bp in America

Country Book

Applicability:	bp America
Original Issue Date:	June 2021
Issuing Department:	RC&S
Issuing Authority:	David Lawler, SVP, America
Document Owner:	Kola Fagbayi, VP, strategy & governance
Document Custodian:	Kim Koepke, Manager, strategy & governance

Preface

As bp transitions from an integrated oil company (IOC) to an integrated energy company (IEC), there is an opportunity for business leaders from across bp's subsidiaries in America to identify and deliver new integrated energy solutions for cities, corporates, and industries by bringing together capabilities, products, and services from across bp.

The US is a significant market for bp, with multiple business and external stakeholder touchpoints. Therefore, RC&S has established a quarterly US business forum to foster alignment and integration. As a first step, the US business leaders agreed to the creation of a country book.

The objective of the bp in America Country Book (Country Book) is to facilitate a common understanding and alignment around the most important priorities of the bp businesses in America. This document is for internal use only.

In the short term, the Country Book provides a shared understanding of bp's footprint in the US; facilitating conversations across business entities to unlock ideas with respect to strategy and

Redacted - First Amendment

In the medium term, the Country Book is a source of input to the strategy and sustainability markets insights team. Through use of the Country Book, the market insights team will build an integrated country strategy that identifies distinctive integrated value propositions from among bp's distinct business entities. The Country Book will also support the regions, cities and solutions business development team in its identification of opportunities and synergies within bp in America.

Each distinct business entity participating in the creation of this Country Book provided their respective information and has approved the content.

Factsheets for each business represented in the bp in America Country Book have been created. The bp in America Country Book will be updated on an annual basis.

Acknowledgement

Writing and compiling the data contained in the bp in America Country Book has required the contribution and collaboration of many people. We are grateful to everyone who has contributed to creating this book directly and indirectly. We learned a lot would like to express a big "Thank You"!

Some of those we would like to acknowledge include:

- Country Book steering committee: Kirsty McCormack, Nicola Grady-Smith, Mary Streett, Alan Haywood
- Legal review: Gabrielle Sitomer, Nathan Block, Entity Managing Counsels
- BP America corporate structure overview: Susan Baur
- reinvent how we work overview: Jerome Fitzgerald
- bp in America financial information: Maria Travis
- bp in America people information: Richard Saenz, Kelly Jackson
- bp Wind Energy: Al Vickers, Vladimir Trygubenko, Khoa Do
- CCUS/H_2: Louise Jacobsen Plutt, Shirley Oliveira, Poh Boon Ung
- mobility and convenience: Richard Harding, Gregory Franks, Kimberly Simon, Donald Martinez, Rochelle Watkins, Pinar Dogru
- fuel supply and midstream: Clive Christison, Steven Bernicky, Stephanie Curulewski
- Castrol: Laura Posadas, Todd Komoroski, Diego Cardoso
- Refining: Amber Russell; Saskia Spence, Becky Raftery
- bpx energy: Jack Collins, Gregory Bensen, Genea Taft, Simone Wilk, Brandon Rumbelow
- GOM: Starlee Sykes. Peter Evans, Jennifer Osterhaus, Donna Ward, Alisa Tijerina, Yaseen Suliman, Waris Pasha, Nuno Alves
- GPTA: Orlando Alvarez, Mary-Margaret Bost, Brandon Potts
- RPTA: Janet Kong, Steven Somora
- innovation and engineering: Ahmed Hashmi, Morag Watson, Bola Ajakaye
- strategic and sustainability: Stacey Ross, Joe Jackson, Holly Armstrong
- communications: JP Fielder, Suzanne Swink
- digital solutions: Stephen Portillo, James Cradock

Contents

bp in America Overview

Through operating subsidiaries, bp's operations in the US ("bp in America") spans 44 states and Washington D.C. bp in America employs approximately 10,500 people[1] and supports an additional approximately 115,000 jobs[2] in the United States. For close to 150 years, through heritage companies, bp has had an operational presence in the US.

In 2020, bp retired the upstream/downstream business model that had served the company for 112-years. In its place bp introduced a flatter organizational structure with fewer layers of management. bp is now more centralized and is organized around four business groups:

- gas & low carbon energy (G&LCE): will grow to help meet rapidly increasing clean energy demand.
- customers & products (C&P): will grow bp's convenience and mobility offers for an increasing number of customers.
- production & operations (P&O): will be the operating heart of the company and is focusing bp's resilient hydrocarbons portfolio on value.
- innovation & engineering (I&E): acts as a catalyst opening up new and disruptive business models and driving bp's digital transformation.

bp's trading & shipping (T&S) business and regions, cities & solutions (RC&S) will act as integrators to the four business groups to further drive value creation.

The corporate headquarters of bp in America is in Houston, TX. There are three other major offices in Denver, CO, Chicago, IL, and Washington D.C.

[1] Source: Information provide by bp people & culture
[2] bp in the US | Who we are | Home

There are **certain key holding and subsidiary companies** with activity in the US. BP America Inc. (BPAI) is the senior US bp entity and acts as a holding company for most of bp's interests in America. BPAI has approximately **350 direct and indirect subsidiaries**. These subsidiaries are primarily entities formed and doing business in America; however, for historical and other reasons, there are some entities in the chain that are US and non-US entities that engage in activities outside the US.

Some of the key bp entities in America are:

Holding Companies:

- BP America Inc.
- BP Corporation North America Inc.
- BP Company North America Inc.
- Standard Oil Company

Subsidiary Companies:

- BP America Production Company
- BP Energy Company
- BP Exploration & Production Inc.
- BP Lubricants USA Inc.
- BP Pipelines North America Inc.
- BP Products North America Inc.
- BP Alternative Energy North America Inc.

Key US Financial and Operational Data[3]

Financial [4]	2018 FY	2019 FY	2020 FY	2021 Plan [5]
RCOP ($mil)	1,879	(3,142)	(5,159)	3,464
Ops Cash ($mil)	9,648	9,390	3,364	6,642
CAPEX ($mil)	12,891	8,440	4,494	

People [6]	2018 FY	2019 FY	2020 FY	2021 Plan
# of Employees	13,577	13,477	10,464	9,501

low carbon electricity and energy	2018 FY	2019 FY	2020 FY	2021 Plan
Net operating capacity (GW) bpWE only	1.3	0.9	1.0	1.1

convenience and mobility	2018 FY	2019 FY	2020 FY	2021 Plan
Customer touchpoint/day (mil)	-	-	>3	>3
Branded retail sites	7181	7207	7253	7593
Strategic convenience sites	389	393	609	628
Volume of crude sourced (mb/d)	703	737	693	821

[3] Chart compiled based upon information in the Annual Report and Form 20-F 2020 and information provided by operating businesses.
[4] Financial information provided by bp America Finance.
[5] 2021 financial forecast is for bp operations businesses in the US and not all US businesses. Forecast does not include I&E, Ventures & Launchpad, OB&C including Deepwater Horizon etc.
[6] Source: Information provide by bp people & culture

Volume of fuel sold (bil gallons)	14	14	13	15
Volume of Castrol product sold (mm liters)	332	339	263	332
Miles of pipeline owned	4700	4700	4700	4700

resilient and focused hydrocarbons	2018 FY	2019 FY	2020 FY	2021 Plan
Upstream production (mboe/d)	772	888	694	592 (excl. Alaska)
Refining throughput (mb/d)	703	738	693	733
Refining availability (%)	94	95	96	96

trading and shipping	2018 FY	2019 FY	2020 FY	2021 Plan
Gas Traded (bcf/d)	22	20	18	
Traded electricity (TWh)	164	159	130	
Crude Traded (mmbbl)	3001	2939	3356	
Distillates Traded (mmbbl)	2044	2405	2646	
Light Ends Traded (mmbbl)	1645	1647	1787	
Low Carbon Traded (mmbbl)	693	568	621	

In 2020, bp in America produced 694mboe/d, which represented approximately 29% of bp's global production output. The production came from offshore Gulf of Mexico, Alaska North Slope[7], onshore basins in the Permian and Eagle Ford in TX, the Haynesville basin in LA and TX, and the Wamsutter[8] basin in WY. bp in America has an estimated 2.7 billion barrels of oil equivalent of proven reserves.[9]

In 2020, bp in America's three refineries in Whiting, IN, Cherry Point, WA, and Toledo, OH (through joint venture with Huskey) had a combined throughput of approximately 693,000 barrels/day of refined products. This throughput represents approximately 43% of bp's global refining throughput. bp in America accounted for approximately 36% of bp's branded retail sites and 32% of bp's strategic convenience sites footprint in 2020.

In 2020, the bp Wind Energy business ("bpWE") operated approximately 42% of bp's global installed renewable power capacity and Gas and Power Trading Americas ("GPTA") traded approximately 77% of the total electricity traded by bp globally. Through BP Wind Energy North America Inc., bp invested a total of $1.1 billion in 2020 for a 50% interest in each of two joint ventures: (1) Empire (holding offshore wind leases off the coast of New York), and (2) Beacon (holding offshore wind leases off the coast of Massachusetts). The joint ventures are expected to have 4.4GW generating capacity when they become operational.

[7] bp exited the Alaska Region in 2020.
[8] bp exited the Wamsutter basin in 2020.
[9] Source: Annual Report and Form 20-F 2020.

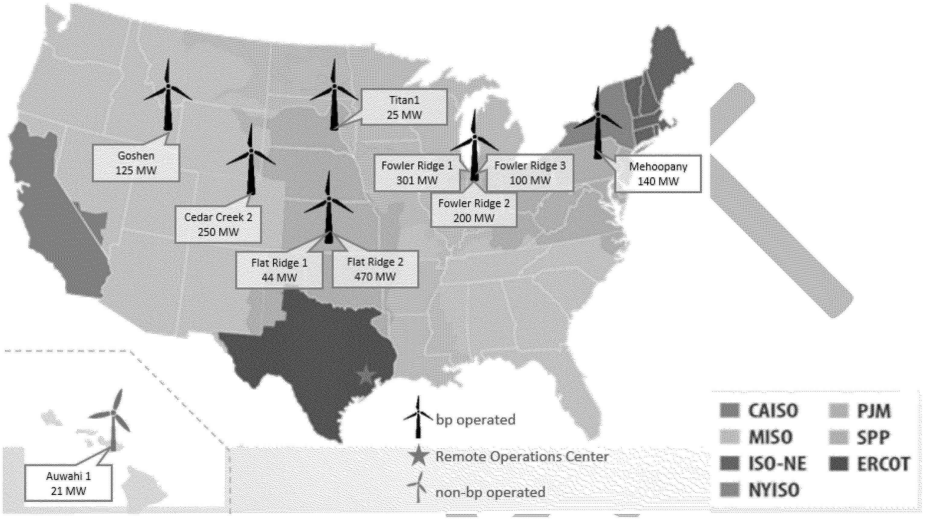
Redacted - First Amendment

[10] The future of natural gas in North America | McKinsey

gas & low carbon energy (G&LCE)

bp Wind Energy

By the end of 2020, bp had 3.3GW of developed renewables to final investment decisions (FID)[11]. bp Wind Energy (bpWE) in America had approximately 1.1GW net generating capacity (~1.7GW gross installed generating capacity) in 2020[12]. bpWE has interests in 10 wind farms spanning 7 States, 9 counties and 4 independent system operators (ISO). bpWE operates 9 wind farms which are controlled from a remote operations center in Houston. The bpWE asset in Hawaii, Auwahi 1 is a non-operated joint venture (NOJV) in partnership with AEP Renewables. bpWE has just under 100 employees and engages between 100 and 300 contractors in their field operations on a daily basis.



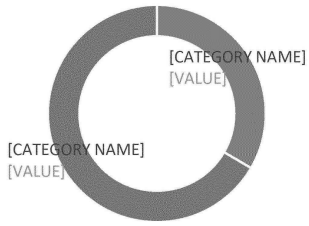
bp Wind Energy (bpWE) Gross Install Capacity 1.7GW

Key Financial and Operational Data[13]

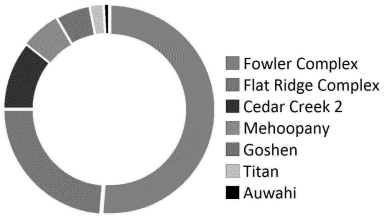
	2018 Actual	2019 Actual	2020 Actual	2021 Plan
Gross Margin ($mil)	38.5	41.9	47.5	76.2
RCOP + PTC ($mil)	52.6	40.9	42.5	45.5
Ops Cash ($mil)	53.4	32.6	104.0**	55.2
CAPEX ($mil)	13.8	15.5	40.4	14.3
Net Install Capacity (GW)	1.3*	0.9	1.0	1.1
Net Sold Electricity (GWh)	3,821	2,752.5	2,806	3,148
Capacity Retirement (GW)	0	0	0	0

*bpWE divested Texas assets in 2018 (.4 GW)
**includes cash settlement from Fowler 1 transaction with Dominion

[11] Source: Annual Report and Form 20-F 2020.
[12] Source: bp Quarterly Report and 4Q 2020 Form 10-Q and bpWE.
[13] Source: Information provided by bpWE.



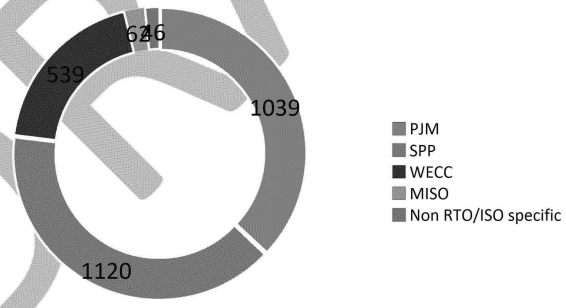
bp Developed Renewables to FID of 3.3 GW in 2020



bpWE Install Capacity Contributing Assets as of 2020

bp's ambition is to grow its net developed renewable install capacity from 3.3GW in 2020 to 50GW in 2030. According to data from the American Clean Power Association (ACPA), the total installed wind capacity in the US as of the end of 2020 was approximately 118GW, mainly concentrated in the Midwest (e.g. Iowa and Kansas), Texas and California, compared to approximately 30GW of utility scale solar power. Texas has the largest installed wind capacity at 33GW.

In 2020 bpWE sold approximately 2806GWh into the grid. Approximately 77% of the sold power was into the Southwest Power Pool (SPP) and Pennsylvania – New Jersey Interconnection (PJM) ISOs.



bpWE Wind Farms and Ownership

Fowler Complex

The Fowler Complex is located in Benton County, IN approximately 90 miles from northwest Indianapolis. The Fowler Complex gross install capacity is 600MW (0.6GW), which is 20% of the wind power install capacity in Indiana. Fowler Complex is bpWE's largest install generation capacity, capable of powering 160,000 homes. A net 903GWh of generated power was sold into the grid in 2020 (841GWh into PJM and 62GWh into Midcontinent Independent System Operator (MISO)).

	Fowler Ridge 1[14]	Fowler Ridge 2	Fowler Ridge 3
Commissioning Date	2009	2009	2009
Gross Installed Capacity (MW)	301	200	99
JV Partner	None	AEP	None
Net bp Ownership (%)	100	50	100
Operator	bpWE	bpWE	bpWE
# of Wind Turbines	162	133	60
Offtake Agreement [16] (Years)	20	20	20

Flat Ridge Complex

The Flat Ridge Complex spans the intersection of Barber, Harper and Kingman Counties, KS and is located approximately 50 miles southwest of Wichita. The gross install capacity of this wind farm is 514MW (0.51GW), which is 7% of the total wind install capacity in Kansas. A net 1030GWh of power generated from Flat Ridge was sold into the SPP grid in 2020 making it bpWE's number 1 generator. The wind farm can power 140,000 homes.

	Flat Ridge I	Flat Ridge II
Commissioning Date	2009	2012
Gross Installed Capacity (MW)	44	470
JV Partner	None	AEP
Net bp Ownership (%)	100	50
Operator	bpWE	bpWE
# of Wind Turbines	20	294
Offtake Agreement [15] (Years)	20	20 – 25

Other bpWE Wind Farms

[14] bpWE acquired 50% interest from Dominion Energy in 2020 to have full ownership

[15] bp T&S has no offtake agreement with bpWE

	Mehoopany [16]	Titan I	Cedar Creek II	Goshen [17]	Auwahi [18]
Commissioning Date	2012	2009	2011	2010	2012
Location (County, State)	Wyoming, PA	Hand, SD	Weld, CO	Bonneville, ID	Maui, HA
Gross Installed Capacity (MW)	140	25	248	125	21
Net Power Sold 2020 (GWh)	136	89	339	200	45
JV Partner	AEP	None	AEP	Leeward	AEP
Net bp Ownership (%)	50	100	50	50	50
Operator	bpWE	bpWE	bpWE	bpWE	AEP
# of Wind Turbines	88	10	122	83	8
Offtake Agreement [16] (Years)	20	20	25	20	20
# of Homes Powered	38,000	6,700	65,000	33,000	14,500
Power Market	PJM	SPP	WECC	WECC	Hawaii

External Trends to Consider

1. Impact of eliminated production tax credits (PTC) on wind farms that start construction after 2021. 60% PTC of 2.5 cents/kWh will apply to projects that begin construction prior to year-end 2021. PTCs are much more prevalent in onshore wind than are investment tax credits (ITC).
2. Impact of the reduction or elimination of ITCs on project economics. ITCs are eliminated for onshore wind for projects, for which construction begins after 31st December 2021. For Solar, the ITCs are subject to reduction from 26%, 22% and thereafter to 10% depending on when the solar project begins construction.
    a. Offshore wind ITC capability has been materially enhanced with 30% ITC capability for offshore wind projects for which construction begins prior to 31st December 2026.
3. Over 30 states have implemented renewable portfolio standards (RPS).
4. Traditional PPA offtake agreement of 20 to 25 years is declining because of the increase in competition and innovation. Commercial contracts, shorter power purchase agreements (PPA), hedges and merchant contracts are replacing traditional long term PPA.

