





????????1930????????????????????0.3 m????????????????Tsuboi,  
 1933?????1974?1998????????????????????0.4?0.6  
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1974???1988????????????????????24??40????60????????????????????3????????  
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IPCC????????????????????100??20????????????????????????????

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Posted in ???, ????? | No Comments »

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?? ?? · Monday, October 2nd, 2023



metamorworks/iStock

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Dialogue?Openness????????????????

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



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

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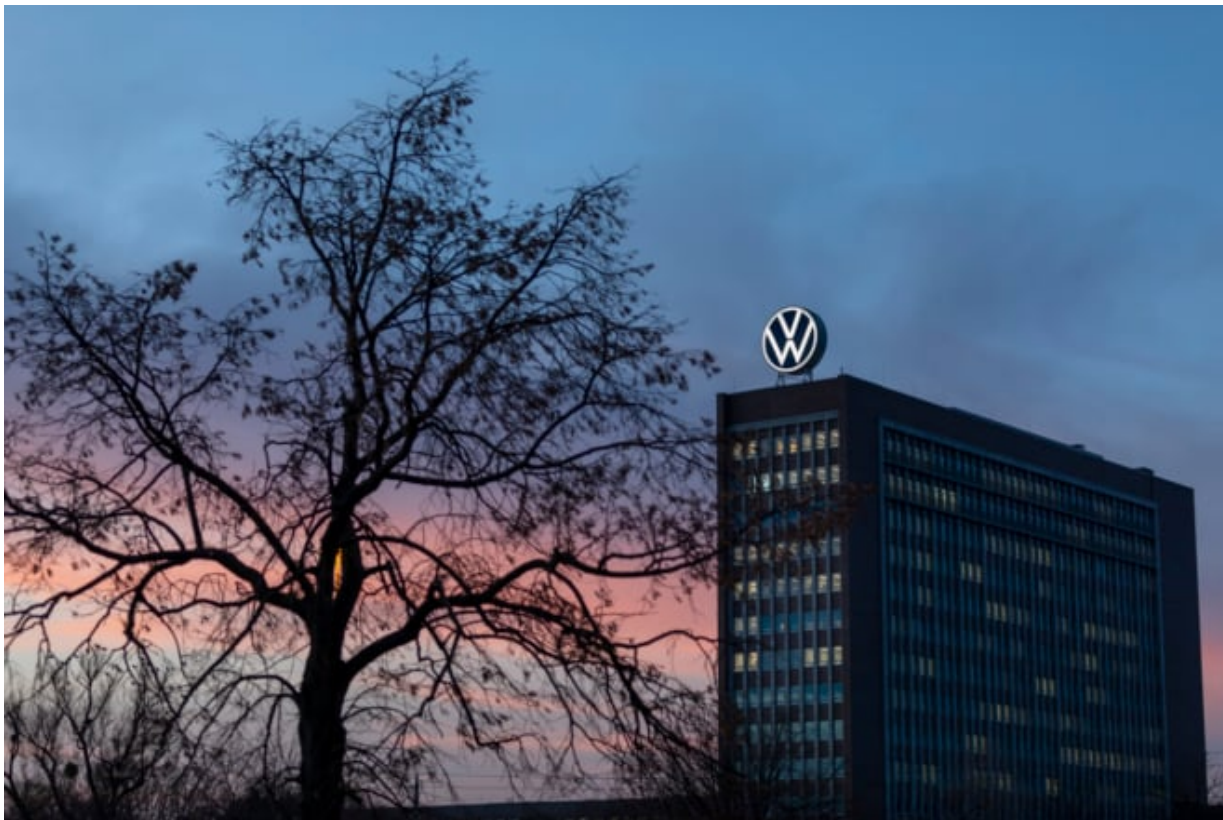
?? ?? · Friday, September 29th, 2023

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??6????????BDI??392?????16????????????????????????????????  
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Ilari Nackel/iStock

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- ?1?JETRO???????2023?6?14??
- ?2?JETRO???????2023?6?2??
- ?3??
- ?4?????????????http://www.de-info.net/kiso/wirtschaftspltk00.html#energie
- ?5?BASF?????2600?????Bloomberg 2023?2?24??
- ?6??2022/08/24??????
- ?7????????????BMW?VW?“????”????????????????????????????????PRESIDENT Online 2023/09/15?

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

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?? ?? · Thursday, September 28th, 2023

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??2030????2035????????????

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Deltapoll?22??25????????????????10????????????????  
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Posted in ???, ????? | No Comments »



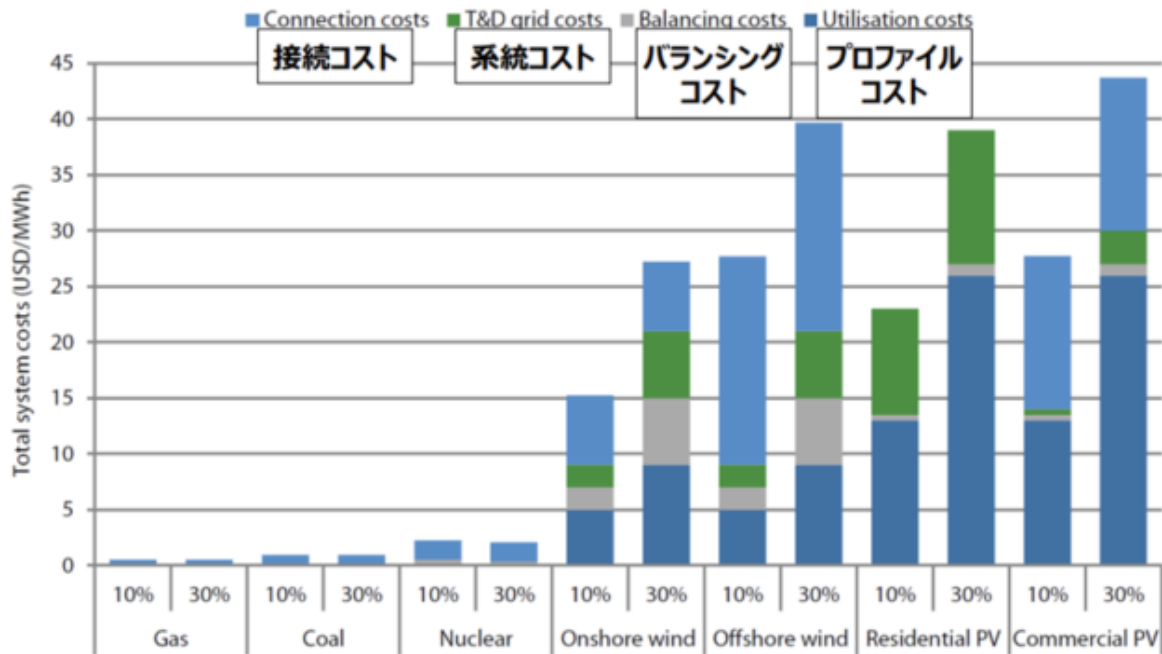
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3. ?????????????????????????????????

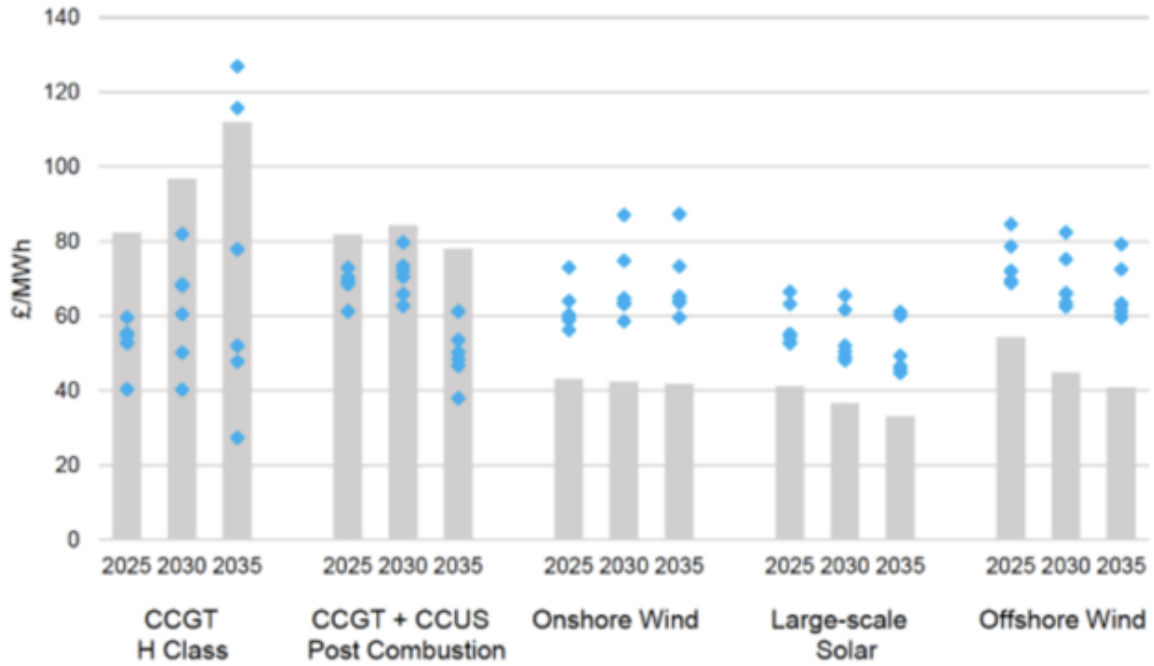
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OECD??  
 US\$/MWh??????????????????????  
 10??????????????????28 US\$/MWh??30??40  
 US\$/MWh??????????????????????????12??????????????????????10%??30%????????????1.5??????????????????????



??OECD?The Full Cost of Electricity Provision 2018

??BEIS?Enhanced Levelized  
 Cost????????????????????LCOE????????????????????CCS??/MWh??  
 ?????????????????????LCOE??LCOE????????????????????????????



