

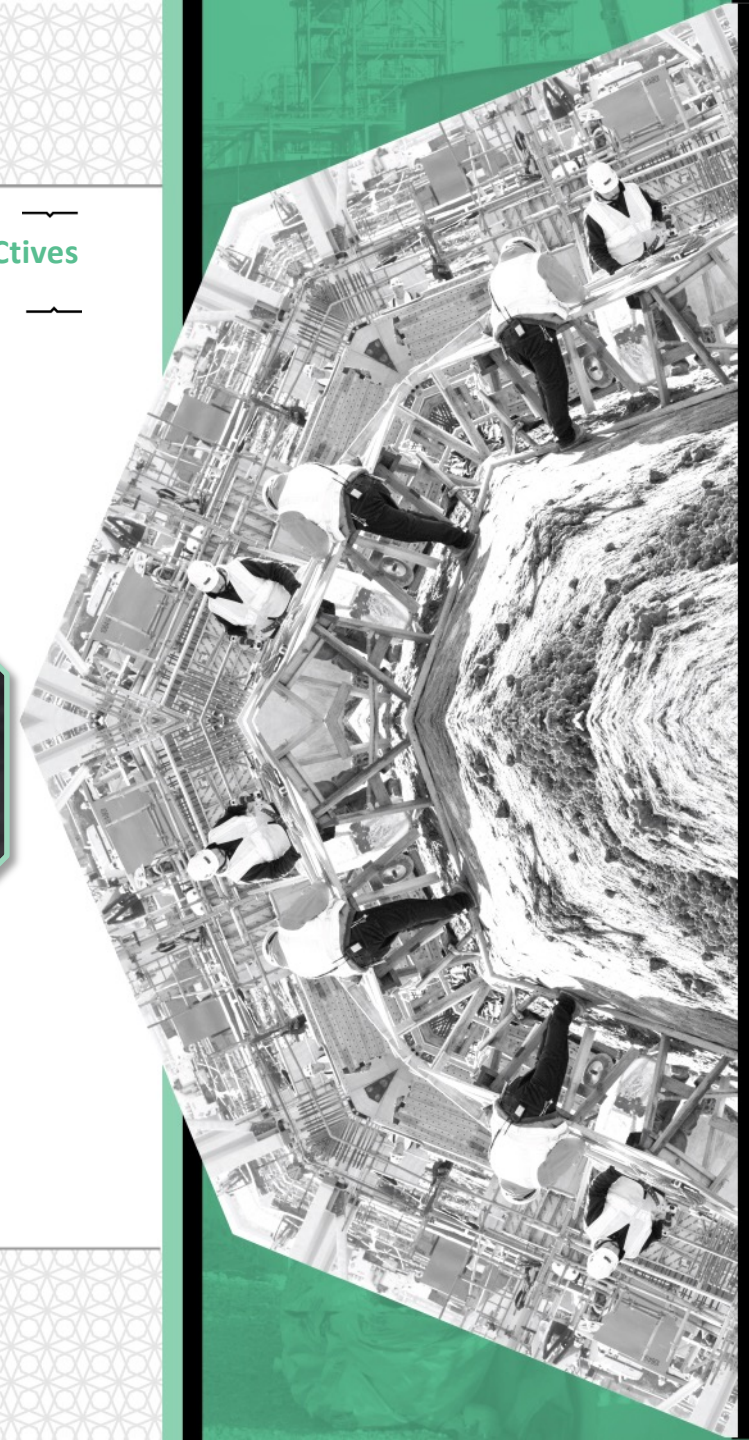
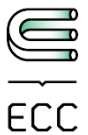


