#### **BP America Priorities**

Business Leadership Meeting December 14, 2016

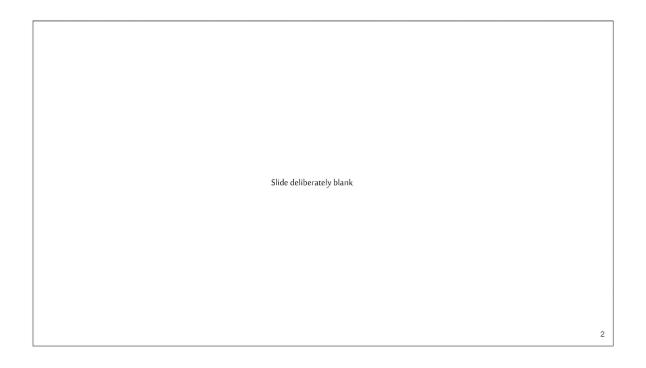












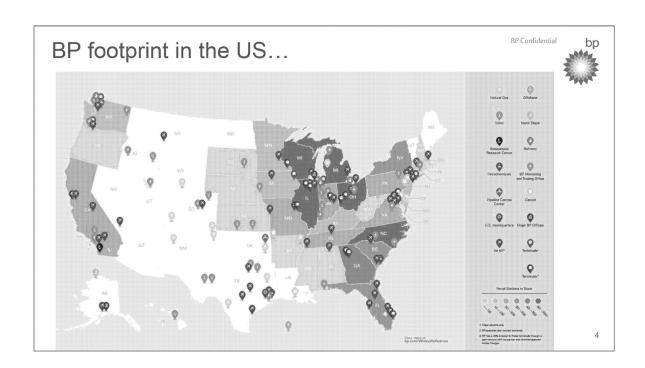
### U.S. Business Overview

**Global Context** 

Climate Agenda

**US Context** 

**BP America Priorities** 



BP has larger footprint in the US than in any other country with \$106bn (39%) of its assets, 643mbd (31%) of its production, and \$5bn/yr (30%) of its capital. We employ 14,000 and add'l 145,000 workforce via the supply chain

#### Upstream:

643mboe/d production (GOM - 250mbd; L48 - 284mbd; Alaska - 109mbd)

4 operated and 3 non-operated offshore assets in GOM

1 giant field and 2 non-operated assets in the North Slope; holding 29% interest in a massive LNG project est. to come online in 2025

7.5bn bbl resource base managed by L48 via >9,800 operated and 13,200 non-operated wells

#### Downstream:

3 refineries with a processing capacity of 824,000 boe/d (Whiting – 430mbd; Cherry Point - 234mbd; Toledo - 160mbd) 2 petrochemical plants with 3.1 million tons of chemical production capacity (Cooper River – largest producer of PTA, with capacity to produce 1.4 million tons of chemicals/year; Texas City Chemicals – with a capacity to produce 1.5 million tons of chemicals/year)

Retail: 13.5 billion gallons of fuel delivered in the US in 2015.

Lubricants: Castrol business accounts for 23 out of every 100 gallons of consumer motor oil purchased in US stroes.

Air BP: sells more than 7.5 billion gallons of aviation fuel each year.

USPL: manages 4,000 miles of pipeline, 1.3 mmbd crude oil, liquid gas, or refined product; and has 64 above-ground storage tanks with 4.8mmbd capacity

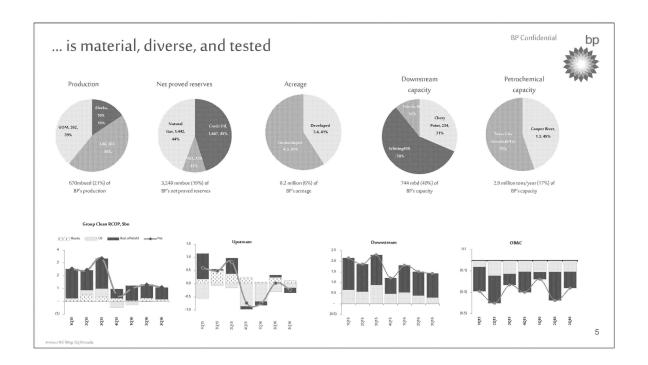
Trading: No. 1 marketer of natural gas in North America, on average 1.2 million transactions a year, serving 3,500 customers throughout the country.

#### BP Wind:

Globally largest operated renewables business of any major oil and gas company;

Directly operates 14 wind farms in 8 states – with gross generating capacity of 2,285 megawatts (enough to power all homes in Philadelphia)

BP Shipping: 1,100 voyages to/from the US in 2015, moving more than 46 million tons of cargo.



