

Global Energy Policy Research | GEPR

GEPR <http://agorajp.com/>

Monday, August 28th, 2023

Monday, August 28th, 2023



dima_zel/iStock

GCR PDF 12 16 5

50

1997 GCR GCR

CO2 IPCC

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R?????C¹⁴??

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cycles????????GCR????????GCR????????????????????????????
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??????Fig.
1?GCR????????0?3????????8????????1?????????Fig.
2????????GCR????????5?6?7?8????????
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?????????GCR cycles?????????Fig. 3?????????Fig.
S5????????GCR????????GCR????????GCR????????
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Fig.
4????????GCR????????????????3????????????

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

????????”???? “????????

?? ?? · Sunday, August 27th, 2023

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????????IPCC????????1.5????????1.5????????
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Don't overstate 1.5 degrees C threat, new IPCC head says

????????Woke,

Inc.: Inside Corporate America's Social Justice Scam??

Vivek Ramaswamy says the 'climate change agenda' is a hoax

??Climate Change isn't Everything??

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???2022????????????????????????????????????1600????????????????????????????????WORLD CLIMATE DECLARATION????????????????????

Nobel Prize winner Dr. John F. Clauser signs the Clintel World Climate Declaration

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IPCC????63????????????????????

????????2019923????????????????????????????????????500??
??1600????????

????6????????????????

- Natural as well as anthropogenic factors cause warming
- Warming is far slower than predicted
- Climate policy relies on inadequate models
- Global warming has not increased natural disasters
- Policy must respect scientific and economic realities
- CO2 is not a pollutant. It is essential to all life on Earth. Photosynthesis is a blessing. More CO2 is beneficial for nature, greening the Earth: additional CO2 in the air has promoted growth in global plant biomass. It is also good for agriculture, increasing the yields of crop worldwide.

Posted in ???, ????? | No Comments »

??????10????????????

?? ?? · Saturday, August 26th, 2023

??1????????????10????????????????????
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1g??880?????



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

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?? ?? · Thursday, August 24th, 2023



NithidPhoto/iStock

2023?8?22????????????????9????????????????????



????????????????????9??



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GX??

2022?3?15????????????????????



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GX??CO2??
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?SDGs????????

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

?????2????????CO2????????????????????????????

?? ?? · Tuesday, August 22nd, 2023

?????CO2??

??CO2??
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????????????????EPA????????????????”State Farm”????????????????????????????????????

? State Farm Test: ???

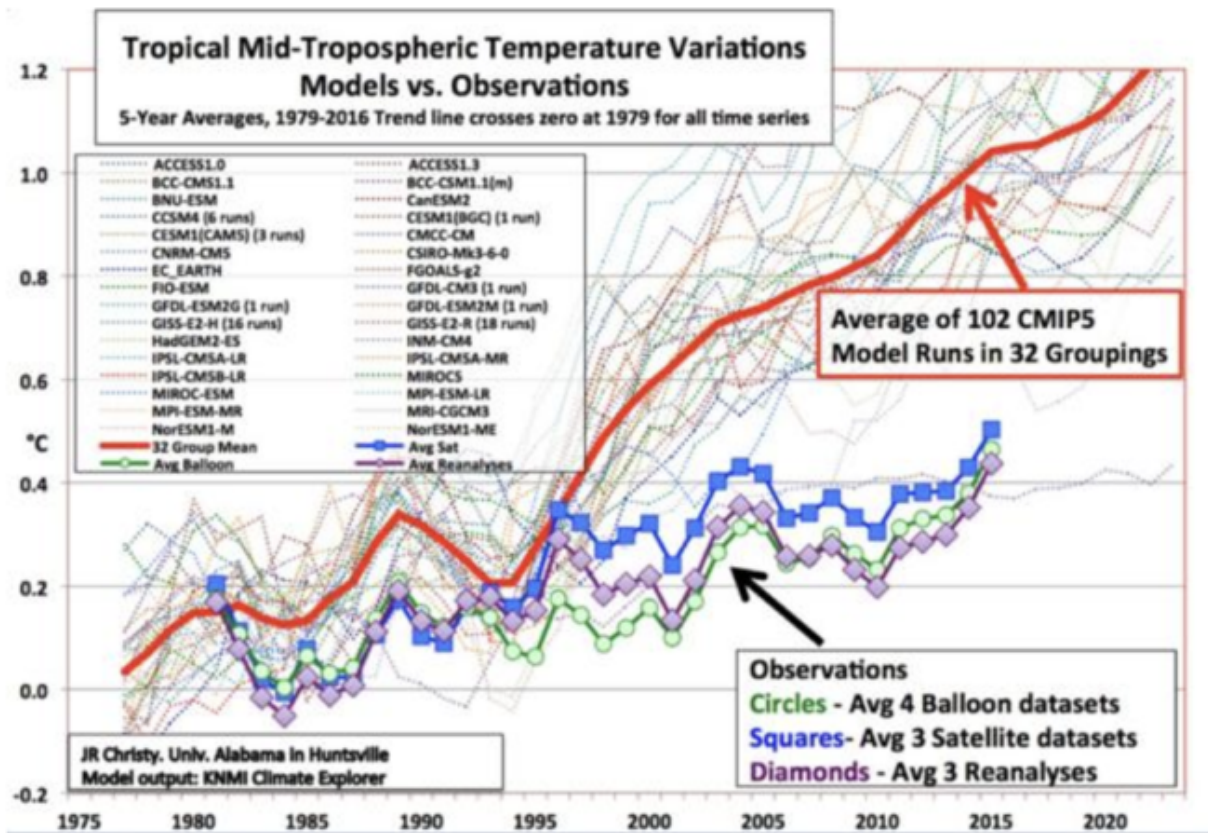
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1. EPA????????????????????????????????????
2. EPA????????????????????????IPCC??
3. ?????????????????????????

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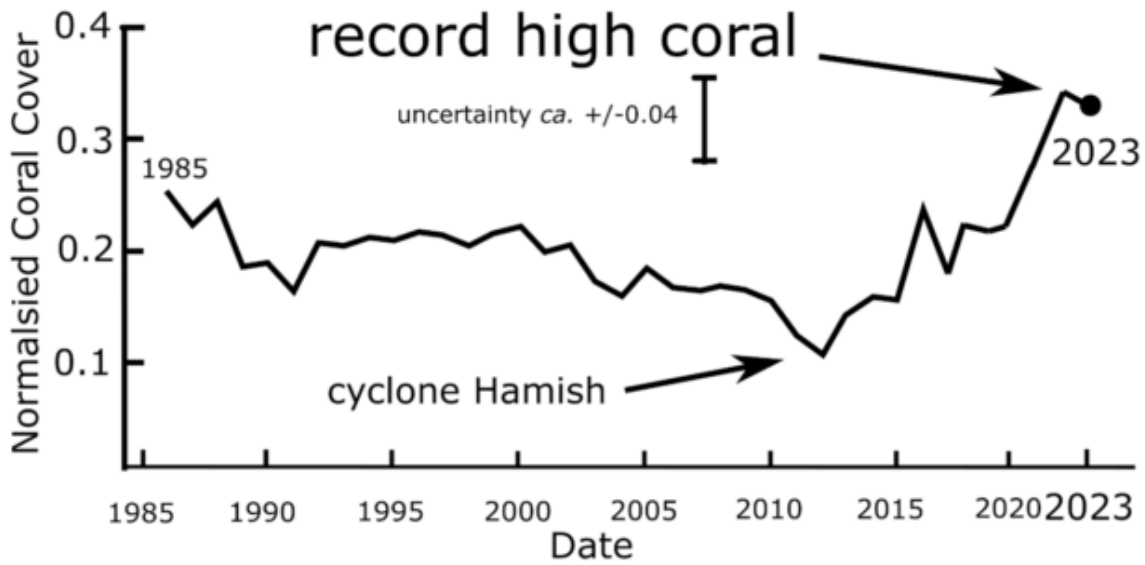
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2023??

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2022??
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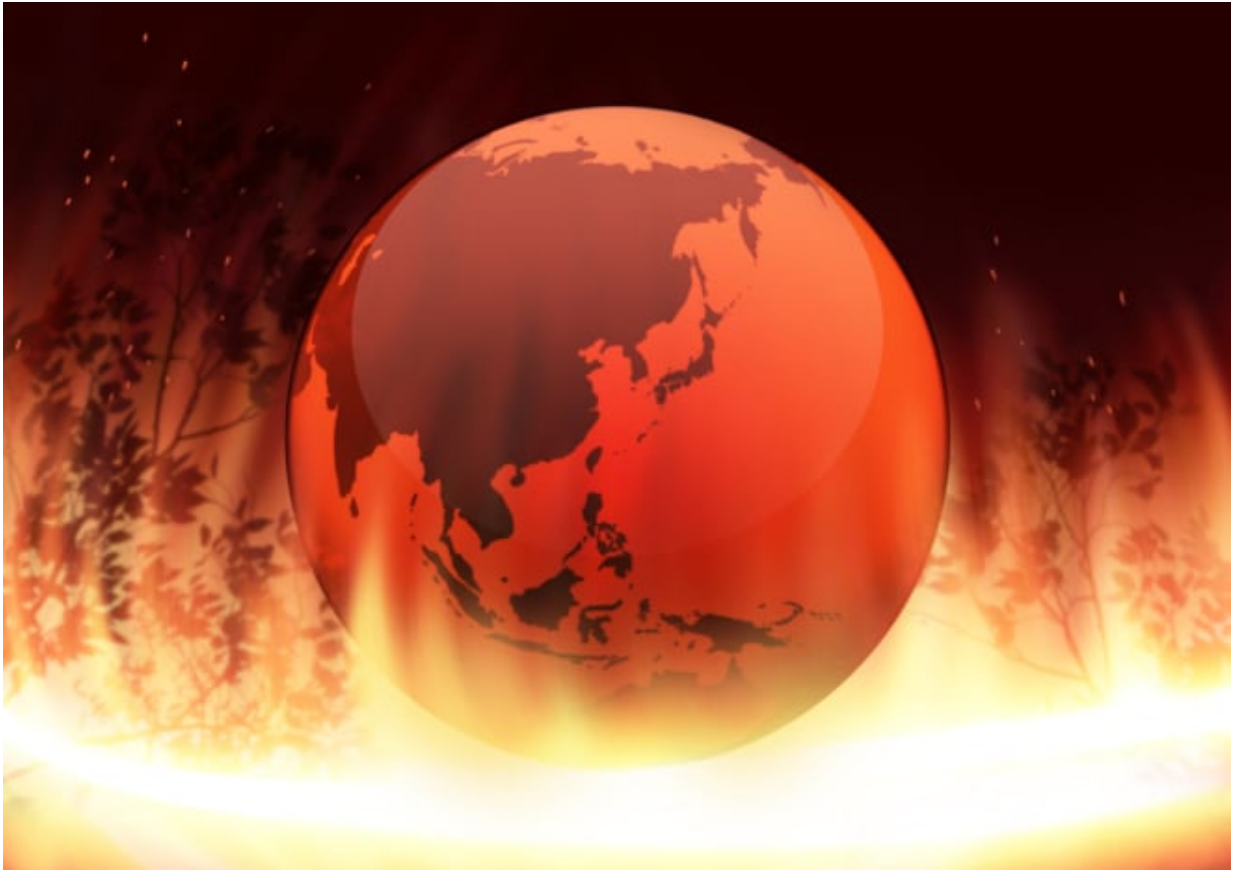
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Tr6/iStock

global warming global boiling

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2023 “”

