

????4? ?????????????????????????

???????CWG????????????????

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????????????????????ECS????CO2????????????????AR5?AR6????IPCC?5??6??????

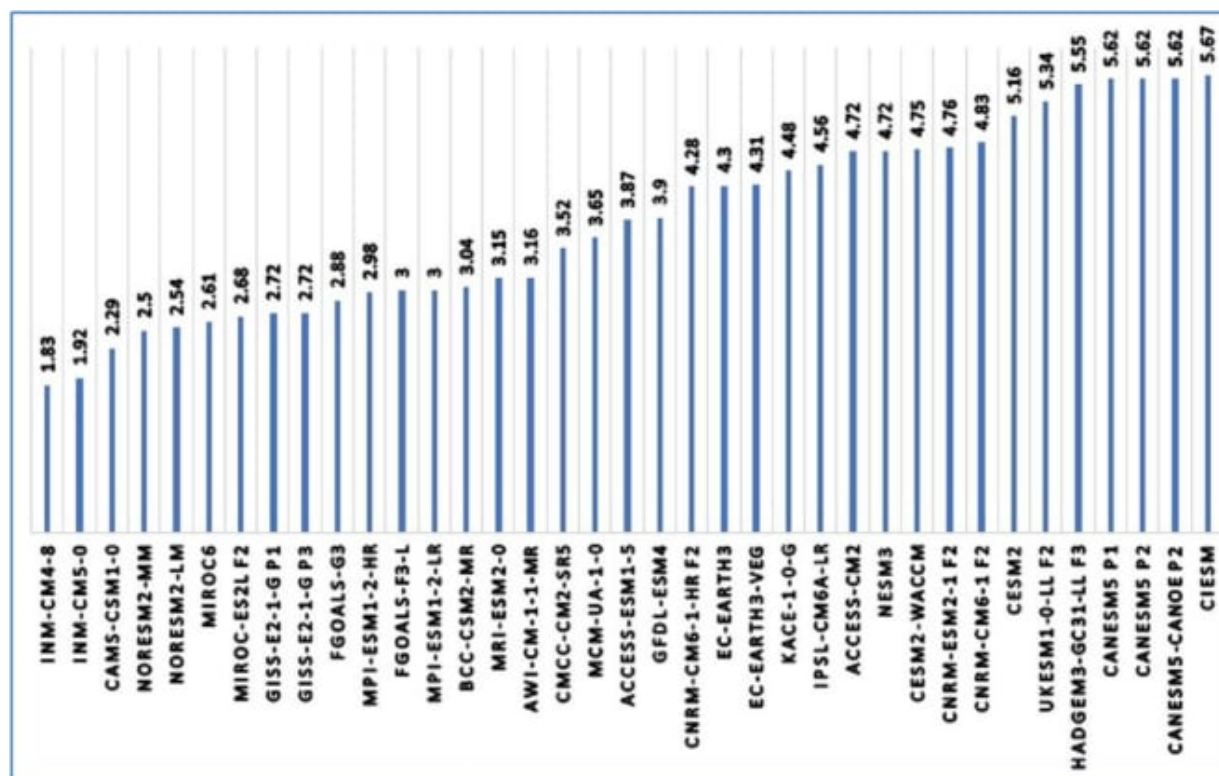
????CO2????????????ECS????????????????????????????IPCC????????????????
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????ECS????????????????????????????IPCC

AR6?ECS????????????4.0????AR5?4.5????????????????????????????????

??AR6?ECS????????????2.5??AR5?1.5????????????????????????????????AR6
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?4.1 CMIP6???????37????????????????

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???4.1??MPI-

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Mauritsen?Roeckner?2020????????????MPI????????????????

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 ???????1.2?2.4????????ECS????????TCR????????????????????????Lewis?2023????TCR???1.2
 5?2.0????ECS???AR6????????????

??????21????????????75????????CO2????????????????????????CO2????????IPC
 C?1.2?2.4?Lewis?1.25?2.0????????????????????

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Posted in ???, ????? | No Comments »

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?? ?? · Thursday, August 7th, 2025



Dilok Klaisataporn/iStock

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??Climate Working Group, CWG?????2025?7?23??????????

??A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate??????

??????3? ???CO2????????????????????CO2????????????????????

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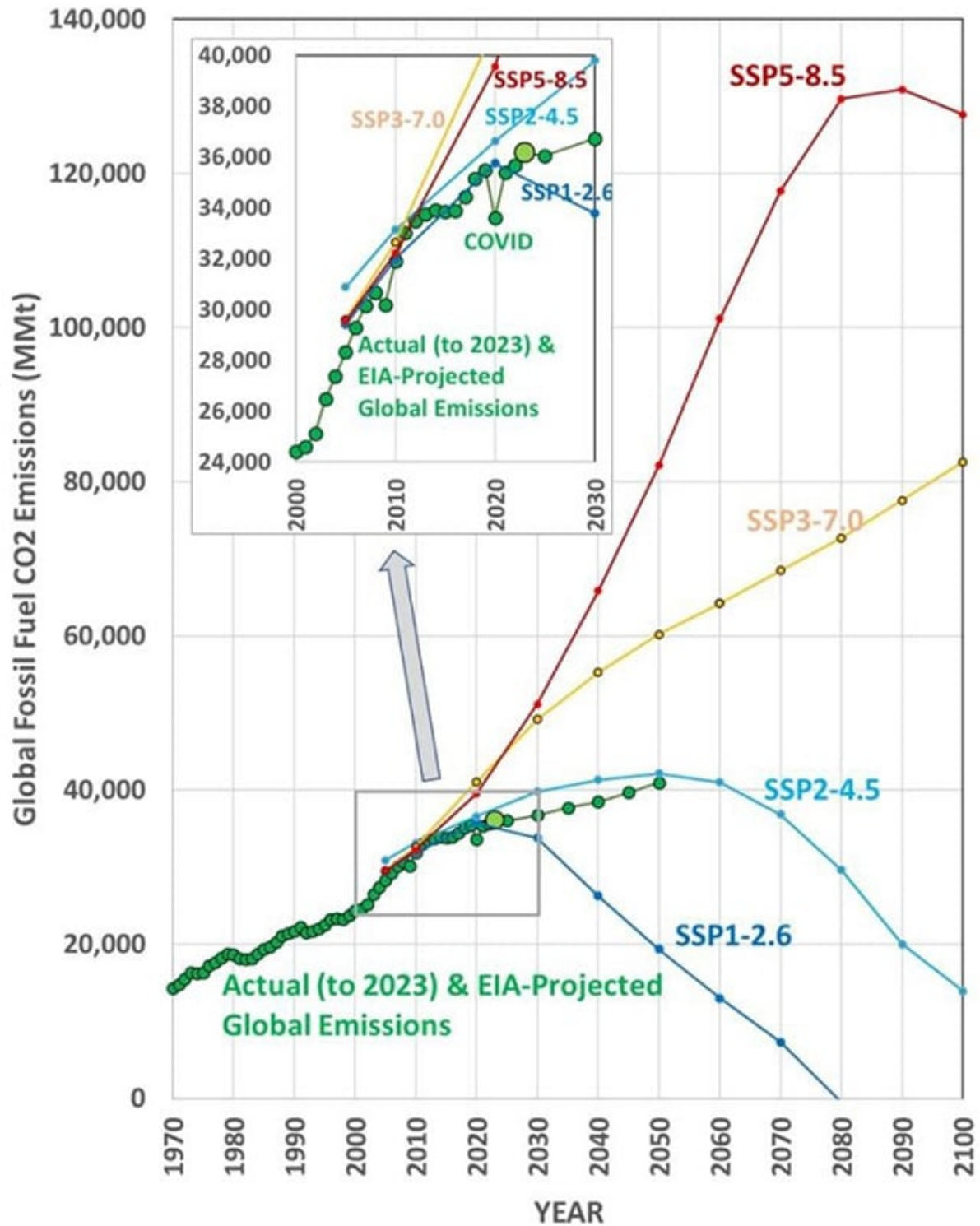
3.1????????????????????

IPCC??Co
nnolly??2021??????????????16????????????????TSI????????????????1600??2000????????????????????????
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IPCC????????11??
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3.2.2. ?????CO2????????????????????EIA????????SSP1-5

???IPCC?SSP????????????????EIA?

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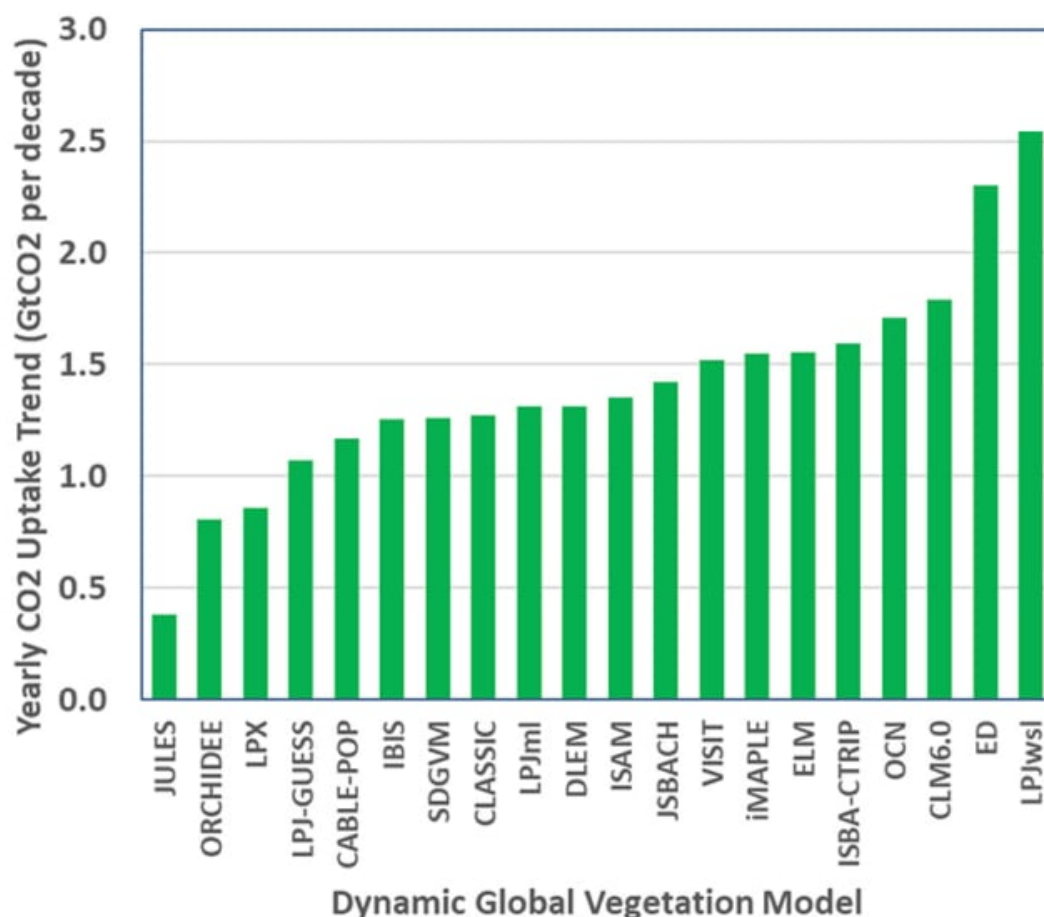
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50 Ciais et al., 2013

CO₂

20 Friedlingstein, 2024 3.2.3 1959 2023 65

CO₂



3.2.3 1959 2023 CO₂ GtCO₂/10 Friedlingstein, 2024 20

CWG IPCC CWG CWG

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Posted in ???, ????? | No Comments »

??????CDP?SBTi??????????????

