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Posted in ???, ?????? | No Comments »

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?? ? · Friday, September 16th, 2022



ayhan turan/iStock

14

14

1980

14

1991 () 1970 80 80

1988 NASA CO2 1999 IPCC



1999 CO2

2 IPCC

10

10 CO2

COP COP COP COP

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

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?? ?? · Thursday, September 15th, 2022



igorartmd/iStock

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Posted in ???, ?? | No Comments »

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?? ?? · Wednesday, September 14th, 2022

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CEO???EU?????????????????????50????????????????????
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herraez/iStock

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CEO??

???40%????
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Posted in ???, ?? | No Comments »

??21?????????????????ESG?????????????

?? ?? · Saturday, September 10th, 2022

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

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?????ESG??



LumerB/iStock

8?16????21????????????????SEC????ESG????????????????????SEC????????????????????
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Posted in ???, ?? | No Comments »

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?? ?? ? - Friday, September 9th, 2022

????????SPD??8?22????????????????????????????2
025??

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audioundwerbung/iStock

??6????????????????????????????????LNG????????????????????
??LNG??
??LNG????????????????????

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8?23??EU??????
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Posted in ???, ?? | No Comments »

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?? ? · Saturday, September 3rd, 2022



ayhan turan/iStock

?????5??3?????????

??????7??????????????????14??



??????372????2420????????????????176????1650????????????

????????????????????????????????QR????????????????????????????????????
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ppm????????????????????????????????????

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HP 10 1950 60 1993 30

4 CO2

1000

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5 CO2 CO2

NHK

6 CO2 1850

CO2 100 mm 2 3

CO2 CO2

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7 CO2 CO2 CO2

170 2000 42 CO2 CO2

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Posted in ???, ????? | No Comments »

????????LCOE????????

?? ?? · Thursday, September 1st, 2022



vchal/iStock

????????????????????????????????IRENA?J.P.Morgan????????

IRENA

IRENA 2021

Renewable Power Generation Costs in 2021 – Executive Summary (irena.org)

IRENA

- 2021 IRENA 163GW LCOE 2020
- IRENA
- IRENA

Figure ES.3 The weighted average LCOE of utility scale solar PV compared to fuel and CO₂ cost only for fossil gas in Europe, 2010-2022



IRENA 2030

J.P.Morgan

J.P.Morgan

J.P.Morgan

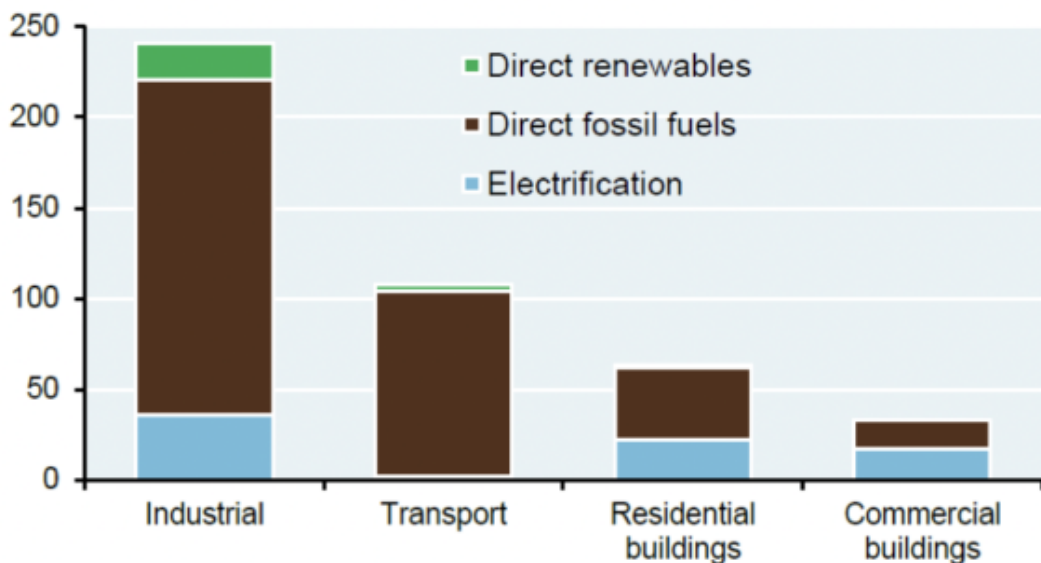
J.P.Morgan

12th Annual Energy Paper | J.P. Morgan Private Bank (jpmorgan.com)