BEIS Electricity Generation Costs 2022

CCGT H Class LCOE 2025 54 £/MWh 2035 80 £/MWh

CCGT + CCUS Post Combustion LCOE 2025 54 £/MWh 2035 80 £/MWh

Onshore Wind LCOE 2025 43 £/MWh 2035 40 £/MWh

Posted in [Electricity Generation Costs 2022](#), [Energy](#) | No Comments »

Electricity Generation Costs 2022

21st September 2023



Maks\_Lab/iStock

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?SDGs???????

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

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?? ?? · Tuesday, September 19th, 2023

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

**??**

?? ??? ?? · Tuesday, September 12th, 2023



Gwengoat/iStock

198070

80 SED 83 SED F DJ

CDU FDJ 30

8

36 16



CSU CSU

36

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10875 1 6 36

Wikipedia

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2010 13

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CSU

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

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?? ?? · Thursday, September 7th, 2023

2022????????????????????F????????????????????????????????????

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???Quantum Korea 2023??

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axz66/iStock

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2027????????????????????????????????????

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

**????G7G20????????????1.5????????**

?? ? · Thursday, August 31st, 2023





photoschmidt/iStock

????????G20??28????????????????G20????????????????????????????  
 ?????????????????????????????

????????????68????????63?66????????????????G20??  
 ???G7????????????????????????????????

**????????????????63?**

5?G7????????IPCC?6????AR6????1.5????????????GHG????2025????????????2019??  
 ?2030????43??2035????60????????????????2030?NDC????????GHG????????LTS??1.5????????  
 ??2050????????????????????????????????????COP28????????2030?NDC????????????LTS??  
 ?????????2050????????????????????????????????????

????????????????????????????G20????????????100????????????????G20????????????  
 ?????????NDC????????????????????????????2023????????????2030????????????????  
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G20????????IPCC????????????????????????????G20????????  
 ?2025????????????????2019???2035????60%????????????  
 ?????????????????2030????????CO2????????



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????2040????????????????

????G20????3????G7????????????????????????????????????

G7??IPCC?6????????2025????2035?60????12??COP28????  
????G20????IPCC????

?????Third World Network  
?IPCC??  
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????IPCC????????????????????????????????????

????2040????????????????COP27????LMDC????2050????  
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**????????64?**

G7????1.5????2050????????????  
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EU?CBAM????6????  
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CBAM????

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????6?IPCC????1.5????  
1.5????

????1.5????

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

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?? ? · Monday, August 28th, 2023



dima\_zel/iStock

??GCR????????????????[PDF](#)????12????  
??16????????????????????????????5????????????????????

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R????C<sup>14</sup>????????????????????????????

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????????????2019????????????GCR????78????????????????????????????  
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?????????12km?????????

?????????high-altitude clouds?????????27km?????????

?????????GCR?????????12km?????????

?????????deep convective activities?????????

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?????????decadal?10?????????11?????????GCR?????????1.4?????????

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?????????NOAA?????????1979?????????1979????43?????????

?????????GCR?????????GCR?????????GCR?????????GCR?????????11?????????

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

?????????GCR cycles?????????Fig. 3?????????Fig. S5?????????GCR?????????GCR?????????GCR?????????

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Fig. 4?????????GCR?????????3?????????GCR?????????GCR?????????

?????????GCR cycles?????????Fig. 5?????????

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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

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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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??1????????????????????

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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????????????????????**

????????2019?9?23??500????????????????????????????????  
??1600????????

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- 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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??2050????????????????????2030??CO2????46%????????????????  
GX??

2022?3?15??



??CO2????2030?46%????????????????????????????  
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Posted in ????????????, ??? | [No Comments »](#)

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

?? ?? · Tuesday, August 22nd, 2023



Artur/iStock

??MIT??CO2?  
"heavily saturated"????????????????EPA??  
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**CO2?????????**

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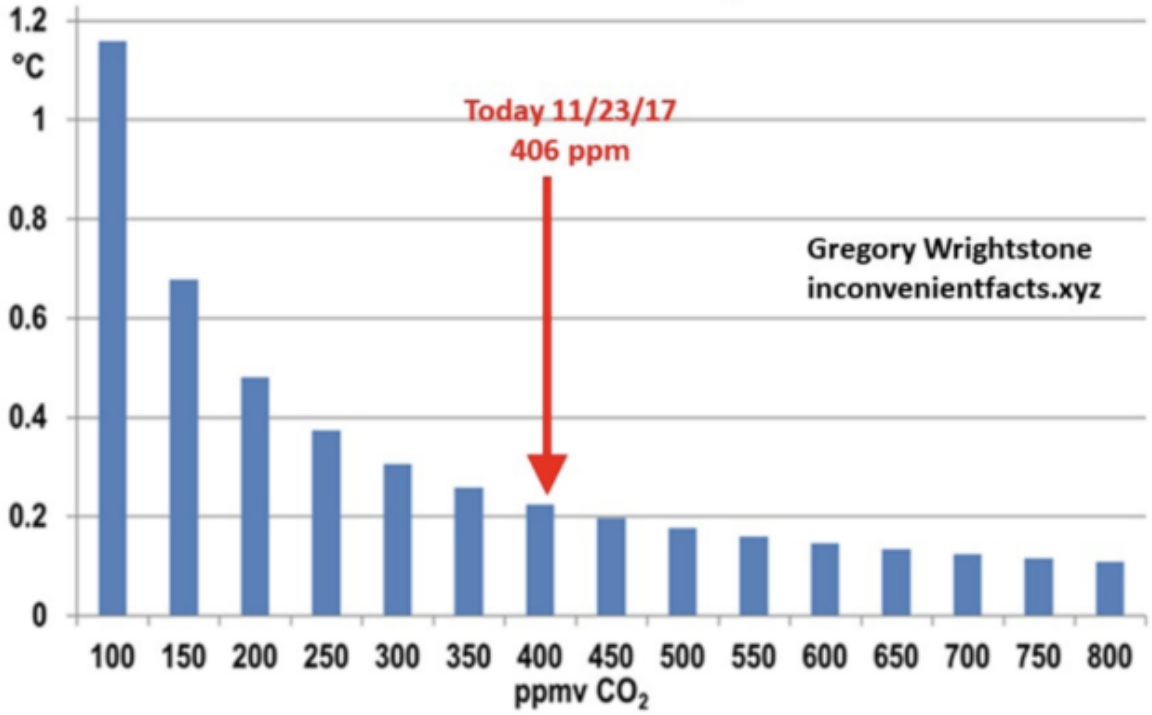
????????40????Gt??CO2?1????????????????????????????  
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**????CO2?"heavily saturated"**

????????CO2???50ppm????????????????????????????????CO2????????????????????????????????  
???????????????????????? = saturation????????????CO2?"heavily saturated"????????

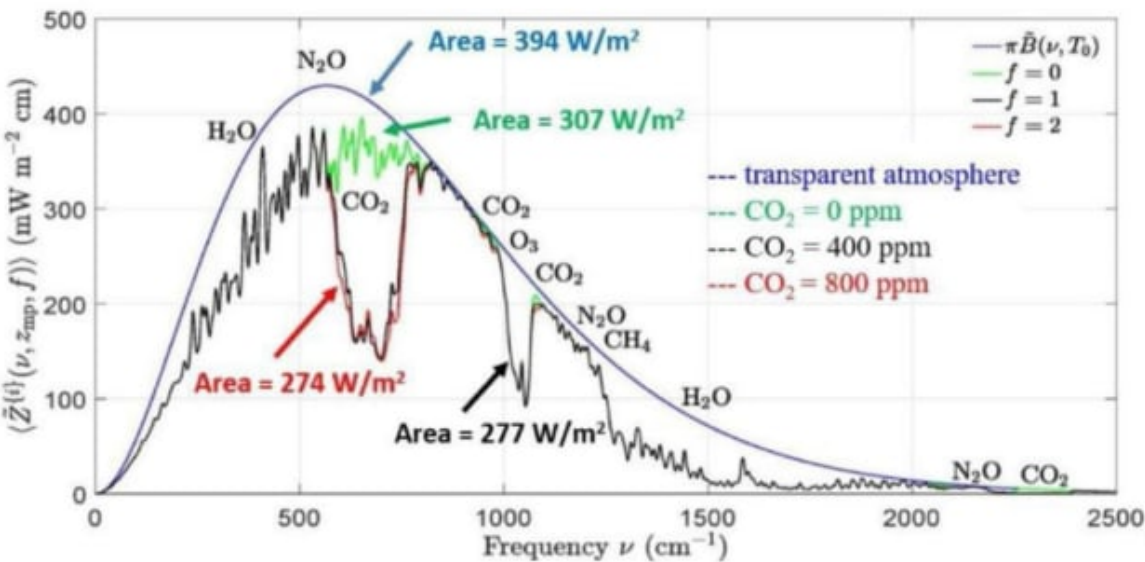
Figure I-3: Less global warming for each additional 50 parts-per-million-by-volume of CO<sub>2</sub> concentration



Gregory Wrightstone  
inconvenientfacts.xyz

???????CO<sub>2</sub>?????2?800ppm???

???  
??394 W/m<sup>2</sup>??@transparent  
atmosphere????????????????????27??



???  
400ppm?????????394W/m<sup>2</sup>?????277W/m<sup>2</sup>??  
70?????????????????CO<sub>2</sub>?400ppm??800ppm???274  
W/m<sup>2</sup>?69.5%???3W/m<sup>2</sup>????????????????????? 1?????????????

????CO2??

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

? State Farm Test: ???