PerspECCtives

THE 54TH ANNUAL ECC CONFERENCE

Luncheon Remarks

Jason Kraynek
ECC Board Chair
Fluor



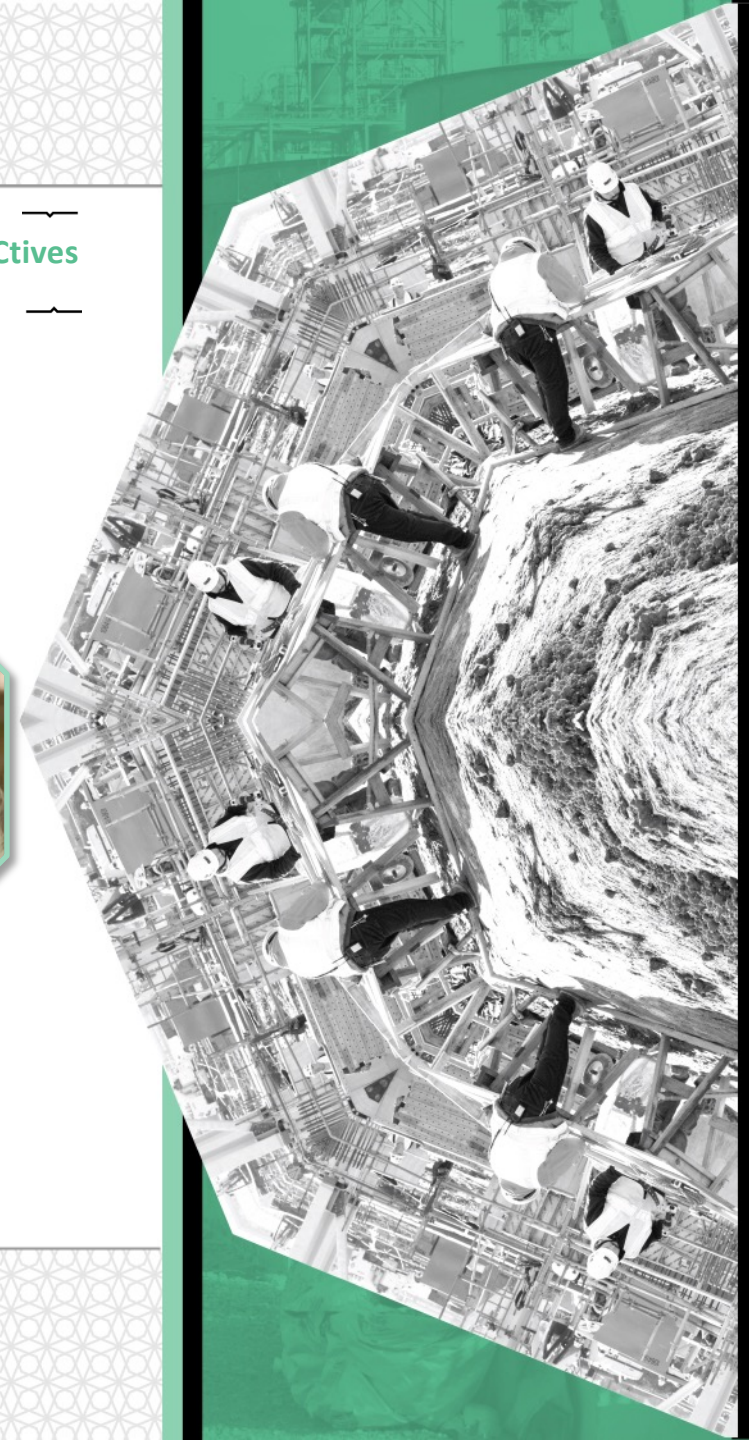
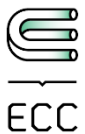


PerspECCtives

THE 54TH ANNUAL ECC CONFERENCE

Forum Overview

Michele McNichol
ECC Board Member
Arion Blue LLC



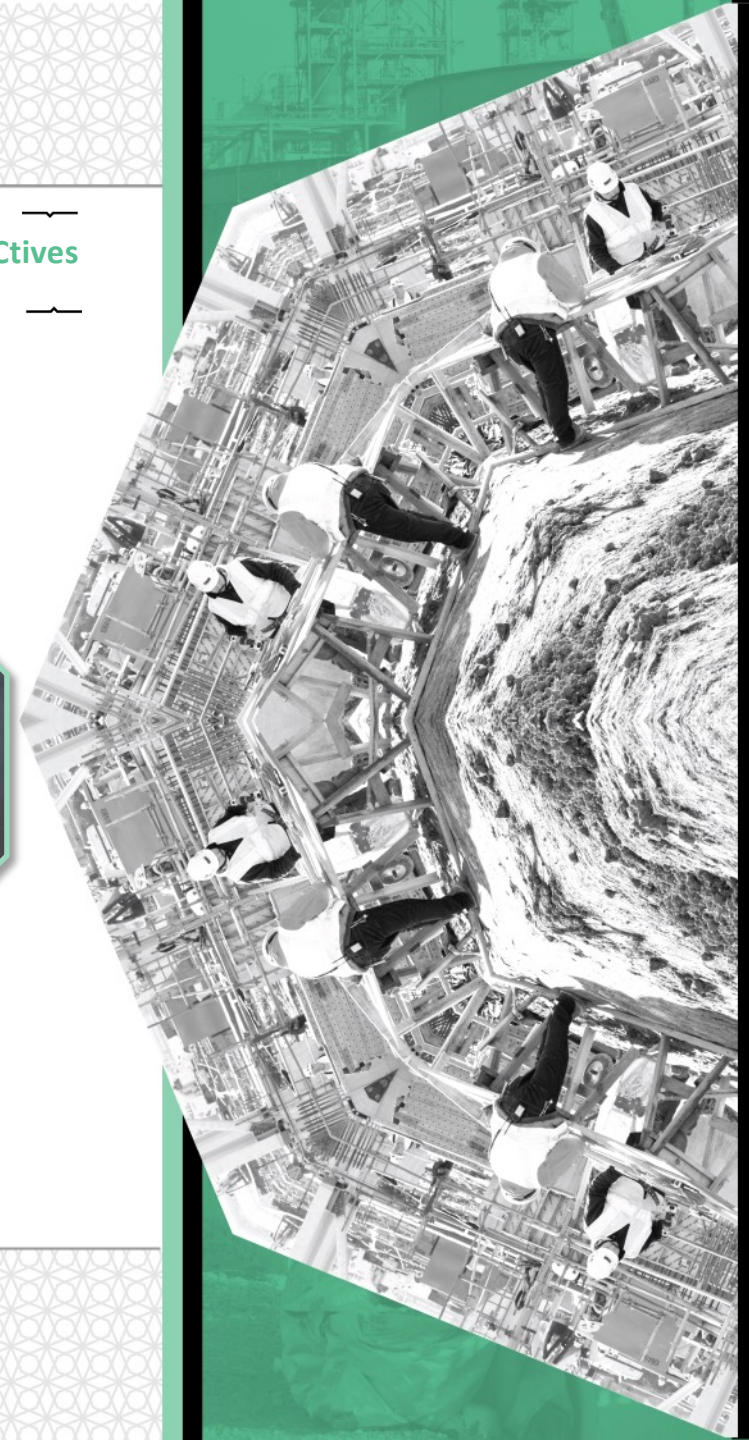
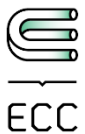