J.P.Morgan

- J.P.Morgan
- J.P.Morgan
- J.P.Morgan

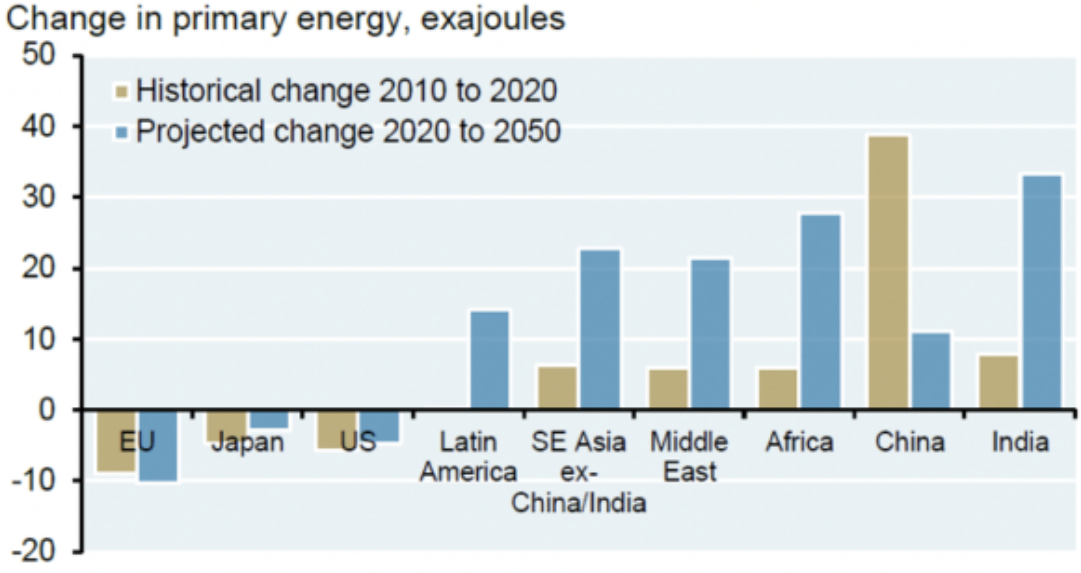
Low levels of electrification in global industry and transport



Source: Energy Information Administration, JPMAM. 2021.

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 ??25??
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China is the only EM country projected to slow primary energy consumption growth over the next three decades



Source: International Energy Agency Stated Policies Scenario. 2021.

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????????????????????IRENA????????????LCOE????????????LCOE????????????????????????????????

3. LCOE??FCOE?

?????LCOE??
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LCOE??
??????????????5??10??????????????????????2050????????????????????????????????????

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???LCA??????????????????FCOE?Full cost of electricity??????????????????

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

COP27????????????????????????????????

?? ?? · Monday, August 29th, 2022



imagedepotpro/iStock

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??????????200?????????11?7??CO₂????????????
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????????? 8? Reuters?

????????????COP????????1997??COP3????????????COP3?1997??12????????
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COP??
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COP?????26????????????????????????COP????????????2015??COP21????????

????????????????????????????????1.5????????????????????????NDC????????????????5????????
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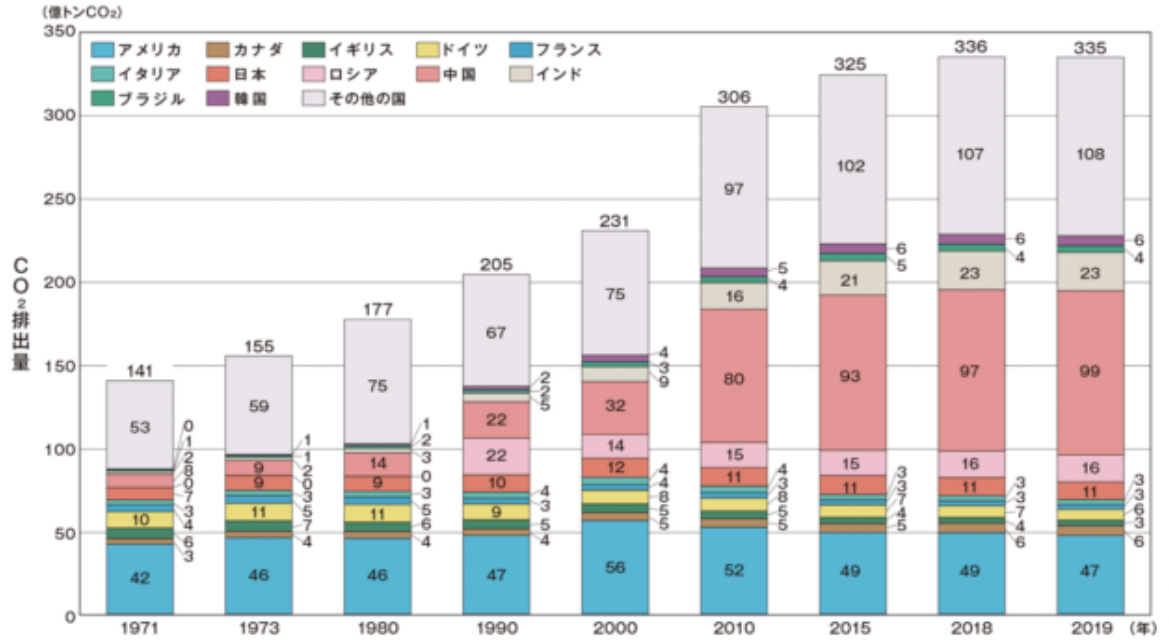
????????????????????????????????CO₂????????????????????????????????????
????CO₂????????????????????