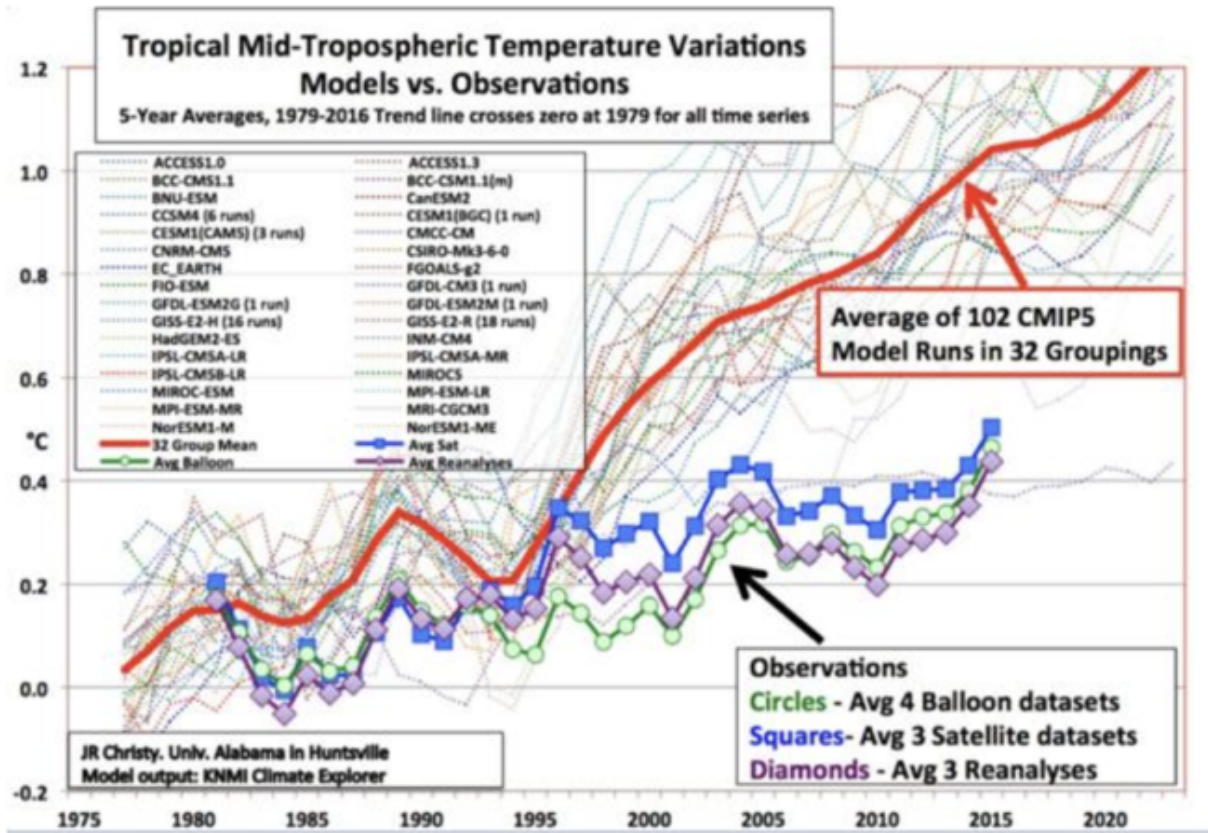
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1. EPA????????????????????????????????????
2. EPA????????????????????????IPCC??
3. ?????????????????????????

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The main conclusion of this part of the study is that even an order of magnitude increase of CO<sub>2</sub> in the atmosphere by human activities, which at the present rate of input is not expected within the next several thousand years, may not be sufficient to produce a runaway greenhouse effect on Earth. On the short time scale, if CO<sub>2</sub> is augmented by another 10 percent in the next 30 years, the increase in the global temperature may be as small as 0.1°K.

Posted in ???, ????? | No Comments »

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?? ?? · Friday, August 18th, 2023



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Luisa Trescher Photos/iStock



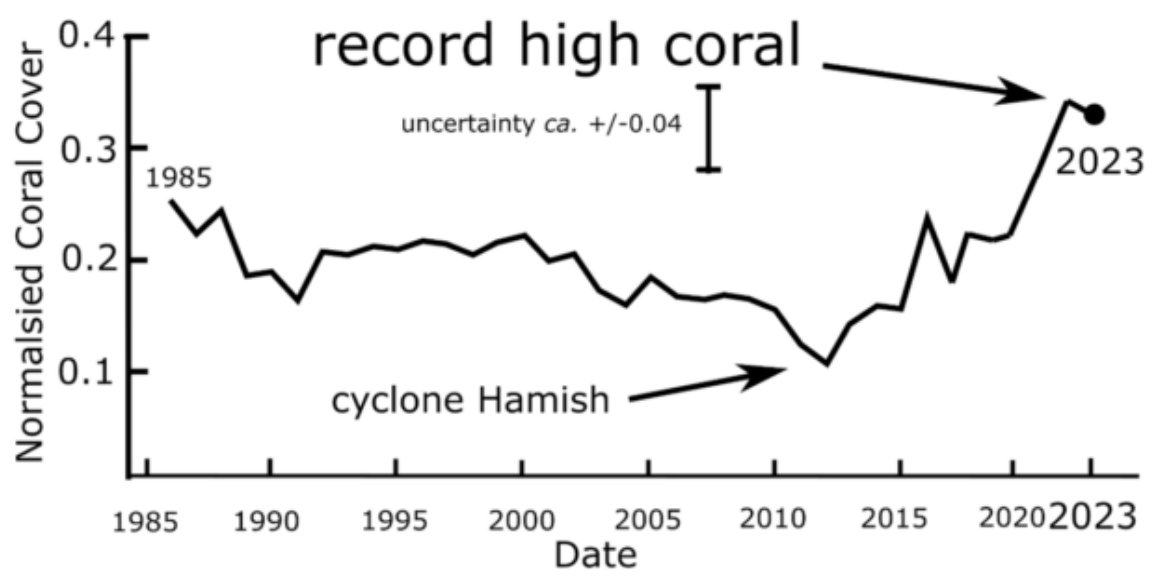
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??Australian Environment  
Foundation??  
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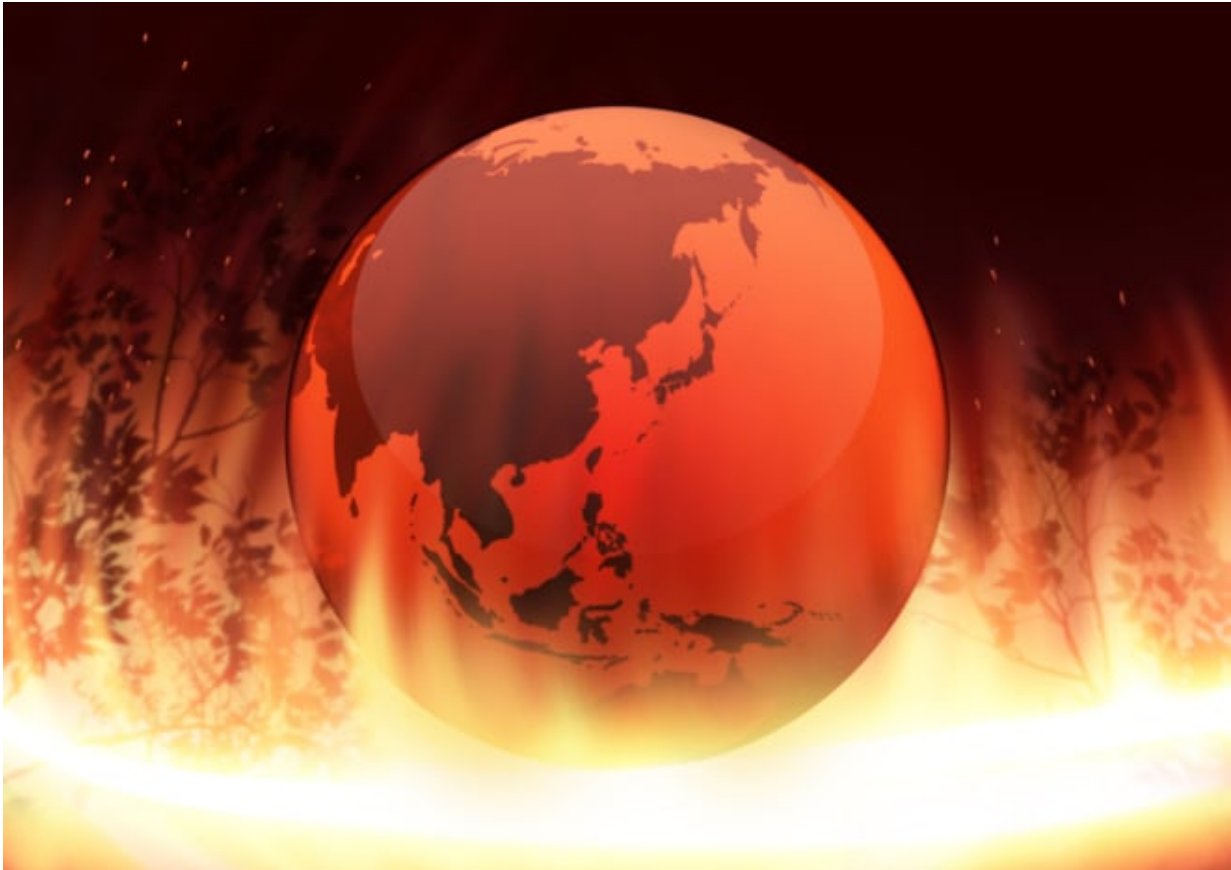


Posted in ???, ????? | No Comments »

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?? ?? · Thursday, August 17th, 2023





Tr6/iStock

global warming global boiling

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2023 “”

100 15 100

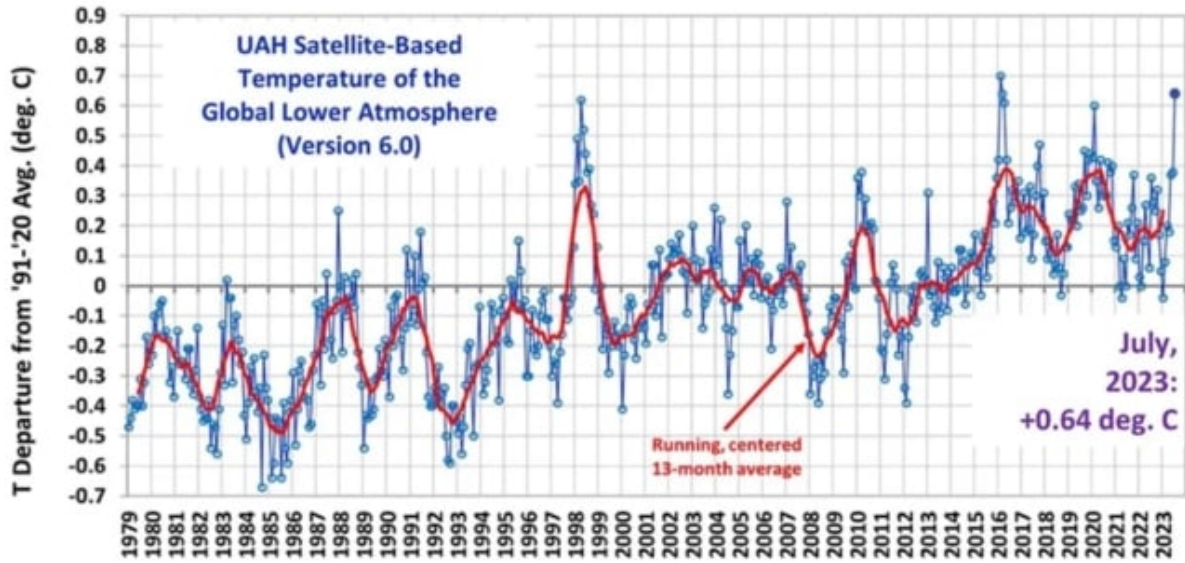
50 5

BBC 1



Climate Etc.

