Gaffney, Cline & Associates

UNIVERSITY of HOUSTON

# Public Pressures, CSR-ESG and Carbon Management

## 17th Annual EOR Carbon Management Conference

9th Dec , 2019


**Nigel Jenvey**

Vice President

Global Head of Carbon Management

Gaffney, Cline & Associates

**Charles McConnell**

Executive Director

Center for Carbon Management and Energy Sustainability

University of Houston

# CSR - from the billboards of activists to the boardrooms of the largest companies

## Corporate Social Responsibility


### *Shareholder Value Is No Longer Everything, Top C.E.O.s Say*

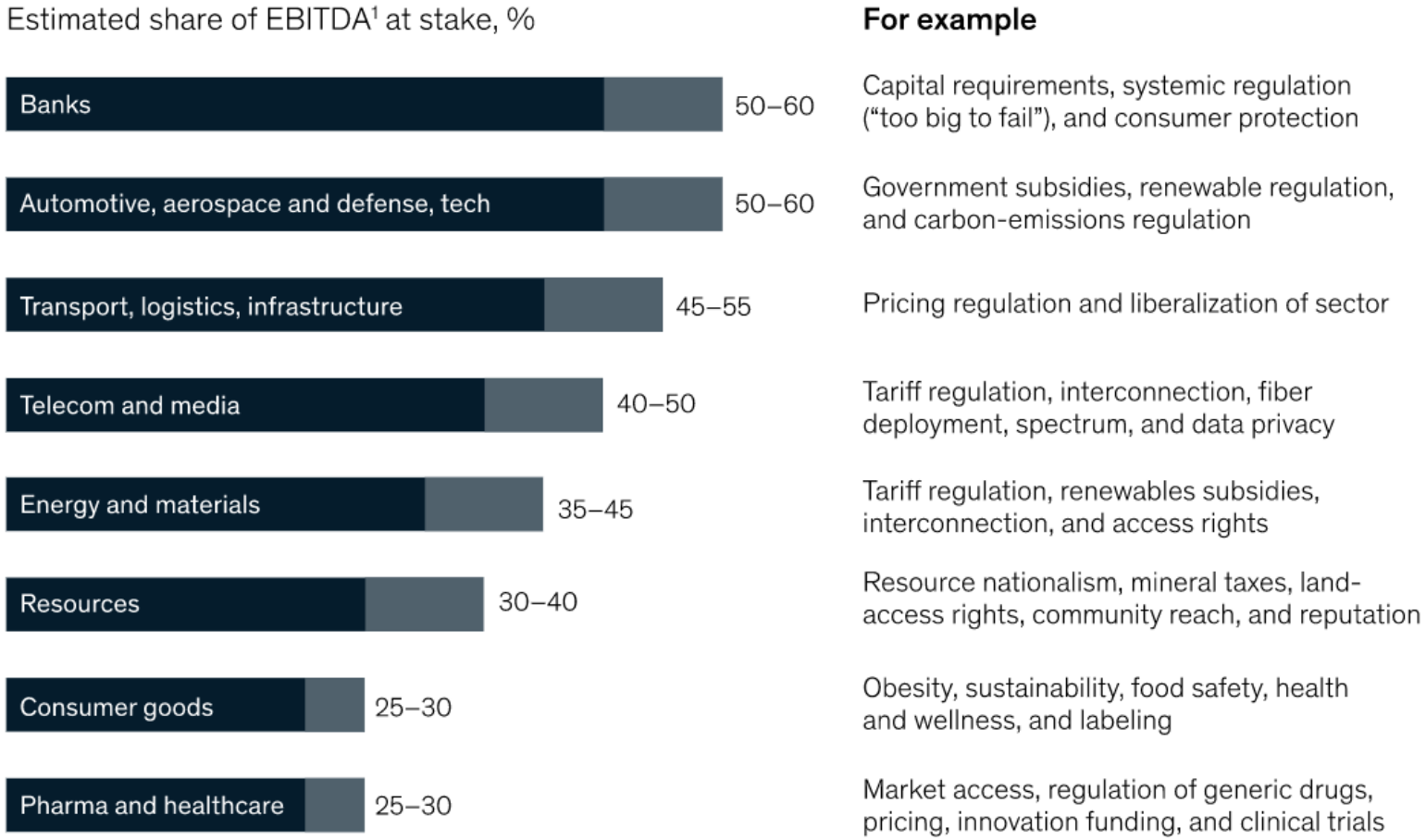
Chief executives from the Business Roundtable, including the leaders of Apple and JPMorgan Chase, argued that companies must also invest in employees and deliver value to customers.

Chief executives who are members of the Business Roundtable, include, left to right, front row: Julie Sweet of Accenture North America, Brian Moynihan of Bank of America, Tim Cook of Apple, Robert F. Smith of Vista Equity Partners of Austin. Back row: Jeff Bezos of Amazon, Mary Barra of General Motors and Larry Fink of BlackRock. Left to right, Greg Kahn for The New York Times, Arnd Wiegmann/Reuters, Sebeto Matthews/Associated Press, Chester Higgins Jr./The New York Times, Patrick Semansky/Associated Press, Mike Cohen for The New York Times and Damon Winter/The New York Times.

Courtesy: McKinsey & Co and the New York Times, 2019

# CSR - The value to a company

## A large share of corporate profits are at stake from societal views




[1]Earnings before interest, taxes, depreciation, and amortization.

Courtesy: McKinsey & Co, 2019

# ESG – A new fiduciary reporting mechanism

## Environmental, Social and Governance

### E = environmental

Company energy and resource needs, waste discharge and the consequences for ecosystem as a result. Not least, this encompasses carbon emissions and climate change. Every company uses energy and resources; every company affects, and is affected by, the environment.

### S = social

Company relationships and reputation with people and institutions in the communities where they do business. This includes labor relations and diversity and inclusion. Every company operates within a broader, diverse society.

### G = governance

Company practices, controls, and procedures to govern itself, make effective decisions, comply with the law, and meet the needs of external stakeholders. Every company, which is itself a legal creation, requires governance.

# ESG - The value to an investor

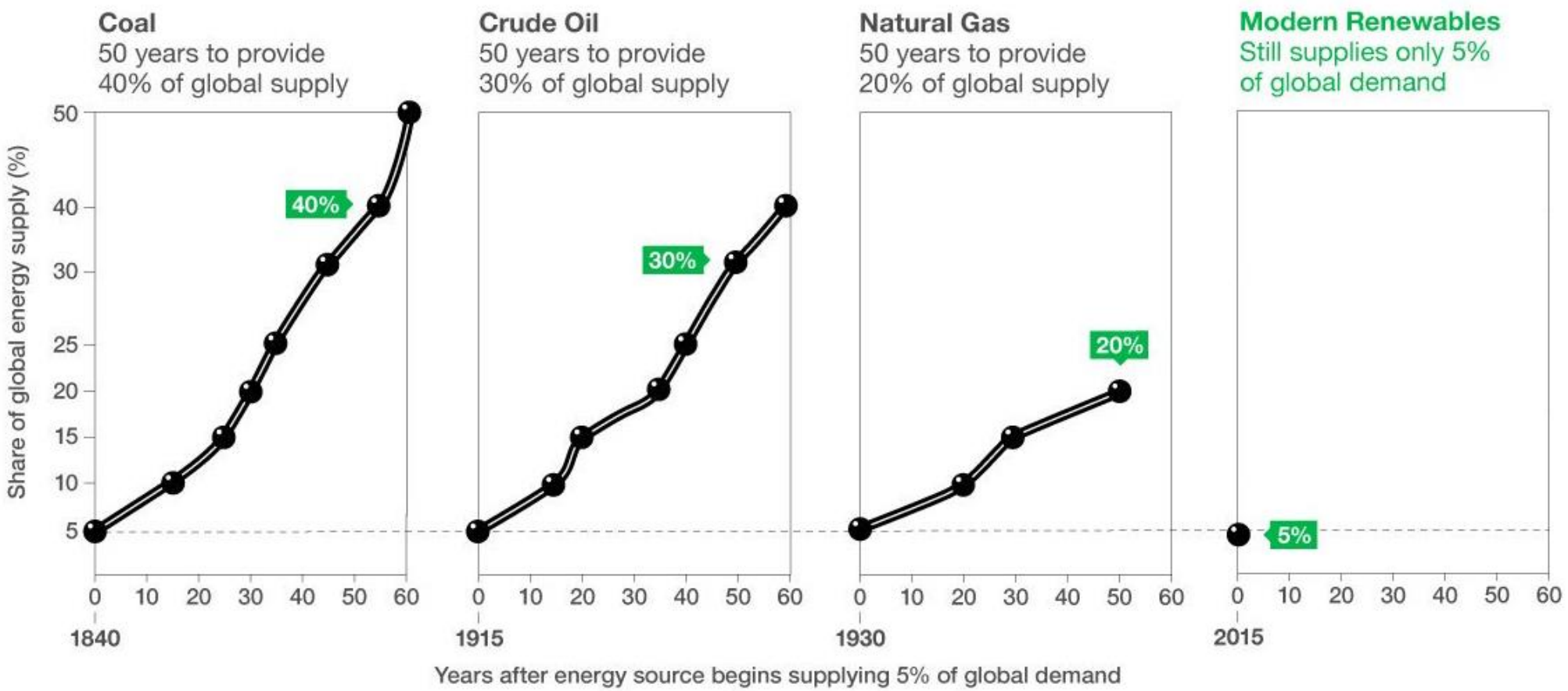
## ESG-oriented investing now tops $30 trillion and has positive results for shareholders

