AMER9

The 9th Asian Ministerial Energy Roundtable

An IEF Dialogue Event

Bengaluru | India

Plenary Session 2:

Asia: Center of Demand and Engine of Accelerated Growth and Innovation

Background Paper

IEF | BCG

Disclaimer

The observations presented herein are meant as background for the dialogue at the 9th Asian Ministerial Energy Roundtable. They have been prepared in collaboration with Boston Consulting Group and should not be interpreted as the opinion of the International Energy Forum or Boston Consulting Group on any given subject.

Contents

Contents

Climate change is posing significant challenges to human civilization

Impacts in 2100

1.5° Paris ambition

- +2 months of droughts[2]
- 41% more burned area in wildfires
- Rising sea levels displace 46 million people; sea level rise of 48cm

2° Paris goal

- +4 months of droughts[2]
- 62% more burned area in wildfires
- Fewer opportunities for infrastructure adaptation; sea level rise of 56cm

4+° Current path

- +>10 months of droughts[2]
- 97% more burned area in wildfires
- 470-760 million people at risk; sea level rise of nearly 9 meters

1. Per capita, relative to no additional warming 2. Increase in avg. drought duration 3. Severe risk of close-to-annual occurrence
Note: Temperature increase refers to global warming by 2100
Source: UN Intergovernmental Panel on Climate Change (IPCC); Burke et al

Our understanding of climate risks has grown substantially

Increasing frequency of extreme weather

2x-4x Increase in yearly weather catastrophes since 1980

Economic slow-down

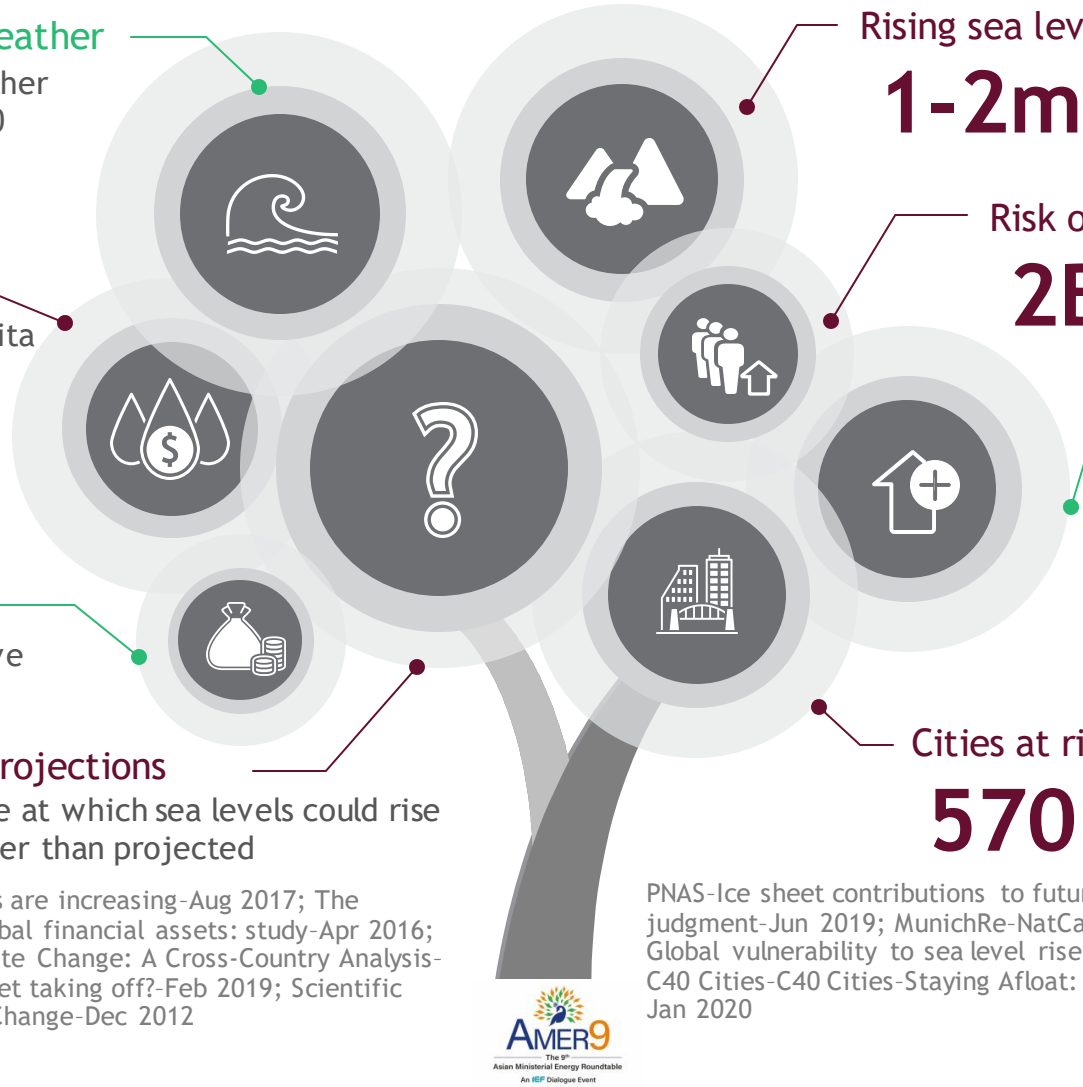
-7.2% Global loss in GDP/Capita by 2100 (relative to no global warming)

Growing investor pressure

$34T AUM by climate sensitive investors

Uncertain projections

2X Rate at which sea levels could rise faster than projected



Rising sea levels

1-2m Sea level rise over the next decade

Risk of displacement

2B People could become climate refugees due to rising sea levels by 2100

Increasing damages

$222B Average yearly disaster related cost of the last 10 years

Cities at risk

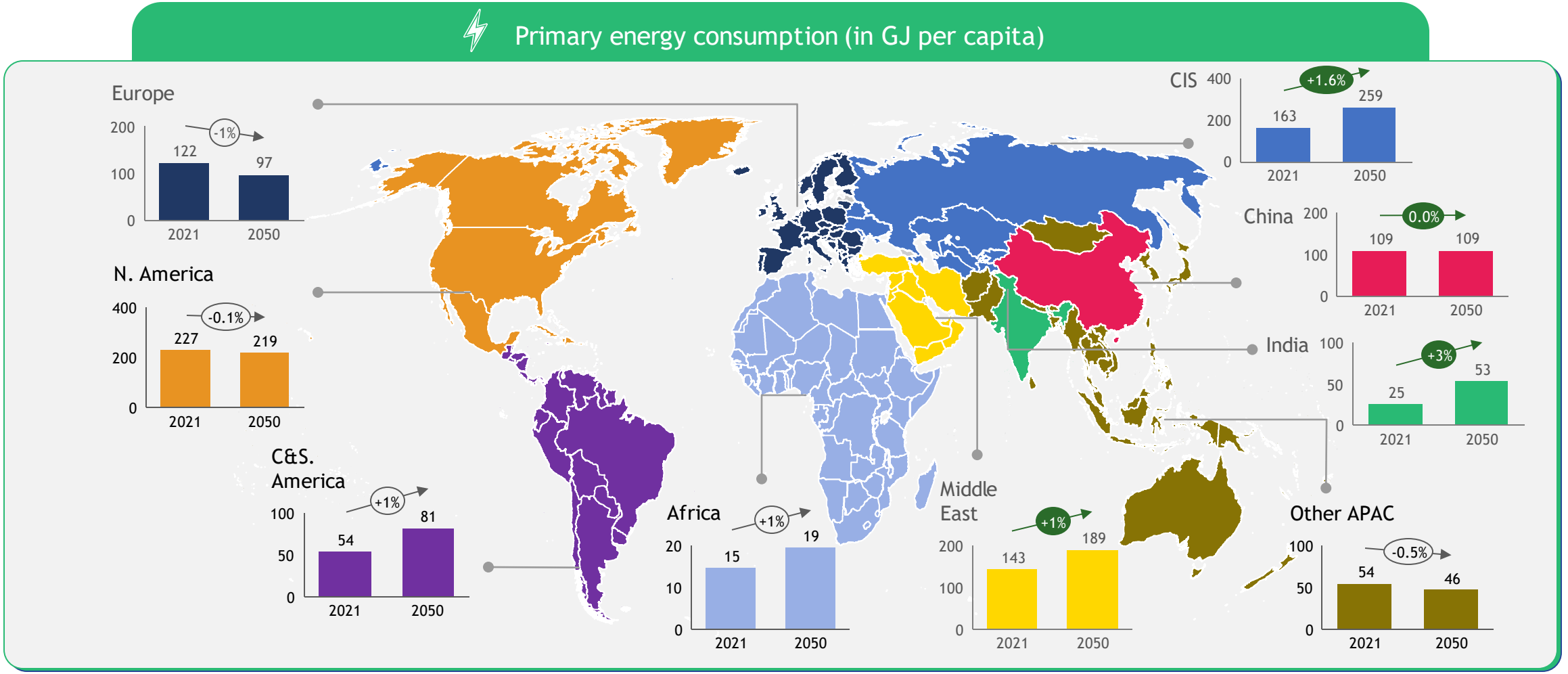
570 Cities likely to be affected by 0.5m sea level rise by 2050

Source: The Economist-Weather-related disasters are increasing-Aug 2017; The Guardian Climate change will wipe $2.5tn off global financial assets: study-Apr 2016; NBER-Long-Term Macroeconomic Effects of Climate Change: A Cross-Country Analysis-Aug 2019; Sustainafuture-Is the green bond market taking off?-Feb 2019; Scientific America-How the IPCC Underestimated Climate Change-Dec 2012

PNAS-Ice sheet contributions to future sea-level rise from structured expert judgment-Jun 2019; MunichRe-NatCatService-Accessed Feb 2020; Climate Central-Global vulnerability to sea level rise worse than previously understood-Oct 2019; C40 Cities-C40 Cities-Staying Afloat: The Urban Response to Sea Level Rise-Accessed Jan 2020