BP has larger footprint in the US than in any other country with \$106bn (39%) of its assets, 643mbd (31%) of its production, and \$5bn/yr (30%) of its capital. We employ 14,000 and add'l 145,000 workforce via the supply chain

#### Upstream:

643mboe/d production (GOM - 250mbd; L48 - 284mbd; Alaska - 109mbd)

4 operated and 3 non-operated offshore assets in GOM

1 giant field and 2 non-operated assets in the North Slope; holding 29% interest in a massive LNG project est. to come online in 2025

7.5bn bbl resource base managed by L48 via >9,800 operated and 13,200 non-operated wells

#### Downstream:

3 refineries with a processing capacity of 824,000 boe/d (Whiting – 430mbd; Cherry Point - 234mbd; Toledo - 160mbd) 2 petrochemical plants with 3.1 million tons of chemical production capacity (Cooper River – largest producer of PTA, with capacity to produce 1.4 million tons of chemicals/year; Texas City Chemicals – with a capacity to produce 1.5 million tons of chemicals/year)

Retail: 13.5 billion gallons of fuel delivered in the US in 2015.

Lubricants: Castrol business accounts for 23 out of every 100 gallons of consumer motor oil purchased in US stroes.

Air BP: sells more than 7.5 billion gallons of aviation fuel each year.

USPL: manages 4,000 miles of pipeline, 1.3 mmbd crude oil, liquid gas, or refined product; and has 64 above-ground storage tanks with 4.8mmbd capacity

Trading: No. 1 marketer of natural gas in North America, on average 1.2 million transactions a year, serving 3,500 customers throughout the country.

#### BP Wind:

Globally largest operated renewables business of any major oil and gas company;

Directly operates 14 wind farms in 8 states – with gross generating capacity of 2,285 megawatts (enough to power all homes in Philadelphia)

BP Shipping: 1,100 voyages to/from the US in 2015, moving more than 46 million tons of cargo.

### US assets fit in BP's strategic priorities...

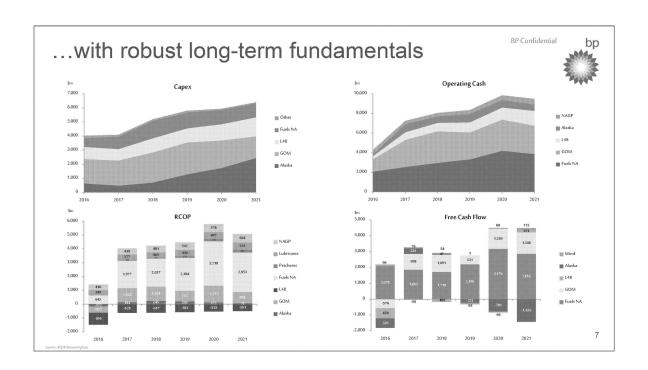


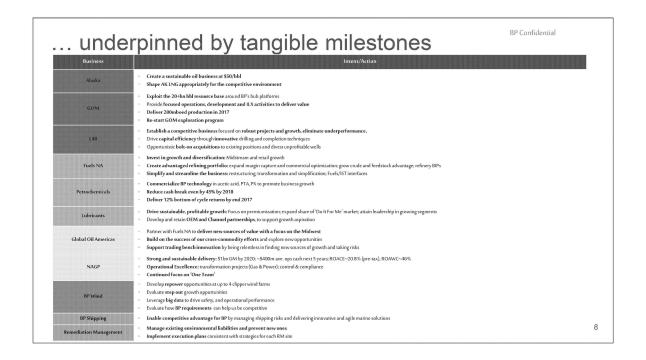
#### Strategic Priorities

- Shift to gas and low cost oil in the upstream
- Market led growth in the downstream
- Venturing and low carbon across multiple fronts
- · Modernizing the whole firm to drive engagement and productivity

#### US assets

- Growth of competitive L48; Shape AKLNG; 20bn+ bbl resource
   near the 4 GOM hubs
- Midstream and retail growth in Fuels NA
- 14 wind farms; IST environmental products; US based venturing team
- Transformation projects across upstream, downstream, IST





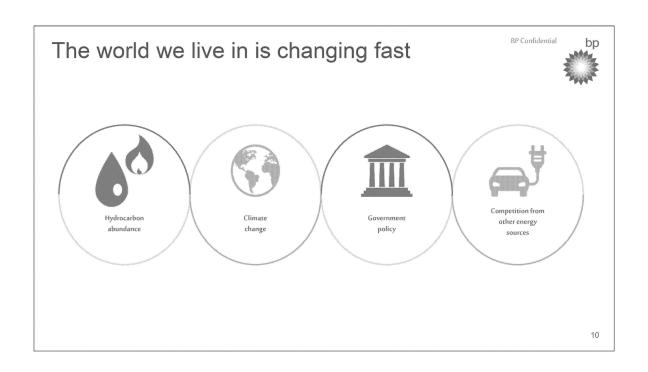
U.S. Business Overview

Global Context

Climate Agenda

**US Context** 

**BP** America Priorities





# Our view of megatrends

- \* Costs are falling for all forms of energy and abundance will give consumers and policy makers new options
- World will require all forms of energy to meet needs of growing economy and to improve living standards
- Global temperature rise without more aggressive policy action is heading towards a

