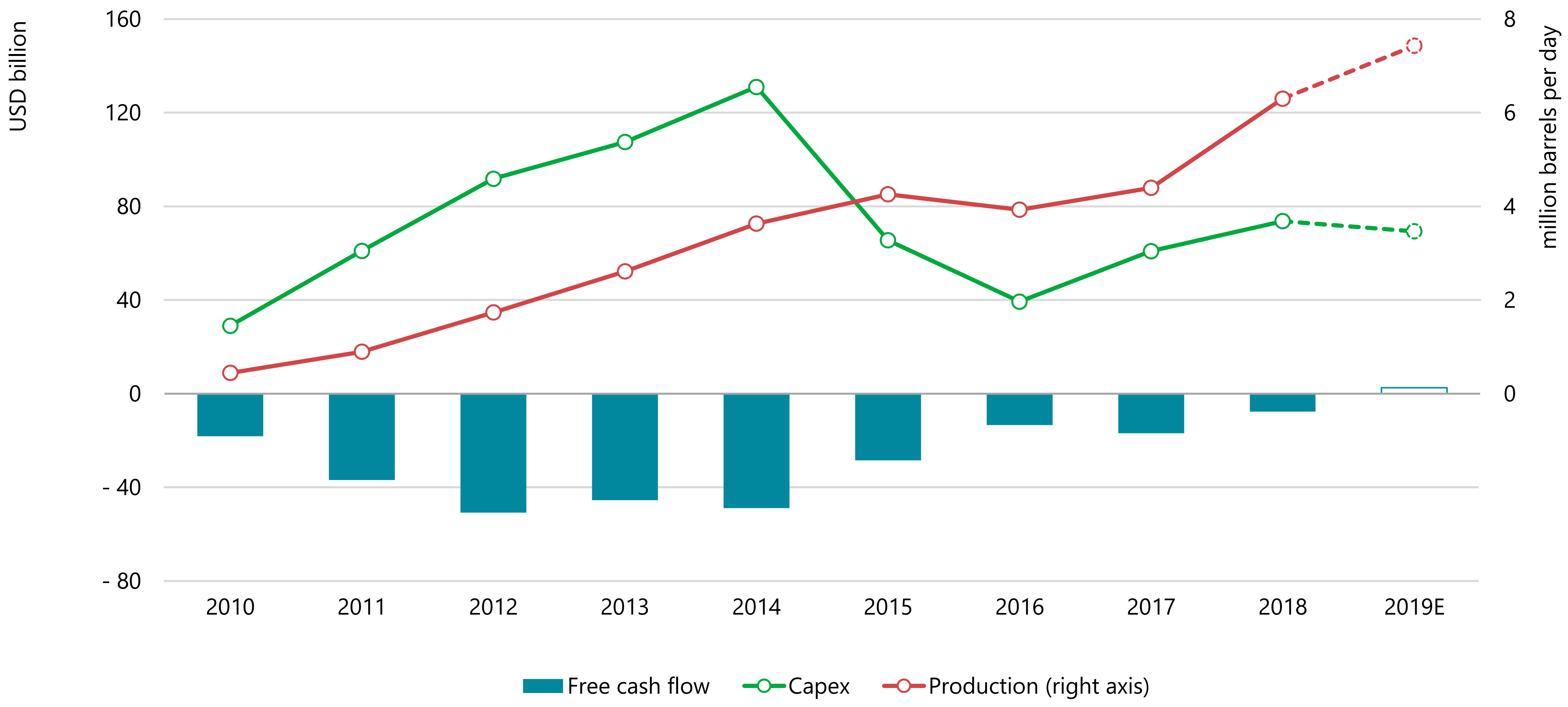
Global power sector investment by primary source of finance



Project finance for renewable power increased by one-quarter in the past five years, as government policies enable access to financing and help manage risks in many places of the world.