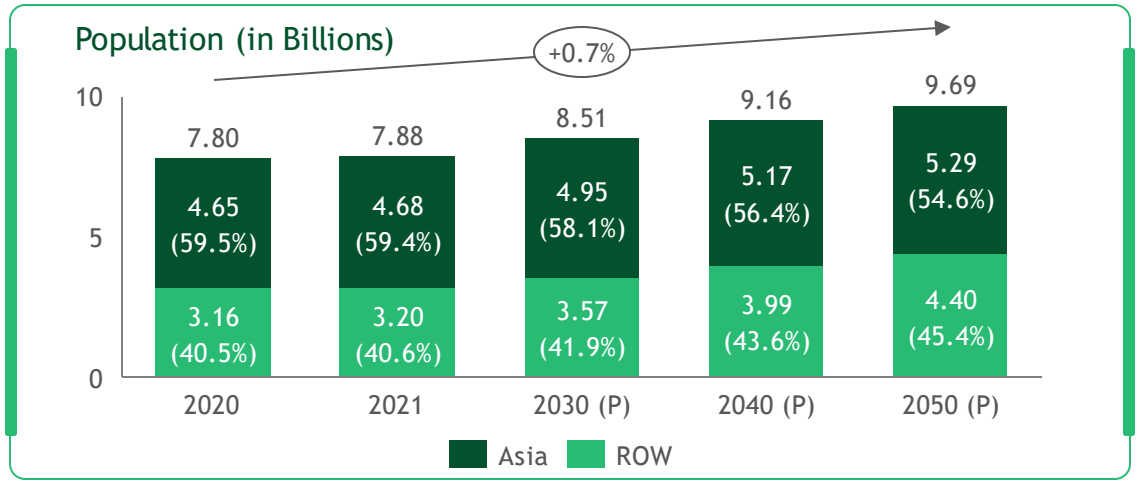
Contents

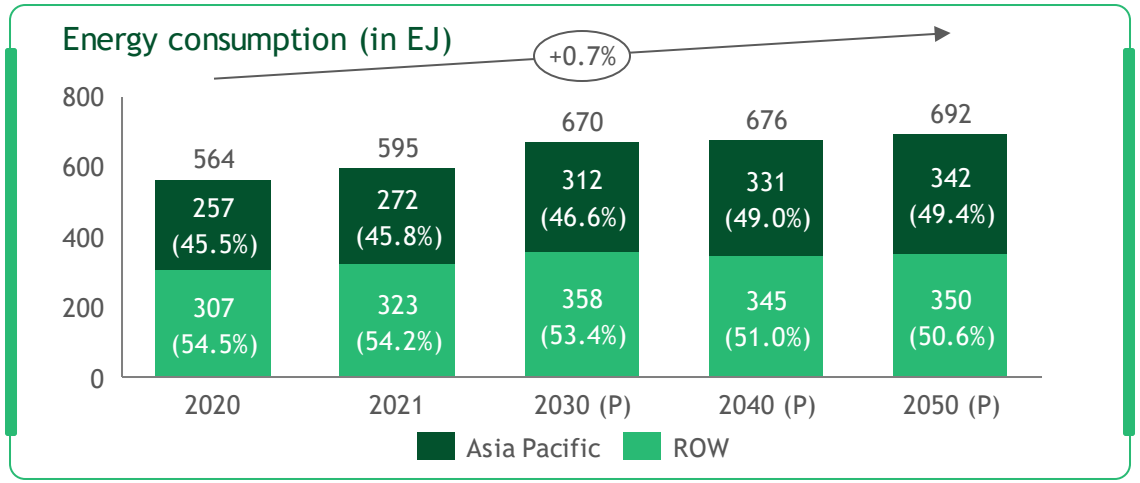
Global energy consumption will be driven by growth in Asia

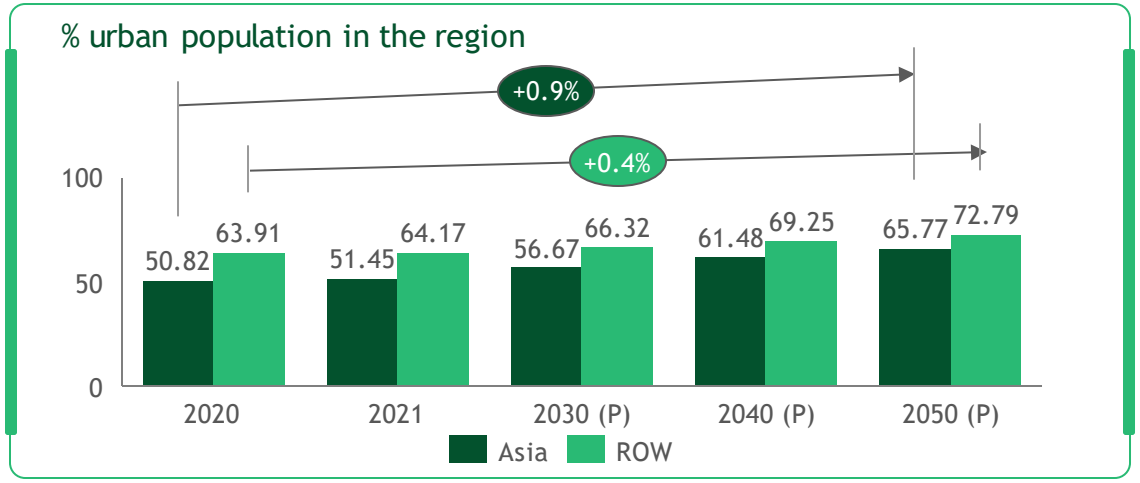


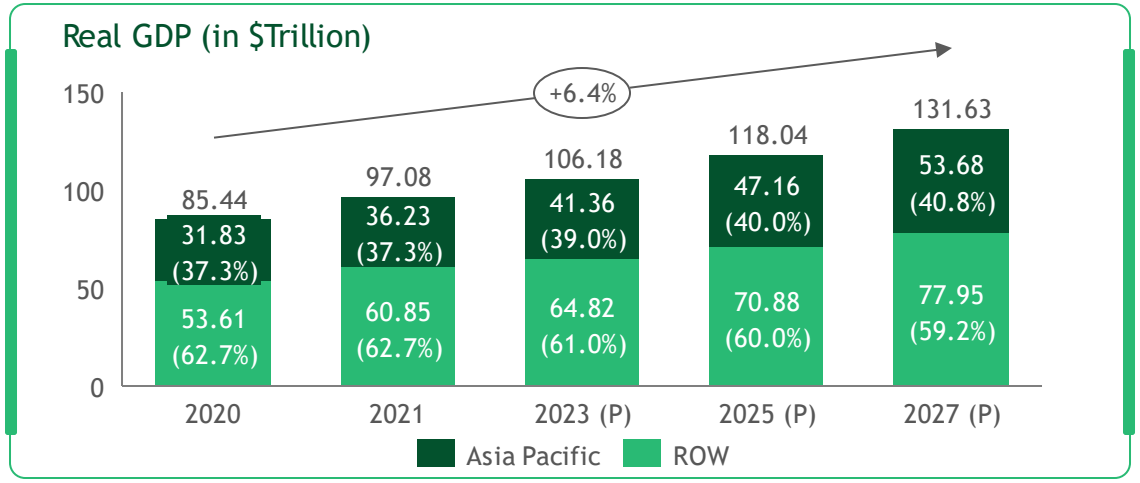
Sources: Natural Earth Country boundaries without large lakes; Natural Earth Country breakaway and disputed areas, BP Energy Outlook, BP Energy Statistics 2022, UN

Asia shows higher growth compared to the rest of the world across drivers









Sources: BP Statistics Review 2022, BP World Outlook 2022, UN Population Division, World Bank, IMF Real GDP Dataset
AP – Asia Pacific region, ROW – Rest of world

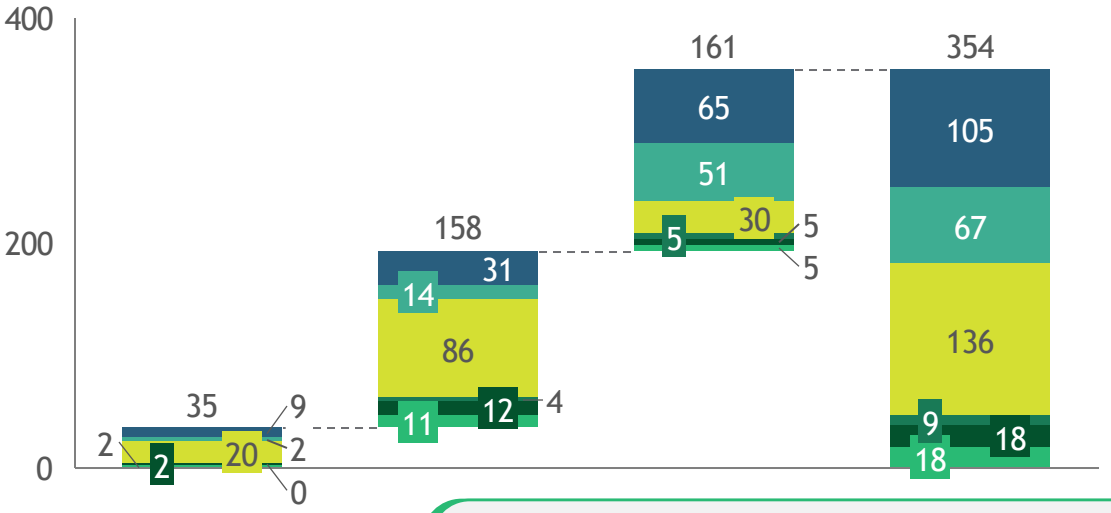
Asia will increase its weight on global energy demand, driven by India

In 2021

% with respect to total world consumption

5.9%	26.6%	27.2%	59.5%
India	China	Rest of Asia	Asia

Energy consumption (in EJ)

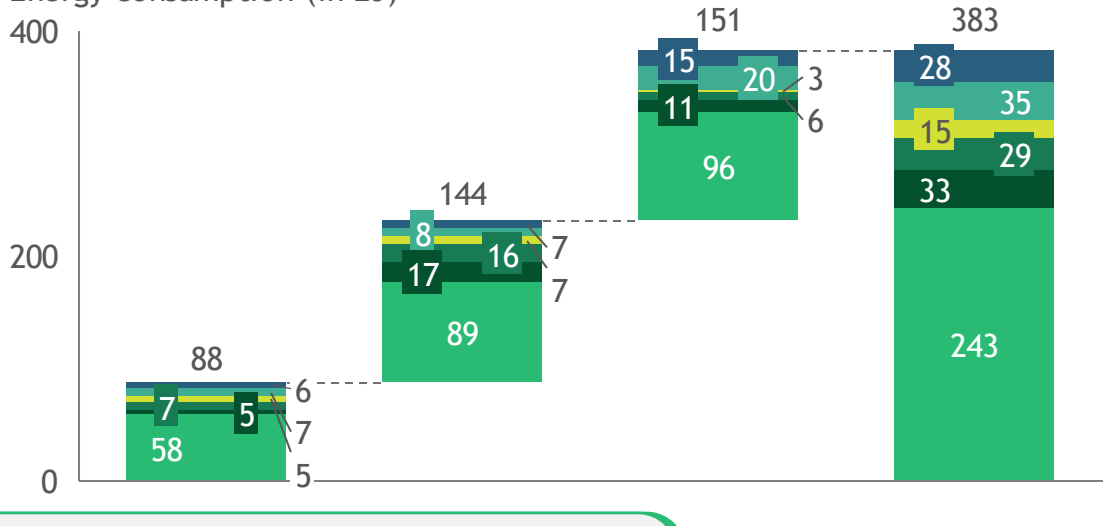


In 2050

% with respect to total world consumption

13.5%	22.0%	23.1%	58.7%
India	China	Rest of Asia	Asia

Energy consumption (in EJ)



