

Draft v7



RC&S US Strategy

December 2020

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Executive Summary

- In addition to impacting emissions, solutions need to be **integrated, scalable and replicable**
 - Integrated: Cross-business, with incremental value
 - Scalable: Material cash delivery, with upside potential
 - Replicable: Common approach for multiple customers; cannot "reinvent the solution" for every partner.
- Opportunities at scale in the US are more likely identified within **Low Carbon Opportunity Zones**, where there is a significant overlap of government and corporate activity, as well as opportunity for government policy incentives.
- Value upside will require integrated solutions around **anchor customers**, much like upstream development is anchored around a major field, with overlapping region and corporate options.
- Most large emission sources, and industrial clusters, tend to be concentrated at **major air and marine ports**, e.g. New York, Los Angeles



Priorities in 2021

- Deliver cash generating options in Houston

Originate relationships in the following Low Carbon Opportunity

Zones:

- Chicago
- Los Angeles
- Northeast region (corporate first, then cities)

Further refine targets and pursue relationships with:

- One major consumer brand, e.g. Verizon
- One major industrial, e.g. Reliance Steel
- One major transportation, e.g. Port Authority of NY/NJ

Supporting RC&S cash delivery in the US



RC&S will need to progress a sizable hopper of opportunities

Global RC&S Cash delivery by 2030

\$1bn/yr



US RC&S cash delivery by 2030
(40% of global; in line with rest of business)

\$0.4bn/yr



Average cash delivery est. per city/corporate

\$25m/yr



Projects required to deliver US cash target

16

- In order for US Region to support delivery of 40% of global RC&S cash delivery by 2030, 12-16 projects will need to reach FID with an average cash delivery of c.\$30m/yr
- Delivery of 12-16 projects by 2030 will require:
 - Material scale for each option
 - Ability to leverage, or replicate, 80% of the "integrated option structure" from one project to the next
- A hopper of options 6-8 times larger, i.e. 70-80 projects being incubated, in order to deliver quality at scale by 2030



US Context

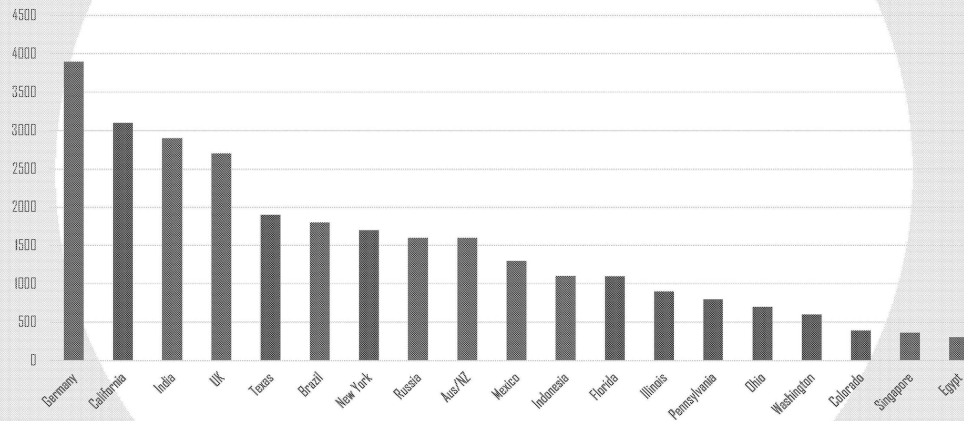
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The USA: 50 separate GDPs and opportunities



GDP (2019 US\$ million)



*Excludes China (\$14200) for scale

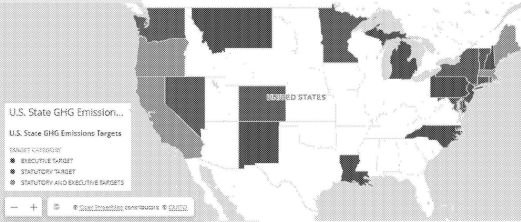
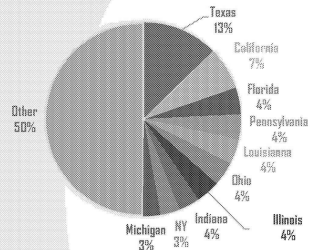
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Where is the opportunity at scale in the US?