PerspECCtives

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ECC Strategic Initiatives

Dave Kafer
ECC Board Member
Dow Chemical





PerspECCtives

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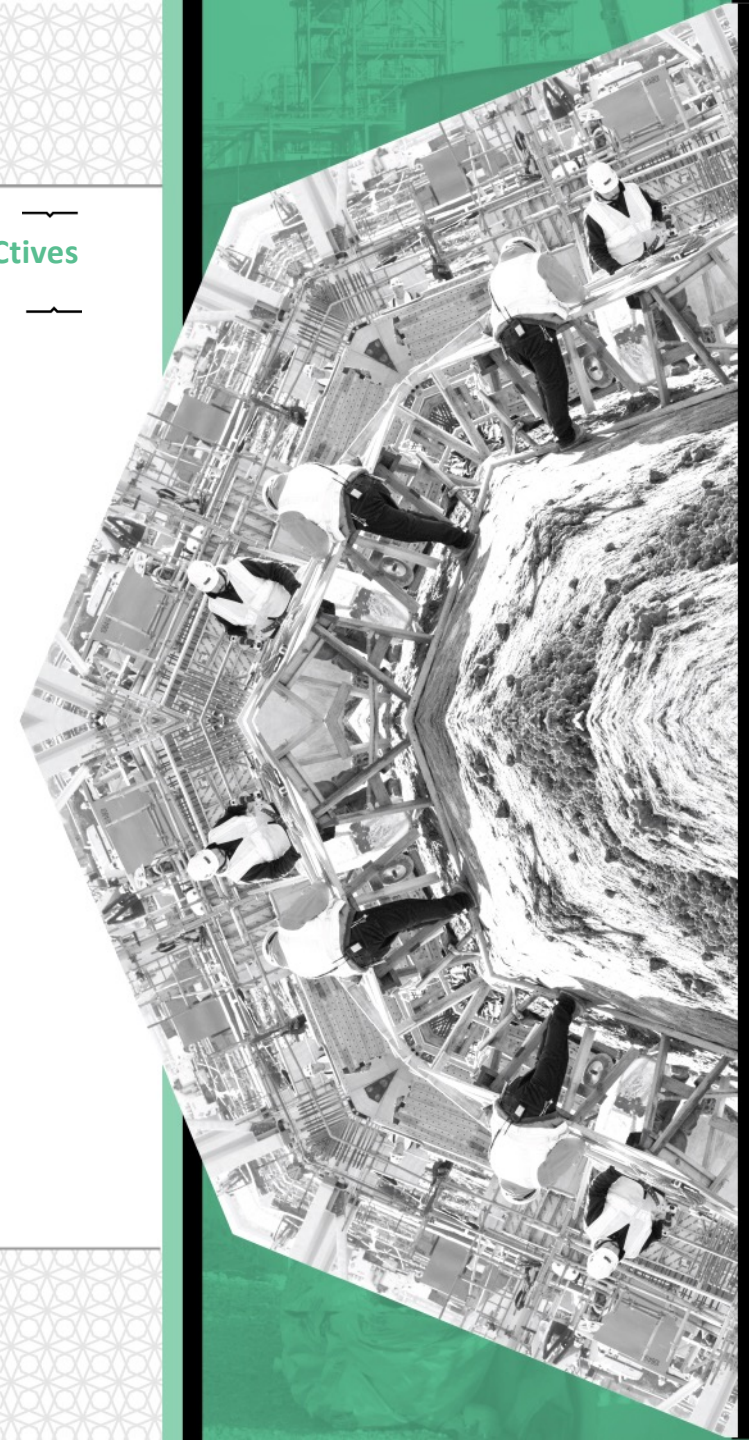
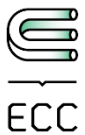
Spirit of ECC Award Introduction



Don Heimbach
ECC Executive Board Member
LyondellBasell



Brandon Mabile
ECC Executive Board Member
Performance Contractors



The Spirit of ECC Award

Award Criteria

Candidates who display an exemplary demonstration of a wide array of talents, skills, and passions that encapsulate the ECC's mission to engage and improve the industry. The recipient of the Spirit of ECC Award will have shown the following:

- A strategic response to a fundamental challenge or opportunity
- A solid application of 'Thought Leadership';
- A certain stewardship towards the betterment of the industry, its participants, and the people it serves.