9000 UAH



3

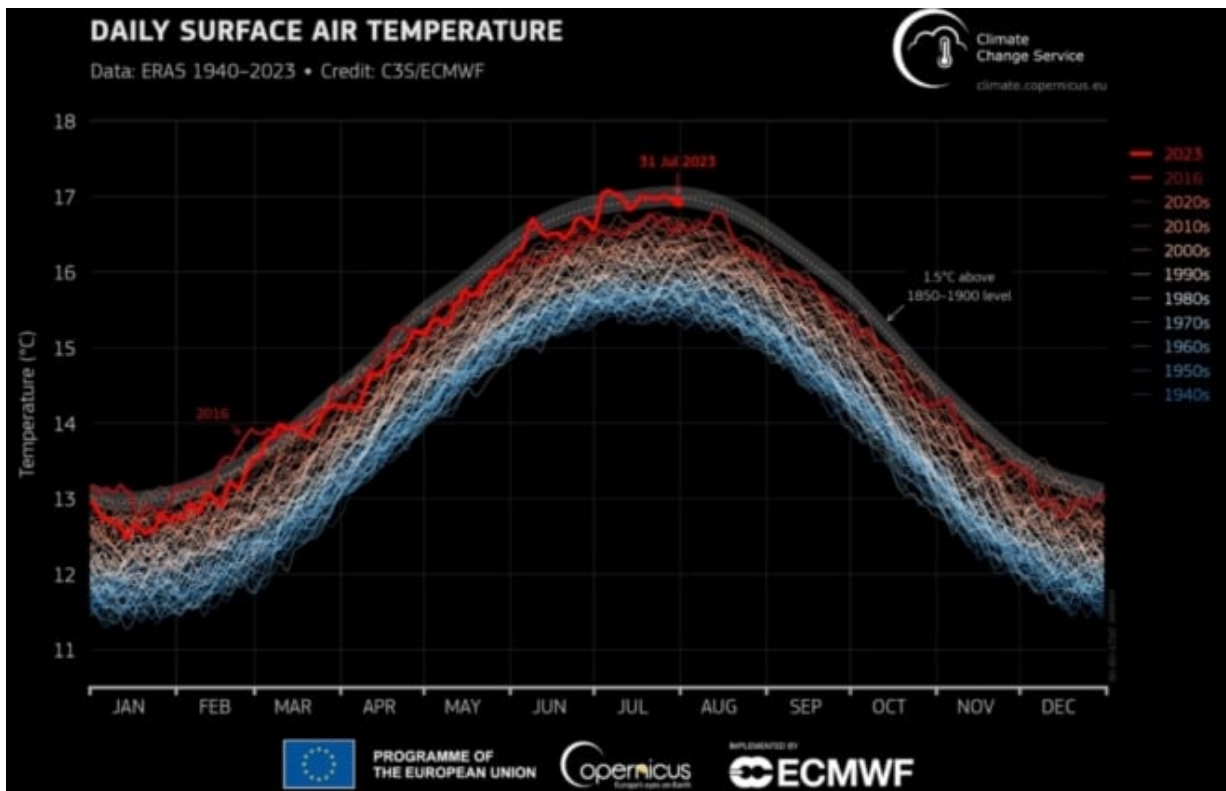
Climate Etc.

2023

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74

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2023??2022????????????????????  
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CO2  
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CO2  
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2009  
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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  
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2009  
2011

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??1981????????????????4?10??pp.  
949-954??  
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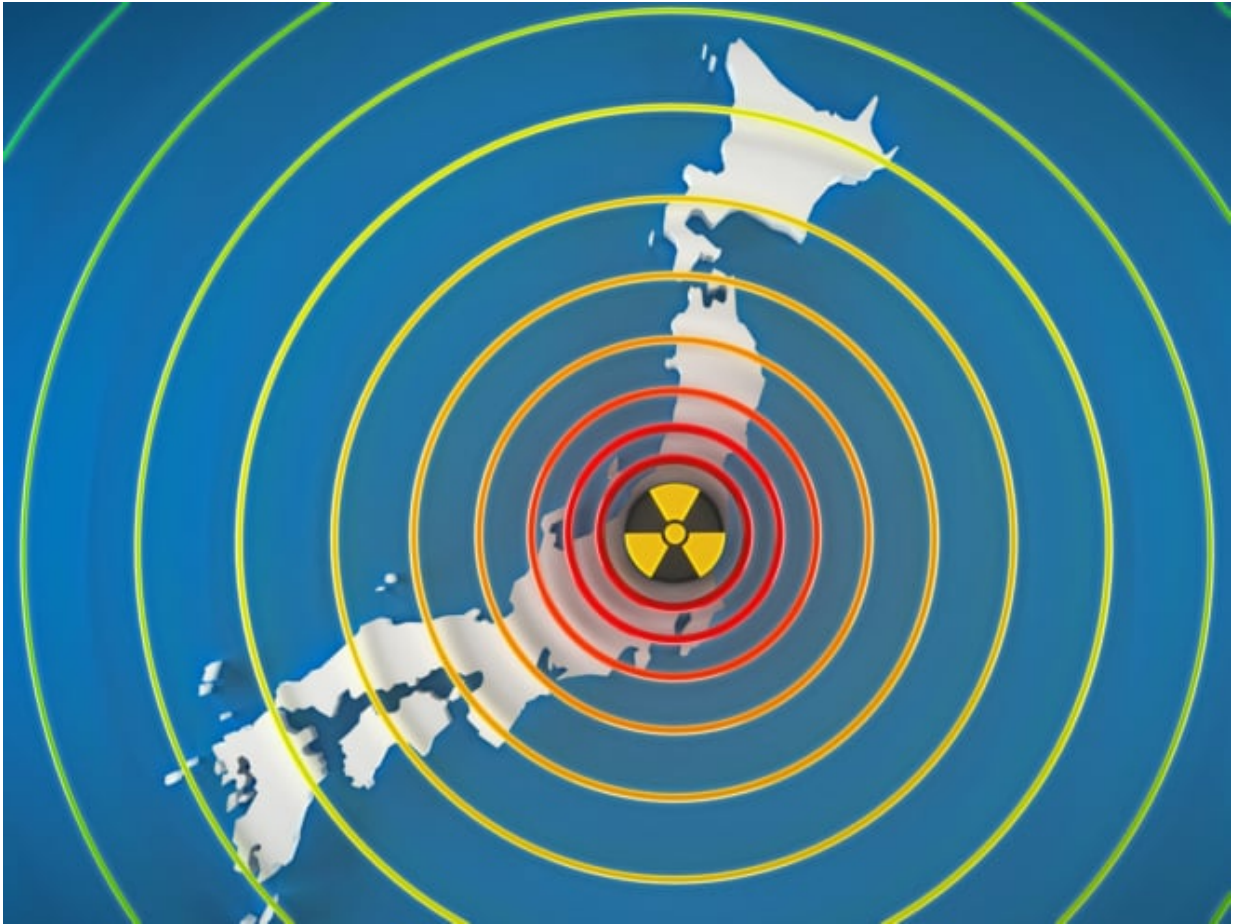
??3????????????  
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Posted in [??](#), [????????](#) | [No Comments](#) »

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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



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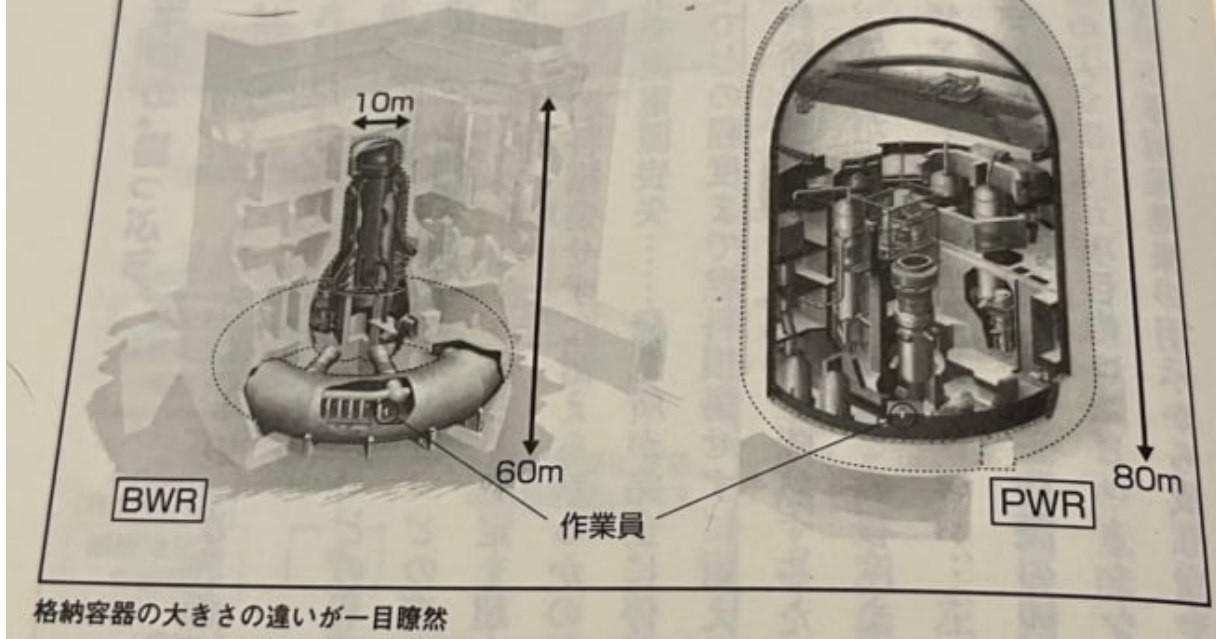
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??BWR  
/Mark?I????????????????????PWR??  
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### BWRとPWRの格納容器の大きさ比較



?????????BWR/Mark-I?????????PWR?????????