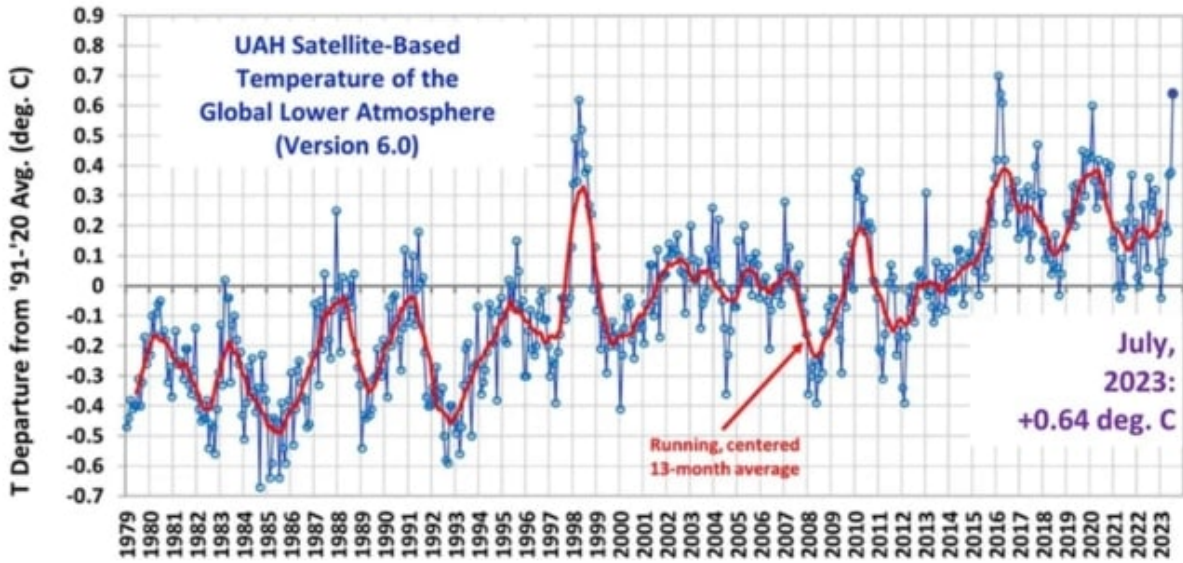
100 15 100

50 5

BBC 1

Climate Etc.

9000 UAH



3

Climate Etc.

2023

1 7

2 1 3

2023 4 1 2 1 7



CO2
CO2

CO2
CN

CN

20
95

CN

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CN
CO2
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CN

2009
4
14
S. Matsuda?“ Validity of Bio-Ethanol as a Countermeasure against Global Warming”, J. Environ. Inf. Sci. , Vol.37, No.5, pp.1-6 (2009.3)?

CO2

CO2
CO2
2-09
p.55
Table 2?

HP
Vol.44
vol.37

CO2
4
12
4
12
2009
2011

or

??14????????????????????????????
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??CO2??
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??CN????CO2????????????

??1981????????????????4?10??pp.
949-954??
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????1????2????3????4????????????????????????????????

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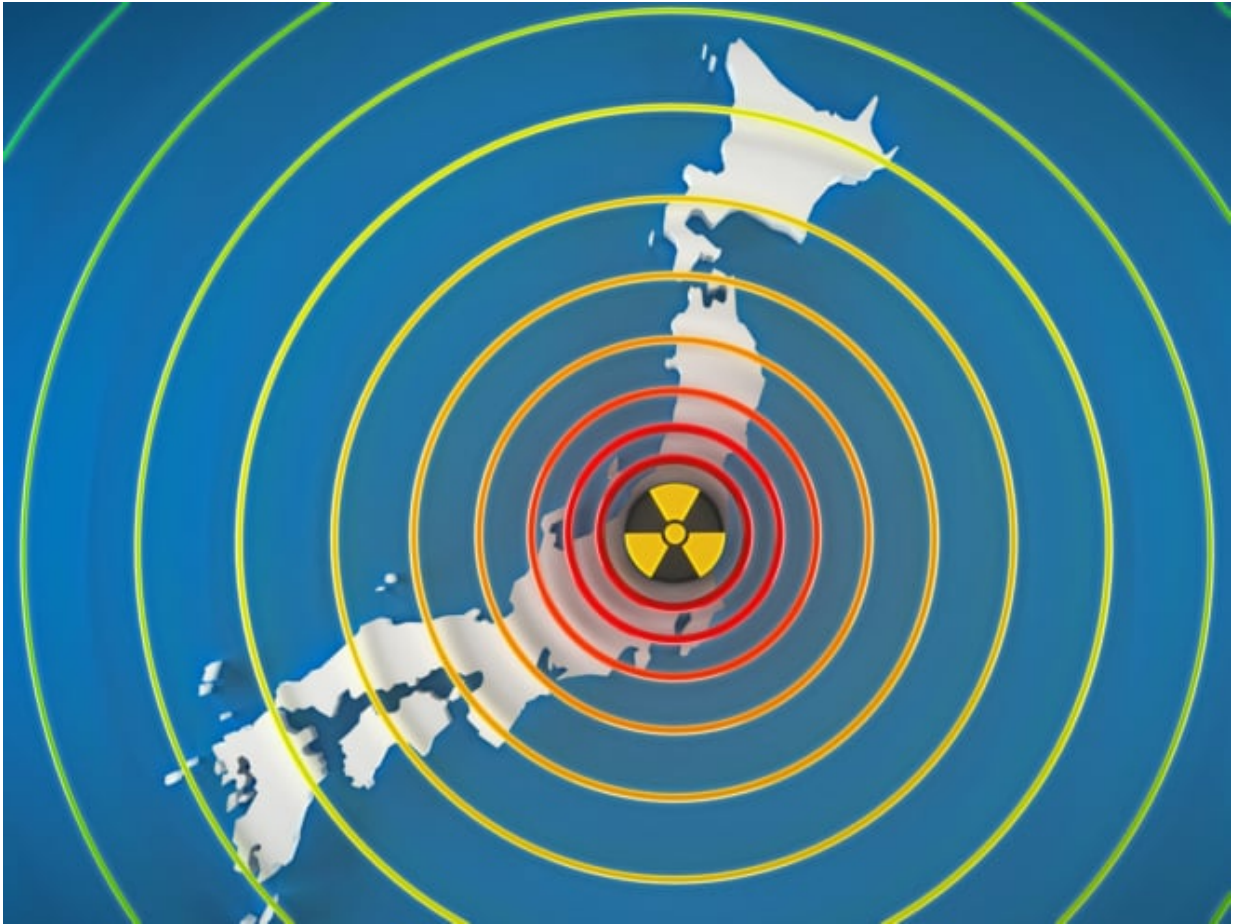
??3????????????
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Posted in [??](#), [????????](#) | [No Comments](#) »

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?? ?? · Thursday, August 3rd, 2023



adventr/iStock

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← ツイート



村本大輔(ウーマンラッシュアワー)
@WRHMURAMOTO



事故があった時、地元の人だけじゃなく日本中が被爆しますように

NHKニュース @nhk_news · 7月28日

福井県にある関西電力の高浜原子力発電所1号機が、28日午後、原子炉を起動し、12年ぶりに再稼働します

www3.nhk.or.jp/news/html/2023...

#nhk_video

高浜原発1号機 きょう午後 再稼働

AI自動音声でお伝えしています

福井

資料

▼12年ぶり再稼働 来年運転開始から50年

▼運転期間 原則40年超え再稼働 2例目

NHK 0:28

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/Mark?I????????????????????PWR??
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Posted in ???, ??, ????? | No Comments »

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?? ? · Monday, July 31st, 2023

7?22????G20??2022????????????
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NHK??

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others????

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1.52050COP???

G7???

2050???

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G7G20???

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2030???

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3G20G72030150GW1TW???

COP27???

G2012COP28???

UAE??

2030???

2030???

2030???

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G20???

G201.5???

1.5???

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

AR6 COP26 1.5 IPCC 2014 5
AR5 2021 1.5

2 1.5 2 2 67 1.5 5
0 1.5

1.5 2 1.5 1.5 5
1.5 2 1.5

1.5 2 67
IPCC 1.5

AR 6-
SPM GHG

1.5 2019 500 CO₂e 1150
21

2020 50 GHG 1.5 10 23 7

IPCC 1.5 2 0.5
650

AR 6-
SPM Table SPM.1 2 2050 2019 64 2030
21 2070 Table

SPM.1 1.5 2030 43 2050 84 22

1.5 1.5 50 1.5
0.2 0.3

AR6 1.5 1.7 1.8 1.5
500 500 1.5 1150 2 825
825 GHG 1.5

AR6 1.5

1.5

AR6-SPM?C.2.4

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AR6-SPM?C.2.4
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1.5?AR6-SPM?P26?



1.5
24?

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1.5?IPCC?AR6?AR6?
1.5?2?1.5?
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2030?21?GHG?AR6-SPM?C.2.4

1.5?30?43?50?84?AR6-SPM?C.2.5



imply??
5?

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IPCC

AR6?1.5?
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AR6??1.5????????????
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?1?AR6-SPM?B5.2????????1.5??

????????GHG????CO2????????????1.5????2050?99????2030?48????????????30????50????????????