ANNUAL CO2 EMISSIONS (2016)



Total Carbon Footprint (Mt CO2)



- Ten states account for half of all US emissions
- NY, LA and Chicago represent a global-scale footprint
- Western and Northeastern states have the most binding, i.e. statutory, commitment to reducing emissions.
- Only 2 of 10 top emitting states (NY and CA) have statutory commitments to reducing emissions.

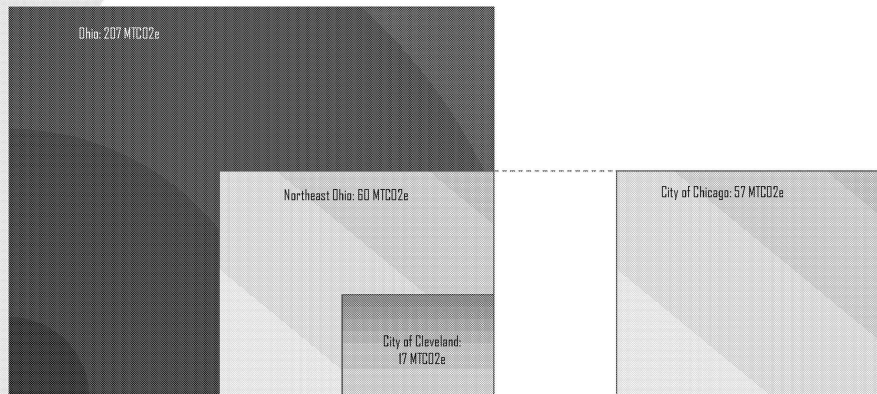
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Region versus City scale of opportunity



Important to see scope of opportunity above the city level



Changes to Federal Energy and Environment Policy



The Biden administration will focus on strengthening environmental policies and elevating clean energy sources

Regulating GHG emissions from the oil & gas, automotive, and power sectors

Requiring that climate policy and GHG emissions considerations inform all relevant federal agency decisions in areas such as:

- Approving multi-state infrastructure projects;
- Siting renewable energy on federal lands and waters;
- Approving leases for oil and gas on federal lands and waters;
- The awarding of federal grants or loan guarantees; and
- Federal procurement practices.

Independent U.S. financial regulators will also focus on addressing financial climate-related risk.

Federal and state policy are inextricably linked



- Federal policy often leaves much discretion for state implementation
- SIP's for federal regulations
- State regulations "not inconsistent with" federal can lead to stricter standards
- State enforcement of federal rules and standards

Federal Policy

In federalist system,
federal and state policy
inform and rely on each
other

State Policy

- Lack of federal action can create space for states to act
 - TCI, RGGI
 - RPS, LCFS
- Politically often easier for states to act than for Congress to act
- Often easier to influence state policy development
- State policy can be subject to federal judicial oversight

Individual bp business/enabling strategies in the US



	CBP	GPFA	RPT	GBLCE
US Strategy in place?	Integrated growth in existing markets; targeted geographic and technology inorganics	Trading, asset optimization		<ul style="list-style-type: none"> • Overarching business strategies in place (not regional) • Regional strategies TBD but key country focus areas are clear
Priorities	<ul style="list-style-type: none"> • Maximize integrated value • Increase customer touch points, including convenience • Expand offerings to include EV, renewables, hydrogen, and lower-carbon solutions 	<ul style="list-style-type: none"> • Green offering • Unique customer solutions • Expansion further down the value chain • Technology as a growth driver 		<ul style="list-style-type: none"> • ISB: None - Brazil, India China focus • Bio-NGW to biogas through Fulcrum's 1st plant. • Renewables: grow onshore wind and USBP solar. Establish offshore wind. Integration with US, CSI REP • Hydrogen: Heavy duty transport. Industrial hubs for CCS - Houston, Mid-West and North (linked to Cherry Pt & Whiting)
Solutions	<ul style="list-style-type: none"> • Targeted customer offering, from branded convenience sites to EV stations to large customers • Renewable products or blended hydrocarbon and low carbon solutions • Strategic partnerships leveraging bp expertise 	<ul style="list-style-type: none"> • Carbon Offset Natural Gas, "COING" and Carbon offset propane, "COF" • Renewable energy credits, "RECs" • Hedging solutions to consumers and producers in new commodities • Serving end-use Commercial and Industrial (C&I) customers in power and gas • Assess opportunities CO2 storage 		<ul style="list-style-type: none"> • Establish with US, a CSI customer facing business with EAAS capabilities • CCS capabilities • NGW to Biogas