?????????2012, WAC, 219???

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????35?????????Mark-I?????????

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©? japan.cnet.com

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250?????????5000?????????????????250?????????????????????????????????5000  
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bluejayphoto/iStock

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7?27?????WMO??EU?????????2023?7?????????  
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??7????????????????????????10????????7????????  
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Posted in ???, ??, ????? | No Comments »

# ????????G20????????

?? ? · Monday, July 31st, 2023

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

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2??

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**some**  
**members??**??  
**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???
- ???

G20???

G201.5???

1.5???

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



# IPCC AR6

?? ?? · Sunday, July 30th, 2023

??623??IPCC??

??3??IPCC??6??AR6??

??1.5??GHG??7??

??2040??

??AR6??GHG??

??6??AR6-SPM??Longer Report??



NicoElNino/iStock

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 CO<sub>2</sub>e 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

???



AR6-SPM?C.2.4  
2  
39

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2  
1.5

1.5 AR6-SPM?P26



1.5  
24

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1.5  
IPCC AR6  
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??  
59

1.5

AR6  
26  
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IPCC

AR6  
2  
1.5

????????IPCC??

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????????????????????????????????GHG????2019????2030????43????2050?84????????????????  
????????????????????1.5????????????????????????????????1.7?1.8????????????????????  
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?1.5??2????  
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????1.5??  
????????????????5????????????1.5????????????????

?????IPCC

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???

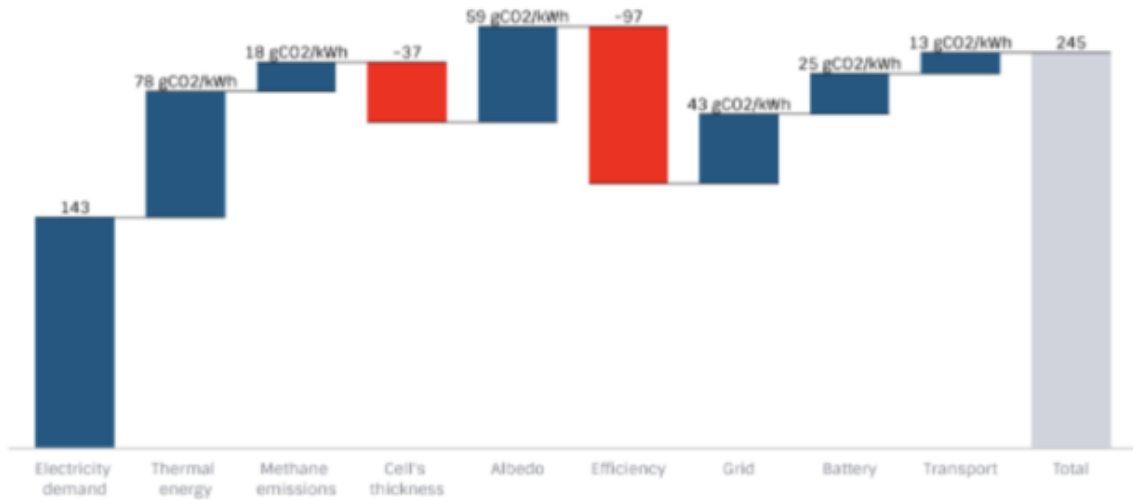
????????????????????CO2??CO2????????????????IEA?IPCC??

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

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

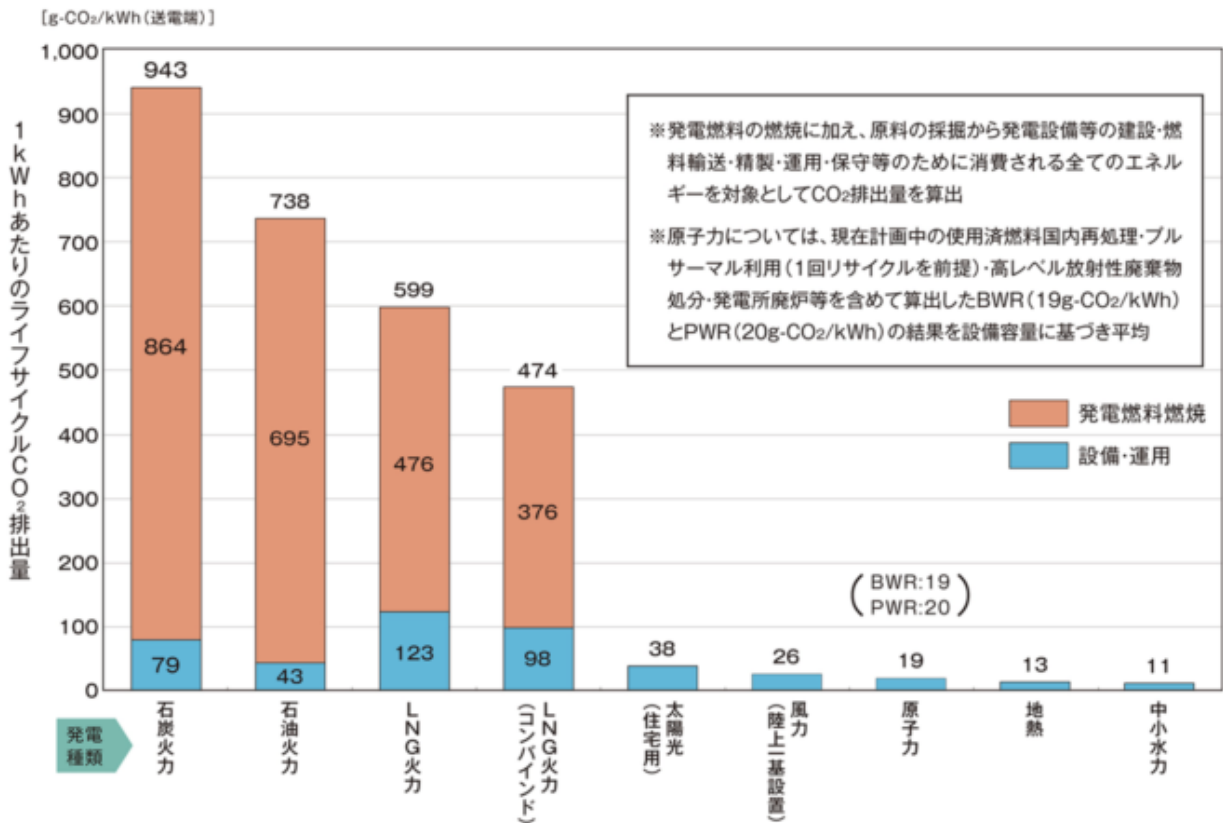
2022  
Carbon intensity, Worst Scenario



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

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

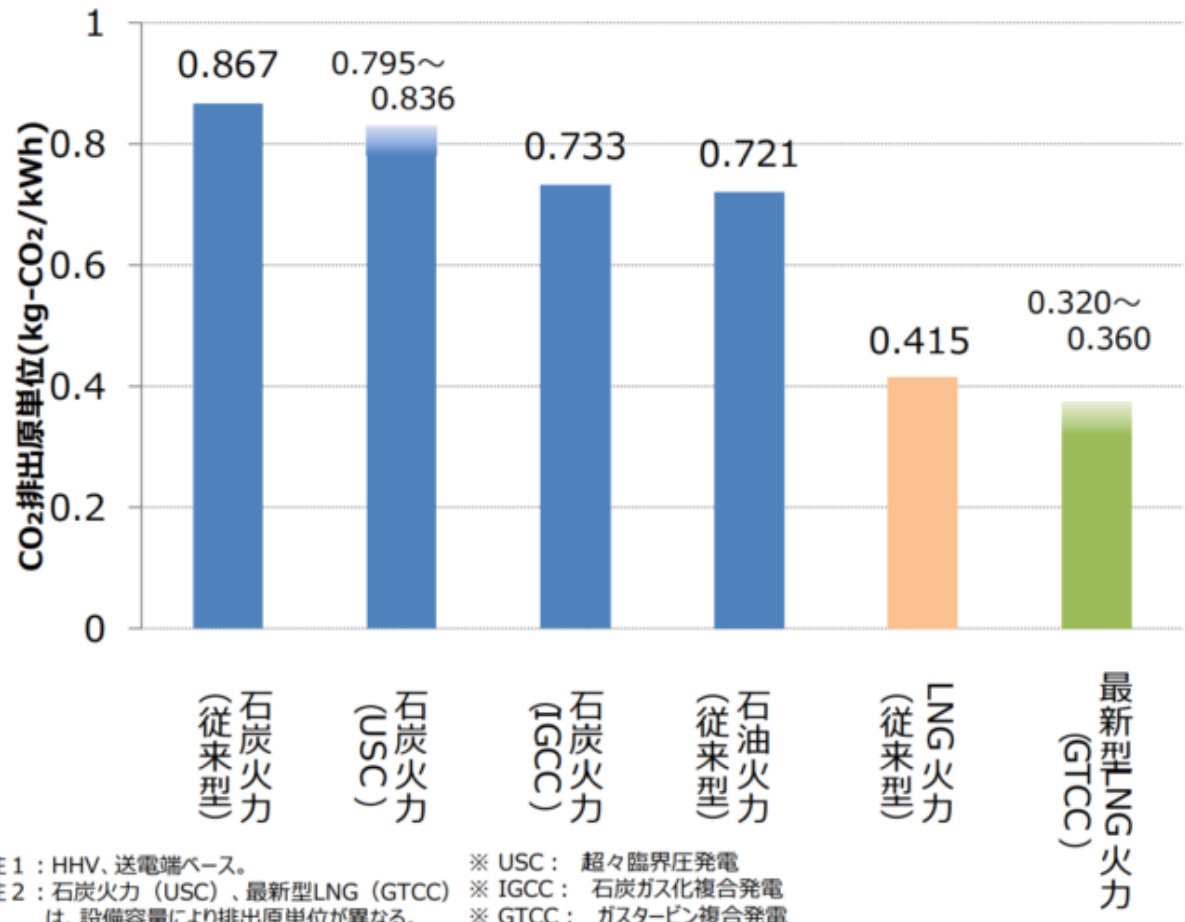


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????????????CO2??9??  
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1kWh??245??CO2????????????????????????????????????2022??  
??LNG????????CO2?????1kWh??320??360????????????????3??



