A Clean Covid-19 Recovery: The Global Opportunity for G20 Leadership

Online Report Launch: July 7, 2021

European Climate Foundation

Agenda

Introduction and Welcome
Laurence Tubiana, President and CEO of the European Climate Foundation

Welcome and Keynote framing on IEA Net Zero and financing the transition
Laura Cozzi, Chief Energy Modeller, IEA

Presentation and launch of the EY global report
Serge Colle, Global Energy Lead, EY

Panel - How to kick-start a green and renewable recovery?

Chair Moderator: *Peter Sweatman,* Project Board Member and CEO of Climate Strategy & Partners

Speakers:

Sumant Sinha, Founder Chair and Managing Director of ReNew Power

Dr Kevin P Gallagher, Professor of global development policy, Boston University's Frederick S. Pardee School of Global Studies

Liming Qiao, Head of Asia, Global Wind Energy Council

Q&A and Moderated Panel Discussion

Concluding Keynote
Gilberto Dialuce, Senior Advisor to the Italian Minister for the Ecological Transition and Chair of the Energy Transitions Working Group, G20

LAURENCE TUBIANA

President and CEO of
the European Climate Foundation

A Clean Covid-19 Recovery: The Global Opportunity for G20 leadership

LAURA COZZI

Chief Energy Modeller, IEA

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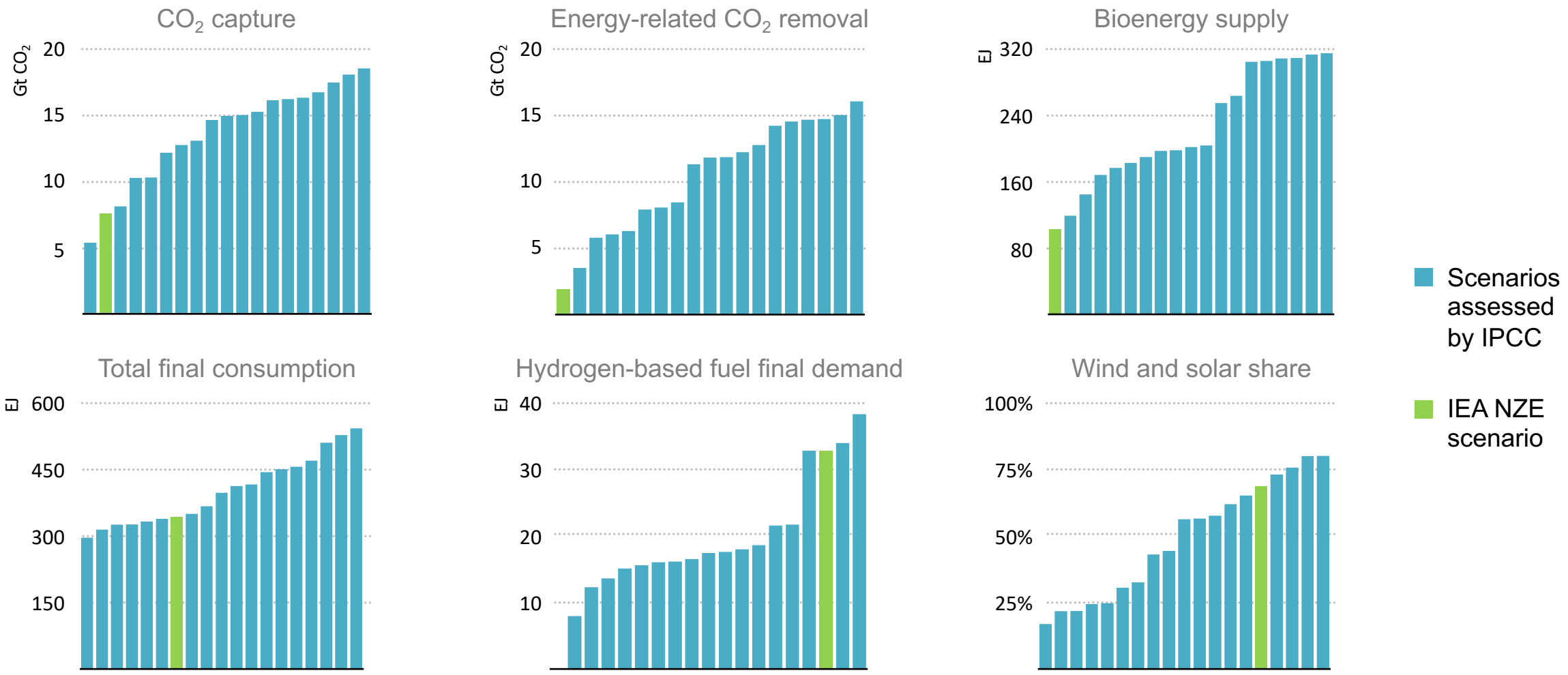
International Energy Agency

Net Zero by 2050: a Roadmap for the Global Energy Sector

ECF high-level event pre-G20 on the role of renewables in recovery, 7 July 2021

Ms Laura Cozzi, Chief Energy Modeler

The IEA's NZE in 2050 compared with IPCC net-zero scenarios



The IEA NZE scenario uses more renewables, energy efficiency, and hydrogen – and less CO_2 capture, negative emissions and bioenergy – than IPCC scenarios of a comparable ambition