2° to 4° Celsius range

- Social stewardship is becoming increasingly important, driven by policy, consumer preferences and urbanisation
- Trend towards increasing electrification will continue
- Digital and technology revolutions are affecting all areas of the energy industries
- Elites vs. populism

# Key strategic questions and scenarios



- Oil supply: what are the implications of an abundance of low cost of supply sources?
- Oil demand: will transport de-carbonize and oil peak faster than anticipated through EVs, automation, ride-sharing, policy (e.g. air quality) and changing consumer preferences?
- Gas demand: how will gas compete with coal on cost and with renewables on carbon?
- ullet Emissions: what are plausible pathways toward stabilization of atmospheric CO $_2$  concentrations?
- Disruptors: what are the most likely disruptive forces to impact energy in the next 20 years?
- Returns: will oil and gas business earnings ever return to historic levels, and what is the right risk / return profile for new businesses?

## Our purpose and strategic priorities



BP Confidential





Heat, light and mobility solutions for a changing world

Shift to gas and low cost oil in the upstream

Market led growth in the downstream

Venturing and low carbon across multiple fronts

Modernising the whole firm to drive engagement and productivity

U.S. Business Overview

**Global Context** 

Climate Agenda

**US Context** 

**BP** America Priorities

# Climate Change(s)

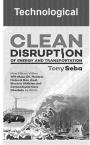


BP Confidential



More frequent and extreme weather events (storms, floods, droughts, and wildfires)

Creeping rises in temperatures and sea levels over time



Technological advances & cost declines in renewable power, electric grids, EVs and batteries threaten incumbent industries & demand for fossil fuels

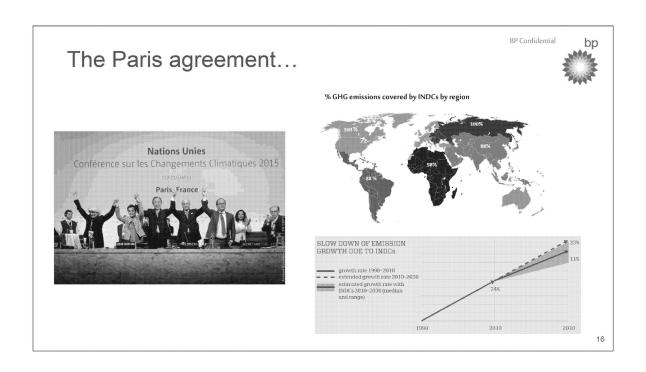


Regulatory tide stemming from efforts to combat climate change. Country emission- reduction pledges, carbon tax, compliance costs



Increased social and corporate awareness of climate change with shareholders, NGOs, activists, and consumers pressuring firms to decarbonize portfolios

- Risks/opportunities could be unlikely to materialize short-term, but could be significant longer term Markets focus on short-term risks hence, climate factors are generally underappreciated and under-priced This could change as effects of climate change become more visible

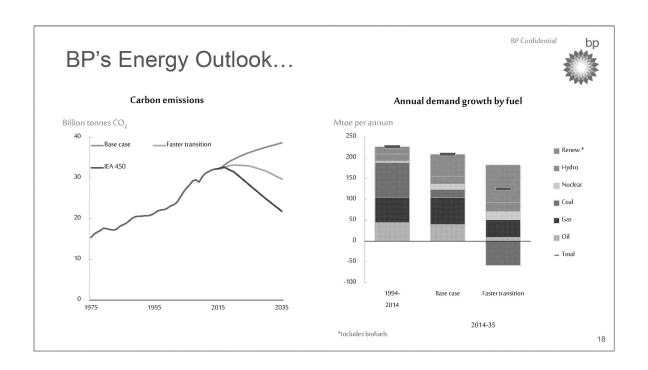


# ...may be a significant response to change

### climate



- \* With ambitious long term goals:
  - Aim to hold temperature rise to well below  $2^{\circ}$ C, pursue efforts for  $1.5^{\circ}$ C.
  - Peak emissions asap and balance emission sources and sinks 2050-2100.
  - Allows for emissions trading and possible carbon pricing
  - Entered into force on 4 November 2016
- \* And bottom up short-term climate pledges. Countries must:
  - Submit "nationally determined contributions" (NDCs)
  - Report every 5 years from 2023 and ramp up ambition each time
  - The NDCs do not meet 2°C (more like 2.7-3.5°C), and are not legally binding
  - Do NOT have any near-term impact on BP's businesses



# ...assesses likely and possible energy and emissions to 2035



- In the base case carbon emissions grow more slowly than over the past 20 years but they still increase by 20% well above a 2°C emissions pathway.
- In the 'faster transition' case emissions peak in 2020 and by 2035 are nearly 8% below the 2014 level.
- That falls short of the IEA 450 Scenario, but goes well beyond the NDCs.
- Total energy demand still grows in the 'faster transition' case, but at a reduced pace (0.9% p.a. versus 1.4% p.a. in the base case). Non-fossil fuels supply all of the increase.
- Natural gas and oil still increase, while coal consumption suffers the most, falling by more than 30% to its lowest level since 2002.
- The big winner in the 'faster transition' case is renewables, with an almost six-fold increase in output (nearly 9% p.a.) and a 15% share of energy by 2035.