US Competitors



There is no one doing what bp is doing, at scale and with breath

		Generation & Production			Wholesale		End Use			Others
		Wind	Solar	Gas	Power	Gas	Power	Gas	Services	
Asset Focused	enel Green Power	●	●	○	●	●	○	○	○	renewables
Balanced	NORSTRA ENERGY	●	●	●	●	●	●	●	●	ENGIE edf
Retail Focused	Exelon Constellation	●	●	○	●	●	●	●	●	nrg
Wholesaler/Retailer	just energy	○	○	○	●	●	●	●	●	IGS
Service Focused	AMERESCO Green - Gas - Renewable	○	○	○	○	○	○	○	○	Schneider Electric
New Entrant	Shell	●	●	●	●	●	●	●	●	Other O&G/Tech
	bp	●	●	●	●	●	○	○	○	

Market position: ● Top tier ● Mid tier ● Small / Nascent ○ None

Bp's strong upstream and wholesale presence combined end use capabilities will enable complete presence across value chain.

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Redacted - First Amendment



City of Houston Integrated Solution

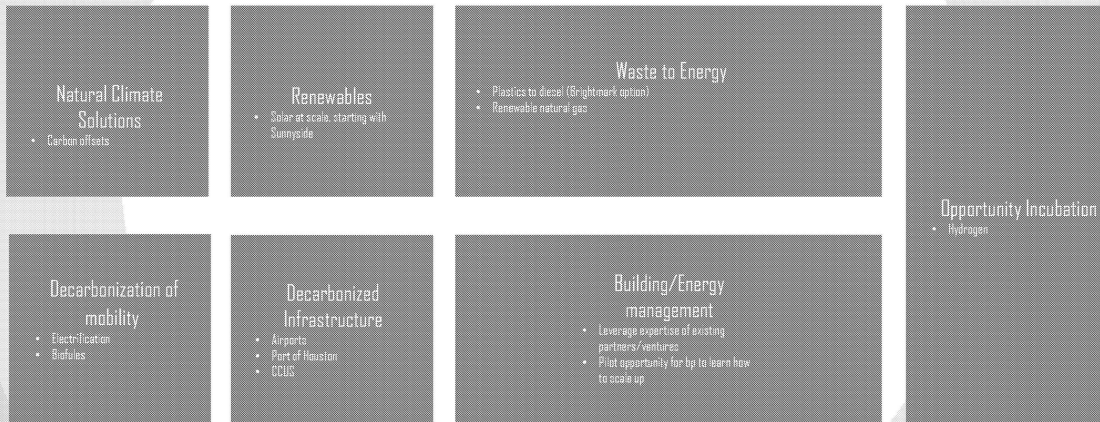
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Houston Integrated Offer (working model)



Implemented over time

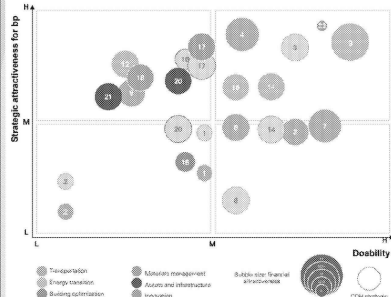


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Illustration of an integrated offer – Houston draft



KPMG draft analysis of Houston integrated offer of solutions

Clear winners

'No-brainers' and/or potential quick wins to demonstrate success and drive momentum

1. Support EV charging infrastructure roll-out and strategy at municipal property and on-street
2. Develop rapid EV charging hubs for B2B fleets
3. Provision of a basket of low emission fuels to the city's public transport network / METRO fleets
4. Develop grid-scale solar farm projects for key residential areas e.g. Sunnyside
5. Assist the City on Carbon offset programs e.g. facilitate carbon credit scheme between city and corporates
6. Provide renewable energy supply to large corporate companies through private wire arrangements