COP????????????????26????????????????????????????????????

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CO₂????????????????????

????CO₂????????2000??230????2019??1.5??340????????

世界のCO₂排出量の推移



(注) 四捨五入の関係で合計値が合わない場合がある
ロシアについては1990年以降の排出量を記載。1990年以前については、その他の国として集計
2-1-4 出典：(一財)日本エネルギー経済研究所「エネルギー-経済統計要覧2022」より作成

原子力・エネルギー四国集

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

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????CO₂

?CO₂????COP????CH₄????CH₄????CO₂?80????20????GWP-20????C
H₄????2030????30????????

????????2030????6????
N₂O????
30%????

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????2020????1000????
COP27????1000????

????COP27????

????COP27????
2030????5800????

2????COP27????
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Posted in ???, ????? | [No Comments »](#)

GX????????????

?? ?? · Sunday, August 28th, 2022

????????2050????????27????????

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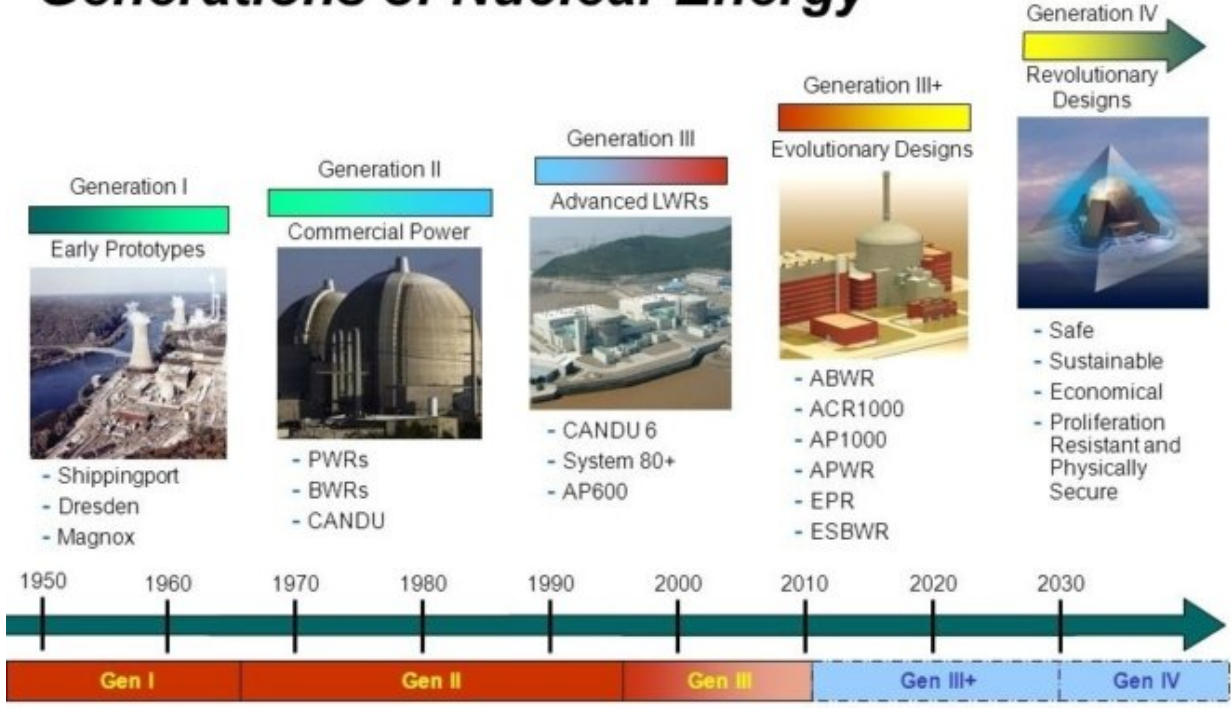
????????????????????????????