Results of >2,000 studies on the impact of ESG propositions on equity returns


Source: Gunnar Friede et al., "ESG and financial performance: Aggregated evidence from more than 2000 empirical studies," *Journal of Sustainable Finance & Investment*, October 2015, Volume 5, Number 4, pp. 210–33; Deutsche Asset & Wealth Management Investment; McKinsey analysis

# Energy Transitions have historically taken a long (long) time

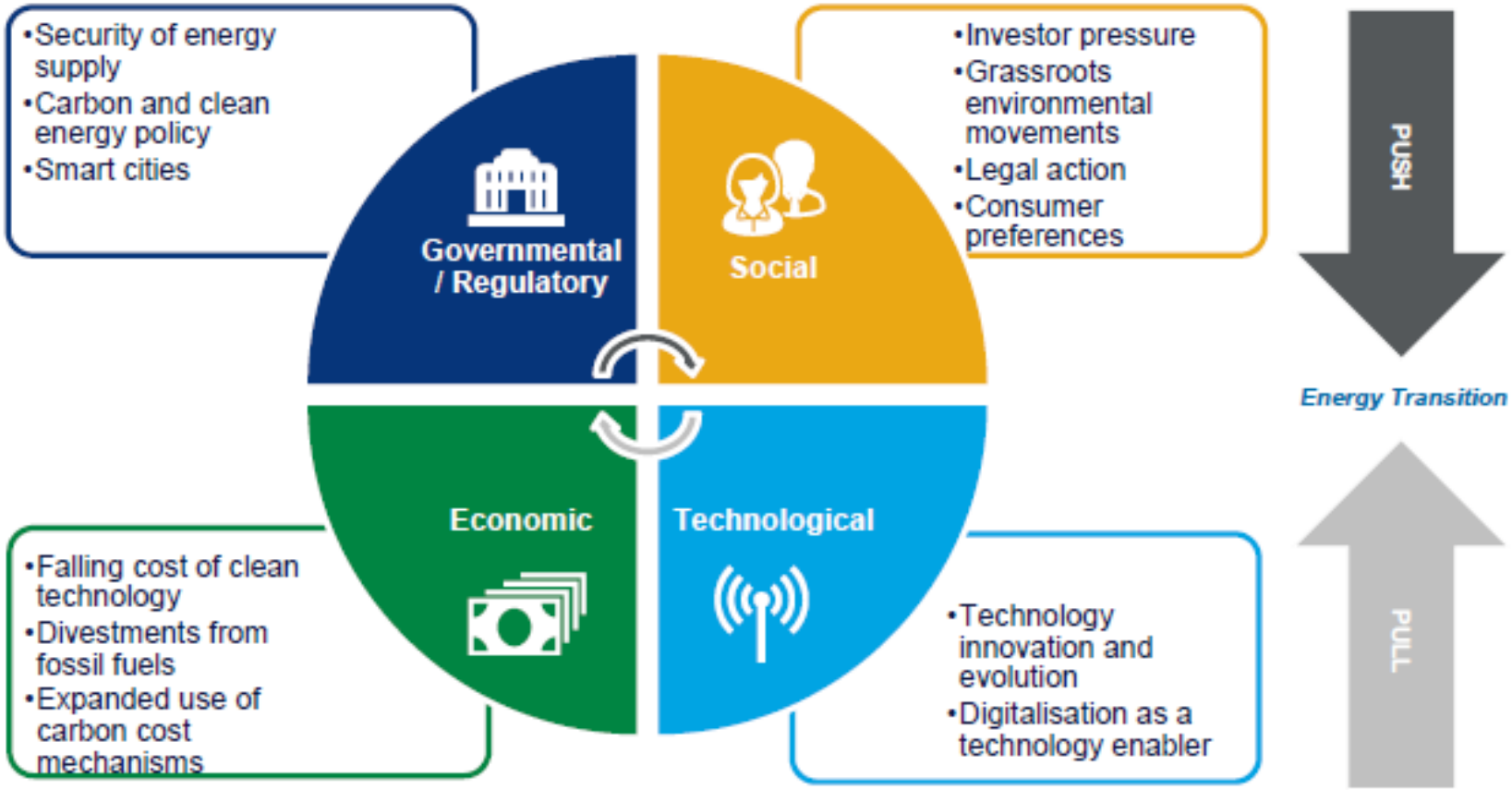
## It has taken decades for major energy sources to provide a significant share of global supply




Courtesy: Vaclav Smil, Energy Transitions
Modern renewables include wind, solar and modern biofuels