Key bpWE Milestones/Projects for 2021

1. Execute Fowler Complex O&M Agreements with Vestas (1Q).
2. Updated JV agreements with AEP (1Q).
3. Deliver FID on Cedar Creek II repower (2Q).
4. Deployment of critical systems improvements (PF Drive, CMMS), associated business process, and integration with bpWE datalake and MI (2Q).
5. Agree path forward for FR2.
6. Begin Site works on CC2 repower (3Q).
7. Deliver FEED package on Fowler 1 repower (4Q).

[16] Mehoopany wind farm is the largest wind farm in Pennsylvania

[17] Goshen wind farm is 13% of the installed wind capacity in Idaho

[18] Auwahi is a non-operated joint venture

8. Identify and define bpWE growth options, partners, targets and any necessary financial restructuring (2Q).
9. Execute re-structure of bp Wind footprint and model, including partnering and target acquisitions (4Q).
10. Define and launch next digital/technology step outs for bpWE (4Q).

Strategic Focus Areas

bp's gas & low carbon energy business has a renewables pipeline of 50GW. 20GW of the renewable pipeline is slated for the US.

In 2020, bp teamed up with Equinor to form a strategic partnership to develop offshore wind projects in the US. bp invested $1.1 billion for a 50% share in the development of two offshore wind leases on the US East Coast (Empire Wind and Beacon Wind).

1. Empire Wind, New York, is expected to have 2GW generating capacity once operational.
2. Beacon Wind, Massachusetts, is expected to have 2.4GW generating capacity once operational.

In 2021, bp announced the purchase of 9GW of solar development projects in the US and 1GW of equipment from 7X Energy for $220 million. These solar development projects are spread across 12 states with the largest portfolios in Texas (ERCOT) and the Midwest (PJM). Once developed, these projects are expected to have enough generating capacity to power 1.7 million homes.

bp CCUS & hydrogen

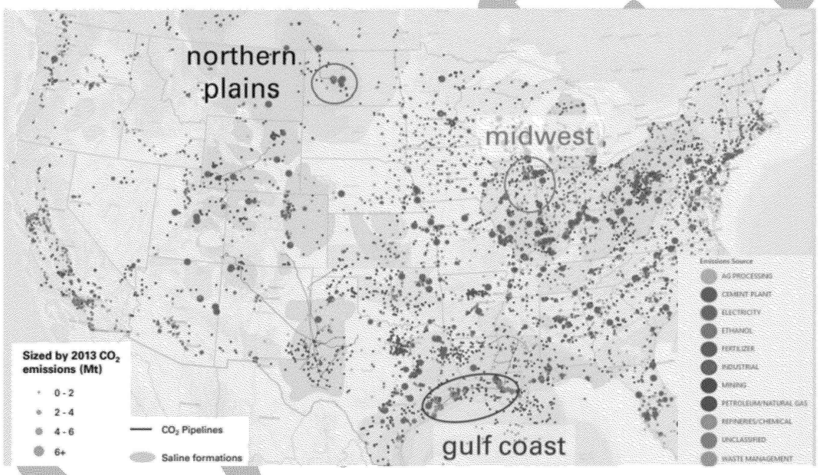
carbon capture use and storage (CCUS)

CCUS is at the heart of bp's plans to deliver low carbon electricity and energy (decarbonized gas and fuels), and to contribute to the Company's net zero ambition. Through combining low carbon energy with CO_2 storage as a service, CCUS can play a key role to help hard-to-abate industries decarbonize and transition.

The CCUS strategy is demonstrated in the Net Zero Teesside project and the Northern Endurance Partnership in the UK. bp is leading these projects, working with ENI, Equinor, Shell, Total and National Grid.

CCUS in the US

There are three U.S. regions of focus that offer the most favorable geology for storage, CO_2 sources with low capture costs and an established regulatory framework to develop safe, secure and reliable storage. bp's short-term objective is to create a 5 million ton per annum (mtpa) CO_2 transportation and storage business by 2025.



Gulf Coast: The high concentration of petrochemical sources in the Gulf Coast region enables development of multiple storage locations through strategic arrangements, including joint ventures and OBOs, achieving the pace and scale required to meet bp's ambitions while reducing risks. The opportunities on the Gulf Coast can leverage existing CO_2 infrastructure at low cost and can readily enable blue hydrogen activities.

Midwest: The favorable geology in the Midwest allows for the development of multiple opportunities across the region that combine high concentration CO_2 sources with local storage requiring little transportation of the CO_2 for only short distances. These factors allow for the construction of relatively simple and potentially replicable projects. Clusters of sources in the area may also lend themselves to development of larger hubs as enablers and incentives increase.

Northern Plains: Multiple geological formations are suitable for storage across the region, allowing nearby development of standalone projects with high concentration CO_2, such as ethanol plants and biorefineries, that can minimize CO_2 transportation costs.

hydrogen (H_2)

By building on bp's low carbon businesses and existing capabilities, bp intends to capture a 10% share of hydrogen in core markets by 2030. To achieve this, bp is accessing new segments, such as the mobility and industrial sectors – including the decarbonization of our own refineries.

bp is determined to build a leading position in hydrogen through progressing opportunities in the USA, Europe, UK, and Australia.

hydrogen in the US

bp believes that the US will be one of the largest global hydrogen markets with good resources for both green and blue hydrogen production.

In bp's 2020 Energy Outlook (in the "Rapid Transition" scenario), bp forecasted c.1mpta of clean H_2 demand in the US by 2035 and c.8mtpa by 2050. The aim is for bp to have 10% of clean hydrogen market share in our target markets (including the US).

We are currently focused on 5 key use-cases for the development of the US hydrogen economy:

1. bp refineries, especially in support of our Aim 1 ambitions (where the required economics are accessible).
2. Industrial clusters (especially for decarbonizing other industries as both fuel and feedstock).
3. Mobility (hydrogen into Class 8 trucks likely to provide a better solution than Battery Electric Vehicles (BEVs)).
4. Power generation (including storage and trading potential).
5. Export (as hydrogen or ammonia; longer term opportunity).

bp's US hydrogen strategy focuses on two key regions - Gulf Coast and the Midwest particularly the wider Chicago area. The key drivers include existing federal support (e.g., 45Q tax credit), existing state regulatory/policy support (e.g., California's low carbon fuel standard (LCFS), direct funding, drayage projects), existing bp footprint (e.g., refining and retail), trading and shipping integration, areas of grey hydrogen/CCUS overlap and Wind/Solar business integration.

An end-to-end Hydrogen strategy is currently in development with expected delivery by July 2021. Finalization of the strategy could update activities summarized herein.

Redacted - First Amendment

Redacted - First Amendment

Redacted - First Amendment

Gaps and General Challenges

Competition to secure CO_2 sources and quality storage sites is increasing. Competitors include Oxy, Exxon, Shell, and Schlumberger. Some emitters may look to develop their own by projects either self-funding them or backed by tax equity.

Resolving uncertainty for the following items will allow movement at pace:

- Develop a fit-for-purpose execution strategy balancing risks and costs:
  - Clear project execution plan and operating model/s for CCUS project – fit for risk profile and low returns;
  - Partnering with contractor/s; outsourcing to 3rd party service providers to increase cost competitiveness e.g., pipeline spurs; and
  - Redefining costs vs traditional bp model for a margin driven business
- Prioritization of organizational support (e.g., projects, subsurface) and allocation of resources to progress projects (e.g., bpx, land, legal)
- Clarification of decision rights and process on opportunity progression within reinvent organization

customer & products (C&P)

bp M&C

bp mobility and convenience (M&C) in America has approximately 7300 branded sites in the US. This is more sites than Target and Walmart US stores combined. M&C US accounts for approximately 35% of bp's global branded sites footprint.

M&C is comprised of different retail models across the US ranging from company owned retail sites, strategic partnerships, brand licensing, wholesale, B2B, dealer owned, and franchise owned. These sites span across 35 States and services more than 3 million customers daily. bp M&C brands in the US includes bp, Amoco, ARCO (bp has a licensing agreement with Marathon to use ARCO) and *ampm* (Marathon has a master franchise agreement to use *ampm*). bp branded sites in the US span the PADD1 (East Gulf Coast ~3000), PADD 2 (Midwest = ~3700), PADD 3 (~80) and PADD 5 (West Coast ~500 sites).

In 2020, M&C US had an RCOP of $610 million and sold approximately 13 billion gallons of fuel. Fifty-four percent of the sales volume was through bp branded sites. bp also sold 27 million cups of coffee and 75 million units of snacks.

In 2019, bp partnered with Arclight Capital Partners to acquire Thorntons LLC, thus forming the TLK Holding Company non-operating joint venture (NOJV) and now holds approximately 44% interest, as a minority shareholder non-operated JV.

Key Consolidated Financial and Operational Metrics (includes B2B) [19]

	2018 Actual	2019 Actual	2020 Actual	2021 Plan
Revenue ($mil)	1047	1208	1270	1419
Gross Margin ($mil)	1015	1240	1275	1673
Underlying RCOP ($mil)	471	686	610	800
Volume Sold (bil gallons)	14	14	13	15

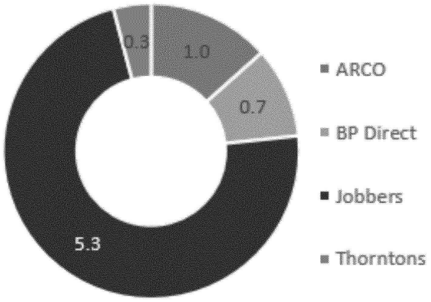
Retail Sites

[19] Information provided by mobility and convenience

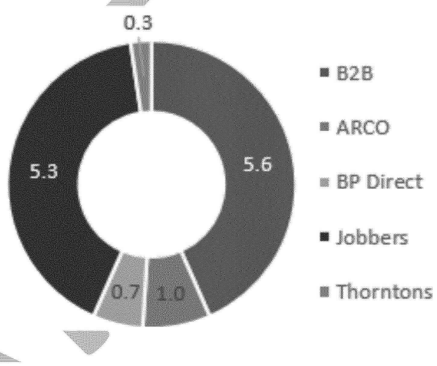
	2018 Actual	2019 Actual	2020 Actual	2021 Plan
Company Owned [20]	400	406	414	431
Strategic Partners [21]	389	393	609	628
Others	6392	6408	6230	6534
Total US Site Count	7181	7207	7253	7593

Volumes Sold

In 2020, approximately 7 billion gallons of fuel was sold through bp branded sites and Thorntons NOJV, as bp is the exclusive supplier to Thorntons. Another 6 billion gallons of fuel was sold to B2B customers making the total gallons of fuel sold in the US by bp approximately 13 billion gallons.



7 million gallons of fuel sold at in 2020



13 million gallons of fuel sold in 2020 including B2B

The B2B customers are managed by the C&P fuel supply and midstream (FS&M). Some of bp's B2B customers include Kroger, CK, Benchmark, Murphy Oil and Casey's.

Retail Sites[22]

bp retail site exposure in the US is concentrated on the East Coast, Midwest, and West Coast. As of the end of 2020, bp had approximately 7,300 retail sites in the US[23].

As of the end of 2020, bp has equity position 609 strategic convenience sites in the US existed comprised of *ampm* and Thorntons), which is 32% of bp's strategic convenience sites. A majority of bp branded sites in the US are operated by branded marketers also known as jobbers (~6047) such as Clipper Petroleum, Cary Oil, LSAA and Southeast Oil. A jobber is a company that purchases refined fuel from bp either for sale to retail or sale directly to users of those products.

As of the end of Q1 2021, bp had eight EV charge points in California (Lodi, King City and Stockton) and zero hydrogen filling points.

[20] Sites owned by bp
[21] Sites that have a backcourt brand (ampm and Thorntons)
[22] Retail sites are primarily branded *bp, ARCO, Amoco and Thorntons*
[23] Source: Annual Report and Form 20-F 2020

Strategic Focus Areas

	2020	2025	2030
Customer touchpoints/day (mil)	>3.0	>3.5	>4.0
Retail sites [24]	7300	7635	7612
Strategic convenience sites	609	723	864
EV charge points	2	>1000	>10000
Margin share from convenience and electrification	>25%	>30%	>30%

Redacted - First Amendment

Key M&C Projects/Milestones (3-year roadmap)

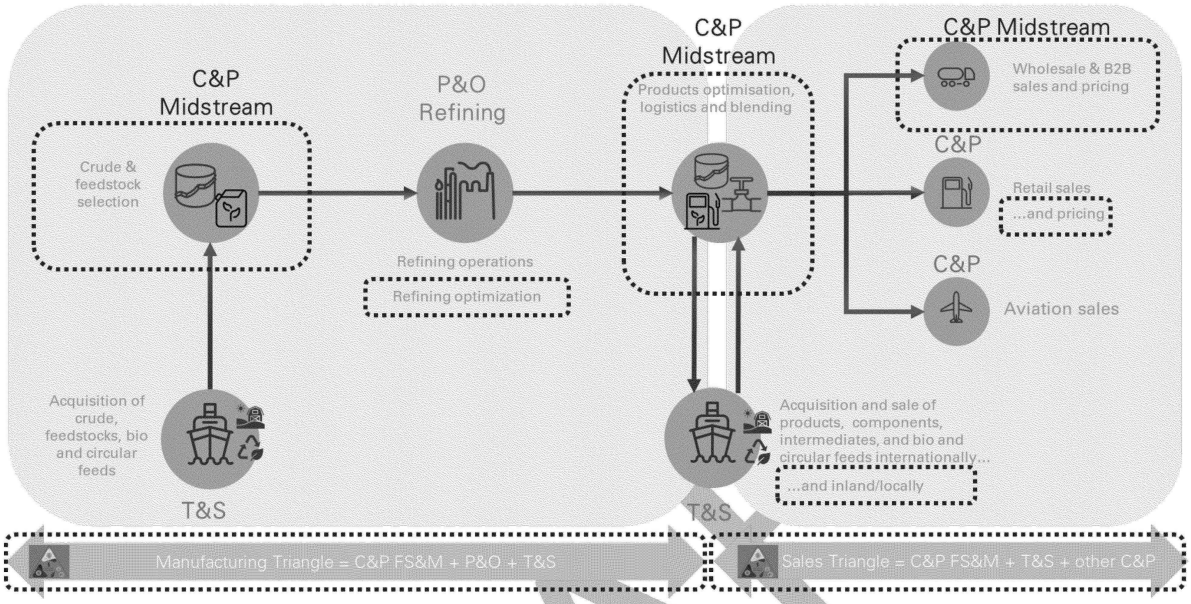
1. Convenience growth through integrated retail: Grow convenience businesses by adding new sites, developing differentiated offers for the West Coast and create a single integrated US retail business.
2. East Coast acceleration to fleet management and convenience growth: Define and execute future market participation across mobility and convenience for the East Coast direct business.
3. Customer loyalty offer: engage customers and consumers through personalized offers and fuel pricing subscription services via a fully integrated digital platform solution.
4. Differentiated fuels strategy: support premium fuels sales and differentiation of existing product slate via claims and advertising.
5. US disruptive fleet offering: develop and execute an integrated disruptive US Fleet strategy including clear offer map and delivery model (organic, partnership, acquisition).
6. Mexico growth and integrated supply: develop integrated strategy based on optimized network, improved loyalty offering, winning in fleet card market, and redefining convenience.
7. Sustain and grow branded marketer business: build tailored, relevant offers across customer experience, flexible contracting, capital services, and network expansion that enable growth and retention.
8. EV strategy: is currently being defined and ready in 2021.

[24] This includes company owned, retail and others

bp FS&M

bp's fuel supply and midstream (FS&M) in America plays a vital role of serving as the integrator of bp's fuel value chain, as well as managing the performance of owned pipelines and terminals, and directed truck and rail logistics. This includes managing the sourcing of feedstock coming into bp refineries and the commercial optimization of products to bp's varied customers in the US. FS&M partners with bp teams across T&S, P&O, and C&P to deliver performance of the integrated P&L from crude and

feedstock sourcing to the end customer. While this document covers FS&M in the US, it should be noted that FS&M is a global organization and performs these similar activities across Europe and the US.



FS&M plans to source approximately 300 million barrels of crude and feedstock for the bp refineries in the US, as well as coordinate the distribution of approximately 458 million barrels of fuel for retail, aviation and B2B customers in 2021. Additionally, FS&M is responsible for sales to B2B customers in the US, which accounts for approximately 40% of the fuel sold by C&P in the US. Some of bp's B2B customers in the US include Kroger, CK, Benchmark, Murphy Oil and Casey's.

FS&M manages the commercial performance of bp's operated pipeline systems (onshore and offshore, crude and product) and terminals, with accountability for operations sitting with the North America Terminals and Pipelines (NA T&P) organization in P&O. FS&M also represents bp's interest in multiple midstream joint ventures. bp has approximately 4700 miles of pipeline, approximately the distance from Chicago to London, under management. These pipelines transport approximately 1.1 million barrels of crude and refined products per day.

Key Financial and Operational Data [25]

	2018 Actual	2019 Actual	2020 Actual	2021 Forecast
Volume of Crude Sourced (kb/d)	703	737	693	821
Aviation Fuels (kb/d)	160	154		135
Gasolines (kb/d)	766	778		870
Middle Distillates (kb/d)	151	148		185
Other Products (kb/d)	64	65		65
Miles of Pipeline	4700	4700	4700	4700
Number of Storage Tanks	72	72	72	72
Number of Terminals	2	2	1	1

Fuel Value Chain Operations

FS&M's role includes optimizing holistic integrated value across assets, commodities, geographies, time horizons, channels of trade, and business lines of hydrocarbon and low carbon value chains.

FS&M accountabilities in support of refining includes:

1. Valuation of different crude and feedstock selection options for the refineries.
2. Sourcing of optimum crude & feedstock, including biomaterial for co-processing.
3. Optimisation of refinery production / yield.
4. Midterm demand planning.
5. Assessment of export alternatives.
6. Integrated working capital management.
7. Identification of commercial growth opportunities, including bio and low carbon.
8. Drive for integrated margin optimization across P&O, C&P, T&S, and G&LCE.
9. Commercial optimization of midstream asset ownership.
10. Midstream Joint Venture representation.
11. Assurance around Group regulatory compliance (i.e., FERC).