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??????6?7????5????2??4????????????3????????????1?????

ABWR????3????????????????????????(APWR)?AP1000?EPR????APWR????????????????
????????ATMEA????????APWR?EPR????????ATMEA????????????????

????????????????4????????????????(SMR)????????????????3????????????
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Generations of Nuclear Energy



©?GIF(Generation IV International Forum)

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??passive safety?????

??In-Vessel
Retention(?????)????????Ex-Vessel Retention(?????)?????

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1/1

100/1/321/1

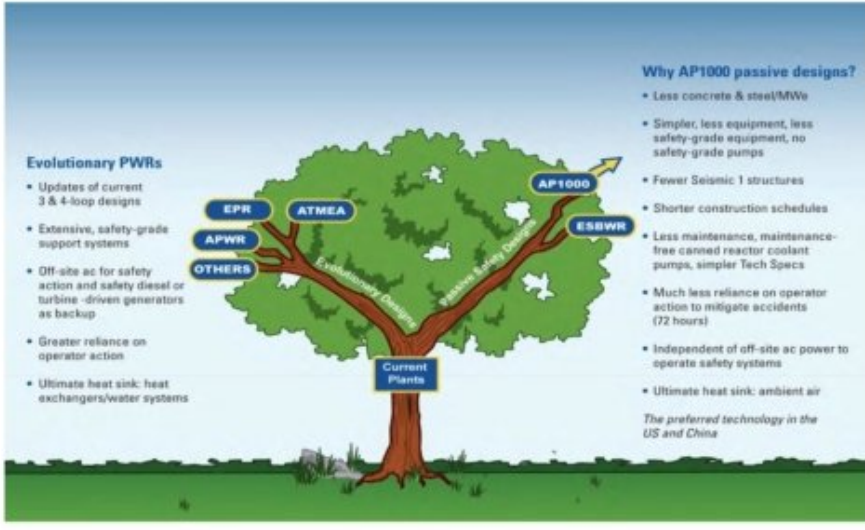
Safety by design

Safety by design 1980 1979 TMI by design Safety by design

TMI safety by design 1980

_____?

AP1000: Generation III+ & Evolution



©Westinghouse Electric Corporation.

(Current Plants) safety by design (passive safety) AP1000 ESBWR ATMEA EPR APWR ABWR AP1000

ABWR APWR ATMEA

ABWR APWR

ABWR?????6?7???11?????????????????????

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?????????APWR??safety by
design????????????????????????????????ATMEA????????????????????

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






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?? ?? · Friday, August 26th, 2022

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【新規建設に向けた方針等】		【既設炉の運転延長に向けた方針等】	
 アメリカ	<ul style="list-style-type: none"> エネルギー省「革新的原子炉実証プログラム」等2炉の建設支援、8炉型の研究開発支援 (2020) 老朽石炭火力をSMR等で置換可能と分析 (2022) 	<ul style="list-style-type: none"> 運転期限なし（40年+20年単位延長） 現時点で80年までの運転延長認可は6基 さらに9基について審査中 	
 イギリス	<ul style="list-style-type: none"> ジョンソン首相「エネルギー安保戦略」（2022/4） 2050年までに発電割合を25%に、24GWの導入 1基/1年に建設ペース加速へ、支援を抜本拡充 	<ul style="list-style-type: none"> 運転期限なし（10年ごとに安全審査） 2035年に40年となるサイズウェル原発で 20年延長を検討中 	
 フランス	<ul style="list-style-type: none"> マクロン大統領「新規原子炉計画」（2022/2） 2050年へ大型革新軽水炉14基を建設・検討 建設・運営主体の電力会社EDFを完全国有化 	<ul style="list-style-type: none"> 運転期限なし（10年ごとに安全審査） 56基中20基が40年超運転へ 運転延長も対象にグリーンファイナンス検討中 	
 オランダ	<ul style="list-style-type: none"> 新連立政権「政策協定」公表 (2021/12) 新たに2基を建設する方針を表明 	<ul style="list-style-type: none"> 運転期限は法律で規定（期間のルールなし） 60年運転認可済の原発の再延長方針を表明 	
 韓国	<ul style="list-style-type: none"> 尹大統領「エネルギー政策の方向性」（2022/7） 2030年原発割合30%以上、国内2基建設等 	<ul style="list-style-type: none"> 運転期限なし（10年ごとに安全審査） 既設炉の継続運転手続きの迅速化を表明 	