?? ?? · Wednesday, August 6th, 2025

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?CDP??

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[illegible][illegible]

CDP????ESG??
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CDP????????????????SBTi????????????????CDP????????????????
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CDP????????????????A?B?C?D????????????SBT??TCFD????????????
??RE100?Climate Action
100+?TNFD????????JCLP????????????????

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CDP?RE100?TCFD?SBTi????????????????
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?SDGs????????

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

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?? ?? · Wednesday, August 6th, 2025



Tunatura/iStock

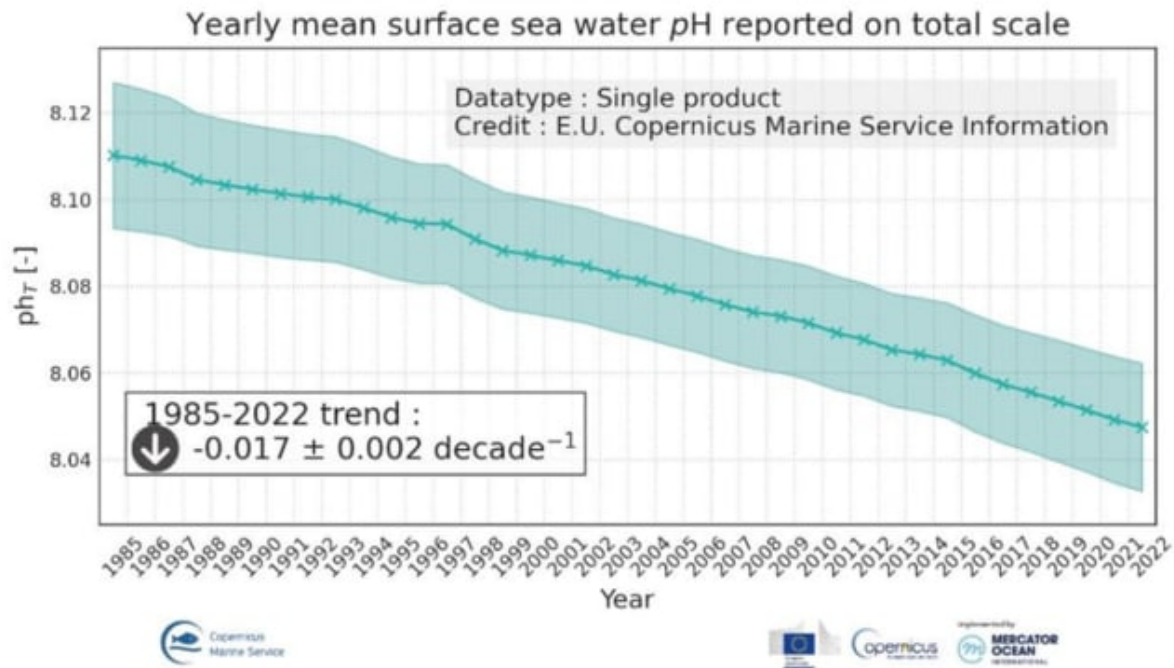
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??Climate Working Group,
CWG????2025?7?23??A **Critical Review of
Impacts of Greenhouse Gas Emissions on the U.S. Climate??**

????2??CO2????????????2.2????????????????????????????????CWG????????????????

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2.3??pH 1985?2022
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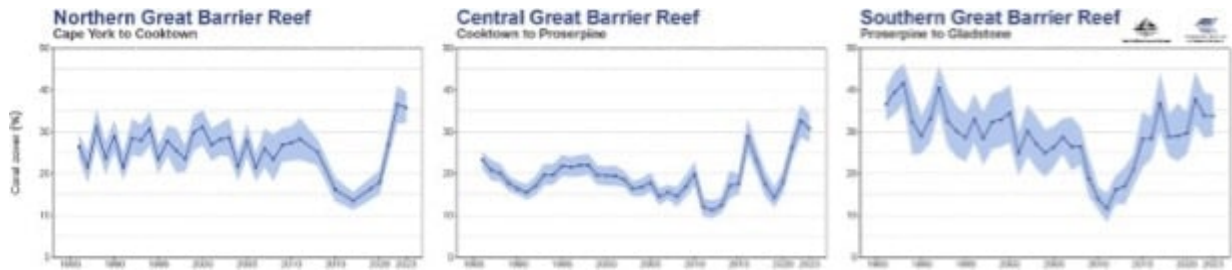
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????????????????????????pH6.5??7.0??2018????????????
????????????????????????2????????pH?7.4??7.5????????????????????????????????????Rae et
al., 2018????????????????????pH????????????????pH????????????

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1957??De’ath??2009????????GBR????????1990????14????
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2023??2.4??AIMS????????2011????
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2023??1990??2009??GBR????CO????



2.4 1985-2023
AIMS 2023

CO2 GBR
CO2

CWG

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Posted in ???, ???? | No Comments »

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?? ?? · Tuesday, August 5th, 2025



hikastock/iStock

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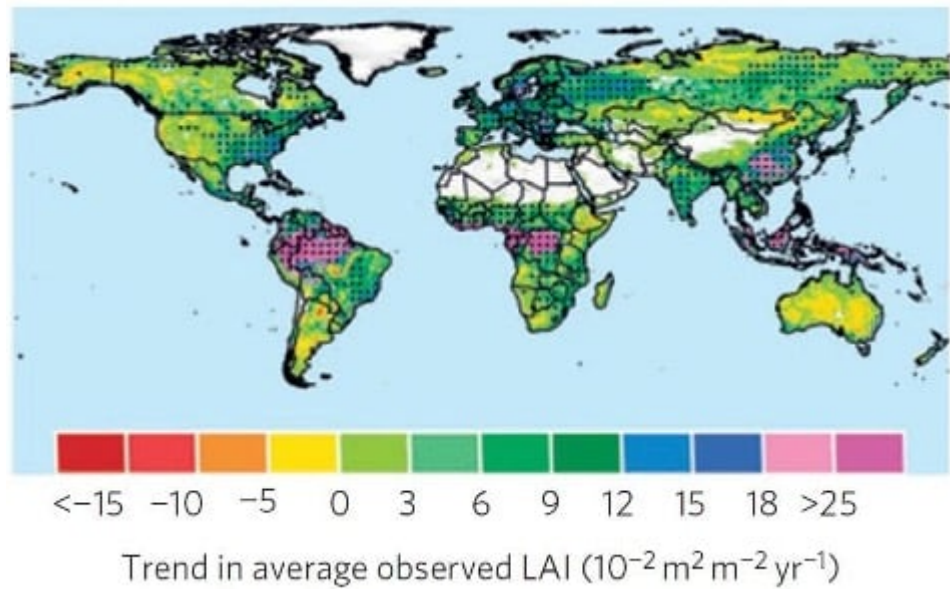
????????????????????????????????Climate Working Group,
CWG?????2025?7?23????????????????????????????????????A Critical Review of
Impacts of Greenhouse Gas Emissions on the U.S. Climate??

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2.1? CO2????????????

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Zhu 2016

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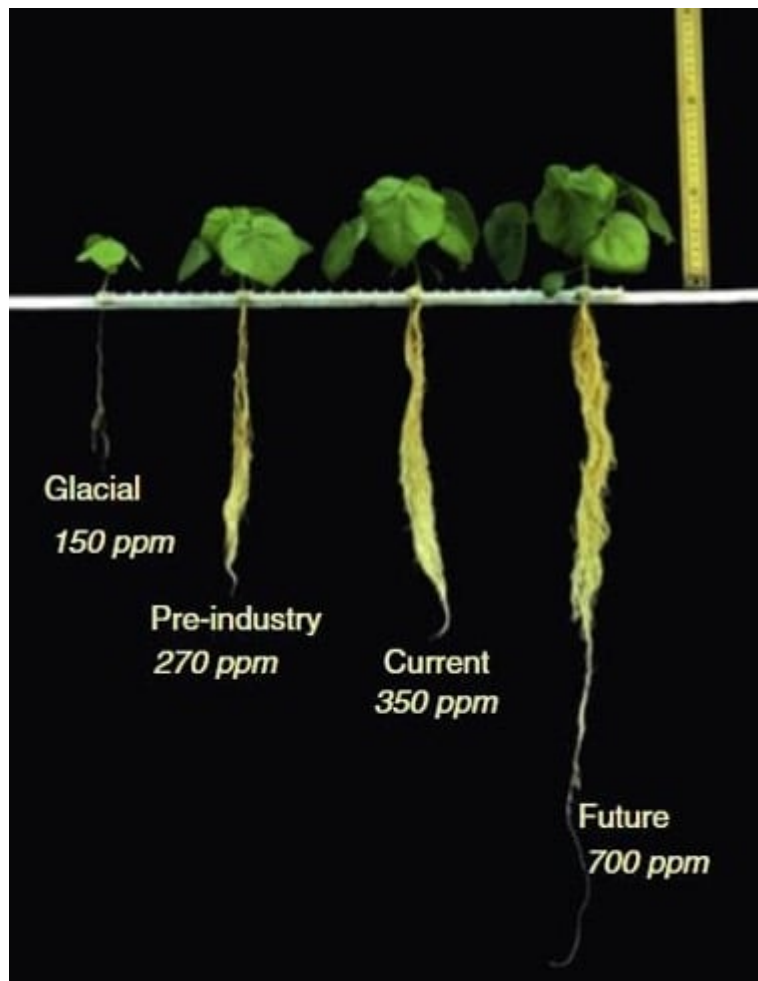
CO₂ 2,000-4,000 ppm
5,000-1,000 ppm
Berner 2006, Judd et al.
2024 3,500-170 ppm
Gerhart and Ward
2010

CO₂

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CO₂

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Posted in ???, ????? | No Comments »

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?? ?? · Monday, August 4th, 2025



2025723A Critical Review of Impacts of Greenhouse Gas Emissions
on the U.S. Climate

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Posted in ???, ????? | No Comments »

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

?? ?? · Sunday, August 3rd, 2025



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crbellette/iStock

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2009????????????CO2????????????CO2????????endangerment findings????????????

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??Climate Working Group, CWG????????????????????**A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate**????????????

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

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?? ?? · Saturday, August 2nd, 2025



oasis2me/iStock

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28??

議論 ガス抜きならぬ“大糾弾大会”
自民・両院議員懇談会

懇談会後 続投の理由について

この午後8時すぎ

自分自身の責任については—

所属議員の皆様の意見が聞けたわけではない
世論と我が党の考え方が一致することが大事
総合的に踏まえて適切に判断をしたい

(Q: 続投の意思に変わりは?)

ごさいません

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<https://agora-web.jp/archives/250701073617.html>

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近年の党派別得票数・率(比例)の推移

	2022年 参院選	24年 衆院選	25年 参院選
自民	1826 34.4	1458 26.7	1281万票 21.6%
立民	677 12.8	1156 21.2	740 12.5
国民	316 6.0	617 11.3	762 12.9
公明	618 11.7	596 10.9	521 8.8
維新	785 14.8	511 9.4	438 7.4
参政	177 3.3	187 3.4	743 12.6
共産	362 6.8	336 6.2	286 4.8
れいわ	232 4.4	381 7.0	388 6.6
保守	— —	115 2.1	298 5.0
社民	126 2.4	93 1.7	122 2.1
ちみ	— —	— —	152 2.6

※得票数・率はいずれも四捨五入。総務省の衆院選・参院選結果調(速報)より

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

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?? ?? · Friday, August 1st, 2025



RapidEye/iStock

20257723A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate??