Past Award Recipients

- 2021 – Houston Livestock show and Rodeo
- 2019 – UH Process and Industrial Management Program
- 2018 – Sadara Project Team
- 2017 – Dream Big : Engineering our World
- 2016 – Go Build Alabama

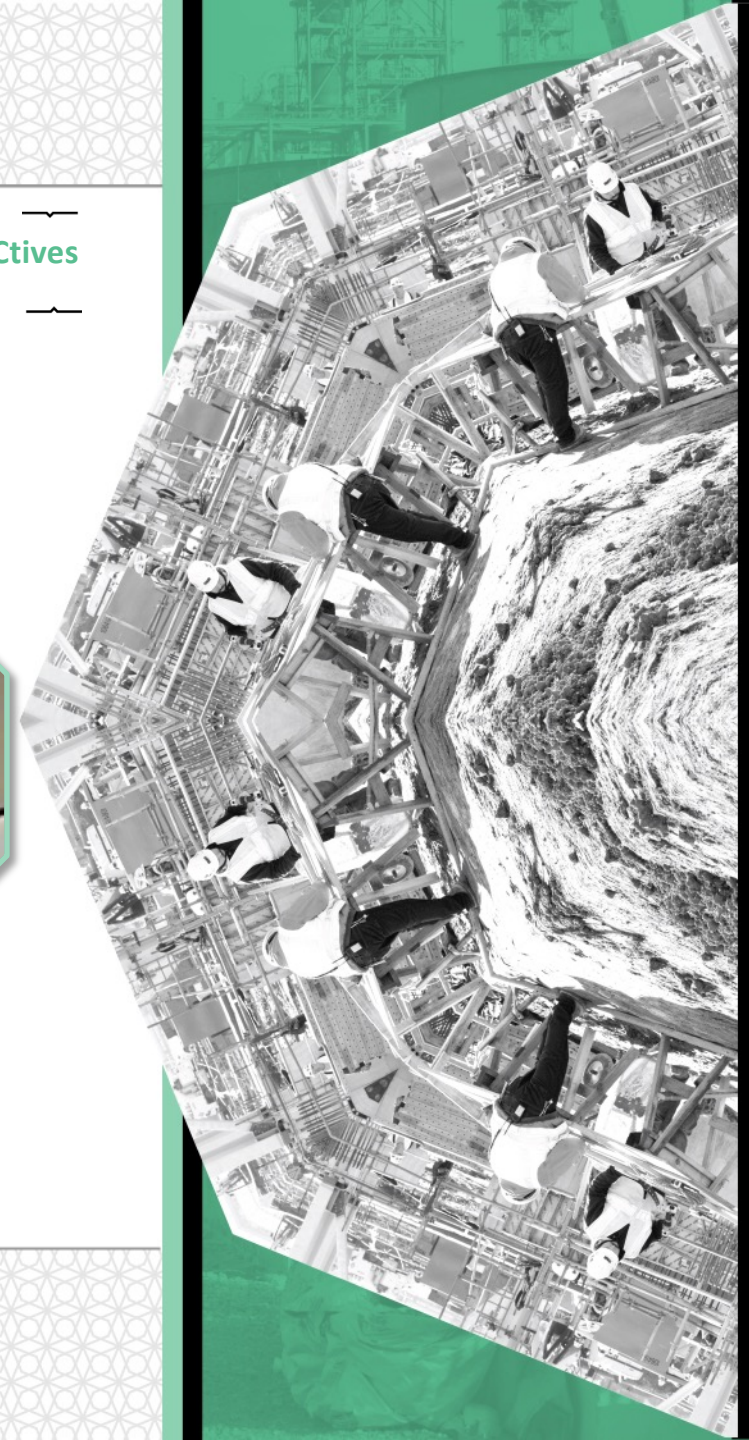
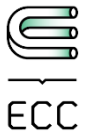