????????GX????????

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??3????ABWR???

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??ECCS????????????????????
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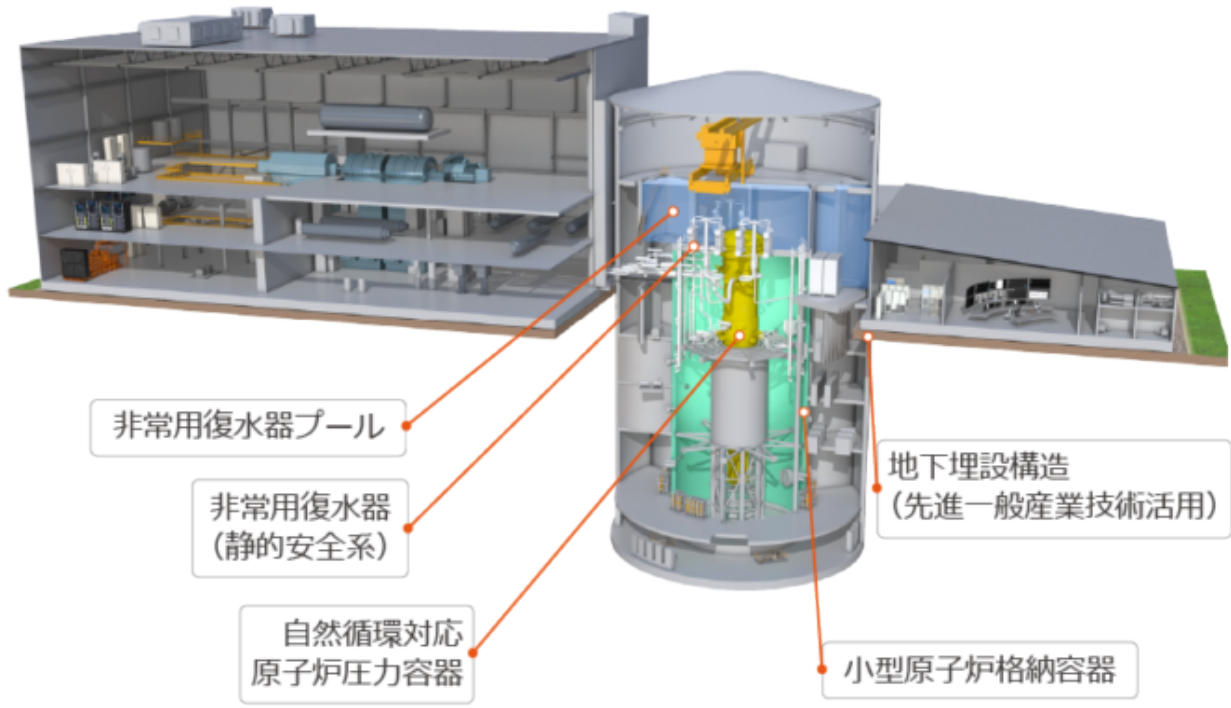
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??APWR????????????????????????????3????
???ABWR????????????

SMR??????7kW??

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BWRX-300????????

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

2035 EV

Friday, August 26th, 2022



Naeblys/iStock

2025 1000 EV

2035 EV

EV 60 CO₂

EV CO₂ 6 12.5 km 10 20 EV

IEA 2040 6 3 4 3

35 50 70 90

1

6 2022 3 EU

2

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

1.5????????????????????

?? ? · Thursday, August 25th, 2022

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Online??

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poco_bw/iStock

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.....GDP.....2010.....2015.....

.....COP.....

.....COP26.....

.....NGO.....2.....1.5.....

1.5.....2050.....2030?45.....

.....LNG.....LNG.....LNG.....