# BP has joined external initiatives that ....



BP Confidential





# ... support existing activity plans

- Provide an opportunity for industry collaboration and agreement for using consistent methodologies
- WB2030: Momentum building with numerous additional signatories to the World Bank routine flaring initiative e.g. Angola, US, Canada
- CCAC: Improve methane identification and mitigate sources where economic
- \* CPLC: Creates a broader platform for carbon pricing advocacy, supported by many governments and other businesses
- $^{\circ}$  OGCI: A vehicle for collaborative industry solutions, moving from forming / reporting to action





## Group key messages

- Some things may change as a result of the Paris agreement but not everything, and not overnight
- \* We will strengthen our engagement with climate change, both as BP and via partnerships like OGCI
- We will develop our understanding in key areas including:
  - The short to medium term business implications of specific country pledges
  - The long term implications for energy supply and demand and technology innovation
  - The resilience of our own portfolio and product demand to plausible outcomes
  - Potential opportunities to improve operational efficiencies, especially for energy, methane, flaring and products
  - Potential low carbon opportunities



## Group key messages

- Governments must provide a clear, stable and effective policy framework if companies are to provide and use energy competitively, and limit GHG.
- A well-designed carbon pricing framework is the most comprehensive and economically efficient policy to limit GHG emissions and should be introduced. It would make energy efficiency more attractive and lower-carbon energy sources more cost competitive.
- We have no preference between cap and trade and carbon taxation to create a carbon price. Either policy can be effective and is
  acceptable if it is well-designed. Clear, stable, and predictable rules are key.
- The carbon price should be applied to all sectors economy-wide unless overlapping or duplicative policies already exist (e.g. transport).
- Governments should set the level of the carbon cap or tax and allow it to deliver environmental outcomes at least cost, with minimal
  interference to constrain or manipulate prices or favour specific technologies.
- Until approximate global carbon pricing equivalence exists, domestic sectors or installations that are energy-intensive and exposed to
  unequal international competition should be given protection from the national carbon price.

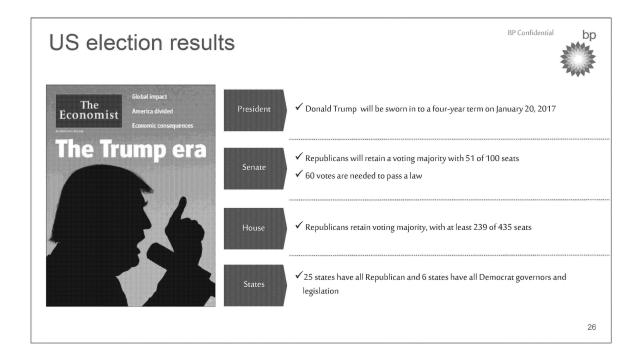
U.S. Business Overview

**Global Context** 

Climate Agenda

**US** Context

**BP America Priorities** 



# Trump's campaign energy priorities...



- Cancel Paris Agreement and stop funding for UN global warming programs
- Rescind Obama's Climate Action Plan and the Waters of the U.S. rule
- Open onshore and offshore leasing on federal lands
- Lift moratorium on coal leasing and open shale energy deposits
- Curtail EPA's GHG regulatory authority
- · Revoke unwarranted policies restricting new drilling technologies
- Rescind the Clean Power Plan
- Ask Trans Canada to renew its permit application for the Keystone Pipeline

