



?????G20?????11?30?12?12?COP28?????G7?????  
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# EV????????????????

?? ?? · Monday, July 3rd, 2023



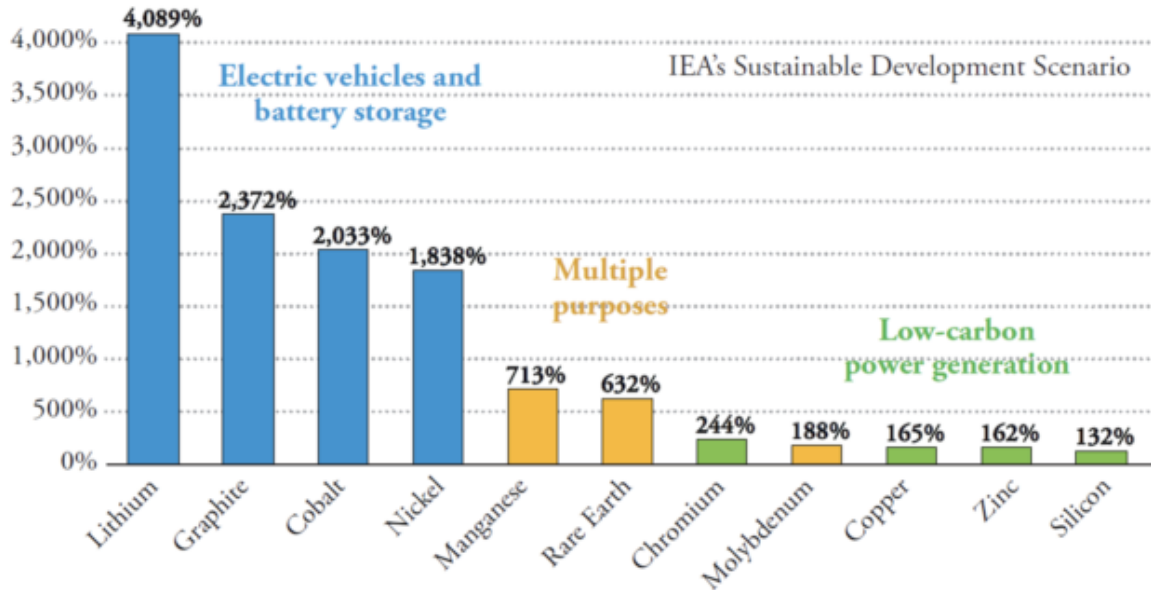
PhonlamaiPhoto/iStock

????????????????????????????????????(IEA)????????Net Zero Scenario, NZE????????????

## **A Critical Assessment of the IEA’s Net Zero Scenario, ESG, and the Cessation of Investment in New Oil and Gas Fields.**

????????EV??2020????2040????20????????????????????????????  
????????????????????????4089????????40??20????????????

Figure 33. Required Growth of Critical Mineral Supply (IEA's SDS scenario, 2020–40)



Source: Energy Policy Research, IEA, *The Role of Critical Minerals in Clean Energy Transitions* (2021)

EV??60kWh????????????????????????????????  
 150??200????????????????????

Table 13. Battery Chemistry by Content, Kg (60 kWh Lithium-Ion)

Mineral/Metal	NMC811	NMC523	NMC622	NCA+	LFP
Lithium	5	7	6	6	6
Cobalt	5	11	11	2	0
Nickel	39	28	32	43	0
Manganese	5	16	10	0	0
Graphite	45	53	50	44	66
Aluminum	30	35	33	30	44
Copper	20	20	19	17	26
Steel	20	20	19	17	26
Iron	0	0	0	0	41

**NMC811** Nickel (80%) Manganese (10%) Cobalt (10%) **NCA+** Nickel Cobalt Aluminum Oxide  
**NMC523** Nickel (50%) Manganese (20%) Cobalt (30%)  
**NMC622** Nickel (60%) Manganese (20%) Cobalt (20%) **LFP** Lithium iron phosphate

Source: Bhutada, G. VC Elements

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?? ?? · Sunday, July 2nd, 2023



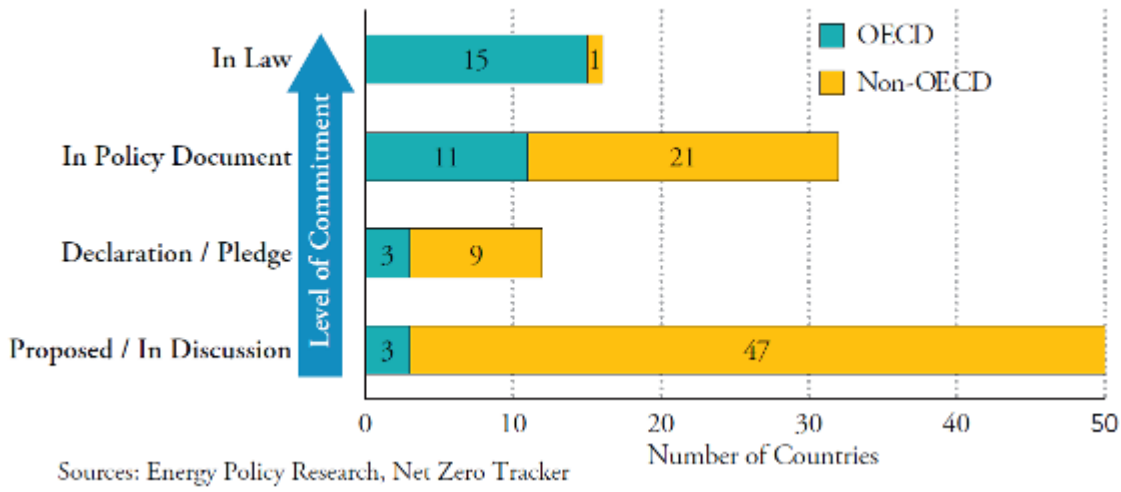
A Mokhtari/iStock

IAE Net Zero Scenario, NZE

### A Critical Assessment of the IEA’s Net Zero Scenario, ESG, and the Cessation of Investment in New Oil and Gas Fields.

OECD 2050

Figure 49. Two-Speed Transition: Net Zero by 2050 Level of Commitment



IEA NZE OPEC 35% 52% 1973

NZE OPE

OPEC NZE OPEC NZE STEPS OPEC 82%







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?? ?? · Saturday, July 1st, 2023

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### IEA????????????????????????

?? ?? · Saturday, July 1st, 2023



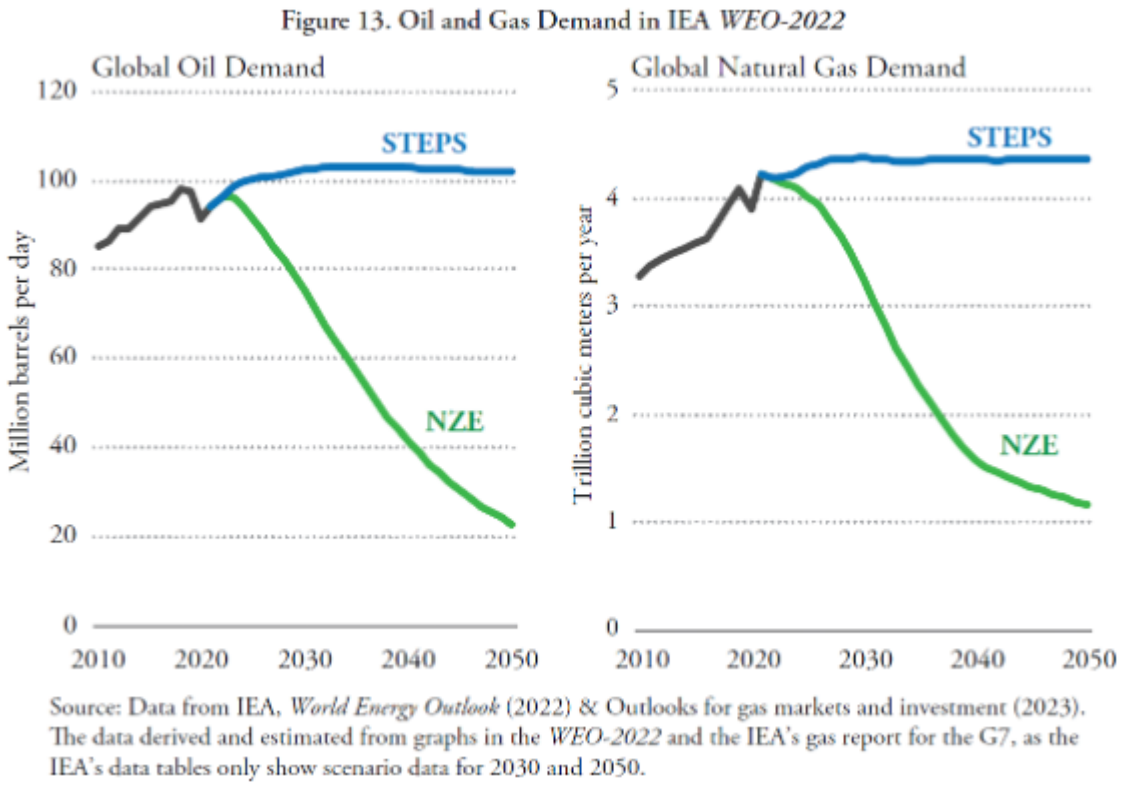
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????????IEA????????????Net Zero Scenario, NZE????????????????????

????????????IEA????????ESG??  
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**A Critical Assessment of the IEA’s Net Zero Scenario, ESG, and the Cessation of Investment  
in New Oil and Gas Fields.**

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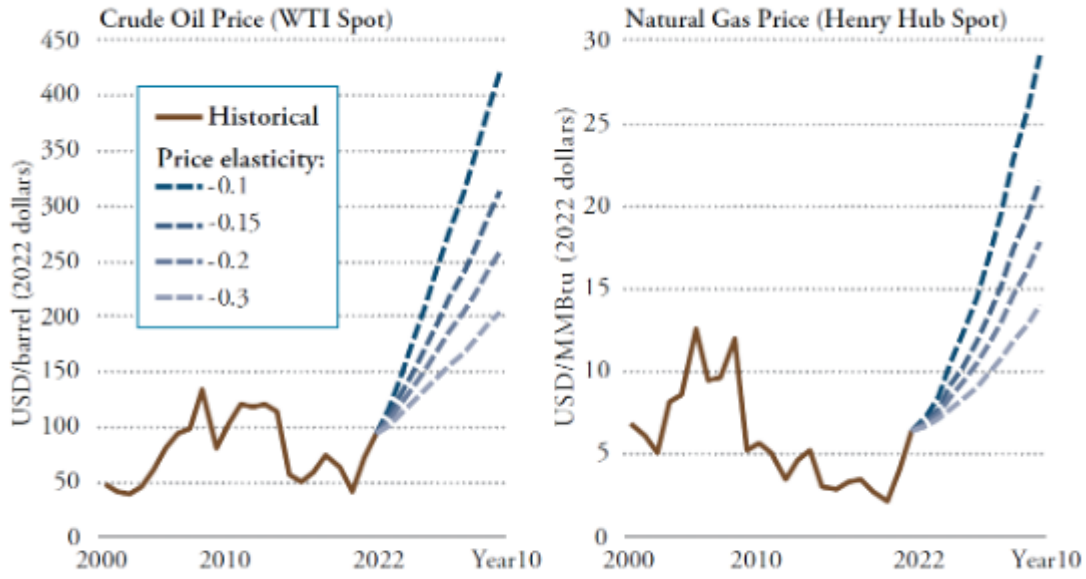


??NZE??