FS&M accountability in support of sales (fuels and aviation) includes:

1. Product sourcing.
2. Bio compliance and optimisation.
3. Negotiation of commercial agreements to access infrastructure.
4. Commercial optimisation of terminal, pipeline and barge movements.
5. Secondary transportation optimisation.
6. Control and assurance of product quality.
7. Channel of trade / demand management.
8. Negotiation of supply deals with local players.
9. Demand management through wholesale & B2B.
10. Wholesale and B2B customer offer, including bio and low carbon.
11. Pricing execution.
12. B2B sales activities & Customer Relationship Management.

[25] Source: Information provided by bp FS&M

13. HSSE responsibility for truck and rail operations in the US and Europe.

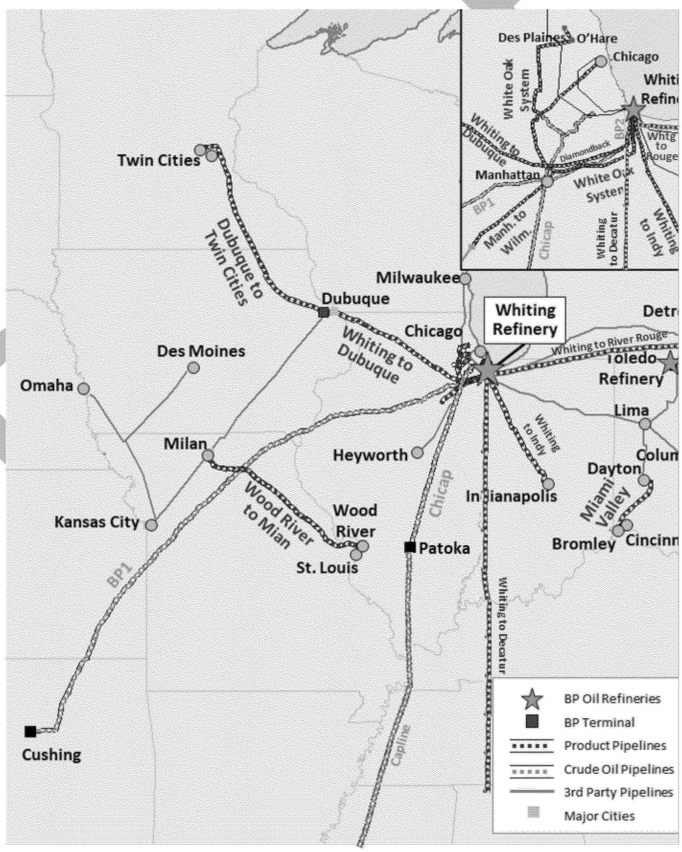
Pipelines and Terminals Operations

bp's pipeline and terminal operations and ownership is concentrated in the US Northwest, Midwest and Gulf of Mexico. The NA T&P team in P&O controls operations for the assets operated by bp from two control centers in Tulsa, Oklahoma and Renton, Washington.

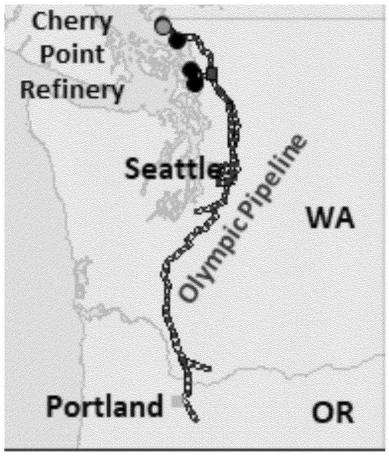
FS&M has approximately 4700 miles of pipeline under management in the US. NA T&P operates approximately 3200 miles of pipelines and through non-operated joint venture agreements (NOJVs) has equity stakes in another approximately 1500 miles of pipelines. The operated pipelines are concentrated in the Northwest and Midwest, while the NOJV pipelines are concentrated in the Gulf of Mexico. The pipelines transport approximately 1.1 million barrels of crude oil, natural gas, and refined products per day.

There are 72 above ground storage tanks supporting the NA T&P operations with an overall capacity of 5.3 million barrels of storage.

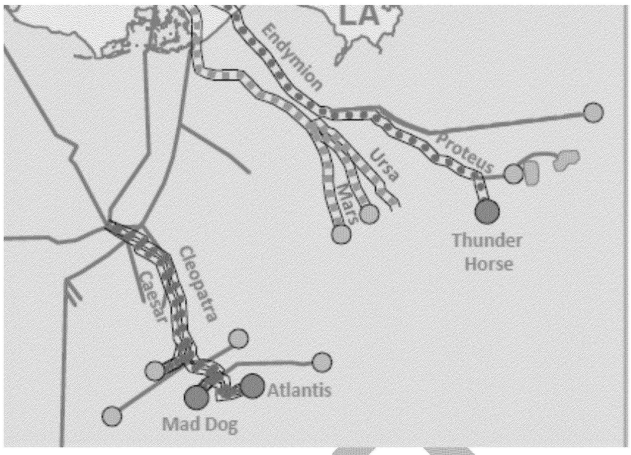
US Midwest Crude and Refined Product assets



Olympic Pipeline



US GoM Pipelines



Northwest Operations

NA T&P operates the 400-mile Olympic pipeline (and its approximately 561,000 barrels Bayview storage terminal) which transports approximately 290,000 barrels per day of gasoline, diesel and jet fuel from four refineries in the Puget Sound area (including bp's Cherry Point refinery in Blaine, Washington) to Seattle, Washington; Tacoma, Washington; and Portland, Oregon. bp, with its partner in the newly formed BP Midwest joint venture (bp has 51% ownership), owns 70% of the equity in Olympic.

bp has a 49% ownership stake in a joint venture owning two terminals (Seattle & Portland), which are operated by Trans Montaigne.

Midwest Operations

NA T&P operates approximately 3000 miles of pipeline in the Midwest and interest in approximately 630 miles of a NOJV pipeline. The Midwest pipeline operations primarily supports bp's Whiting refinery in Indiana and is used for crude oil supply to Whiting and transportation of finished products from Whiting.

Crude Oil Supply

Four pipeline segments totaling approximately 1600 miles transport crude oil, with three of the pipelines directly supporting Whiting. bp operates the three segments (BP1, BP2 and Chicap pipelines) supplying Whiting, with the fourth (Capline pipeline) operated by Marathon. Chicap and Capline are joint-venture pipelines, with bp owning approximately 56% and 13%, respectively.

The BP1 and BP2 pipelines are directly connected to Whiting and are the only two crude inlets into the refinery. BP1 is longer at approximately 686 miles (BP2 is 12 miles), while BP2's capacity is larger at approximately 475,000 barrels per day (BP1 is 100,000 – 175,000 barrels per day, depending on the pipeline segment). BP2 does not have any tank storage, while BP1 has approximately 1.9 million barrels at two locations on its system. BP2 provides Whiting with crude oil off the Enbridge mainline system, bringing volume from Alberta, Canada. BP1 brings volumes from Cushing, OK and Patoka, IL (via Chicap

– see below). BP2 is owned within bp's MLP, BP Midstream Partners, while BP1 is owned within the newly formed joint venture: BP Midwest Products Pipelines LLC, where bp owns a 51% interest.

Originating in Patoka, IL, the Chicap pipeline mainline is approximately 203 miles and delivers to Manhattan, IL (where it connects to BP1 for volumes to reach Whiting) and to Mokena, IL (where it delivers to third-party Midwest US refineries and can access the Enbridge mainline to deliver to bp's Whiting and Toledo refineries). Chicap is a joint-venture where bp has approximately 56% ownership interest through the newly created BP Midwest joint-venture. bp operates Chicap, including its approximately 1.6 million barrels of storage at Chicap's Patoka and Mokena stations.

Finished Products Export

bp, through NA T&P, operates a vast network of 11 refined product pipelines spanning approximately 1800 miles throughout the Midwest US. While most of the pipelines are capable of handling a Whiting produced refined barrel, the Miami Valley pipeline in Ohio (~94 miles) primarily supports the bp-husky refinery in Toledo, OH and the Wood River – Milan pipeline (~214 miles) receives volume from the KM Phoenix terminal near St Louis. This network has nearly 1.5 million, barrels of refined product storage split across Bromley, KY; Dubuque, IA and Manhattan, IL, with truck loading at Dubuque and barge loading/offloading at Bromley. bp's MLP, BP Midstream Partners owns the Whiting – River Rouge (~244 miles) and Diamondback (~42 miles, transporting diluent) pipelines. The remaining assets (except the ~570 mile Whiting to Decatur, AL pipeline which is being repurposed for refined product deliveries to Nashville, TN) are part of the newly formed BP Midwest joint-venture where bp owns 51%.

bp has a 25% stake in KM Phoenix which owns 13 terminals (~8.9 million barrels of storage) in eight states and is operated by Kinder Morgan. bp's ownership interest is held by BP Midstream Partners.

Gulf of Mexico NOJVs

bp has equity interest in six pipelines transporting hydrocarbons approximately 600 miles from various offshore Gulf of Mexico (GoM) production platforms to the shore. bp has varying ownership in the six pipelines, which are predominantly owned by bp's MLP BP Midstream Partners and are all operated by Shell.

Redacted - First Amendment

Key FS&M Milestones/Projects

1. New terminal in Nashville and repurposing an existing pipeline.
2. Whiting to River Rouge pipeline capacity expansion.

Strategic Focus Areas

1. Growing biofuels business, from production to blending to customer offers.
2. Partnering across bp to build value chains for new low carbon businesses (hydrogen, CCUS, RNG).
3. Leveraging strong business to business expertise to grow with key customers and enable bp integrated offers.

Castrol

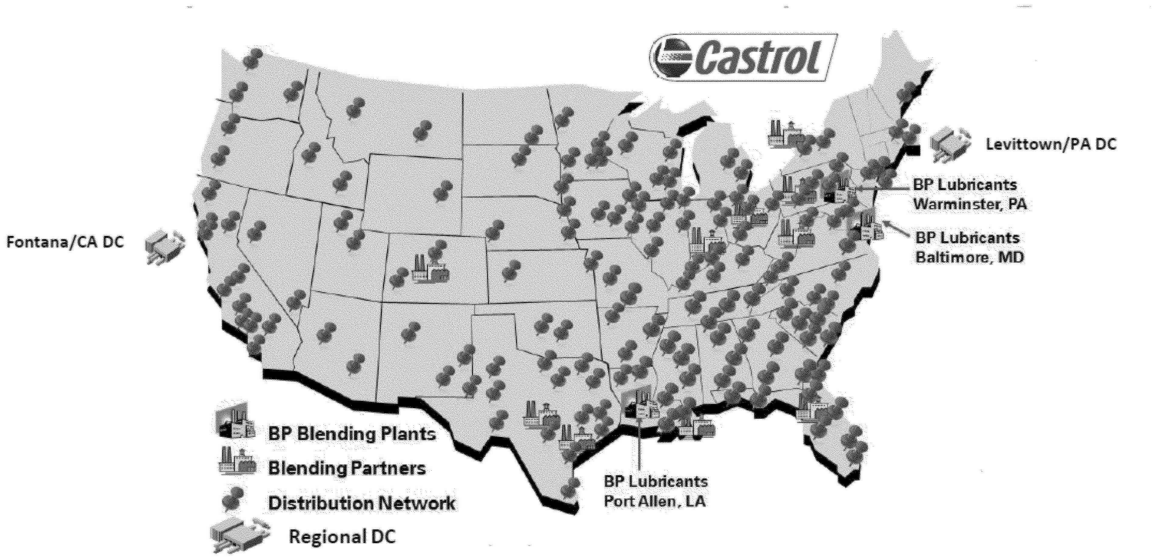
bp's global lubricant brand, is a global leader in lubricant technology, serving customers and consumers in over 140 countries in the automotive, marine, industrial, aerospace and energy production sectors. Castrol products are recognized globally for innovation and high performance through its commitment to premium quality products, highly responsive services and cutting-edge technology.

After more than 120 years Castrol's heritage of pioneering and delivering innovation which anticipates and meets customer needs still shapes the way Castrol does business today. Castrol takes the time to understand the challenges its customers are facing and partners with them to achieve better solutions. Castrol's pioneering approach is no different when it comes to driving sustainability and the transition to lower carbon – whether that's improving its products to help reduce emissions and improve efficiency and reliability for the fast-developing technologies found in electric and hybrid vehicles through to wind turbines or robots on production lines.

In America, Castrol is a top choice for motorists who change their own oil, as well as being the leading lubricant supplier to the rapidly growing wind industry. Castrol's metal working and machining fluids are critical to the production of components for the automotive and aerospace industries. Its production fluids are at the forefront of oil exploration and production in the deepest waters of the US Gulf and its specialist greases and lubricants have played key roles in space exploration for many decades, including multiple applications on NASA's current Perseverance mission.

Globally, more than half of electric vehicle and hybrid vehicle manufacturers use Castrol's e-Fluids. Castrol ON is Castrol's range of advanced e-Transmission Fluids, e-Greases, e-Thermal fluids and e-Coolants that work together to support today's electric vehicles. As EVs continue to evolve, Castrol's best brains are not only defining the fluids, but the way the fluids are defined: pioneering testing and monitoring methods, driving efficiency and economy going beyond the standard requirements of the fluids, taking into consideration consumer insights and engineering technical solutions; advancing technologies that will lead to breakthroughs for the transport of tomorrow.

Castrol products are primarily manufactured in the USA and exported to Canada, Central and South America. Castrol's manufacturing network consists of three owned blending plants capable of manufacturing 582 million liters of lubricant annually, as well as 11 third-party partner blending plants and 2 third-party distribution centers (DCs) located in Fontana, California and Levittown, Pennsylvania. The Castrol operated blending plants are in Port Allen, Louisiana, Baltimore, Maryland and Warminster, Pennsylvania. To manage product logistics, Castrol has a network of 84 distributors and 114 warehouse sites in the US.



Castrol's approach to Sustainability

To achieve the Paris climate goals, the world will need improvements in end use energy efficiency. In one estimate, these improvements can provide almost 40% of greenhouse gas (GHG) emissions reductions required. Today, around a quarter of the world's energy is lost to friction, corrosion and wear[26].

Ever since Castrol was born, it has been dedicated to delivering products that help save energy by fighting friction, reducing corrosion and minimizing wear, delivering high-performance with increased efficiency.

Castrol's new PATH360 strategy:

- Embraces circular thinking - looking at the life cycle of Castrol's existing and new products, to see how they can be improved, extended, reused or recycled.
- Supports new and growing sectors, like renewable energy and e-mobility with products and services.

Castrol PATH360's three focus areas and 2030 aims are:

1. Saving waste - continuing to help customers save energy, waste and commercial customers' water as well as halving Castrol's plastic footprint.
2. Reducing carbon – Castrol aims to halve the net carbon intensity per liter of its products.
3. Working to improve people's lives around the world, including through carbon neutral programs and other activities

[26] Influence of tribology on global energy consumption, costs and emissions Kenneth Holmberg & Ali Erdemir

Key Financial and Operational Data

Castrol does business in America as BP Lubricants USA Inc. a wholly owned subsidiary of bp.

Annual volume of products sold in the USA is approximately 330 million liters, with annual replacement cost profits approaching $250m and a capital investment program of around $25m, in addition to Castrol's brand and technology investments of approximately $65m per year.

In America, Castrol employs approximately 620 people. Through our third-party suppliers, distributors, and customers, Castrol indirectly supports thousands of jobs in the USA.

Key Financial & Operational Data [27]

	2018 Actual	2019 Actual	2020 Actual	2021 Plan
Gross Margin ($mil)	406	401	289	449
RCOP ($mil)	244	223	130	251
Volume Sold (mil Liters)	332	339	263	332
Cash Flow ($mil)	259	224	129	238

Customer Segmentation

Castrol's marketing strategy addresses B2B customer and B2B2C consumer needs through a family of individual product brands. Castrol's products address a wide scope of customers including do-it-yourself (DIY), do-it-for-me (DIFM) and industrial customers. Castrol's iconic brands such as GTX are a favorite for American DIY'rs and almost half of Castrol's business is DIY sold through brick-and-mortar retailers and is rapidly expanding in ecommerce retailers. Castrol is the second largest brand in the passenger car motor oil (PCMO) customer category of the DIY segment. Castrol's strategy seeks to reestablish it as the top premium brand by growing market share from 17.5% to 25%.

In the do-it-for-me (DIFM) segment, Castrol holds a 5% market share. The DIFM segment is fragmented and dominated by independent workshops (IWS) such as auto repair shops, quick lubes and light service workshops accounting for 65% of this segment. This customer segmentation is a key growth opportunity and focus for Castrol.

Castrol has three major passenger car brands in the USA: GTX®, Magnatec®, and EDGE®, each with differentiated products to reach a wide range of consumers.

[27] Source: Information provided by Castrol

Castrol® Brand	GTX® ECO*	GTX® / GTX® ULTRACLEAN	GTX® MAGNATEC®	EDGE®		GTX® High Mileage	EDGE® High Mileage
Market Position (at retail)	NA	#1	#2	#2		#1	#2
Product Differentiation	Carbon Dioxide Reduction	Helps extend engine life	Instant Protection from the moment you Start	Strength for pushing the boundaries of Performance		Phosphorous Replacement Technology	Strength to Perform for High Mileage Vehicles

Castrol expects the passenger car motor oil (PCMO) and industrial markets to grow between 2021 and 2025 following the contraction in 2020 due to the COVID-19 pandemic.

Castrol partners with industrial customers to develop solutions that drive increased efficiency for their business. The services Castrol provides the industrial customer segment include:

1. Liquid engineering to create premium industrial fluids that help optimize performance
2. Advanced analytics to enable data-driven maintenance and reduced equipment down time
3. Chemical management services to drive down total cost of ownership

Castrol's industrial customers cover the following industries: aerospace, automotive, machinery and metal manufacturing, mining, and wind. Castrol has a 4% market share of the metalworking fluid industry, which is number seven amongst the top competitors of a highly fragmented sector.