Good fit

Will take longer to commercialise but align with bp capabilities and future vision

16. Improve and optimise energy efficiency in Houston's private and public property through e.g. changing and upgrading heating systems, smart energy use/AI
17. Explore waste to energy opportunities
22. Work with other portfolio companies to help address other parts of CAP

Big bets

Currently high risk but with high potential returns subject to level of integration

15. Develop CCUS solutions to decarbonise industrial activities e.g. Houston Ship Channel, gas capture at landfill
20. Explore Port decarbonisation opportunities

Opportunity backlog

De-prioritised as immediate priorities but could be revisited in future

1. Finance the conversion of the municipal fleet to EVs
2. Finance the conversion of taxis to EVs
3. Provision of a basket of low emission fuels to medium and heavy duty municipal fleets e.g. biofuels, CNG, RNG
7. Explore hydrogen (green and blue) role in zero carbon transportation
18. Provision/development of low-carbon jet fuel from biowaste
21. Explore Airport decarbonisation opportunities

Transportation Energy transition Building optimisation Materials management Assets and infrastructure Innovation

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Regional Focus Areas

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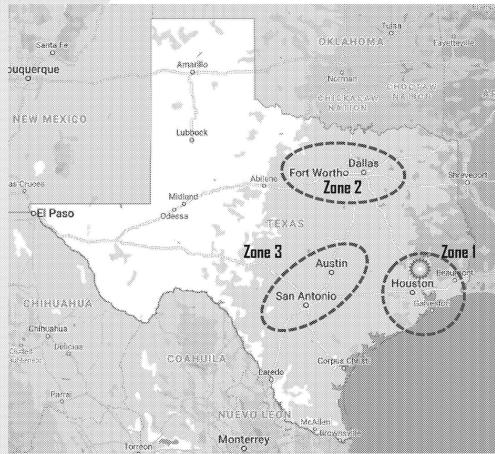
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State focus areas in 2021/2022



State (Ranked by emissions)	Material BP Presence	Emissions Reduction Target	Material Corporate presence	Presence of ports	Candidate in 2021/2022?
Texas	●	No ●	●	●	●
California	●	Yes: statutory ●	●	●	●
Florida	●	No ●	●	●	●
Pennsylvania	●	Yes: Executive ●	●	●	●
Louisiana	●	Yes: Executive ●	●	●	●
Ohio	●	No ●	●	●	●
Illinois	●	No ●	●	●	●
Indiana	●	No ●	●	●	●
New York	●	Yes: statutory ●	●	●	●
Michigan	●	Yes: Executive ●	●	●	●

Regional emission hub Texas

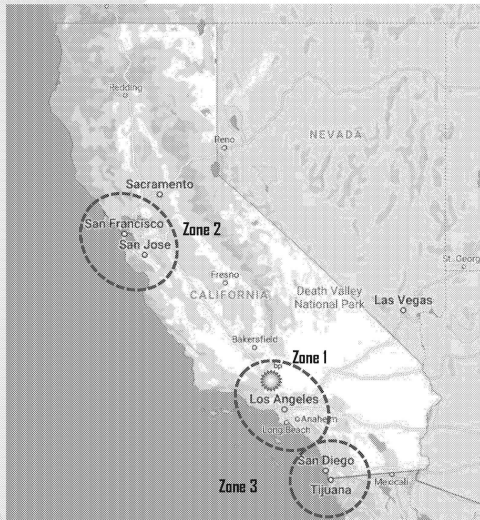


- **Zone 1: Houston/Harris County**
 - Focus in 2021
 - 140+ MT CO₂e emissions
 - Includes bp retail and former refining assets
 - Corp HQ 21 companies including Sysco, Waste Management, United Airlines hub
- **Zone 2: Dallas/Fort Worth**
 - Focus in 2022
 - 125+ MT CO₂e emissions
 - Corp HQ for 12 Fortune 500 companies inc. AT&T, Jacobs Engineering, TI; American Airlines and Southwest Air hubs
- **Zone 3: San Antonio/Austin**
 - Future potential
 - 115+ MT CO₂e emissions
 - Corp HQ for Valero, Dell

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Regional emission hub California: centers of city and corporate opportunities