Oil | Natural gas | Coal | Nuclear Energy | Hydro-electricity | Renewables

Source: BP Statistics Review 2022; BP World Outlook 2022

Contents

AMER9
The 9th Asian Ministerial Energy Roundtable
An IEF Dialogue Event

A Just Energy Transition presents many challenges

790M

people worldwide without electricity

1.3B+ People don't have access to clean fuel in Asia

133M+ People don't have access to electricity in Asia

Illustrative

> The COVID-19 pandemic slowed global progress in reaching universal access to electricity and clean cooking, reversing years of steady progress. Because the pandemic has slowed the rate of both new grid and off-grid connections, the number of people without access has increased by 2% in 2021.
>
> — IEA

Insufficient job creation to mitigate job losses	Low economic diversity beyond fossil fuels	Increased cost of energy risks greater energy poverty
e.g., 120k coal mine jobs at risk in South Africa	e.g., Up to 10k people could lose their jobs as lignite coal mines close in Western Macedonia	e.g., Household bill increases in developed and emerging markets

Source: World Bank

AMER9 The 9th Asian Ministerial Energy Roundtable An IEF Dialogue Event

Complex array of issues to consider when embarking on Just Energy Transition journey

Workers and employment

- Changes in job landscape will affect many and require reskilling
- Developing nations need to balance sustainability investments w/socio-economic development
- Shift in jobs need to align with inclusion ambitions

Consumer and Community wellbeing

- Challenging climate conscious divestment, sale or conversion of carbon intensive assets
- Inequitable Climate change impact as climate hazards continue to unfairly impact vulnerable communities
- Decommissioning and siting decisions may affect vulnerable communities

Equitable transition financing

- Lack of access to investment and inadequate flow to the right projects at right time
- Developing nations received fraction of financing whilst most exposed to physical impact of climate change
- FIs need to collaborate on terms, drive clarity on funds available, lower financing costs, and consider issuing debt without govt' guarantees

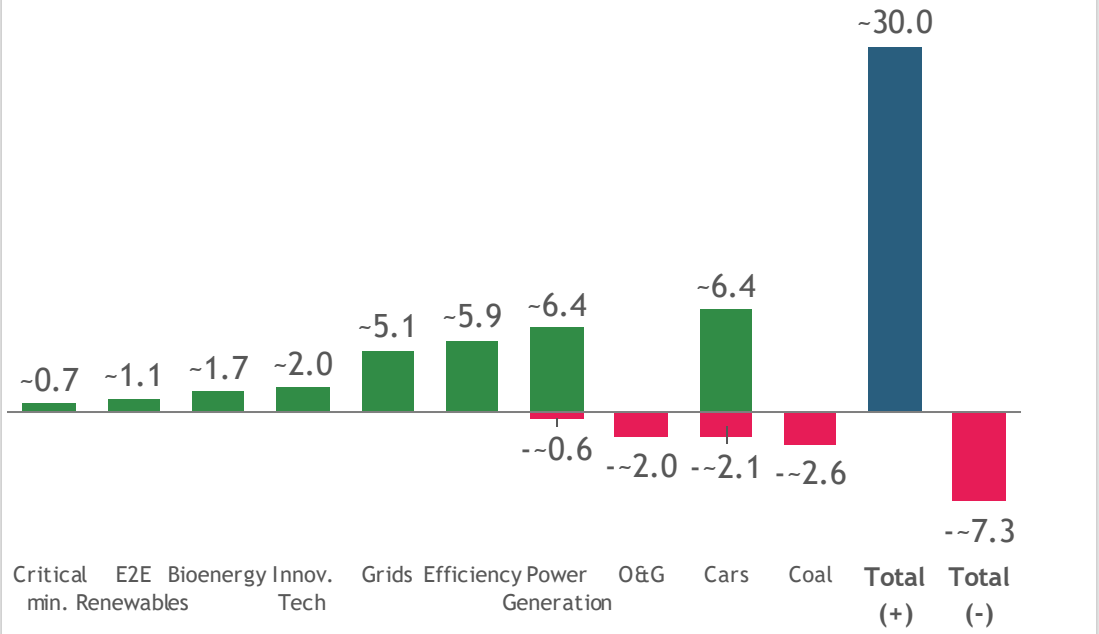
Access to green, affordable energy

- Inequitable access to energy
- Rising costs driven by investments and shifting supply will affect LMI households, business & trade
- Slow and complex renewable capacity build-up

Employment | Traditional energy employment roles to bear impact with changing landscape

Energy employment is expected to experience major changes …

Change in global clean energy & related industries' jobs by 2030 (M)[1]
under EIA Net-Zero scenario (NZE)



… causing tough challenges for workers and employers on the ground

~23M

Jobs and skillset shift

- Despite optimistic est. of net 23M jobs created in NZE, skillsets demand will shift towards renewables & clean tech
- Fossil fuel industries like oil & gas, coal expected to bear most negative impact, potentially with 5M+ lost or shifted
- Upskilling & monitoring wage decreases will be critical

Geographical and temporal impact of transition

- Workers may not easily find new green jobs available based on geography and timing
- Communities lacking diversified economies may be severely impacted

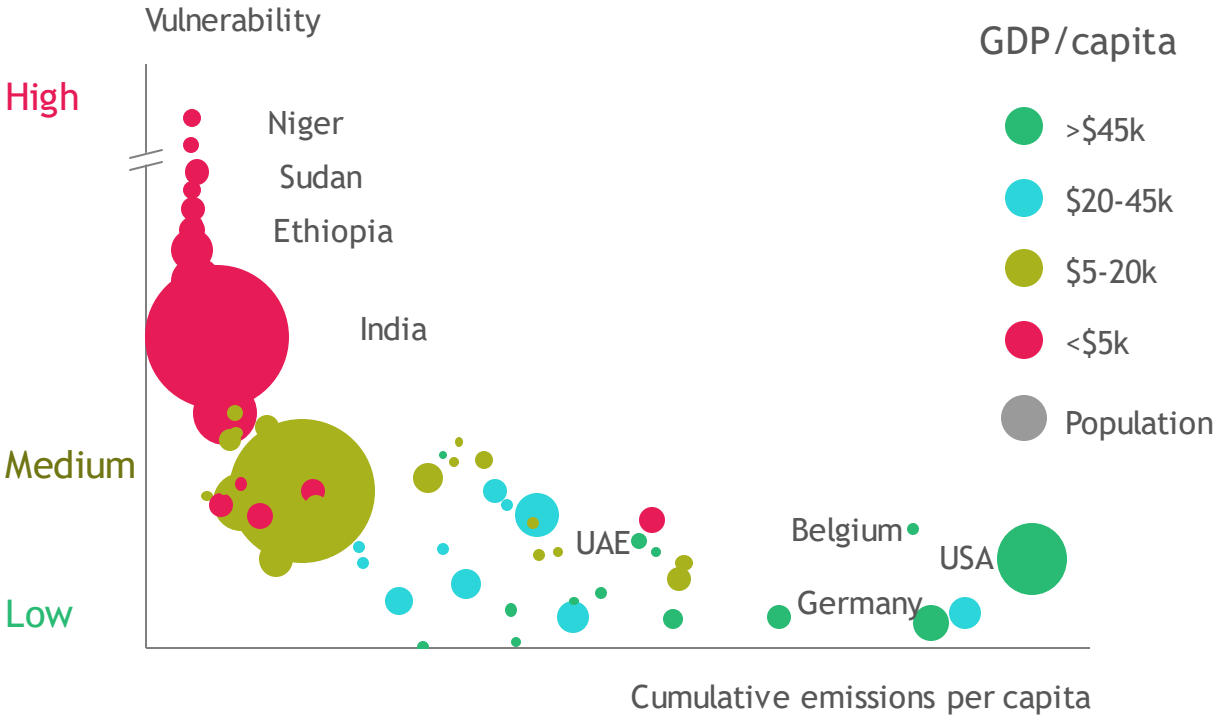
Diversity and inclusion in labor force

- Inequality in employment access, gender- and race pay gaps in renewables and clean tech can potentially be exacerbated if not addressed

1. Difference in employment by industry in energy supply in the NZE Scenario, Global employment 2019-2030. Innovative technologies include batteries, hydrogen and CCUS
Source: IEA World Energy Outlook People Centered transitions 2021

Community wellbeing | Responsible only for a fraction of emissions, emerging economies disproportionately affected by climate change

Compared to the rest of the world, developing countries have lower carbon emissions…



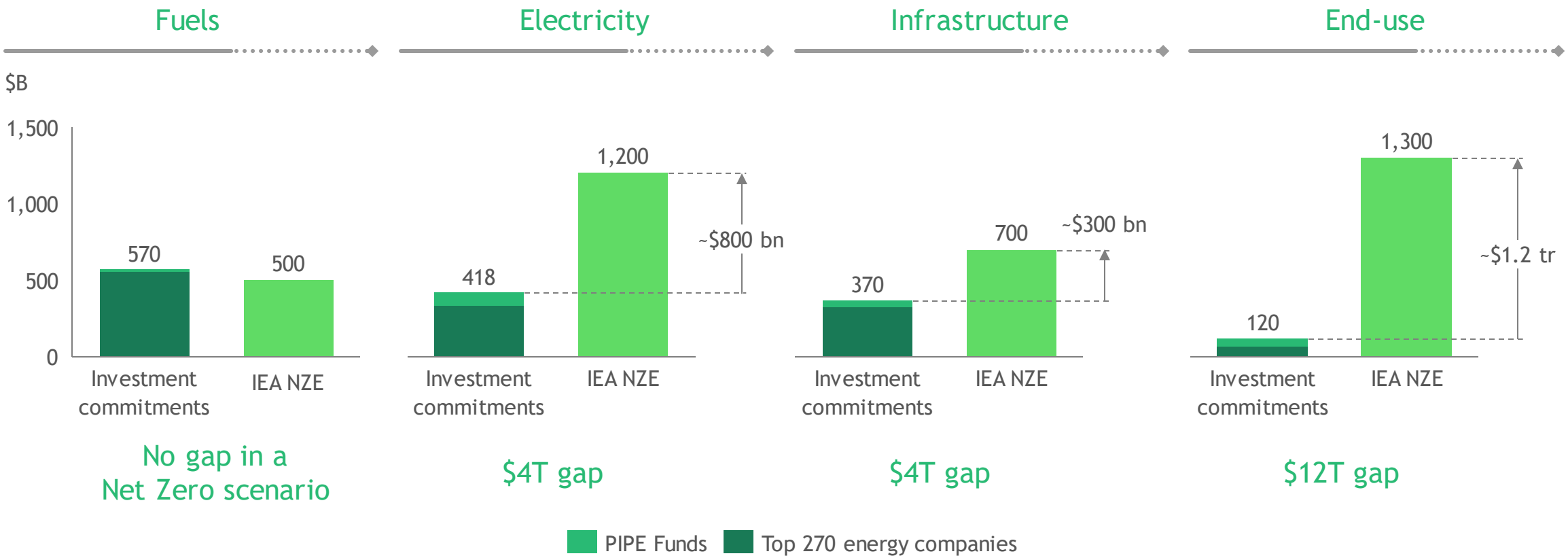
…but are the most vulnerable to climate change impacts like crop failure and droughts