US shale industry is leaning towards profitability

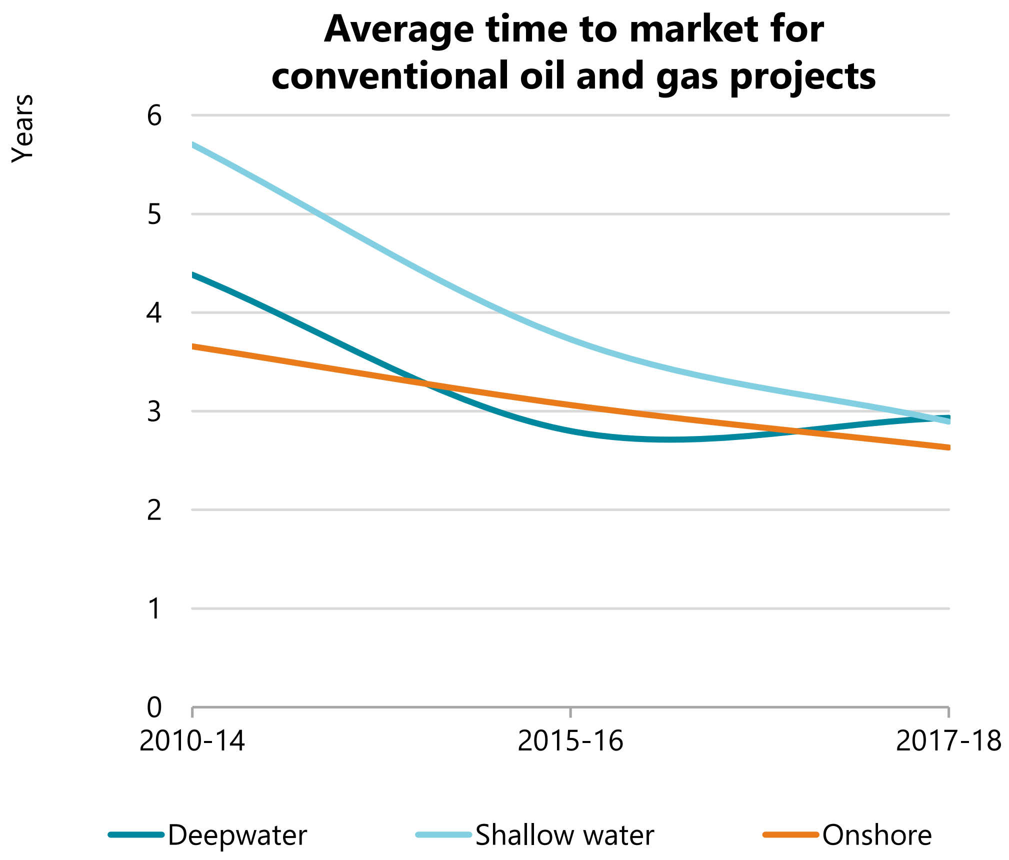
US light tight oil production, investment and free cash flow