# The current energy transition has different drivers

## Changes in public opinion and intensifying investor pressure are new phenomena in today's society

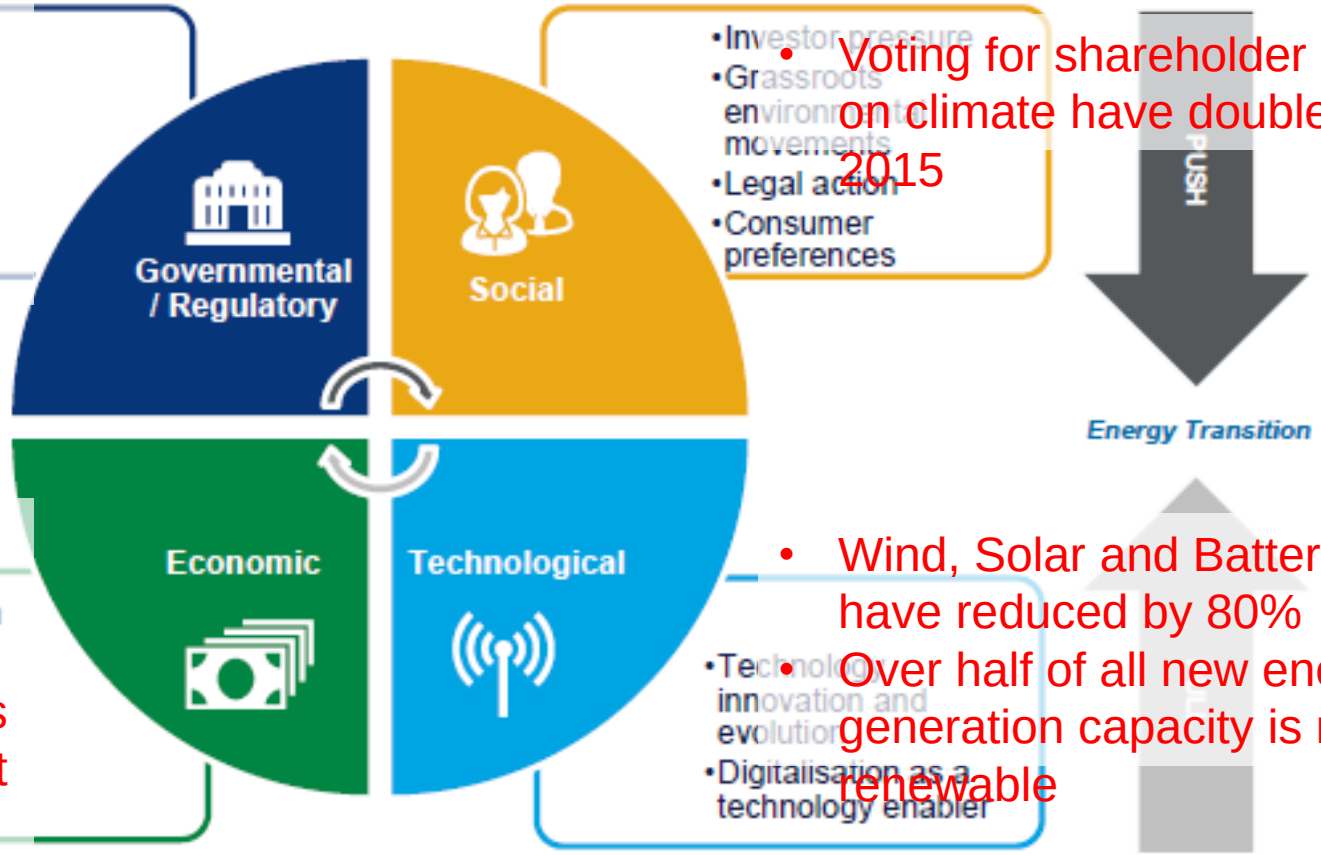



Courtesy: Wood Mackenzie, 2019

# The current energy transition has different drivers

## Changes in public opinion and intensifying investor pressure are new phenomena in today's society

- Climate change laws and policies have doubled every 5 years since the Kyoto Protocol
- $3 trillion public investment into renewable technologies




- Voting for shareholder resolutions on climate have doubled since 2015

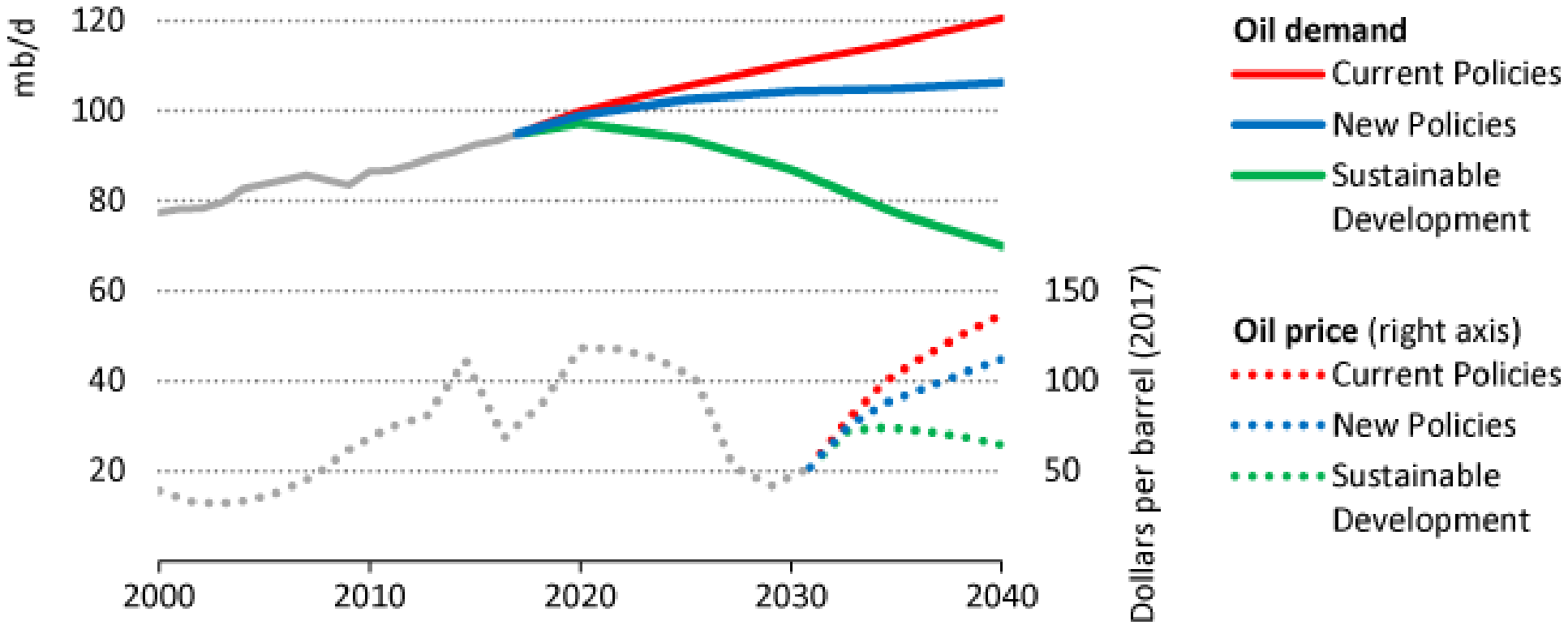
- For the last few years more capital is spent on electricity than oil and gas supply
- Increasing debt to equity ratios and now over $1 trillion of debt in oil and gas supply

- Wind, Solar and Battery costs have reduced by 80%
- Over half of all new energy-generation capacity is now renewable