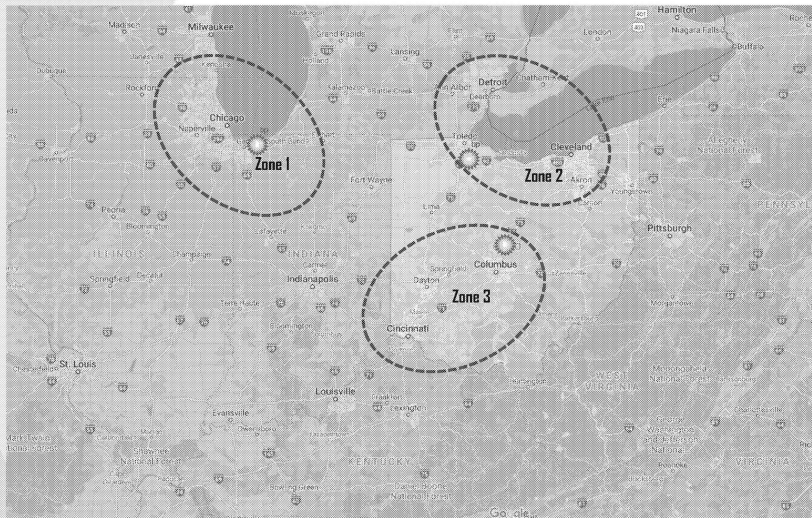


- California is home to 53 Fortune 500 companies
- Zone 1: Los Angeles
 - Focus in 2021
 - 200+ MT CO₂e emissions
 - Includes bp retail and former refining assets
 - Corporate HQ for AECOM Tech, Reliance Steel, A Mark Precious Metals; and 3 international/2 domestic airports (LAX owned by the City)
 - Two largest seaports in the North America managing 28%+ of market
- Zone 2: Bay Area
 - Focus in 2022
 - 50+ MT CO₂e emissions
 - Corp HQ for Apple, Alphabet, Wells Fargo
- Zone 3: San Diego
 - Future potential
 - 50+ MT CO₂e emissions
 - Corp HQ for Qualcomm, Valero

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Regional emission hub Midwest

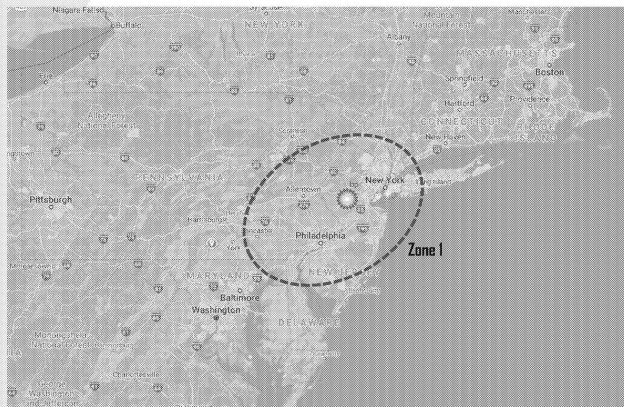


- **Zone 1**
 - Focus in 2021
 - 160+ MT CO₂e emissions
 - Includes Whiting refinery
 - United Airlines hub
- **Zone 2**
 - Focus in 2022
 - 170+ MT CO₂e emissions
 - Includes Toledo refinery
 - Corp HQ for 8 Fortune 500 companies inc. General Motors, Ford, DowDupont, Goodyear Tire, Owens Corning
- **Zone 3**
 - 70+ MT CO₂e emissions
 - Corp HQ for 10 Fortune 500 companies inc. Kroger and Procter and Gamble

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Regional emission hub NYC/Newark/Philadelphia

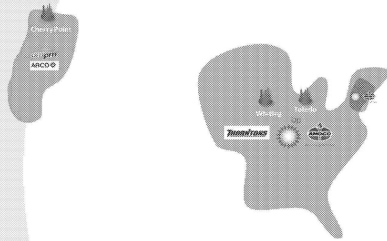


Illustrative regions

- Zone I
 - Focus in 2021 (Corporates first)
 - 400+ MT CO₂e emissions
 - Includes material M&T position
 - HQ for Castrol US
 - Corp HQ for 80 Fortune 500 companies inc. Verizon, Merck, Comcast, Johnson & Johnson, Avis
 - Third largest seaport in the US managing c.12% of North America market