?3?AR6.SPM?C.2.4?“Even without accounting for all the benefits of avoiding potential damages the global economic and social benefit of limiting global warming to 2°C exceeds the cost of mitigation in most of the assessed literature” (medium confidence)

?4?AR6-SMP P26 ??50?“The evidence is too limited to make a similar robust conclusion for limiting warming to 1.5°C. Limiting global warming to 1.5°C instead of 2°C would increase the costs of mitigation, but also increase the benefits in terms of reduced impacts and related risks, and reduced adaptation needs.”

?5?AR6.SPM C.2.5: “Ambitious mitigation pathways imply large and sometimes disruptive changes in existing economic structures, with significant distributional consequences within and between countries.”

?6?AR6-SPM E.1.3: “Strengthened and coordinated near-term actions in cost-effective modelled global pathways that limit warming to 2°C (>67%) or lower, reduce the overall risks to the feasibility of the system transitions, compared to modelled pathways with relatively delayed or uncoordinated action.”

Posted in ???, ????? | No Comments »

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?? ? · Saturday, July 29th, 2023



BrianAJackson/iStock

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Posted in ???, ????? | No Comments »

?????CO2????????????????????

?? ?? · Thursday, July 27th, 2023



JaCZhou/iStock

?????CO2????????????????????2023?7?4??Enrico Mariutti????????????????????????????????The Dirty Secret of the Solar Industry???

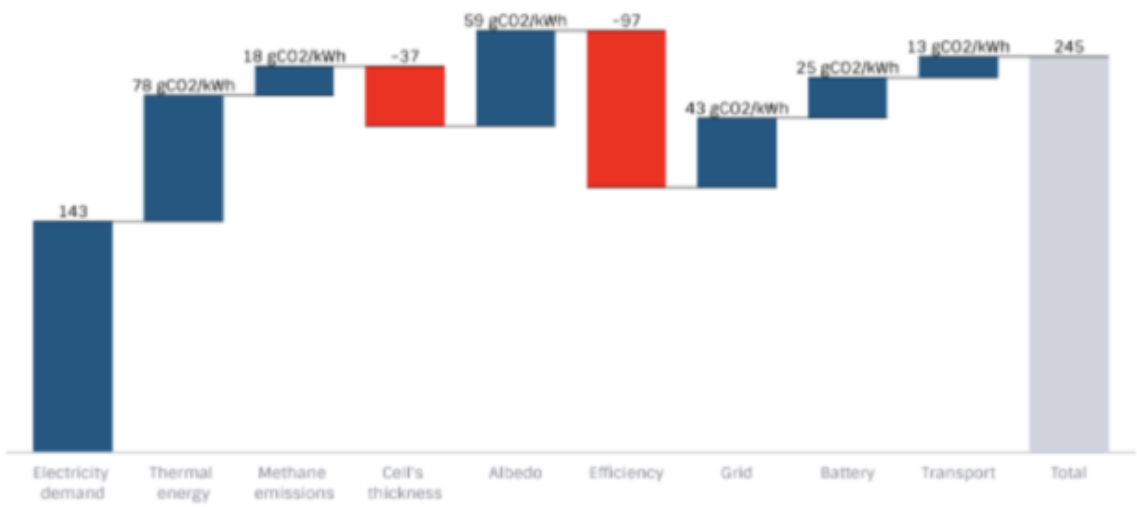
????????????????CO2????????????????????????????????????CO2????????????????IEA?IPCC????????????????????????????????????

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- ???CO2????????????????????????????????
- ???CO2????????????
- ???CO2????????????
- ???CO2????????????????????????????????

??CO2????????????????kWh??245gCO2????????????1?

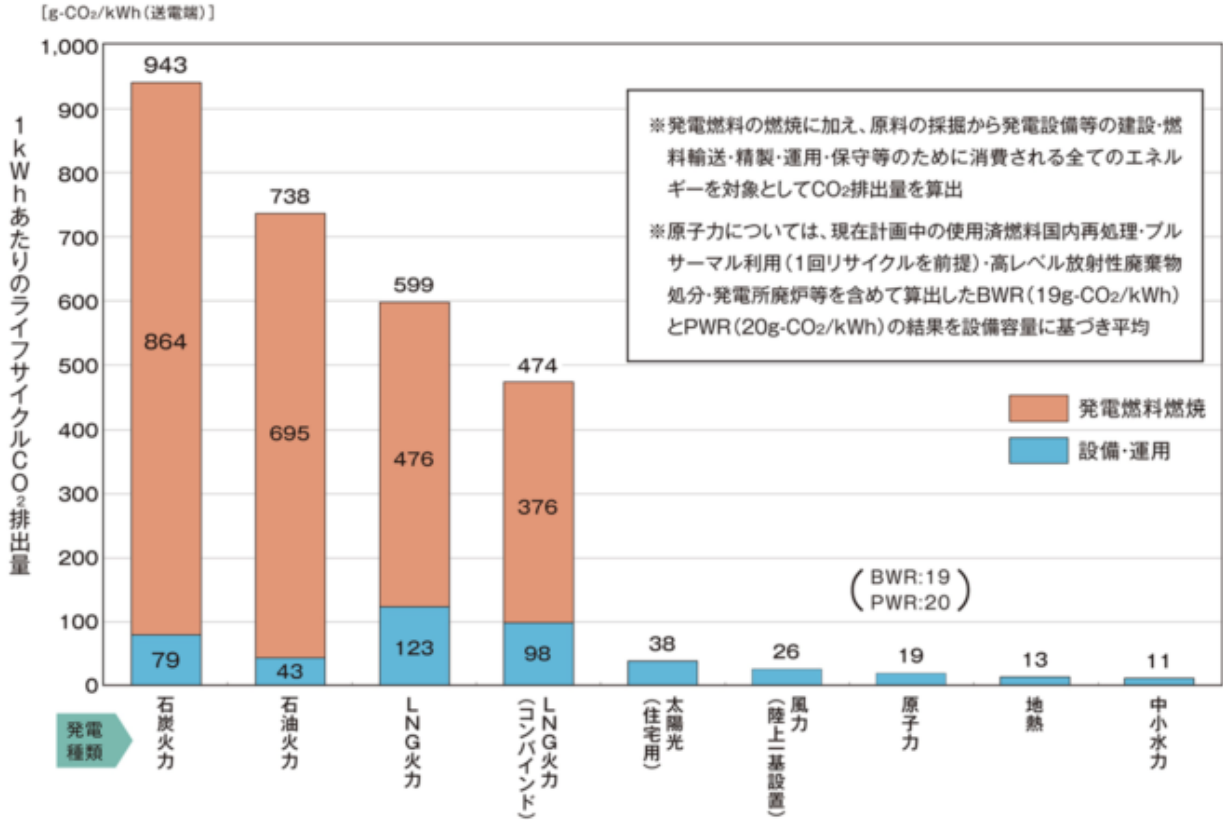
2022
Carbon intensity, Worst Scenario



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??CO2??CO2????????????
245????????

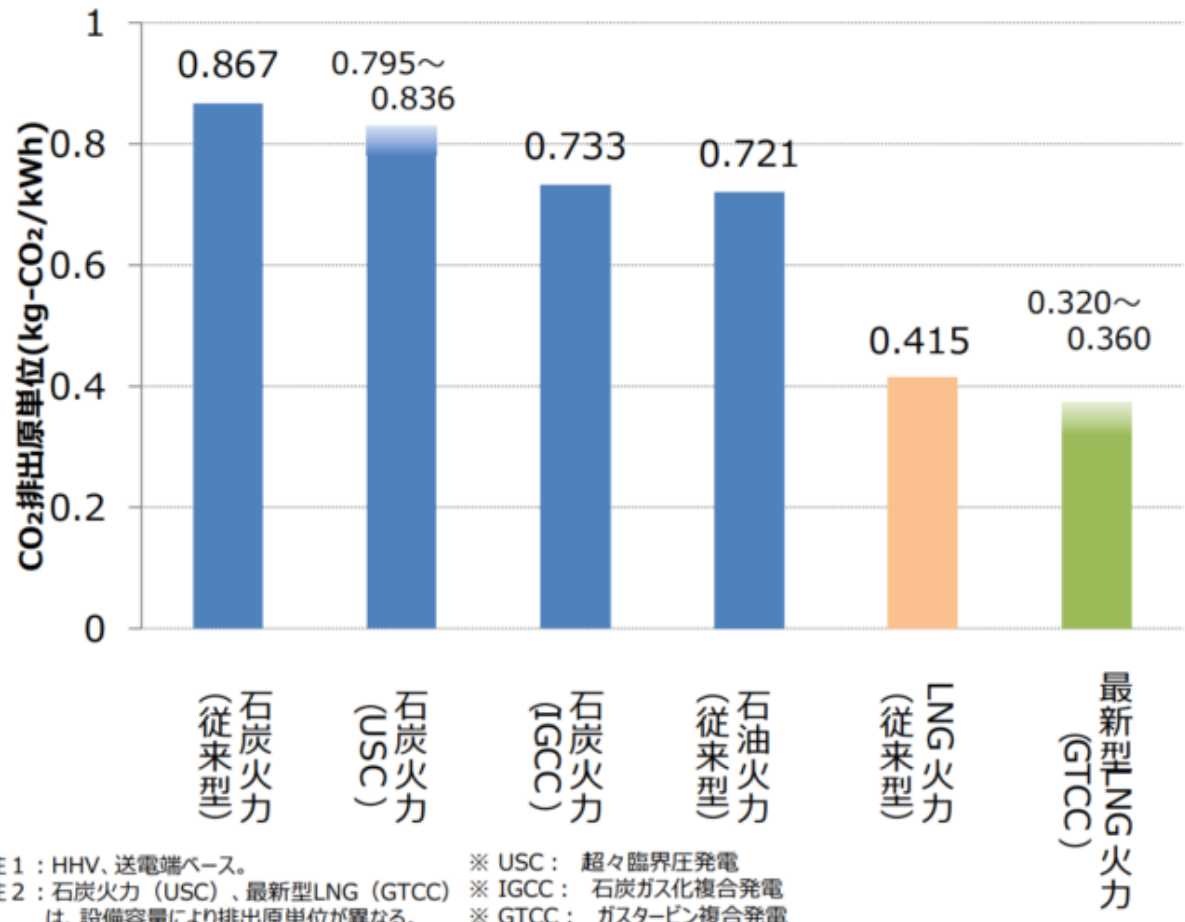
??1kWh??245??2016????????????????????????
?????kWh??38????????????2??????????



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????????????CO2??9??
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1kWh??245??CO2????????????????????????????????????2022??
??LNG????????CO2?????1kWh??320??360????????????????3??



3??????

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“????????20??”