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Figure 14. Potential Price Spikes by Price Elasticity Level Under Net Zero Scenario



Source: Energy Policy Research based on IEA NZE

IEA NZE  
 NZE

IEA OPEC  
 IEA

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?? ?? · Monday, June 26th, 2023



Rawf8/iStock

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?? ?? · Friday, June 23rd, 2023

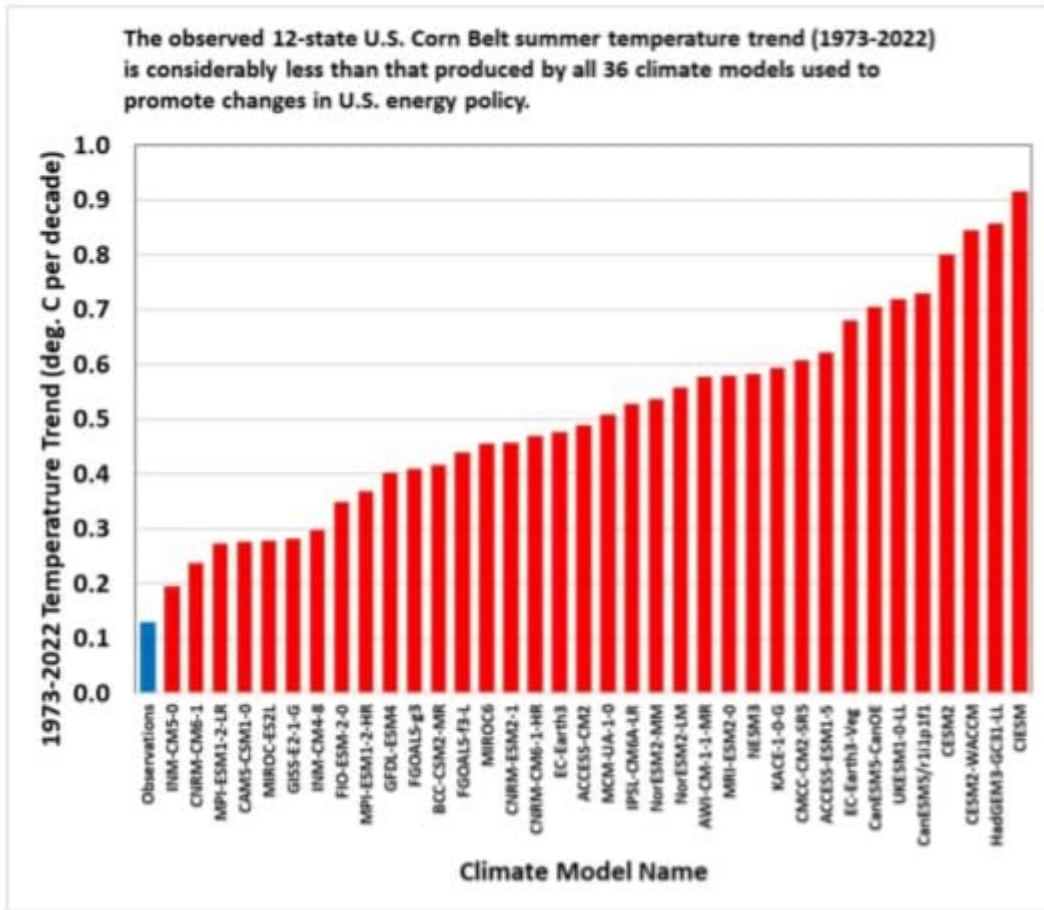




feellife/iStock

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BBC???? – ?????20??https://t.co/pF1RfWUM94

— BBC News Japan (@bbcnewsjapan) February 18, 2021

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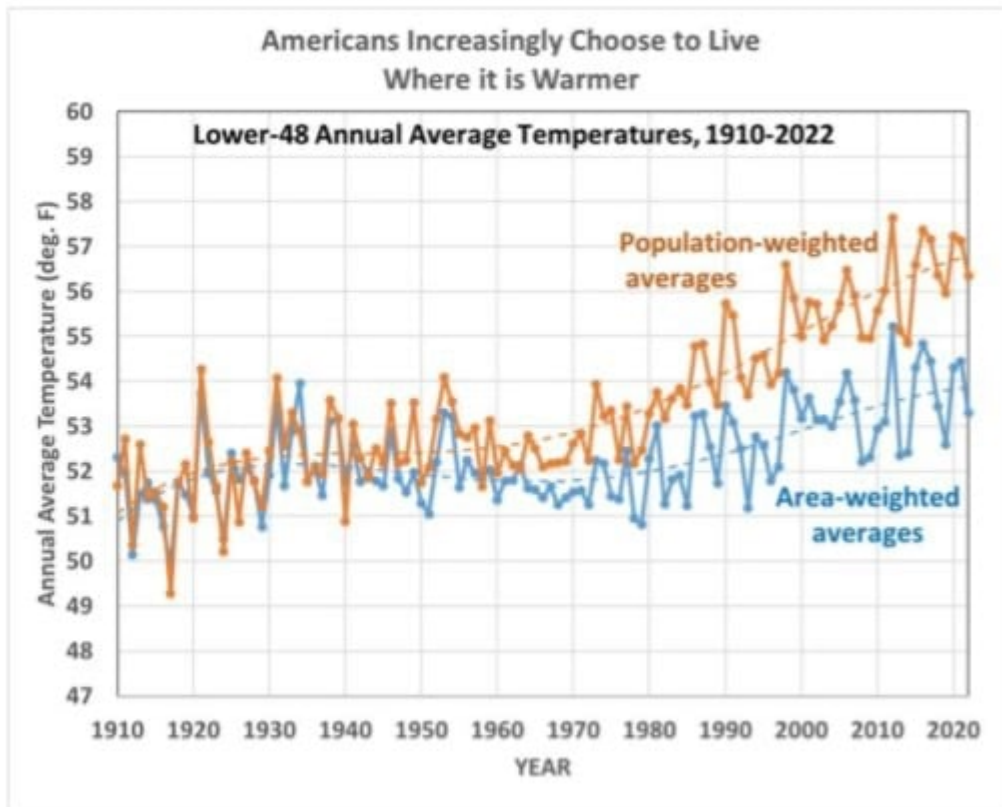
?? ?? · Sunday, June 4th, 2023



Darwel/iStock

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?? ? · Monday, May 29th, 2023

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spoooh/iStock

“The Energy Transition Confronts Reality” 2023 1 23

- RePower EU
- 1960
- 2021
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- 100



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?? ?? · Sunday, May 28th, 2023



sasun bughdaryan/iStock

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### GX????????????????

?? ?? · Saturday, May 27th, 2023



PhonlamaiPhoto/iStock

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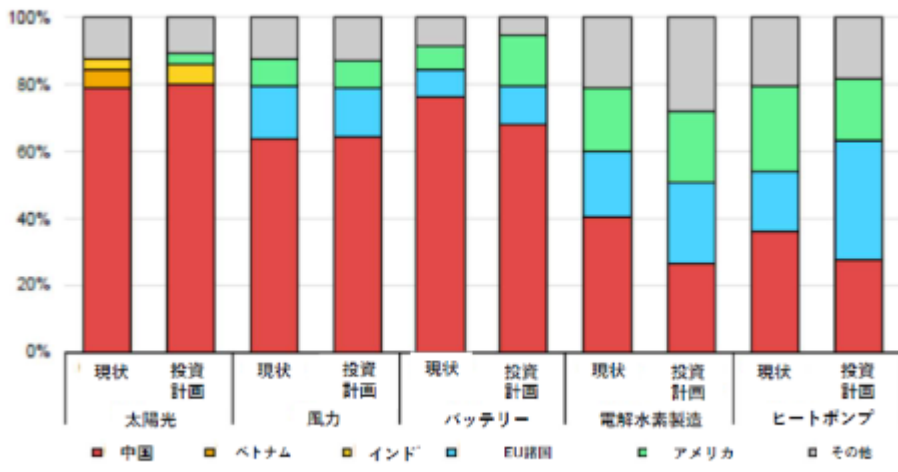
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図3. グリーン技術製造の地域集約度—現状と将来



出典：The State of Clean Energy Technology Manufacturing, IEA, May 2023

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???Twitter by True Science PEng, DFP, ADFS, MA, MBA

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?? ??? · Monday, May 22nd, 2023



Wikipedia??

**G7??????????**

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Allkindza/iStock

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**FACT SHEET: Biden-Harris Administration Proposes New Standards to Protect Public Health that Will Save Consumers Money, and Increase Energy Security**

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- EV1????????????????12,000????????????????????200????????????????????????????????
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- CO<sub>2</sub>??5000ppm????????????????????????1000ppm????????????????????
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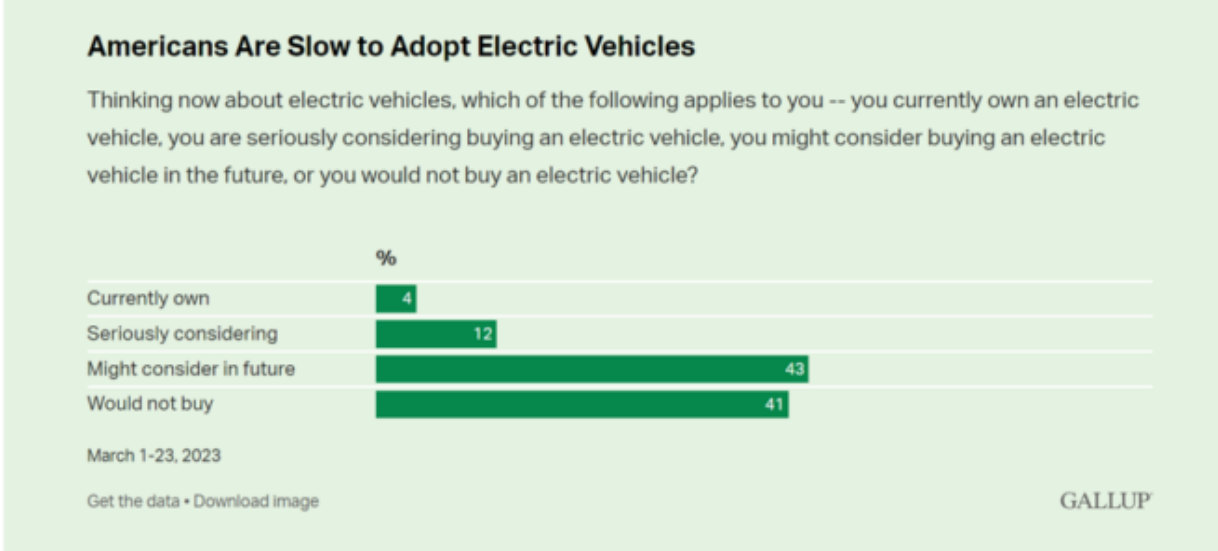
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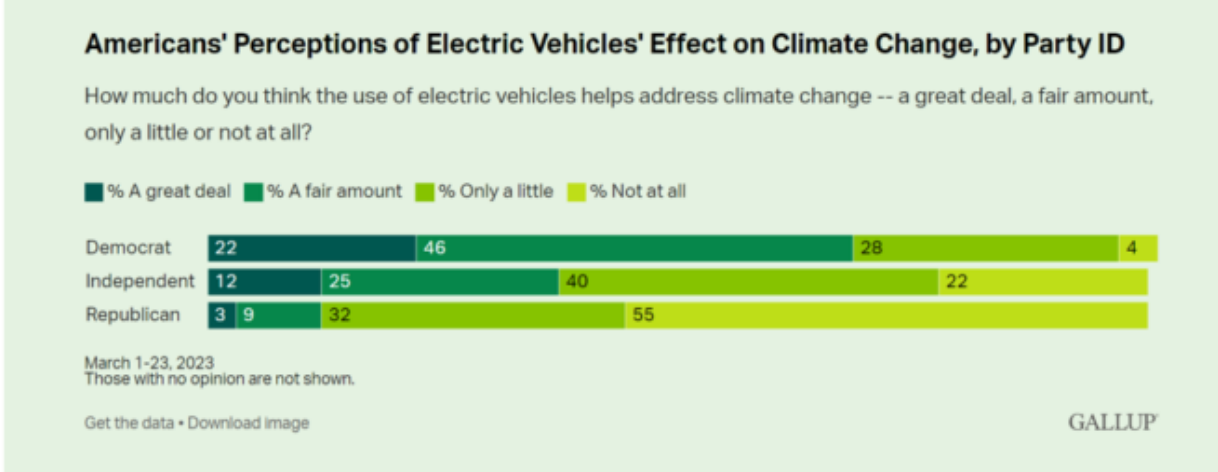
### Most Americans Are Not Completely Sold on Electric Vehicles

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- EV????????4????????????????12????????????????EV?????????
- ?????43% ?????EV????????????????????41% ?????????????