PerspECCtives

THE 54TH ANNUAL ECC CONFERENCE

Introduction

Nick Sinnett
ECC Board Member
Performance Contractors



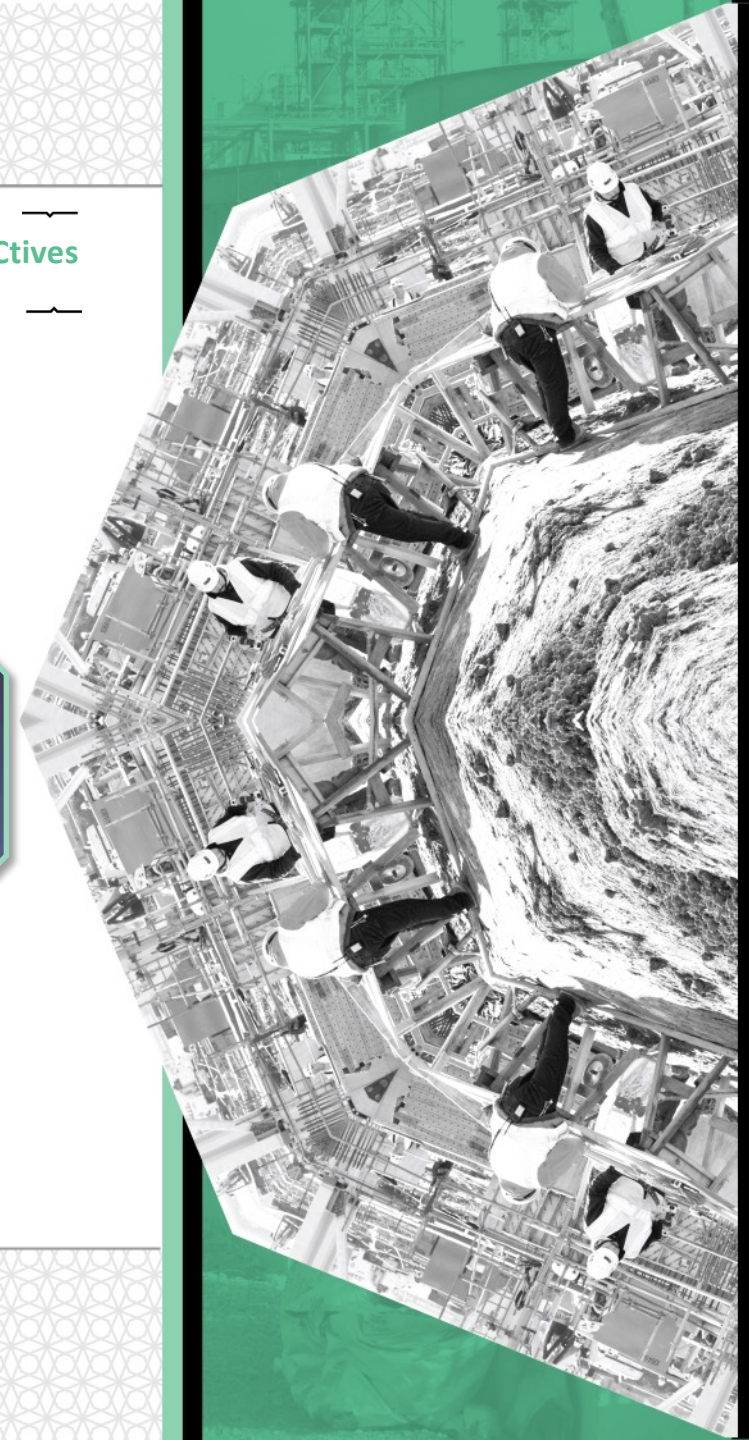
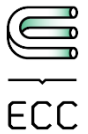


PerspECCtives

THE 54TH ANNUAL ECC CONFERENCE

54th Annual ECC Conference: PerspECctives

Ewan Drummond
BP



Reimagining Energy

inspiring change

Tackling the energy trilemma

Ewan Drummond
September 2022

P&O
production & operations



An aerial photograph of a white wind turbine on a dark green sea. The turbine's three blades are spread out, and its shadow is cast onto the water. A small yellow and black maintenance platform is positioned near the base of one of the blades.