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??CO2??
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Posted in ???, ????? | No Comments »

??????EV??????????????????

?? ?? · Friday, July 21st, 2023

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EV??



jetcityimage/iStock

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??EV??
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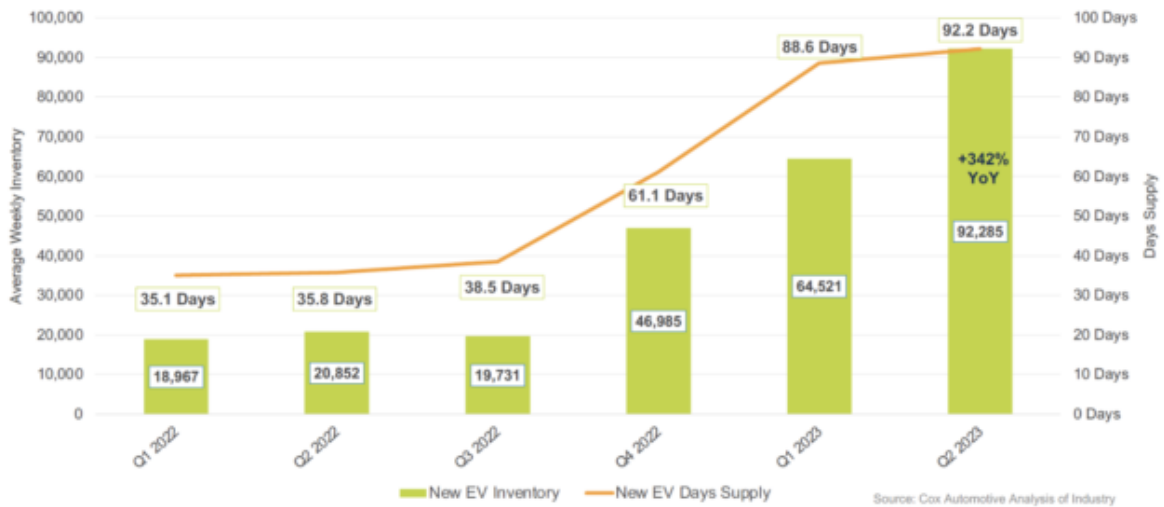
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NEW EV INVENTORY & DAYS' SUPPLY ESTIMATES

EV inventory is having a "Field of Dreams" moment – and days' supply follows



COX AUTOMOTIVE

EV????????????????

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

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?? ? · Thursday, July 20th, 2023

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1??100????0.72??1979????????????????1.4
????IPCC????????????3?5????????????????????????

2????CO2?????????2ppm?????????4????40????????????????CO2????????IPCC????????
????????CO2????????????CO2????????????????????????

????????????????????CO2????200????????????IPCC????????????????????200
????????CO2?????????5????????????CO2?5?????????2ppm?????5?????0.1ppm????????????
?????????????????????????????????????2ppm????????????

????????????????CO2????????????????????????2009????????????2021????????????????
????2022????????????????????????CO2????????????????????????????

?????????????0.1ppm????????????20?????????????0.02ppm????????????????
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3????????CO2??CO2????????
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????CO2??

1?????CO2?????CO2?????2????CO2????????????3????????????

3????1????????????????CO2????????????

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???CO2????????????CO2????????????????????????
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??1000????????1000????
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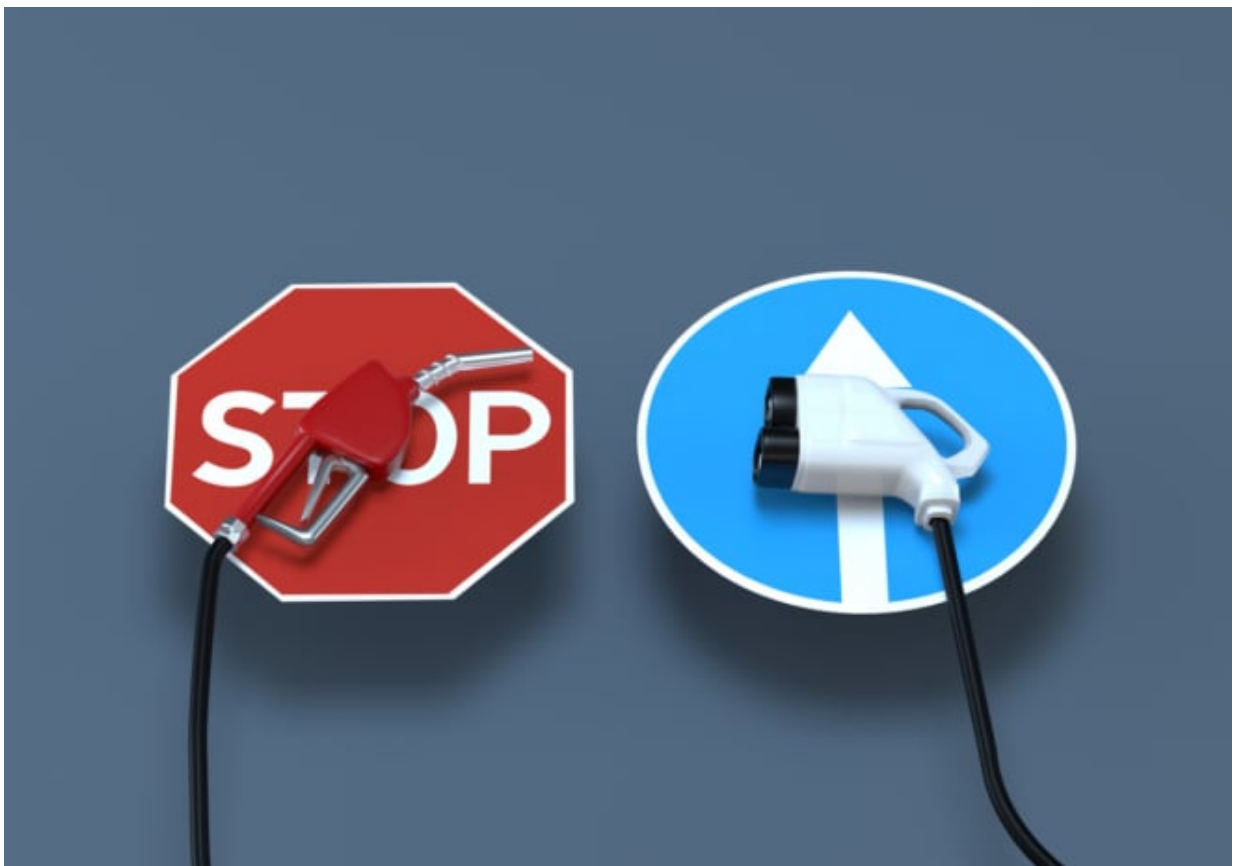
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Posted in ???, ????? | No Comments »

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?? ?? · Wednesday, July 19th, 2023



Max Lirnyk/iStock

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[Electric Vehicles for Everyone? The Impossible Dream](#)??

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EV??I
CE????EV????????????????????????????????

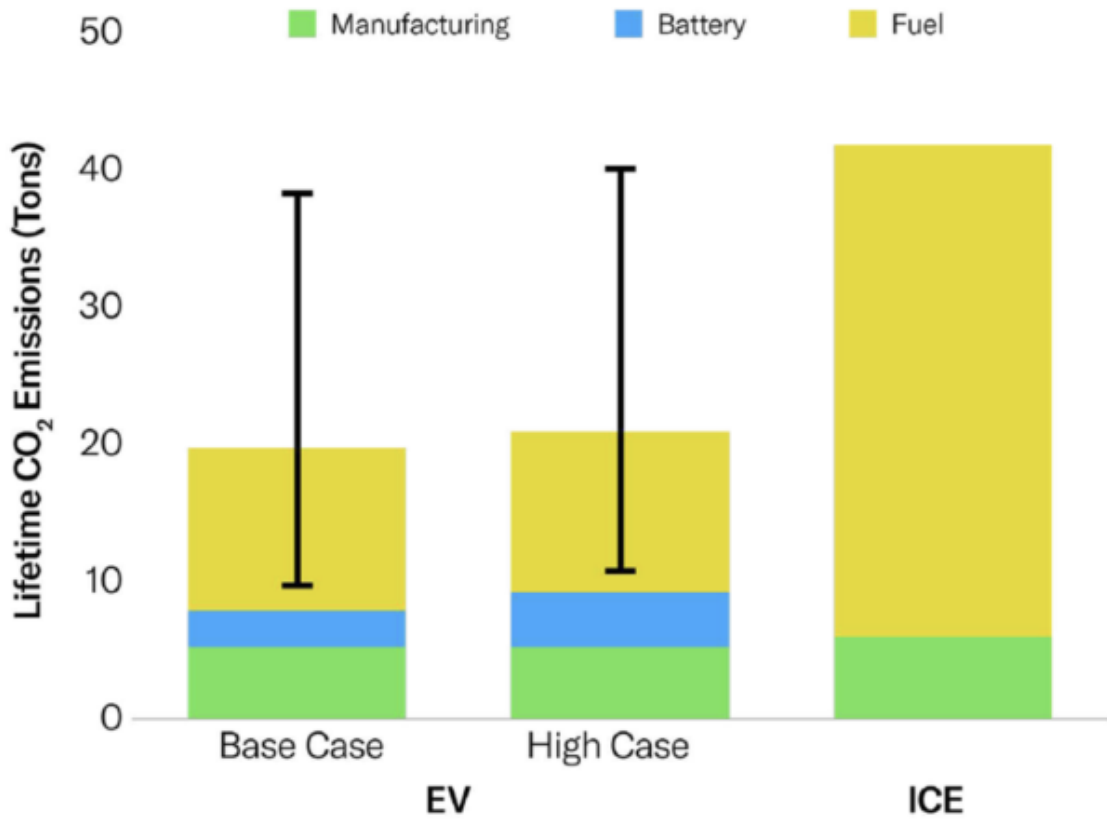
?????2??????CO2????????EV????CO2????????????????????

??1?CO2

??BEV????ICE????????????CO2????????????????