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?? ?? · Tuesday, May 16th, 2023



remotefx/iStock

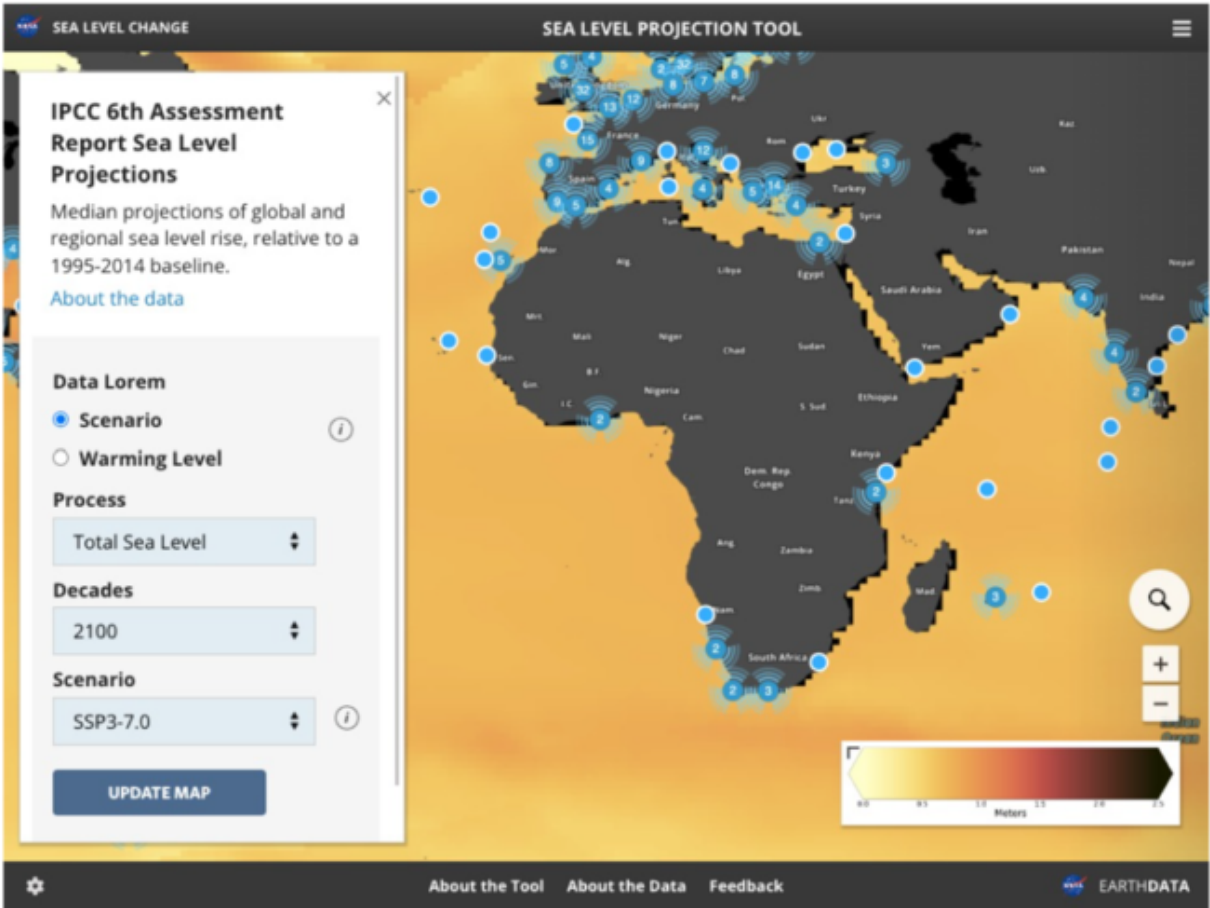
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IPCC??