Courtesy: Wood Mackenzie, 2019

# Sustainable Investment Assessments – Market Impacts

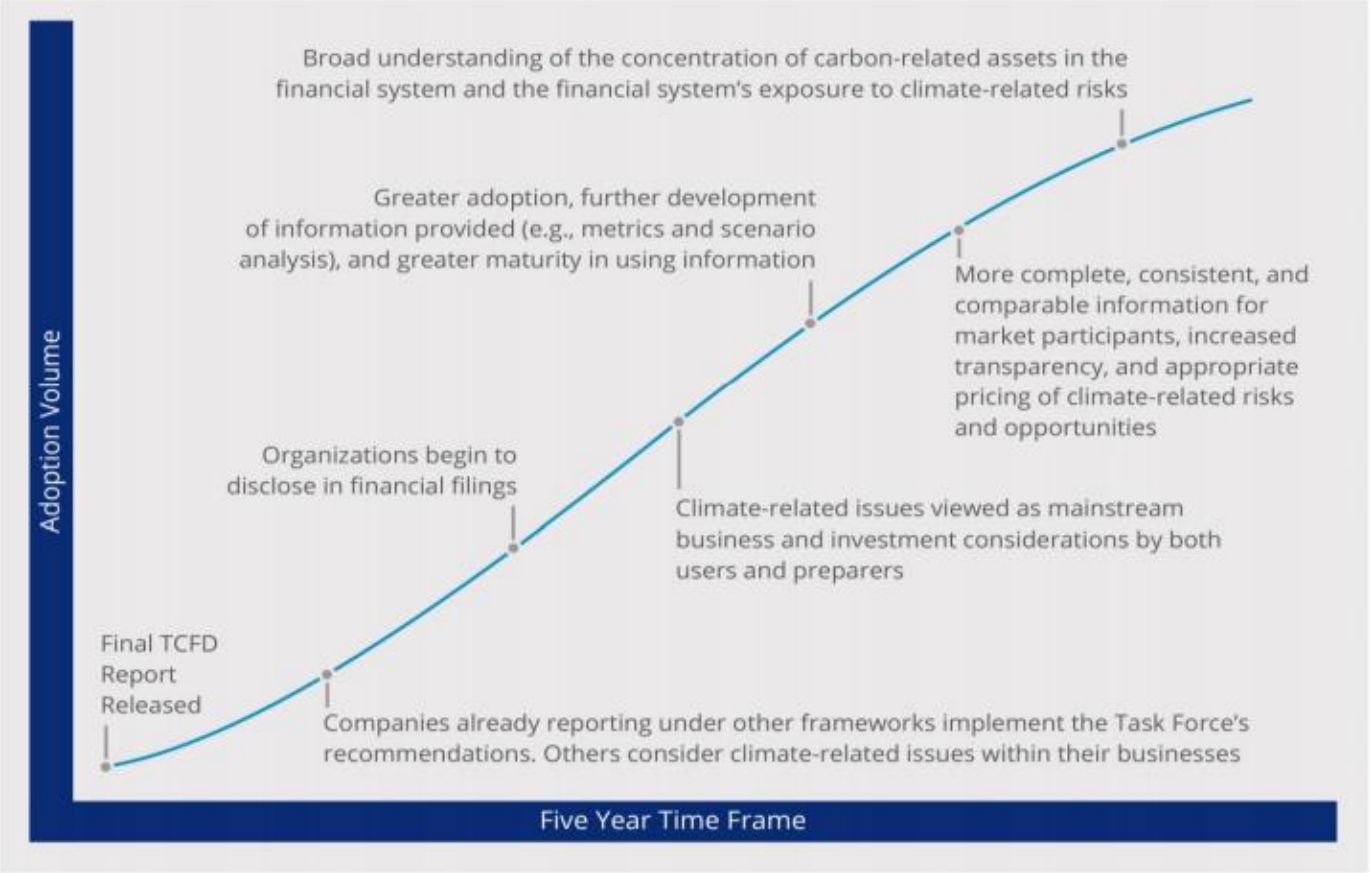
## Impacts on Demand (commodity prices) and Supply (production costs) need to be understood




Source: International Energy Agency (2018), World Energy Outlook 2018, OECD/IEA, Paris

# Sustainable Investment Assessments – Central Banks

## Central Banks are looking at the impacts on the risk to investments and ensuring a stable energy transition

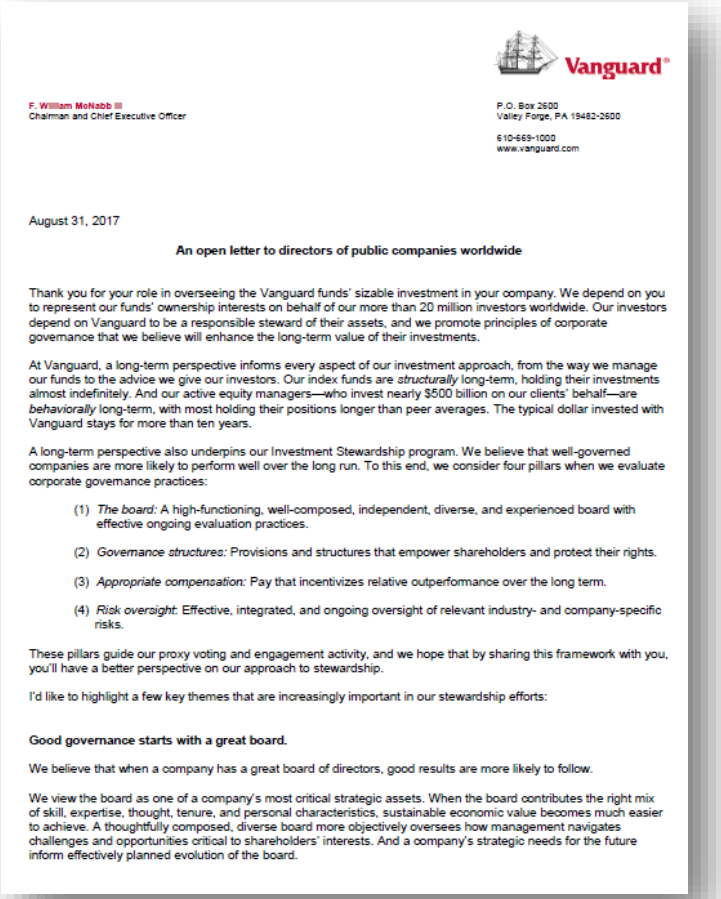

2017 2022

Source: Network for Greening the Financial System (2019)

Source: Financial Stability Board – Task Force on Climate-related Financial Disclosures (TCFD

# Sustainable Investment Assessments – Investment Management Companies

## Investors are asking for ESG reports and assessment of climate related risks to investments



Vanguard

F. William McNabb III
Chairman and Chief Executive Officer

P.O. Box 2600
Valley Forge, PA 19482-2600

610-669-1000
www.vanguard.com

August 31, 2017

**An open letter to directors of public companies worldwide**

Thank you for your role in overseeing the Vanguard funds' sizable investment in your company. We depend on you to represent our funds' ownership interests on behalf of our more than 20 million investors worldwide. Our investors depend on Vanguard to be a responsible steward of their assets, and we promote principles of corporate governance that we believe will enhance the long-term value of their investments.

At Vanguard, a long-term perspective informs every aspect of our investment approach, from the way we manage our funds to the advice we give our investors. Our index funds are *structurally* long-term, holding their investments almost indefinitely. And our active equity managers—who invest nearly $500 billion on our clients' behalf—are *behaviorally* long-term, with most holding their positions longer than peer averages. The typical dollar invested with Vanguard stays for more than ten years.

A long-term perspective also underpins our Investment Stewardship program. We believe that well-governed companies are more likely to perform well over the long run. To this end, we consider four pillars when we evaluate corporate governance practices:

(1) *The board:* A high-functioning, well-composed, independent, diverse, and experienced board with effective ongoing evaluation practices.

(2) *Governance structures:* Provisions and structures that empower shareholders and protect their rights.

(3) *Appropriate compensation:* Pay that incentivizes relative outperformance over the long term.

(4) *Risk oversight:* Effective, integrated, and ongoing oversight of relevant industry- and company-specific risks.

These pillars guide our proxy voting and engagement activity, and we hope that by sharing this framework with you, you'll have a better perspective on our approach to stewardship.

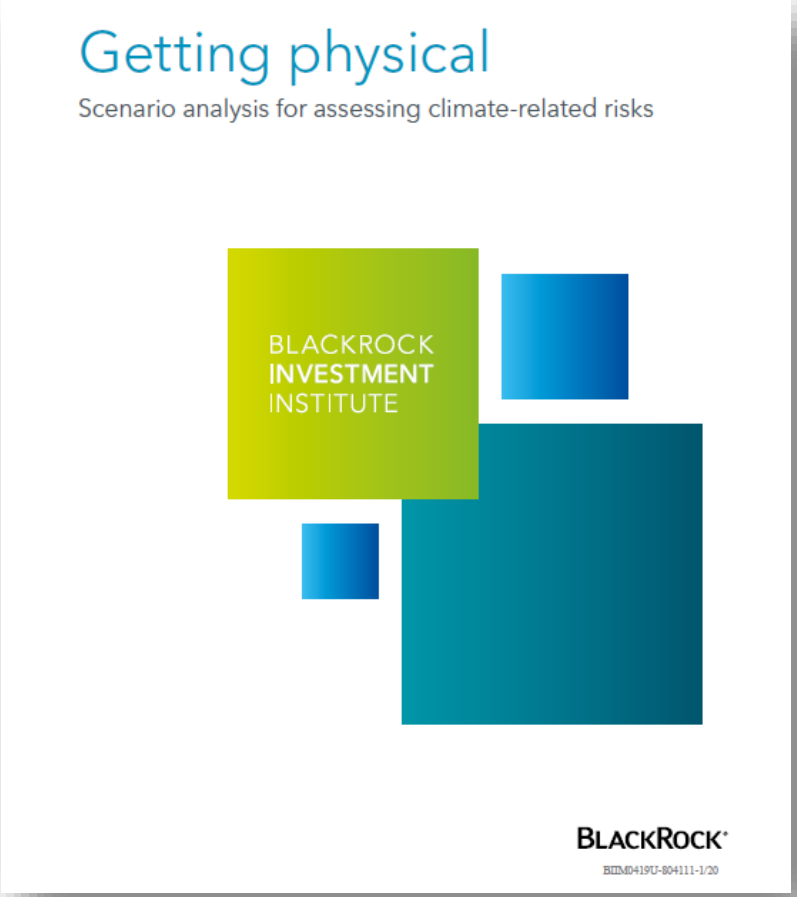
I'd like to highlight a few key themes that are increasingly important in our stewardship efforts:

**Good governance starts with a great board.**

We believe that when a company has a great board of directors, good results are more likely to follow.