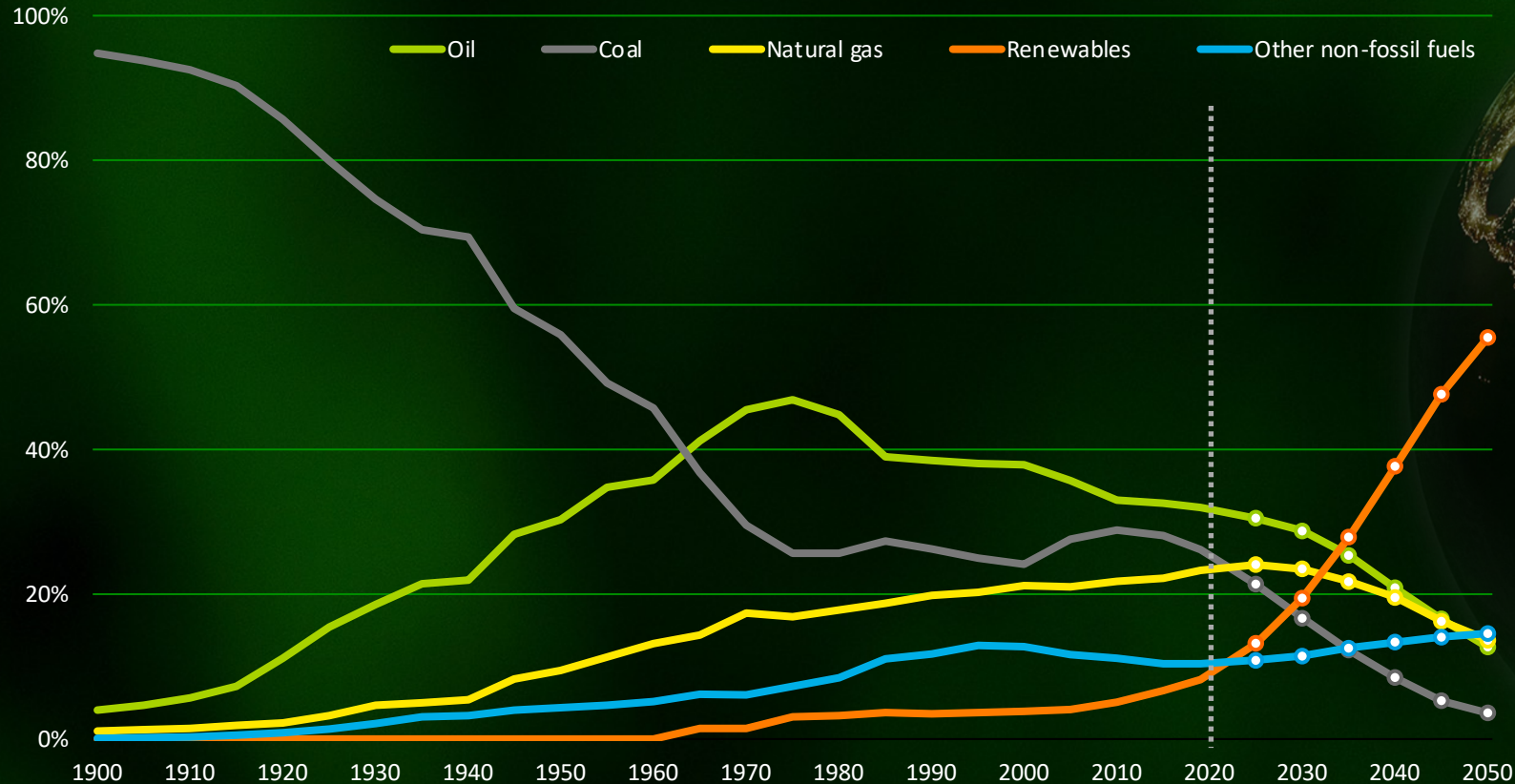
Inspiring change

A **need** to change

A **desire** to change

A reshaping of how global energy markets work

Share of primary energy



Excludes traditional biomass. Other non-fossil fuels includes hydro and nuclear.

A \$130 trillion game changing opportunity



An aerial photograph of a winding asphalt road that curves through a dense, lush green forest. Several cars are visible on the road, including a red car on the right side and several blue and white cars on the left. The road has white dashed lines and a solid white line on the outer edge. The forest is thick with various shades of green trees.

Our industry is on the move

80% of all corporations
have set emissions reductions targets.

67% of hydrocarbon organizations
actively looking for opportunities outside of oil and gas.

These companies are investing
in offshore wind, solar, hydrogen, biomass, hydro, geothermal, nuclear.

Pivoting from an IOC to an IEC

Diversifying & decarbonising

- Resilient, higher margin, lower emissions oil and gas business
- Differentiated convenience and mobility business
- Grow renewables business 20 fold

Five transition growth businesses

- Bioenergy
- EV charging
- Convenience
- Renewables
- Hydrogen

“ By 2030 we expect that the share of our capital spending on these growth businesses will **rise to around 50%**. ”

Reinventing bp

- Retired upstream/downstream model
- More focused, integrated
– face into transition
- Fewer layers, agile, integrated,
customer-oriented
- Double capital investment
in digital transformation

Performing while transforming

7 major field start ups

3 new hydrocarbon discoveries

13,000 EV charging points

23GW wind and solar projects pipeline

7 hydrogen projects



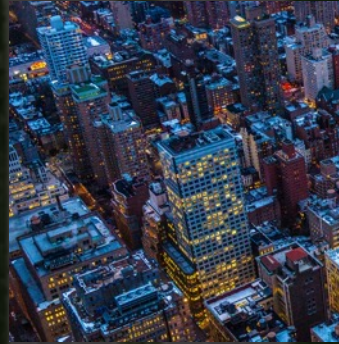
Reimagining Energy

Inspiration to innovate

Reimagining Energy

Inspiration to innovate

Three innovative projects that bp is currently pursuing with multiple partners.



Clean energy for New York.



Decarbonising heavy industry in the UK.



Cleaner fuels for US road and air transport.