## IPCC AR6 Sea Level Projection Tool

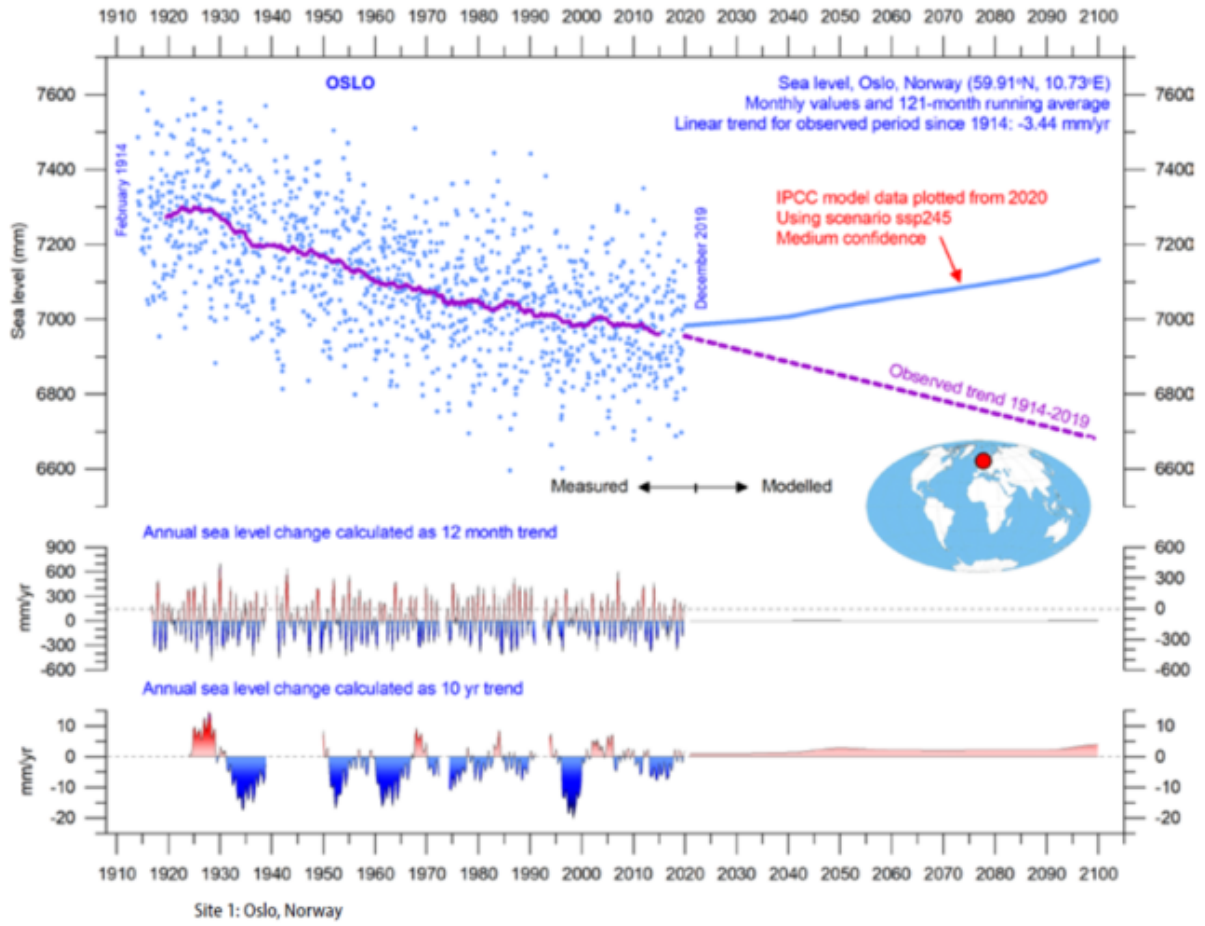




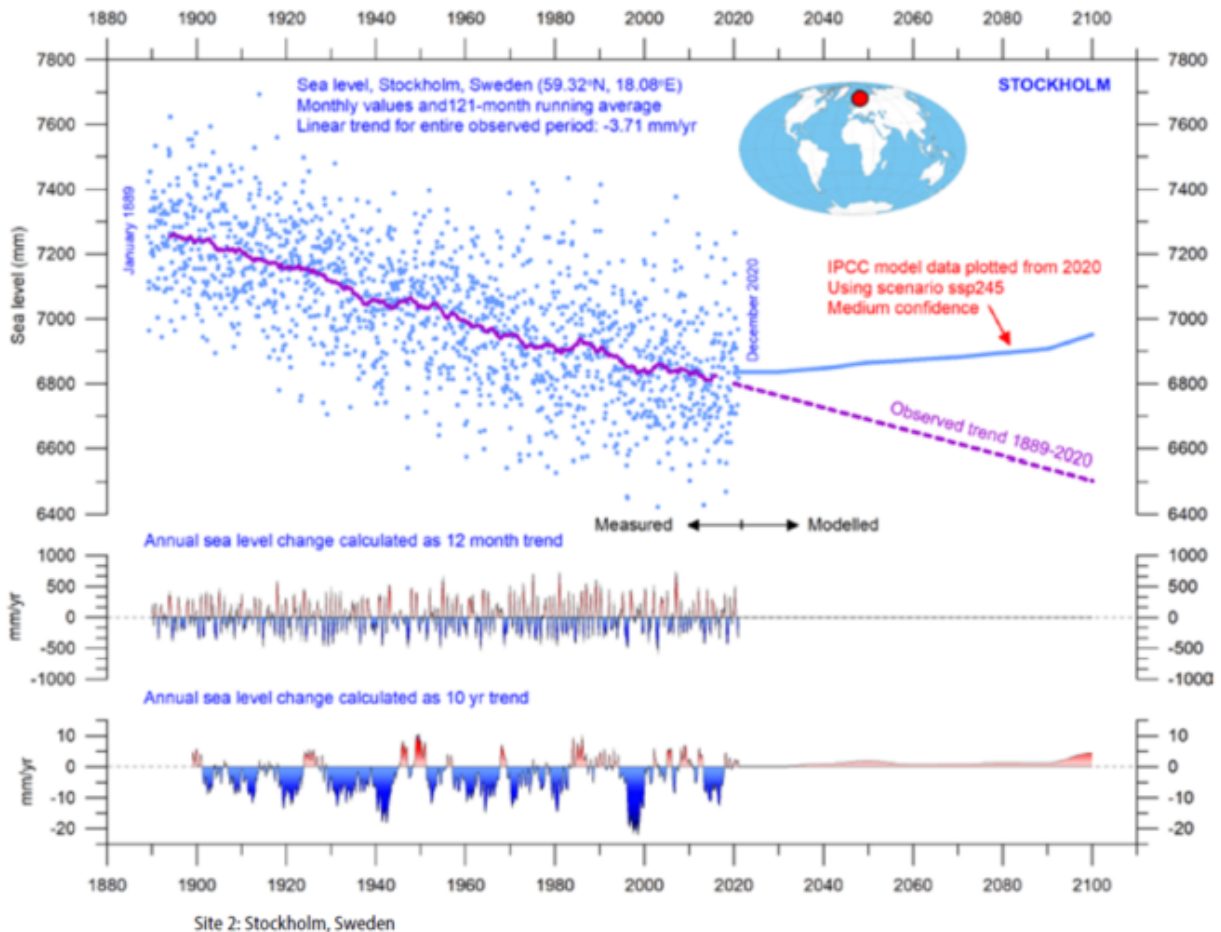
**IPCC AR6 Sea Level Projection Tool**

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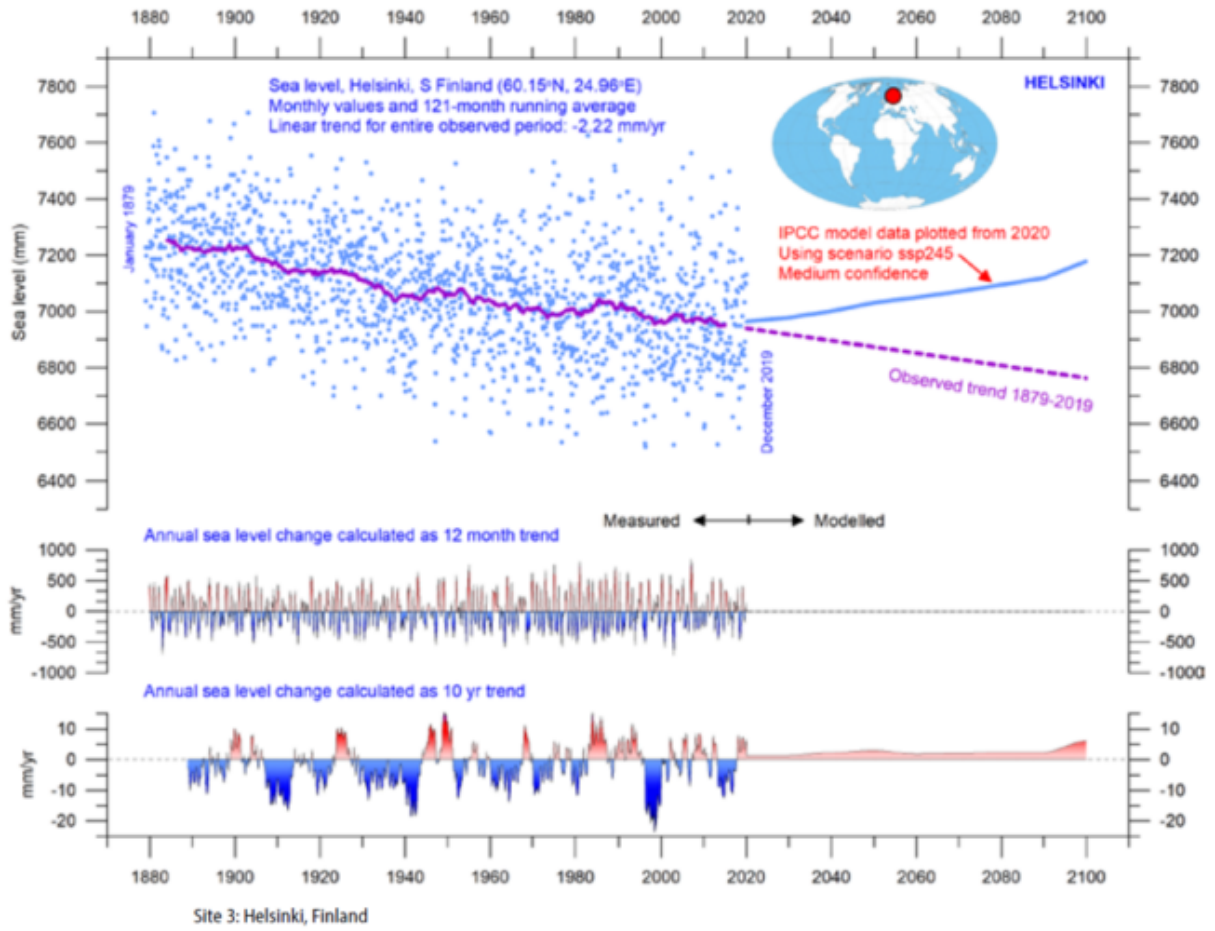
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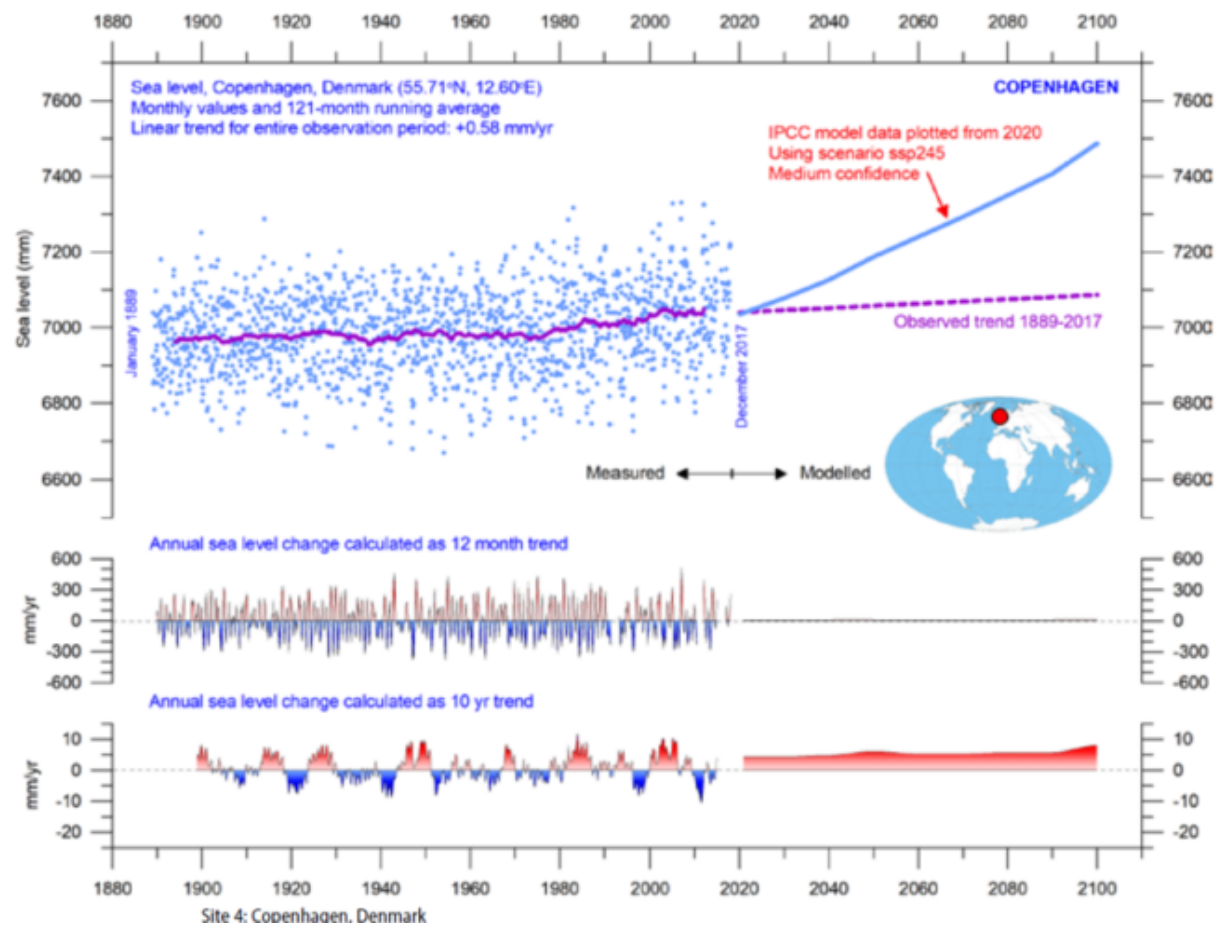
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**IPCC?????62????????????**

?? ?? · Monday, May 15th, 2023

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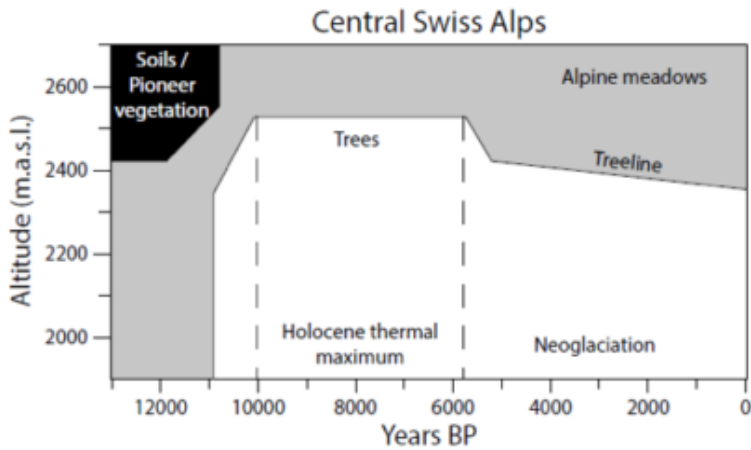


Figure 4: Fluctuations of the treeline in the Swiss Central Alps during the Holocene. The limits of the vegetational zones are placed between the sites according to the presence of the respective vegetation type as inferred by macrofossil analysis. Altitude in meters above sea-level. After Tinner & Theurillat 2003. Current treeline in the Swiss Central Alps is 150-200 m below Holocene Thermal Maximum treeline limit.

??Obliquity??  
??1850????????????????Ice Age??