27

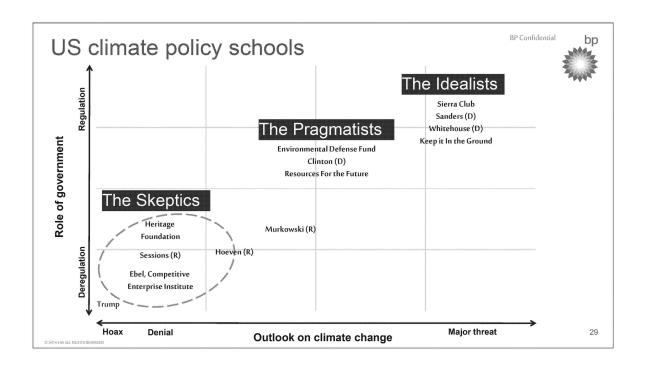
### **Redacted - First Amendment**

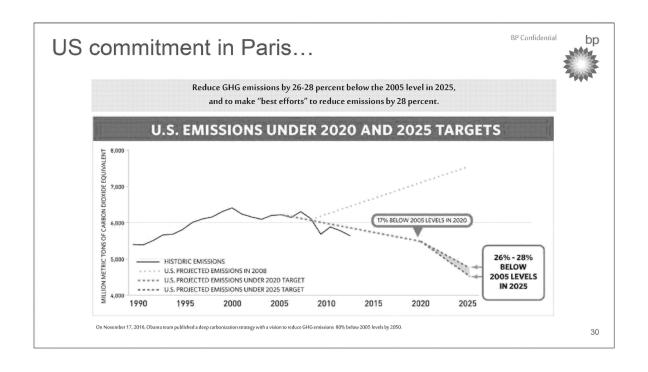
### ... need to overcome some barriers



- $\bullet \quad \text{Low energy commodity prices and flat demand are restraining interest in producing fossil fuels from public lands}\\$
- Reversing the decline in coal use for power generation would run counter to utility resource planning, competition from low-priced natural gas, and compliance with state renewable mandates
- $\bullet \quad \mathsf{Slow} \ \mathsf{growth} \ \mathsf{in} \ \mathsf{motor} \ \mathsf{fuel} \ \mathsf{demand} \ \mathsf{limits} \ \mathsf{the} \ \mathsf{government's} \ \mathsf{latitude} \ \mathsf{to} \ \mathsf{decrease} \ \mathsf{ethanol} \ \mathsf{blending} \ \mathsf{levels}$
- Rescinding US participation in free trade agreements could provoke retaliatory action by US trade partners
- Major tax cuts are subject to Congressional authorization and would be subject to uncertain and unintended legislative

Source Bloomberg Intelligence





### ... likely to change

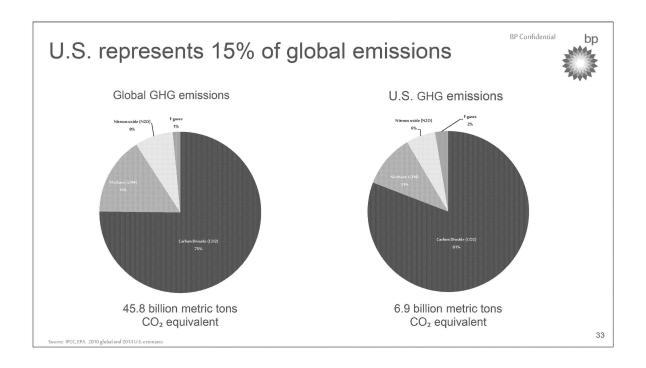


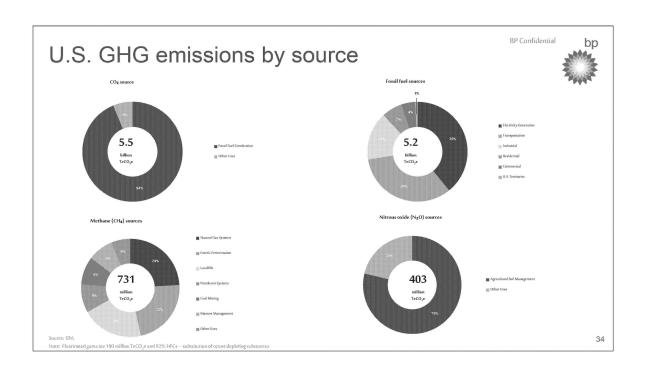
- Pull-out: The Paris Agreement entered into force on 4 November 2016. The earliest the US could submit its notification of withdrawal is 4
   November 2019, with withdrawal effective November 4, 2020. However, the administration could choose to pull out of the UNFCCC altogether, which would automatically extricate the US from the Paris accord and other commitments
- Renegotiate: Trump has said before that 'at a minimum' he would be renegotiating these agreements to relieve their impact on US
  competitiveness likely to limit the ambition and ensure regulatory equivalence between major parties, which conflicts with the Paris
  Agreement
- Ignore: Trump could simply choose to ignore the US pledge to reduce emissions, unwind Clean Power Plan, and revive coal as he has promised -- and still meet the goal thanks to continuing growth of cheap gas replacing coal
- Send it to the Senate: Will be dead on arrival in the hands of the Republican lawmakers

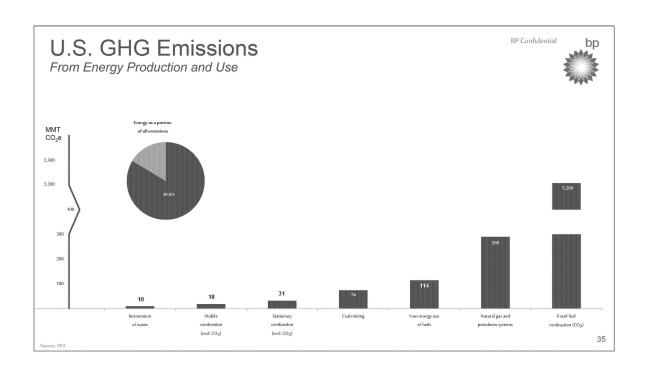
31

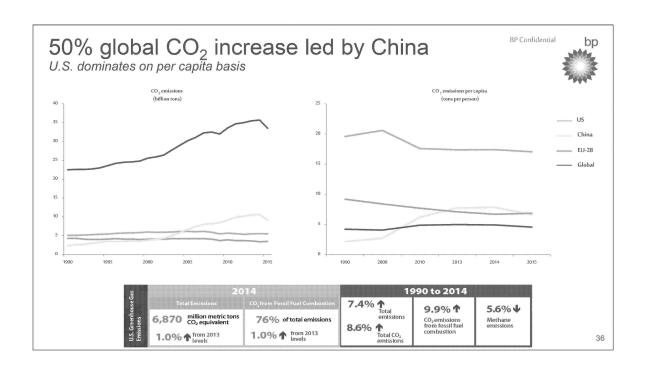
Huge implications on how other countries view the US given the world is united behind this accord