Reimagining Energy for cities

Reimagining Energy for New York

New York City



Empire 1&2



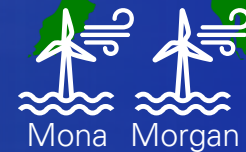
Beacon 1

- 3 - 4GW, 2 million homes, \$1 billion economic output
- Cutting-edge turbines, vessels, HVDC technology
- Major legacy investments in NY ports infrastructure

Reimagining Energy for the UK

- Three projects, 5.9GW, 6 million homes
- ~\$12 billion investment in Scottish wind alone
- Infrastructure development in ports, harbours, shipyards

Aberdeen



Reimagining Energy for industry



Teesside



Reimagining Energy for industry

Net Zero Teesside, UK

- First of kind gas power generation with post combustion capture project
- Carbon capture transport and storage infrastructure project
- Two hydrogen projects



Reimagining Energy for industry

Net Zero Teesside, UK

- Leverage upstream heritage
- Novel contracting strategy
- Local execution focus
- Integrated project management
- Scaling low carbon hydrogen



bp's hydrogen projects portfolio



UK | Netherlands | Germany | Australia | Spain | USA

Reimagining Energy for mobility

Cherry Point Refinery ●

BRITISH
COLUMBIA

WASHINGTON

OREGON

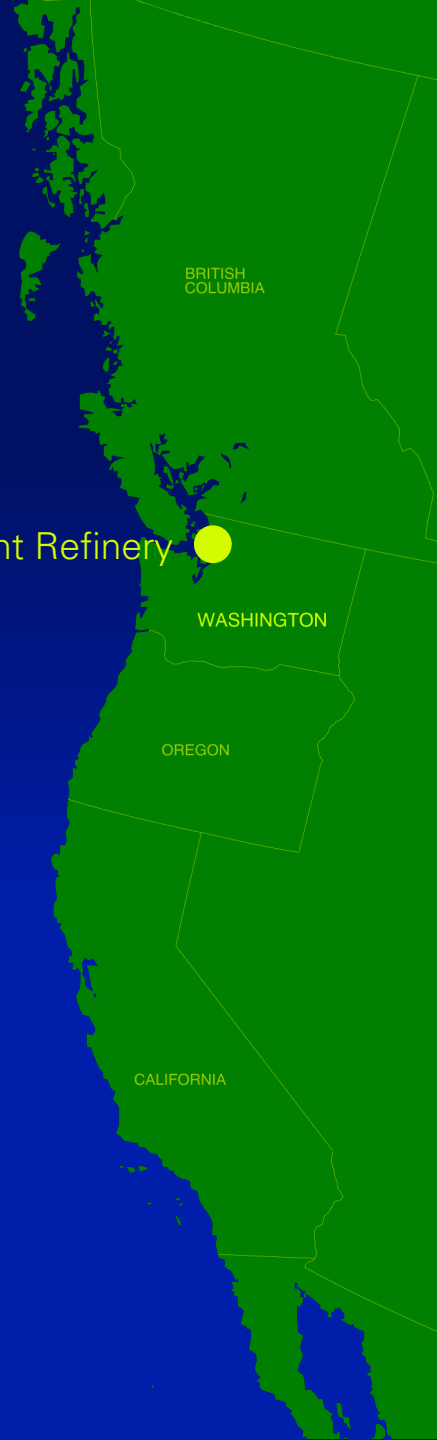
CALIFORNIA

Reimagining Energy for mobility

Cherry Point Refinery, US

- Reducing refinery operations emissions by 7% or 160,000 tons per annum
- Co-processing up to 25% renewable feedstocks to reduce customer fuels emissions by 400-600,000 tons pa
- Reimagining bp's refineries as integrated energy hubs

Cherry Point Refinery



Challenges for projects

- Lots to do – lots to learn
- None of this is simple
- Stakeholders
- Capability and capacity

Summary

- World needs a better energy system to solve the trilemma
- Huge opportunity set in lower carbon energy projects
- Need to do things differently from the past
- Requires complete re-imagining of energy