- Currently, **3B+ people live in areas highly vulnerable to climate impacts; mostly concentrated in Small Island Developing** States, South Asia, Central and South America, and much of sub-Saharan Africa
- **Inequity, conflict and development challenges heighten sensitivity to hazards**; constrain ability to adapt and respond in robust manner
- At-risk communities in **developing countries have fewer resources and will be hit the hardest**

Bubble dimension represents population size. Population, GDP data and cumulative emissions as of 2020 1. Vulnerability relates to social, physical, economic and environmental factors, which make people or systems vulnerable to climate change
Source: World Risk Report, United Nations University Institute for Environment and Human Security (UNU-EHS); World Bank; Our World in Data

Equitable access to financing | Capital gap of $22T between current spending plans and the IEA NZE thru 2030

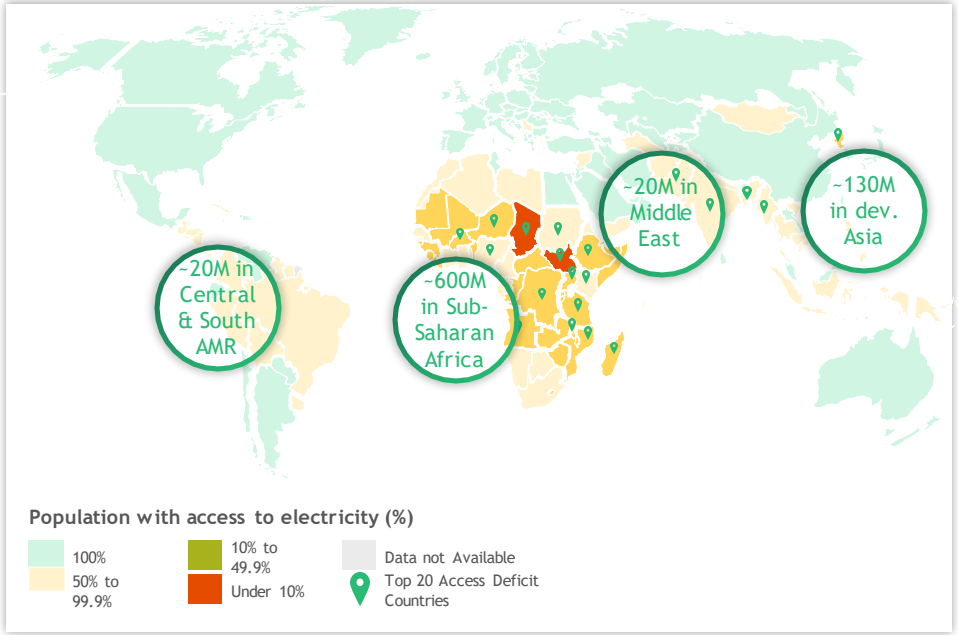
2021-2030 average annual spend: IEA NZE versus forecast planned & proposed investments



Reporting categories aligned with categories included in IEA Net Zero scenarios. Includes largest state-owned national oil companies
Source: S&P Capital IQ; IEA; Company-stated targets; US government; European Commission; Prequin; BCG CEI Analysis

Access to green, affordable energy | Energy transition in emerging economies being challenged by limitations in energy infrastructure and affordability

Access to electricity is still a large challenge …



- Under the NZE scenario, **$36B per annum in investment** is needed for universal access by 2030
- APS assumes that **290 million people** will remain without electricity access by **2030**, **requiring $23B** in investment each year to meet this target

Multiple drivers lead to high energy transition costs

Not exhaustive

Increased investments required to finance transition

- New assets infrastructure (e.g., RE, EV)
- Decarbonization of operations & supply chains

Green policies, national & international legislations – e.g., carbon pricing, cross-border carbon taxes

Increased spending on adaptation measures in order to address climate risks

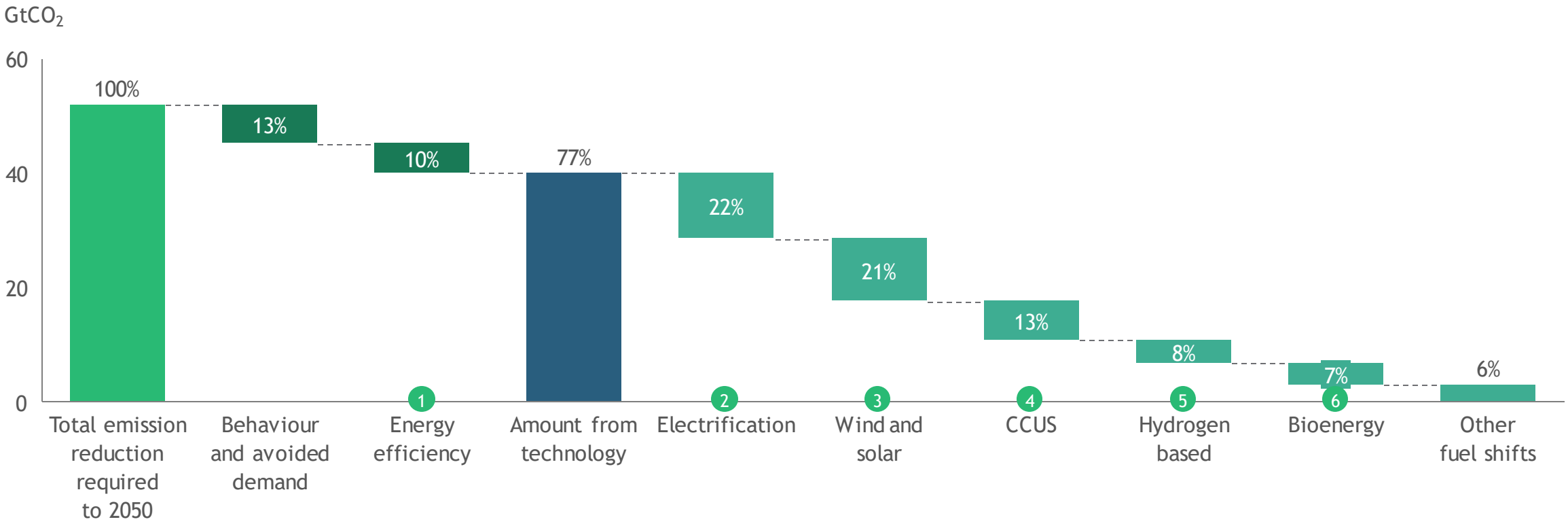
Careful management of trade-offs between access, sustainability & affordability will shape the energy transition

Note: Other investment includes cross sector investments such as DAC, Hydrogen Infrastructure, and CO2 transport and storage Source: S&P Capital IQ; Company-stated targets; IEA World Energy Outlook; BCG CEI Analysis, World Bank; The energy Progress Report 2021

Contents

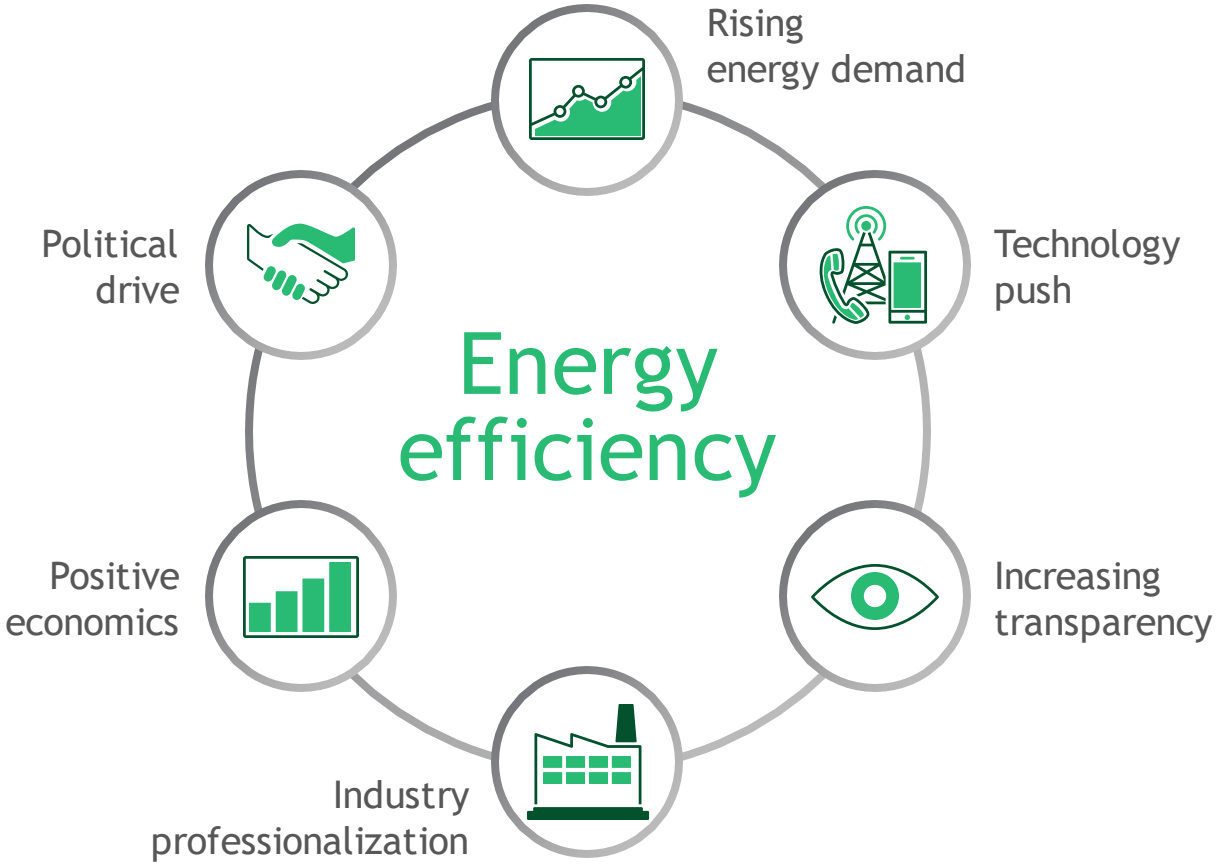
Technology will help drive more than 75% of emissions reductions needed for net zero targets

Emissions reduction required to achieve net zero in 2050



Note: Total emissions reduction required to 2050 includes reduction required from emissions growth between 2020 to 2050 (inc., energy service demand changes from economic and population growth)
Source: IEA "Net Zero by 2050: A Roadmap for the Global Energy Sector" (2021); BCG analysis

Energy Efficiency | Strong drivers push the energy efficiency opportunity globally