2025 US Strategy

1. The US lubricant market is the world's largest (China is #2) and, while market volumes are expected to decline, the overall margin pool will continue to grow as more users migrate to higher performance products.
2. Castrol aspires to be one of the top two lubricant brands across all segments by 2025 by driving market share growth.
3. Castrol will continue to transform from a product to a service brand.
4. Castrol aspires to lead the motor oil category through the energy transition, embracing electrification as the premier e-fluids brand.

Top Castrol priorities

1. Become a net zero brand by 2050 or sooner, driving three focus areas: saving waste, reducing carbon and improving people's lives.
2. Support electrification and mainstream adoption of EV's through the launch of Castrol ON, Castrol's premium EV fluids product portfolio.
3. Accelerate digital transformation including eCommerce.
4. Growing the independent workshops (IWS) offering.
5. Growing EDGE market share to 22% in the DIY segment.
6. Enhance Castrol's industrial distributor capabilities and offer, focusing on four key segments to grow gross margins by 60%.
7. Drive efficiencies in Castrol's cost of goods/cost to serve competitiveness.
8. Invest in technology innovation and sustainability differentiation in line with bp's Aims and Ambitions.
9. Enhance selling capabilities, build talent and improve employee morale.

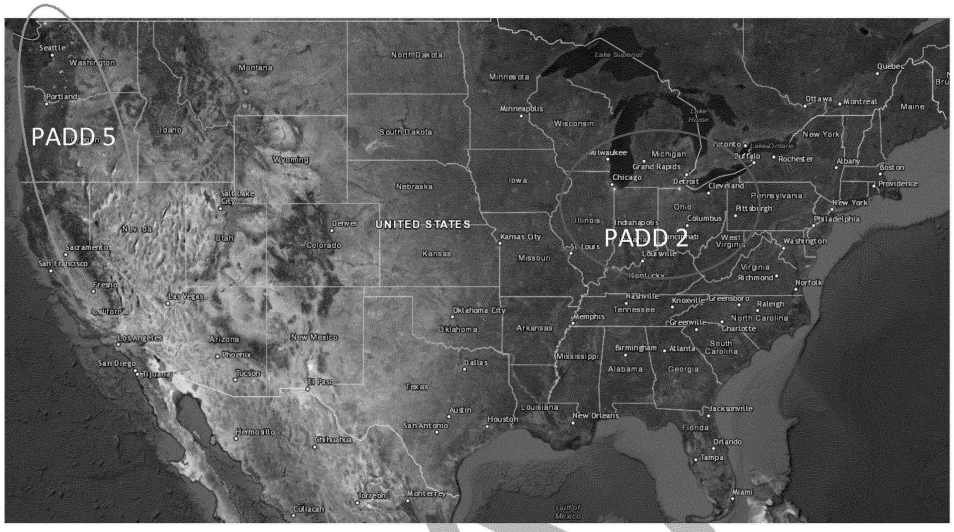
External Trends & Risks to Consider

1. Increasing demand for electric vehicles will impact the shape of the lubricant business as internal combustion engines give way to electric motors which require different and less fluids.
2. Competition.
3. Regulation (packaging, used oil, data privacy & analytics, right to repair).
4. Acceleration of DIY to DIFM conversion.
5. Accelerated EV conversion (mandates or incentives to remove ICE vehicles from the parc).
6. Technology.
7. Raw material access (especially to re-refined base oil and other sustainability supporting options).

production & operations (P&O)

Refining

bp in America operates three refineries with net crude distillation capacity of approximately 771kb/d as of the end of 2020[28]. This is approximately 40% of bp's global refinery capacity. bp has the ninth largest refining capacity in the US[29]. Three of the seven operated refineries in bp's portfolio are in the US. The refineries range in technical complexity and product manufactured which ranges from gasoline (~385kb/d), diesel (~200kb/d), jet fuel (~72kb/d).



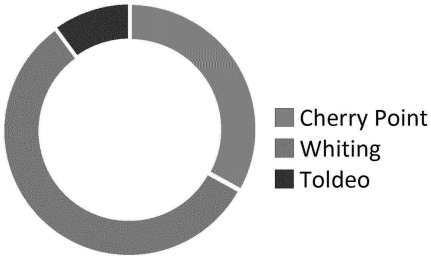
The three refineries are Cherry Point located in Washington state (PADD 5), Whiting located in Indiana (PADD 2) and Toledo located in Ohio (PADD 2), which is jointly owned with Cenovus. The Midwest (PADD 2) is home to Whiting and Toledo refineries, and holds approximately 67% of bp in the US crude distillation capacity. The bp PADD 2 operations is the second largest in the Midwest. Whiting and Toledo refineries process mainly heavy Canadian crudes, while the Cherry Point refinery mainly processes Alaska North Slope crude which is supplemented by Canadian Crude.

In 2020, the US refineries reported a throughput volume of 693kb/d, which was approximately 43% of bp's global production.

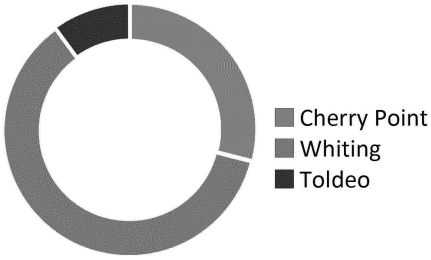
Key Financial and Operation Metrics[30]

	2018	2019	2020	2021 Plan
Gross Margin ($mil)	4,388.6	3,323.2	1,474.7	2,758.8
RCOP ($mil)	1,790.9	599.3	(876.9)	129.3
Capacity (kb/d)	746	771	771	771
Throughput (kb/d)	703	738	693	733
Gasoline produced (kb/d)	374.5	378.5	371.5	384.9
Diesel produced (kb/d)	158.7	177.4	184.5	201.0
Jet fuel produced (kb/d)	90.5	98.7	66.6	72.6

[28] Source: Annual Report and Form 20-F 2020
[29] Source: IHS Markit BP Downstream Full Profile (September 2020)
[30] Source: Information provided by bp refining



771 kb/d refining capacity in 2020



693 kb/d refining throughput in 2020

Cherry Point Refinery

Cherry Point refinery has a crude distillation capacity of 251kb/d and had a throughput of 203kb/d in 2020. The refinery is 100% owned by bp and is strategically located to integrate with bp's retail operations. This refinery serves as supplier for bp's approximately 500 branded service stations in the Pacific Northwest and Northern California.

Refinery	State	Region	Equity	CDU	FCC	HCK	Coking
Cherry Point	Washington	PADD 5	100%	251kb/d	0kb/d	65kb/d	62kb/d

Located in Washington State, just outside of Seattle, it is the largest plant in the Puget Sound refining hub, more than 50% larger than Shell's Anacortes (137kb/d). The refinery is located on 3300 acres including 2500 of rural land that is managed for ecological restoration and habitat preservation.

Cherry Point refinery refines, processes and blends hydrocarbons to make gasoline, jet fuel, diesel, butane, propane and calcined coke. It is the only refinery in the Pacific Northwest capable of manufacturing diesel made from biomass-based feedstock, which are processed alongside conventional feedstocks in an existing ultralow-sulfur diesel unit.

Toledo Refinery

The Toledo refinery is 50/50 co-owned with Cenovus Energy. The refinery has an install capacity of 160kb/d. bp's net capacity is 80kb/d. bp's net throughput from the Toledo refinery in 2020 was 65kb/d.

Refinery	State	Region	Equity	CDU	FCC	HCK	Coking
Toledo	Ohio	PADD 2	50%	80kb/d	27.5kb/d	16kb/d	18kb/d

Located in Northwest Ohio it is bp's smallest refinery in the US. The refinery refines, processes and blends hydrocarbons to make gasoline, jet fuel, diesel, LPG and asphalt. Toledo refinery primarily processes Canadian heavy sour grade crudes. It also processes a smaller quantity of light sweet crude oil. Products from Toledo is supplied to bp branded service stations in Ohio.

Whiting Refinery

The Whiting refinery is the largest refinery in the Midwest of the US, as well as bp's largest refinery in the world. The Whiting refinery currently has a crude distillation capacity of 440 kb/d. In 2020, Whiting refinery had a throughput of 424 kb/d and served as an anchor for bp's Midwest retail activities.

Refinery	State	Region	Equity	CDU	FCC	HCK	Coking
Whiting	Indiana	PADD 2	100%	440kb/d	177kb/d	0kb/d	102kb/d

Whiting is in Indiana, southeast of Chicago. The refinery processes and blends hydrocarbons to make gasoline, jet fuel and diesel. The refinery also produces about 7% of all asphalt in the US. In 2020, Whiting refinery reduced emissions by 1MteCO_2e and executed an agreement to purchase electricity from the Whiting clean energy facility thus reducing Scope 2 emissions.

External Trends to Consider

1. Impact of transition from ICE to EV/FCEV on the profitability of the refineries.

Strategic Focus Area

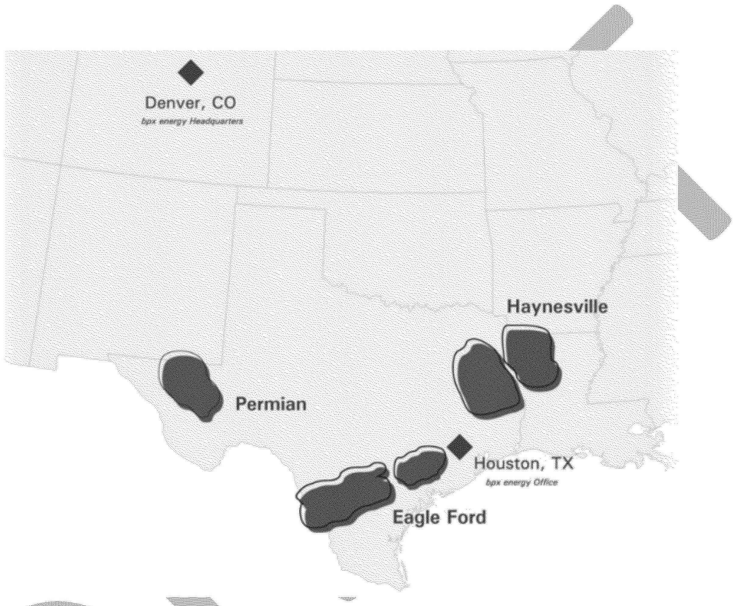
	2020	2025	2030
Refining Availability (%)	96	96	>96
Aim 1 (Scope 1&2 GHG Mte/yr))	21.3	18.9	TBC

Key Projects/Milestones

1. Deliver refining Availability of 96%.
2. Take out 5 to 10 % costs beyond plan at all US refineries (Q4 2021).
3. Achieve breakeven net cash flow at $8 refinery marker margin (RMM).
4. Safe delivery of turnaround events at Cherry Point and Whiting refineries in (Q2 and Q4 2021).
5. Execute Toledo RISE (Reliability Improvement Program) (Q4 2021).
6. Drive GHG emissions down by 7 kteCO_2e at the Cherry Point refinery (Q4 2021).

bpx energy

bpx energy is bp's US onshore oil and gas business. bpx has undergone a transformation since 2018 when bp acquired top tier inventory in three world-class basins: the Permian (TX), Eagle Ford (TX), and Haynesville (TX and LA). The deal represented bp's largest acquisition since buying ARCO in 1999. The acquired assets – along with targeted divestment of operated natural gas-levered properties in Colorado, New Mexico, Oklahoma and Wyoming – provide bpx with the opportunity to invest in high return liquids development in the Permian (Delaware) Basin and Eagle Ford shale while also lowering its position on the natural gas cost curve with the addition of significant Tier 1 Haynesville inventory in Louisiana. bpx's relentless focus on value delivery has led to a c. 15% increase in the annual synergy target the firm provided alongside the acquisition, which represents roughly 4% of the transaction value.



bpx energy's operated assets are in the Permian, Eagle Ford, and Haynesville plays of Texas and Louisiana. bpx's portfolio consists of approximately 1.55 million net acres.

Key Financial and Operational Metrics [31]

	2018 Actuals	2019 Actuals	2020 Actuals	2021 Plan
Gross Margin ($mil)	1,952	3,065	1,809	1,779
RCOP ($mil)	677	718	998	262
CAPEX ($mil)	1,074[32]	1,885	1,003	949
Production (mboe/d)	349	499 [33]	373 [34]	271
Number of Rigs	9	13	5	7

[31] Source: Information provided by bpx
[32] CAPEX less provided properties
[33] 2019 production included legacy Colorado, New Mexico, Oklahoma, Texas, and Wyoming assets, as well as the Texas and Louisiana assets acquired in 2018
[34] 2020 production excludes Colorado, New Mexico, and Oklahoma assets divested

bpx's production averaged 373mboe/d (131mbbls/d liquids and 1.4bcf/d gas) in 2020. bpx operated approximately 1800 wells and 6 central delivery points by the end of 2020.

bpx energy is one of bp's core assets. The bpx portfolio gives bp the flexibility of pace and timing of investment. And bpx is characterized by relatively short investment payback periods. In 2020, bpx further defined its hydrocarbon resource base in the Permian through the appraisal of the second Bone Spring and Wolfcamp B zone in the Permian and Austin Chalk zone in the Eagle Ford. At the end of 2020, bpx had identified two thousand economic drilling locations which met an IRR of >25%.

Reserves and Lease Holding

bpx proved reserves is approximately 1.5 billion boe (proved developed reserves is ~424 million boe and proved undeveloped is 1.1 billion boe). bpx assets are concentrated in Texas, with some exposure in the Louisiana Haynesville play. bpx assets span approximately 696,000 net developed acres in our core operating areas and has identified approximately 6,200 undeveloped locations.

- The Permian basin has over 3000 economic locations across various zones
  - In particular, the Permian Wolfcamp A has over 1000 locations at greater than 50% IRR
- Eagle Ford Blackhawk (oil window) has over 600 locations at greater than 65% IRR
- Eagle Ford Hawkville (condensate and wet gas window) has over 500 locations at greater than 40% IRR
- Haynesville (dry gas) has over 1000 economic locations, with over 400 locations at greater than 35% IRR

All figures at June 2021 strip prices ($65 WTI / $27 NGL / $3.0 HH)

Basins

Permian Basin

bpx owns approximately 80,000 net acres primarily across two counties (Culberson and Reeves). bpx owned an interest in 235 wells in the Permian at the end of 2020. In 2020, bpx brought online the Grand Slam facility, a central delivery point (CDP), which has a capacity of processing 42mboe/d of hydrocarbon, and the Squiggy water plant capable of treating and disposal of 100,000bbl/d.

bpx operated an average of two drilling rigs and produced an average of approximately 57mboe/d in the Permian in 2020.

Eagle Ford Basin

bpx owns approximately 370,000 net acres primarily in four counties (De Witt, Karnes, McMullen, and La Salle) and the play is characterized by primarily condensate and wet-gas production in the northeastern acreage, "Black Hawk", and primarily dry gas production in the southwestern acreage, "Hawkville". bpx owned an interest 600 wells, and five midstream facilities in the Eagle Ford at the end

of 2020. bpx is the operator and 75% owner of a joint venture that owns approximately 1000 miles of gathering and processing infrastructure in the Eagle Ford.

bpx operated an average of two drilling rigs and produced and average of approximately 114mboe/d in the Eagle Ford in 2020.

Haynesville Basin

bpx owned approximately 1.1 million net acres and interest in 1000 wells in the Texas and Louisiana Haynesville plays at the end of 2020. bpx did not operate any drilling rigs and produced an average of approximately 121 mboe/d in the Haynesville in 2020.

Redacted - First Amendment

Strategic Focus Areas

	2020	2025	2030
Production (mboe/d)	373	558	683
Unit production cost ($/boe)	6.99	5.25	4.45
Aim 1 (MteCO_2e)	2.3	1.3	-
Aim 4 (%)	0.27	0.20	-

GHG Emissions

bpx delivered 245kteCO_2e of sustainable emissions reduction (SER) in 2020 through improved operational efficiencies; this was approximately 25% of the Groups SER. In the Permian asset approximately 100 kteCO_2e was delivered via the commissioning of a central delivery point and electrification of wells and facilities using renewable electricity. bpx has also implemented a quarterly aerial surveillance program to quantify emissions in support of Aim 4.

In 2021 bpx will further drive emissions down by continuing electrification of wells and by connecting base and wedge wells to low pressure gathering systems.

Key Milestones / Project

- Centralization, as appropriate.
- Electrification, as appropriate.