.....NGO?1.5.....1.5?2050.....2030?45.....

.....17?SDG.....

.....1.5.....2030.....?2030?45.....

.....What’s everybody’s business is nobody’s business

.....1.5.....NDC.....2060?2070.....1.5.....

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Posted in, .., | No Comments »

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?? ?? · Wednesday, August 24th, 2022



mirza kadic/iStock

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??8????1????????25
0????3????3??120????1.65????????????????

????????7??2.7????372????????????30????????????
??10?1????????????????????????????????
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??1kWh???2.419????????33????????????????????????????
??2?kWh????????????575????8????????????

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??LNG????????????????

??LNG????????????????????????????????

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??LNG??
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????????????????????LNG??
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Welcome to Japan!

“Welcome to Japan!”
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Posted in [???, ??](#) | [No Comments](#) »

?2035??????EV????????????????????

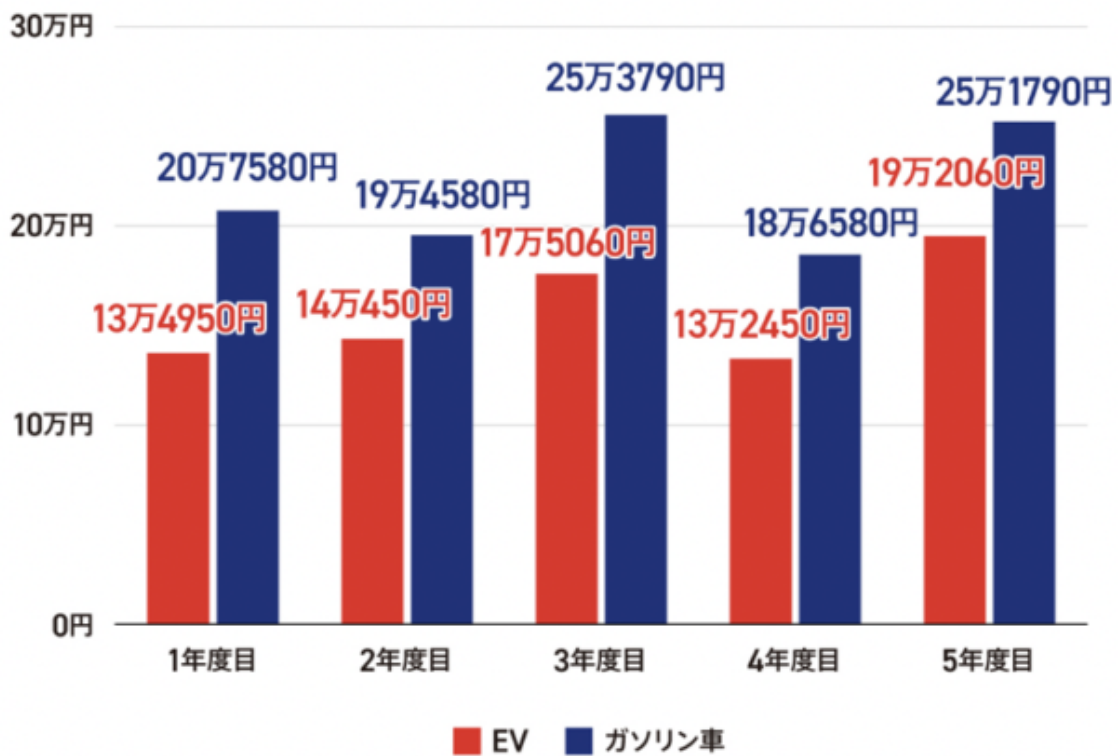
?? ?? · Tuesday, August 23rd, 2022



deepblue4you/iStock

??2020?10??2050????????????
 ??????2035????????????????EV????????????????