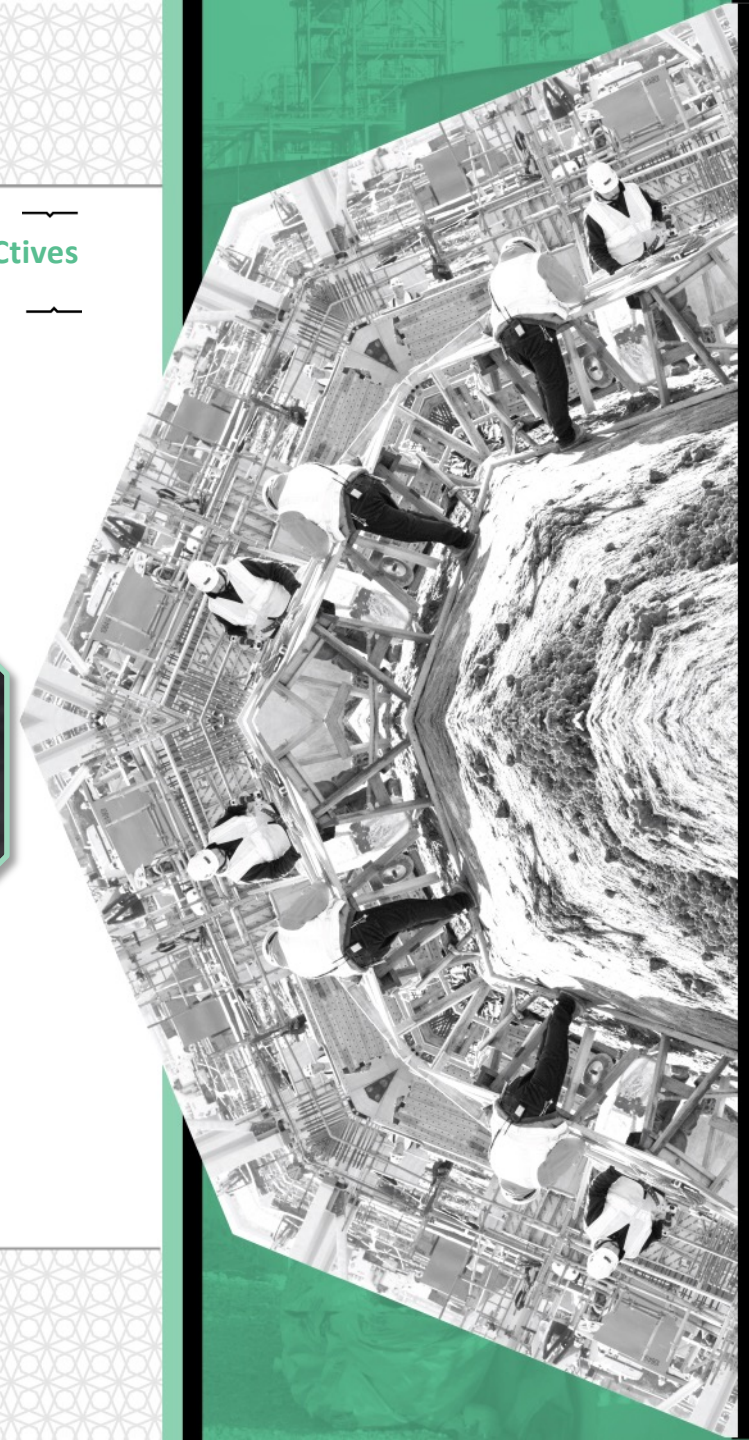
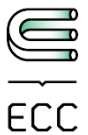


PerspECCtives

THE 54TH ANNUAL ECC CONFERENCE

Thursday Wrap up

Jason Kraynek
ECC Board Chair
Fluor



2022 ECC Achievement Award & Spirit of ECC Award Winners

John Zachry

ECC Achievement Award

Associated Builders & Contractors

Spirit of ECC Award

TRANSFORMATIVE CHANGE: INCOME

2,062 people served

448 households

\$224,000 pre-bridge income

\$67,000 in new annual income



4.6 average household size

\$500 average Rwanda household income

30% increase in annual income post-bridge

EDUCATION

2,062 people served

x

37% Rwandan population of school age

763

more children with safe access to school



HEALTHCARE

2,062 people served

x

52% female Rwandan population

x

20% female population who give birth annually

215

more women with access to attended births



 Bridges to Prosperity



Let's build another bridge!

DONATE NOW: TEXT **BRIDGE2022** TO **76278**

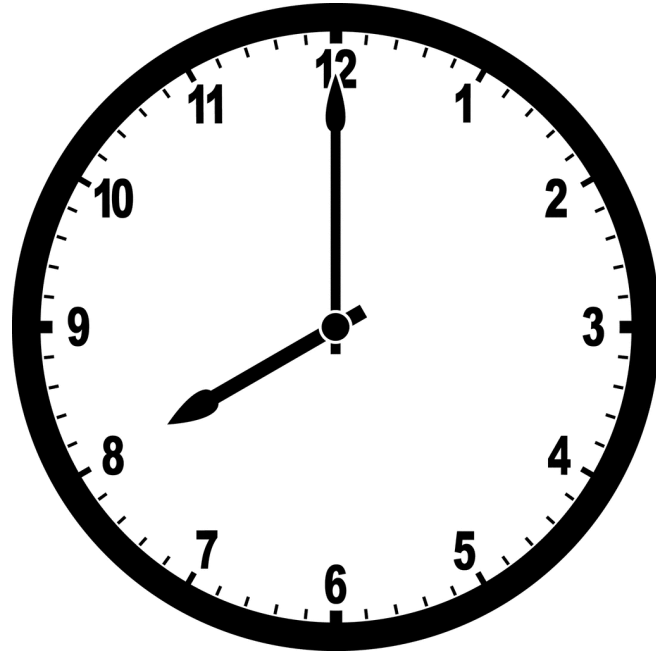
bridgestoprosperty.org



ECC PerspECtives Party!



Conference Starts Tomorrow at 8:00 AM



See you then!



PerspECCtives

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