Overlap of bp assets within focus zones

M&C Portfolio of Brands & Businesses



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bp capability within focus areas



Priority Opportunity Zones	Natural Climate Solutions	Decarbonization of Mobility	Decarbonization of Infrastructure	Waste to Energy	CCUS	Hydrogen
Northeast Zone	●	●	●	●	●	●
California Zone	●	●	●	●	●	●
Texas zone	●	●	●	●	●	●
Midwest Zone	●	●	●	●	●	●

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Summary and Next Steps

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The Integrated Picture



Priority Opportunity Zones	Focus Cities (and engagement data)	Corporate Focus	Corporate Targets in 2021 & 2022	Existing bp business
Northeast Zone	Newark (2021) *Philadelphia (2022) *New York City (2022)	Consumer Goods & Heavy Transport	<ul style="list-style-type: none"> Port Authority of NY/NJ Verizon Major banks 	<ul style="list-style-type: none"> US Castrol HQ TGS NY office
California Zone	*Los Angeles (2021) *San Francisco (2022)	Consumer Goods & Heavy Transport	<ul style="list-style-type: none"> Ports of LA and Long Beach Airports of LA Reliance Steel 	
Texas zone	*Houston (2020) Dallas (2022)	Heavy Industries & Heavy Transport	<ul style="list-style-type: none"> United Airlines Waste Management Port of Houston Houston airports 	Houston offices
Midwest Zone	*Chicago (2021) Cleveland (2022)	Heavy Industries & Heavy Transport	<ul style="list-style-type: none"> Ford Goodyear Cleveland-Cliffs 	Chicago offices: Whiting and Toledo refineries

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*C40 cities

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Next steps and enablers



- Clarify roles and responsibilities between RC&S and individual businesses.
- Establish US Business Development and Origination integration forum with cross-business representation.
- Finalize criteria for early-screening potential candidates.
- Pursue Federal and State expansion of Opportunity Zone policies to include "Low Carbon Opportunity Zones".
- Develop bp view of long-term technology themes in the US.
- Engage internal working group to define potential partnering/inorganic options to supplement bp capabilities.

Back-up slides



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Corporate emission reduction targets in the US



Table 2: List of Fortune Global 500 companies that have made a public commitment that they are, or will be, carbon neutral.

Today	Future	
	2020-2030	2035-2050
now	2020	2035-2045
Achmea	Bank of America Corp.	BT Group
Alliant	Bosch Group	Danone
Alphabeta	L'Oréal	Verizon Communications
Australia & New Zealand Banking Group		
BNP Paribas	2022-2025	2035-2045
Capital One Financial	Coca-Cola	Centrica
Credit Suisse Group	Morgan Stanley	Danone
Deutsche Bank	Novartis	Deutsche Post DHL Group
Goldman Sachs Group	SAP	Electricité de France
ING Group		Enel
La Poste	2030	Fujitsu
MetLife	E.ON	GlaxoSmithKline
Microsoft	ENI	Ipserola
Munich RE Group	LG Electronics	Maersk Group
National Australia Bank	Schneider Electric	Panasonic
Swiss Re	Siemens	Sony
Tokio Marine Holdings	State Bank of India	Tesco
Toronto-Dominion Bank	Unilever	Toyota Motor
Zurich Insurance Group		Volkswagen

US companies with carbon neutral commitment

Other major US companies with carbon reduction targets (less than carbon neutral)

- Xerox
- Whirlpool
- Walmart
- Union Pacific
- Port Authority of NY and NJ
- Kraft
- Heinz
- Hershey
- Coca Cola
- Starbucks
- Schlumberger
- Republic Services
- Procter & Gamble
- Pepsi
- Owens Corning
- McDonalds
- LA Dept of Water and Power
- HP
- Hilton
- HP
- General Mills
- Ford
- Dell
- CSX Corp
- Crown Holdings
- CVS Pharmacies
- Conagra
- Cisco
- Best Buy
- Ball Corp
- AMD

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Proposed approach to identifying corporate candidates



Corporates in the US are being assessed within two broad categories: federal players and opportunity zone players

- **Federal players** hold a nationwide presence and opportunity, and the relationship with bp can be developed independent of a regional relationship. e.g.:
 - Microsoft
 - Amazon
 - FedEx
 - Delta
- **Opportunity zone players** hold primarily a regional presence and opportunity, and the relationship with bp can be developed or benefit from leveraging regional relationship. e.g.:
 - United (hubs in Houston, Chicago and Denver)
 - Goldman Sachs
 - Goodyear in Ohio where bp has a major refinery

What is an “Opportunity Zone”?