4

2050CO2

Executive Summary

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CO [?2.1??9?]pH [?2.2?]?

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?????1.8°C??5.7°C????????????[4.2?]????????????????????????????????[4.3?]??????
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Posted in ???, ????? | No Comments »

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?? ?? · Friday, August 1st, 2025



XH4D/iStock

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Electricity generated from wind and solar cannot replace fossil fuels! – America Out Loud News

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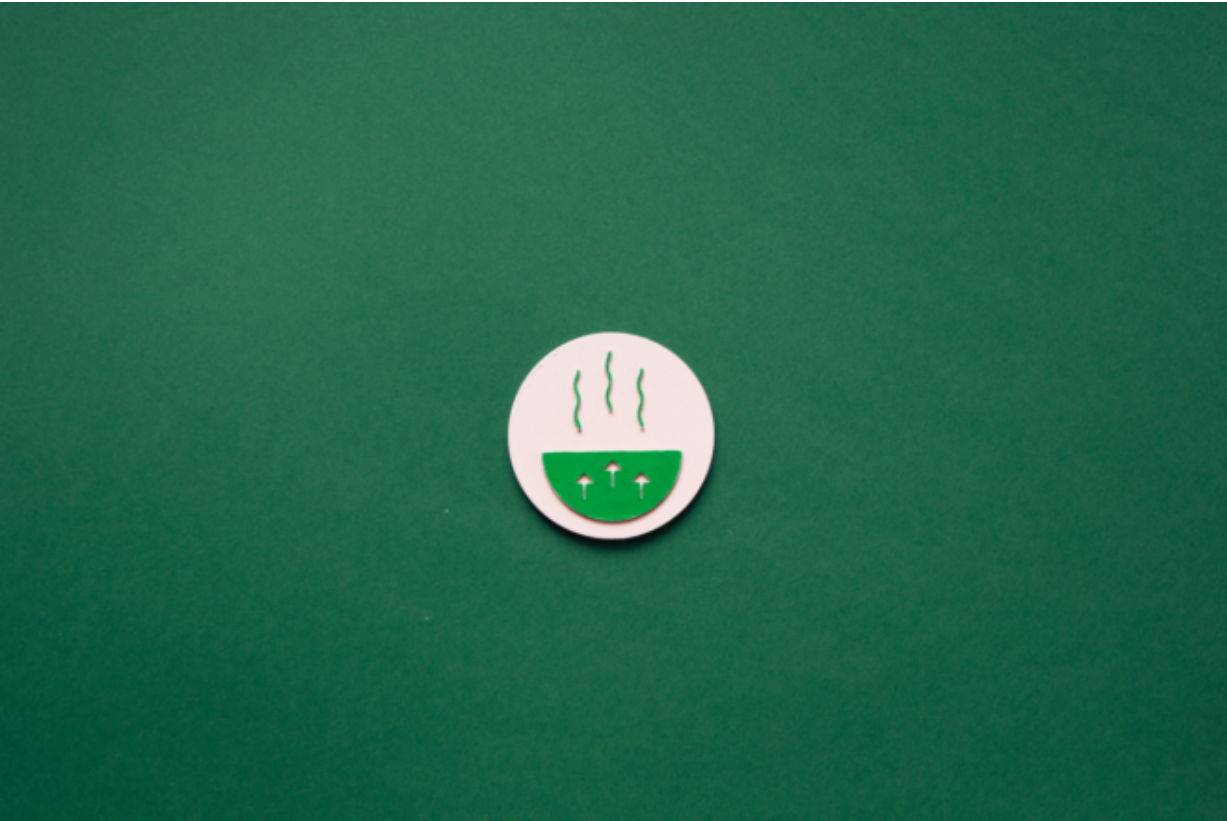
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Posted in [??????????](#), [???](#) | [No Comments »](#)

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?? ? · Wednesday, July 30th, 2025



Megane Adam/iStock

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

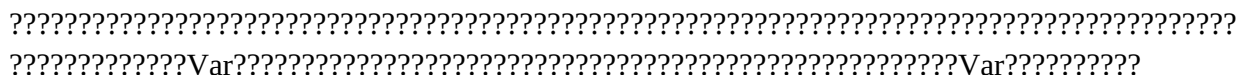
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??? ?? · Thursday, July 24th, 2025



JaviJ/iStock

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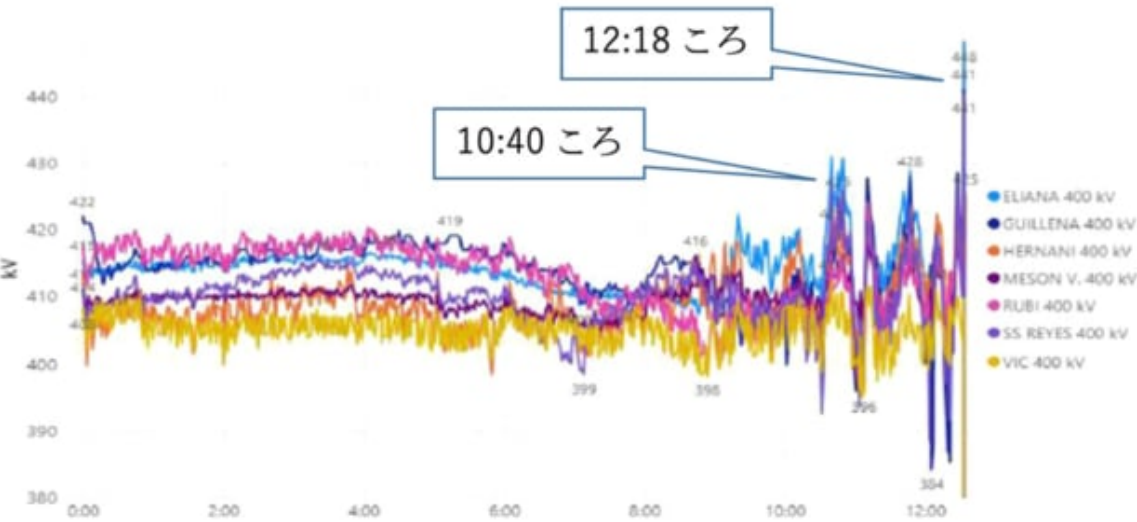
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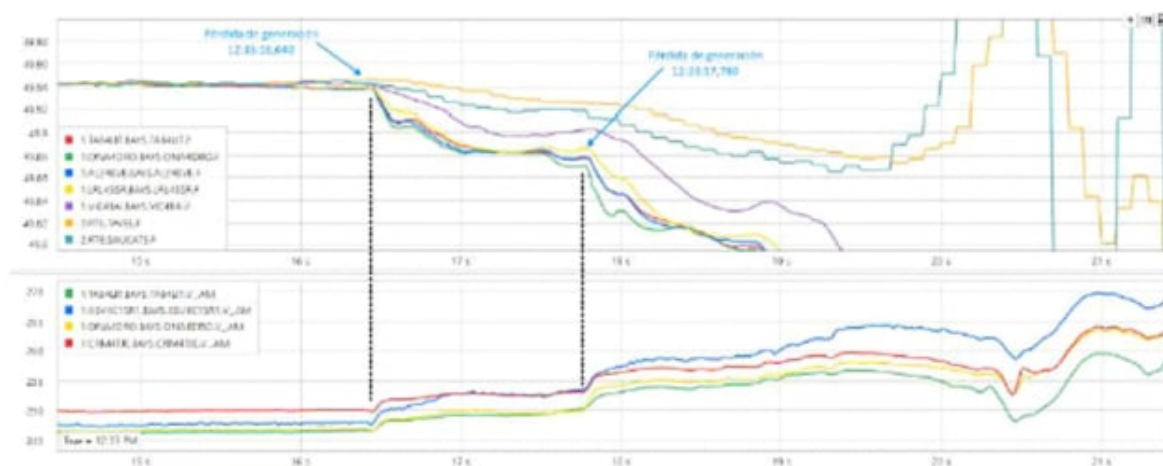
4?28????10??2????????????????????????????????



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

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?? ?? · Monday, July 21st, 2025



nu1983/iStock



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



BRICS Brasil 2025

BRICS??UAE?????
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G7??BRICS????????????????????????????????????

??????1.5????2050????????????????G7??
????????????G7????????CO2????????30??25????BRICS11????49??58????????????????
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1975???1?G7????????????????G7?BRICS?G20????????????????????

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1?Saudi Arabia sits on fence over BRICS with eye on vital ties with US
2?BRICS Summit signs historic commitment in Rio for more inclusive and sustainable governance

Posted in ???, ?? | No Comments »

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?? ?? · Saturday, July 19th, 2025



DesignRage/iStock

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News??
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??CO????????????????????????????????
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SKW???????????	???????????????????	???????????????????	????????????????2025?1?22??
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Posted in ??????????, ??? | No Comments »

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?? ?? · Wednesday, July 16th, 2025



BeeBright/iStock

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

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??? ?? · Wednesday, July 16th, 2025



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	定格出力	運転開始年月	2025 年現在の稼働年数
1 号機	110 万KW	1985 年 9 月	40 年
2 号機		1990 年 9 月	35 年
3 号機		1993 年 8 月	32 年
4 号機		1994 年 8 月	31 年
5 号機		1990 年 4 月	35 年
6 号機	135.6 万KW	1996 年 11 月	29 年
7 号機		1997 年 7 月	28 年

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

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?? ?? · Monday, July 14th, 2025



style-photography/iStock

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????????????	Envision?Chifeng Net?Zero Park????????	500?MW????2.5?GW?2025?07???? 2?GW????????300?MWh????????	???(Hydrogen Insight, hydrogentechworld.com)	???(Iberdrola, eFUEL- TODAY)
	Iberdrola Puertollano???? 20?MW???100?MW??PV2022?05??	????????20?MWh????????		

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???H2?????CH4????????1????????????????3?????

1 mol あたりの燃焼反応と標準燃焼エンタルピー（25 °C, 1 bar）

燃料	化学反応式（完全燃焼, 生成物は液体水）	$\Delta H^{\circ}_{\text{c}}$ [kJ mol ⁻¹]
水素	$\text{H}_2 (\text{g}) + \frac{1}{2} \text{O}_2 (\text{g}) \rightarrow \text{H}_2\text{O} (\text{l})$	-285.8 Chemistry LibreTexts
メタン	$\text{CH}_4 (\text{g}) + 2 \text{O}_2 (\text{g}) \rightarrow \text{CO}_2 (\text{g}) + 2 \text{H}_2\text{O} (\text{l})$	-890.3 webbook.nist.gov

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

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?? ?? · Saturday, July 12th, 2025



peterschreiber.media/iStock

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1. ?????????????????????

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??	?1??(120?kWh)	?2??(120–300?kWh)	?3??(300?kWh?)
2010??	17.87 ?	22.86 ?	25.95 ?
2012?2015??	19.43 ?	25.91 ?	29.93 ?
2016?2022??	19.52 ?	26.00 ?	30.02 ?

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

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??? ?? · Thursday, July 10th, 2025

2025?6?20??NHK???????