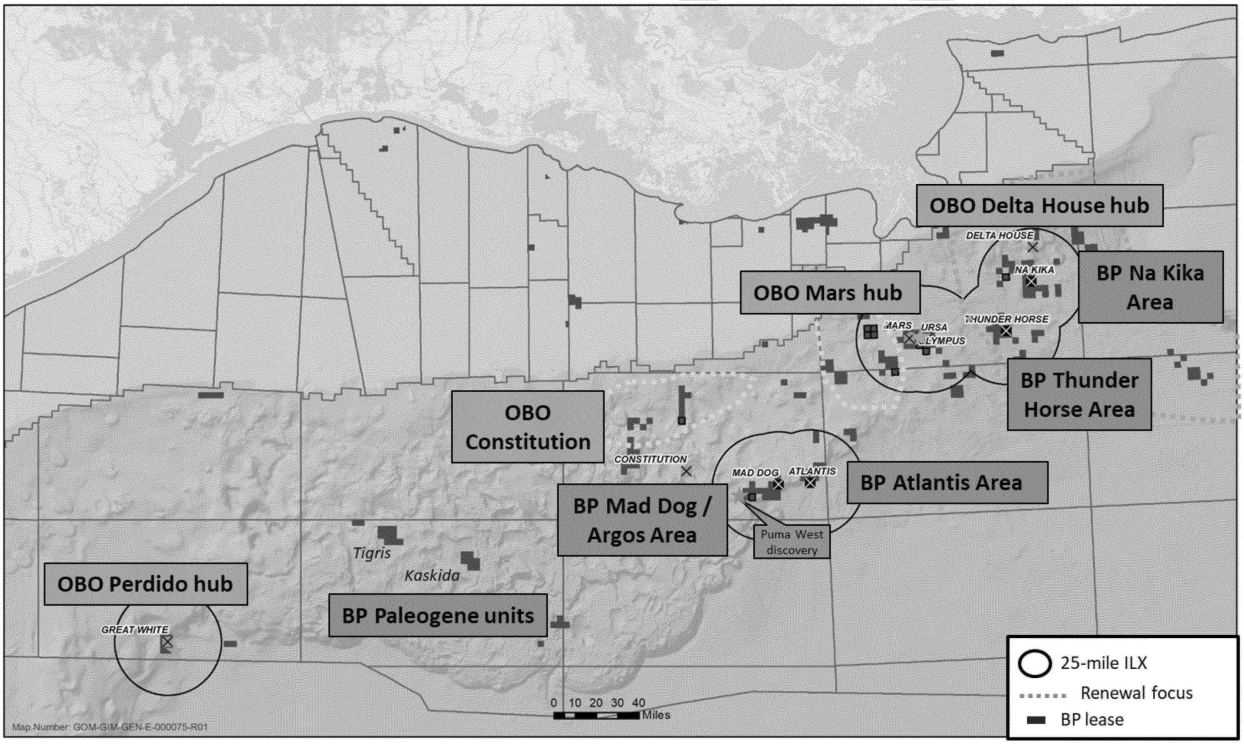
- Conversion of existing wells to low pressure gathering, as appropriate.

bp Gulf of Mexico

Safety is a core value for bp, and managing our biggest process safety risks, including well control, is foundational to everything the business does. Within this frame, bp manages one of the largest production operations in the Gulf of Mexico (GoM), through BP Exploration and Production Inc.

The GoM Business' mission is to be the best run hydrocarbon business in the world that safely and responsibly delivers strong cash flows to fund the energy transition and fuel our long-term future. bp's GoM strategy includes investing in our existing hubs and infrastructure to keep them full and operating well while continuing a disciplined focus on hub-scale renewal opportunities in high value and established plays like the prolific Miocene-age reservoirs bp produces from.

Currently, bp operates four major facilities, 66 active wells and has a high-value non-operated position. Total GoM production is about 320mboe/d net in 2021 and is on a growth trajectory to approximately 400mboe/d net by 2025. This production growth is underpinned by a robust reserves position of >1.1 billion barrels, active wedge production activity, and major project activities like Na Kika Manuel that will start in June 2021 and the new Argos facility which will start in early 2022.



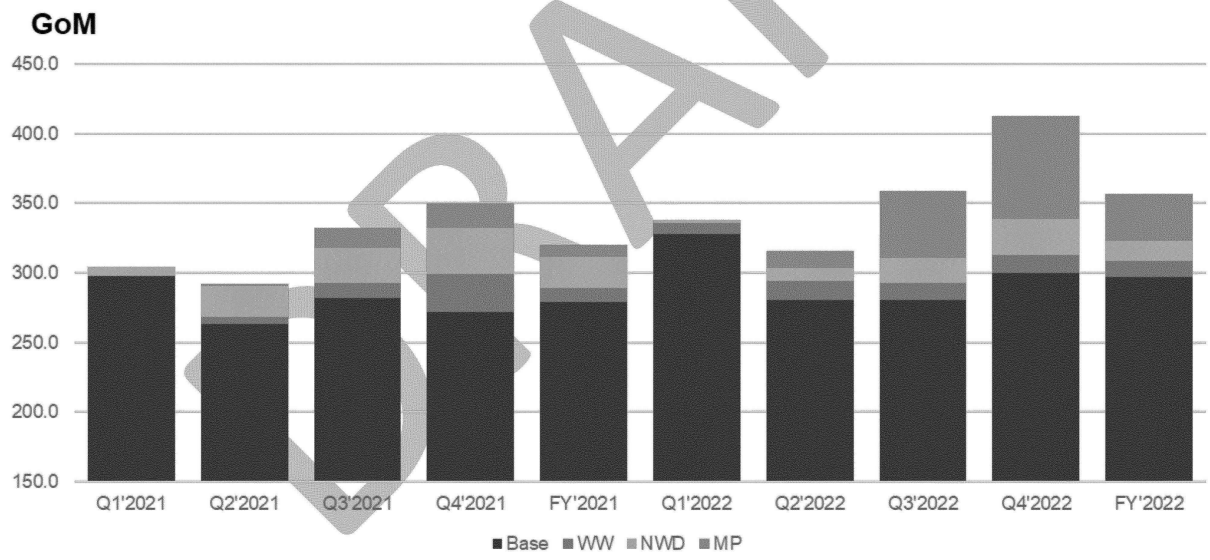
GoM and bp's operated and non-operated areas

Key Financial and Operational Metrics [35]

	2018 Actuals	2019 Actuals	2020 Actuals	2021 (LE)
Ops Cash ($mil)	4,994	4,554	2,402	2,815
FCF ($mil)	3,005	2,194	34	924
RCOP ($mil)	2,758	2,268	(2,447)	1,190
Production (mboe/d)	316	317	282	321
Sanctioned Tiebacks	1	3	1	2

Production

bp operates four platforms (Mad Dog, Atlantis, Na Kika and Thunder Horse) with a 5th facility (Argos) to be installed offshore in early 2022. bp also holds interest in three large Shell-operated Hubs (Mars, Olympus, and Ursa), a Shell-operated field (Great White which ties into the Perdido Hub) and two small fields (Constellation and Nearly Headless Nick). bp's GoM production is expected to grow about 10% from 2021 to 2022 and will reach approximately 400mboe/d net by 2025. About two-thirds of this high-margin production comes from bp-operated facilities and the remainder from OBO activity. Wedge activity is delivered via 3 mobile offshore drilling units (MODU) rigs (in 2022), platform drilling at Mad Dog and Thunder Horse, a riser-less intervention vessel and other intervention kit as needed.



2021 and 2022 GoM production wedges from bp operated and non-operated areas

BP-Operated Fields

[35] Source: Information provided by bp GOM

bp operates four platforms with processing capacity totaling approximately 830mboe/d gross (660mbo/d and about 1bcf/d). At the end of 2020 there were 66 operated producing wells. All bp operated fields produce from Miocene-age reservoirs and range in depth from 12,000 feet at Na Kika (Upper Miocene) to 28,000+ feet at Atlantis, Mad Dog and Thunder Horse (Middle and Lower Miocene reservoirs).

Na Kika (bp 50% and Shell 50%)

Na Kika is a semi-submersible production facility that achieved first oil in 2003 following the first discovery at Kepler in 1987. The Na Kika platform processes hydrocarbons from seven Upper Miocene-age fields (Ariel, Kepler, Fourier, Herschel, Coulomb, Isabela and Santa Cruz). The Na Kika platform was bp / industry's first semi-submersible in GoM and was designed for a 20-year life. Facility life extension work is currently underway.

Na Kika was designed to process 225mboe/d gross hydrocarbons (oil 130mbo/d and 550mmscf/d gas). There are 12 producing wells and production is currently about 60mboe/d gross / 30mboe/d net.

The Na Kika area is undergoing a significant production increase through renewal efforts (85% success rate, at a finding cost of less than $2 per barrel) and third-party business and will return to nameplate production in 2021. Ariel 7 and Manuel, discovered in 2019 and 2018 respectively, demonstrate bp's strategy to keep this hub full through focused infrastructure led exploration (ILX) and fast tie backs with Ariel first oil in 2020 and Manuel two well start up in June 2021. In addition to Manuel in 2021, bp will drill and produce Isabela-3 and two third-party wells managed by production processing agreements under individual PHAs. The original fields are nearing technical recovery, and future ILX and efficient tie back remains integral to the future of Na Kika. bp has a robust acreage position / ILX hopper and anticipates 2-3 ILX wells per year to sustain production.

Mad Dog (BP 60.5%, BHP 23.9%, Chevron 15.6%)

The Mad Dog field is the largest accumulation of hydrocarbons in the GoM and was discovered in 1998, with first oil in 2005. Production from the Middle to Lower Miocene field is processed on the Mad Dog Spar which is capable of supporting production and drilling operations. The Mad Dog Spar capacity is approximately 100 mboe/d and current production is about 70mboe/d gross (38mboe/d net) from 10 producing wells. Export from the Mad Dog Spar is comingled with production from the Atlantis and Holstein platforms.

Work is underway to renew the life of field (LoF) depletion strategy for Mad Dog. Options include additional drilling in underexploited areas to the north of the facility. Reservoir pressure support is also under evaluation in the northwest where a weak aquifer is observed, and additional production wells are planned in the west. There will also be an active intervention program with the A Spar rig to maintain well productivity, and late life options include slot recovery for further infill targets.

Argos (BP 60.5%, BHP 23.9%, Chevron 15.6%)

In December 2016, bp sanctioned the Mad Dog Phase 2 project to develop the southern and western segments of the Mad Dog structure, with first oil expected in 2Q22. The new Argos semi-submersible facility will be installed about six miles from the current Mad Dog spar and is expected to produce up to 140mboe/d gross through a subsea production system. The new facility provides an opportunity to create one of the most digitally enabled facilities in bp's portfolio, and the team is actively driving digital lighthouse projects for enhanced efficiency and cost reduction.

The Argos development includes bp's Lo-Sal™ water injection technology to provide reservoir pressure support and improved sweep efficiency through injection of low salinity water. The semi-submersible floating production unit (FPU) is one of bp's largest major projects this decade and will be the first new bp-operated production facility in the Gulf of Mexico since 2008. It will be bp's fifth operated facility in the GoM. The initial phase of drilling includes a total of 22 wells, 14 producers and 8 injectors and further infill wells will be required to reach benchmark recovery.

In addition to the current plan, bp is evaluating further extensions to the southwest and additional water injection opportunities. An active well intervention campaign is anticipated to maintain well productivity and late life will require access to the shallower CC reservoirs. bp is also evaluating the 2021 discovery at Puma West, which is located to the west of the Argos area. In early 2022, there is an opportunity to test the deeper Paleogene stratigraphy, and this could add material incremental volumes.

Atlantis (BP 56% and BHP 44%)

The Atlantis field was discovered in 1998 in the Middle and Lower Miocene oil-bearing reservoirs. Atlantis achieved first oil in 2007. The Atlantis production platform is semi-submersible with the capacity to process 231mboe/d gross (200mbo/d and 180mmscf/d gas). Current production is about 105mboe/d gross (55mboe/d net) from 23 producing wells. Hydrocarbon export from Atlantis platform is commingled with the Mad Dog production and transported to shore using the same export pipeline system. There are currently 2 water injection wells supporting this production.

In January 2019, bp sanctioned the $1.3 billion Atlantis Phase 3 development project with first oil in 2019. This project utilizes state-of-the-art seismic imaging to identify eight infill well locations. Getting the right image of the subsurface is key and bp remains a basin leader in acquisition and processing technology and ocean bottom nodes (OBN) seismic acquisition. These data have underpinned an extra 400 million barrels of oil equivalent in place at the Atlantis field.

An alternative well design project has yielded a more efficient well design and has achieved improved efficiency on well costs. Future activity includes additional water injection, an active riser-less well intervention program that manages skin and scale issues for improved well productivity, expansion of drilling centers and a major facility expansion project which is under evaluation and will support further water injection and wells. There is a healthy hopper of ILX opportunities in the Atlantis area, and the Spinel exploration well will likely be drilled in 2022.

Thunder Horse (BP 75% and Exxon 25%)

The Thunder Horse platform is bp's largest offshore infrastructure. The field was discovered in 1999 and achieved first oil in 2008. The Thunder Horse platform has a nameplate/design capacity of 284mboe/d gross, (250mbo/d and 200mmscf/d gas), with a 25-year design life. Current production is approximately 185mboe/d gross (125mboe/d net) from 21 producing wells. There are currently 3 water injection wells. Water injection is key for production in the North Pink reservoir and further water injection is under evaluation for the South Pink and South Peach reservoirs.

Sand production is a significant challenge, but it is actively managed, and evaluation of further barriers is underway for implementation at the next turnaround (TAR). In addition, skin and scale are actively managed through well intervention on the riser-less vessel to maintain productivity and a well service jumper will enable preventative treatments which will free up the PDQ rig.

The north area is mature, but the south is underdeveloped and will require additional wells. Recent 4D seismic investment resulted in a superior subsurface image and has enabled the addition of 1 billion barrels of oil equivalent (boe), which underpins the Thunder Horse South Expansion 2 (SX2) project. SX2 will increase production by about 50mboe/d gross and will achieve first oil in 2021. This project is on track and adds facilities for 8 subsea wells with the first well currently being drilled.

Additional opportunities include further infill drilling in the more mature North Pink and North Brown reservoirs, infill wells in South Pink and South Peach and further wells and potentially water injection in South Brown. There is a rich ILX hopper around the Thunder Horse facility with drill out timing linked to ullage requirements.

Operated By Others (OBO)

The GoM OBO portfolio is a material business that is aligned with bp's strategy of delivering returns-led growth through exposure to advantaged oil assets. It provides about 100mboe/d net production which generates >$1bn FCF per year @ QPF pricing and yields superior returns leveraging historic major facility investments.

bp's Gulf of Mexico OBO production portfolio consists of the 3 large Shell-operated production hubs – Mars, Olympus, and Ursa and the Great White tieback to the Perdido spar, and 2 smaller subsea developments - Occidental Petroleum-operated Constellation tieback to the Constitution spar and the Murphy-operated Nearly Headless Nick tieback to the Delta House semisubmersible floating production system (FPS).

OBO business is very active in the Shell-operated areas including new well delivery, tie backs and well work. Several significant investment decisions are expected in the next 12 months as the partnership evaluates Mars facility life extension, water injection adds to Olympus and a permanent seismic array for 4D monitoring. There has also been an active major project campaign with first oil expected from King Embayment in 2022.

OBO Facility Summary

	Mars	Olympus	Ursa	Perdido*	Constitution**	Delta House***
Operator %	Shell 71.5	Shell 71.5	Shell 45.39	Shell 35	Oxy 33.33	Kosmos 21.95
Partner(s)	BP 28.5	BP 28.5	BP 22.69 CoP 15.96 XoM 15.96	CVX 37.5 BP 27.5	BP 66.67	BP 20.25 Talos Energy 11.82 RW Energy 11.82 Crux1 7.31
Water Depth (ft)	2,900	2,900	3,800	7,800	4,500	6,600
Oil capacity (mboe/d, gross)	200	100	150	100	70	80
Gas capacity (mmcf/d/gross)	220	100	400	200	200	200
Discovery Date First Oil	1989 1996	1989 (Mars) 2016	1990 1999	2002 (GW) 2010	2015 (CNSTN) 2019	2018 (NHN) 2019

*Great White (GW) field is a tieback to Perdido Regional Hub
**Constellation (CNSTN) field is a tieback to Constitution
***Nearly Headless Nick (NHN) field is a tieback to Delta House

Reserves and Renewal

bp has a robust portfolio of about 1.1 billion boe of reserves in the Gulf of Mexico, mainly from Miocene-age reservoirs and the Eocene-age reservoirs at Great White field. Proved developed reserves total accounts for 702 million boe, while proved undeveloped reserves total accounts for 405 million boe. On bp-operated facilities, proved developed reserves to production (R:P) ratios indicate stable production rates and only about 16% of hydrocarbons in place have been recovered from existing bp fields which is significantly below basin benchmarks and indicates longevity.

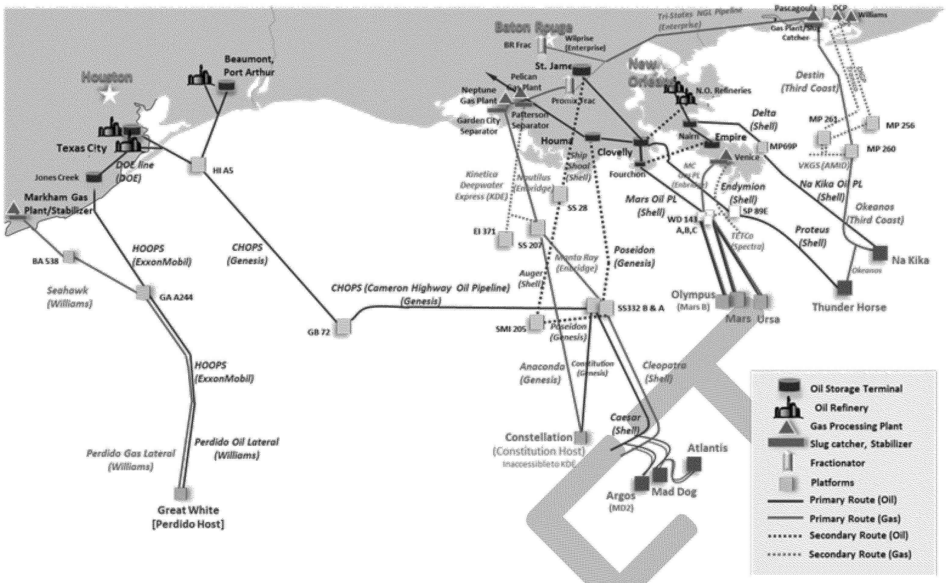
A rich hopper of ILX and new hub renewal opportunities will be required to sustain the business beyond 2030. Continued seismic investment and accelerated drill-out of 2 to 4 new hub wells per year between 2022 and 2024 within the plan frame of 3 MODU underpins the ambition to sustain the business and fund bp's low carbon future. Furthermore, renewal activity to 2025 is underpinned by bp's current leasehold position. Additional running room for increased production will come from focused hub-scale Miocene renewal, establishing a renewal position in the proven Norphlet play, and unlocking technical challenges in bp's Paleogene discoveries.

The opportunity set is underpinned by ongoing renewal of bp's lease position. At the end of 2020, bp's lease hold in the GoM was 987,957 acres (gross). Approximately 100,000 acres are held by production (HBP). Most of the acreage is exploration leases and is transient. Exploration leases can be held between 5 to10 years depending on the terms of the individual lease. bp actively manages its lease hold through bi-yearly lease sales and optimizes its working interest through trades and deals.