3??????

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Posted in ???, ????? | No Comments »

### ??????EV??????????????????

?? ?? · Friday, July 21st, 2023

????????????????EV??EPA?EV?  
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EV??



jetcityimage/iStock

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??EV??  
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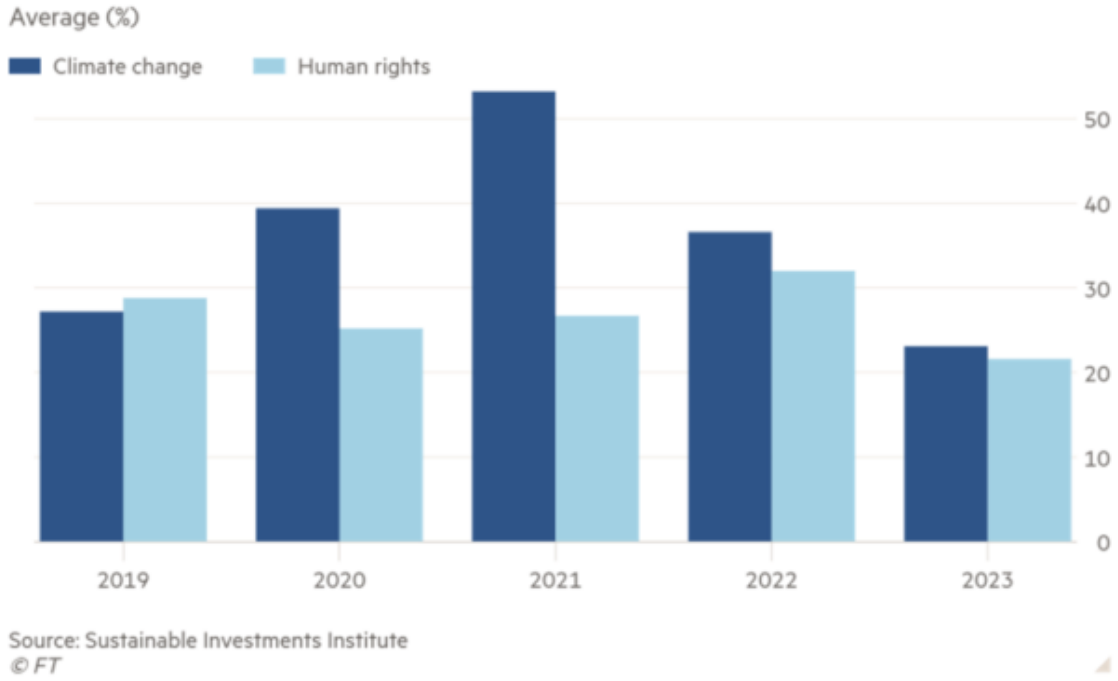
????????????????5??3?????????ESG????????????????????????????????????  
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????????????4,000????????????????????????????3??  
??

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

?????????????????????ESG????????????????????????????

### Investor support drops for environmental, social issues at US companies



### FINANCIAL TIMES??

??EPA??  
????????????????????????????????

4?12??EPA??2032????????????????????  
????67??EV??25??EV????????

?????EPA???67?????????????????EV??  
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??EV????????????????????????????????  
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?????EPA??EPA????????????????????????????????

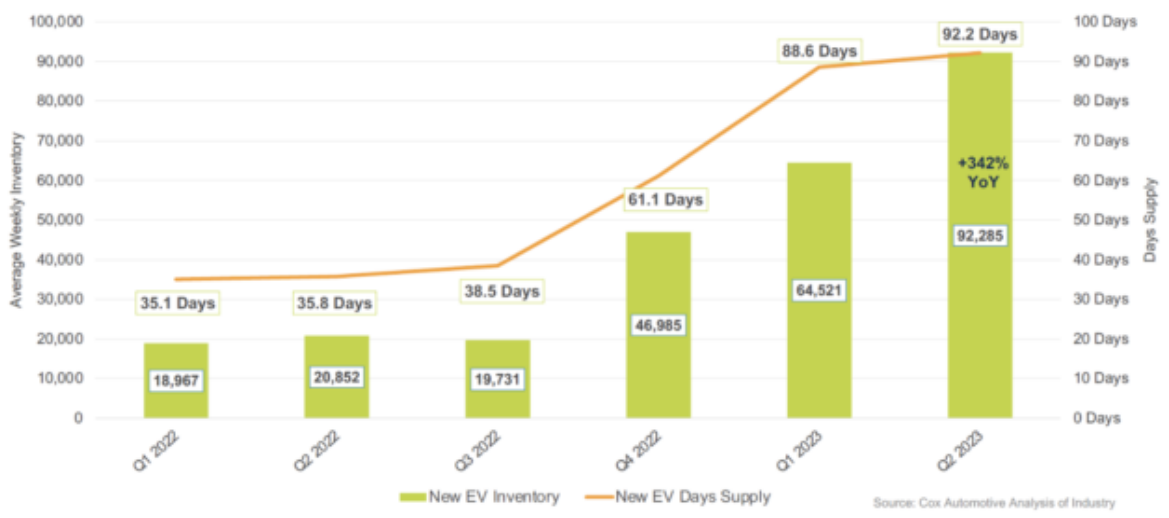
??  
????3????????????????21??EV??1??17.8??????????

??10?????EV??  
?????????????????????????????EV????????????????????

2023 Cox Automotive Mid-year Review????????2023??2??  
92,000????????????2022??2????????????342% ??????????

### NEW EV INVENTORY & DAYS' SUPPLY ESTIMATES

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



COX AUTOMOTIVE

#### EV????????????????

????????2050????????????????????????????????????EV??

??12????????????????????????????????????EV??

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

????????????CEO????????EV??

??EV???

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

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

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?? ? · Thursday, July 20th, 2023

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NickS/iStock

??21?5????50??  
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**Nobel Physics Laureate 2022 Slams ‘Climate Emergency’ Narrative as “Dangerous Corruption of Science”**

????????narrative??

??300????????????????????????????????  
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??300????????????????????????????????

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

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

?? ?? · Wednesday, July 19th, 2023



Max Lirnyk/iStock

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**Electric Vehicles for Everyone? The Impossible Dream**??

????????????????????BEV??ICE??BEV????????  
????????????ICE????????????HEV??

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



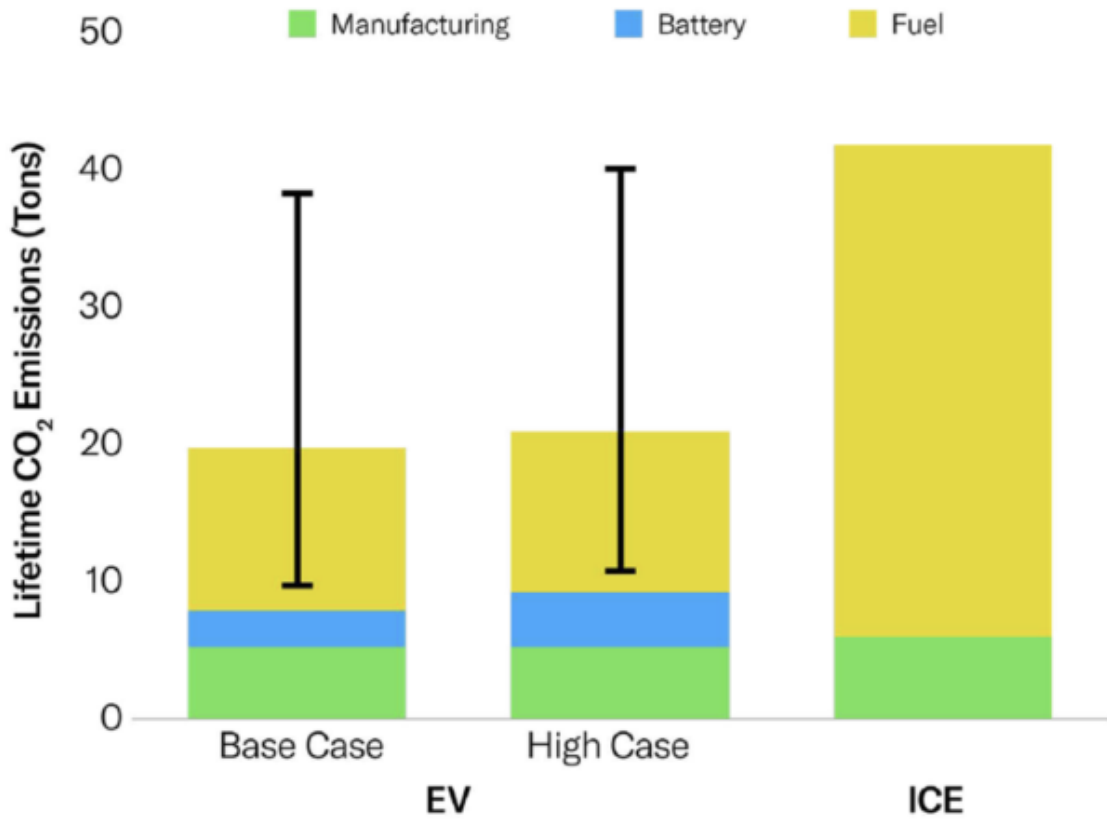
?????2??????CO2????????EV????CO2????????????????????