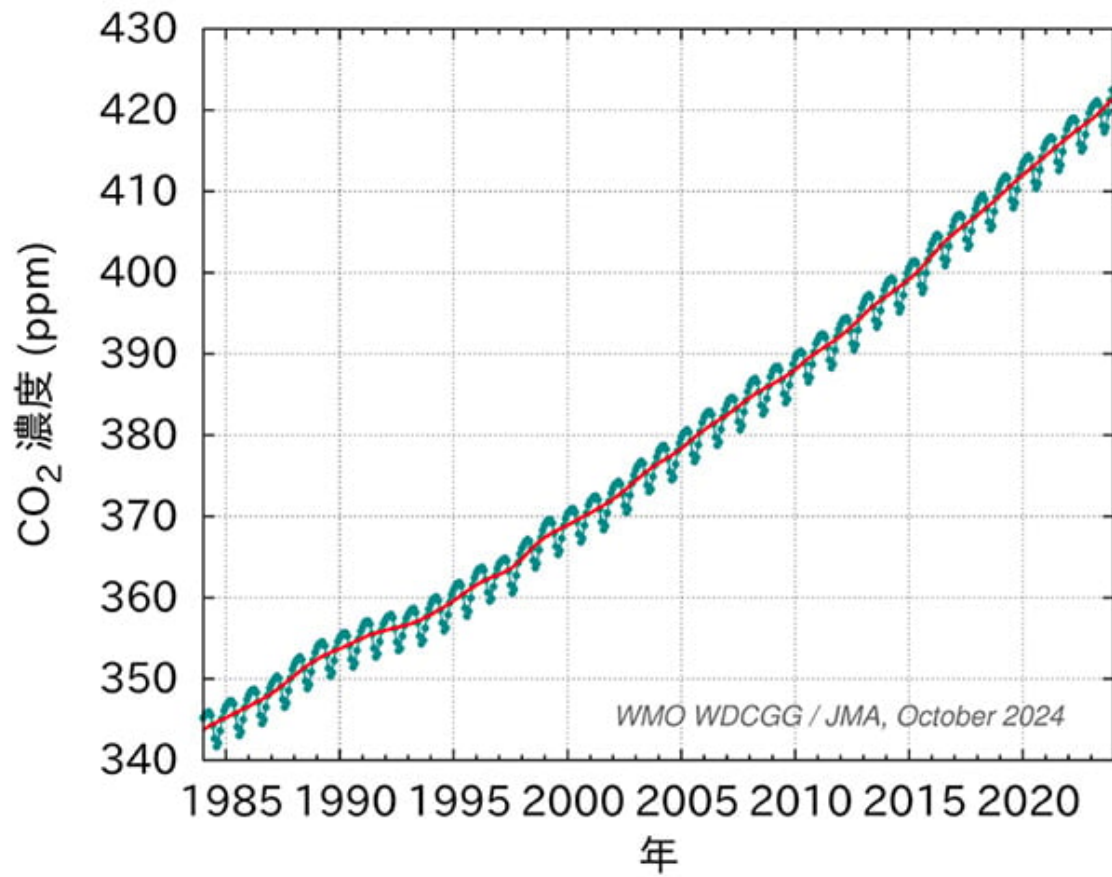
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[illegible]

1. ?????CO₂????????

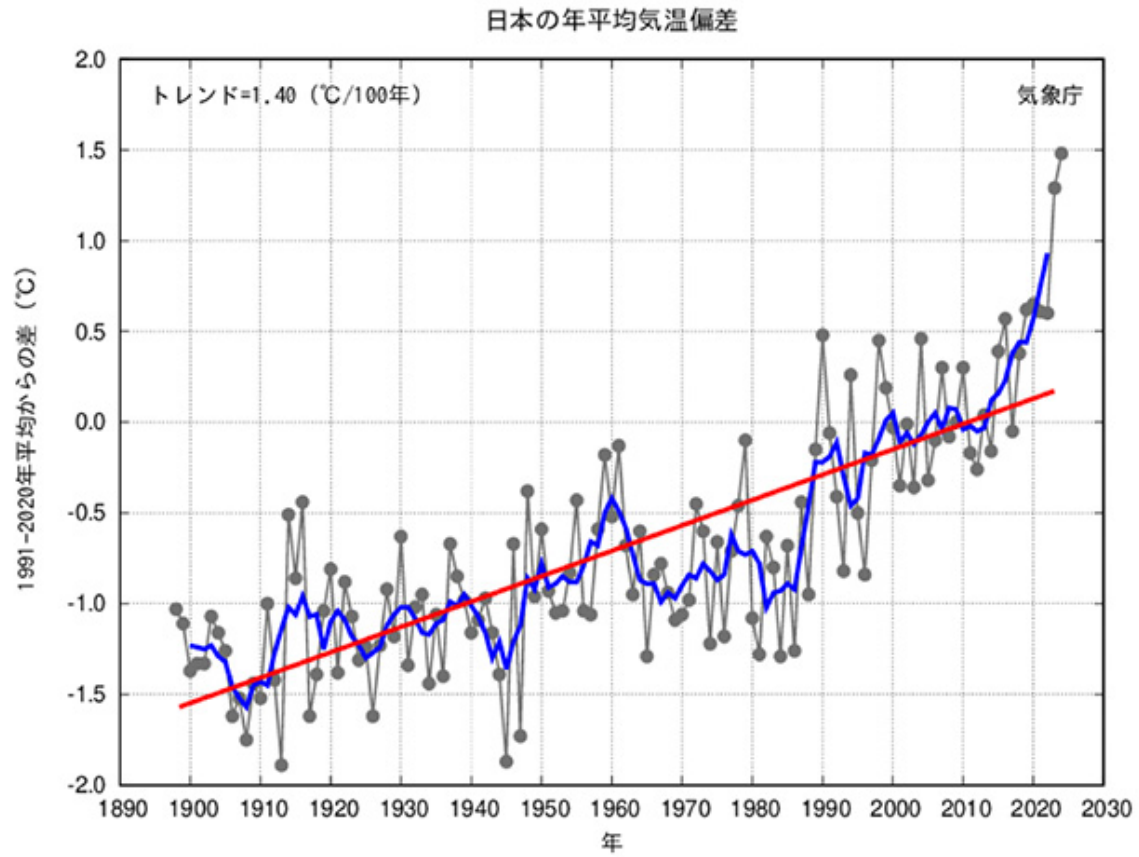


?1?1985?2024????CO₂?????

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?1?????Web????????????????CO₂????????????????????????????????

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



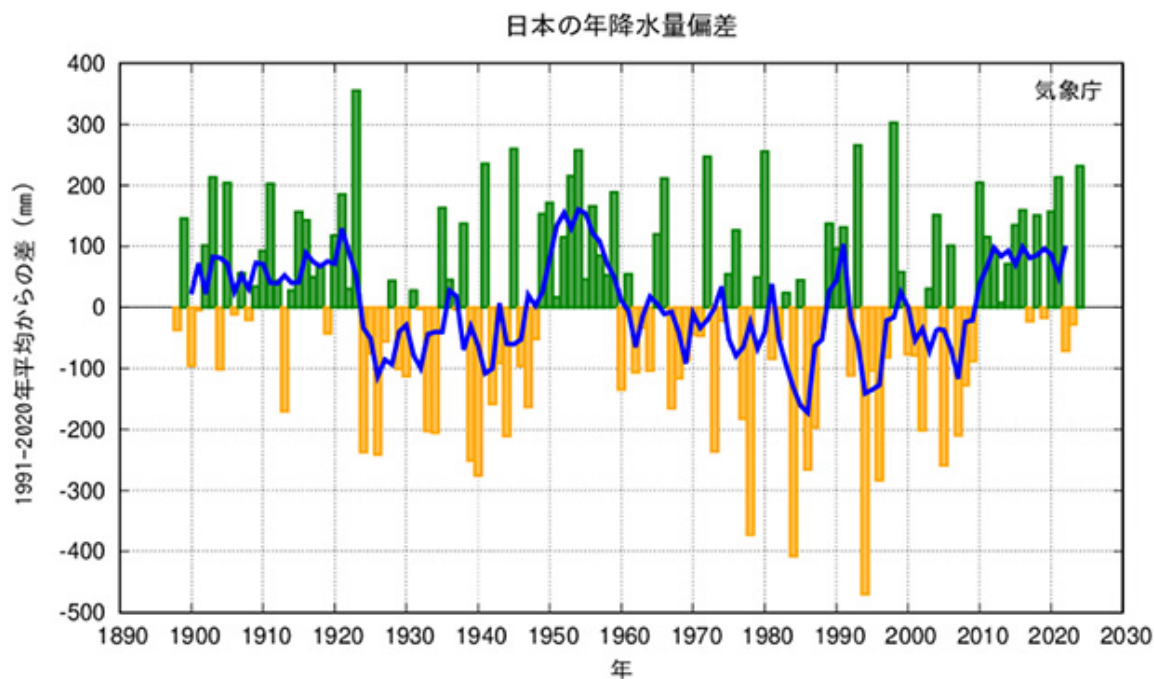
??1900?2024????????????

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O₂??2021????????????????????CO₂????????????????

????CO₂??

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

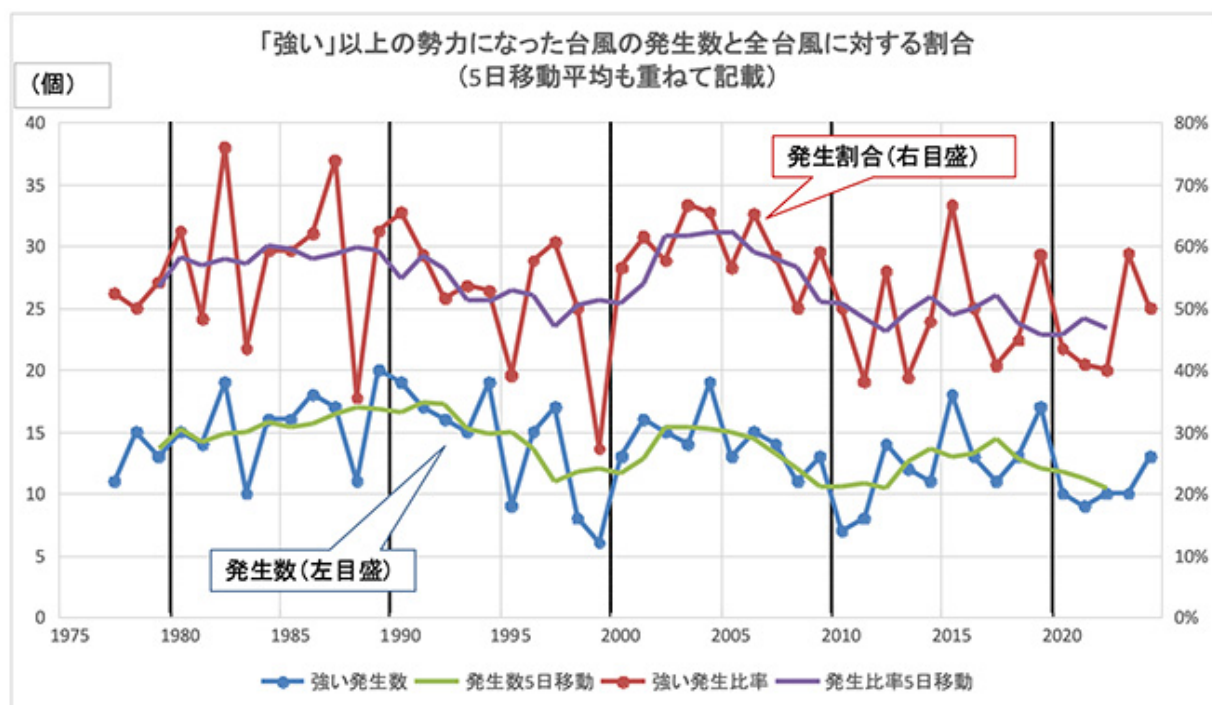


319002024????????