Figure 3

Estimated Life-Cycle Emissions for EVs vs. ICE Cars, per IEA



Source: IEA, "The Role of Critical Minerals in Clean Energy Transitions"

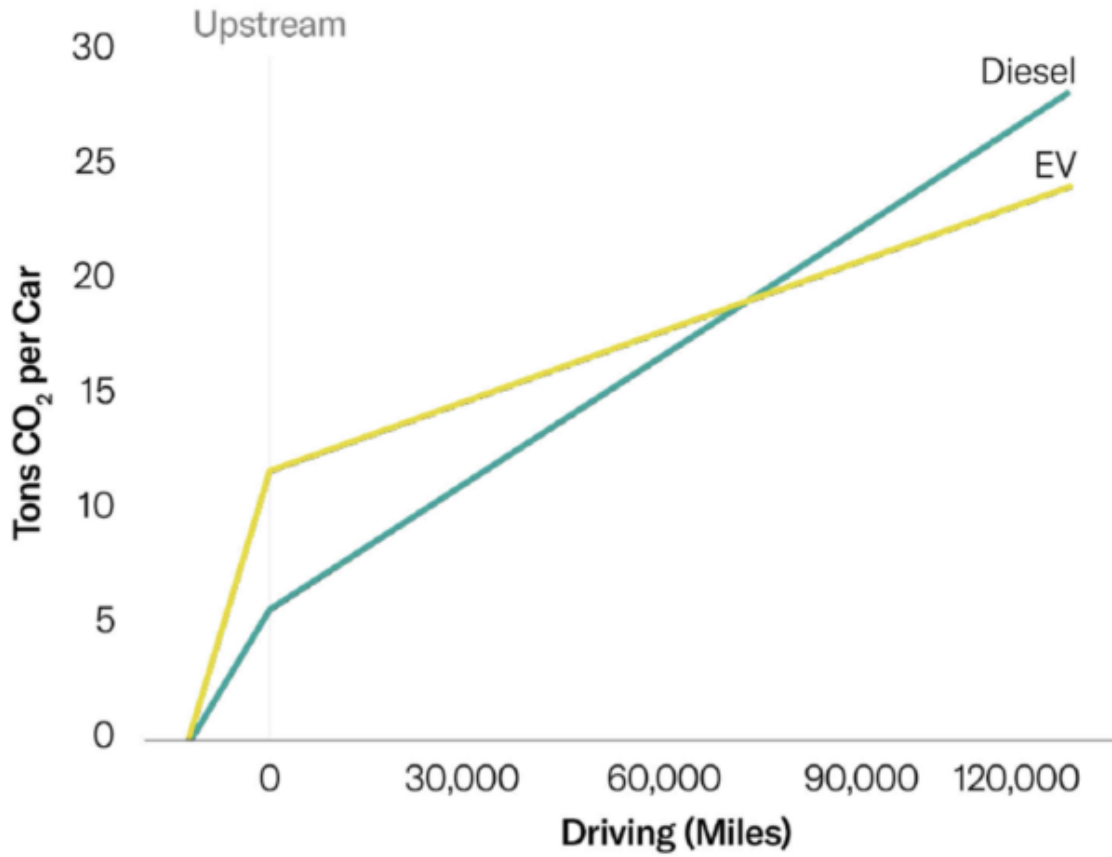
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????IEA??
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????????ICE?EV????????CO2????????????6????????????????????????EV????CO2????????????????
??EV????????????

Figure 4

Life-Cycle Emissions: Volkswagen EV vs. Diesel



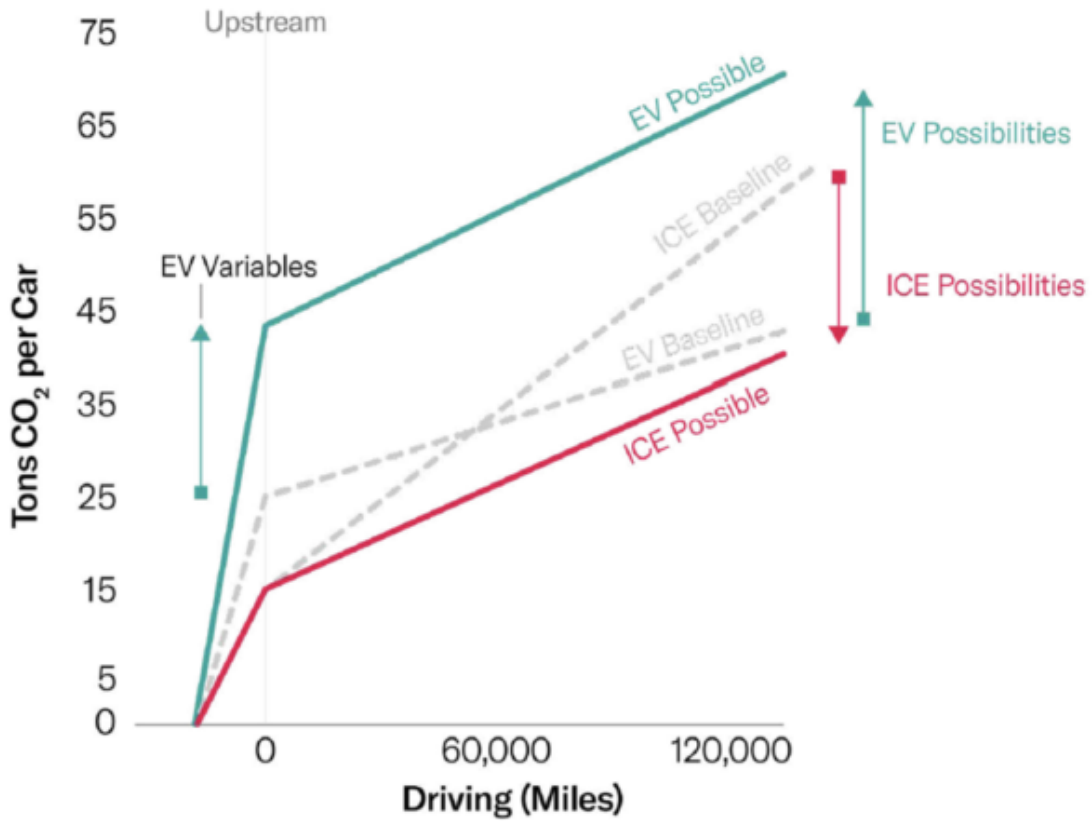
Source: Maciej Neugebauer, Adam Żebrowski, and Ogulcan Esmer, "Cumulative Emissions of CO₂ for Electric and Combustion Cars: A Case Study on Specific Models," *Energies*, Apr. 6, 2022

????????????????EV????????????????EV????CO2????????????????????????????????ICE????????????
???????????????

????????????????EV????????CO2????????????ICE????????????????????????????????????12????????
?EV???ICE???CO2?????????????????????????????????

Figure 6

EV vs. ICE CO₂ Emissions: Scenarios with Known Unknowns



Source: Author's calculations from multiple data sources in this report; see Appendix

??????

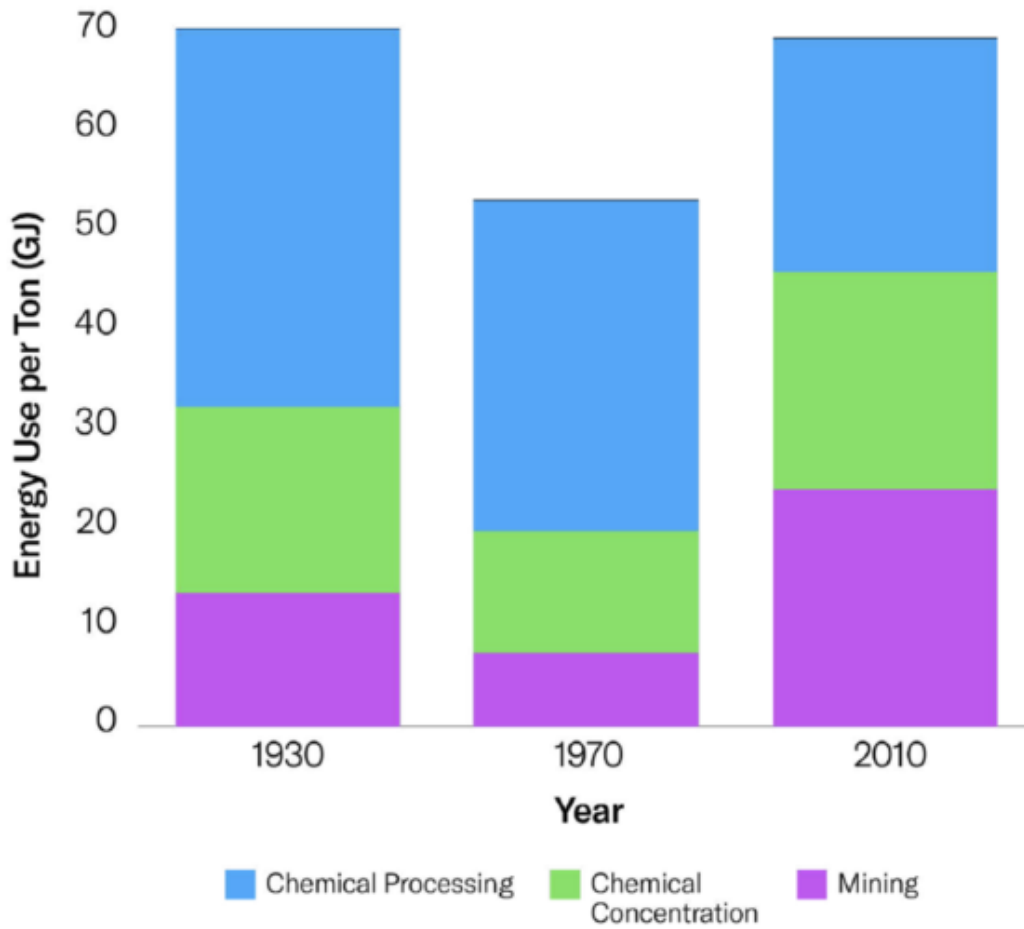
CO₂?????????1????????????????? EV??ICE????????????????????????????????????

??1?????????????????????EV??

?????????????????????????1??2?????????????????0.5????????????????????????????????????
?????????????????????????

Figure 10

Copper Production: Technology Trends in Energy Use per Ton



Source: Nadine Rötzer and Mario Schmidt, "Historical, Current, and Future Energy Demand from Global Copper Production and Its Impact on Climate Change," *Resources* 9, no. 4 (April 2020)

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??ICE?HEV????????????????????
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?????EV???EV????????????????????ICE??EV??
????????????????????????CO2?????2??