Rising energy demand

The global demand for energy is set to increase by 1.4% annually until 2035

Technology push

Materials and system innovation is ahead of the adaption curve, pushing down prices and increasing efficiency for new technologies

Increasing transparency

"Smart" solutions increase the ability to monitor and benchmark energy demand data in real time, increasing the ability to intervene and to measure success

Industry professionalization

Several EE markets (esp. in EU) are starting to mature, increasing available financing and the ability of players to tap existing market potential, while decreasing customer reluctance

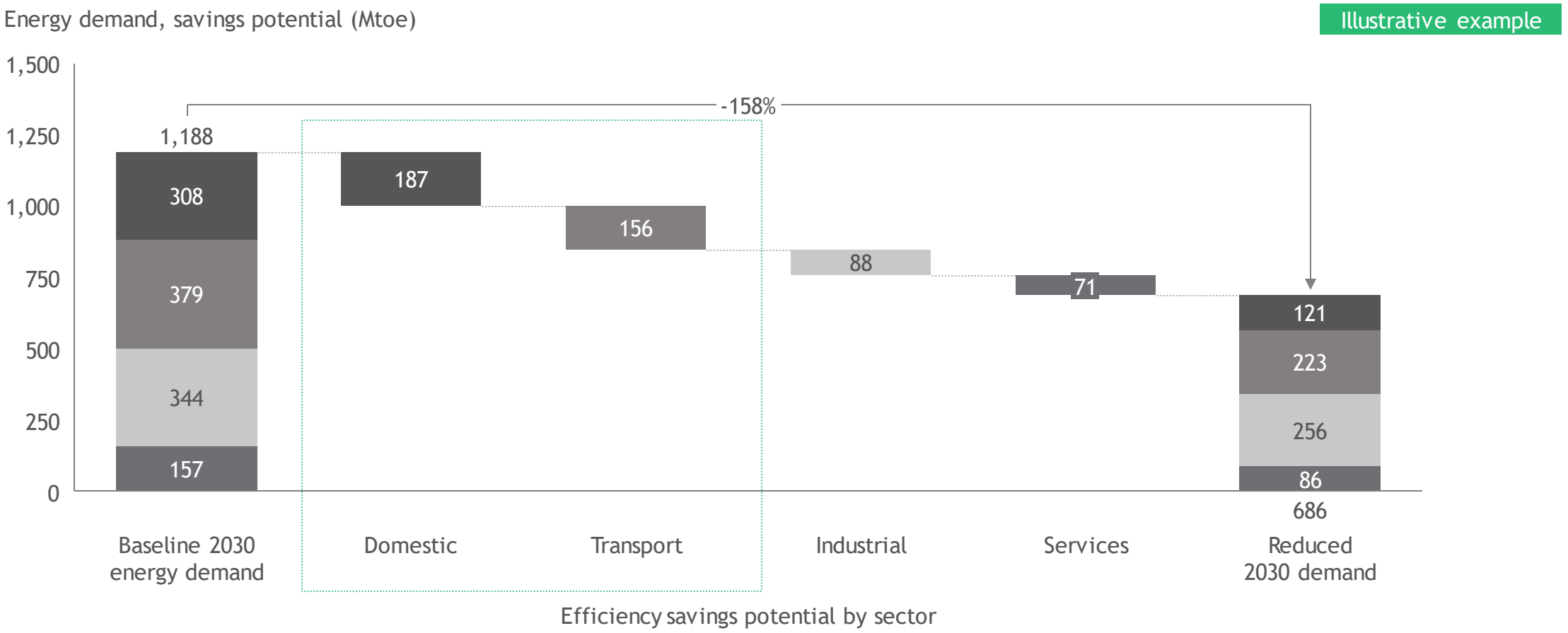
Positive economics

Driven by high energy prices, low interest rates and decreasing technology costs, many EE measures are highly NVP-positive today

Political drive

Regulators around the world (but particularly in Europe) are introducing policies to improve EE, investments in public sectors increases

Energy Efficiency | Significant savings are offered by adopting EE methods



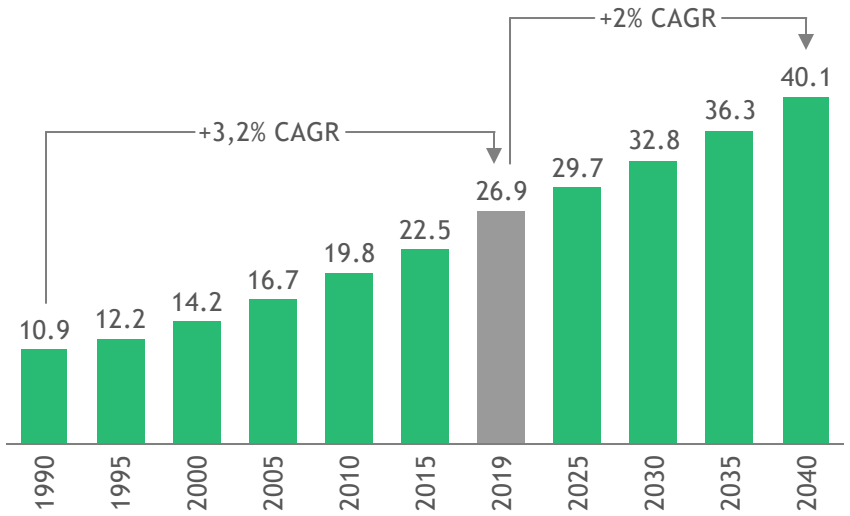
Domestic and transport sectors offer greatest potential for energy efficiency savings

Source: BCG Analysis

Electrification | ~77% reduction of CO2 emissions required by 2040 with increasing electricity demand

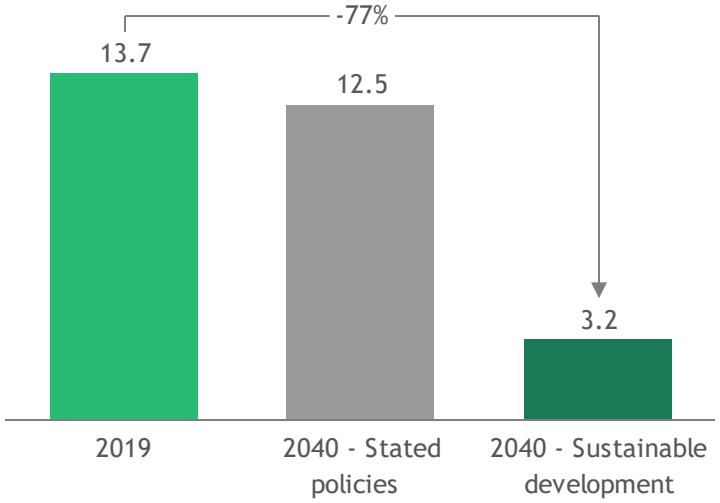
Electricity demand keeps increasing 2% pa ,i.e., 2x faster than global energy demand..

Global electricity generation[1]
(in 10^3 TWh)



..yet meeting Paris Agreement requires ~77% emission reduction by 2040

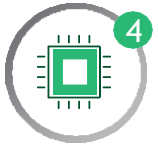
Global power sector CO_2 emissions
(in Gt CO_2)



	2019	2040 - Stated policies	2040 - Sustainable development
Intensity (gCO2/kWh)	463	282	67
Warming projected by 2100		~3°	Well below 2°

1. Stated policies scenario; Note: IEA's scenario, stated policies = implement current policies ambition, sustainable development = aligned with Paris Agreement of limiting temperature rise to "well below 2°C";
Source: IEA World Energy Outlook 2020; IEA Tracking Power 2019; BCG analysis

Electrification | 5 megatrends driving global development of the power sector to a renewable-driven, digitalized and decentralized system

 Growth and electrification of power demand	• Growing energy access in emerging economies, ~60% demand growth expected in Asia and Africa, penetration in rural areas of emerging economies • Increase in electric heating and cooling systems, shift from fossil fuel heat systems • Increase in consumption and household appliances
 Renewables absorbing most of power demand increase	• Power demand increases globally from 27 TWh to 39 TWh in 2040[1] • In 2040, energy consumption is for 72% absorbed by renewables vs. 19% in 2019[1], mainly in mature markets • Growing electricity demand increases flexibility in supply hours (e.g., EV charging time), allowing renewables to cover a large share of the demand • SDS expected share of renewables in 2040: 56% solar PV, 25% wind, 14% other RES, 3% gas, 2% nuclear
 Storage (batteries and hydrogen) as key disruptor in electricity systems	• Global battery storage installations expected to increase with CAGR of 38% between 2018 and 2030 • EU H_2 strategy focuses on green H_2 with blue H_2 as a transitory solution • Increase in EVs
 Digitalization leading to new business models that transform the power industry	• Key topic for energy transition with $20bn/y business potential • Service becomes focus of the industry, using digital applications
 Decentralization and distributed energy resources	• Power system shifts from linear transmission to distributed energy solutions with smart meters at its core

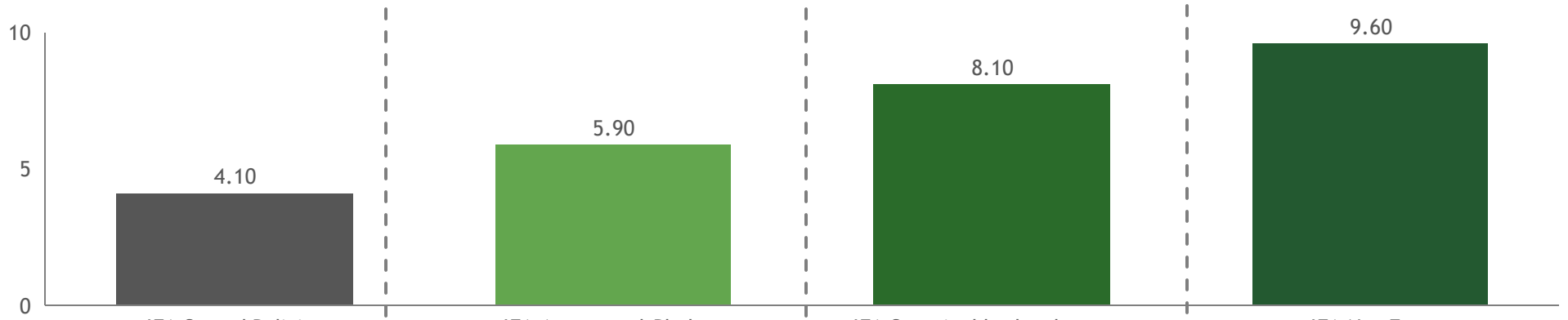
1. According to IEA Stated Policies Scenario

Source: Source: IEA WEO 2020; IEA Digitalization & Energy report; BCG analysis

Wind + Solar | IEA scenarios forecast an annual production increase of 3-5.5x vs recent past

Wind + Solar: Forecasted Average Annual Increase in production 2019-2050 (BToe)