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[illegible][illegible]

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本文へ > English キー

ホーム環境省について政策法令報道・広報

地球環境・国際環境協力

ホーム > 政策 > 政策分野一覧 > 地球環境・国際環境協力 > 気候変動の科学的知見

気候変動の科学的知見

いまだからこそおさえておきたい気候変動の科学的知見について情報をまとめました。

- [日本の気候変動評価について](#)
- [ココが知りたい地球温暖化（国立環境研究所）](#)
- [気候変動適応とは|気候変動適応情報プラットフォーム（A-PLAT）（国立環境研究所）](#)
- [日本の気候変動2025（気象庁）](#)
- [IPCC AR6 よくある質問と回答（気象庁）](#)
- [『おしえて！地球温暖化』（2019年3月）\[PDF 4.37MB\]](#)



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

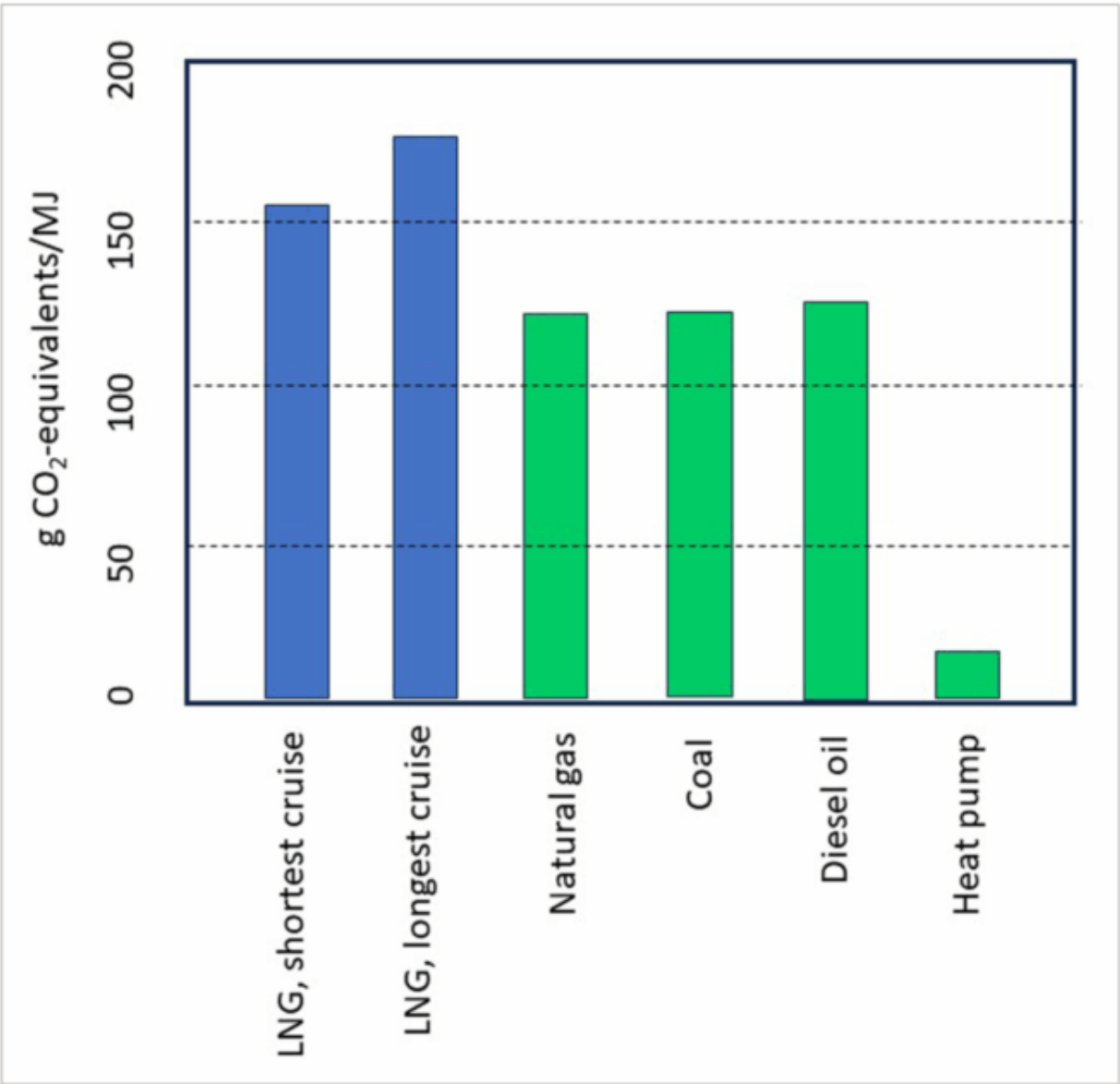
LNG????????CO2????????????

?? ?? · Wednesday, July 9th, 2025



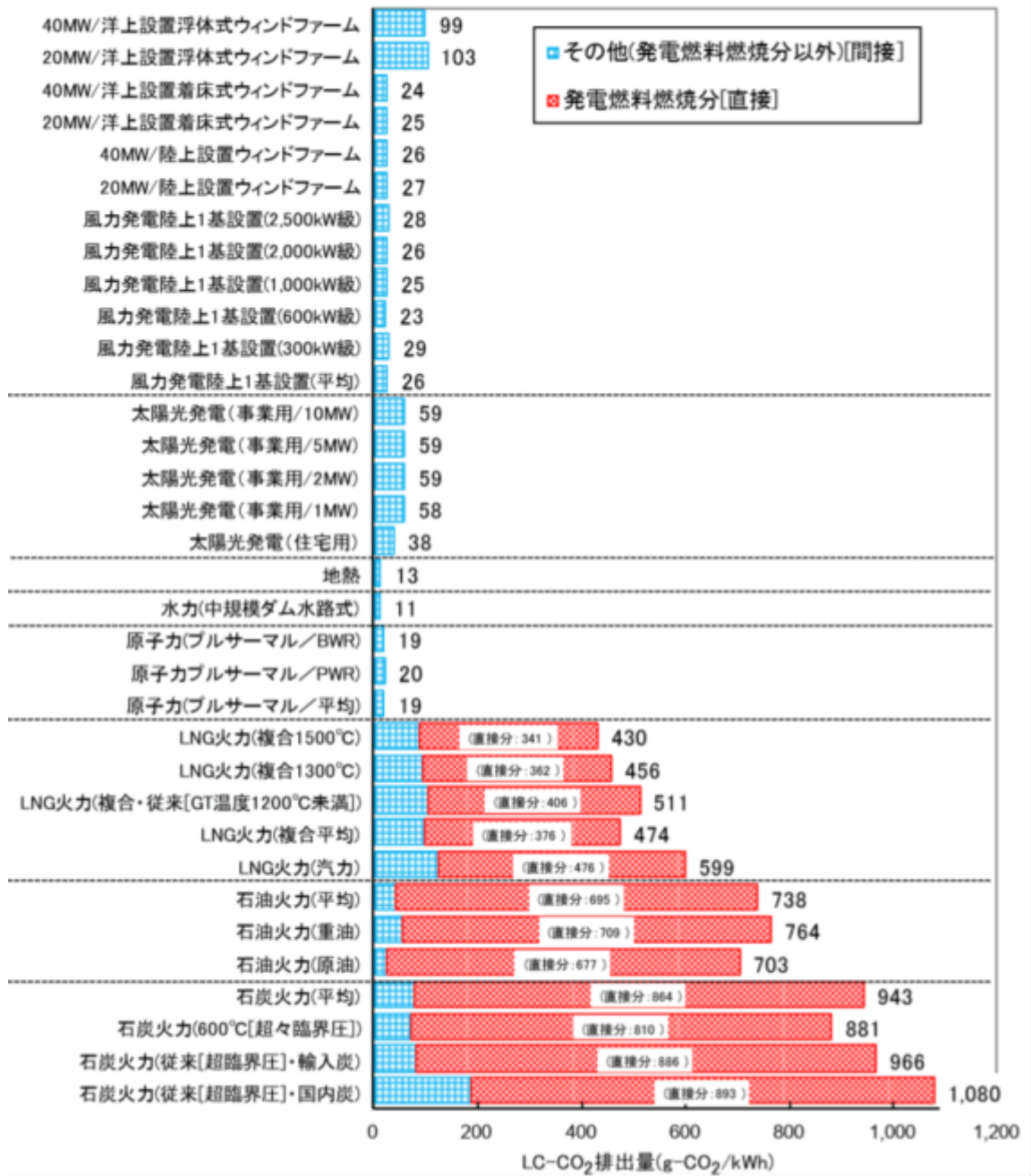
Lari Bat/iStock

?CO2????LNG????????CO2??1????CO2????
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- 20? GWP ???????? ? LNG ?????????
- 100? GWP???? ? ? CO????????????????

2. ??????MJ ? kWh ??

- ?????????????GTCC > ?????????
- ???????????? kWh ??????

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

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- 4. ?????????
- 2000???? vs 2020????

??GWP????????????????????

??????GWP?Global Warming
Potential????????????????????1kg????
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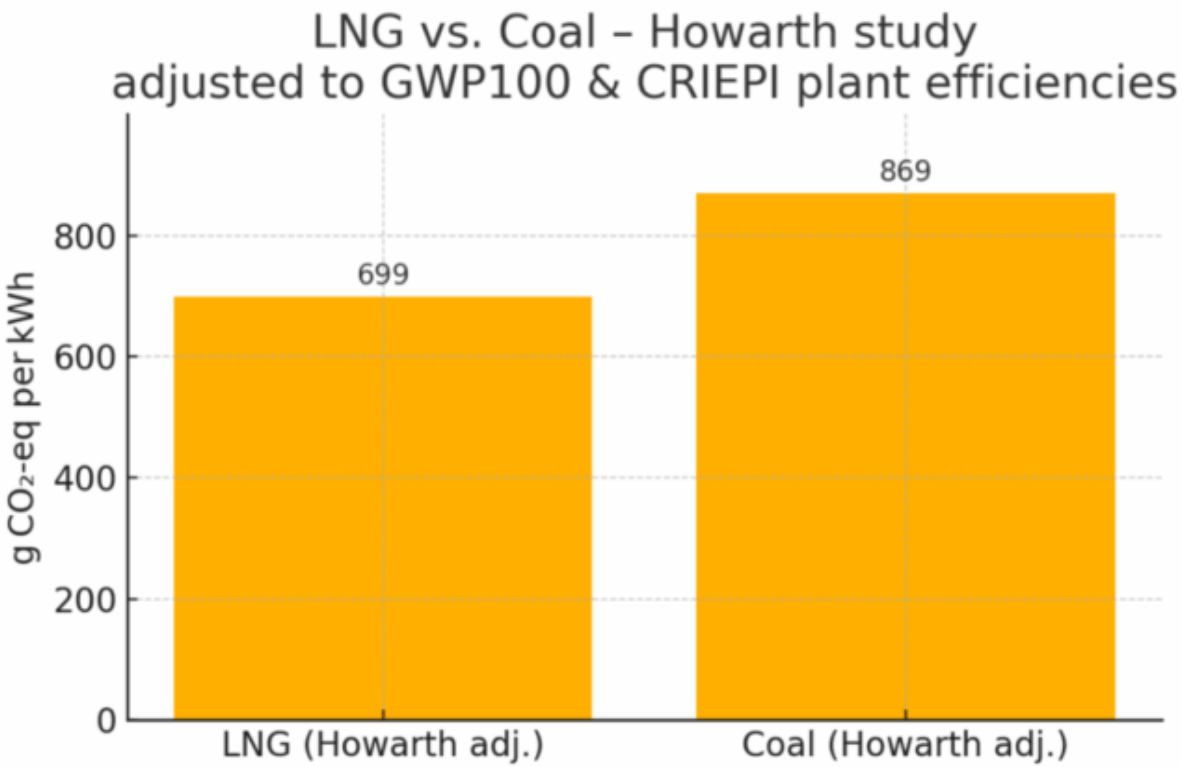
????????????100????20?GWP?=82.5????100?GWP?=28????3?
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CO2??38%????????