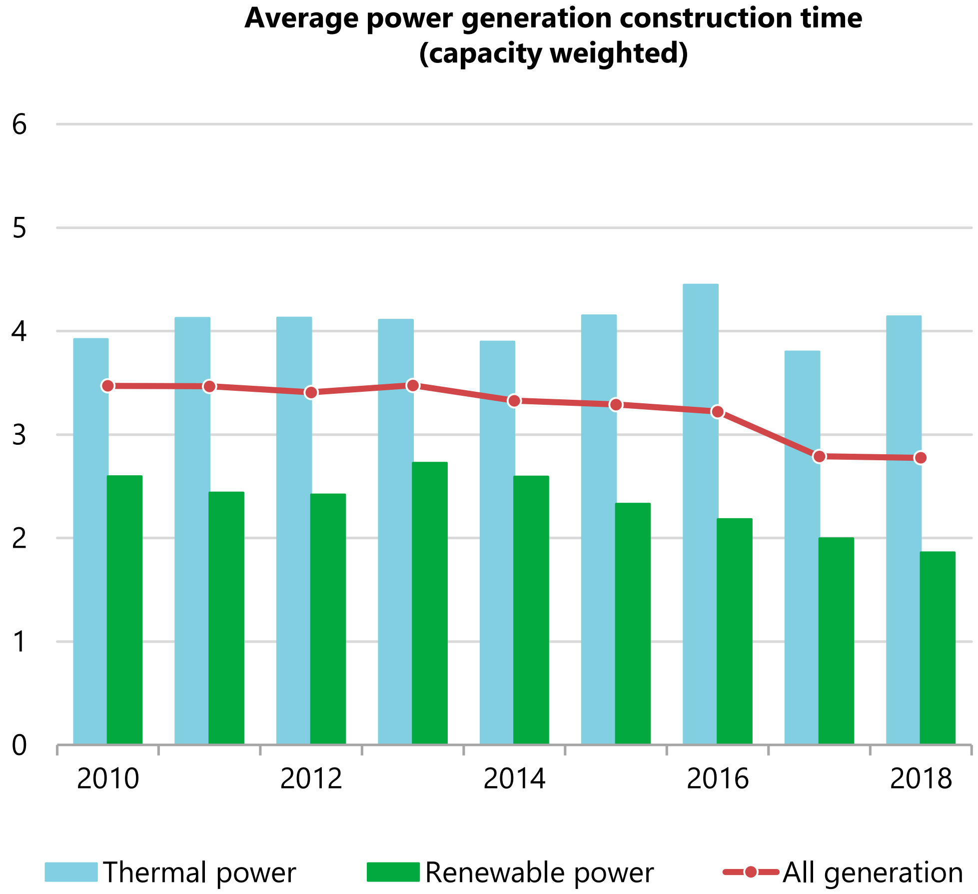


After years showing significant improvements in the financial sustainability of operations, the shale industry did not turn a profit in 2018, although 2019 could be different.

A preference for projects that deliver more quickly

Trends in project timelines for oil and gas supply and power generation

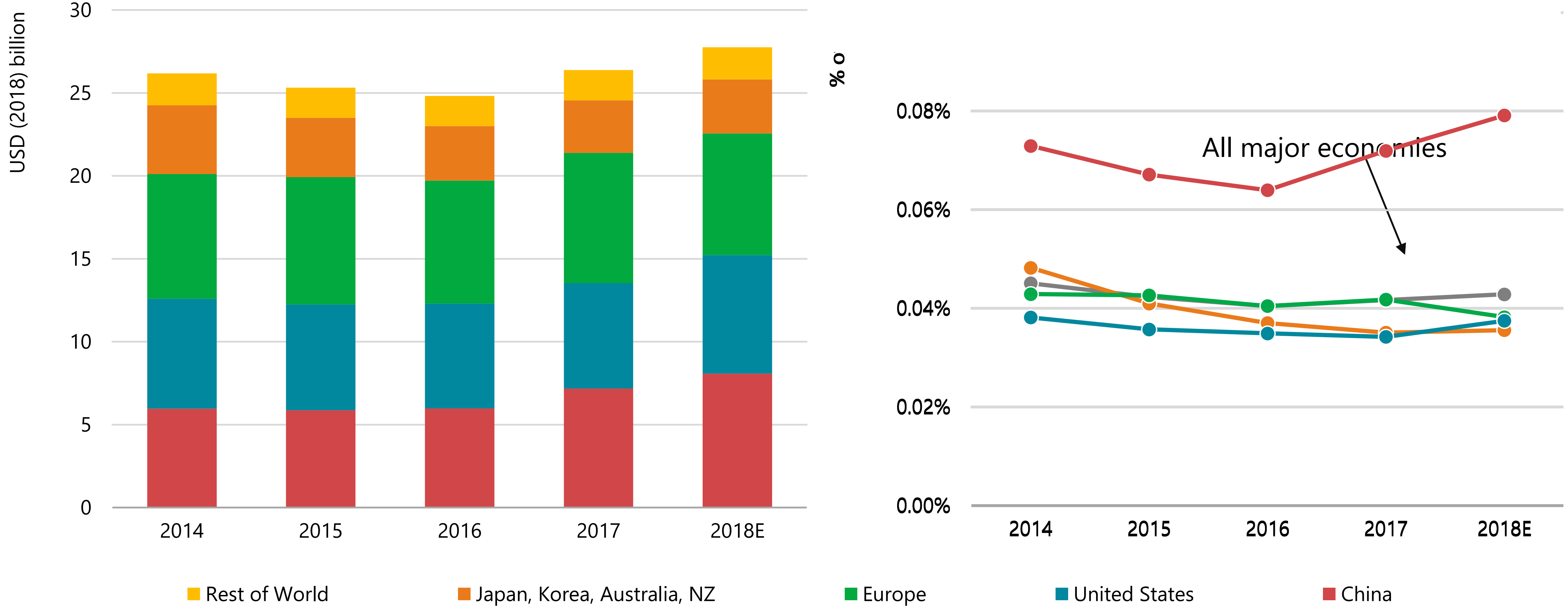




In upstream oil & gas and power generation, industry is bringing capacity to market 20% faster than at the start of the decade. In a changing energy system, industry seeks to better manage capital at risk.