Hub and Export Infrastructure Graphic

bp has observed an increase in export deferrals in 2020 and 2021, and as bp's GoM production continues to grow, sensitivity to known vulnerabilities in export routes will increase. Activity is

underway to manage increasing risk in this area and enhance barriers to ensure export stability and protection from disruptions.



GoM export infrastructure

Strategic Focus Areas

	2020	2025	2030
Production (mboe/d)	282	397	318
Unit production cost ($/boe)	9.7		
Plant Reliability (%)	93	96	>96
Aim 1 ($MteCO_2e$)	1.1	0.86	0.6

Key Projects/Milestones

1. Puma West discovery and evaluation in 2021.
2. Na Kika Manuel major project start up and commissioning in 2Q21.
3. Completion of Paleogene seismic program in 2Q21.
4. Thunder Horse SX2 start up and commissioning in 3Q21.
5. Na Kika Isabela-3 start up in 4Q21.
6. Mad Dog Argos major project start up and commissioning in 2Q22 (watch for key milestones throughout 2021).
7. Continued progress on Atlantis Phase 3 wells in 2022.
8. Installation of additional Atlantis water injection in 2022.

GHG projects

The 2021 SER target for GoM is 20kteCO_2e and the specific projects include:

a. Black Hornet power optimization project to improve fuel efficiency. This uses well specific operating guidelines / green dynamic positioning to take real time metocean data to optimize thruster and generator use.
b. Na Kika field gas compressor (FGC) speed controller addition on the recycle that will assist in slug management and minimize trips which leads to high amounts of flaring.
c. Atlantis export gas compressor variable frequency drive (EGC VFD) optimization to minimize trips which leads to high amounts of flaring. This also contributes to power optimization and increases gas sales.

In addition to the 2021 projects, bp is working to build the hopper of GHG projects that will help GoM contribute to our net zero ambitions support Aim 1 and 4. Options to evaluate include power from shore, engagement on water injection efficiency, and perform energy studies for the remaining assets (Atlantis, Thunderhorse and Mad Dog) in 3Q21.

trading and shipping (T&S)

GPTA

Gas & power trading Americas (GPTA) is the largest natural gas marketer in America, as well as one of the top wholesale power marketers. GPTA is a customer facing organization serving over 2700 [36] customers across the United States, Canada, Mexico, and Brazil to meet customers' energy needs. GPTA's deep product offering to customers includes natural gas, renewable gas, natural gas liquids, power (renewable and gas driven), and renewable energy credits through the diligent risk management of complex logistics (sourcing, transportation, and storage) to maximize value for bp and reliably serve its customers. GPTA also provides risk management products for these commodities as well as for crude and related products to its customers.

In 2013, bp's GPTA became the first oil and gas major company to register provisionally as a swap dealer under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. This allows GPTA to make markets in swaps and / or enter swaps with counterparties. GPTA swap dealing is focused on providing customers with price risk management solutions.

Key Financial and Operational Metrics [37]

	2018 Actual	2019 Actual	2020 Actual
Gross Margin ($mil)	905	889	811
RCOP ($mil)	487	535	474
Electricity Traded (TWh)	164	159	130
Gas Traded (bcf/d)	22	20	18

GPTA serves in the capacity of an integrator within bp through activities such as:

1. Providing flow assurance for upstream entities (GoM and bpx), and refineries (Cherry Point, Toledo, and Whiting).
2. Affiliate support for Freeport LNG across gas & power. GPTA uses its firm transport capacity in support of Freeport LNG and has worked with the team to mitigate future power exposures. GPTA manages the Freeport LNG power needs of 175MW which is hedged through 2028.
3. Procuring advantaged wholesale power for affiliates. Examples include procuring of power for bpx in the Permian basin which contributed to the reduction of Scope 2 emissions by 94KteCO_2e, and putting in place an agreement for Whiting refinery to purchase electricity from the Whiting Clean Energy facility, which contributed 1MteCO_2e in Scope 2 reduction.
4. Acting as an integration partner for G&LCE LSbp evaluating potential renewable investments.
5. Acting as an integration partner for RC&S reaching existing municipal, corporate, and industrial customer relationships.

GPTA has 475 employees, inclusive of enablers who are dedicated to supporting GPTA, to manage their business daily.

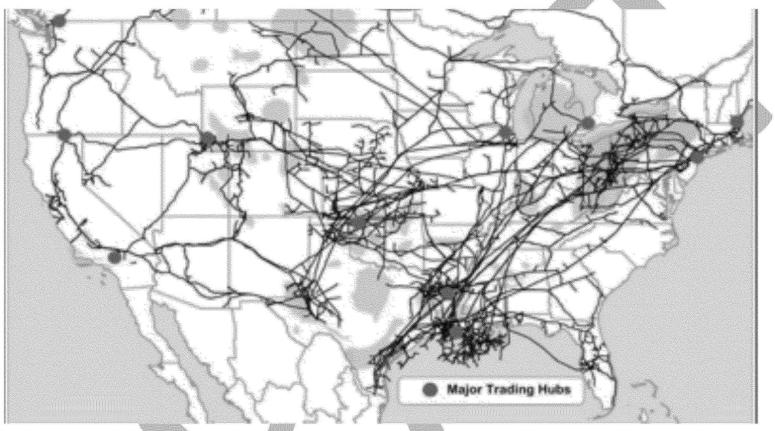
Gas Marketing

[36] GPTA is enabled to transact with over 5,000 customers. In 2020, GPTA transacted with over 2,700 of those customers.
[37] Source: Information provided by GPTA

GPTA has been the largest gas marketer in America since 2003. In 2020, GPTA marketed approximately 18bcf/d of natural gas to 2400 customers across the US. GPTA is active in every major US oil and gas production basin with access to more than 235 pipelines.

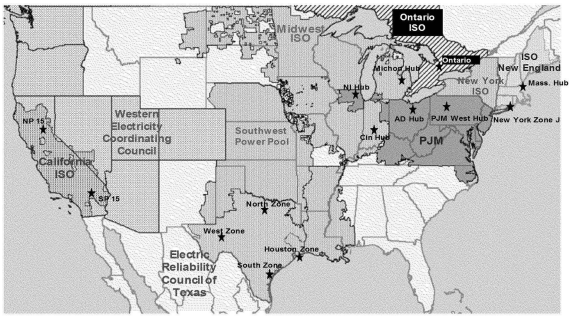
GPTA is customer-centric and integrates operations from the wellhead to the end user through a vast network of pipeline and storage positions throughout the US. The mix of GPTA customers ranges from commercial and industrial, local distribution companies, over 100 cities and municipalities, oil and gas producers and private equity portfolio companies.

GPTA gas marketing serves both the needs of producers and consumers. Services to producers include off-taking production, optimizing pipeline capacity held by producers, offering gas scheduling services, and offering price risk management solutions in the form of financial products. Services to consumers include providing reliable supply, optimizing pipeline and storage capacity held by the consumer, and offering price risk management solutions in the form of financial products.

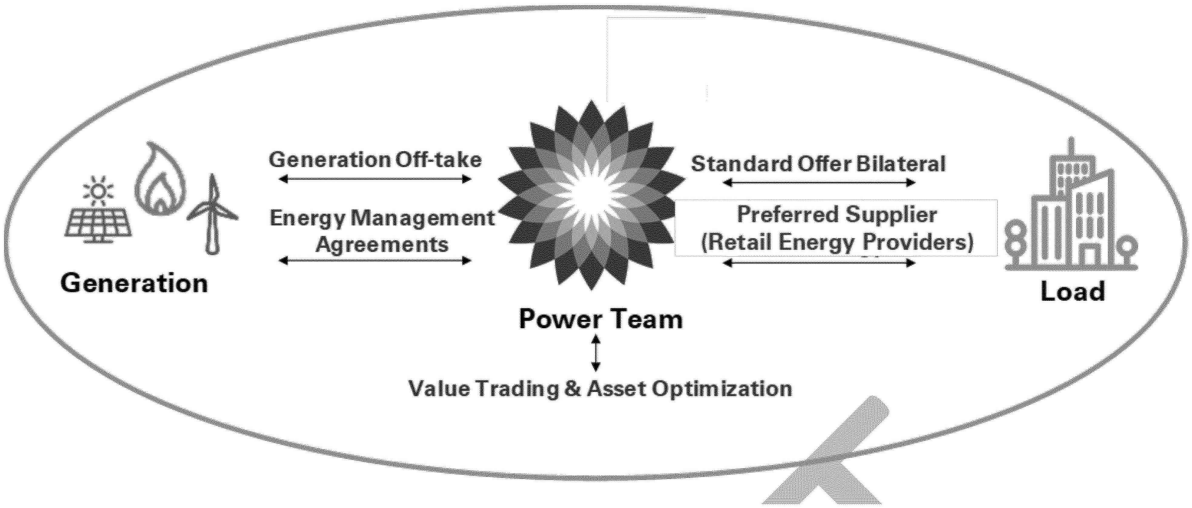


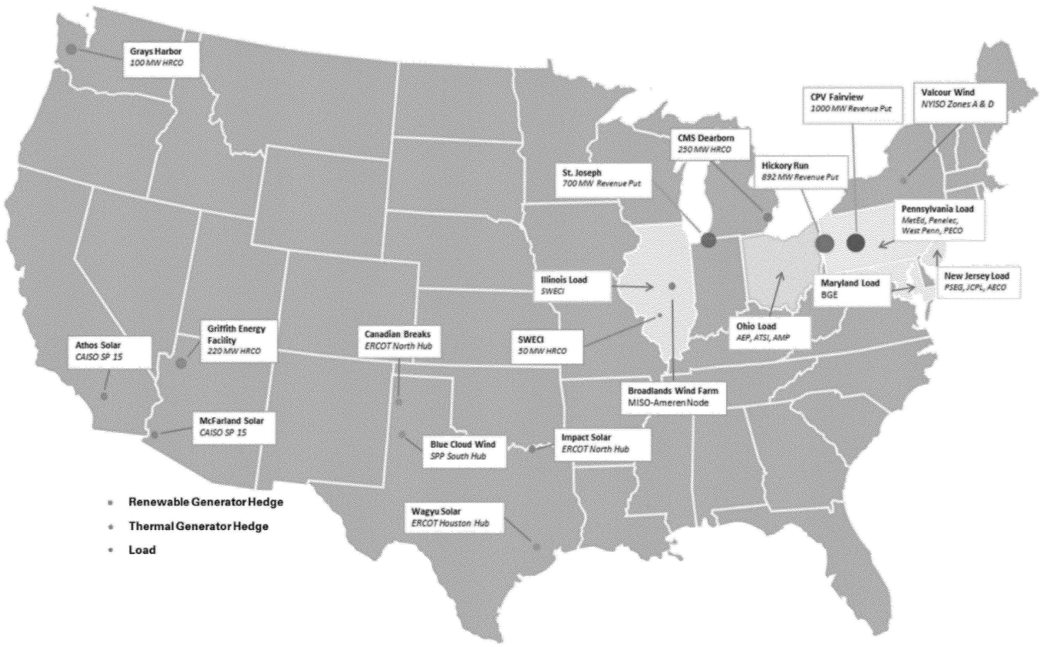
Power Marketing

GPTA is active in several power market areas in the US. In 2020, GPTA marketed 130TWh of electricity making it one of the largest wholesalers of electricity in the US.



GPTA manages a portfolio of long-term transactions including approximately 7000MW of electrical generation capacity (gas, wind and solar) and approximately 3000MW of load across US. While GPTA is focused on wholesale customers, it has access to 20 retail markets by serving current Retail Energy Providers (REP) in unregulated states/regions.





Portfolio of Long-Term Power Transactions in US

GPTA employs a virtual utility strategy, balancing transactions that replicate power generation (long) with holding transactions that replicate load (short).

The Power team originates highly structured transactions on the generation side of the virtual utility strategy, including transactions with both thermal energy and renewable energy (wind and solar) developers. The load side of the virtual utility strategy includes load obligations and supplying retail energy providers. The Power team also purchases RECs from the renewable generators who create them and sells RECs to buyers who purchase them for regulatory compliance or corporate sustainability goals. Essential to the virtual utility strategy is the team's ability to originate long-term transactions with generators, warehouse the long-term price risk, and originate transactions to lay off the risk over time.

Some of the common transaction structures the power team offers include:

GPTA offers the following financial structures:

- Revenue Put Options, which are a financing structure that guarantees a floor (downside) for the revenue from the sale of electricity during the term of the hedge. The developer (project owner) typically pays an up-front premium for the downside certainty. The downside certainty is typically set at the minimum debt service level. Developer/equity partners keep all upside. Investors accept a lower return because they retain upside.
- Heat Rate Call Options (HRCO)/Tolling Agreements, which are a financing structure that guarantees the counterparty the excess revenue from the sale of electricity during the term. bp pays a ratable monthly capacity charge. This payment is used to underpin the financing of the unit. bp has the right, but not the obligation, to convert methane to power at a known ratio for delivery at a known point. Developer retains downside from poor operations.
- Load Serving Transactions & REPs, wherein power utilities and municipalities have power load that they must serve. bpEC obtains load obligations through both auctions (full requirements /all in priced utility contracts) and standard RFP's (municipal contracts). bp also serves REPs with power to source their customers.
- Renewable Energy and Credits, which are tradable, non-tangible commodities that represent power was generated from an eligible renewable energy source. Federal subsidies in the form of tax credits are awarded to equity investors over a period of ten to thirteen years.

Meeting Customer Needs for Renewable Energy Solutions

GPTA has existing relationships with customers seeking renewable energy solutions. GPTA is working with Microsoft, Amazon, IBM, Barclays, NTT Global Sourcing, Pepsi, and Bluebonnet Cooperative (which serves Tesla), all on renewable power solutions.

GPTA also has an agreement to supply Amerigas with carbon offset propane and is in advanced discussions with City of Charlottesville, City of Pensacola, XTS, University of New Mexico, and Centerpoint to supply carbon offset natural gas. GPTA will continue to leverage deep customer relationships, by understanding the customer's evolving needs in the energy transition and respond with appropriate solutions.

GPTA is also one of the largest traders of renewable energy credits (REC).

Expansion into New Geographies

As the natural gas market in Mexico deregulated to allow access to competition, GPTA entered the marketplace and began serving natural gas customers in-county in 2017. GPTA now sells to over 20 gas customers in country, flows across all zones and on all major pipelines in Mexico, and exports from the US at every major border point.

In 2019, GPTA opened an office in Sao Paulo, Brazil to trade and market and trade power in-country. The Power team aims to replicate the success of its virtual utility strategy from the US in Brazil and target its marketing efforts to the commercial and industrial customers who have access to choose their

electricity supplier. To date, the Power team has closed several milestone transactions in Brazil, including the first ever currency inflation hedge transaction in Brazil.

Redacted - First Amendment

Key Milestones/Projects

GPTA's 2021 milestones are:

- Businesses to embed the new group objectives into their strategies and annual plans to start implementation in 2022.
- Delivery of low carbon transactions.
- Continued ramp up of Run DMC business[38]; gross margin projected to grow in 2021.
- Deliver at least two cross commodity transactions for T&S (P&L may or may not reside in GPTA).
- Get the core gas customer business back on track.
- Change ways of working, e.g., agile approach.
- Further digitization and modernization of core business practices.
- Alignment across group on improving the customer experience.
- Develop effective ways of working across bp and enable integration value for G&LCE and RC&S.
- Materially grow the C&I capability by pursuing both organic and inorganic opportunities.
- Proactively engage with C&A to identify advocacy opportunities and assist in supporting bp's position.

[38] Run DMC is a series of transactions with EPIC midstream where bp is an anchor shipper on a new build y-grade pipeline and purchases y-grade from Permian producers to bring to markets in the Corpus Christi area

RPTA

Refining & products trading Americas (RPTA) business **moves billions of gallons** of processed fuel every year. The people of RPTA supply gasoline, jet fuel, renewable natural gas, biofuels, chemicals, currencies, and other products to customers. bp's lower-carbon fuel sources include landfills and wastewater treatment plants.

RPTA is part of bp's trading and shipping organization, which is the commercial face to the traded markets. Its people offer unique expertise in physical supply and trading, innovative financial structures, and world-class analytics to deliver long-term value, from wellhead to end customer. RPTA also manages a number of **key interfaces with P&O and C&P** including marketing Gulf of Mexico production and the supply of feedstocks for bp's refineries.

RPTA has 600 employees who manage the business.

Key Financial and Operational Metrics [39]

	2018 Actual	2019 Actual	2020 Actual
Gross Margin ($mil)	871	1,141	1,407
RCOP ($mil)	529	710	932
Crude Traded (mm bbl)	3,001	2,939	3,356
Distillates Traded (mm bbl)	2,044	2,405	2,646
Light Ends Traded (mm bbl)	1,645	1,647	1,787
Low Carbon Traded (mm bbl)	693	568	621

RPTA serves in the capacity of an integrator within BP through activities such as:

1. Grow refinery availability of advantaged crudes and improve access to unique feedstocks to support low carbon agenda (Co-processing).
2. Grow and improve capability to get products to and source from the highest valued homes, while keeping refinery out of containment and meeting retail demand.
3. Support refinery TARs to maximize operations and manage supply needs.
4. Manage Group environmental compliance obligations and exposure.
5. Maintain flow assurance for bpx, GoM and Canadian Oil production.

Crude Trading

[39] Source: Information provided by RPTA

RPTA plays a significant role in the trading and logistics of the hydrocarbon value chain in the Americas. In 2020, RPTA traded approximately 3.3 billion barrels of crude oil with 400 customers across the Americas. RPTA not only facilitates the physical delivery of crude across the globe but operates as a fully integrated energy company purchasing all equity production and supplying all bp refineries in the Americas with a variety of crude oils.