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?3????100?GWP????????

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???????GWP100????????????????????LNG????????????????????
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- LNG GTCC?1 500 °C??430 g CO?/kWh
- ??USC?600 °C??? 881 g CO?/kWh
????????699 g/kWh???? **1.6???** ?????????????????????

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

???3????????????

?? ?? · Tuesday, July 8th, 2025



maroke/iStock

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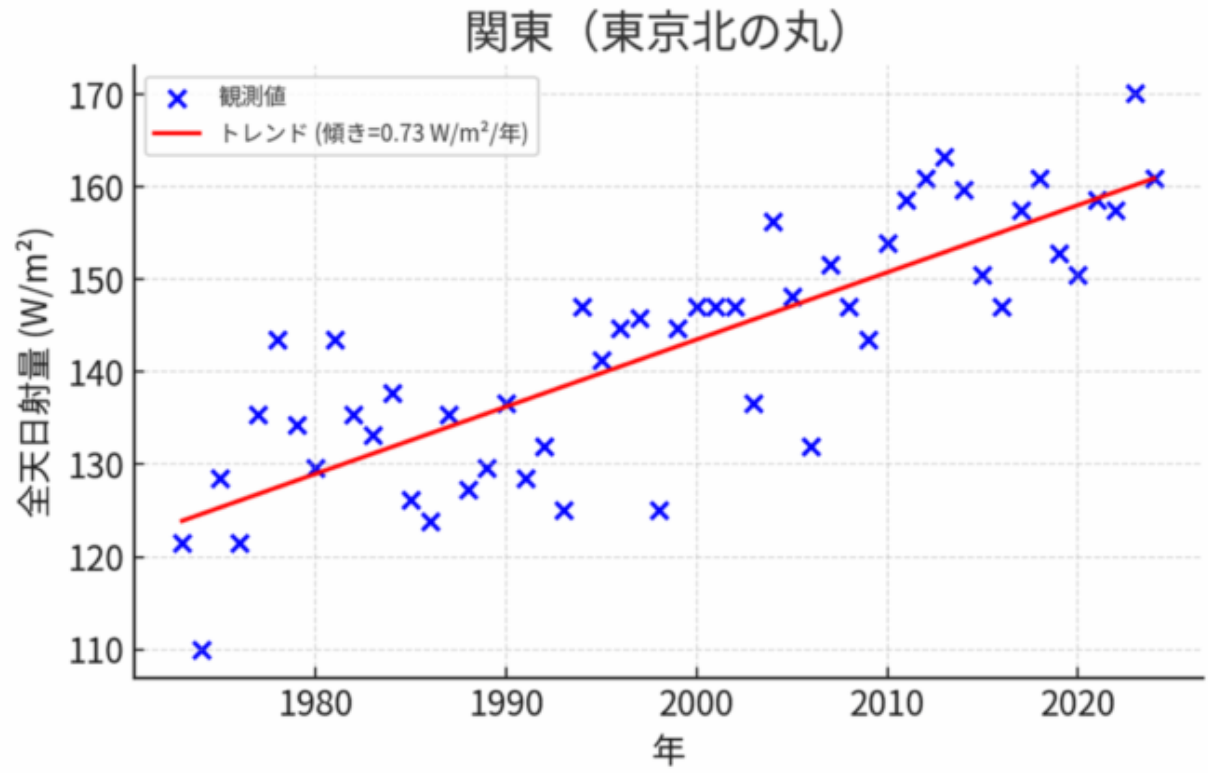
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Posted in ???, ????? | No Comments »

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?? ?? · Monday, July 7th, 2025



Tomwang112/iStock

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GX?ETS????	10??CO????	2026????	2023??	????	
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FIT/FIP?????????	?????	????/????	2012/22	???????	
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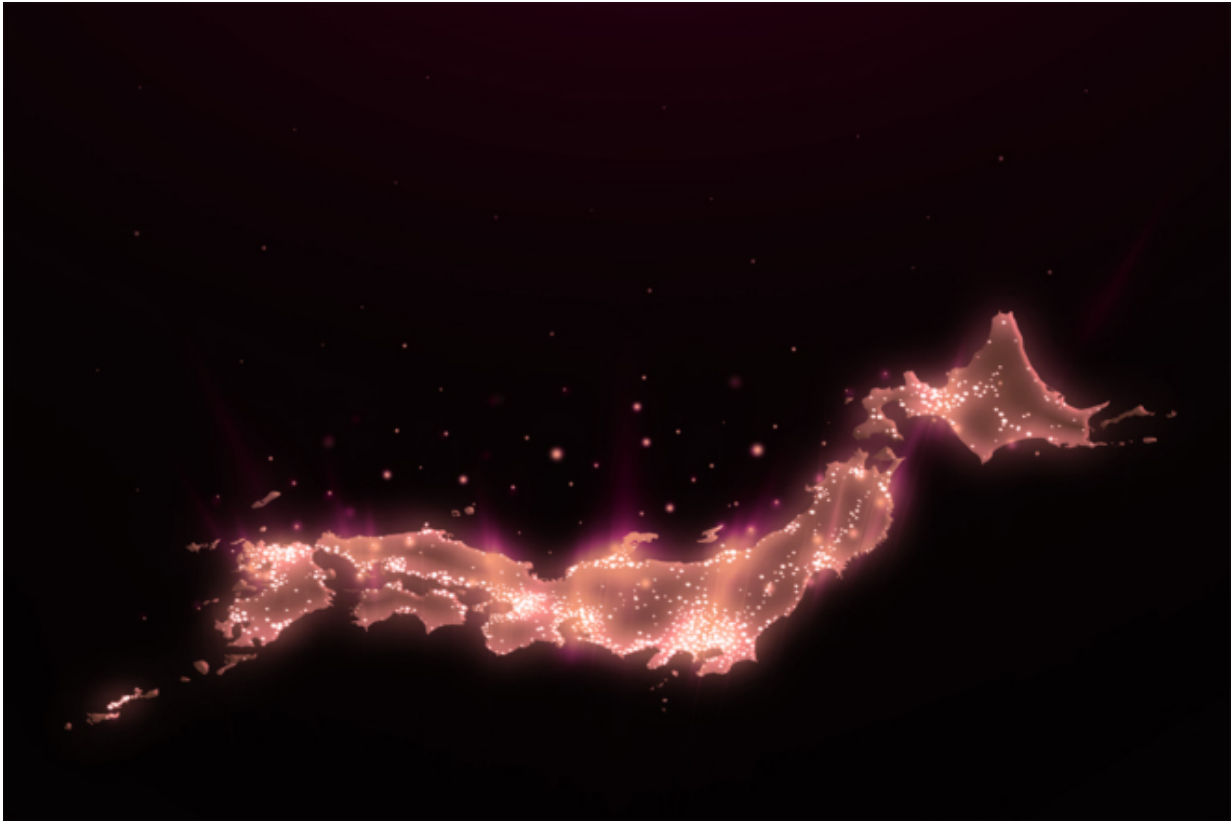


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Posted in ??????????, ??? | No Comments »

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?? ?? · Sunday, July 6th, 2025



v-graphix/iStock

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2005	JEPX ????	???????????????????????????? ????????????24????????????24????????????
2009	JEPX ???????	?????????1?????30?????????30?????????
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?????????2016.4	????????	10	374?	?	??????	??????
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Posted in ??????????, ??? | No Comments »

ESG????????????????????AI????????

?? ?? · Sunday, July 6th, 2025



Shutthiphong Chandaeng/iStock

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

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?? ?? · Saturday, July 5th, 2025



Stefan Pinter/iStock

??2022????????????????



出典：発受電月報、各電力会社決算資料、電力取引報等を基に作成

原油CIF価格：輸入額に輸送料、保険料等を加えた貿易取引の価格

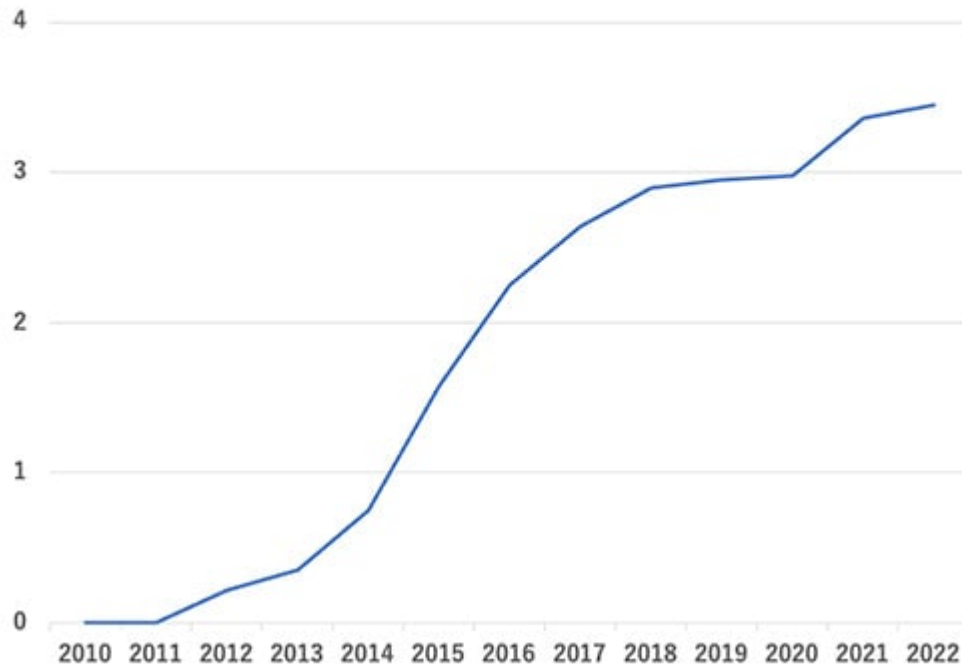
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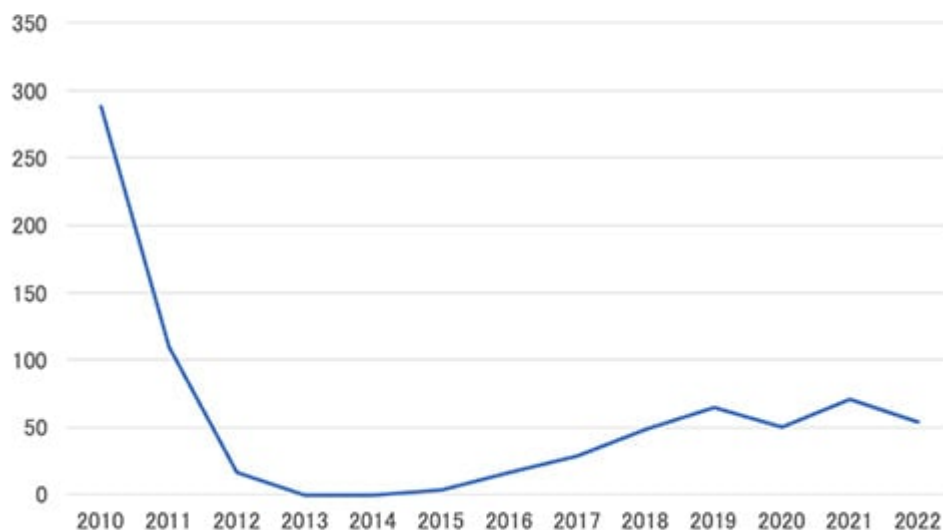
?1????????????????????????????