Public energy RD&D spending is not expanding enough

Spending on energy RD&D (research development & demonstration) by national governments, and as share of GDP



While public energy RD&D spending rose modestly in 2018, led by the United States and China, most countries are not spending more of their economic output on energy research.

Conclusions

- Energy investment stabilised in 2018 due to a bounce back in spending on oil, gas & coal supply while low-carbon (supply & demand) investment stalled
- Company strategies are reacting to technological change & unprecedented uncertainties by focusing on projects that deliver returns more quickly
- Approvals of new conventional oil & gas projects are falling short of what would be needed to meet continued robust demand growth
- There are few signs of the major shift of capital towards efficiency, renewables & innovative technologies that is needed to turn emissions around
- Investment & financing decisions are shaped by policies: today’s frameworks are not yet fit to avoid multiple risks for the future

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Accounting developments

New IFRS standards and reporting on climate change disclosures

David Holtam | 5 June 2019

New IFRS Rules

International Financial Reporting Standards

IFRS 9

- Accounting for financial instruments
- Standard is effective for reporting periods beginning on or after 1 January 2018
- Main impact on impairment of receivables and unlisted equity investments

IFRS 15

- Covers revenue from contracts with customers
- Effective for periods beginning on or after 1 January 2018
- Ultimately no major impact in the energy sector (since, for businesses that trade in energy, the transfer of “control” of the sold item is generally same as previously under a “risk and rewards” assessment).

IFRS 16

- Accounting for leases
- For annual periods beginning on or after 1 January 2019
- Main impact on treatment of leases as liabilities for all leases

IFRS 9

Financial Instruments

- Standard was primarily written for banking institutions and is very technical in nature.
- In the energy sector, the main impacts we have seen are:

Impairment of Receivables

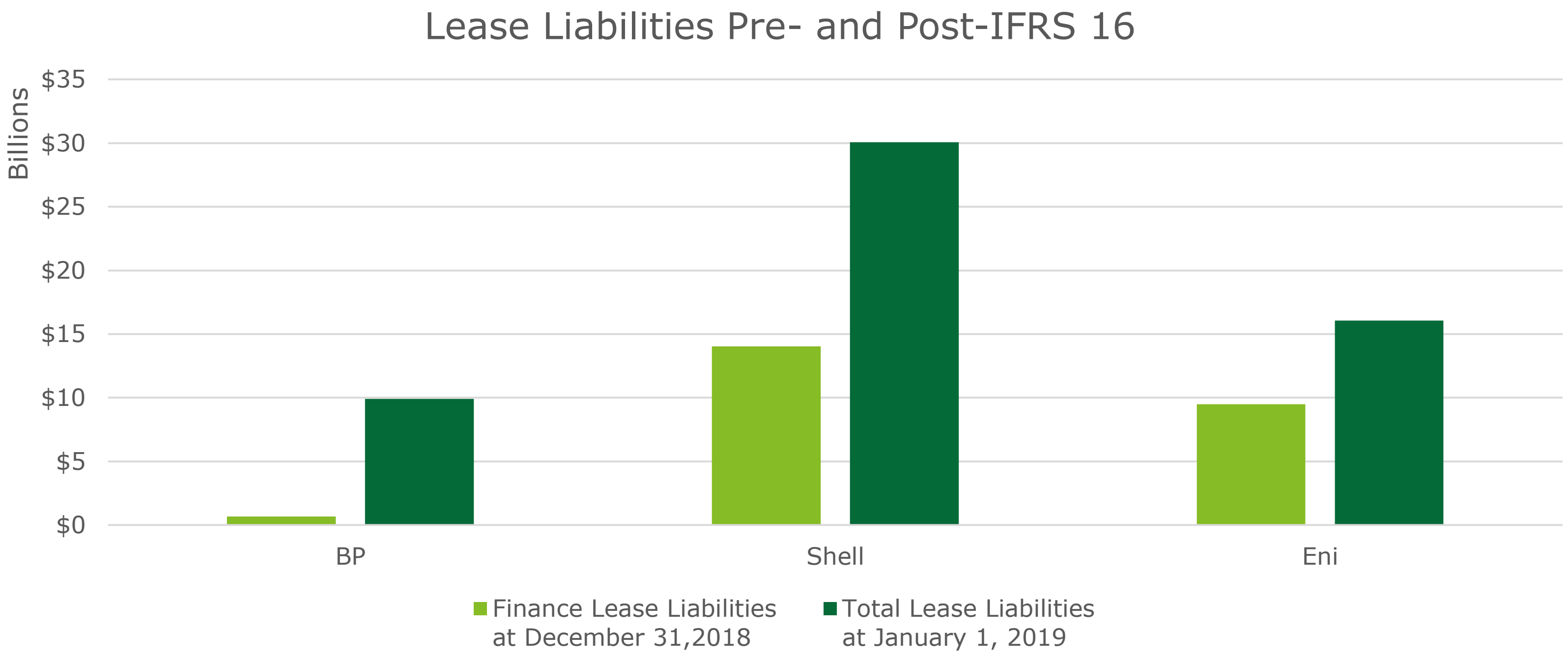
- Entities are now required to provide for possible future credit losses.
- This is still required even if there is a high probability of asset being fully collectible.