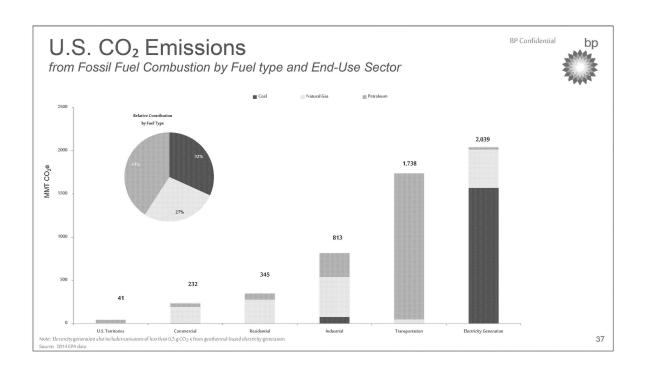


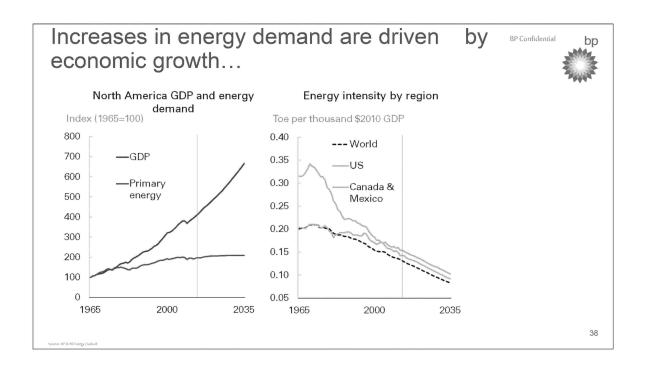












# ...offset by significant improvements energy intensity

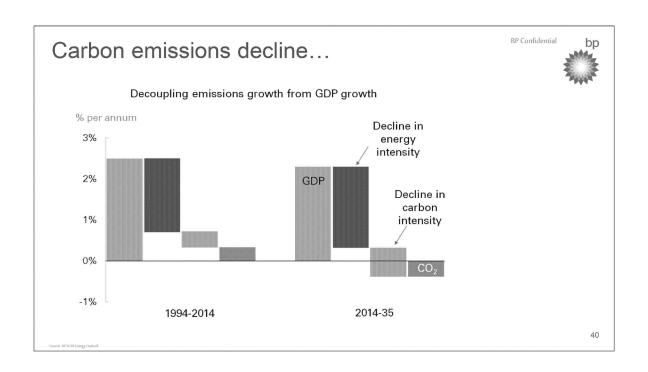


BP Confidential



- As the economy grows, more energy is required to fuel the increased level of activity.
- However, rapid improvements in energy intensity the amount of energy used per unit of GDP mean that energy demand grows far less quickly than North American GDP: 6% versus 61%.
- North American energy intensity is projected to decline by 2% p.a. over the forecast period. This is faster than in any 20-year period in history since our data begins in 1965.