再エネ賦課金の推移(円/kWh)



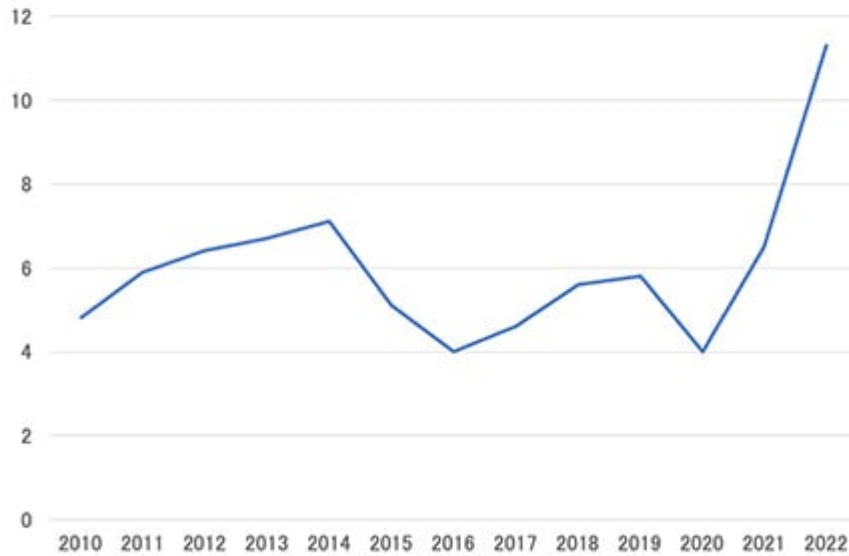
?2????????????????2011????????????????????????????????????

原子力発電量の推移(TWh)



3????????????????2021??22????????????????????????????????????CIF????????????????
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平均化石燃料費の推移(円/kWh)

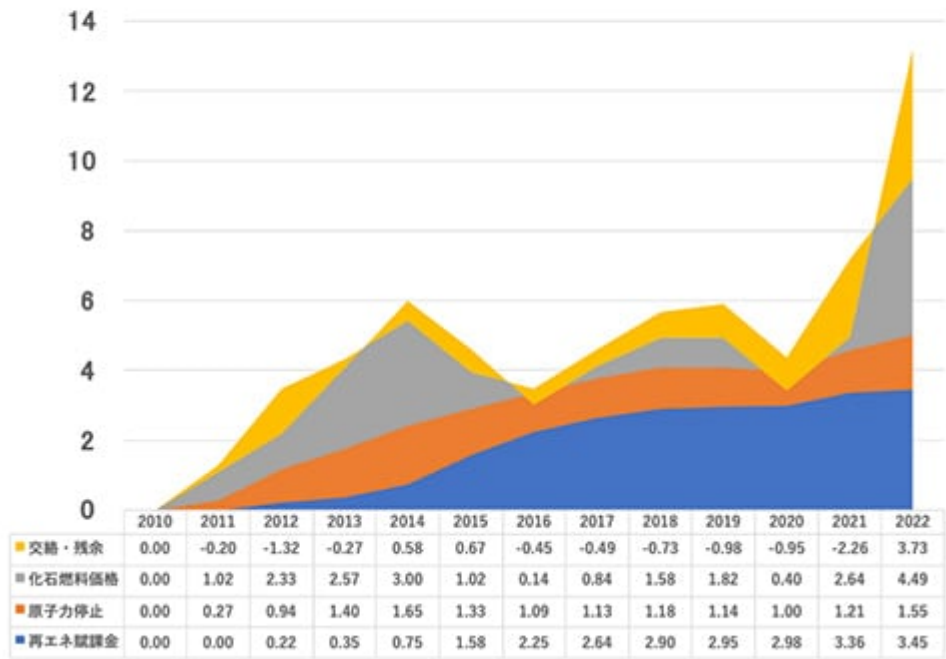


????????????????2010??2022????????????????????

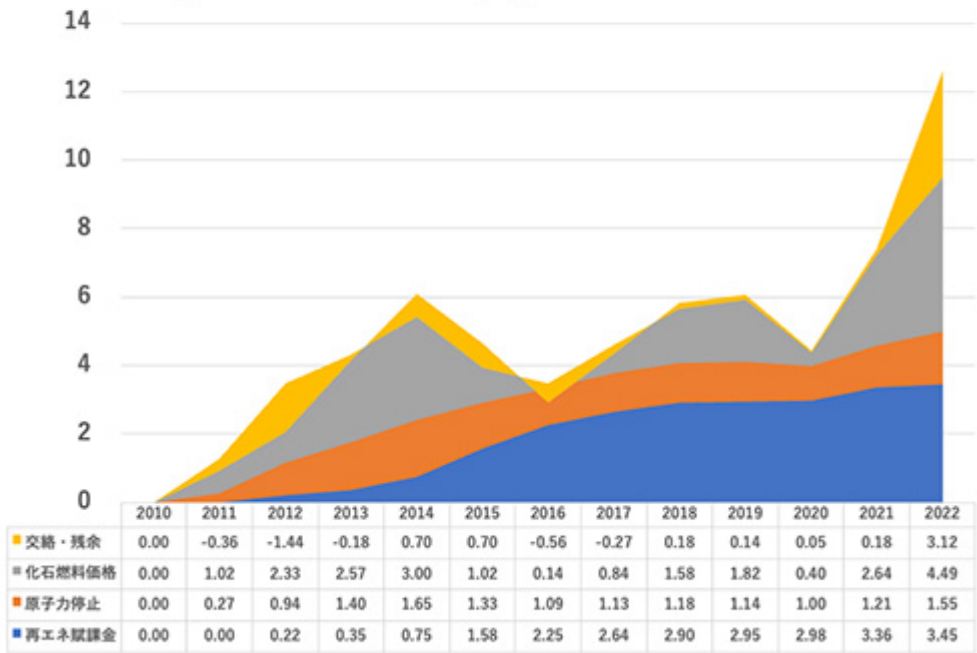
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産業用電気料金上昇の要因分解 (2010年～2022年)



家庭用電気料金上昇の要因分解 (2010年～2022年)



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

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??? ?? · Saturday, July 5th, 2025



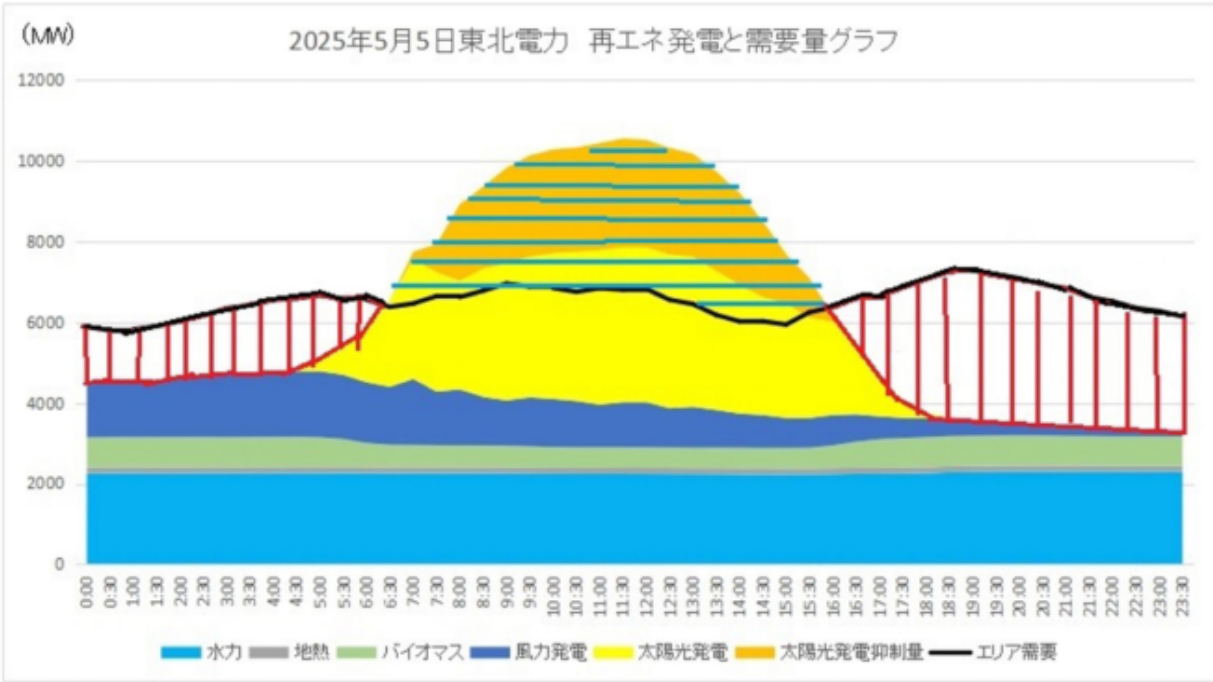
akinbostanci/iStock

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		エリア需要 (MWh)	再エネ発電量 (MWh)	再エネ抑制量 (MWh)	再エネ供給率
2025/4/1	火	241,262	91,511	－	37.9%
2025/4/2	水	232,381	101,052	－	43.5%
2025/4/3	木	232,355	88,227	－	38.0%
2025/4/4	金	222,814	129,282	－	58.0%
2025/4/5	土	192,704	131,213	6,552	68.1%
2025/4/6	日	178,491	115,010	299	64.4%
2025/4/7	月	203,840	134,152	－	65.8%
2025/4/8	火	208,024	124,733	－	60.0%
2025/4/9	水	205,923	127,745	1,834	62.0%
2025/4/10	木	206,962	111,870	－	54.1%
2025/4/11	金	199,986	105,636	－	52.8%
2025/4/12	土	176,470	110,642	－	62.7%
2025/4/13	日	177,803	111,765	－	62.9%
2025/4/14	月	204,509	107,877	－	52.7%
2025/4/15	火	212,598	97,690	－	46.0%
2025/4/16	水	213,398	152,218	2,695	71.3%
2025/4/17	木	200,398	143,898	10,103	71.8%
2025/4/18	金	196,261	119,988	－	61.1%
2025/4/19	土	171,951	133,407	9,668	77.6%
2025/4/20	日	166,403	109,055	1,803	65.5%
2025/4/21	月	188,907	140,338	9,148	74.3%
2025/4/22	火	193,887	133,728	8,659	69.0%
2025/4/23	水	196,580	94,326	－	48.0%
2025/4/24	木	193,197	119,621	2,454	61.9%
2025/4/25	金	190,875	114,991	－	60.2%
2025/4/26	土	171,563	148,566	16,822	86.6%
2025/4/27	日	161,107	148,993	20,375	92.5%
2025/4/28	月	177,112	115,424	－	65.2%
2025/4/29	祝	174,787	131,610	5,390	75.3%
2025/4/30	水	182,591	145,558	9,376	79.7%
2025/5/1	木	177,077	141,262	13,173	79.8%
2025/5/2	金	175,857	129,694	1,807	73.7%
2025/5/3	土	155,322	141,100	22,107	90.8%
2025/5/4	日	153,823	129,497	12,480	84.2%
2025/5/5	祝	156,939	149,929	25,693	95.5%
2025/5/6	祝	171,324	91,890	－	53.6%
2025/5/7	水	189,855	121,828	－	64.2%
2025/5/8	木	191,799	149,669	16,025	78.0%
2025/5/9	金	190,163	129,848	2,916	68.3%
2025/5/10	土	177,993	110,095	－	61.9%
2025/5/11	日	167,130	135,649	8,280	81.2%
2025/5/12	月	190,609	103,390	－	54.2%
2025/5/13	火	192,307	142,577	15,444	74.1%