Equity Investments

- All equity investments in scope of IFRS 9 are to be measured at fair value in the statement of financial position.
- This includes unlisted entities, for example Entech start-ups in venturing portfolios.
- FV measurement is particularly hard to do for unlisted entities as there is no market evidence of the value readily available.

IFRS 16
Leases

- Standard is effective for reporting periods beginning on or after 1 January 2019.
- Main impact is that companies are now required to present all leases as liabilities on the balance sheet (with a corresponding asset). In the past, operating leases were simply recognised as an expense in P&L when they were paid.
- This is a large change for a lot of companies with particular impact on energy sector companies which have material leased assets, including vessels and rigs.



IFRS 16

Leases (cont.)

- A big challenge for the companies is to reflect this transition in their KPIs.

- A lot of companies use gearing or net debt as financial KPIs when telling their story to investors. Lease liabilities potentially give significant overnight changes in these metrics.

- Best practice for this is still emerging but so far we have seen several examples of quarterly reporting companies.

IFRS 16

Leases (cont.)

BP *(extract from 2019 first quarter results)*

- "Net debt at 31 March 2019 was $45.1 billion, compared with $39.3 billion a year ago. Gearing at 31 March 2019 was 30.4%, compared with 30.0% at the end of 2018 and 27.8% a year ago."
- "Lease liabilities are now presented separately on the group balance sheet, do not form part of finance debt and are not included in net debt and gearing in the financial framework."

Brian Gilvary – Chief financial officer:

Our first quarter results reflect the effects of IFRS 16 for the first time. While this impacts a number of lines across our financial statements, our financial framework is unchanged. In particular, we have retained a measure of gearing broadly consistent with the past, and continue to target a range of 20-30%.

	71,272	68,237
Non-current liabilities		
Other payables	**13,898**	13,830
Derivative financial instruments	**5,294**	5,625
Accruals	**547**	575
Lease liabilities	**8,195**	623
Finance debt	**54,510**	55,803
Deferred tax liabilities	**9,770**	9,812
Provisions	**17,773**	17,732
Defined benefit pension plan and other post-retirement benefit plan deficits	**8,686**	8,391
	118,673	112,391
Total liabilities	**189,945**	180,628
Net assets	**103,336**	101,548
Equity		

IFRS 16

Leases (cont.)