We view the board as one of a company's most critical strategic assets. When the board contributes the right mix of skill, expertise, thought, tenure, and personal characteristics, sustainable economic value becomes much easier to achieve. A thoughtfully composed, diverse board more objectively oversees how management navigates challenges and opportunities critical to shareholders' interests. And a company's strategic needs for the future inform effectively planned evolution of the board.

Source: Vanguard (2017)



Getting physical

Scenario analysis for assessing climate-related risks

BLACKROCK
INVESTMENT
INSTITUTE

BLACKROCK

BIIMD419U-804111-1/20

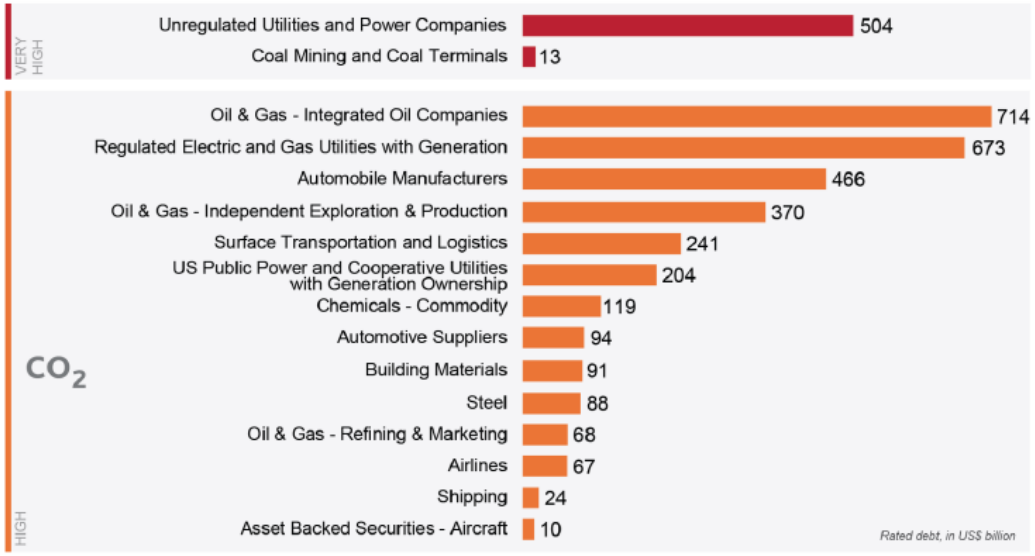
Source: Blackrock, 2019

# Sustainable Investment Assessments - Credit Ratings Agencies

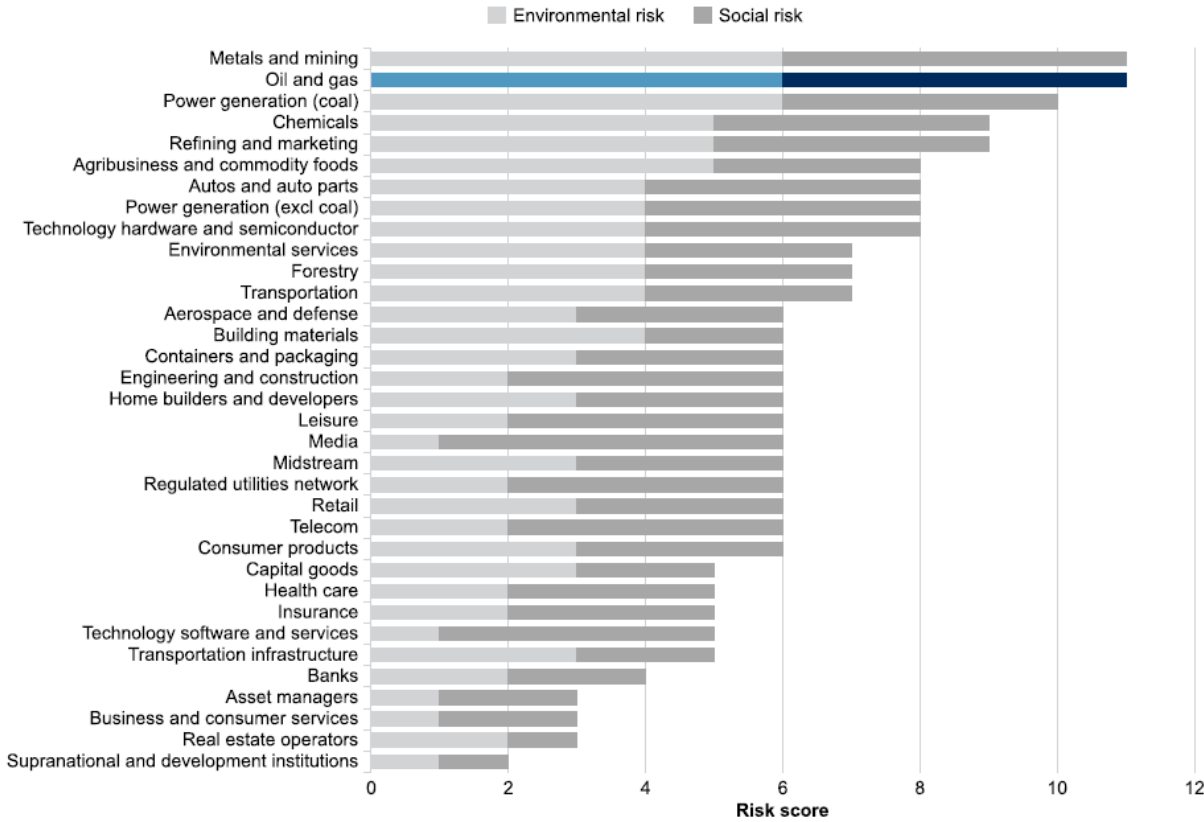
## Assessment of ESG risks to investments

16 sectors, $3.7 trillion in debt with “high” or “very high” exposure to tightening of $CO_2$ regulatory regimes

**Sectors with “Very High” or “High” exposure to carbon regulation (in US$ billion)**




Source: Moody’s Investors Service (2019)