Through RPTA's extensive network of pipeline and storage commitments, RPTA is able to service customers ranging from well-head producers, pipeline operators, other logistical providers, and maritime servicers. Relationship management is a key to the success of RPTA, providing flexibility in flow assurance, reliability in supply, and value optimization across the crude life cycle. RPTA collaborates with both large and small companies offering procurement, scheduling optimization, price risk management, waterborne access, blending expertise, and a variety of other specialized services.

RPTA is a key enabler in connecting crude flows across the world, facilitating the movement of barrels from the Americas to Europe, Asia, and host of other locations as well as placing barrels into the Americas from these locations.

Distillates Trading

The RPTA distillates team is one of the largest players in the trading and logistics space across North and South America. RPTA's extensive expertise spans across low/high sulfur diesel, jet fuel, fuel oil, feedstocks, and marine bunker fuel, and has an extensive logistics network to deliver barrels via pipe, vessel, and truck/rail. Because of this wide reach, the distillates team is able to monetize various location, time, and grade arbitrage opportunities not only domestically but internationally as well. The team is also tasked with optimizing refinery production/feeds at our refineries in the Midwest and Pacific Northwest in the USA.

The team also manages the short for our extensive sales and marketing business, ensuring security of supply and maintaining BP's reputation as one of the most reliable fuel suppliers in the market today.

In addition, the RPTA distillates team is a major player in the renewable trading markets, trading both domestic and international barrels across both the renewable distillate and renewable feedstock complexes.

Light Ends Trading

The RPTA light ends trading team touches a broad spectrum of products ranging from paper and physical instruments across gasoline, naphtha, ethanol, NGLs and LPGs, as well as being the largest bio trading arm for bp. The team actively trades across the US West Coast, Mid-west, Gulf Coast, New York, Caribbean, and international cargo trading. In 2020, RPTA traded approximately 1.8 billion barrels of gasoline across the Americas. Light ends trading interfaces with third party customers in wholesale transactions as well as operating as integrating with bp refinery production to optimizing supply to downstream rack supply for bp retail flows.

RPTA manages relationships and customers including bp direct retail, wholesale rack customers throughout the Americas, international low carbon renewable ethanol producers and third-party project developers/private equity investors. Light ends manage a complex logistic portfolios of storage tanks, pipelines, and vessels to optimize flows across the globe.

Low Carbon Trading

RPTA low carbon trading is one of the largest suppliers of renewable natural gas in North America and have developed a robust platform for growth through strategic acquisitions across the biogas value chain.

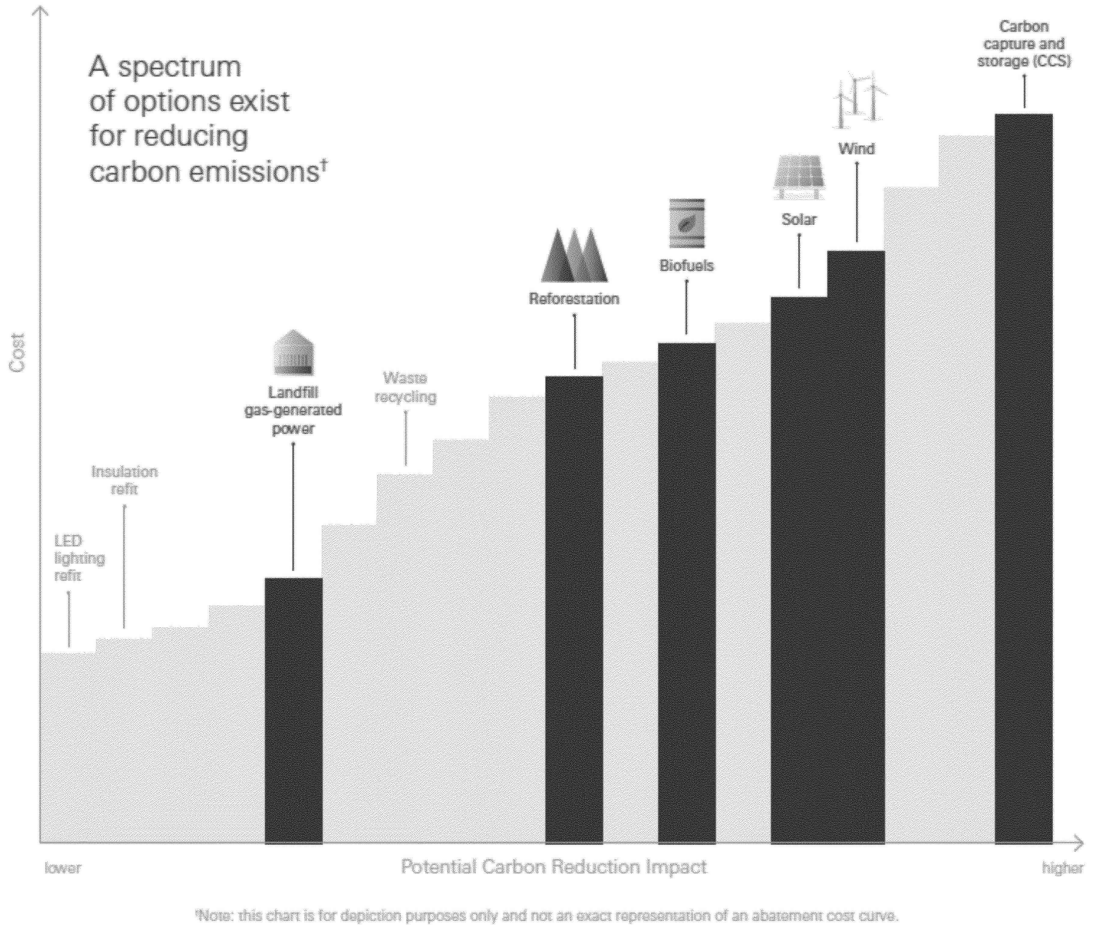
With 30 projects in 15 states, RTPA is a major generator of carbon offsets in the U.S.

bp sources renewable natural gas (RNG) from agricultural and food waste generation and are one of the largest suppliers of RNG or “biogas” to the U.S. transportation sector.

bp is one of the largest suppliers of compliance grade offsets in North America, and sources offsets for customers from its global portfolio of high-quality projects. RTPA adheres to a rigorous assessment and selection criteria process with the aim of ensuring the integrity of the emissions reductions.

RTPA has invested $5 million in US-based forest carbon management company Finite Resources Inc. to help incentivize sustainable forest management, financed by the demand for carbon offsets. Finite Carbon is the largest developer of forest carbon offsets in North America with more than 40 forest projects covering nearly three million acres

<u>bp’s renewable natural gas collaboration with Clean Energy</u>
Clean Energy owns the largest network of compressed natural gas (CNG) fueling stations in North America, with more than 500 stations across the U.S. and Canada. In 2018, bp and Clean Energy signed a 10-year co-marketing agreement, making bp the sole supplier of renewable natural gas (RNG) to these stations. Additionally, Clean Energy is focusing its efforts on expanding their networks and will continue to convert fleet haulers, municipals, and private companies to CNG. This agreement has set the groundwork to substantially reduce greenhouse gas (GHG) emissions of the U.S. transportation sector. According to the U.S. Environmental Protection Agency (EPA), the project directly reduces close to 17,000 tons of methane and is equivalent to removing 1,800 passenger vehicles from the roads annually.



Redacted - First Amendment

Key Milestones/Projects

RPTA's 2021 key milestones are:

- Integration with P&O (GoM, bpx and refineries (crude)).
- Differentiated crude offer: carbon offset & ESG transparency.
- Continued customer focus: aviation, ground fuels, and industrial.
- Asset footprint & value chain reinvention e.g., bio blending, co-processing, credit optimization & product sales.
- Grow supply/offtake of Biodiesel & Biojet.
- Build Petrochemical business & circular petchem offer.
- Expand bio businesses: ethanol, naphtha, LPG & methanol.
- Access low carbon advantaged feedstocks.
- Grow biogas value-chain through RNG feedstock to supply biogas in regulated markets.
- Target natural climate solutions (NCS) growth to generate low-cost carbon credits using Finite Carbon platform.
- Develop bundled and customized product offers through Low Carbon Trading.

RPTA's 2021 major projects include partnering with FS&M to build a midstream solution in Mexico to supply gasoline/distillate to Central Mexico (Sirius Project) and the continued work in identifying alternative feedstocks (Algae Oil, Biomass Wood Waste, Carinata Oil) to convert to distillate and jet fuel.

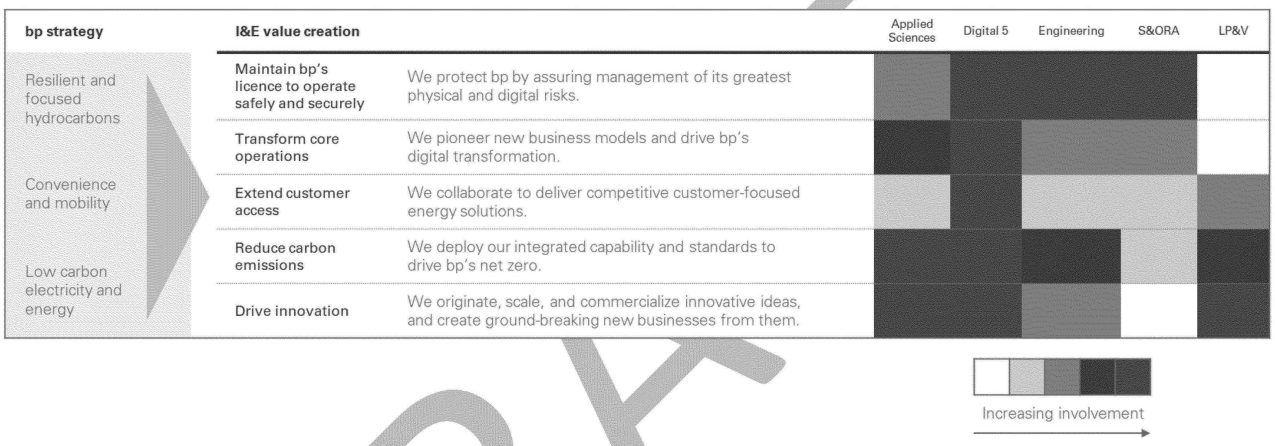
Innovation & engineering (I&E)

Purpose

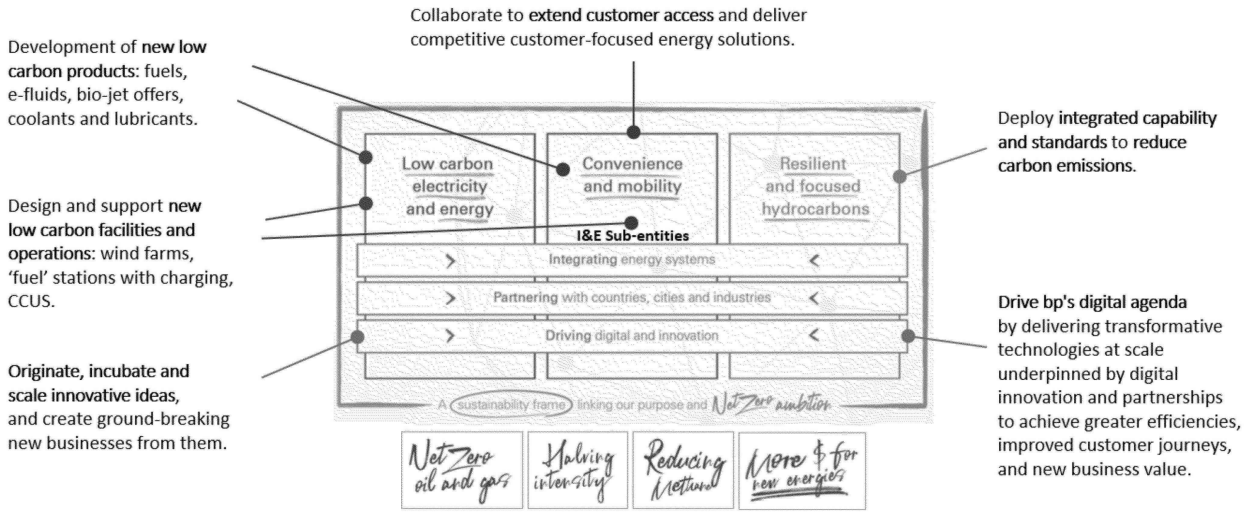
The purpose of I&E is to create, grow, and deliver innovation at pace, enabling bp to thrive in the transition to a net zero world, without compromising operational risk management. I&E brings together bp's physical, biological and data scientists, digital capabilities, engineers, entrepreneurs, and business builders into a single team that can take an idea, test it, incubate it and scale it.

Together I&E will:

- Integrate bp's engineering capability and standards to enable safety and net zero ambition
- Deliver digital transformation and enable new digital business models
- Incubate, commercialize, apply, and scale innovation
- Generate customer-focused energy solutions
- Provide assurance of operational risk (physical and digital) across bp



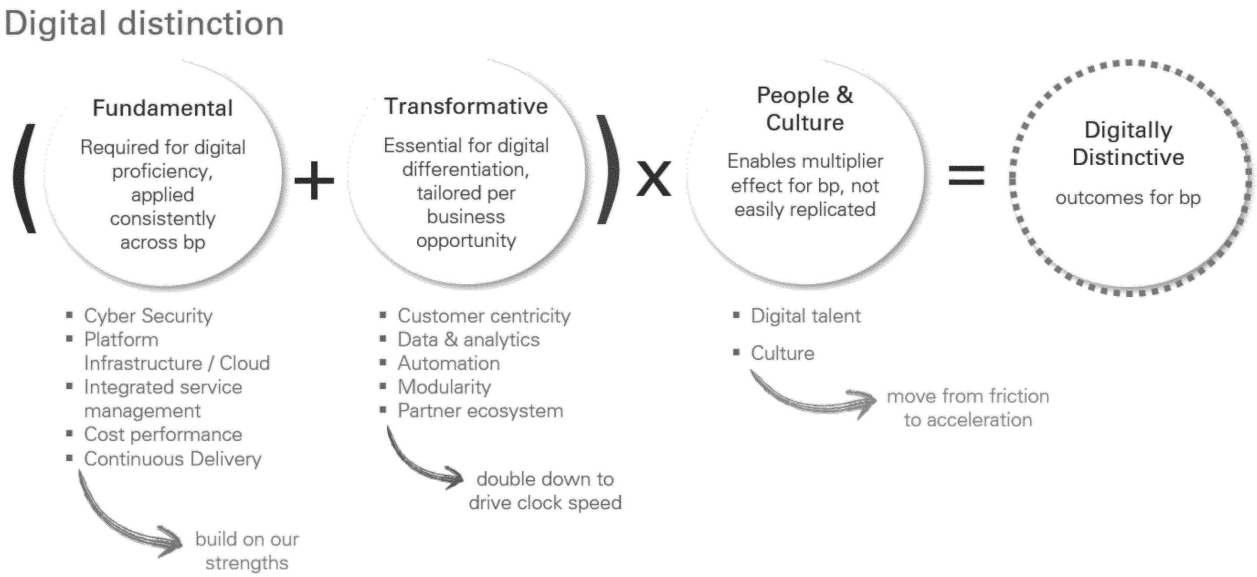
How I&E contributes to bp's strategy and aims



How I&E defines digital distinction

The digital journey has four stages, which in totality can deliver a distinctive outcome for bp:

- **Reinvent bp** – digital organization and operating model
- **Fundamental** – core digital areas that underpin and are necessary to compete in digital
- **Transformative** – digital areas that enable differential outcomes and distinctiveness for bp
- **People & culture** – everyone in bp building and leveraging digital talent and tools



I&E sub-entities

I&E is comprised of nine sub-entities, five of which are digital. The I&E sub-entities cooperate to bring their specific strengths and expertise to play an integrating role in enabling value creation across bp. We drive bp's digital agenda by delivering transformative technologies at scale underpinned by digital

innovation and partnerships to achieve greater efficiencies, improved customer journeys, and new business value.

Digital science and engineering

The digital science and engineering sub-entity drive bp's digital strategy development, strategic partnerships, manage digital disciplines and accelerate the adoption of emerging digital technologies across bp. Accountabilities include:

Develop bp's digital strategy:

- Develop and own bp's digital strategy, aligned with our overall strategy, to deliver on bp's growth and sustainability ambitions.

Driving strategic partnerships:

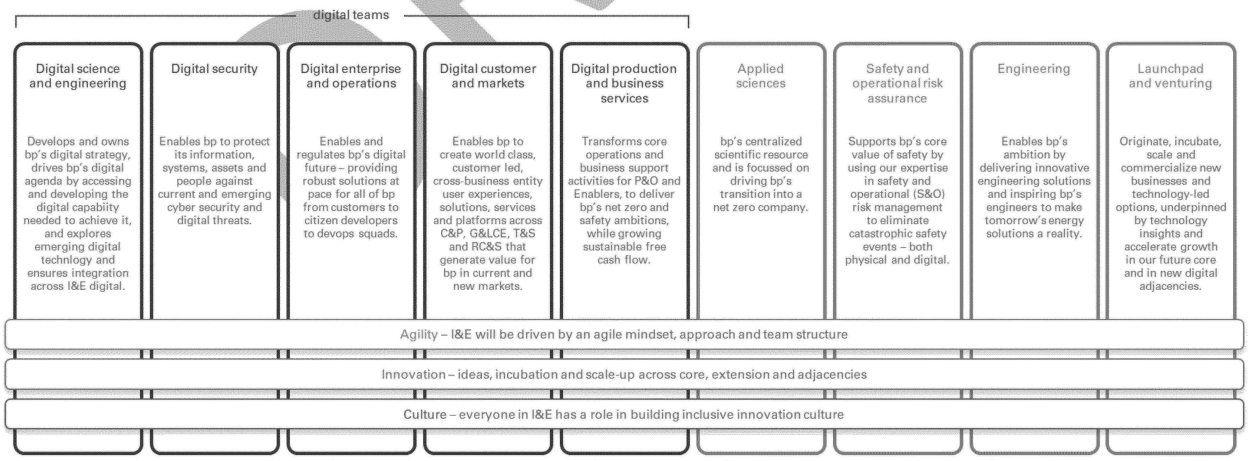
- Define and communicate partnership strategy with considerations on strategic and cultural alignment to develop and evolve existing and new partnerships with technology companies, industry partners, and institutions (including academia, public authorities etc.).