Fast-growing market at 1.3 – 1.7 additional EJ per year (350-450 Twh)



Wind+Solar production:	IEA Stated Policies	IEA Announced Pledges	IEA Sustainable development	IEA Net Zero
2019[1] (EJ)	66	66	66	66
2050 (EJ)	193	248	316	362

Legend: Slow Transition; Dynamic Transition; Green Ambition Scenarios; Net Zero Scenarios

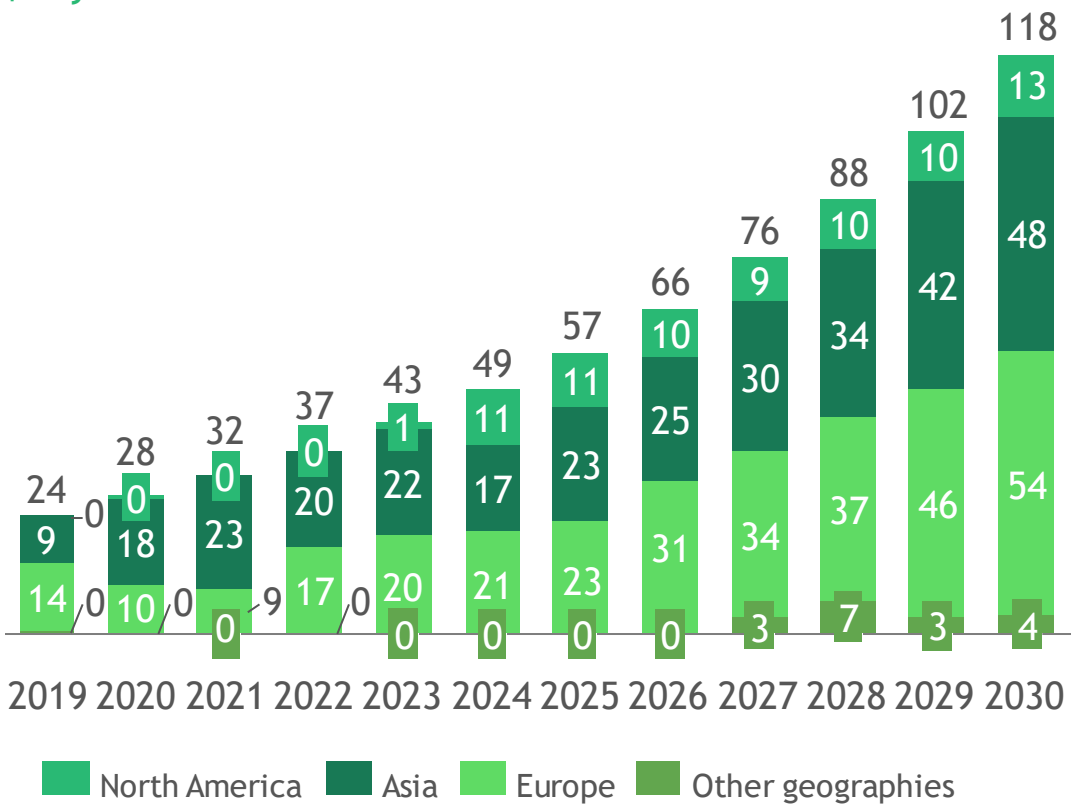
1. When unavailable, 2019 data estimated starting from 2018 actuals. Actual data differ across scenarios due to different computation methods used by authors;
2. Minor differences in actual 2019 data between scenarios are driven by different statistics / computation methods across authors.

Source: BP Statistical Review of World Energy; Forecasts from Energy Reports; BCG analysis

Wind | ~$120bn offshore wind capital required annually by 2030, with APAC growing at 24% CAGR to reach second largest offshore wind market

Preliminary

Evolution of offshore wind capex requirements development under IEA's Sustainable Development Scenario (SDS), USD $B/year



Source: [GWEC (Global Wind Report 2020), IEA World Energy, BCG Analysis; Main hypothesis: debt financing is ~75% of projects]

APAC expected to become the second largest offshore wind market by 2030, with different dynamics per region

Offshore Wind Installed Capacity

GW, cumulative

Europe to grow at 21% CAGR to reach 95 GW by 2030

North America to grow at 92% CAGR to reach 29 GW by 2030

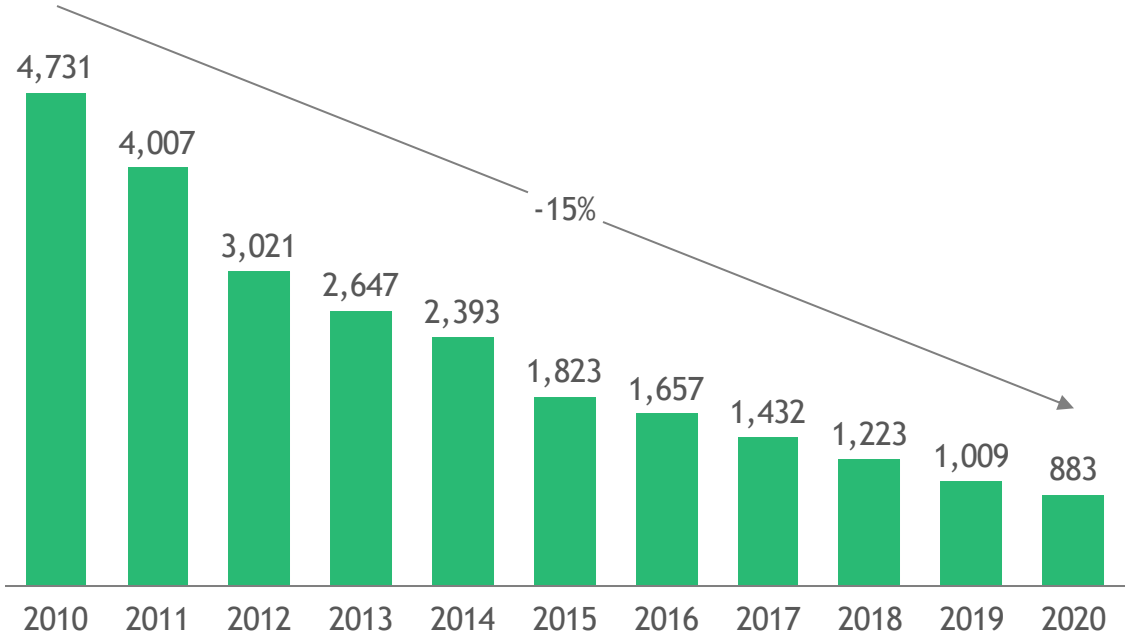
APAC to grow at 24% CAGR to reach 78 GW by 2030

APAC and Emerging Markets

- ✓ Strongest energy demand, increasing profit pools as LCOE drops and subsidies remain high
- ✗ Market opening, channels and local supply chain still nascent

Solar PV | Installation costs decreased at a 15% CAGR the last decade

Global weighted-average total installed costs for PV (USD/kW)



Average cost of Solar PV installation reduced at a **15% CAGR** over the last decade

Average cost of projects **commissioned in 2020** was:

- 81% lower than in 2010
- 12% lower than in 2019

Source: IRENA; BCG analysis

Challenges associated with Solar PV

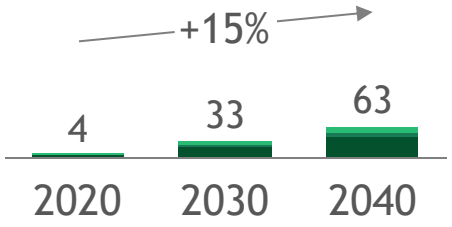
- Bringing down the cost of renewables is critical to the enormous scale-up required
- Complex supply chain associated with solar and wind
- Sufficient and reliable access to critical upstream units: ingot, wafer, mono perc cell, monoperc module
- Increasing scale and diversity in production
- Right infrastructure for deployment

CCUS | To achieve carbon neutrality, there needs to be a significant increase in the deployment of CCS technology

CCUS Total Available Market (TAM), $B

Basic scenario

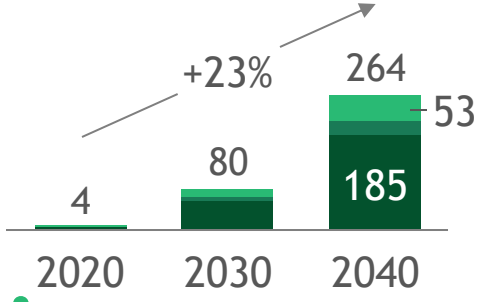
IEA Reference Technology Scenario



Global CCUS Market, $B

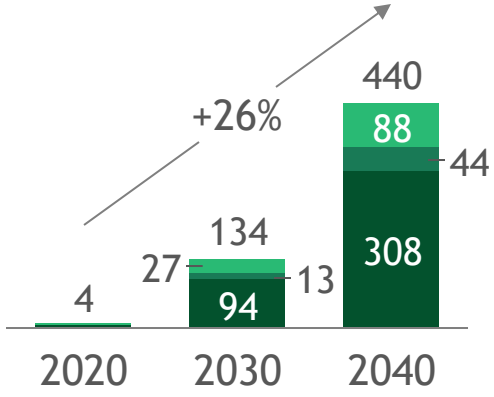
Projected market forecast

Consistent with pledges tracking to 3-degree scenario and BCG current understanding of market forces



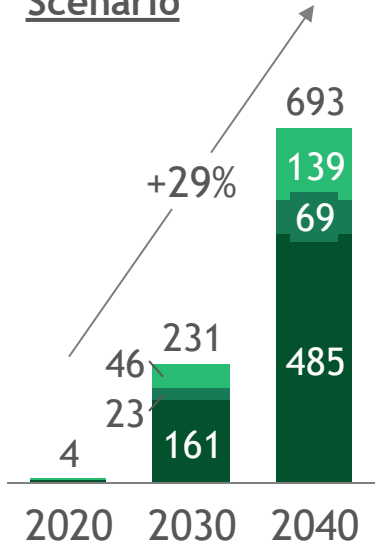
Global CCUS Market, $B

IEA 2 Degree Scenario



Global CCUS Market, $B

IEA Beyond 2 Degree Scenario



Global CCUS Market, $B

Some of announced 90 Mtpa projects by 2030 will be cancelled or delayed, but new ~200 Mtpa of projects are "in play"

Storage Transport Capture

Note: Carbon prices assumed to be $100/ton
Source: IEA WEO, Energy Technology Perspectives 2017; BCG Analysis

CCUS | Globally, many projects have benefited from a variety of government interventions, as well as EOR as a revenue source