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



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

TEPCO

CO₂ EV

ICV EV 2

EV CO₂

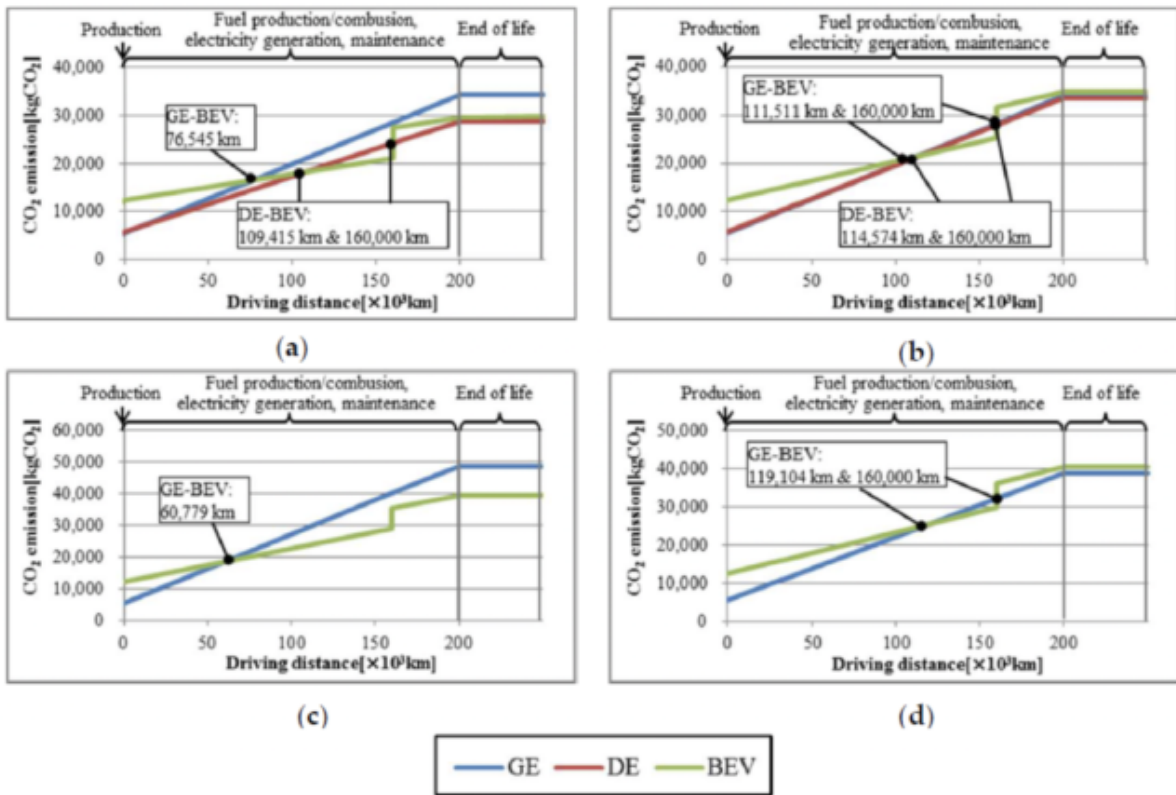
EV CO₂ ICV EV

EV

40 30 CO₂ EV 125,000km 13,500km EV 9 60,000km EV

2019

GE DE BEV CO₂ BEV CO₂ 177kg- CO₂/kWh GE DE BEV DIP: Distance of Intersection Point



2 CO₂ emissions during life cycle for GE, DE, and BEV. (a) EU; (b) Japan; (c) US; (d) China



Pict Rider/iStock

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[FT]??????SEC?ESG??????



SEC?5?ESG??

SEC????ESG??
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??MFA????????????

?????MFA?SEC?????ESG?????????????????????ESG????????????
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?????SEC?????ESG????????????????????????????????

?SEC?ESG????????????

SEC 25 ESG
ESG ESG

ESG SEC

ESG SDGs
154 CO2
ESG

CSR 50 200 300
200 300 ESG

ESG ESG XX
ESG ESG G

ESG SEC

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SDGs

Posted in , | No Comments »

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?? ? · Saturday, August 20th, 2022



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

1????????????????1.5????2??
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2?1.5????2??2????????????????????
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??IPCC????????????2????????????????CO2????2075????????????1.5????????????2050????????????30?5
0??CO2????30?50????????????????????????????????
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??2050????????????50?????
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2050????????????????????????????

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13????????????????

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Posted in ???, ????? | No Comments »

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?? ?? · Thursday, August 18th, 2022



artJazz/iStock

2021?8????????????????????????????????????2030????????????????????????????????LCOE?Levelize
d cost of electricity??

????????????2030?????????1kWh????8.2?11.8????????????????

????????????????????????????2020?????11.5????????????????LNG????????????CO2????????????????
???2030?????26.1????????????????

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?1?Full cost of electricity “FCOE” and energy returns “eROF”, Dr. Lars Shernikau, Prof. William Hayden Smith, Prof.
Rosemary Falcon (Vers. 05/2022)

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

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?? ??? ?? · Tuesday, August 16th, 2022

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2020????????????????1MW??30.47????????7??
?50????????????????????40?50????????????