Shell *(*extract *from 1Q19 quarterly results announcement)*

- **Net debt:** As a result of the implementation of IFRS 16, net debt increased by over $16bn.
- **Gearing:** First quarter 2019 reported Gearing increased to 26.5% on an IFRS 16 basis, from 21.9% on an IAS17 basis

LEASE LIABILITIES RECONCILIATION

	$ million
Undiscounted future minimum lease payments under operating leases at December 31, 2018	**24,219**
Impact of discounting[1]	(5,167)
Leases not yet commenced at January 1, 2019	(2,586)
Short-term leases[2]	(277)
Long-term leases expiring before December 31, 2019[2]	(192)
Other reconciling items (net)	40
Additional lease liability at January 1, 2019	**16,037**
Finance lease liability at December 31, 2018	14,026
Total lease liability at January 1, 2019	**30,063**

1. Under the modified retrospective transition method, lease payments were discounted at January 1, 2019 using an incremental borrowing rate representing the rate of interest that the entity within Shell that entered into the lease would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. The incremental borrowing rate applied to each lease was determined taking into account the risk-free rate, adjusted for factors such as the credit rating of the contracting entity and the terms and conditions of the lease. The weighted average incremental borrowing rate applied by Shell upon transition was 7.2%.

2. Shell has applied the practical expedient to classify leases for which the lease term ends within 12 months of the date of initial application of IFRS 16 as short-term leases. Shell has also applied the recognition exemption for short-term leases.

IFRS 16

Leases (cont.)

Eni *(extract from 2018 annual report)*

- **Net borrowings:** €14.5 billion, of which around €2 billion pertaining to the share of lease liabilities attributable to joint operators in Eni-led upstream Joint Operations. Net borrowings would be €8.68 billion when excluding the overall effect of IFRS 16.
- **Leverage:** 0.27, or 0.24 excluding the share of lease liabilities attributable to joint operators. Leverage would be 0.16 billion when excluding the effect of IFRS 16, unchanged compared to December 31, 2018.

	January 1, 2019		
	Balance Sheet		
(€ million)	before IFRS 16 opening balance	IFRS 16 effects	GAAP results
Fixed assets	71,567	5,629	77,196
Net working capital	(11,324)	117	(11,207)
Net borrowings	8,289	5,746	14,035
Shareholders' equity	51,073		51,073
Leverage	0.16		0.27

Reporting of climate change disclosures

Reporting of Climate Change Disclosures

- Whilst there is no specific requirement prescribed by accounting standards, there is an increasing investor expectation for companies in the energy sector to provide greater disclosure relating to climate change in their accounts.
- For example:
  - in September 2018, the FRC launched an initiative to look at "Climate and workforce reporting";
  - recommendations of the Taskforce on Climate-related Financial Disclosure (TCFD) are gaining momentum;
  - Activist groups such as ClientEarth and Extinction Rebellion have hit the headlines challenging companies for failure to adequately describe climate-related risks facing their organisation and for auditors and regulators to enforce this under current law.
- ISA 720 sets out the auditor's responsibility relating to other information in the annual report, and therefore covers what auditors should do in relation to disclosures of climate-related risks.
- ISA 720.14 states: "*The auditor shall read the other information and, in doing so shall… consider whether there is a material inconsistency between the other information and the financial statements [or] the auditor's knowledge obtained in the audit*"
- Audit firms are now also considering whether there are direct accounting consequences from climate change considerations, for example whether exploration and appraisal assets in the balance sheet are actually likely to be developed by management teams; and whether economic assumptions used for asset impairment testing reflect all risks, including those relating to climate change.

Deloitte.

G20 Financial Stability Board Task Force on Climate-related Financial Disclosures (TCFD)

Climate Financial Risk & Opportunity

5 June 2019

The business of sustainability

ERM

In the news...

ENERGY TRANSITIONS

How climate hogged the CERAWeek spotlight

Edward Klump and Mike Lee, E&E News reporters

Energywire: Monday, March 18, 2019

BP shareholders vote in favour of greater climate disclosure

Little support for resolution seeking hard targets on emissions

Exxon Mobil Corp + Add to myFT

ExxonMobil boss extends olive branch to investors on climate change

Shell leads big oil in clean energy shift

ENERGY MAY 29, 2019 / 1:39 PM / 5 DAYS AGO

Shareholders of oil group Total add climate goals to CEO's future pay

Eni pledges to reach net-zero carbon emissions by 2030

By SOPHIE CHAPMAN • Mar 20, 2019, 8:39AM

Top Oil Execs Call for Change as Climate, Technology Concerns Threaten Industry

Leaders of Equinor, BP, Shell believe urgent change to persuade investors, public is needed in response to global 'crisis of confidence'