Non-exhaustive

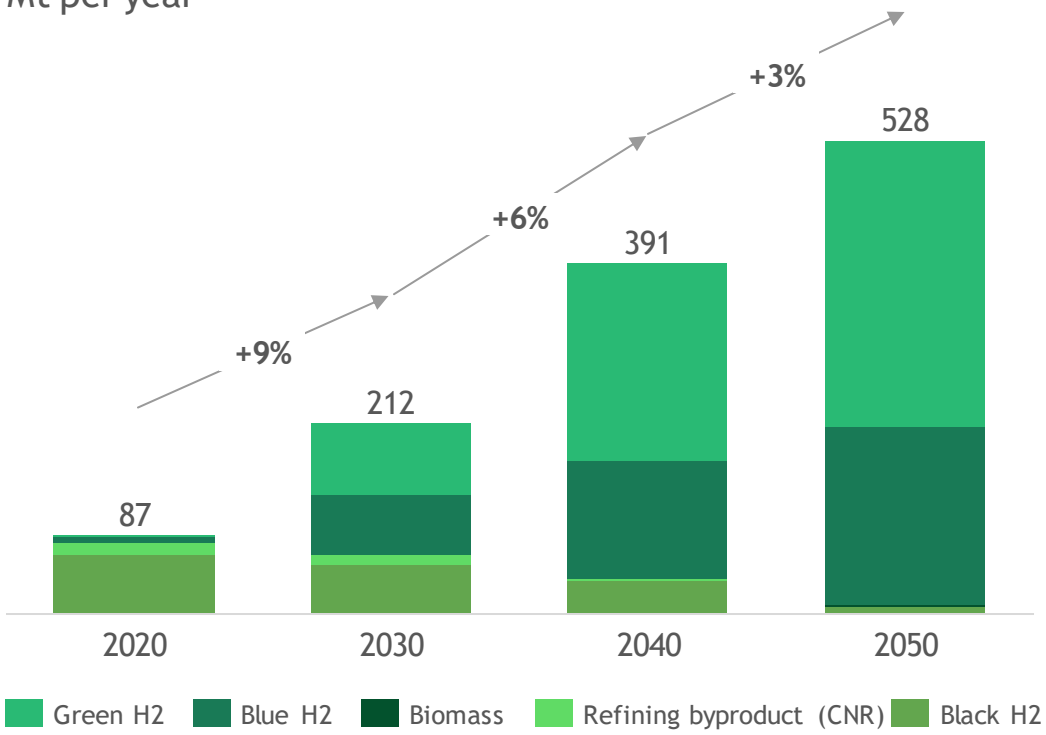
Project	Country	Sector	Capture Rate (Mtpa)	Storage or Use	First Operating Yr.
Abu Dhabi CCS	UAE	Iron and Steel Production	0.8	EOR	2016
Uthmaniya	Saudi Arabia	Natural Gas Processing	0.8	EOR	2015
Sinopec Qilu	China	Fertilizer Production	0.4	EOR	2019
Yanchang	China	Chemical Production	0.41	EOR	2020
CNPC Jilin	China	Natural Gas Processing	0.6	EOR	2018
Gorgon	Australia	Natural Gas Processing	3.7	Saline Aquifer	2019
Petrobras Santos	Brazil	Natural Gas Processing	1	EOR	2013
Alberta Carbon Trunk Line (Agrium)	Canada	Fertilizer Production	0.45	EOR	2019
Boundary Dam	Canada	Coal Power Generation	1	EOR	2014
Alberta Carbon Trunk Line (Refinery)	Canada	H2 Production	1.3	EOR	2019
Great Plains	Canada	Synthetic Natural Gas	3	EOR	2000
Sleipner	Norway	Natural Gas Processing	1	Saline Aquifer	1996
Snøhvit	Norway	Natural Gas Processing	0.7	Saline Aquifer	2008
Illinois Industrial	USA (Illinois)	Chemical Production	1	Saline Aquifer	2017
Coffeyville	USA (Kansas)	Fertilizer Production	1	EOR	2013
Petra Nova	USA (Texas)	Coal Power Generation	1.4	EOR	2017
Air Products SMR	USA (Texas)	H2 Production	1	EOR	2013
Shute Creek	USA (Wyoming)	Natural Gas Processing	7	EOR	1986

Note: EOR stands for 'Enhanced Oil Recovery', a process where CO2 is sold and injected into oil reservoirs to improve flow properties and increase oil production
Source: Policy Priorities to Incentivise Large Scale Deployment of CCS—The Global CCS Institute, April 2019

Hydrogen | Expected to account for 12-20% of the future energy mix

IEA predicts a substantial increase in green H_2 demand over next 30 year

Mt per year

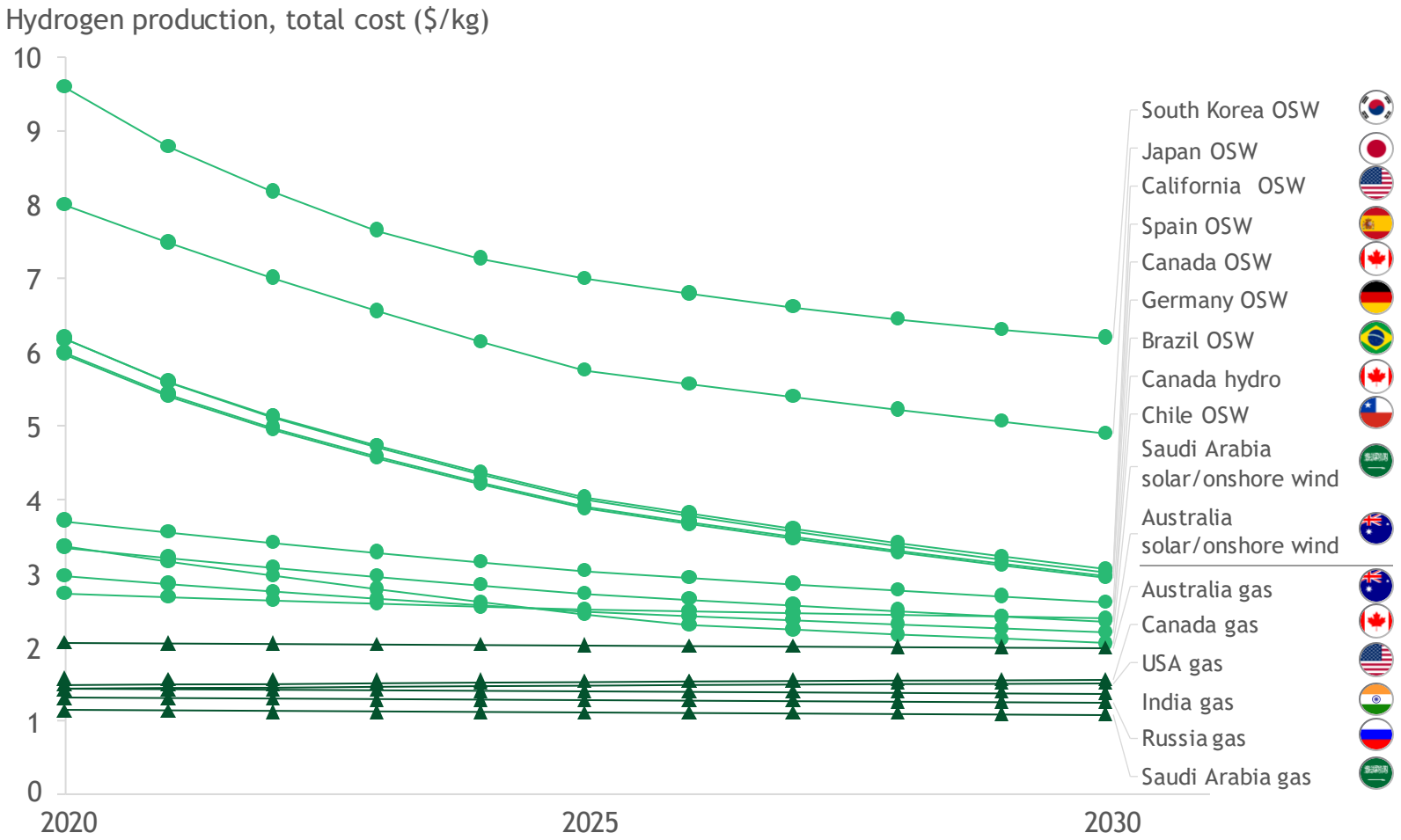


…deployed across a range of sectors

Power generation	e.g. as balancing fuel, for storage & as ammonia for electricity
Industry	e.g. in chemicals & steel production
Buildings	e.g. in green gas heating systems
Transport	e.g. as fuel for heavy-duty long-haul trucks, as synfuel for aviation & shipping

Source: IEA Roadmap to Net Zero by 2050, IRENA World Energy Transitions Outlook: 1.5C Pathway

Hydrogen | Driving down green H2 cost curve requires reduction in cost of electrolysers and cheaper renewable electricity



Two hurdles to green H2 price competitiveness:

- Price of electrolysers
- Price of renewables (competitive at renewables LCOE of ≤€25/MWh)

Incentives for investment in green H2:

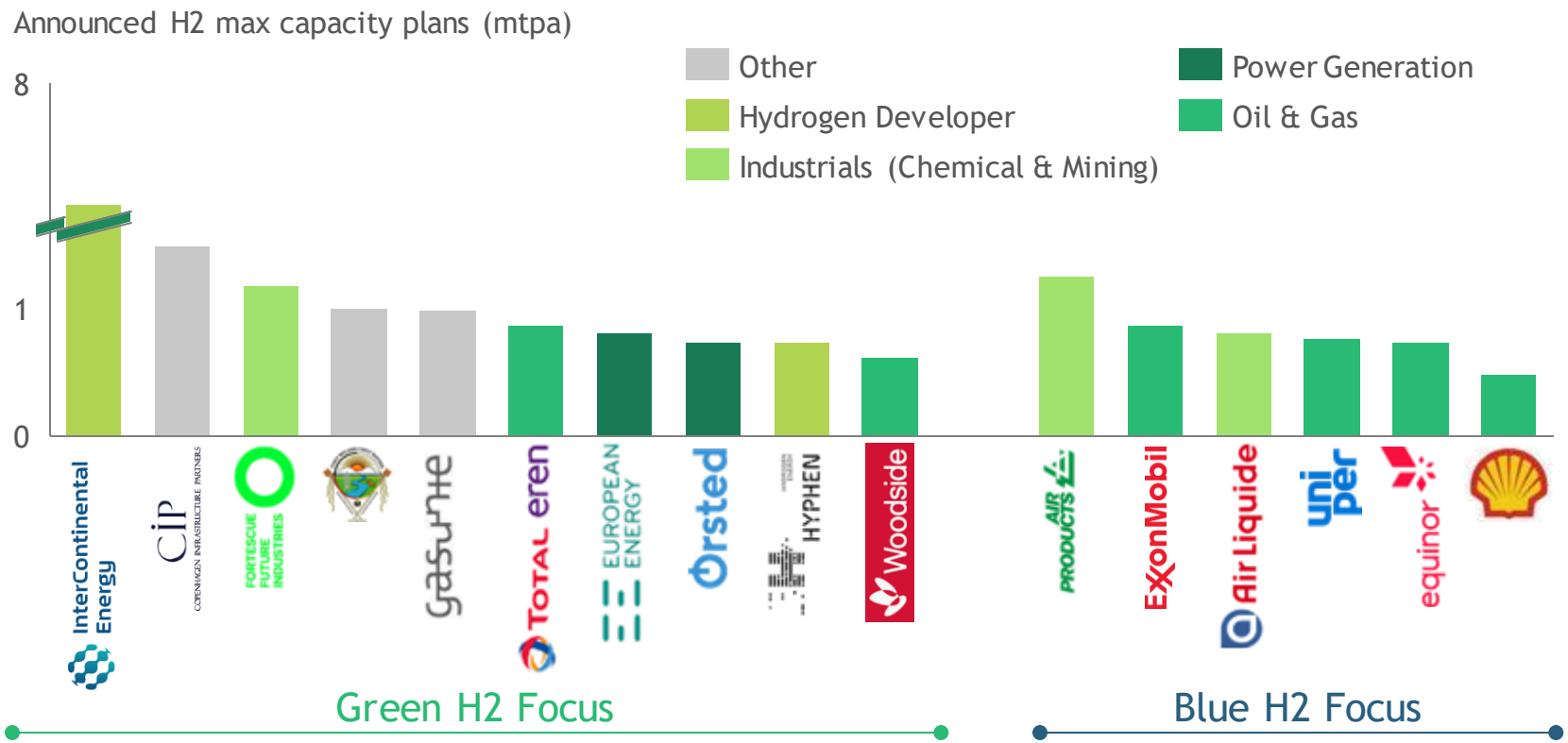
- Long-term offtake contracts
- Credit worthy buyers
- Supported by government
- guarantees