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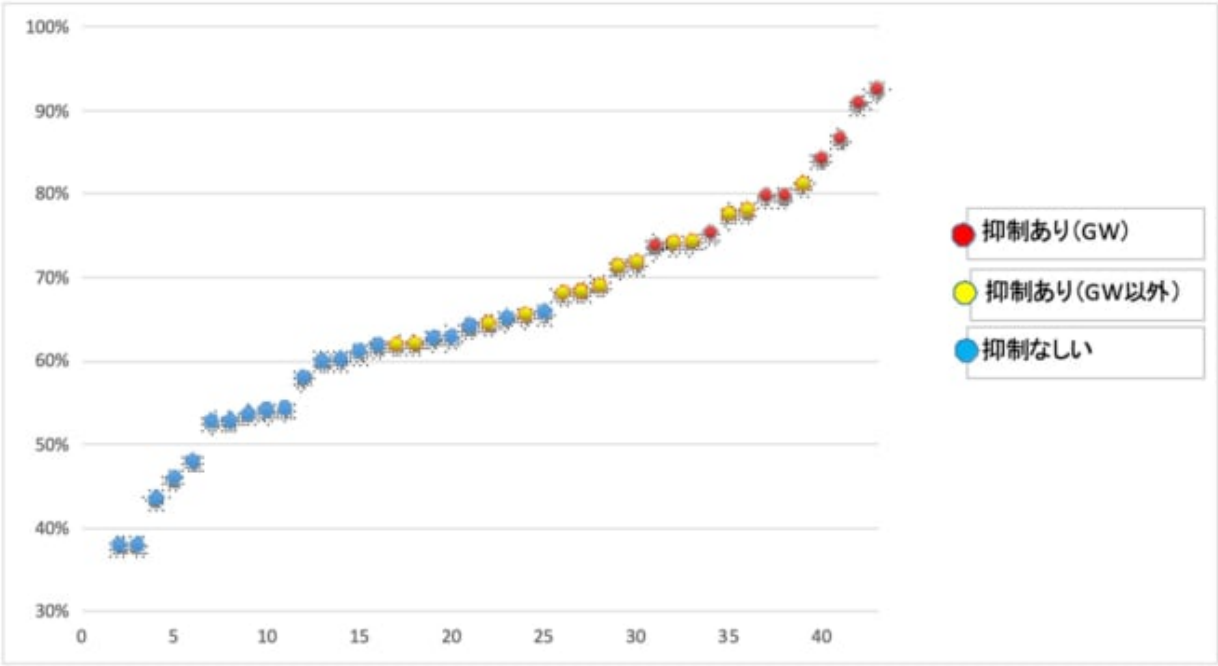
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?? ??? ? · Friday, July 4th, 2025



allanswart/iStock

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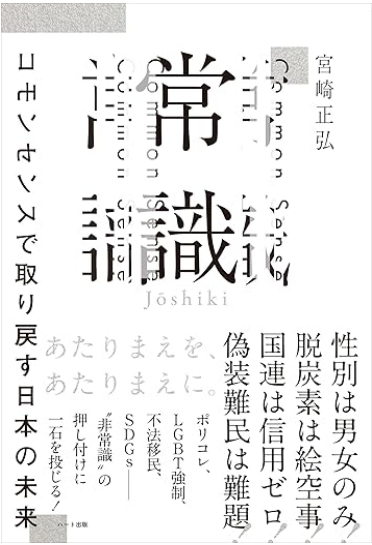
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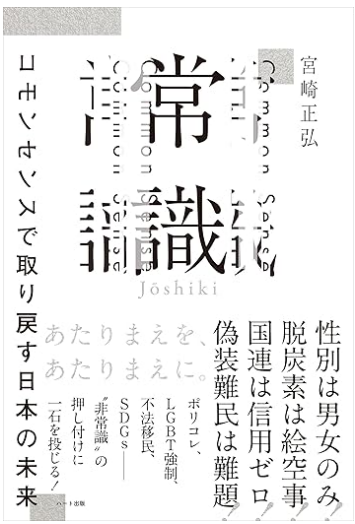
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2050??

?? ?? · Thursday, July 3rd, 2025



gremlin/iStock

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La transition énergétique : un vœu pieux ?/Energy transition : nothing else than wishful thinking?

1. ?????????????????????

- [illegible]

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

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2050???82%?????????????????3.3%??????????2050???72PWh????????????58PWh
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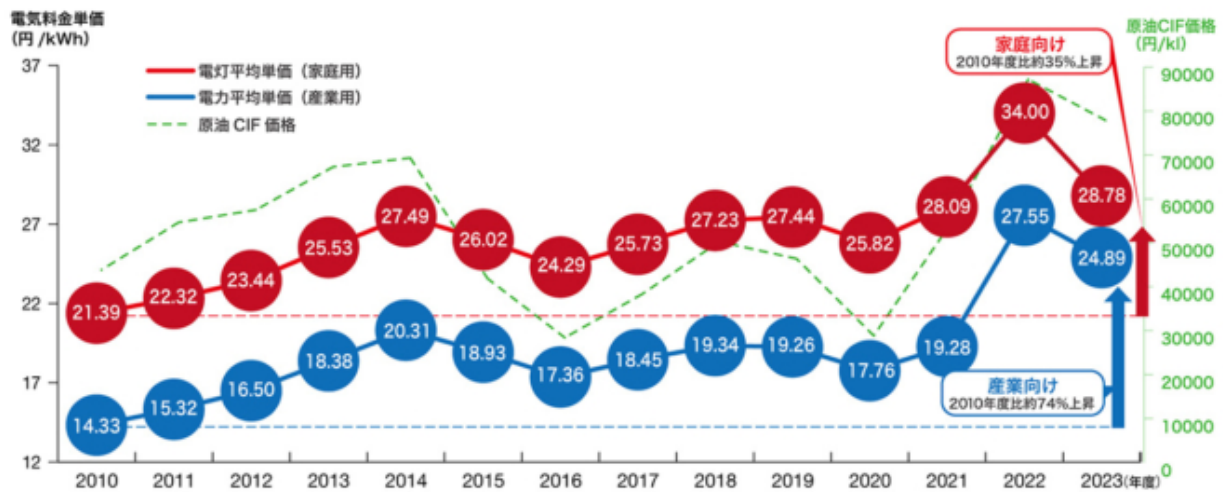
?? ?? · Wednesday, July 2nd, 2025



privetik/iStock

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電力限界費用：各国間比較（経済フィードバック計算前）



32

	2020	ベースライン		成長実現シナリオ		再エネシナリオ		水素系燃料シナリオ		CCSシナリオ		排出上振れシナリオ	
		2040	2050	2040	2050	2040	2050	2040	2050	2040	2050	2040	2050
日本	166	127	105	212	197	224	258	251	287	242	279	213	244
米国	40	38	53	98	102	118	103	125	136	116	113	127	127
英国	114	135	119	180	160	195	165	223	217	203	210	201	218
ドイツ	114	119	108	175	155	191	162	202	216	198	202	194	207
フランス	114	133	116	171	144	165	147	172	185	173	171	174	159
韓国	103	103	99	174	142	173	151	194	167	195	168	184	177
中国	61	66	81	143	110	152	121	213	171	192	172	173	171
インド	105	121	134	187	167	190	183	236	223	239	207	223	207

単位：USD/MWh（2000年価格）

注）一部の国抜粋表示。発電端での限界費用。ただし、系統統合費用は含む。2020年値はすべてモデルでの推計値

※ 本分析では、世界各國の原子力を含め個別電源の政策は考慮していないことに留意されたい。

✓ **CNIに向けた対策のため、現状水準よりは電力コストの上昇は避けられない。ただし、少なくとも、他の主要国も日本と同様、1.5℃目標に向かって取り組む限りにおいては、海外との相対価格が高まるわけではない。**

2022p32

[illegible]

202016620401272512000MWh

1

110181428/kWh(2000

1

2020	2040	2040	
166	127	251	\$/MWh(2000
18	14	28	/kWh(2000
17	13	25	/kWh(2024

GDP20241.06171325/kWh2024

2020RITE

20404

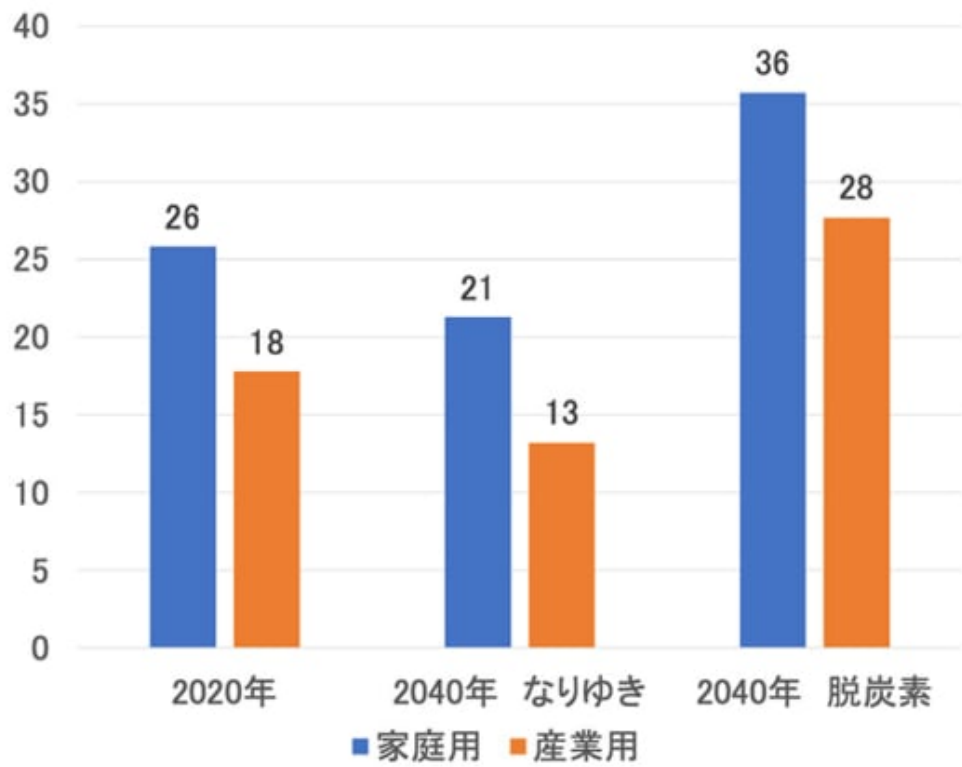
2040+8

48
12/kWh2024

12020261822333

2

	2020	2040	2040
	26	21	36
	18	13	28



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