??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"

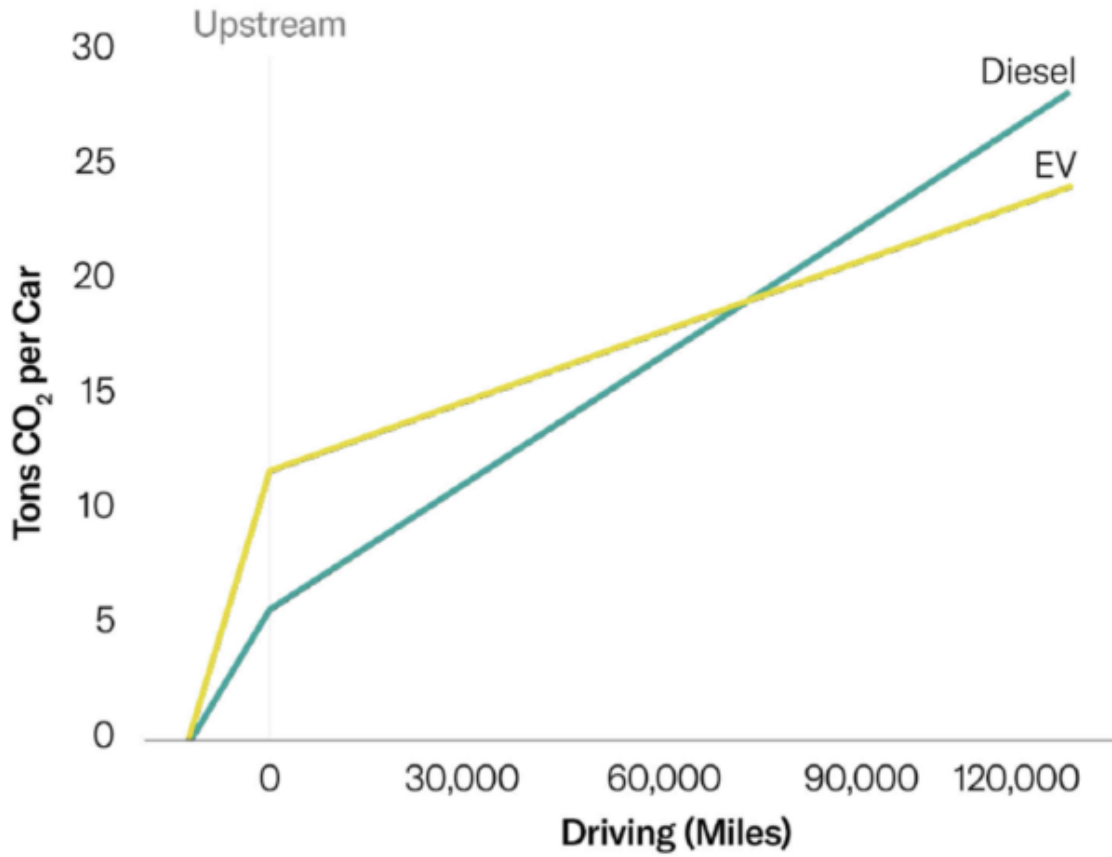
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????IEA??  
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????????ICE?EV????????CO2????????????6????????????????????????EV????CO2????????????????  
??EV????????????

Figure 4

Life-Cycle Emissions: Volkswagen EV vs. Diesel



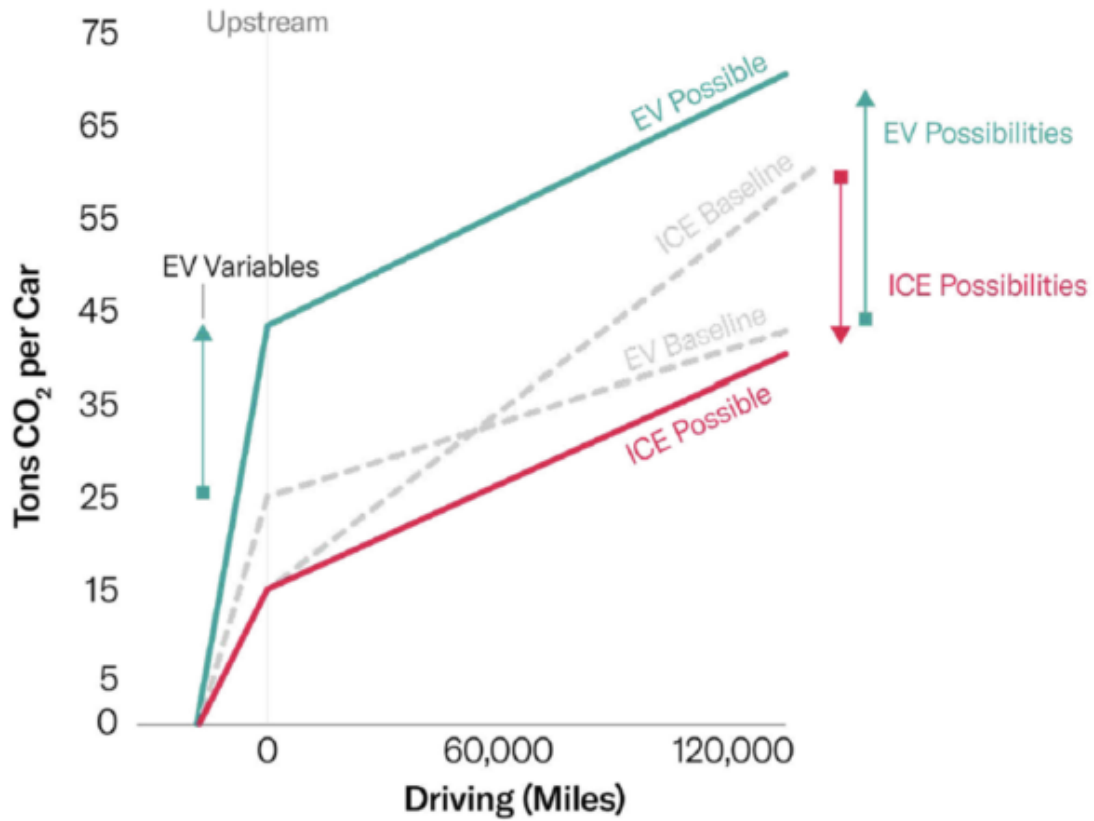
Source: Maciej Neugebauer, Adam Żebrowski, and Ogulcan Esmer, "Cumulative Emissions of CO<sub>2</sub> for Electric and Combustion Cars: A Case Study on Specific Models," *Energies*, Apr. 6, 2022

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

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

Figure 6

EV vs. ICE CO<sub>2</sub> Emissions: Scenarios with Known Unknowns



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

??????

CO<sub>2</sub>?????????1????????????????? EV??ICE????????????????????????????????

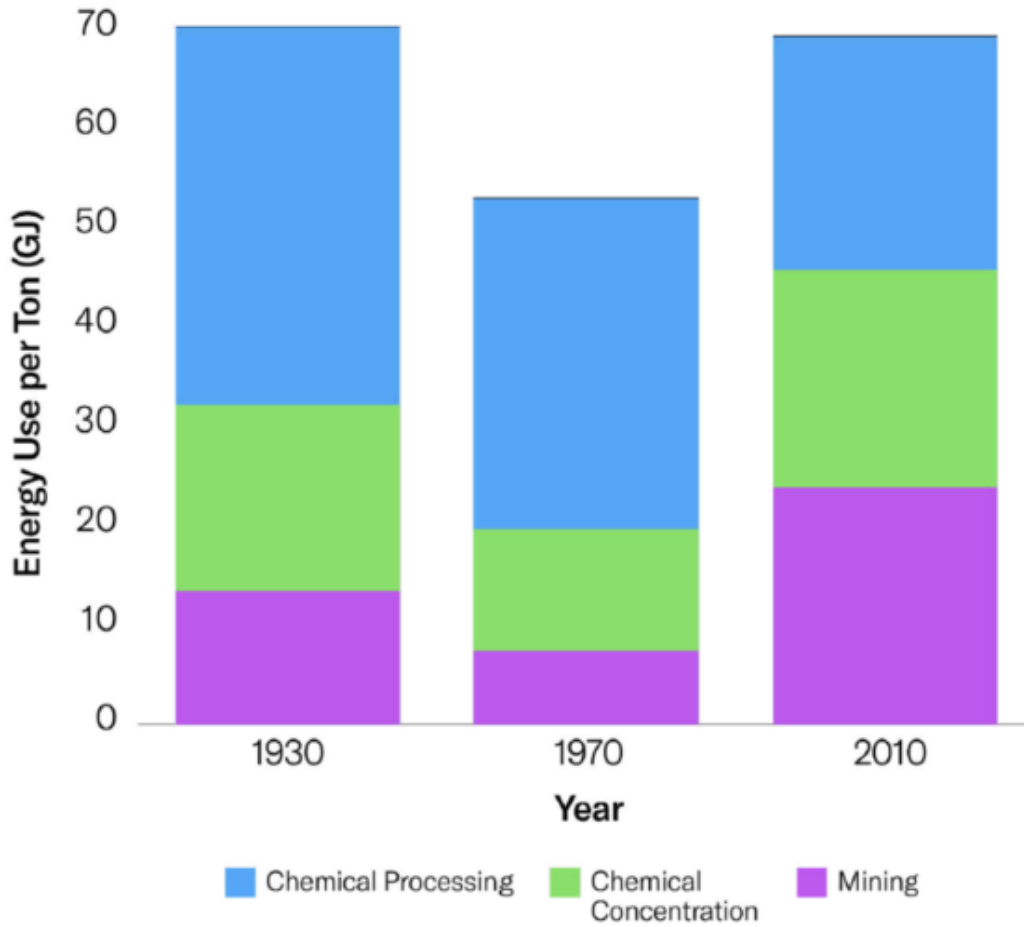
??1?????????????????????EV??