In low-cost gas regions, blue H2 may remain more competitive, assuming no or minimal carbon tax introduced
Large-scale CCUS solutions remain hurdle for blue H2

Note: LCOE – levelized cost of electricity; OSW – offshore wind; model assumptions: cost of green H2 incl. costs of electrolysers, electricity, water; cost of blue H2 incl. CCUS costs and CAPEX, minimal CO2 costs, few CO2 tax assumptions
Source: Interview with IEA experts, BCG case experience, BCG analysis

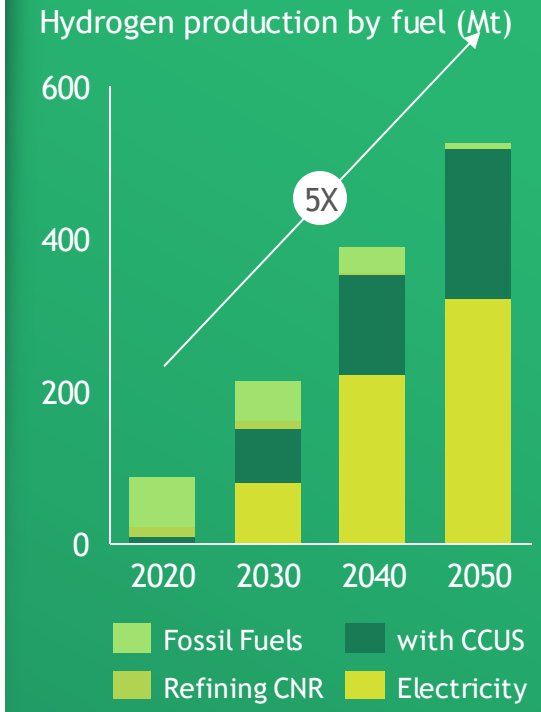
Hydrogen | Companies have started taking early bets on hydrogen to reduce their grey H2 demand

Hydrogen example: As potential developments proceed, new investors and industrial users lining up to fill capital gap



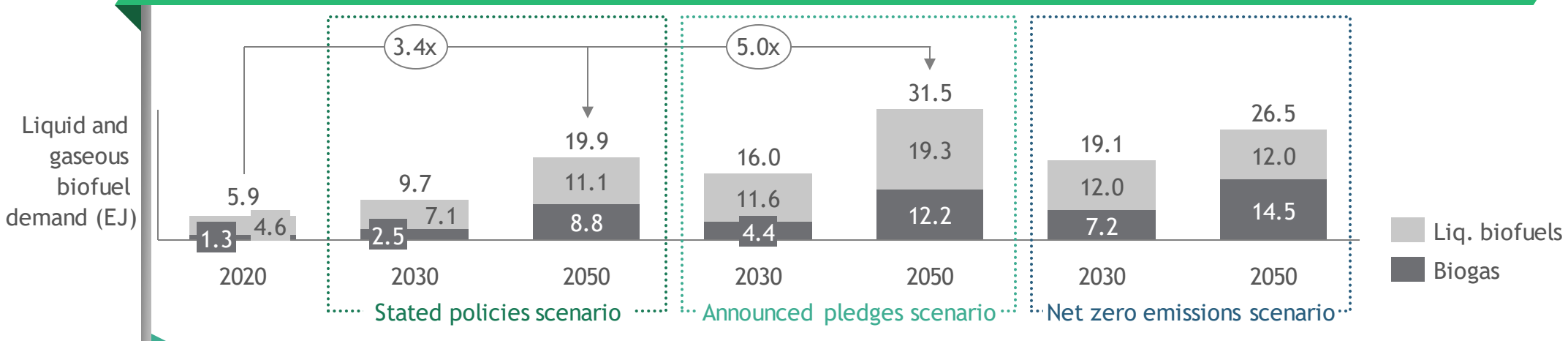
Other includes governments, investment firms, and infrastructure players
Source: Global Data; IEA: BCG Center for Energy Impact

NZE scenario projects 5X increase in Hydrogen through 2050



Biofuel | A critical spoke in decarbonization agenda across scenarios

Across scenarios biofuel expected to play a critical role in energy mix



	Stated policies scenario		Announced pledges scenario		Net zero emissions scenario	
	2030	2050	2030	2050	2030	2050
% liquid biofuel in total liquid fuels	3.2%	4.9%	5.6%	13.2%	7%	16.7%
% biogas in total gaseous fuels	1.6%	5.2%	3%	9.5%	5.4%	15%
% biofuels in total liquid+ gas fuels	2.5%	5%	4.5%	11.5%	6.3%	15.8%

1. Sustainable Development Scenario assuming all new policies proposed by governments take place and the world will comply to COP21 and hence rise of temperatures will stay within 1.5°-2°C

Source: IEA World Energy Outlook 2021; BCG Analysis

Biofuel | Unresolved challenges have inhibited further adoption

Investment

~$100bn - $270 B

Investment in biofuels needed until 2030 to meet stated policies scenario target

- High **capex requirement** e.g., 800ktoe biodiesel plant requires $1.3B in capex
  - Advanced biofuels require augmentation of **downstream infrastructure** e.g., blending terminals, dedicated pipelines
- **Low investments**
- **Uncertainty in profit margins due to** variability in feedstock, biofuel and by-product prices

Technology

~Zero

Negligible commercial scale for advanced technologies - 3G, 4G

- All 1G technologies are well consolidated, but **2G still evolving**
- **Negligible commercial scale** for advanced technologies – 3G, 4G
  - 4G technology still at **concept stage**
- Various **technologies competing** for limited funding, feedstock
- **High production costs** especially for advanced biofuel

Feedstock

8% (today) → 45% (NZE)

Biofuels produced from wastes, residues etc.

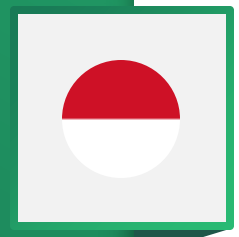
- **Fragmented and complex feedstock supply chain**
- **Competing applications** e.g., Forest residue used in paper mfg.
- **Poor quality feedstock** e.g., Sewage readily available, but low quality leading to high production cost
- Sustainability, land use, and ethical **sourcing concerns**

All the above translates to higher production costs compared to fossil fuels, hence adoption driven through policies and mandates

Biofuel | Several countries have furthered biofuel growth

Leading producer of biofuels worldwide—US biofuel production accounts for nearly 40% of global biofuel production

Second largest biofuel producer with biofuel accounting 15%+ of Brazil's annual energy consumption. Currently ~49% for bio-ethanol & ~11% biodiesel blend



One of the largest biodiesel producers, Indonesia's biodiesel blend rate grew from 3% to ~29% over last 7 years

India achieved ethanol blending targets 5 months in advance, thereby advancing E20 target from 2030 to 2025

Source: BP Stats; USDA GAIN Reports; Press Reports; Sweet Fuel-Oxford University Press, 2022

Contents

Key challenges affect each actor uniquely, but there are levers they can pull to drive a Just Energy Transition

Select examples-not exhaustive

Companies

Key Challenges:

- De-carbonization costs, complexity & pace
- Socio-economic impact of transition decisions such as plant closure, renewable siting

Key Levers:

- **Support and invest in your workforce**
  - ZE PAK upskill/reskills existing lignite-based generation workforce
- **Drive transition to secure sufficient clean energy**
  - Tata Power launched grid partnership for low-cost power to 25M people in India

Government and Regulators

Key Challenges:

- Labor shift, workforce impact & ensuring equal access to new labor
- Energy access, security & managing transition pace with geopolitical risks

Key Levers:

- **Promote equitable workforce transition**
  - Malaysia: Green investments in job programs (re-& upskilling)
- **Accelerate through investments, policies & incentives**
  - India: Climate adaptation fund - $100M+ distributed so far, benefiting ~2M citizens

Investors and DFIs

Key Challenges:

- Unproven markets & sub-scale investments lead to perceived risks & unattractive returns
- Challenging holistic view of societal & environmental impact in asset divestment

Key Levers:

- **Develop & incorporate just transition principles**
  - Climate Action 100+
- **Scale just energy transition financing globally, and unlock funding for emerging markets**
  - Asian Infr. Inv. Bank/Global Energy Alliance for people & planet (mobilizing $1B)

NGOs, Partnerships

Key Challenges:

- Fragmented agendas and different dialogues impact plans across sectors & regions
- Lack of awareness & willingness to consider just dimensions within energy transition

Key Levers:

- **Drive development of standards**
  - World Benchmarking Alliance (WBA), measures JET contributions according to IEA standards
- **Advocate for Just Energy Transition**
  - The International Trade Union Confederation with CIC, advocated for green new investments for jobs[1]

1. Council for Inclusive Capitalism

Contents

AMER9
The 9th Asian Ministerial Energy Roundtable
An IEF Dialogue Event

Key Questions

1. How do different energy price trends and governance criteria affect growth and emissions?

2. What role does Asia play in realigning energy value chains and reducing carbon intensity?

3. Which policies and innovative technologies enable Asia to transition through growth and innovation?

4. What could be the way forward to address the issue of technology transfer between developed and developing nations? How have recent geo-political conflicts impacted investment and political will towards clean energy transition?

AMER9

The 9th Asian Ministerial Energy Roundtable

An IEF Dialogue Event

Bengaluru | India

Thank You!

IEF BCG