ICE??
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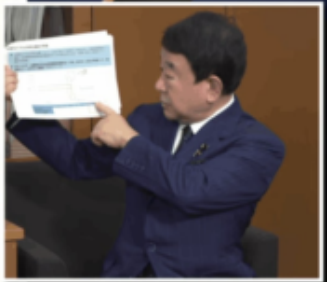
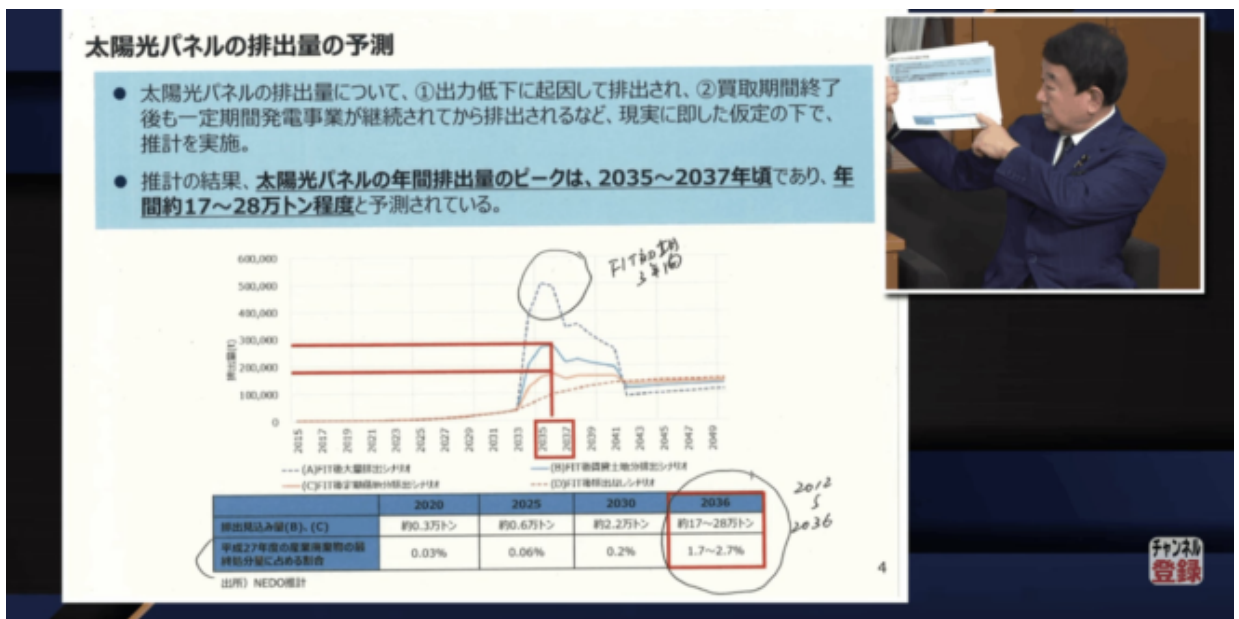
????????????????????????????????1????????????????????3????5????????????

????????????????????????????1????3????????????????????????????12????25??
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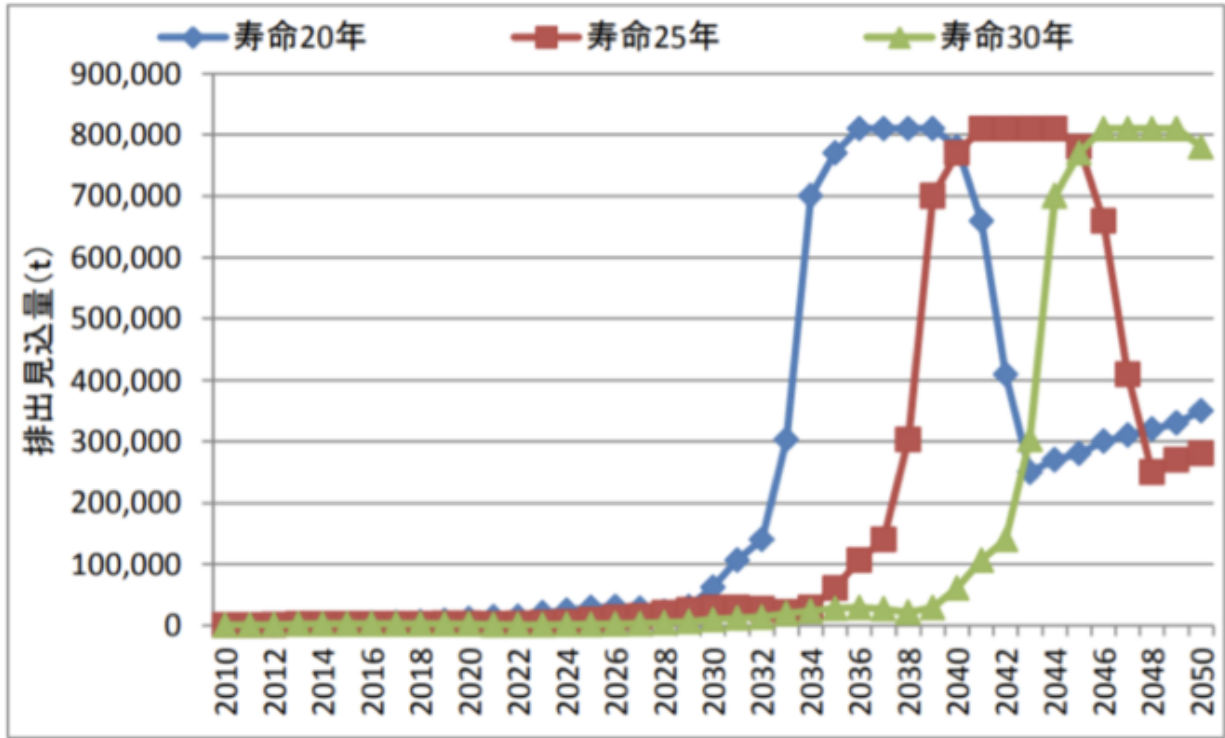


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????????????????9????????1????????????????????????????10%??
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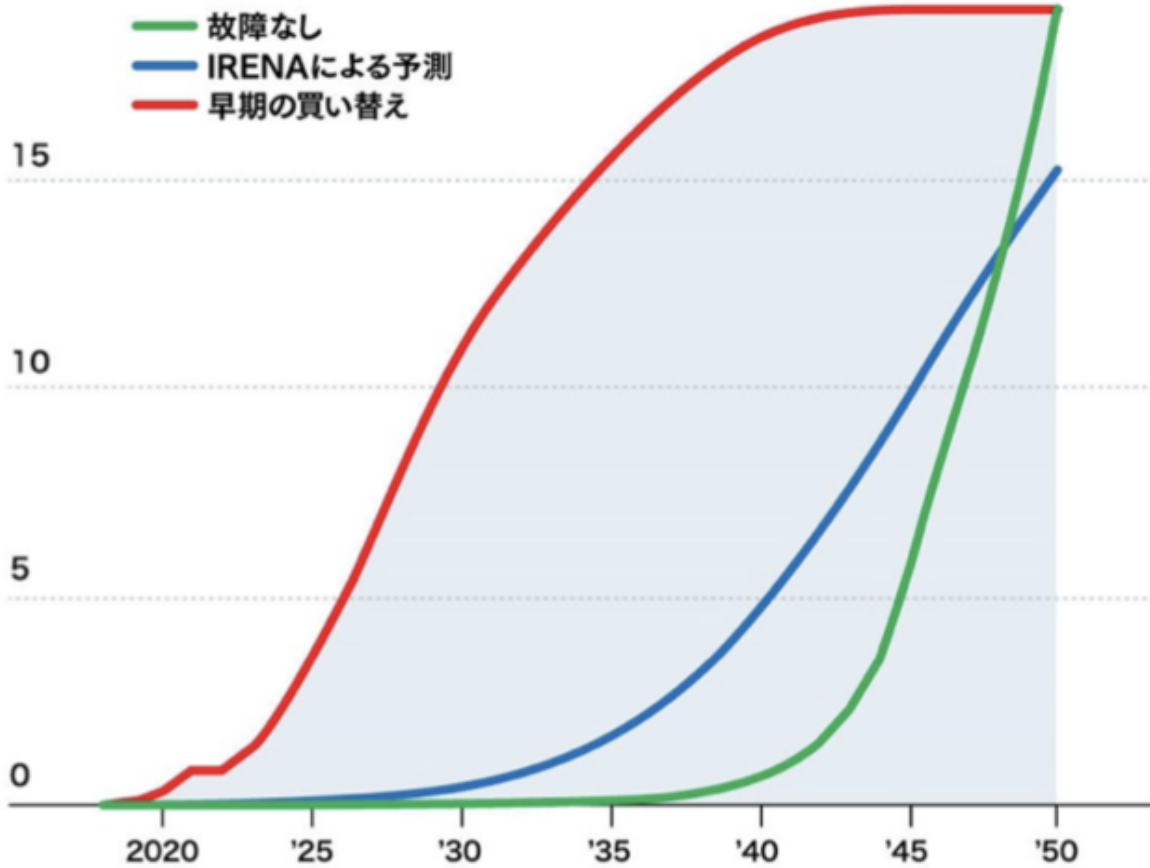
????????????????2035????????????2????????????????????3??



????????????????????20?25?30??
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廃棄物の累計
 (発電容量ベース)

20ギガワット



3?????????
??DIAMOND ??????????

????????2035????????????????????????????????

????????????????????????????????PCB????????????????????????????PCB????????????????
????????????????????????????PCB????????????????????

?PCB???

PCB??Poly Chlorinated Biphenyl????????????????????????
????????????PCB??
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?PCB???

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????????1968??43????????????????????????????PCB????????????????????
????????43?10??
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?PCB???????

PCB????????????????????????????????1972??47????????????????30????????
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??13?6?22????????
????????????????????PCB ?????????????15????????

1972??PCB????????????????????????????PCB????????????????????2001??PCB?????
2004????????????????????JESCO????????????????????????????????30????????
????PCB????????