Source: 8P 2016 Energy Ourloc



# ...driven by faster efficiency gains the changing fuel mix



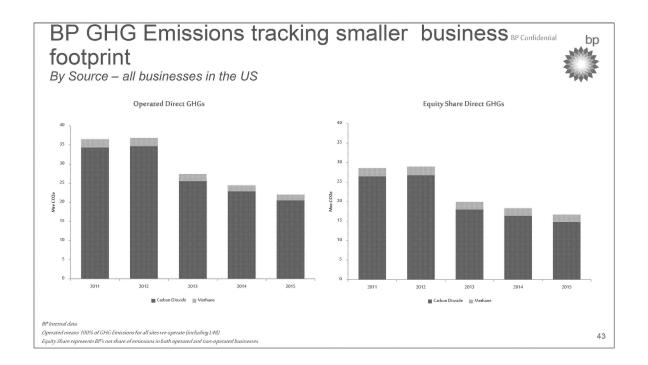
BP Confidential

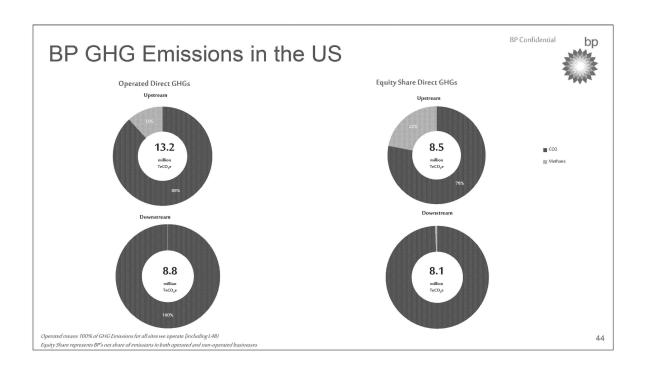


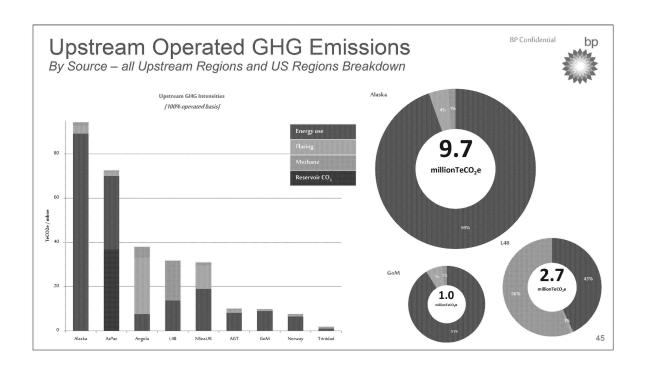
- North American carbon emissions are expected to decline by 0.4% p.a. over the Outlook compared to growth of 0.3% p.a. over the past 20 years.
- Given that GDP is projected to grow only slightly slower than the historical trend, this represents a significant degree of 'decoupling' of carbon emissions from GDP.
- This decoupling reflects significant increases in the expected pace of decline of both energy intensity (energy used per unit of GDP) and carbon intensity (carbon emissions per unit of energy consumption).
- The world is embarking on a transition to a lower-carbon energy system. The pledges made by participating countries in their
  Intended Nationally Determined Contributions (INDCs) and the agreement that entered into force have increased our
  confidence that the world will achieve this break from past trends.

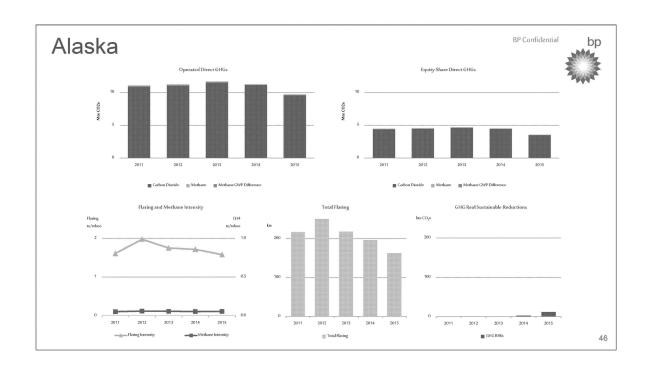


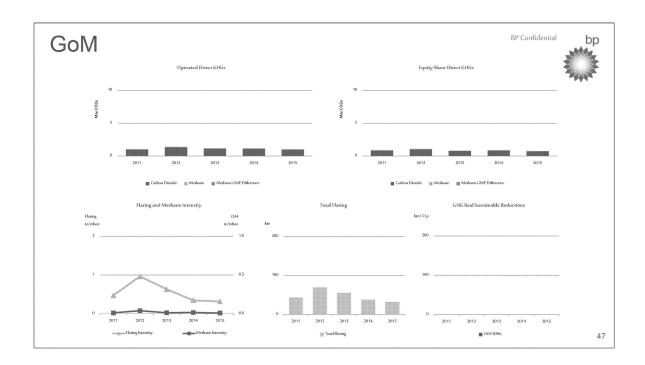
BP GHG footprint in the U.S.