Source: S&P Global Ratings, 2019

# Sustainable Investment Assessments - Oil and Gas companies

## Large Independent O&G companies are assessing and managing portfolio risks

### Repsol to cut carbon emissions to net zero by 2050 at $5.3 billion cost

REUTERS

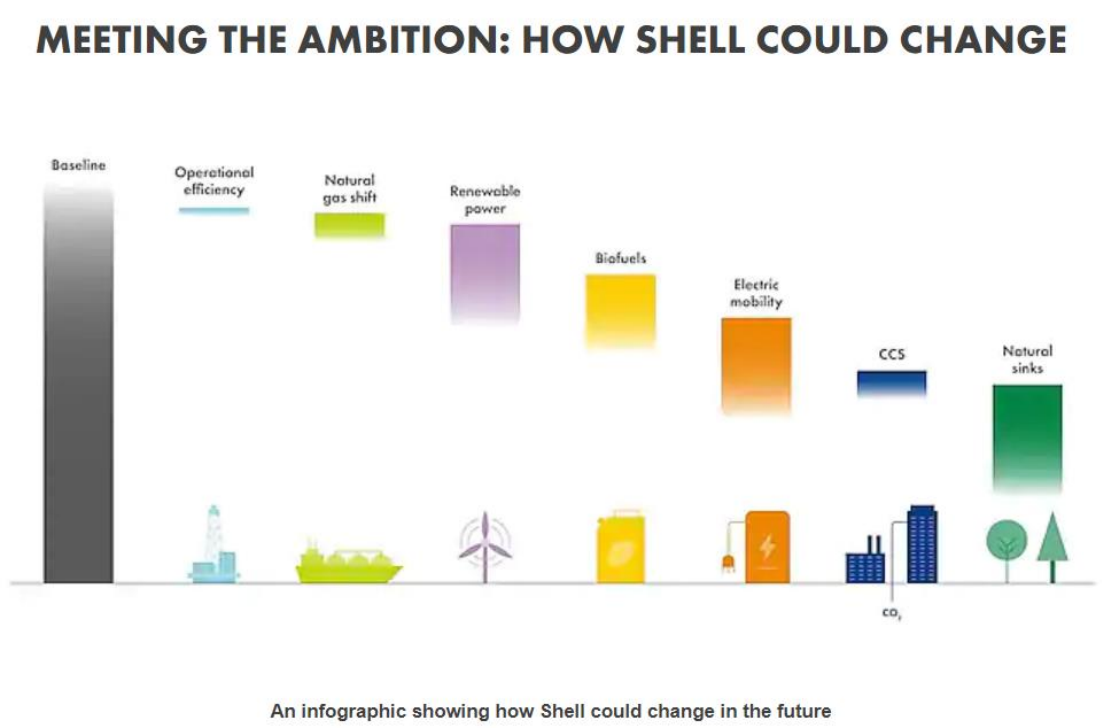
Ashifa Kassam, Isla Binnie

3 MIN READ

MADRID (Reuters) - Spain's Repsol (REP.MC) pledged on Monday to reduce net carbon emissions from its operations and most of its products to zero by 2050 and absorb a 4.8 billion euro ($5.3 billion) hit to the value of its oil and gas assets in the process.


FILE PHOTO: The logo of Spanish energy giant Repsol SA is seen during the opening ceremony of its first gas station in Mexico City, Mexico March 12, 2018. REUTERS/Carlos Jasso/File Photo

Source: Reuters, 2019



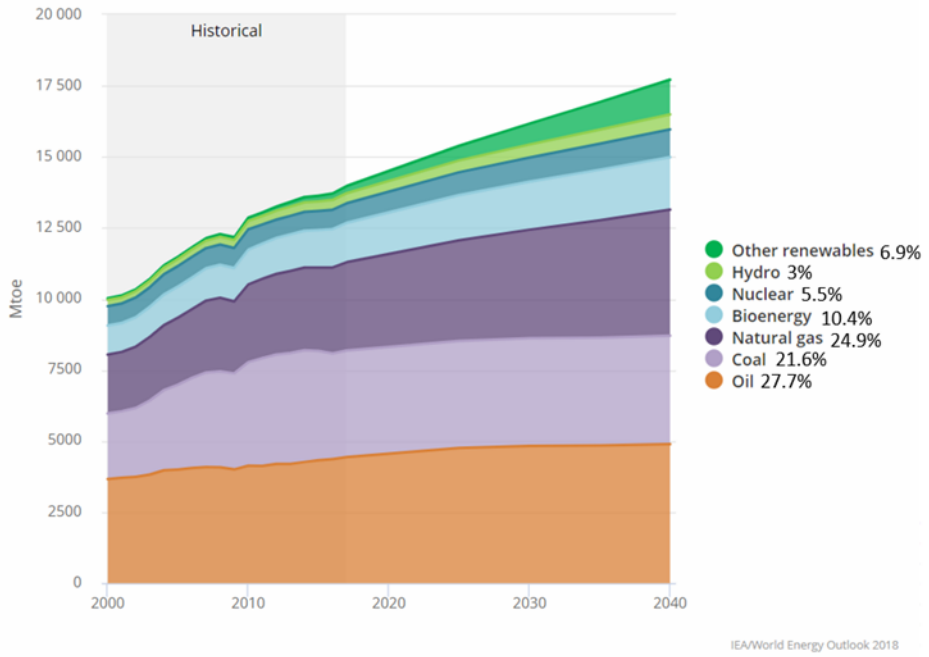

An infographic showing how Shell could change in the future

Source: Shell (2019)