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xijian/iStock

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

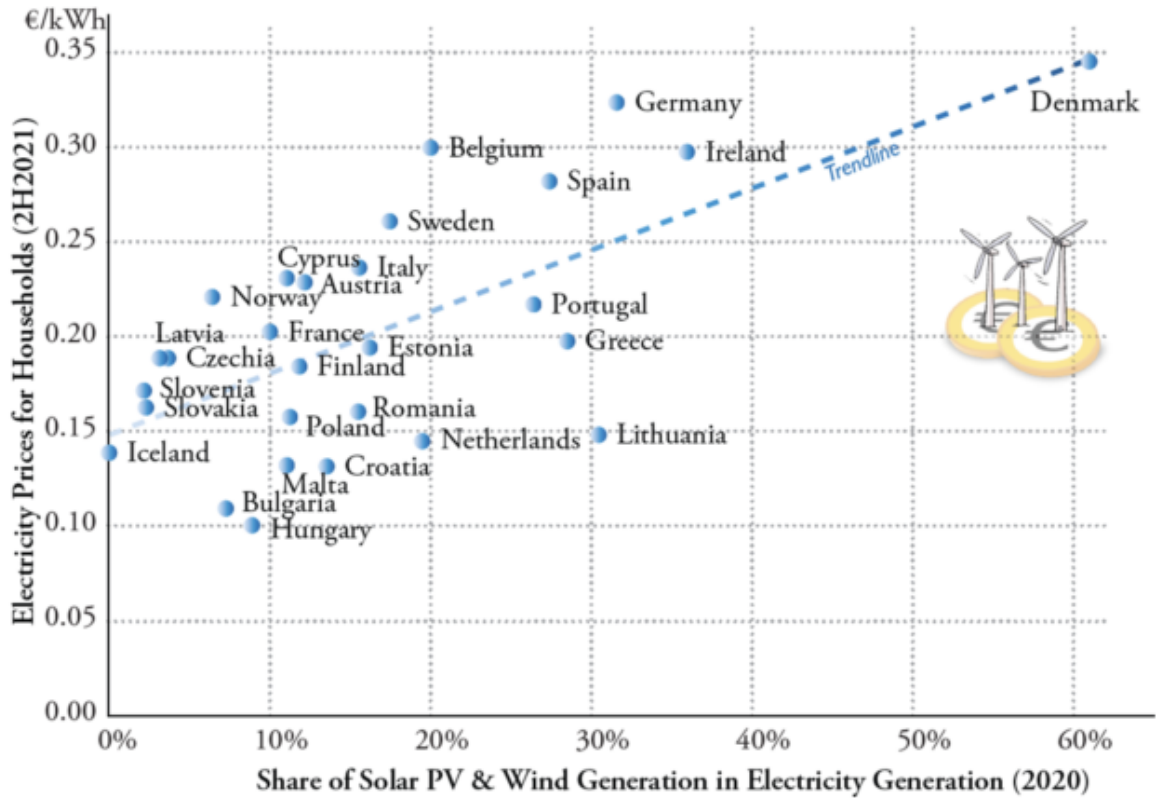
A Critical Assessment of the IEA’s Net Zero Scenario, ESG, and the Cessation of Investment in New Oil and Gas Fields.

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Figure 46: Solar and Wind Penetration and Electricity Prices in Europe

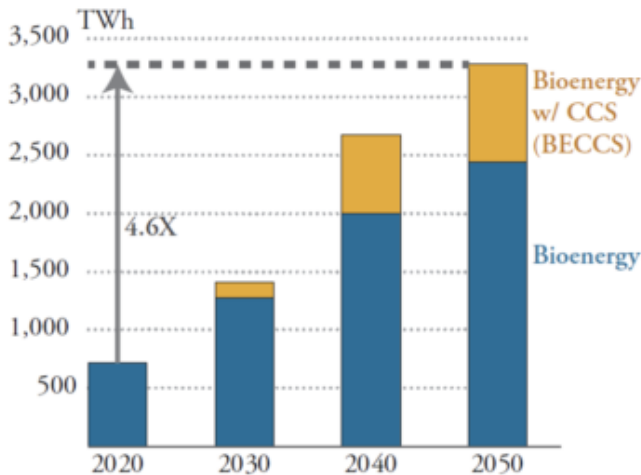


Source: Energy Policy Research, Eurostat, IEA

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IEA?NZE??2050??
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Figure 23. Bioenergy for Electricity Generation in NZE



Source: IEA, Net Zero by 2050 (2021)

Figure 24. Global Land Requirements for Bioenergy for Electricity Generation in NZE



Source: Energy Policy Research. Land requirement calculations made using FreeingEnergy.

Batt Odgerel, Lucian Pugliaresi, Michael Lynch 38



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?? ? · Monday, July 3rd, 2023



CHUYN/iStock

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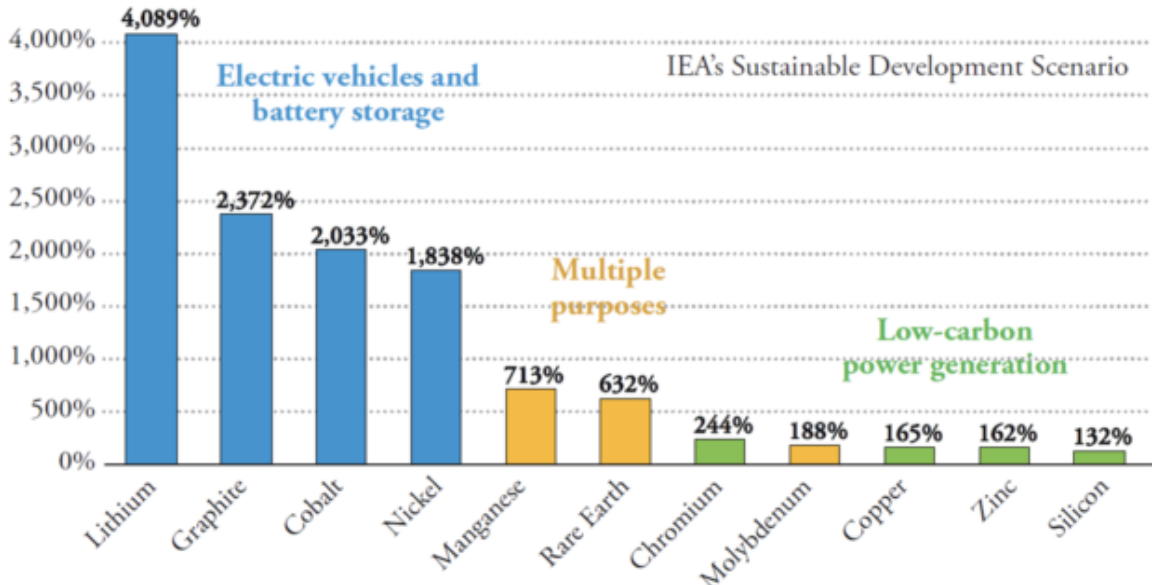
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Figure 33. Required Growth of Critical Mineral Supply (IEA's SDS scenario, 2020–40)



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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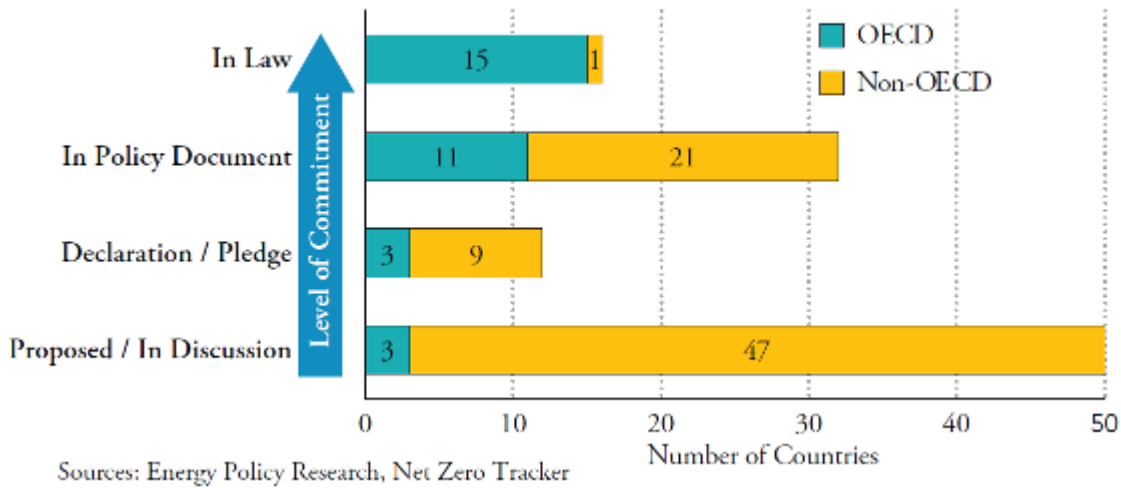
A Mokhtari/iStock