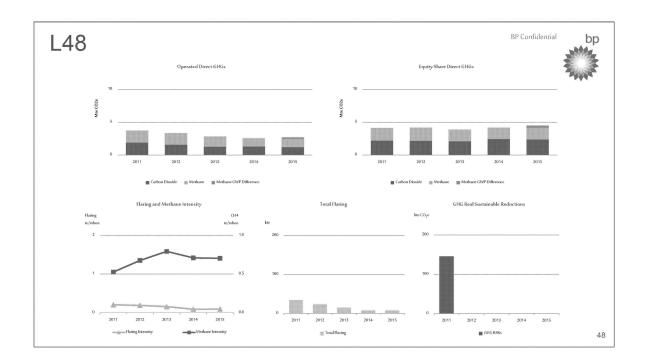


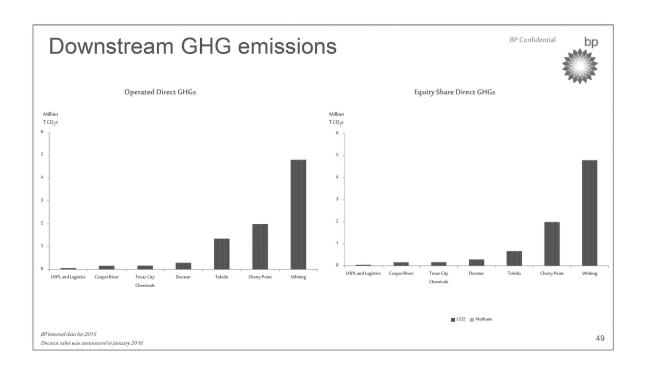














# Cost of Compliance and Carbon Price Scenario

#### Impact of existing regulations



Existing Regulation (5m)	Alaska		GoM	Whiting	C Point	Toledo	Total
Renewable Fuels Standards (RFS)				52	35	10	97
EPA VOC Rule: OOOO (L48)		27					27
Greenhouse Gas Reporting Program (GHGRP) *	8	5	2				15
NEPA GHG Guidelines	2	2	2	2	2	2	12
EPA Methane Rule: OOOOa (Alaska)	11						11
EPA Methane Rule: OOOOa (L48)		8					8
Subpart W Changes — GHGRP (incremental to GHGRP) *	1						1
Subtotal of Existing Regulations	21	42	4	54	37	12	170
Emerging Regulations (Sm)							
Refinery GHG Rule				309	206	58	573
BLM Venting and Flaring		29					29
Future Regs of Existing Sources of Methane Emissions		25					25
Clean Power Plan Rule +	0	2	0	9	5	5	21
WA State Clean Air Rule *					21		21
Subtotal of Emerging Regulations	\$0	\$56	\$0	\$318	\$232	\$63	669
TOTAL	21	98	4	372	269	75	839

Notes: Estimates are based on a 10 year present value of PSO estimate of the cost of compliance
Average annual costs is -950million, scalating post 2020
+ Includes "benefit" to Wind business from incremental S/Mwh generation of TX merchans wind farms
\* Static results only

#### Odds against carbon tax are high



- New direction by the new political establishment
- $\bullet \quad \hbox{Oil majors recognize climate action as a structural reality but believe governments should drive the agenda:} \\$ 
  - 'A revenue-neutral carbon tax would ensure a uniform and predictable cost of carbon, allow market forces to
    drive solutions, maximize transparency to stakeholders, reduce administrative complexity, promote global
    participation and easily adjust to future developments in climate science and policy. In order to set a uniform
    cost of carbon across the economy, a carbon tax has to replace all the other patchwork of regulations that are
    designed to put a price on carbon.'
- Divided position: integrated companies vs. independent producers

#### ExonMobil.

#### ...inform our position...



#### Principles

Climate change is a real issue. Energy plays a significant role and needs to be part of the solution

Energy sufficiency is vital for maintaining US energy independence, economic growth, and welfare. We need to ensure that energy continues to be safe, available, affordable, and sustainable

The challenge is how to maintain energy sufficiency while also addressing the climate change. This needs to be part of a comprehensive energy and environment policy and address the following:

Energy mix aspiring to include cleaner sources as they become viable, while maintaining our national energy balance (i.e. don't compromise our livelihood but use as much cleaner resources as we reasonably can)

Improve efficiency of energy production and distribution from all sources (producers to improve their GHG footprint, distributors to prevent leakage, build efficient solutions to new infrastructure investments.

Improve efficiency of consumption (auto and power industry to continue improving efficiencies and use of diverse sources; smart choices on agriculture, industrial, and residential sectors) Institute a carbon tax as an incentive for consumers to change behaviors without compromising livelihoods

Educate and build awareness of climate conscious choices and what everyone can do to help

Continue investing in research to unlock new technologies and reduce costs to make alternative sources technically scalable and commercially viable

Design policies that take into account the timeline of switching to new sources of energy and impact of the energy transition on local and national economy

#### What not to do

 ${\it 'Keep it in the ground' is not a realistic nor helpful, as is denying that climate change is real}\\$ 

 $Politicizing the issue \ makes it \ difficult for broader \ stakeholders \ to \ engage \ in \ a \ meaningful \ way \ resulting \ in \ lack \ of \ progress \ at \ a \ broader \ policy \ level$ 

Administrative interventions through regulatory agencies at the federal and state level are not helpful and risk affordable and sustainable access to energy, energy independence, and economic growth

Unilateral or premature choices by the country will cause capital flight to other countries, resulting in adverse impact on climate change, and significant impact on US jobs, and economy

58

Huge implications on how other countries view the US given the world is united behind this accord

BP Confidential bp

U.S. Business Overview

**Global Context** 

Climate Agenda

**US Context** 

**BP America Priorities** 



Huge implications on how other countries view the US given the world is united behind this accord

#### BP Confidential bp BP America overarching priorities Category Priority Maintain integrity of the corporate governance process Governance & Oversight Oversight and assurance of residual DWH activities Oversight of major legal risks · Climate policy, laws, and regulations DRAFT Protect and Deliver Value · Tax laws and regulations Labor and Employment laws and regulations People Diversity & Inclusion Credible and trusted voice Branding through transition Reputation, brand, & outreach Trade associations · Corporate Social Responsibility and sponsorship activities One BP leadership Coherency · Employee Engagement Employee Benefits 62

BP America overarching priorities	BP Confidential bp
	63