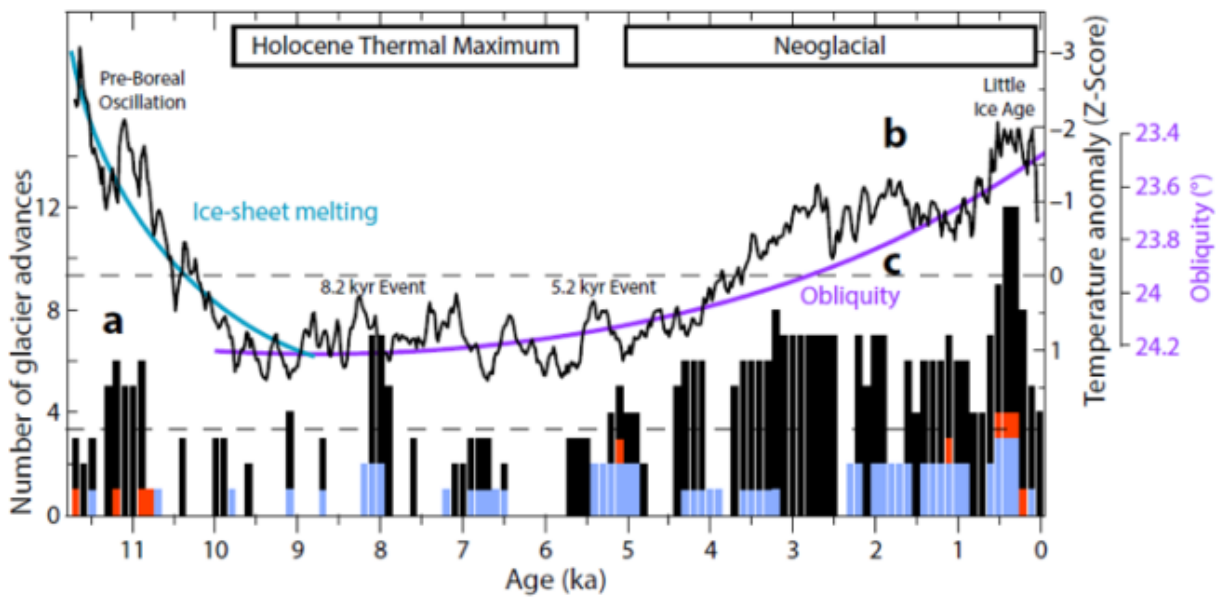


Figure 3: Glacial advances versus temperature (inverted) during the Holocene. a) Number of regions displaying glacier advances at each Holocene century. Black, NH 17 regions; orange, low latitudes single region; ice blue, SH 4 regions. Bottom dashed line, Holocene glacial position average. b) Inverted temperature reconstruction from the same 73 proxies used by Marcott et al. 2013. The reconstruction ends in 1910 and does not include modern warming. Temperature anomaly changes are expressed as Z-score (distance to the mean). Some well-known cooling periods or events are indicated by their accepted names. The period affected by the melting of the extra-Arctic ice sheets is indicated in aquamarine. c) Inverted changes in obliquity. Vinós, 2022, page 55.<sup>13</sup>

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Posted in ???, ????? | No Comments »

**IPCC?????61?????????????**

?? ?? · Sunday, May 14th, 2023

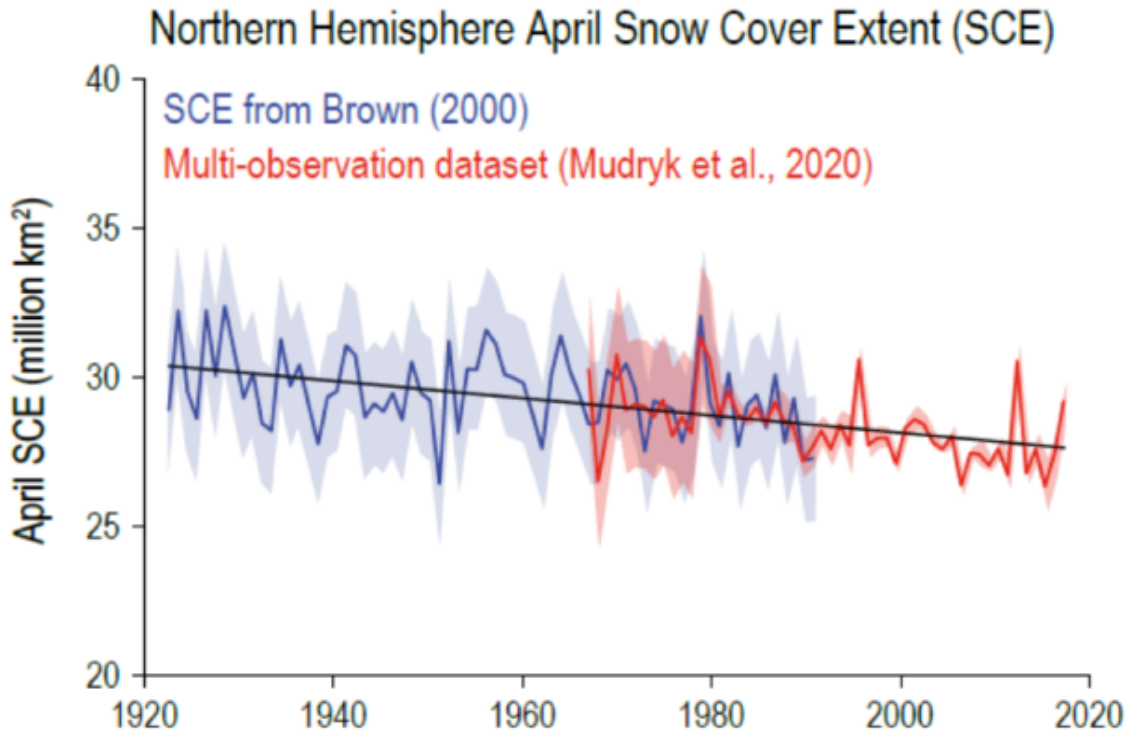


borchee/iStock

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IPCC??????4??????Snow Cover Extent, SCE??



**Figure 2:** April snow cover extent (SCE) for the Northern Hemisphere. From: AR6, chapter 2.

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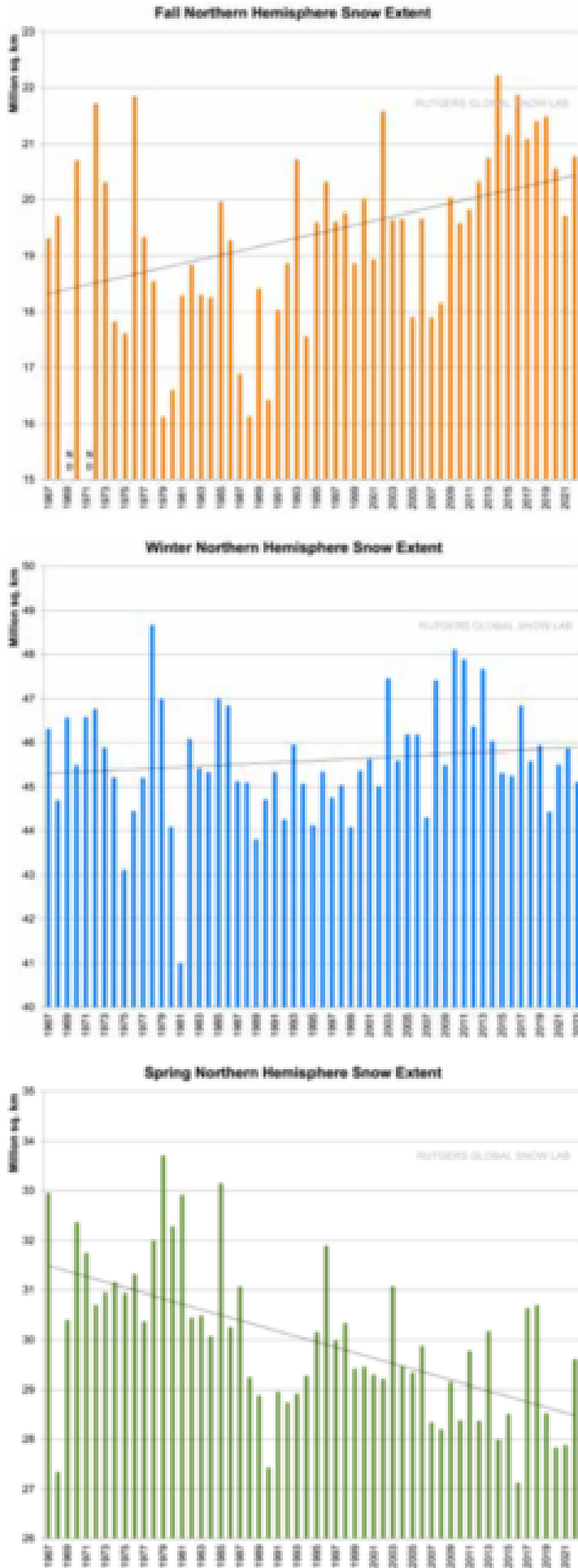


Figure 4: Snow cover extent (SCE) for the Northern Hemisphere for autumn, winter and spring. From: Rutgers Global Snow Lab (2023)

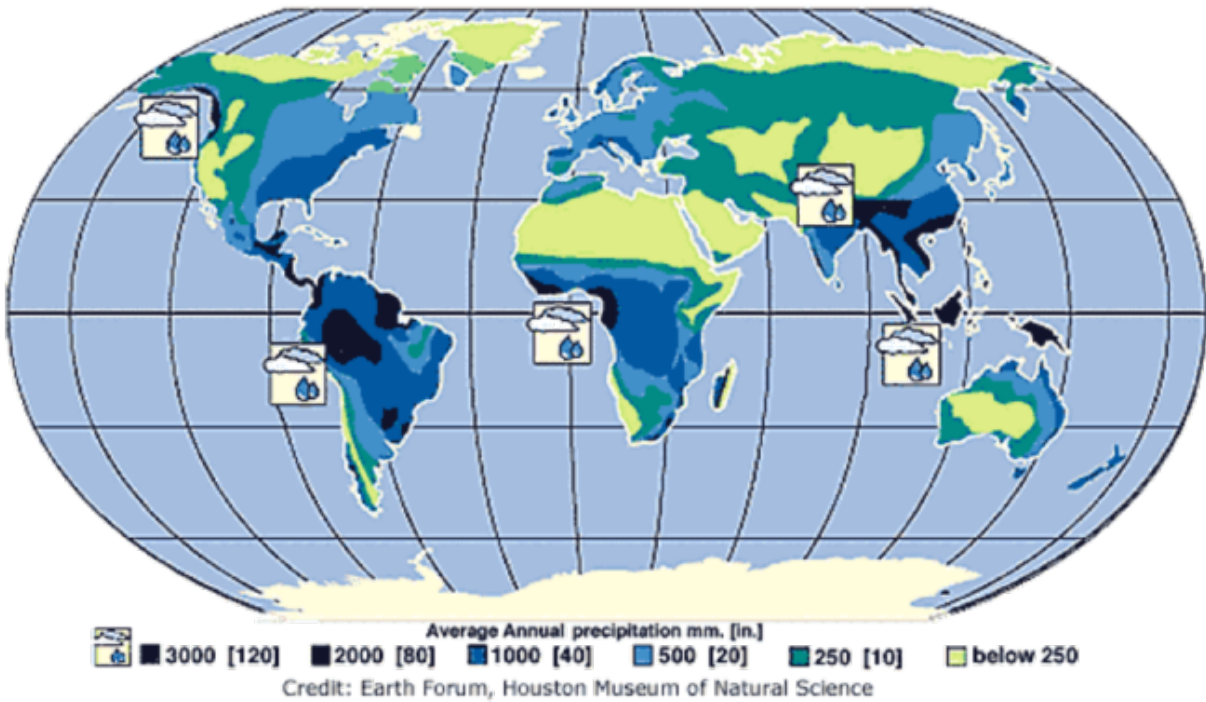
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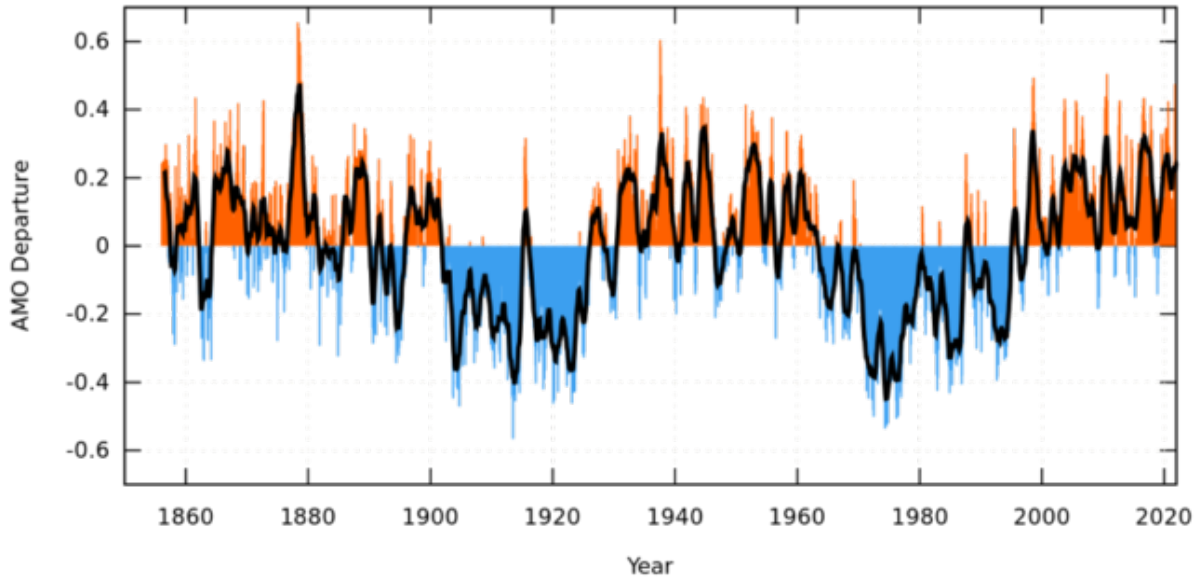
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Monthly values for the AMO index, 1856 - 2022