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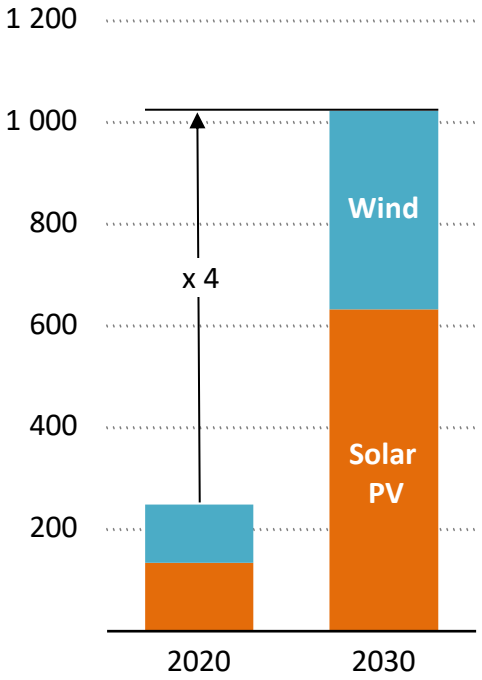
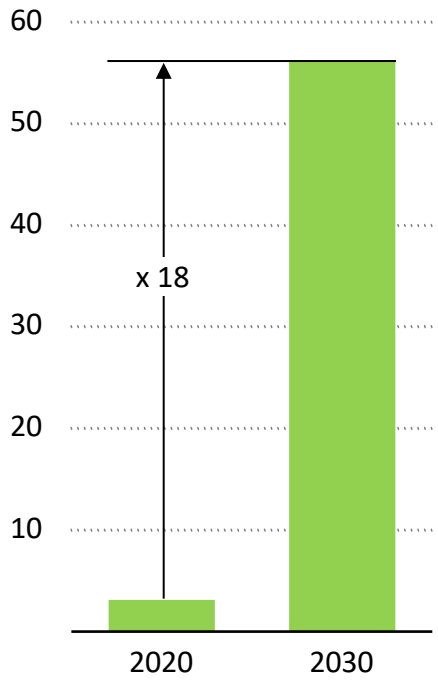
Make the 2020s the decade of massive clean energy expansion

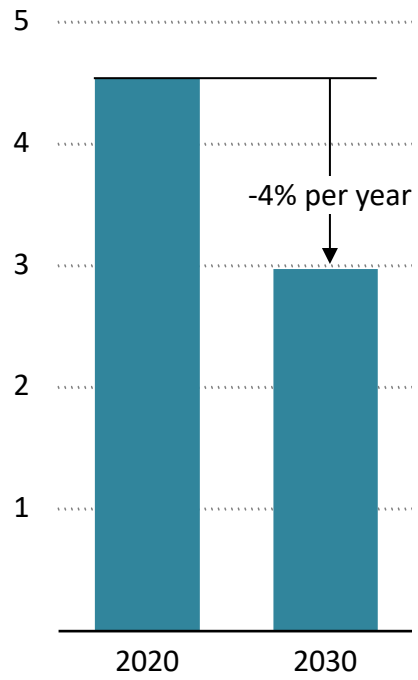
Solar PV and wind capacity additions (GW)



Electric car sales (millions)



Energy intensity of GDP (MJ per USD PPP)



Technologies for achieving the necessary deep cuts in global emissions by 2030 exist, but staying on the narrow path to net-zero requires their immediate and massive deployment.

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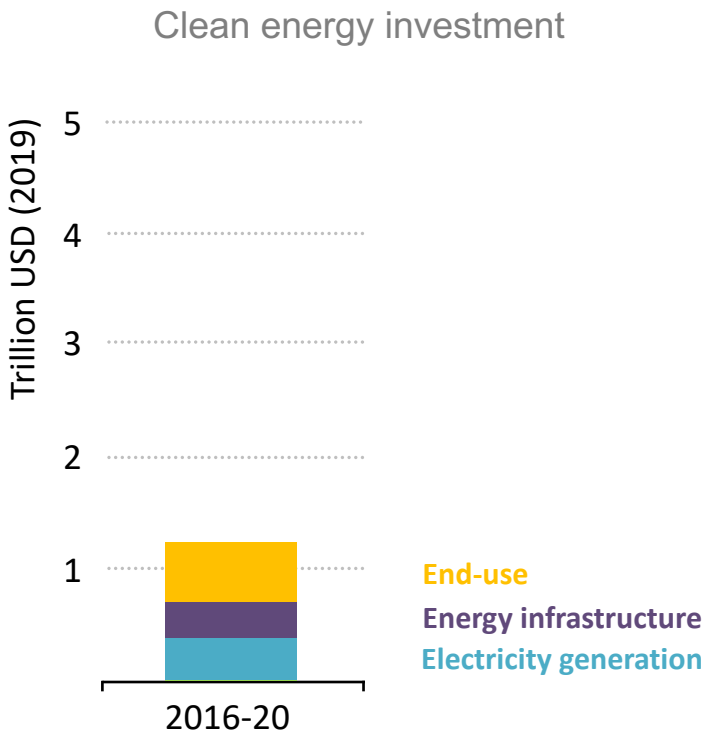
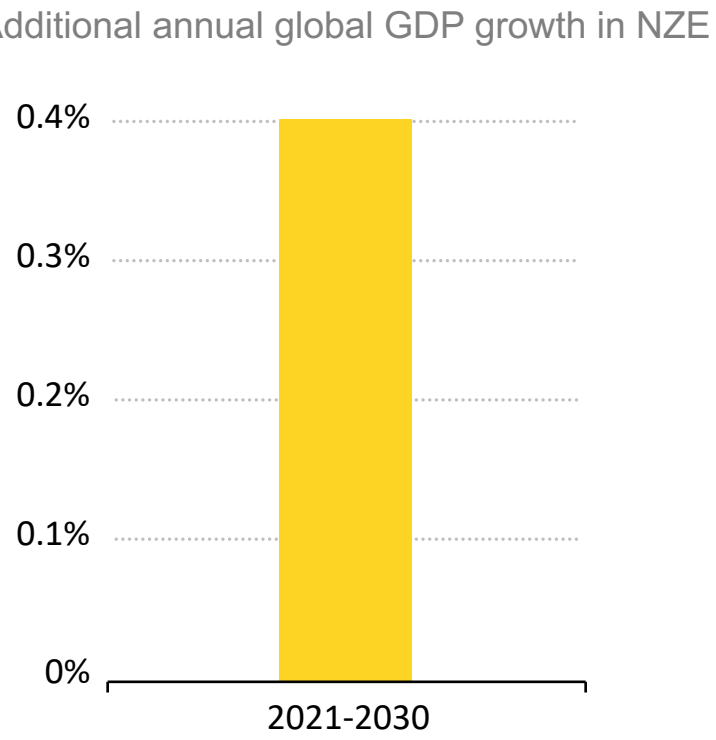
Drive a historic surge in clean energy investment