Equinor strengthens its commitment to climate leadership

April 24, 2019 08:00 CEST

Turning point: climate change is a financial stability issue

- Investors
- Lenders
- Insurers
- Government

ENERGY COMPANIES

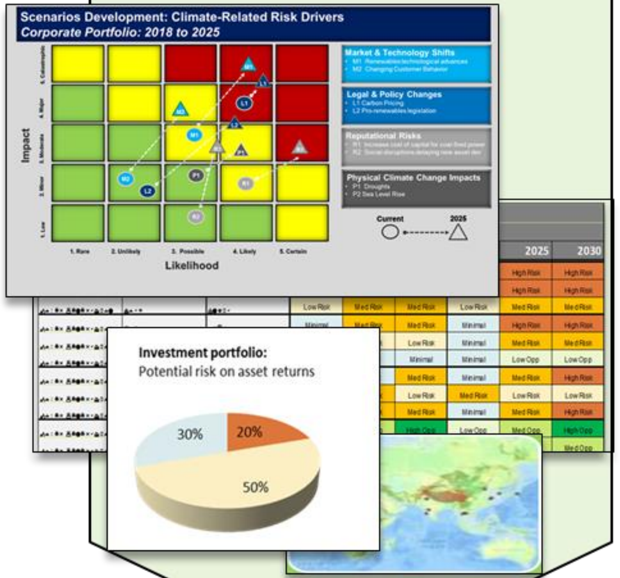
ERM supported TCFD in developing a robust approach for companies to address climate-related financial risks

Source: ERM, G20 Task Force on Climate-related Financial Disclosures – Technical Recommendations

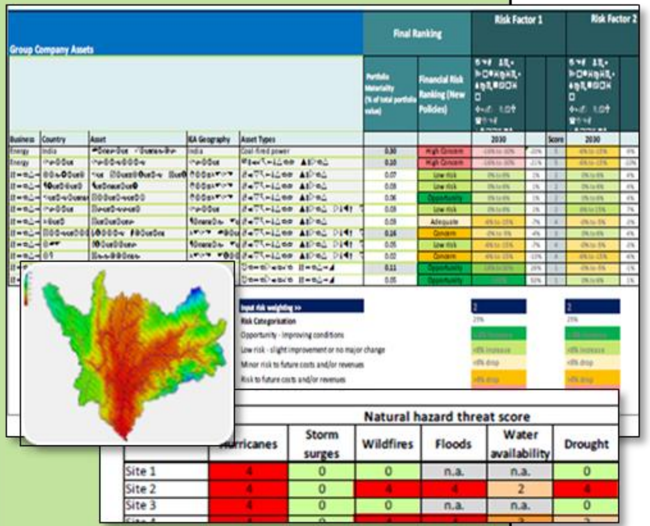
Companies can adapt the TCFD approach to ensure best fit-for-purpose integration into their own decision-making frameworks