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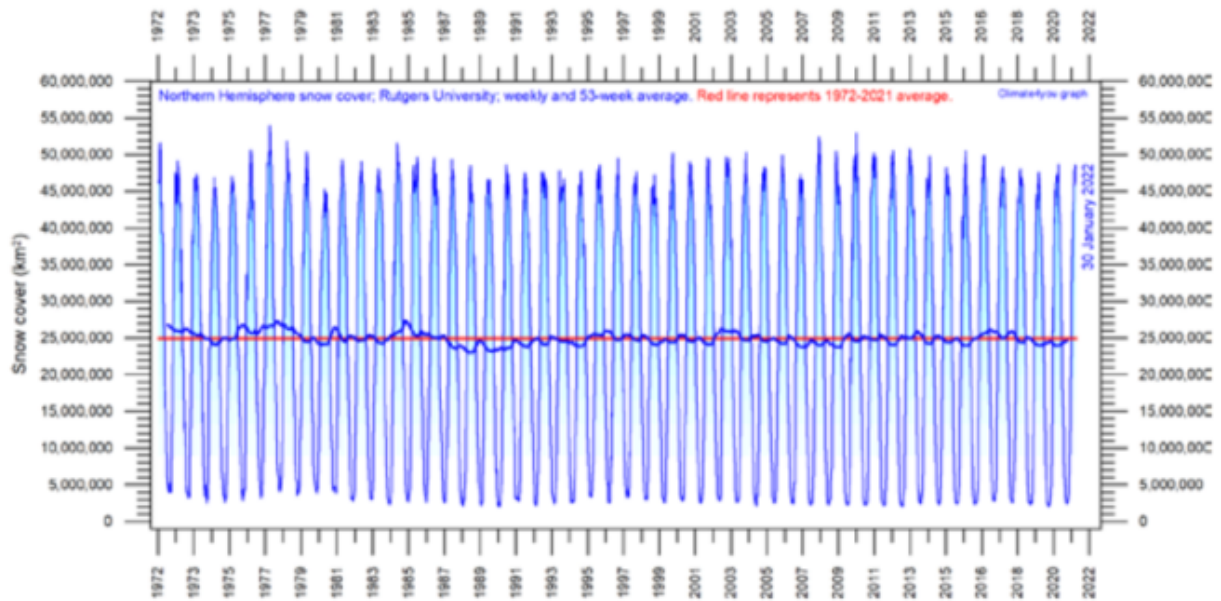


Figure 7: Northern hemisphere weekly snow cover since January 1972 according to the Rutgers University Global Snow Lab (<http://climate.rutgers.edu/snowcover>), the thin blue line is the weekly data, and the thick blue line is the running 53 week average (approximately 1 year). The horizontal red line is the 1972-2021 average. Last week shown: week 1 in 2022. Last figure update: 11 January 2022. Source: Ole Humlum, climate4you.com

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Posted in ???, ????? | No Comments »

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?? ??? ?? · Thursday, May 11th, 2023



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Posted in ???, ?? | No Comments »

# RFK Jr.?2024????????????????????

?? ?? · Wednesday, May 10th, 2023



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kennedy24.com??

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Posted in ???, ?? | [No Comments »](#)

## 2023??ESG????????

?? ?? · Saturday, May 6th, 2023



Kanur Ismail/iStock

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**??????ESG????????????????????????????????2023?5?3??**

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initiative??NZBA????????19????????????  
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2023????????EU????????????????????????????????????2035?EV????????????????????????????????????ESG???



ESG ESG 19 ESG

2024

CO2

年	日本	米国
1997年	▲6% (橋本政権)	▲7% (クリントン政権)
2015年	▲26% (安倍政権)	▲26% (オバマ政権)
2021年	▲46% (菅政権)	▲50~52% (バイデン政権)

CO2

CO2 CSR

2021 2021 4 46% 2024 ESG

ESG ESG

CO2

ESG CO2 CO ESG

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SDGs

Posted in ??????????, ??? | No Comments »

# EU?EV????????????????e-fuel????

?? ?? · Sunday, April 30th, 2023



a-image/iStock

## EU?EV?????

????EU????????????2035????????e-  
 fuel????????????EU?EV????????EU?????  
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e-  
 fuel????H<sub>2</sub>????CO<sub>2</sub>????  
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Development Impact Meetings????????????????????????

UN Secretary for Global Comms says we “own the science” on “climate change,”  
and we think that “the world should know it.”

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?????e-fuel??????

??e-fuel?????CO<sub>2</sub>?H<sub>2</sub>?????Fischer-  
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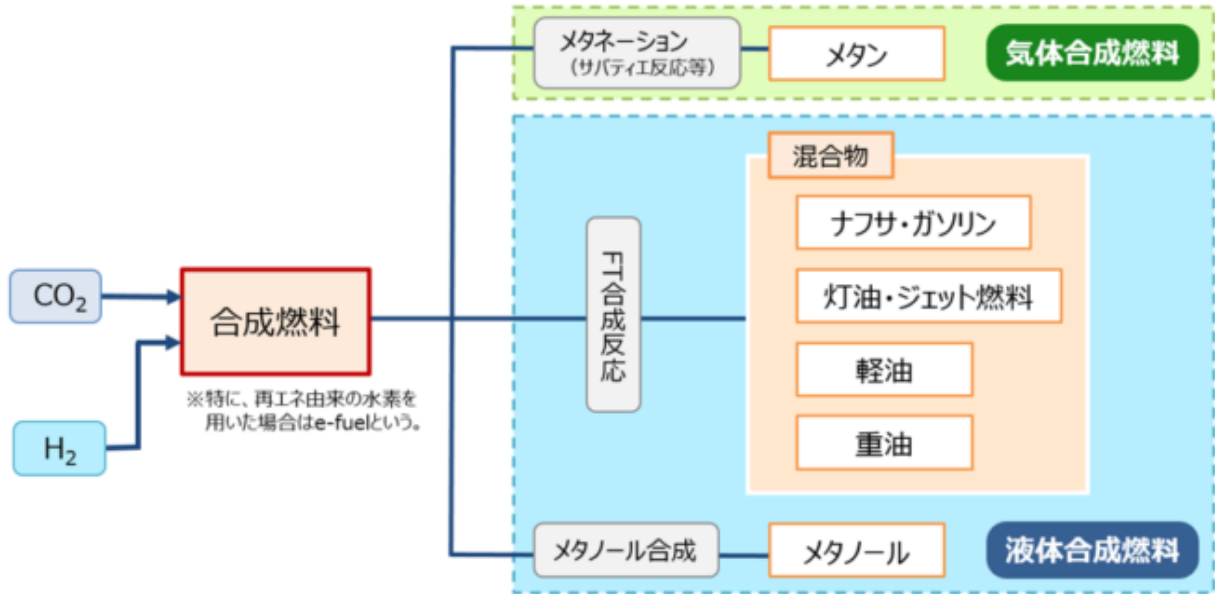
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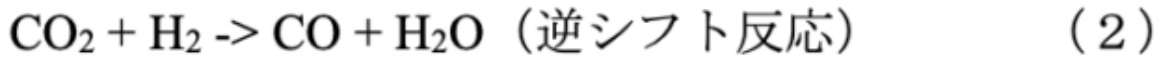
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e-fuel??e-fuel  
1????????300?700????????????2030????????????????????30?/Nm<sup>3</sup>?20?/Nm<sup>3</sup>????????????????e-fuel????????????????????

H <sub>2</sub>	CO <sub>2</sub>	製造コスト		合計	ケース
100円/Nm <sup>3</sup> × 6.34Nm <sup>3</sup> /L	5.91円/kg × 5.47kg/L	33 円/L	33 円/L	約700円/L	国内の水素を活用し、国内で合成燃料を製造するケース
$(\frac{32.9 \text{円/Nm}^3}{+} \frac{14.65 \text{円/Nm}^3}) \times 6.34 \text{Nm}^3/\text{L}$	32 円/L	33 円/L	33 円/L	約350円/L	海外の水素を国内に輸送し、国内で合成燃料を製造するケース
$32.9 \text{円/Nm}^3 \times 6.34 \text{Nm}^3/\text{L}$	32 円/L	33 円/L	33 円/L	約300円/L	合成燃料を海外で製造するケース
$20 \text{円/Nm}^3 \times 6.34 \text{Nm}^3/\text{L}$	32 円/L	33 円/L	33 円/L	約200円/L	将来、水素価格が20円/Nm <sup>3</sup> になったケース

※NEDO「CO<sub>2</sub>からの液体燃料製造技術に関する開発シーズ発掘のための調査（2020.8）」の結果に基づき試算。

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Posted in ??????????, ??, ?????????? | No Comments »

### G7????????????????????

?? ? · Tuesday, April 25th, 2023

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Posted in ??????????, ??? | [No Comments »](#)

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?? ?? · Monday, April 24th, 2023



nndanko/iStock

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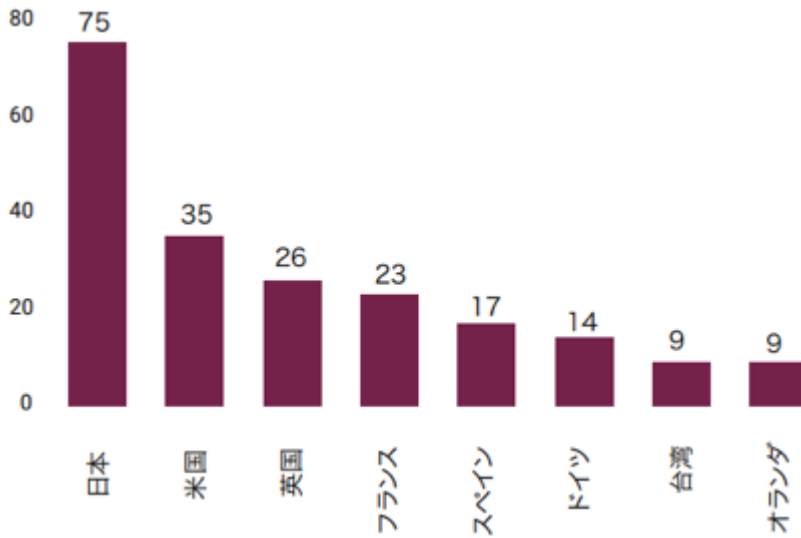
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# 気候変動 Aリスト 2022