Annual clean energy investment more than triples by 2030 in the NZE scenario, driving an average 0.4% per year increase in global GDP to 2030 & speeding the recovery from the COVID-19 shock

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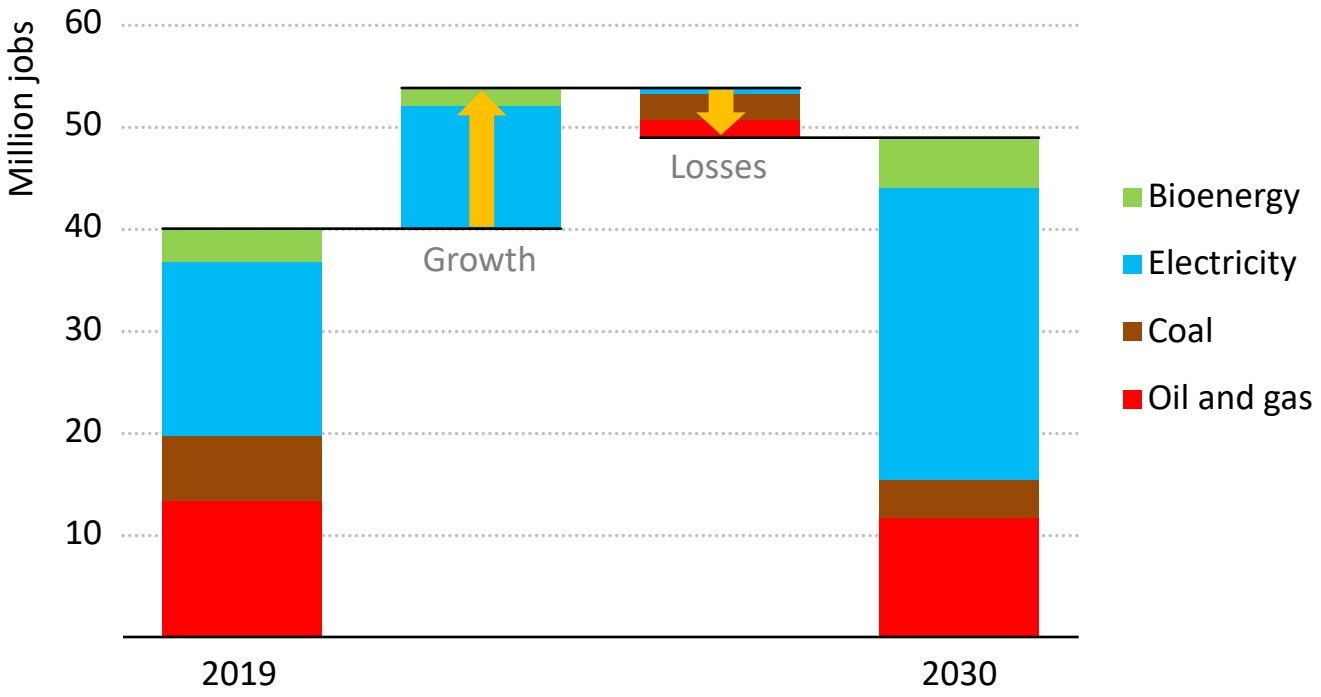
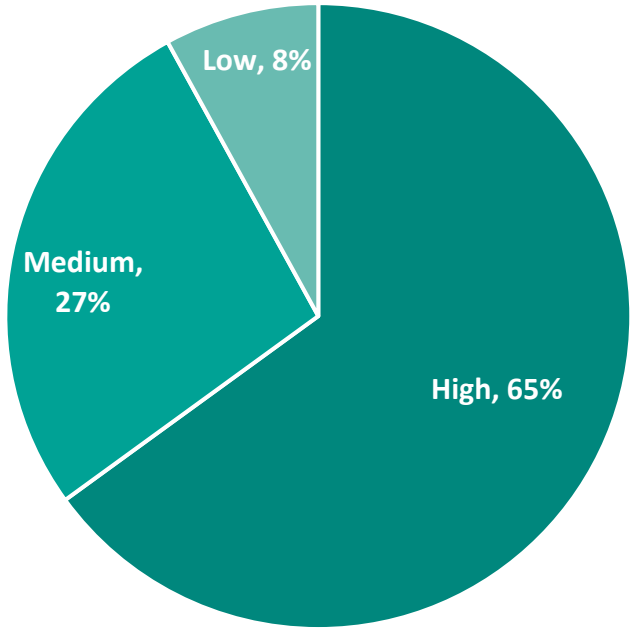
Clean energy jobs will grow strongly but must be spread widely

Jobs in energy supply in the NZE



Skill level of new workers in the NZE, 2030



By 2030 there are 14 million jobs created in global energy supply, and a further 16 million in clean energy end-uses; but inclusive policies are needed to support reskilling & diversification in fossil-fuel dependent communities