- Opportunity Zones give both individuals and corporations the chance to re-invest existing capital gains into Qualified Opportunity Zone Funds (“QOFs”) in order to receive tax breaks for helping fund investment in impoverished areas.
- OZs are located in 8,700 communities across all 50 states and the 5 US territories, including 878 in California and 862 in Puerto Rico.
- There are over \$6 trillion in eligible capital gains within the US and \$300 billion of it has been earmarked for Opportunity Funds to date.
- The program provides three tax benefits for investing unrealized capital gains in Opportunity Zones:
 - **Temporary deferral of taxes on previously earned capital gains.** Investors can place existing assets with accumulated capital gains into Opportunity Funds. Those existing capital gains are not taxed until the end of 2026 or when the asset is disposed of.
 - **Basis step-up of previously earned capital gains invested.** For capital gains placed in Opportunity Funds for at least 5 years, investors’ basis on the original investment increases by 10 percent. If invested for at least 7 years, investors’ basis on the original investment increases by 15 percent.
 - **Permanent exclusion of taxable income on new gains.** For investments held for at least 10 years, investors pay no taxes on any capital gains produced through their investment in Opportunity Funds (the investment vehicle that invests in Opportunity Zones).

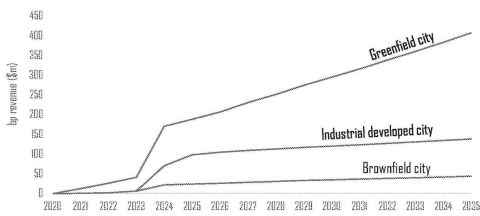
Partner screening criteria

- X
- Y
- Z

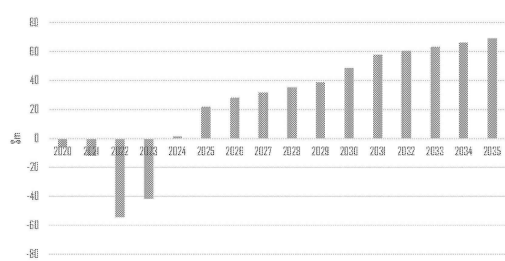


The value from integrated solutions for cities will depend on the archetype

Cities - potential bp revenue range per integrated solution



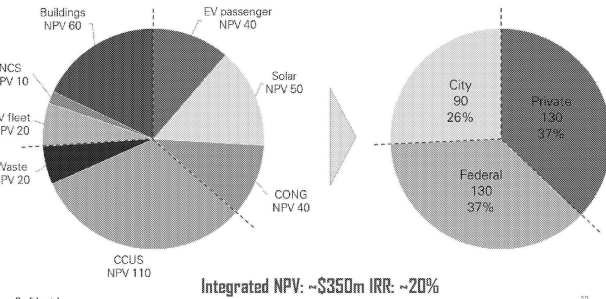
Cities - pre-tax cashflow for an industrial developed city



Assumptions

- City population of ~2 million
- Scale and source of value differ by city archetype:
 - Industrial developed cities may include offers like CCUS, EV charging, solar energy, renewable natural gas, carbon offset natural gas (CONG), NCS and building efficiency solutions
 - Greenfield city solutions don't include CCUS but have scaled up assumptions for other offers

Cities - pre-tax NPV by source of value & by stakeholder for an industrial developed city:



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Corporate Targets



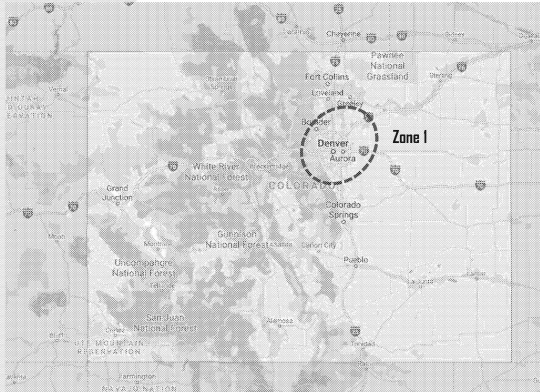
Priority Opportunity Zones	Consumer Goods	Heavy Transport	Heavy Industries
Northeast Zone	<ul style="list-style-type: none"> ▪ Goldman Sachs ▪ JP Morgan ▪ Verizon 	<ul style="list-style-type: none"> ▪ Port Authority of NY/NJ 	<ul style="list-style-type: none"> ▪ tbd
California Zone	<ul style="list-style-type: none"> ▪ tbd 	<ul style="list-style-type: none"> ▪ Ports of LA and Long Beach ▪ Airports of LA 	<ul style="list-style-type: none"> ▪ Reliance Steel
Texas zone	<ul style="list-style-type: none"> ▪ Waste Management 	<ul style="list-style-type: none"> ▪ United Airlines ▪ Port of Houston ▪ Houston airports 	<ul style="list-style-type: none"> ▪ tbd
Midwest Zone	<ul style="list-style-type: none"> ▪ Goodyear 	<ul style="list-style-type: none"> ▪ tbd 	<ul style="list-style-type: none"> ▪ Owens Corning ▪ Cleveland-Cliffs

City Targets



Priority Cities 2021	Debt rating	Economic health indicator	Public commitments to net zero
Chicago			
Los Angeles			
Newark			

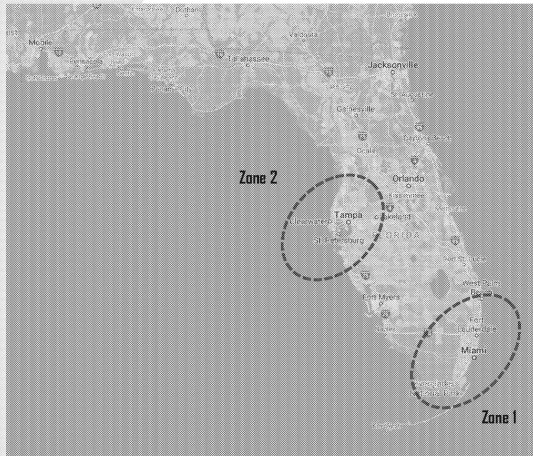
Regional emission hub Colorado



Illustrative regions

- Zone 1: Denver
 - 130+ MT CO₂e emissions
 - Headquarters to BPX
 - Corporate headquarters to Arrow Electronics, McKesson, Newport Mining; major hub for United airlines; one major international airport

Regional emission hub Florida



Illustrative regions

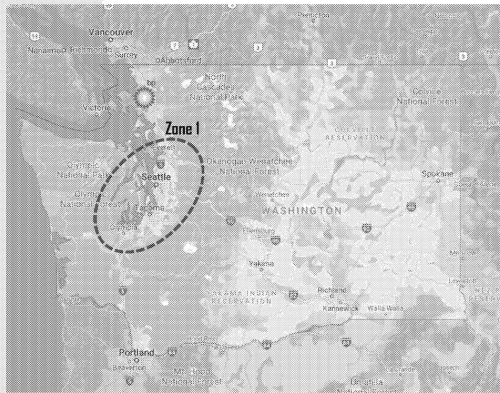
- Zone 1: Miami
 - 90+ MT CO₂e emissions
 - Proximity to [bp asset]
 - Corporate headquarters to Office Depot and World Fuel Services; one international airport and 16th largest seaport in North America
- Zone 2: Tampa Bay
 - 65+ MT CO₂e emissions
 - Proximity to [bp asset]
 - Corporate headquarters to Publix Supermarkets, Jabil, and Tech Data Corp; one major airport

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Regional emission hub: Washington



Illustrative regions

- Zone 1
 - 70+ MT CO₂e emissions
 - Proximity to Cherry Point refinery
 - Major corporate presence by Microsoft, Starbucks, Boeing, Alaska Airlines and Costco
 - One international airport and one major seaport managing c.5% of North America market

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