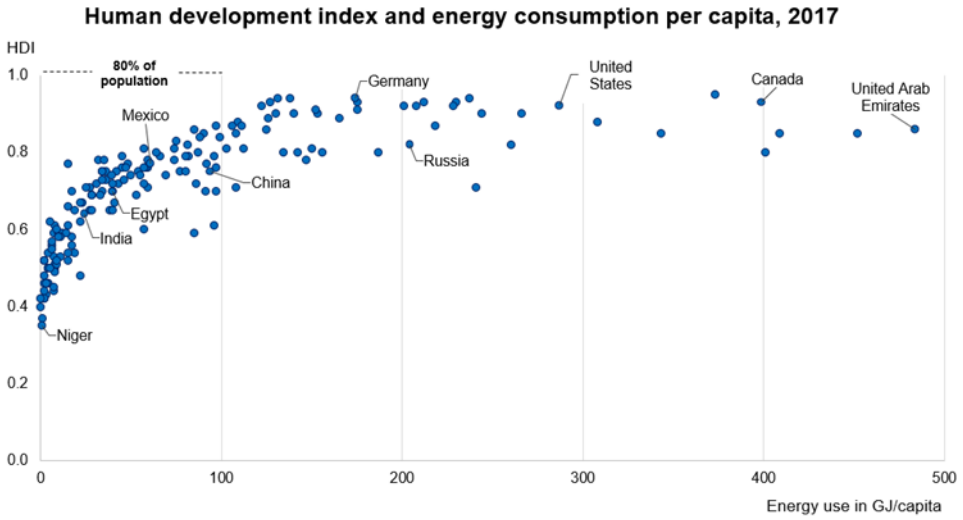
# The Dual Challenge

# The dual challenge: More energy, to lift people out of poverty

## The IEA projects >25% increase in energy demand to 2040

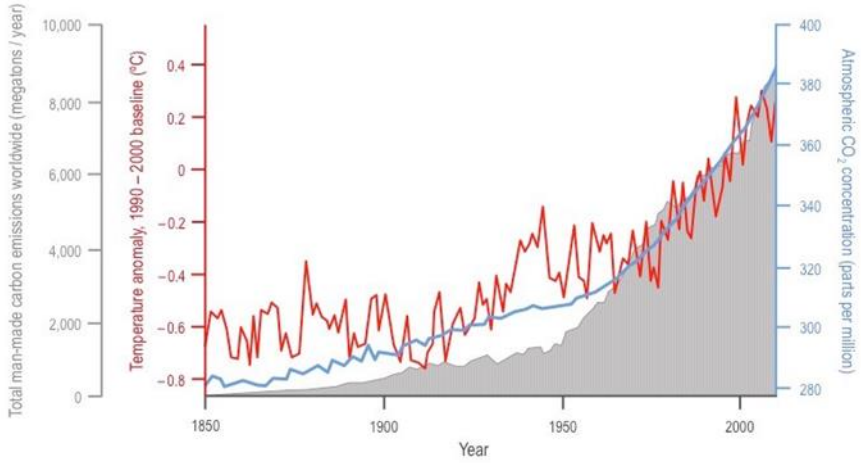



## The correlation between rising living standards and increased energy use is well established

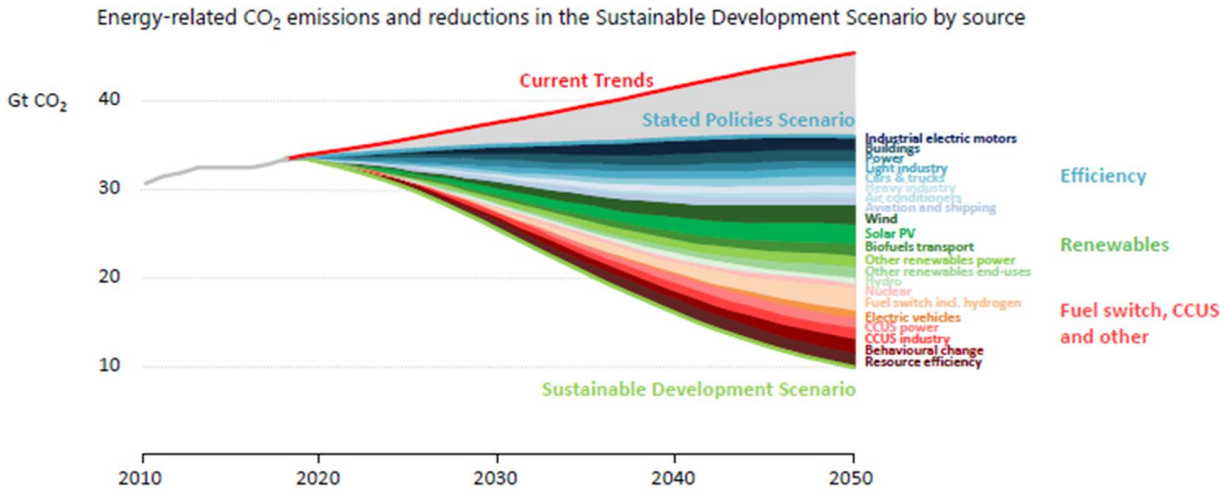


# The dual challenge: Less GHG emissions, to combat the impacts of climate change

## Global surface temperatures have risen sharply since the industrial revolution




## Deployment of low carbon technology is vital to achieve a sustainable pathway



# The National Petroleum Council CCUS Study

# *Preview of NPC Study on CCUS*

# Secretary Perry's request asked five key questions

The Secretary of Energy
Washington, DC 20585

1. What are **U.S. and global future energy demand outlooks,** and the environmental benefits from the application of CCUS technologies?
2. What **R&D, technology, infrastructure, and economic barriers must be overcome** to deploy CCUS at scale?
3. How should **success be defined**?
4. What actions can be taken to **establish a framework that guides public policy and stimulates private-sector investment** to advance the development and deployment of CCUS?
5. What **regulatory, legal, liability, or other issues should be addressed** to progress CCUS investment and to enable U.S. to be global technology leaders?

fuel types or energy sources such as coal, oil, and natural gas. Factors to consider include—technology options and readiness, market dynamics, cross-industry integration and infrastructure, legal and regulatory issues, policy mandates, economics and financing, environmental footprint, and public acceptance.

Rick Perry

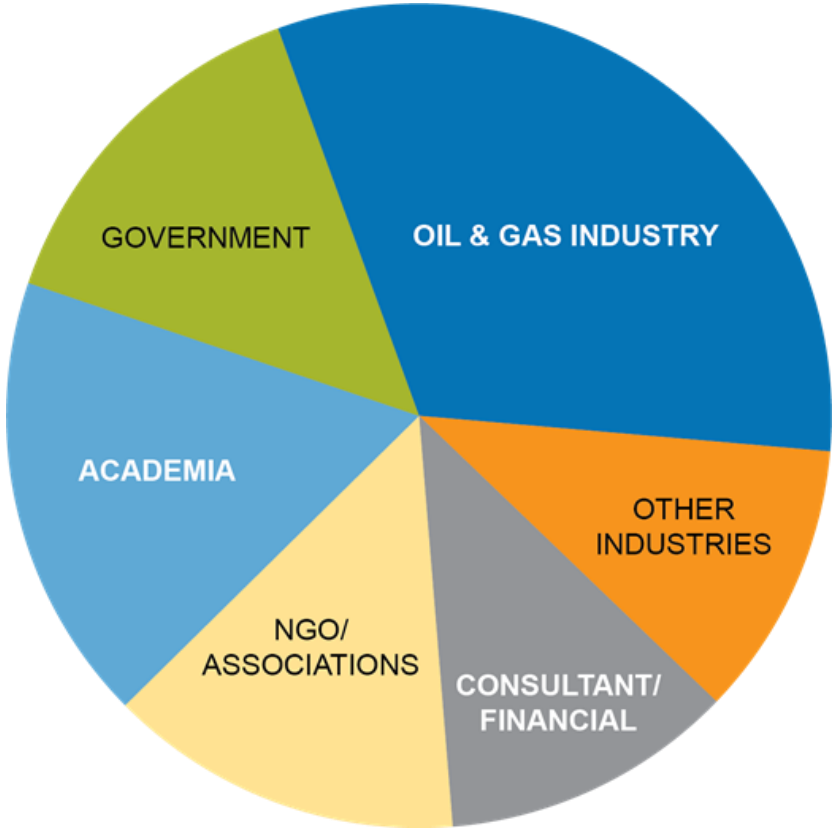
Rick Perry

# Define pathways leading to CCUS deployment at scale

The study will:

- Establish **importance of CCUS** in the U.S.
- Evaluate **CCUS supply chain** including drivers of U.S. project success and costs of deployment across all sectors and fuel types
- Address **variety of factors** (e.g., economics, policy, technology, etc.)
- Focus primarily **on accelerating CCUS deployment within the U.S.** while learning from and considering implications for rest of the world
- Deliver **prioritized, actionable recommendations** across three phases of CCUS deployment
- Provide a **roadmap for deployment** for U.S. government and industry

# Participants offer diverse, cross-industry perspectives




- The CSC has membership of 21 individuals representing upstream and downstream oil & gas, LNG, biofuels, power, EPC, NGO, academia and state and federal governments.
- The overall study team is currently composed of over 300 participants from more than 110 different organizations and includes 17 international members.
- National Coal Council participation is represented through overlap of 21 organizations.

# U.S. leads in CCUS deployment

The United States has become the world leader in CCUS with:

- 40+ years of successful EOR experience
- Ten of 19 industrial scale projects, 80% of the world's capacity
- Over 5,000 miles of $CO_2$ pipeline
- 20+ years of DOE leadership and support
  - $4.5bn in RD&D programs
  - Over 20 million tonnes $CO_2$ stored
  - Public-private partnerships
- World-leading policy support (e.g., 45Q)
- Established regulatory framework

# Extending U.S. leadership position

The United States will continue to lead by:

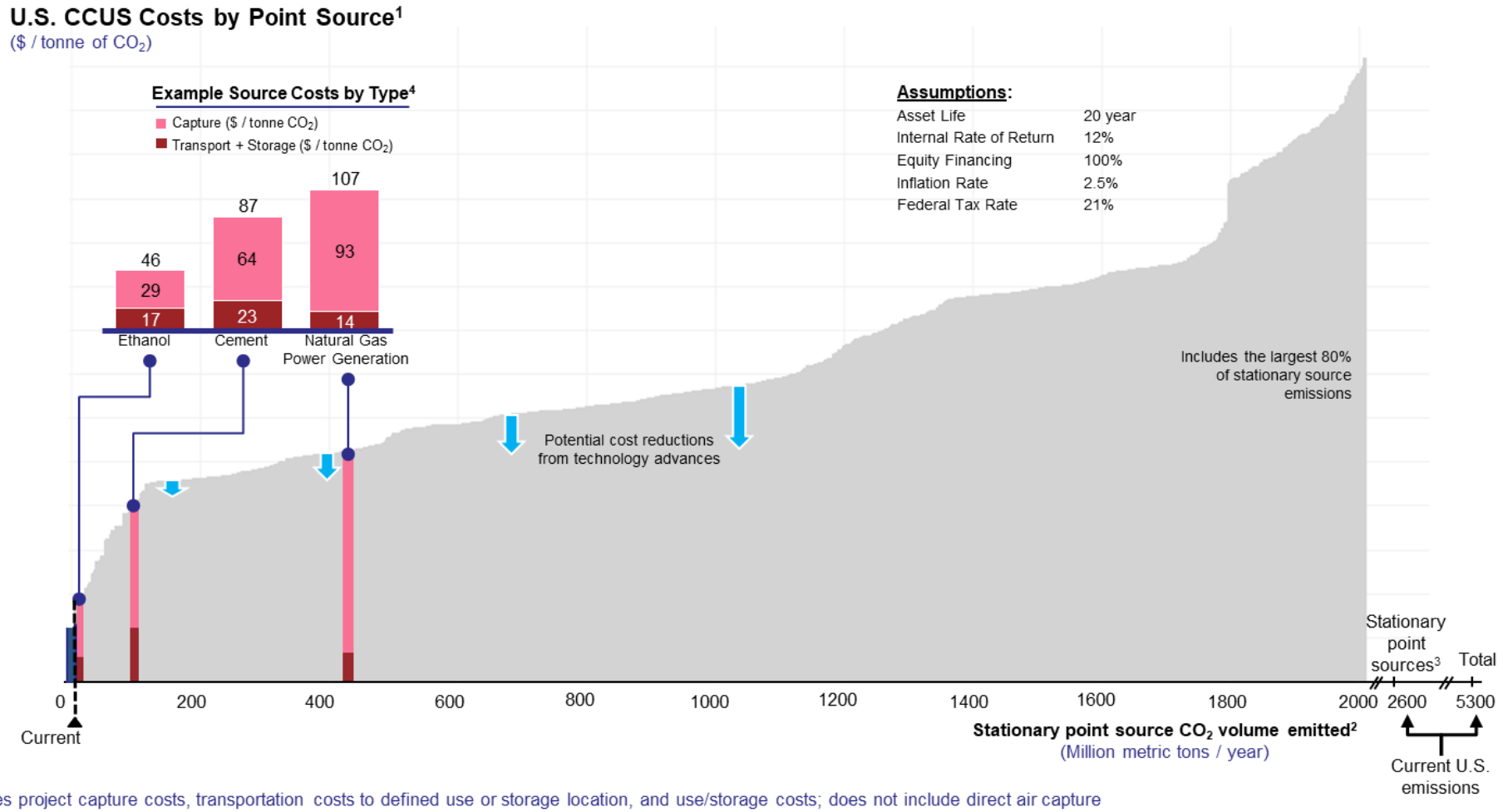
- Increasing research and capability
- Leveraging vast onshore and offshore storage potential
- Engaging stakeholders to increase understanding and confidence in CCUS
- Expanding deployment across all sources and industries

# Differential feature of NPC Study – U.S. CCUS cost curve

Study has assessed the costs to capture, transport and store the largest 80% (~2Gt) of U.S. stationary sources:

- Cost to capture, transport, and store one tonne of $CO_2$ plotted against the volume of $CO_2$ abatement possible
- Source, industry and location specific
- Transparent assumptions, leveraging existing studies combined with industry experience
- Identifies level of value (incentives, revenue, etc.) necessary to enable deployment
- Builds the case for ongoing RD&D across entire CCUS supply chain
- Economic benefits assessment (e.g., jobs, GDP)

# U.S. CCUS cost curve

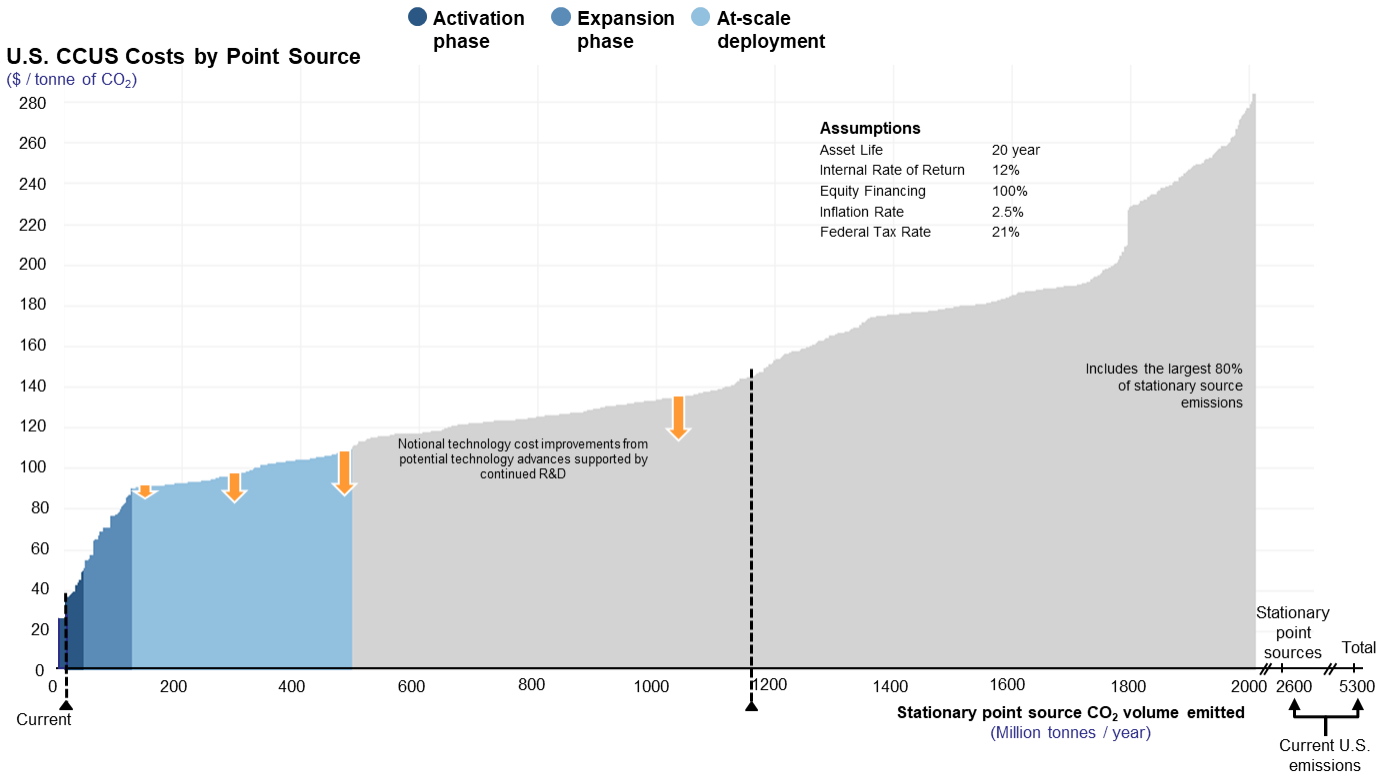



1 Includes project capture costs, transportation costs to defined use or storage location, and use/storage costs; does not include direct air capture
2 This curve is built from bars that each represent an individual point source with a width corresponding to the total $CO_2$ emitted from that individual source
3 Total point sources include ~600 MTPA of point sources emissions without characterized CCUS costs
4 Widths of bars are illustrative and not indicative of volumes associated with each source

# Differential feature – phases of implementation

Study lays out a three phases – Activation, Expansion and At-Scale:

- Prioritized based on economics and ease of implementation
- Specific recommendations
- Economic benefits – GDP and jobs



# Categories of recommendations

Across the thee phases of implementation, the roadmap to at-scale deployment details recommendations in four key areas:

- Financial incentives
- Supportive legal and regulatory frameworks
- Technology and capability
- Stakeholder engagement

# Study timing

- Approval by NPC membership, presentation to Secretary of Energy, and public release scheduled for December 12
- December 12 meeting of the NPC and report presentation will be webcast via NPC website: www.npc.org
- Public release of NPC approved report will also be available for viewing and download via NPC website.