IAE Net Zero Scenario, NZE

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OECD 2050

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

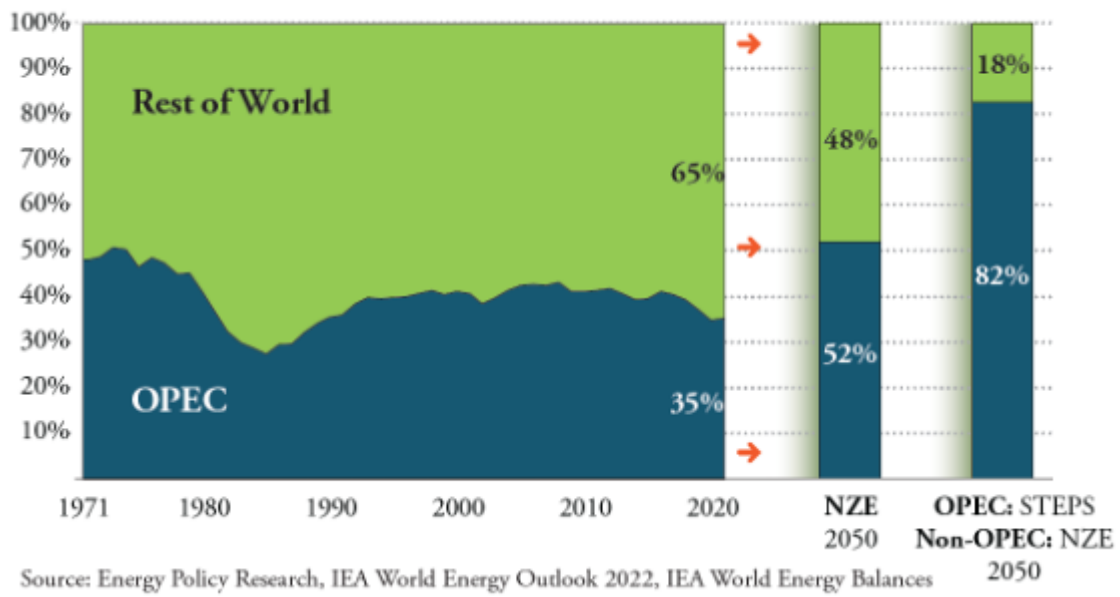


IEA NZE OPEC 35% 52% 1973

NZE OPE

OPEC NZE OPEC NZE STEPS OPEC 82%

Figure 17. OPEC Share of Global Oil Production

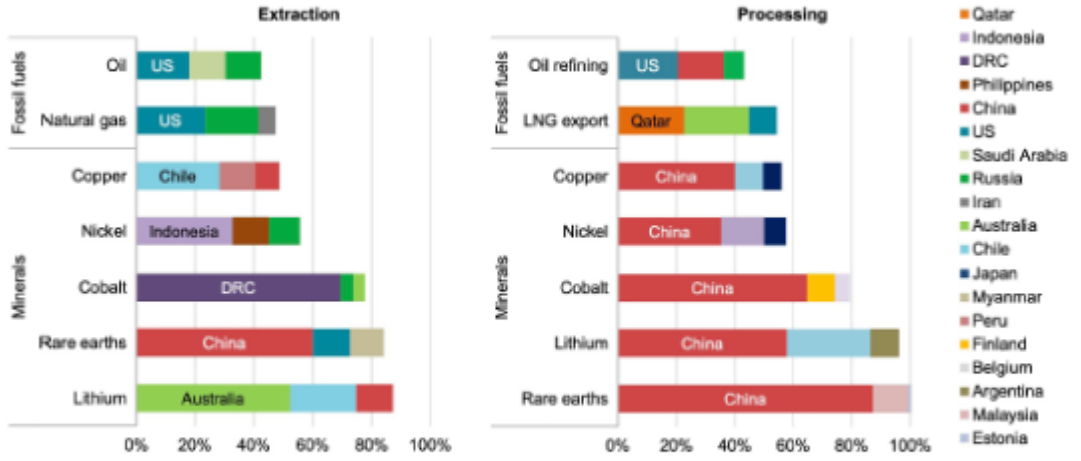


??OPEC??

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Figure 18. Share of Top Three Producing Countries in Production of Selected Minerals and Fossil Fuels, 2019



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

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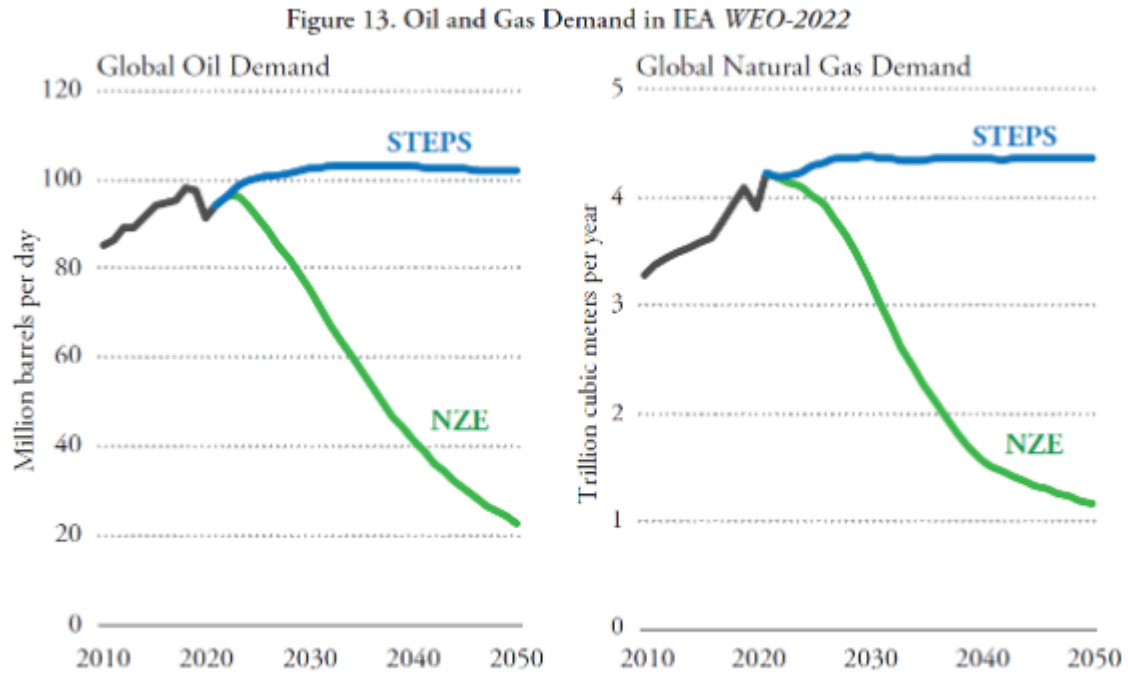
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A Critical Assessment of the IEA’s Net Zero Scenario, ESG, and the Cessation of Investment in New Oil and Gas Fields.

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Source: Data from IEA, *World Energy Outlook* (2022) & *Outlooks for gas markets and investment* (2023). The data derived and estimated from graphs in the *WEO-2022* and the IEA’s gas report for the G7, as the IEA’s data tables only show scenario data for 2030 and 2050.

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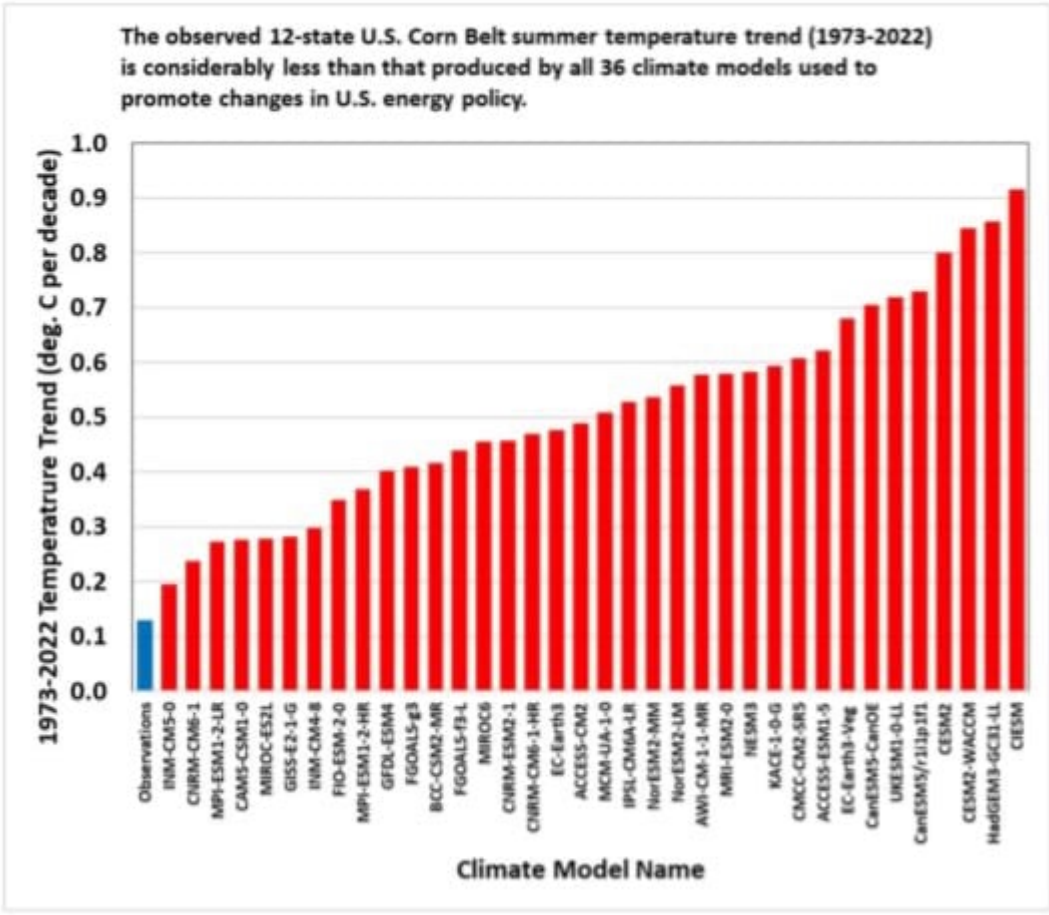
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feellife/iStock

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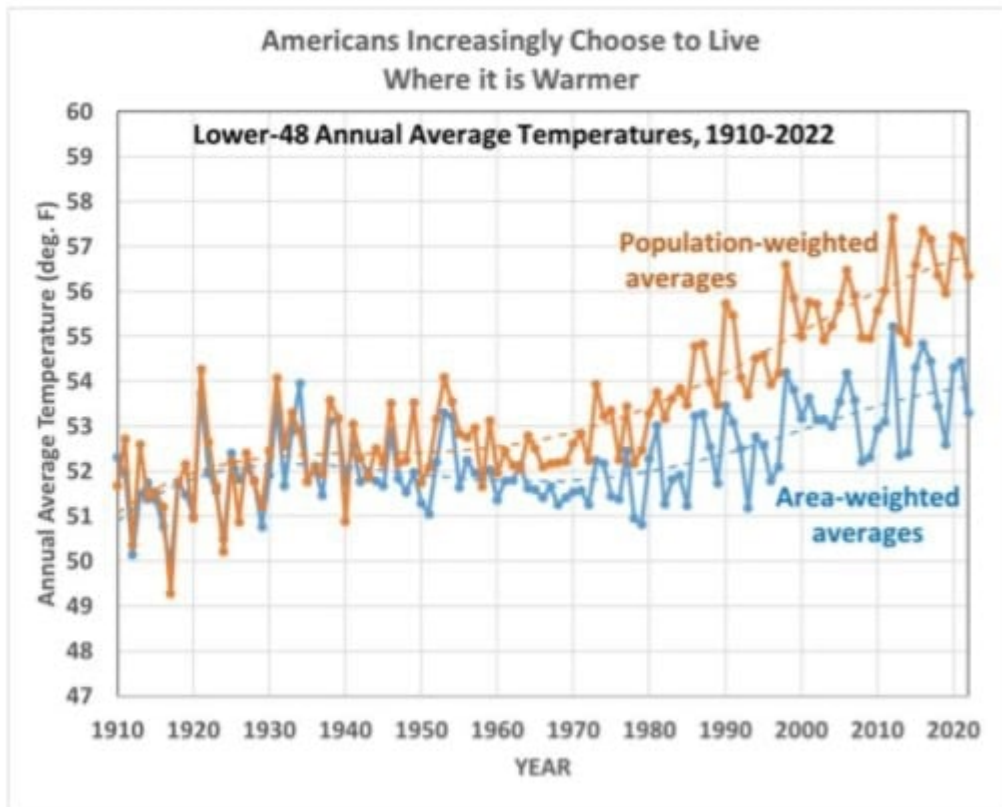
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