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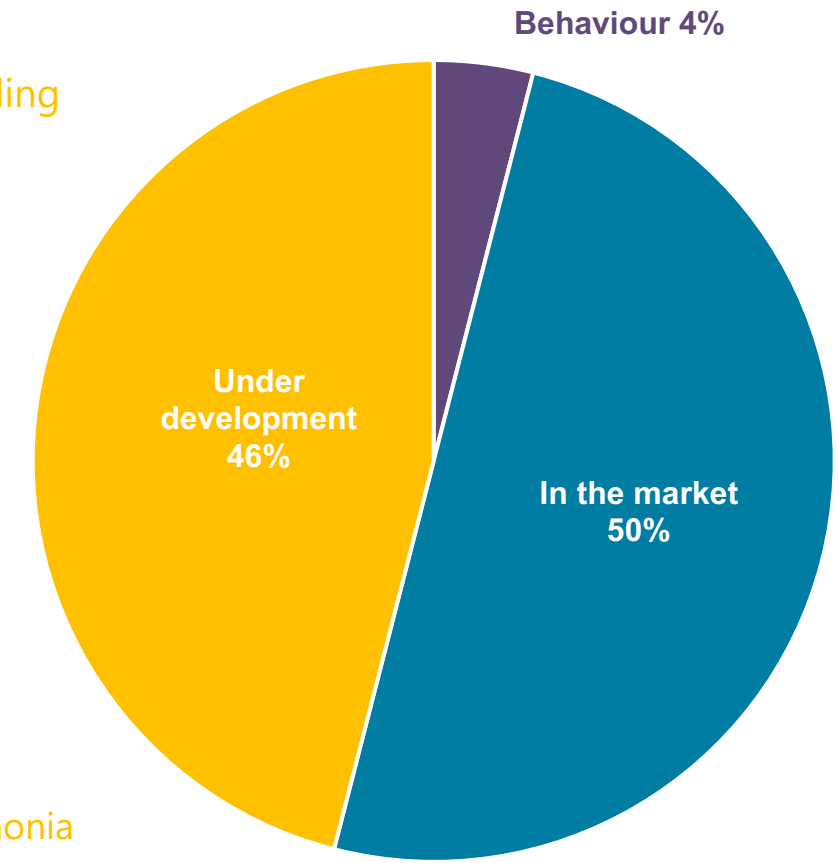
Prepare for the next phase of the transition by boosting innovation

CO_2 savings by technology maturity in 2050, NZE scenario



Refrigerant-free advanced cooling

Advanced batteries

Next-generation biofuels

CO_2 capture from cement

Hydrogen-based steel

Small modular reactors

Synthetic liquid fuels

Electrolytic hydrogen for ammonia

Autonomous trucks

Optimised heat pump with storage

Direct air capture

Ammonia-powered ships

Electrolytic hydrogen for methanol

Building-integrated storage

Electric steam crackers

Unlocking the next generation of low-carbon technologies requires more clean energy R&D and $90 billion in demonstrations by 2030; without greater international co-operation, global CO_2 will not fall to net-zero by 2050.

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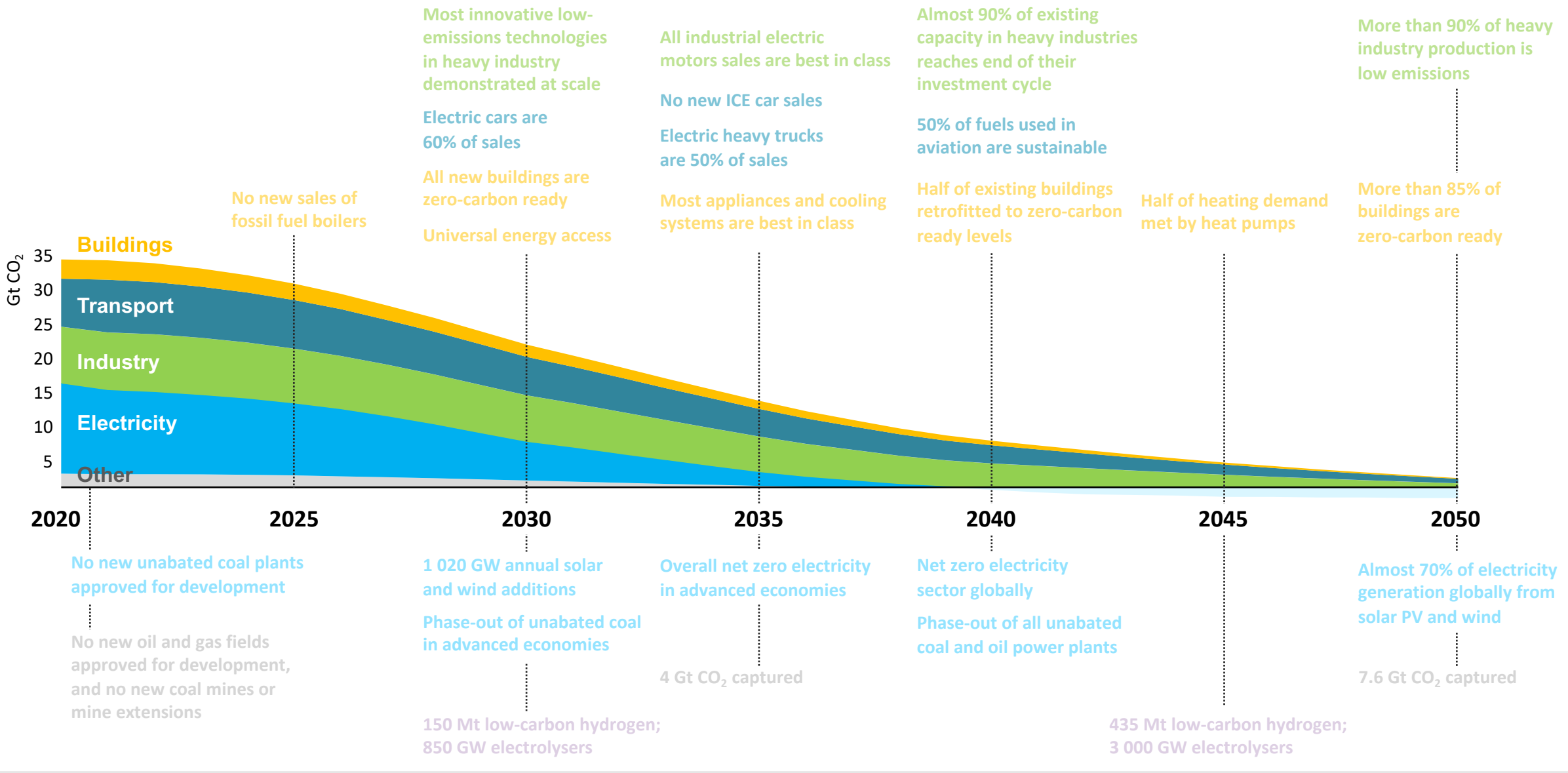
Establish milestones to get on track for long-term targets