Aリスト国・地域別企業数(上位8か国)



1) CDP A 2022  
 CDP 2022 6

2022 6 8 SDGs Google SDGs CDP 1

CDP 4  
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 CDP

CDP CO2 CO2 Tier1  
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CO2

(a)会社名	(b)調達金額 (円)	(c)各社の売上高 (円)	(d)各社の CO2 排出量 (トン)	(e)=(d) × (b) ÷ (c) (トン)
A社				
B社				
C社				
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1 Tier1 CO2

a b Tier1

c d CO2

a d e d × b ÷ c CO2 Tier1

2021 6 2022 3 5

CO2

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A CO2 1 CO2 100 500 1000

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Posted in ??????????, ??? | No Comments »

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?? ?? · Sunday, April 16th, 2023



deepblue4you/iStock

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Posted in ??????????, ??, ?? | No Comments »

# Hydrogen

Friday, April 14th, 2023



Leestat/iStock

2017 6 15 15

2021 15

CO2

Hydrogen  
 Hydrogen

CO2 H2O CO2

IT

60 60 2 36 64 40

CO2

km

2017 5 1 138

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1000

2 EV

CCUS

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Posted in ??????????, ??? | [No Comments »](#)

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Posted in ????????????, ???, ?? | No Comments »

### ????????????????

?? ?? · Sunday, April 9th, 2023



Hello my names is james,I'm photographer./iStock

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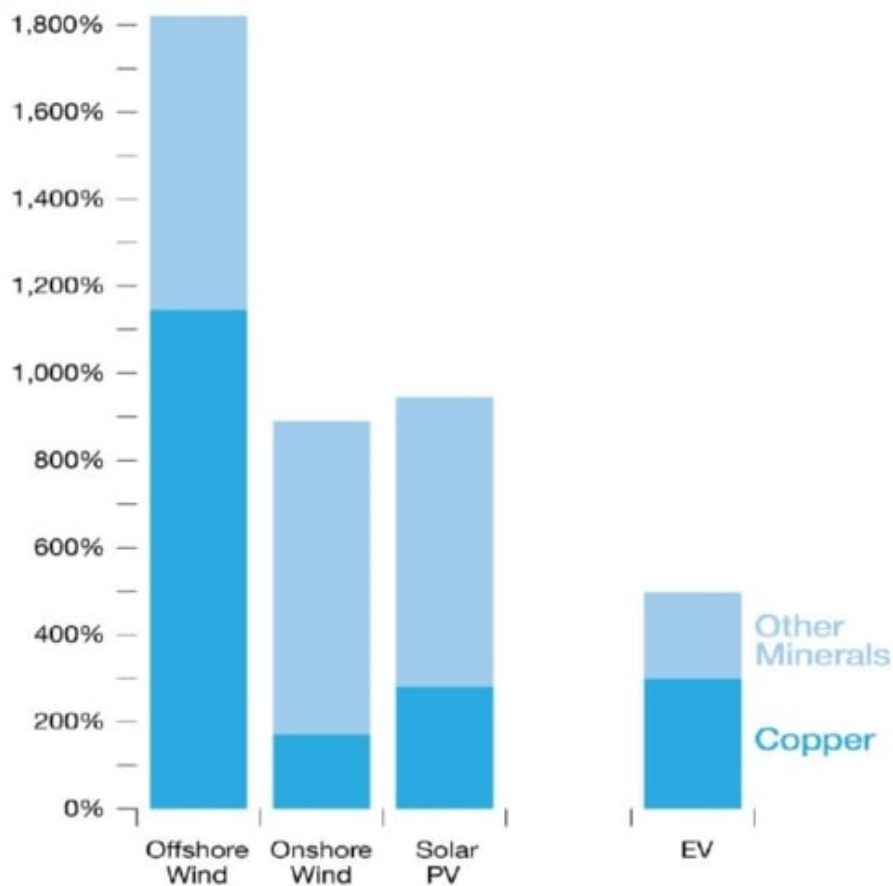
2050??  
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1. ??????????????????????????????

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Mineral Demands for Solar, Wind, and EV to Replace Hydrocarbon Machines

Increased Weight per Watt or per Car



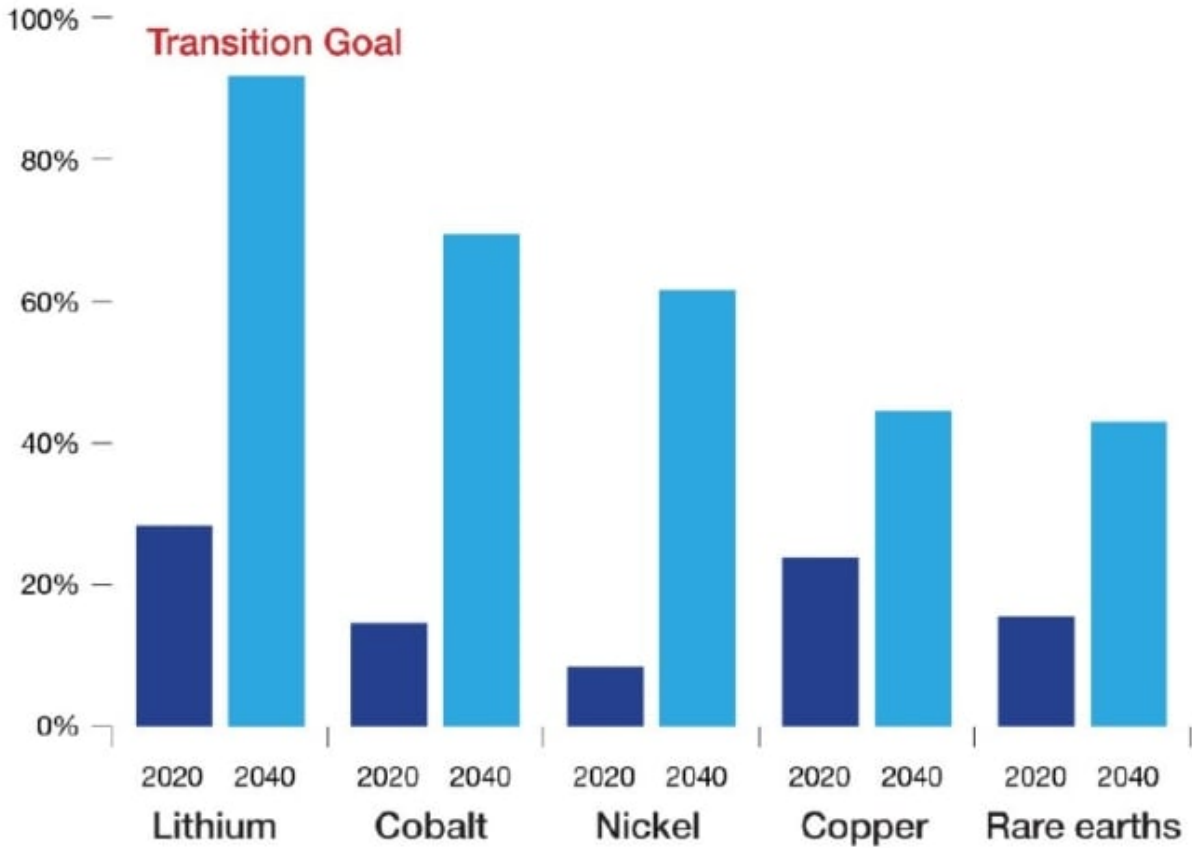
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2. ??????????????????????????????

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### Energy Sector Share of Mineral Demands for All Purposes

Share of All Uses

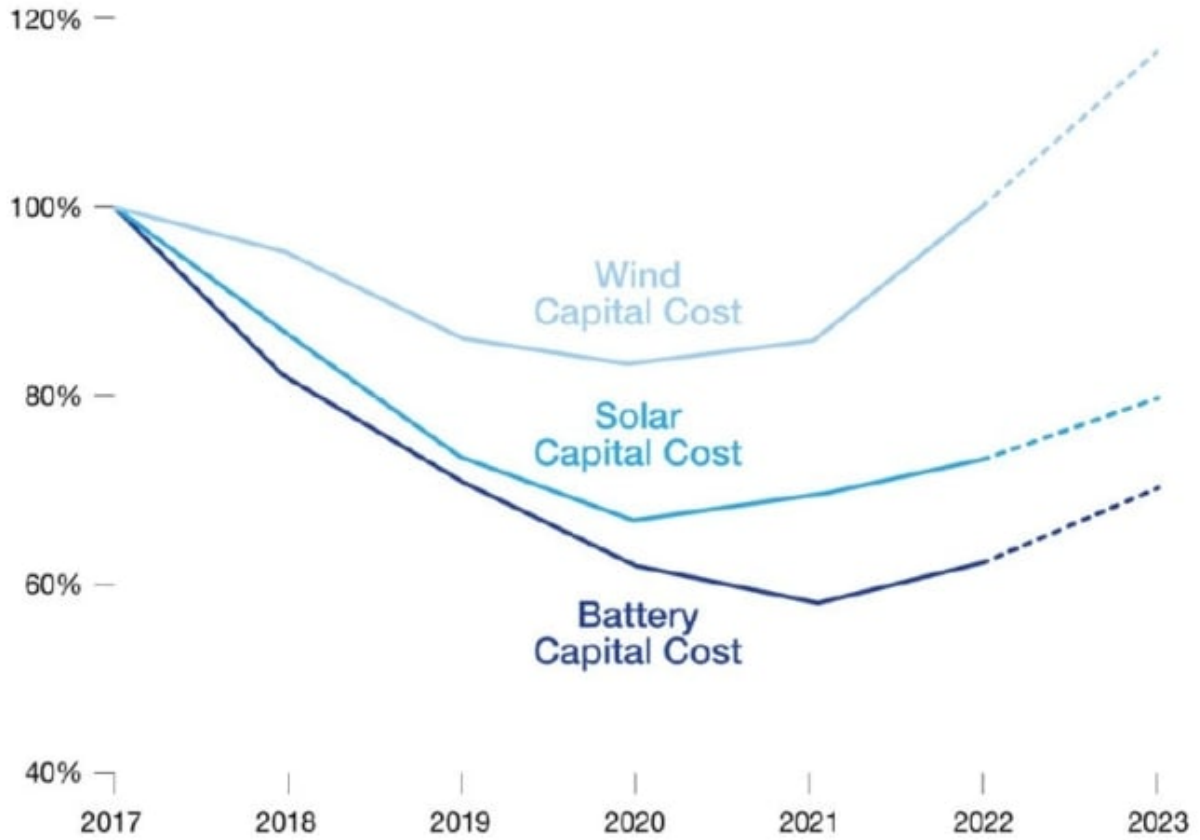


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### 3. ???