Manage digital disciplines:

- Create and maintain a central 'home' for bp's digital disciplines and the most senior experts in the discipline.
- Drive the development of digital skills and capabilities, early careers activities, career progression, and digital talent for and across bp to ensure future digital capability needs are identified and fulfilled.
- Drive a common approach to access resource solutions (bp and third parties).

Emerging and disruptive digital innovation:

- Develop deep subject matter experts who can advise and educate, both internally and externally.
- Incubate and advocate digital technologies that could transform our existing business, disrupt the



energy industry, support bp's strategy or those that could offer potentially new business models

Digital security

The digital security sub-entity protects bp people and assets from cyber threat and make bp a cyber resilient organization. Accountabilities include:

Protect bp from cyber-attacks:

- Leverage threat intelligence across different, geographies, technologies, and threat actors to equip the bp businesses with an understanding of how they may be targeted.
- Provide data and actionable insights to support cyber detection, prevention, and predictive events.
- Apply a risk-based approach to cyber security for people, third parties, systems and bp locations.
- Advise on balance of cyber threats against commercial advantage.
- Provide advice on legal and regulatory cyber obligations and industry standards.
- Provide digital solutions to keep bp cyber secure.
- Set the foundation, standards and thought leadership for digital and cyber risk management.

Increase cyber resilience across bp:

- Raise awareness of cyber threats through engagement, training, and measurement systems such as CyberMe.
- Drive the culture of good security behaviours and mindset.

Cyber incident response:

- In the event of a cyber incident, support affected parties to understand impact and restore operations.
- Deploy security talent to the most complex problems at global scale.

Digital enterprise and operations

The digital enterprise and operations sub-entity enable bp's digital future by providing modern, sustainable, and secure solutions at pace. This is a team of ten groups who work together in a cohesive manner with digital customer success at the center, enabling teams to deliver customer-centered products and services.

Manage and run enterprise platforms:

- Operate platforms to accelerate and scale digital product delivery, our platforms deliver key enabling capabilities and allow for the rapid integration of services or development of new capabilities within a defined framework allowing for easier data consumption and automation.
- Build and run bp's common developer and digital accelerator platforms and common identity and access management platforms.
- Our data platforms connect the world of bp with data and enable bp to connect to the world through data.
- Our compute resources provide the processing power required by applications and systems.
- Connectivity platforms
- Enables users, service providers and bp customers to reliably and securely connect, communicate and collaborate by building and maintaining bp's network infrastructure.
- Digital workplace
- Enables user productivity and collaboration by providing, maintaining, securing, and supporting common technology tools.
- Includes helpdesk support.

Cloud provision and optimization:

- Provide digital-as-a-service cloud solutions to maximize investment efficiency and to optimize time to value.
- Build common cloud platforms and services, working horizontally to define digital solutions and deploying vertically.
- Drive bp's low carbon IT and sustainability agenda across our I&E digital organization.

Digital architecture ownership:

- Leads enterprise and cloud-based platform architecture and holds bp digital technical design authority.
- Informs the digital strategy and roadmaps.

Deliver digital systems of work:

- Building and maintaining tools, processes, and controls for digital systems.
- Enable digital teams to manage their work and processes within a common paradigm.

Promote and enable Innovation:

- Leverage disruptive approaches.
- Drive adoption of digital best practices and technology.

Digital production and business services

The Digital production and business services sub-entity collaborates with P&O and enablers to provide digital solutions that support safety, enable carbon goals and generate value for bp. Accountabilities include:

Deliver digital products and solutions:

- For P&O, manage the delivery of digital products as well as own and prioritize business requirements.
- For business services, manage the delivery digital products working in partnership with relevant business product owners and managers.

Operate, maintain, and optimize bp digital assets:

- Provide digital-as-a-service solutions to reduce cost, increase margin and accelerate pace of innovation.
- Create modular features, products, and services.
- Deploy common IT architecture, platforms, and services.

Build distinctive partnerships and technical capabilities

- Operate with consistency and enable movement of people with deep digital skills between activities.
- Drive continual refinement of customer centric approach.

Promote and enable innovation

- Leverage disruptive approaches.
- Develop and integrating analytics and automation into digital products to deploy data analysis, data science, AI and automation resources.

Digital customers and markets

The Digital customers and markets sub-entity collaborates with C&P, G&LCE, T&S and RC&S to provide digital solutions that support safety, enable carbon goals, and generate value for bp. Accountabilities include:

Develop bp's digital strategy:

- Develop and own bp's digital strategy, aligned with our overall strategy, to deliver on bp's growth and sustainability ambitions.

Deliver digital products and solutions:

- Manage the delivery of digital products working in partnership with relevant business product owners and managers.

Operate, maintain, and optimize bp digital assets:

- Provide digital-as-a-service solutions to maximize investment efficiency and to optimize time to value.
- Build common platforms and services, working horizontally to define digital solutions and deploying vertically.
- Deploy common IT architecture, platforms, and services.

Building enduring and trusted relationships with our business stakeholders:

- Collaborating with bp businesses to co-create digital roadmaps that promote digital best practices / use cases.
- Driving continual refinement of customer centric approach.

Promote and enable innovation:

- Leverage disruptive approaches.
- Drive adoption of digital best practices and technology.

Applied sciences

The Applied sciences sub-entity lead bp's scientists and physical labs to carry out product development and scale up of proprietary solutions to drive a low carbon business. Accountabilities include:

Research and innovation:

- Provide deep scientific and engineering knowledge and tools to deliver differentiated capability and unlock competitive advantage.
- Strategic partnerships with universities and original equipment manufacturers (OEM).
- Intellectual asset management for new products.

Product development and quality assurance:

- Develop and deliver next-generation products to meet needs of selected markets / customers.
- Oversee quality control and assurance across entire product lifecycle.

Technical support:

- Analytics, testing and modelling.
- Provide innovative performance and analytical testing and investigational analysis.
- Lead interface with markets to deploy products / services and underpin technical support offer.

- Global Product Stewardship manage all aspects of product lifecycle compliance and support bp businesses.

Safety and operational risk assurance

The safety and operational risk assurance sub-entity protect against bp's most material operating risks – both physical and digital – through independent assurance as the second line of defence – including NOJVs and new ventures – and as custodian of OMS (operating management system). Accountabilities include:

Custodianship of OMS:

- Setting the foundation, standards and thought leadership for operational risk management through OMS.

Providing assurance:

- Assurance of the design, barriers and systems associated with a bp's purple and blue C+ safety and operational risks, on a worst credible basis, but can use its judgement to include / exclude other risks by exception.
- Acting as the conscience of bp by intervening, where necessary, and providing pragmatic recommendations to reduce S&O risk.

Partnership with the line in building a safer future for bp:

- Being experts and partners in managing and reducing S&O risk to enhance safety performance across bp. Building operations capability to manage risk through our assurance activities.
- Leveraging digital and data driven innovative solutions to improve OMS and assurance impact.

Engineering

The Engineering sub-entity leads the I&E engineers to deliver innovative engineering solutions and inspires bp engineers to make tomorrow's energy solutions a reality. Accountabilities include:

Provide engineering expertise:

- Provide deep technical experts delivering world class technical service support.
- Deploy engineering capability for the adoption and scale-up of competitive and innovative engineering solutions.

Own engineering standards:

- Codify learning in engineering technical practices (GDPs and ETPs).

Build engineering capability:

- Develop world class engineers through the delivery of discipline capability and engineering excellence.

Launchpad and ventures

The launchpad and ventures sub-entity originate, incubate, scale, and commercialize new businesses, underpinned by technology insights, and accelerate growth in our future core and in new adjacencies. Accountabilities include:

Provide technology insights:

- Generate technology insights that influence short- and long-term strategy.

Create new enterprise value:

- Select, validate, and incubate new business concepts using autonomous teams working at pace.
- Create sustainable new enterprise value in digitally-led adjacencies by scaling majority bp-owned companies.
- Use venture capital to deliver strategic value for bp, create ecosystem investments, blue-ocean options and superior returns.

Build commercial capability:

- Create a home for unique commercial talent, attracting world-class entrepreneurs, venture capitalists and business builders.

Protect and valorize bp intellectual assets:

- Use creative commercial structures to efficiently structure, protect and valorize bp's emerging intellectual assets.

How I&E interfaces with bp entities

All entities

I&E will:

- Support digital transformation across bp.
- Provide bp employees and customers with an integrated entry point (e.g. helpdesk) for digital operations.
- Provide stakeholders defined channels to agree / prioritize digital spend and understand value delivery. Note, I&E holds the unique authority to approve all digital spend and budgets.
- Provide delivery and operational services for digital platforms and assets.
- Provide cyber security services to ensure delivery of robust information and digital security across bp.
- Drive standards needed for data to facilitate sharing and interoperability of common data (Digital).
- Provide multiple new business development routes; including incubation of new ideas, venture capital investment and portfolio company board management.
- Provide intelligence, detailed technology insights-led support for investment options / PoCs and new growth areas.
- Jointly with other entities develop and govern strategic partnerships.
- Independent assurance as the second line of defence – including NOJVs and new ventures, and custodianship operating management system (OMS).

P&O, C&P, G&LCE and T&S

I&E will:

- Define engineering standards to which businesses operate where required.
- Provide independent assurance of design, barriers and systems associated with bp's purple and blue C+ safety and operational (S&O) risks.
- Governance and assurance of the operating management system framework and requirements.
- Provide engineering technical support services to operating sites and projects.
- Partner with customer-facing teams across bp to create innovative and differentiated product offers and support their deployment with quality and product stewardship services.
- Provide process innovation and development.

T&S and RC&S

I&E will (in addition):

- Collaborate to extend customer access and deliver competitive customer-focused energy solutions.
- Align with business data catalogues and data governance.

business development

Finance

Finance will:

- Drive performance management including generation of data and insights, centrally and through deployed resources and systems via PPM.
- Provide independent assurance on the management of significant risks, and agree improvement actions, through delivery of appropriate audit programme.
- Provide procurement services including sourcing, executing tenders, contracting, onboarding suppliers and reviewing performance.
- Complete appropriate value analysis for investment decision and strategy alignment via PPM and deployed resources.
- Build control and compliance into finance processes and provide assurance on their operation via ARC.
- Execute accounts payable, procure-to-pay processes and counterparty due diligence (CDD) via GBS.
- Deliver external reporting requirements via ARC and GBS.
- Manage all taxes that bp pays and collects, driving value, meeting obligations via Tax and GBS.
- Provide support to identify, quantify and manage risks including through the application of insurance via OB&C (Risk and Insurance).
- Facilitate the capital allocation process via PPM.

C&A

C&A will:

- Enhance bp's reputation and brand to support our purpose and ambition.
- Share bp's net zero ambition and aims, using relationships and influence to help the world get to net zero.
- Foster a favourable external environment that supports our businesses now and in the future.
- Strengthen relationships with a wider base of stakeholders and mobilize their support.
- Train, equip and mobilize our leaders, staff and alumni as advocates.
- Prepare for and respond effectively to unforeseen events and challenges.

G&LCE

G&LCE will (specific to I&E):

- Collaborate with I&E capability (S&ORA, engineering, applied science and digital) in support of CCUS & H2 and zero carbon energy activity.
- Partner with I&E on relevant G&LCE business ventures for incubation and Launchpad.
- Seek expert input and advice from I&E on taxonomy and policy to further CCUS and H2 business.
- Will support and endorse I&E led technology strategies, working to ensure alignment with business strategy.
- Provide business support to I&E in developing CCUS and hydrogen guides and standards.

P&C

P&C will:

- Lead the strategy, planning and execution of people and culture agenda for all entities across talent and skills, reward and recognition, performance, agile, culture, workplace, engagement, DE&I, leadership development, health / wellbeing and people services.

Legal

Legal will:

- Review and input for the S&ORA assurance protocols and reports.
- Provide professional legal advice and counsel on current and emerging issues.
- Facilitate compliance, legal risk management and dispute avoidance.

S&S

I&E will:

- Support into central economic forecasting of technologies, regional reviews, strategy workstreams.
- Review of emerging technologies, including tracked trigger points.
- Provide outlook for complex energy system integration.
- Provide support for reviews of sustainability-related workstreams.
- Provide insights drawn from partnerships as input for policy, economic and competitor analysis.
- Support and guidance in order to reflect S&S aspects into OMS Framework.

S&S will:

- Lead the development of business strategies working in full collaboration with the businesses.

The United States is a core country for bp and is central to bp's strategy. bp is currently active in business development activities across multiple sectors in the US and maintains a multi-billion-dollar pipeline of opportunities.

Three strategic themes for bp in America include:

1. low carbon electricity & energy
2. convenience & mobility
3. resilient and focused hydrocarbons

The sources of differentiation bp aims to create will come from:

1. integrated energy systems
2. partnering with cities and industries
3. digital and innovation

bp in America business development opportunity hopper/pipeline has over 50 active un-risked opportunities valued at >$10 billion, in over 10 business sectors.

Some recently announced bp business development opportunities that underpin bp's strategic direction in America include:

1. The $1.1 billion investment for a 50% share in the Empire Wind and Beacon Wind projects that are expected to generate 4.4GW of gross generating capacity once operational.
2. The $220 million acquisition of development projects, totaling 9GW, from solar developer 7X Energy.
3. The discovery of the of the Puma West prospect in deepwater GoM.
4. A $1 billion investment in the Grand Slam central delivery point (CDP) to support the elimination of bp's routine flaring in the Permian basin.

low carbon electricity & energy
renewable power

Renewable power generation is a cornerstone of bp's future position in America. bp will grow in both onshore and offshore wind as well as solar, creating a multi-GW business which will underpin bp's integrated energy strategy. The US is the number 1 country for renewable power in bp in terms of pipeline GW. Some examples of renewable power projects include:

1. Empire and Beacon offshore wind projects which is expected to generate 4.4GW when operational.
2. A global organic growth in the onshore wind business by 7GW primarily centered on the United States.
3. Acquisition of 9GW of solar development pipeline from 7X Energy that is to be developed by LSbp.

bioenergy

bp aims to be the largest biogas supplier in the US as part of an expansion to 100kb/d of global bioenergy production. This will be enabled through refinery conversions, potential future stand-alone plants, trading and supply positions and key partnerships with both producers and customers.

Ten projects are currently being evaluated in 4 states.

CCUS & hydrogen

The United States is a 'shaping' market for bp in CCUS & hydrogen, where bp will pursue advocacy and small-scale investments initially, with an aim to ramp up both capabilities and investments as the market matures. The Gulf Coast, Midwest and Northern Plains are the focus areas for CCUS in the US. While the Gulf Coast and Midwest, particularly the wider Chicago area will be the focus areas for hydrogen.

convenience & mobility
future mobility & solutions

The US is one of bp's core regions for electrification and rapid expansion is planned to **become a top 3 player** in this fast-growing market. Growth is planned in both bp and dealer-owned forecourts as well as ride hailing hubs and autonomous fleet solutions.

fuels & convenience

Maintaining and expanding bp's network of fuels and conveniences sites across the US is crucial to both performing as bp transforms and creating new businesses for the future. Organic, inorganic and restructuring options are all under consideration to advance these aims. Some of bp in America's M&C plans includes:

1. Growing dealer owned deal operated (DODO) network to approximately 1,000 stations by 2030.
2. Growing company owned company operated (COCO) network by over 200 sites by 2030.
3. Through acquisition or construction, growing new West Coast ARCO branded sites by between 40 and 50 stations.

midstream

bp will maintain a significant midstream presence in the US with growth investments focused on refinery conversions and supply of biofuels. Targeted investments will also continue in resilient & focused hydrocarbon projects to connect refineries to customers and maximize value.

There are currently 5 projects to improve logistics and supply to the Whiting refinery. bp is also working on enabling production and supply of new biofuel capacity.

focused and resilient hydrocarbons
Gulf of Mexico

The Gulf of Mexico (GoM) remains a core basin for bp, with four established hubs and a significant portfolio of infrastructure lead exploration (ILX) options. This base provides for lower scope 1 and 2 emissions than the portfolio average as well as advantaged economics and an established trading and supply position.

As the current wave of major projects are completed over the next few years, the GoM team is planning to move away from big mega projects in favor of building smaller facilities that are safer, lighter and have lower emissions.

Some GoM opportunities include:

1. A $9 billion investment in Mad Dog 2 that will increase GoM's production capacity with the installation of the Argos platform.
2. A 50% working interest in the Puma West advantaged oil discovery.
3. Greater than 1 billion barrels of additional advantaged resources revealed through advanced seismic imaging.

bpx energy

bpx energy is a central part of the resilient and focused hydrocarbons portfolio. bpx expects to more than double its annual capital spending to $2 billion per annum, in order to produce the most advantaged barrels with the lowest possible environmental impact.

bpx aims to zero routine flaring by 2025, which is underpinned by the $1 billion Grand Slam facility.

Sources of Differentiation
integrated energy systems

bp will invest in the physical, trading and digital capabilities required to integrate and optimize bp's production capacity and customer base. As well as organic growth in existing businesses, this will be enabled by targeted inorganic and new businesses developed and scaled by the launchpad & ventures organization within innovation & engineering (I&E).

bp is expanding into customer & industry (C&I) gas and power supply.

partnership with cities & industries

bp is in the process of building energy partnerships with 10-15 major cities around the world and three core industries. Early examples in the US include a decarbonisation partnership with the City of Houston and early negotiations with both Microsoft and Amazon. Further opportunities are likely to progress over the coming years.

digital & innovation

bp will use digital to enable new ways to engage with customers, create efficiencies, and support new businesses. Focus areas include intelligent sensing and intelligent commodities. bp is aiming for approximately $1 billion reduction in operating costs by end 2023 and approximately $1 billion in increased revenue by 2025 through production, asset optimisation, and extending customer access.