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SERGE COLLE

Global Energy Lead, EY

A Clean Covid-19 Recovery: The Global Opportunity for G20 leadership

Official launch of
EY-Parthenon International Report

A Clean Covid-19 Recovery: The Global Opportunity

13,000 renewable energy projects for a green recovery

Launch of International Report

7 July 2021

EY Parthenon

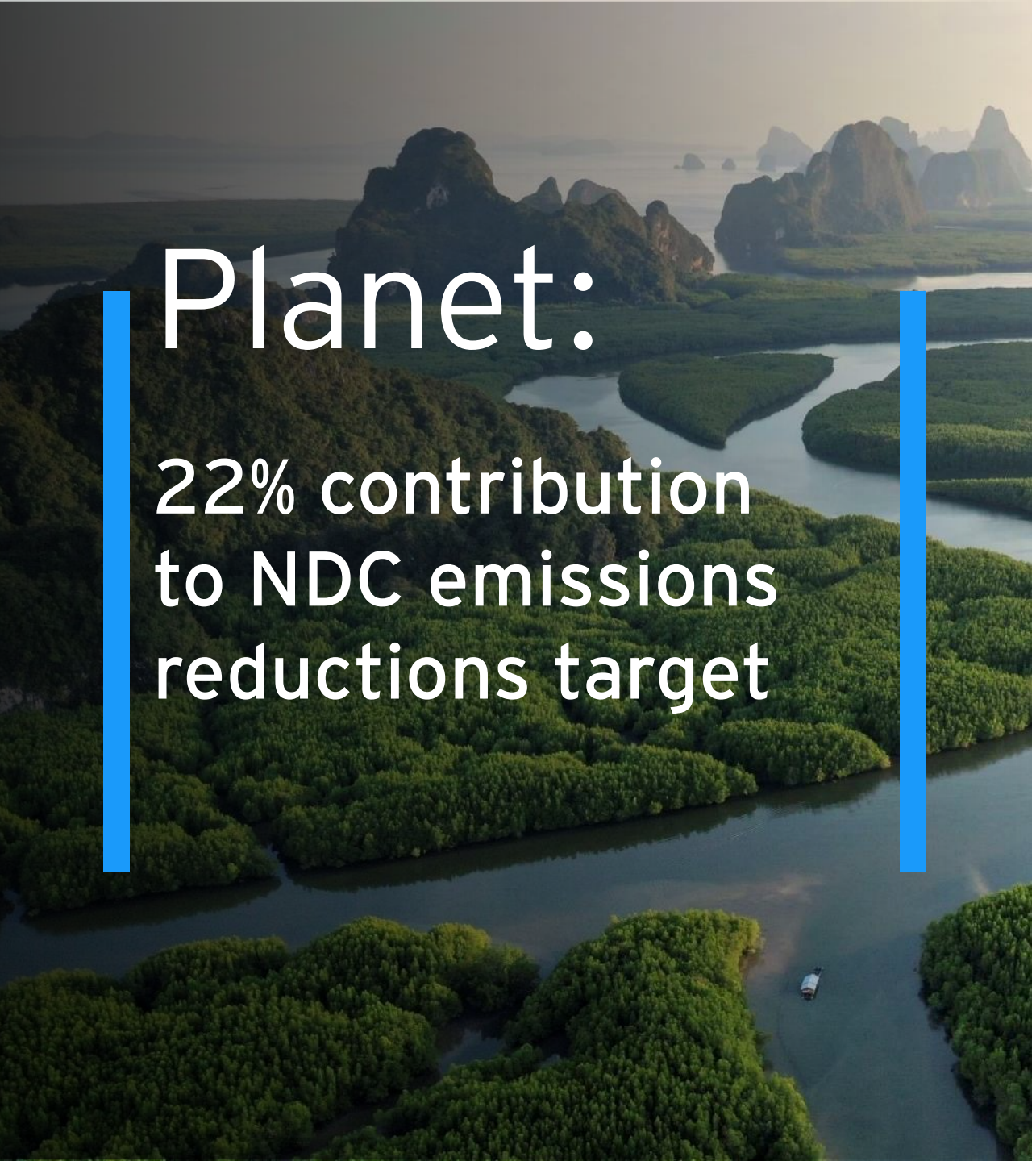
Building a better working world

The green recovery is a once-in-a-generation opportunity to accelerate global deployment of renewable energy at the scale necessary to meet Paris goals

13,000

No regret renewable energy projects that can accelerate economic recovery

EY Parthenon



Planet:

22% contribution to NDC emissions reductions target

2.5
$GtCO_2e$

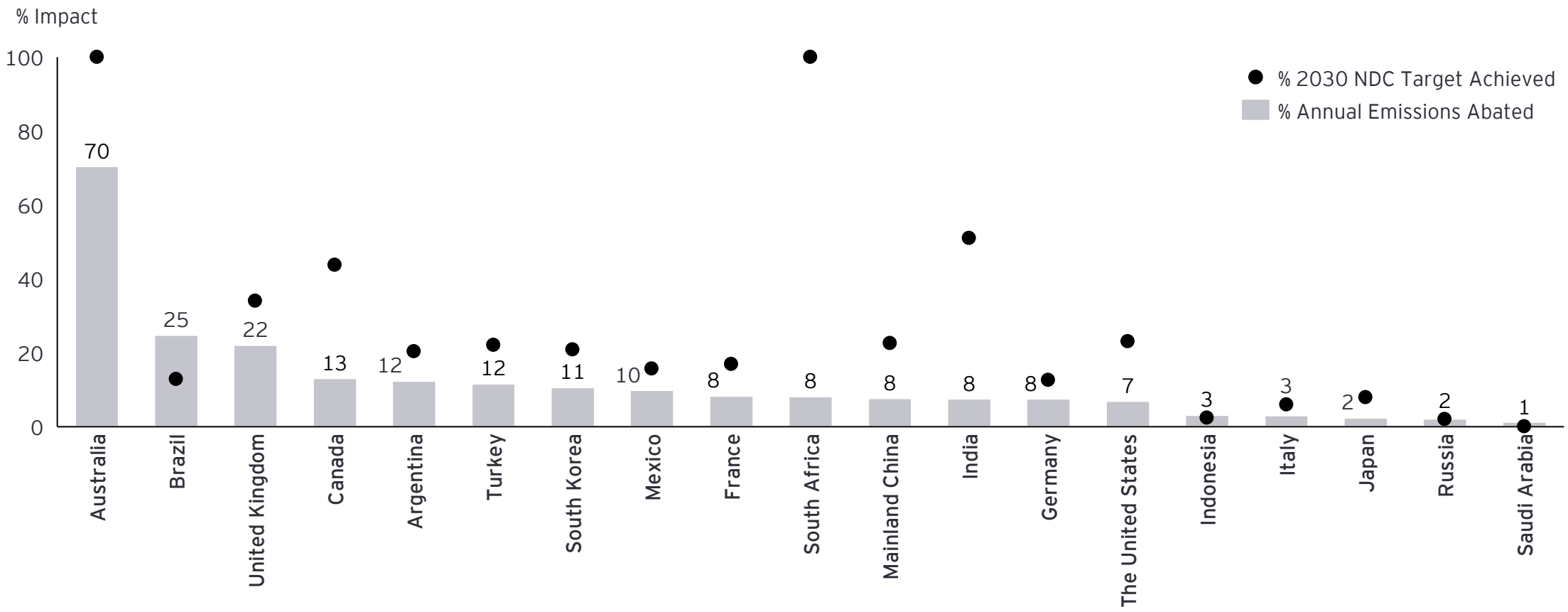
avoided
annually

EY Parthenon

The visible G20 project pipeline supports substantial reductions in annual emissions

People
Planet
Prosperity

Potential impact of visible project pipeline on 2030 NDC targets and total annual emissions abated



Source: UNFCCC NDC targets, Global Carbon Atlas, EY-Parthenon analysis

EY Parthenon

People:

$60bn recurring GDP impact

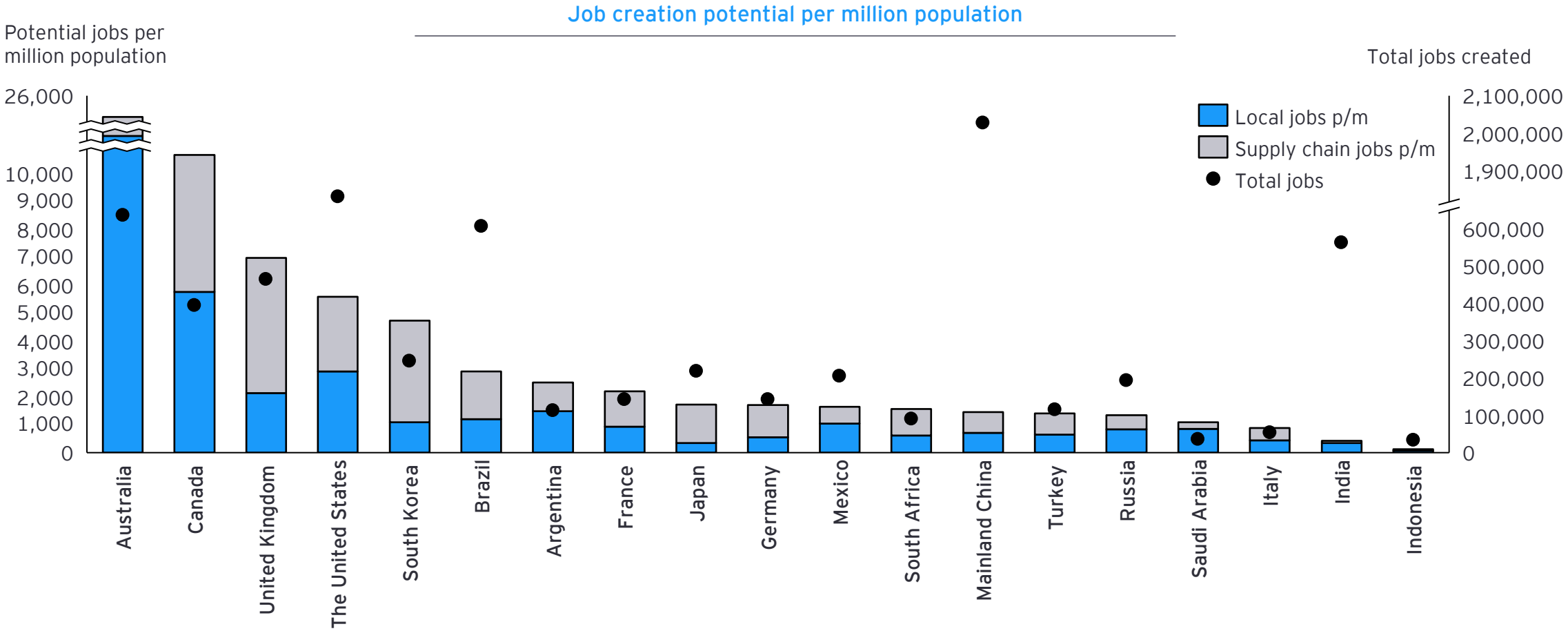
Up to
10m

jobs in
renewable energy

EY Parthenon

There is significant potential for job creation in the G20 economies from identified projects

People
Planet
Prosperity



Source: EY-Parthenon Analysis

EY Parthenon

Prosperity:

1TW of renewable generation capacity

$1.9tn

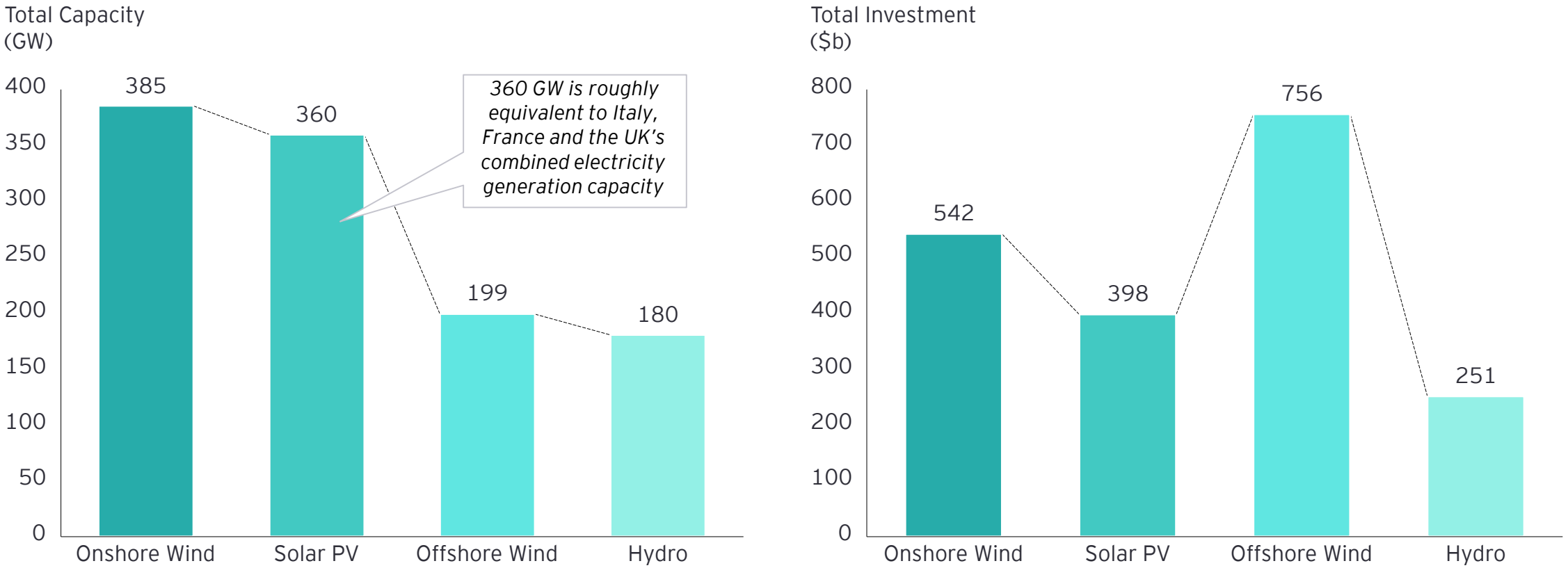
capital injection opportunity

EY Parthenon

The visible pipeline of 13,000 renewable energy projects in 47 countries could deliver ~1TW of generation capacity for ~$2tn

People
Planet
Prosperity

Capacity and investment breakdown of the ~13,000 projects identified, by renewable energy technology

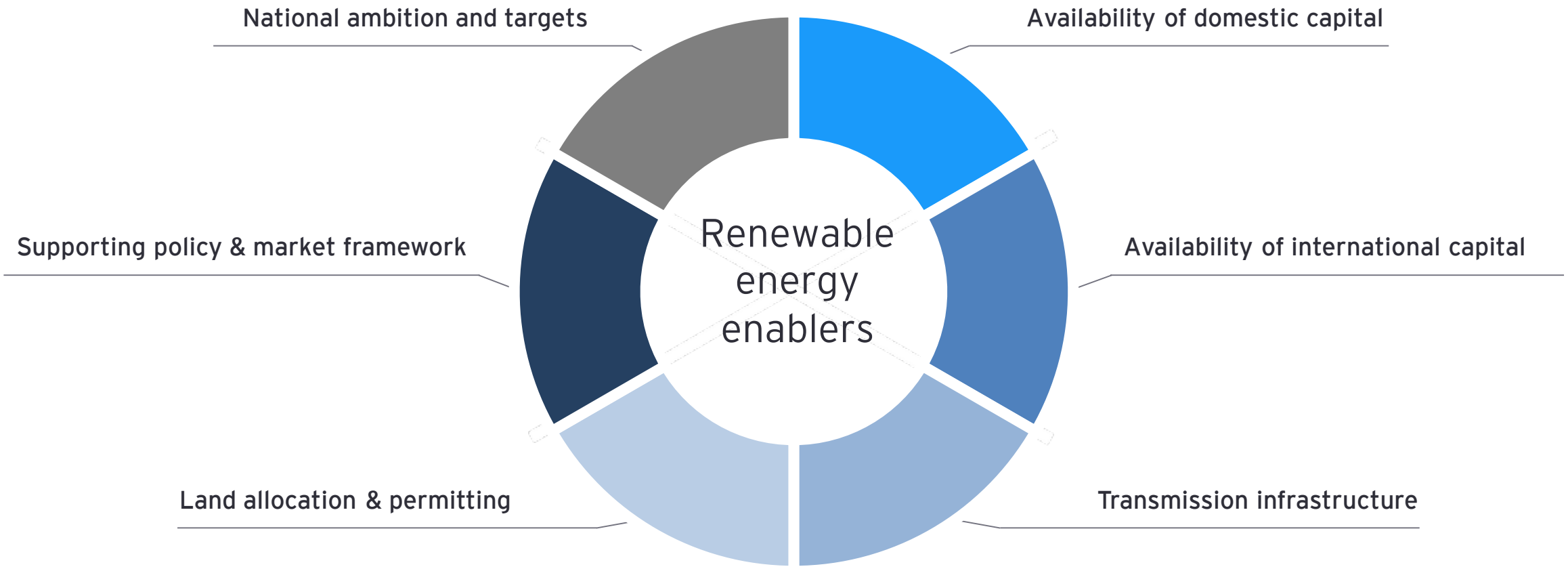


The scale of the green recovery opportunity is driven by onshore wind, offshore wind, solar PV and hydro technology. Significant capacity can be added through each of the four technologies, potentially amounting to a total increase of 1TW