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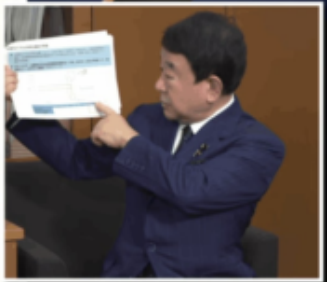
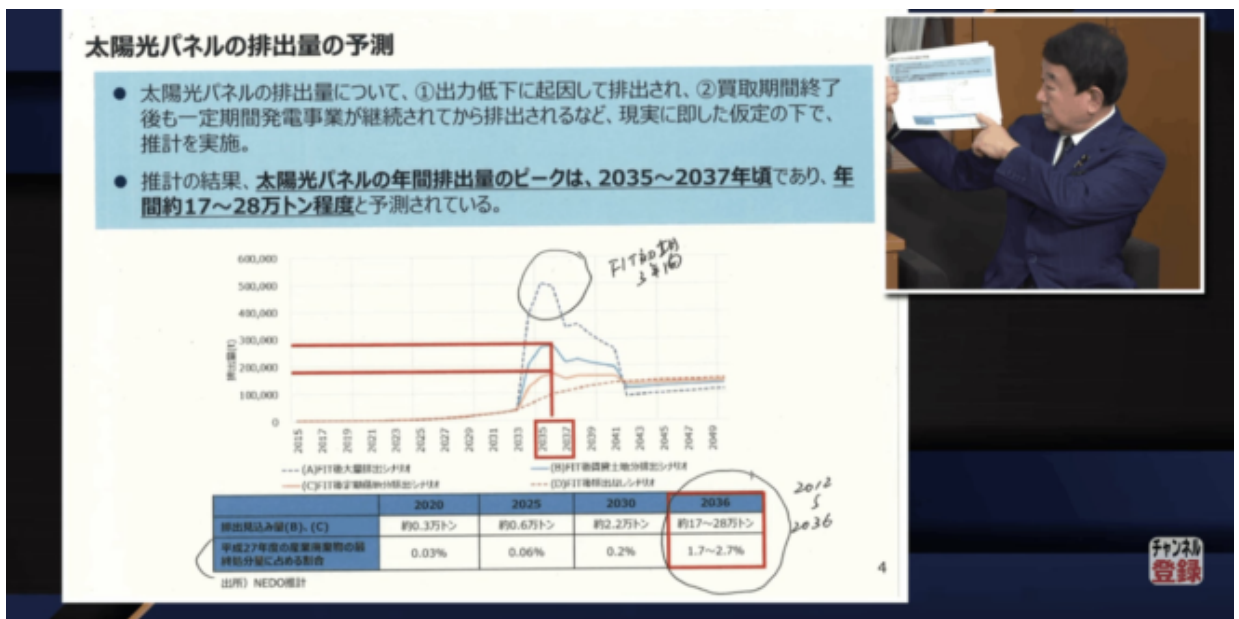
????????????????????????????????1????????????????????3????5????????????

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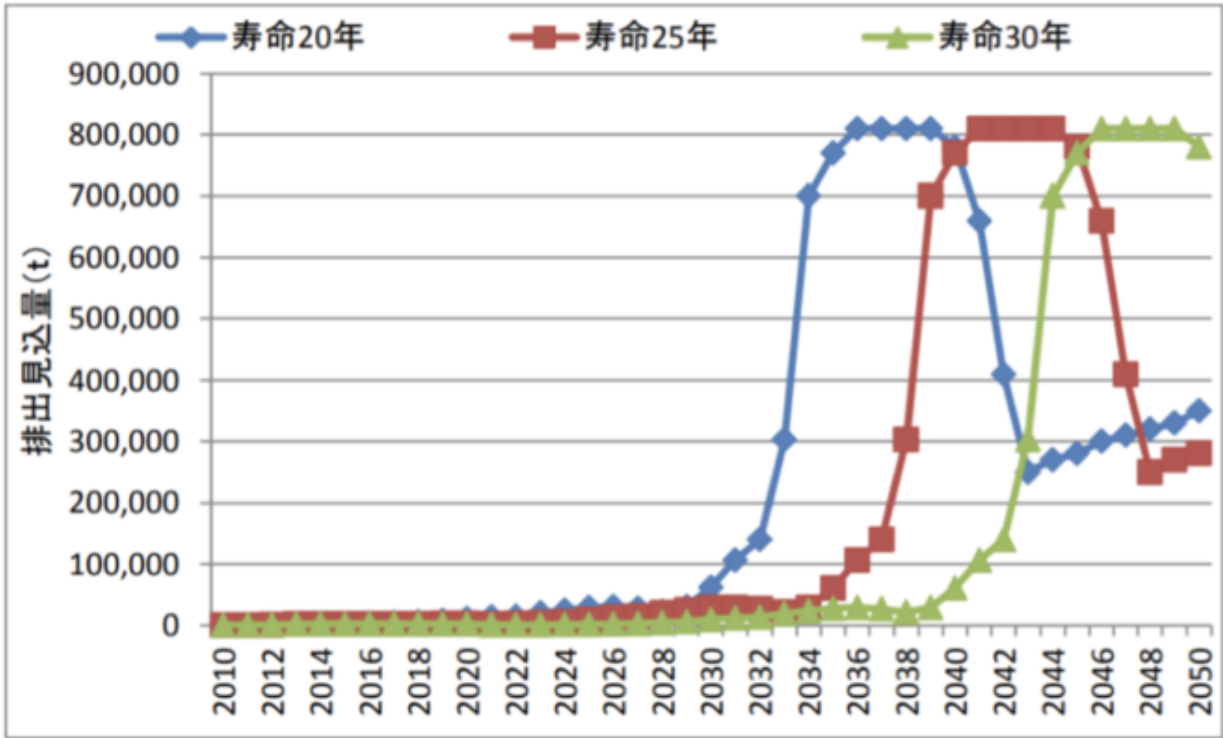


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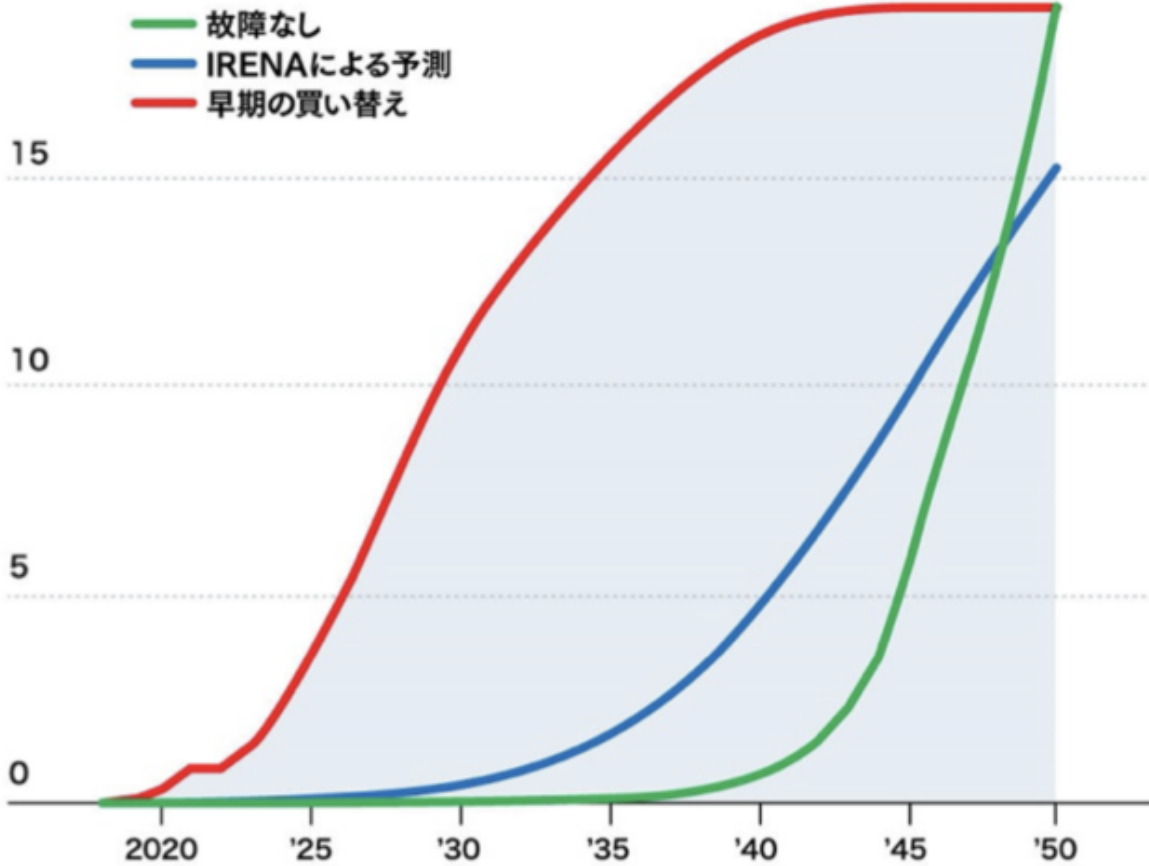
????????????????2035????????????2????????????????3??



????????????????????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





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**?PCB???**

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

??PCB????????????????  
????????????1968????43????????????????????????????????PCB????????????????  
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**?PCB???????**

PCB????????????????????????????????????1972????47????????????????????30????????  
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??13?6?22????????  
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1972??PCB????????????????????????????????PCB????????????????????????2001??PCB?????  
2004????????????????????JESCO????????????????????????????????????30????????  
????PCB????????

PCB????????2016????????????????JESCO????????????????????????????????PCB?????  
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Posted in ??????????, ??? | [No Comments](#) »