LEVELS OF ANALYSIS TO DELIVER INCREASING QUANTIFICATION IN FINANCIAL DECISION MAKING

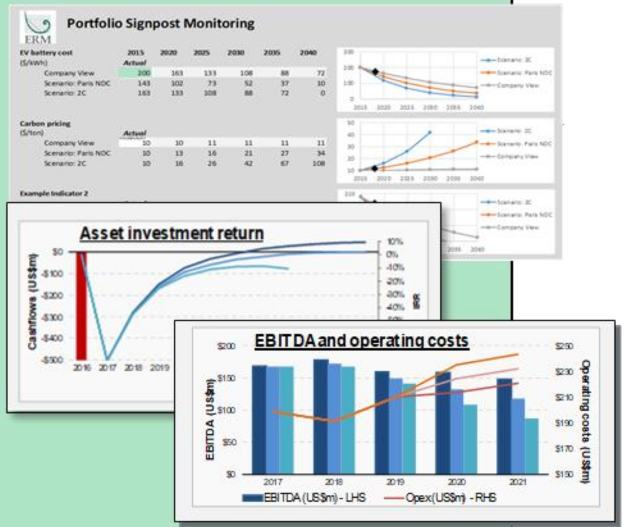
1 Portfolio Screening



2 Asset Analysis

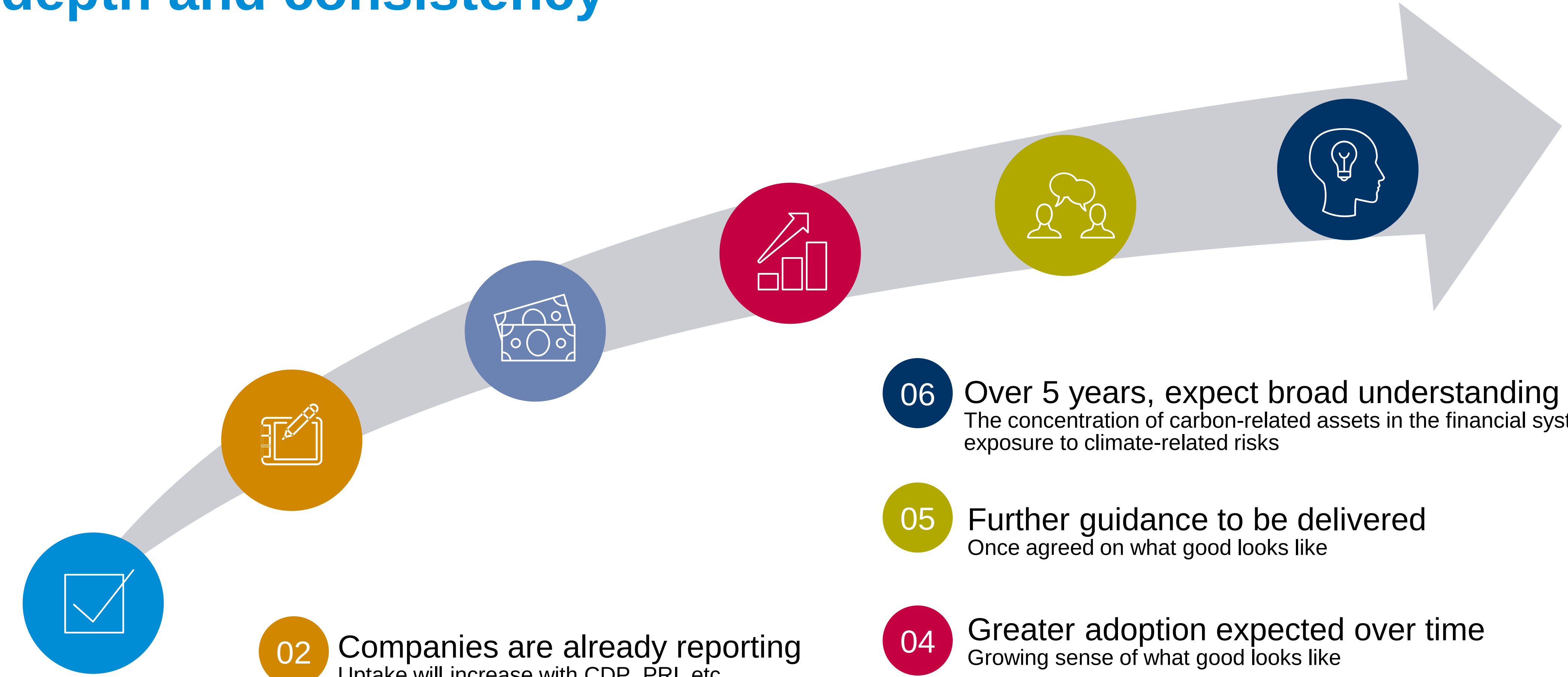


3 Strategic Response



ENGAGE - ASSESS - INFORM INVESTMENTS

Over time, TCFD expects disclosures to continue to grow in depth and consistency



01 TCFD Recommendations delivered
2017

02 Companies are already reporting
Uptake will increase with CDP, PRI, etc.

03 Beginning to disclose in financial filings
Reporting season

04 Greater adoption expected over time
Growing sense of what good looks like

05 Further guidance to be delivered
Once agreed on what good looks like

06 Over 5 years, expect broad understanding
The concentration of carbon-related assets in the financial system & exposure to climate-related risks

Thank you

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