### Costs of Wind, Solar, and Battery Hardware

Change from 2017

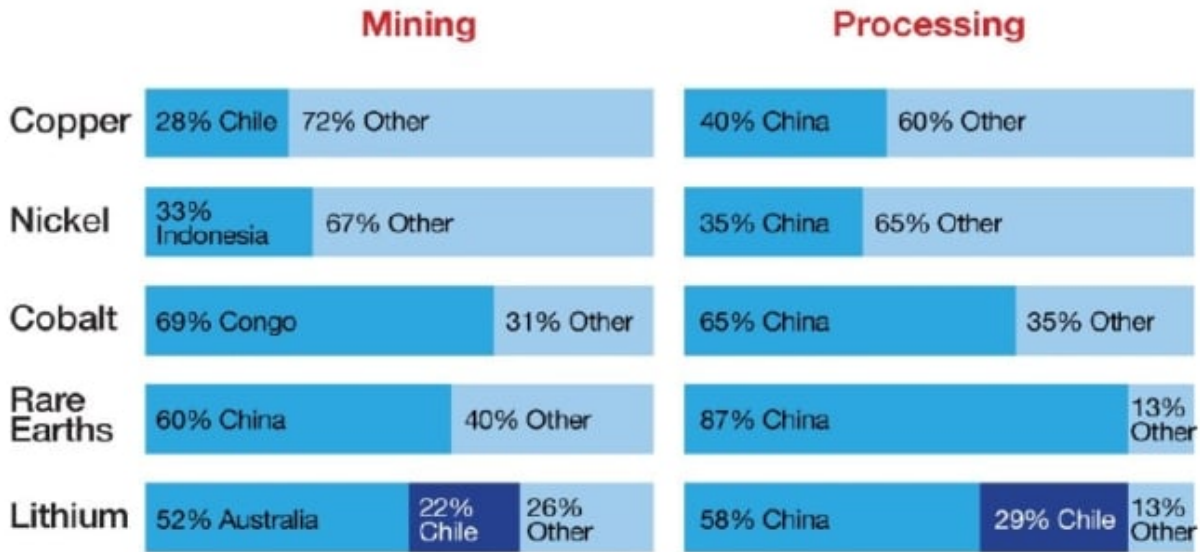


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### Sources of Key Energy Transition Minerals



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Posted in ???, ?????? | No Comments »

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?? ?? · Saturday, April 8th, 2023



HiddenCatch/iStock

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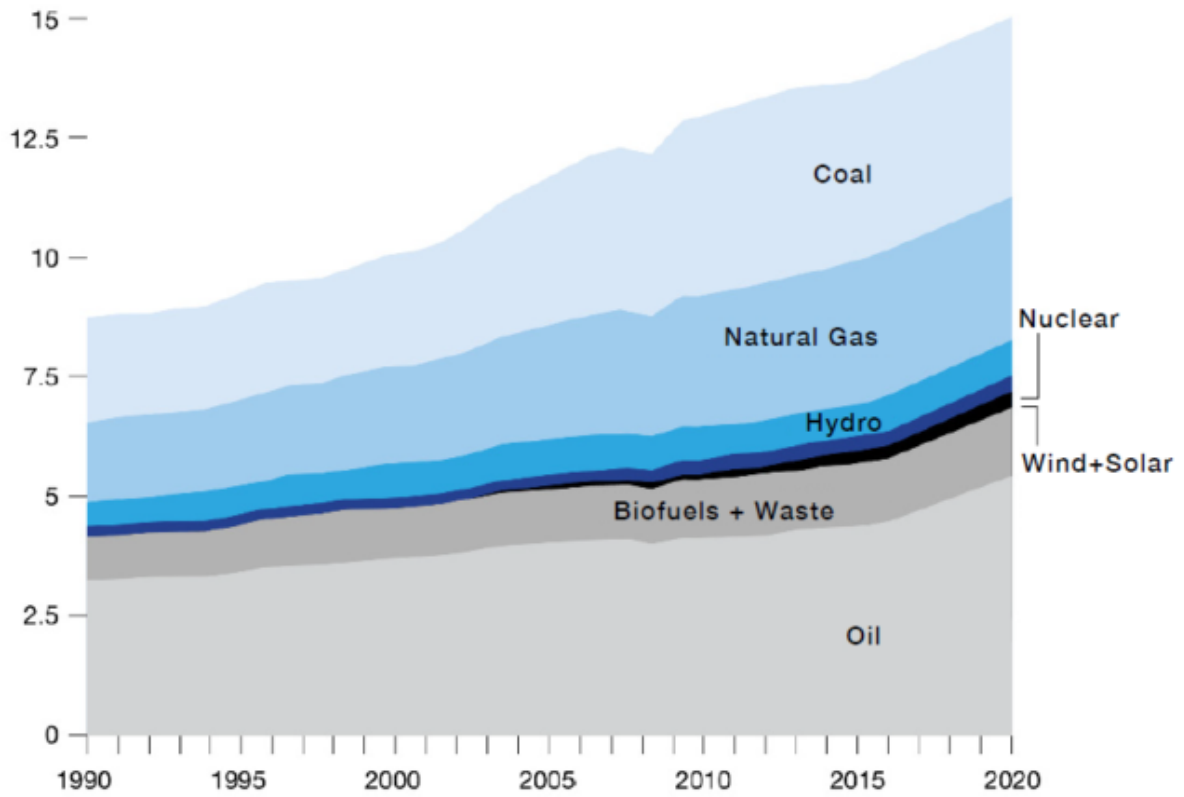
2050??

**1. ?????????????????????**

??10??

# Growth in Global Energy Supplies

Oil Equivalent (Billion Tons/Year)\*



## 2. ???????????????

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??10???????

??60??????????????5??100????80????????????????????100???

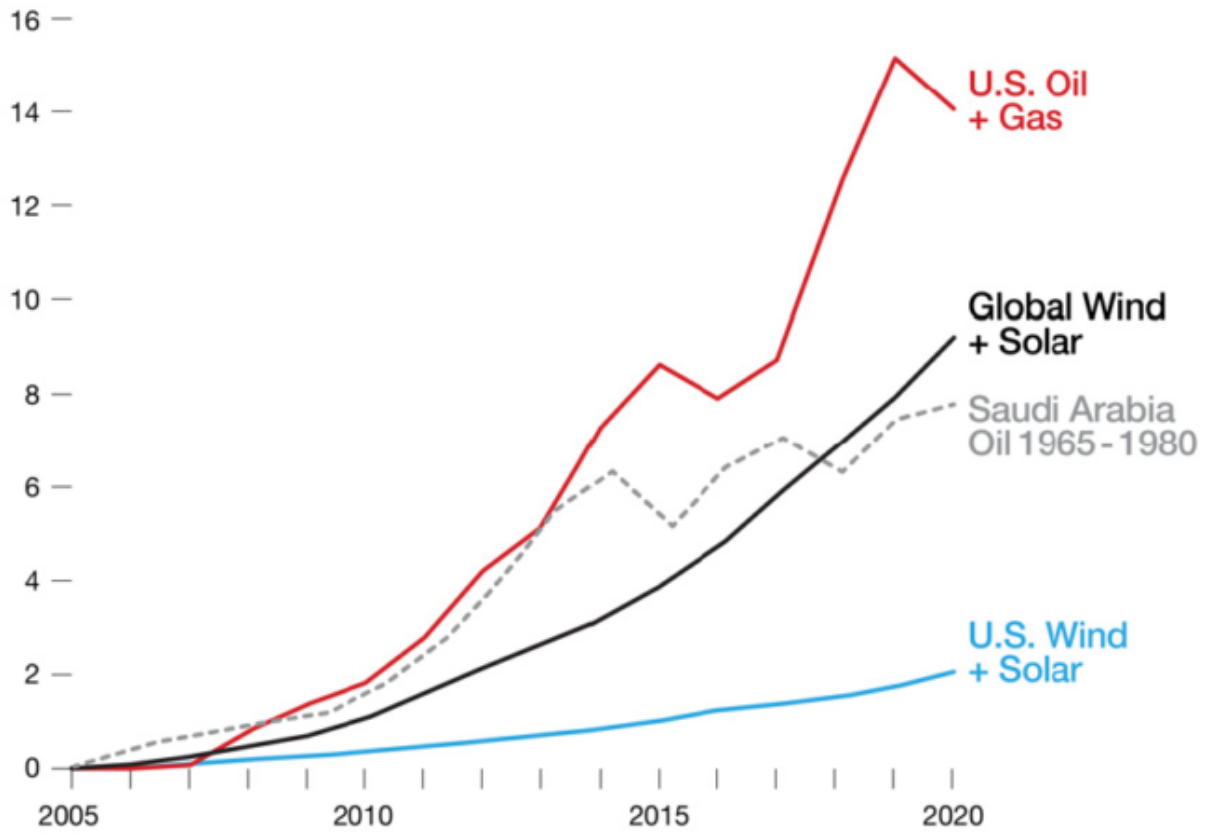
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### Growth of Shale Energy vs. Wind+Solar 2005–20, Compared with Saudi Arabia Oil 1965–80

Increased Production (Million BOE/Day)

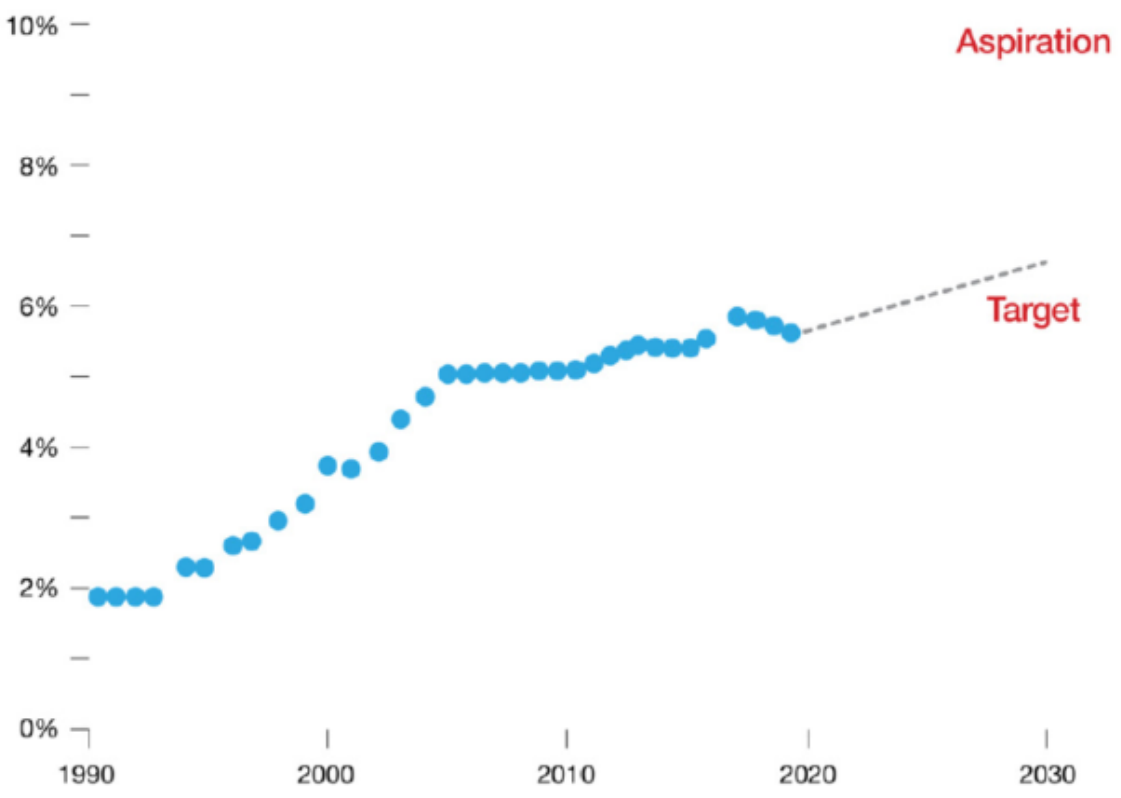


#### 4. ?????????????????????

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Battery Energy Density\* (% of Gasoline Density)



\*Note: Density comparison incorporates the doubly superior efficiency of a battery+motor vs. gasoline+engine.

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