EY Parthenon

With the right enablers in place, the potential in the pipeline can be unlocked rapidly
EY Parthenon

There are six key enablers which support activation of a Green Recovery globally



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The right policy frameworks can draw in between a ten and one hundred times multiple of private investment to government spending

Case study: UK

United Kingdom

95x

Private sector investment to government spending

$50b

Private sector investment since 2015, for projects allocated a CfD in auction rounds 1-3

~£540m

Government budget for CfD rounds 1-3

12GW

Total capacity from 35 projects

Case study: Argentina

Argentina

9x

Private sector investment to government spending

$7b

Private sector investment since 2016

$0.8b

Estimated fiscal (government) cost of the RenovAr programme

5GW

Total capacity from 158 projects

Source: GREENMAP, BNEF, EY-Parthenon analysis

EY Parthenon

We must act together, now, in order to unlock the opportunity

13,000 no regret renewable energy projects that can accelerate economic recovery

1. Renewable energy should be a top priority in post-COVID economic recovery
2. Key policy enablers need to be put in place in order to get the most out of a green recovery and unlock the full potential of private investment in renewable energy
3. International co-operation, co-ordination and collaboration between the private sector and public sector are important to unlocking the full opportunity identified

EY Parthenon

Planet

2.5
$GtCO_2e$

avoided
annually

22% contribution
to NDC emissions
reductions target

People

Up to
10m

jobs in
renewable energy

$60bn
recurring
GDP impact

Prosperity

$1.9tn

capital injection

1TW renewable
generation capacity

EY Parthenon

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A Clean Covid-19 Recovery: The Global Opportunity for G20 leadership

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Professor of global development policy, Boston University's Frederick S. Pardee School of Global Studies

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Head of Asia, Global Wind Energy Council

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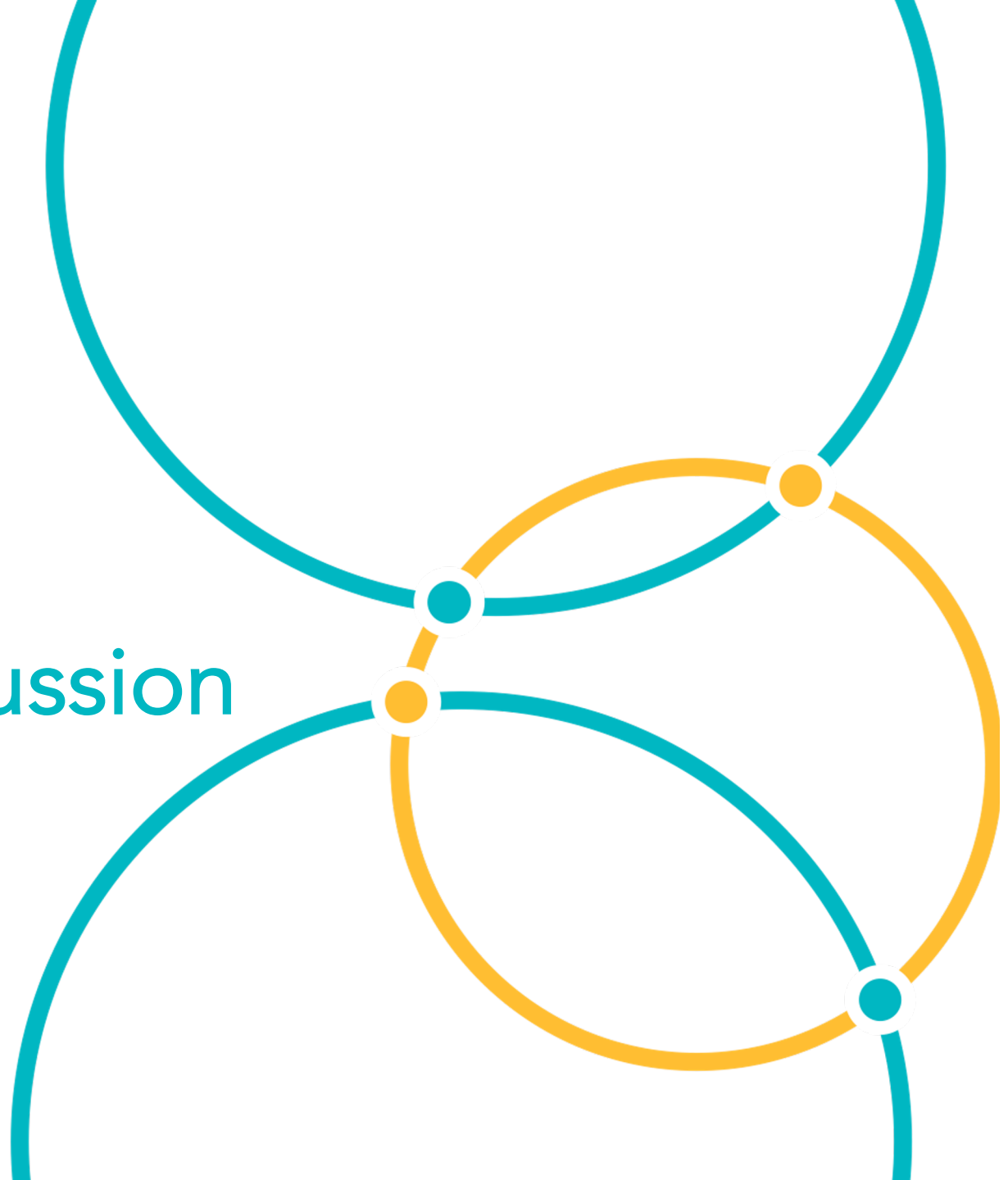
Q&A and Moderated Panel Discussion



GILBERTO DIALUCE

Senior Advisor for Energy to the Italian Minister and Chair of the ETWG of the G20.

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Thank you