????2????7????315????????????????????21????4????????????
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Santje09/iStock

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??12????????????????1????????????????????????????
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??CO2????????????????????

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Zeit????????????????5??
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??1????????8?14??die
Welt??
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??2022????????
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??50????????
??CO2??
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??5????????
????????????????????1??
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Posted in ???, ?? | No Comments »

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?? ?? · Sunday, August 14th, 2022

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Highwaystarz-Photography/iStock

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<https://www.pref.kanagawa.jp/osirase/0502/kouhyou/2015j/2015j0124-2.html>

????????????????GDP?2??
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??LED????????????????

??PPA?Power Purchase
Agreement??
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Posted in ???, ????? | No Comments »

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?? ?? · Tuesday, August 9th, 2022

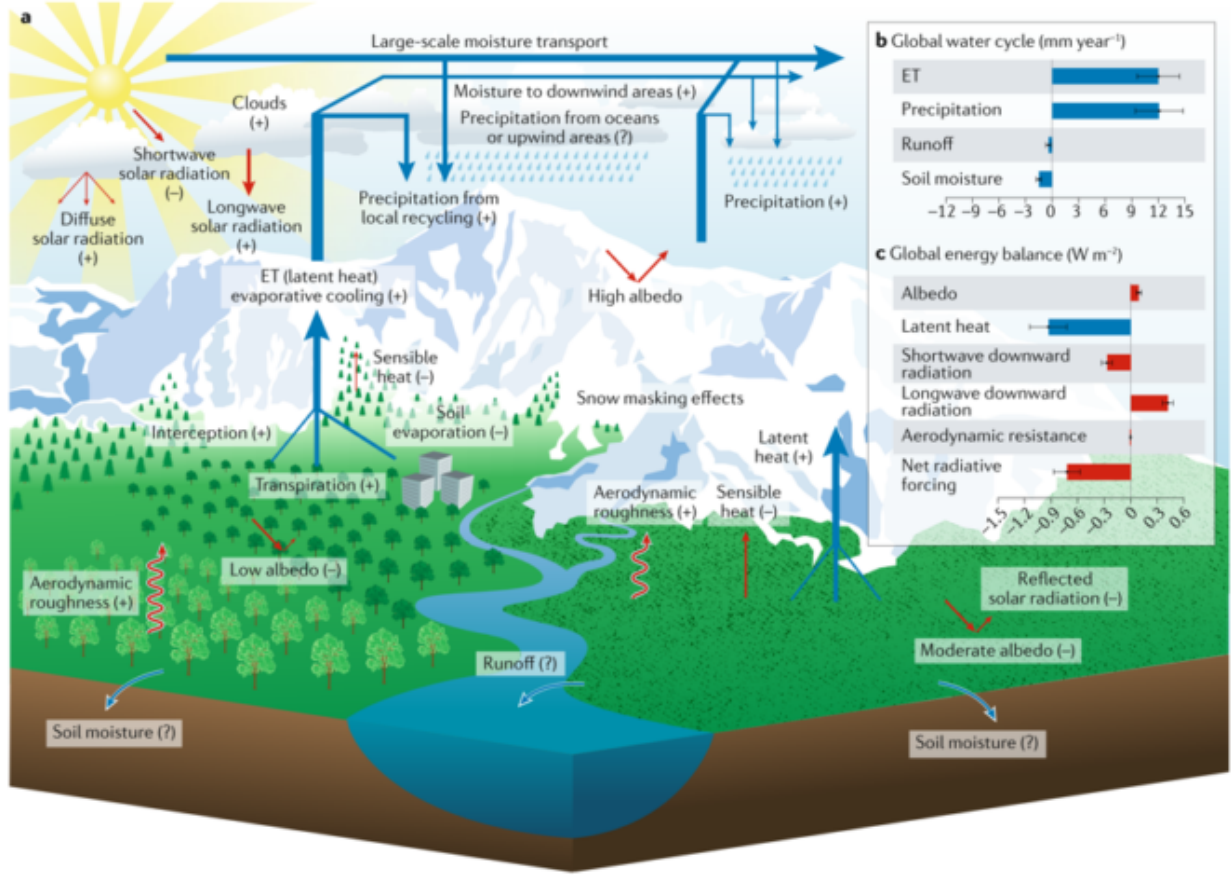


Petmal/iStock

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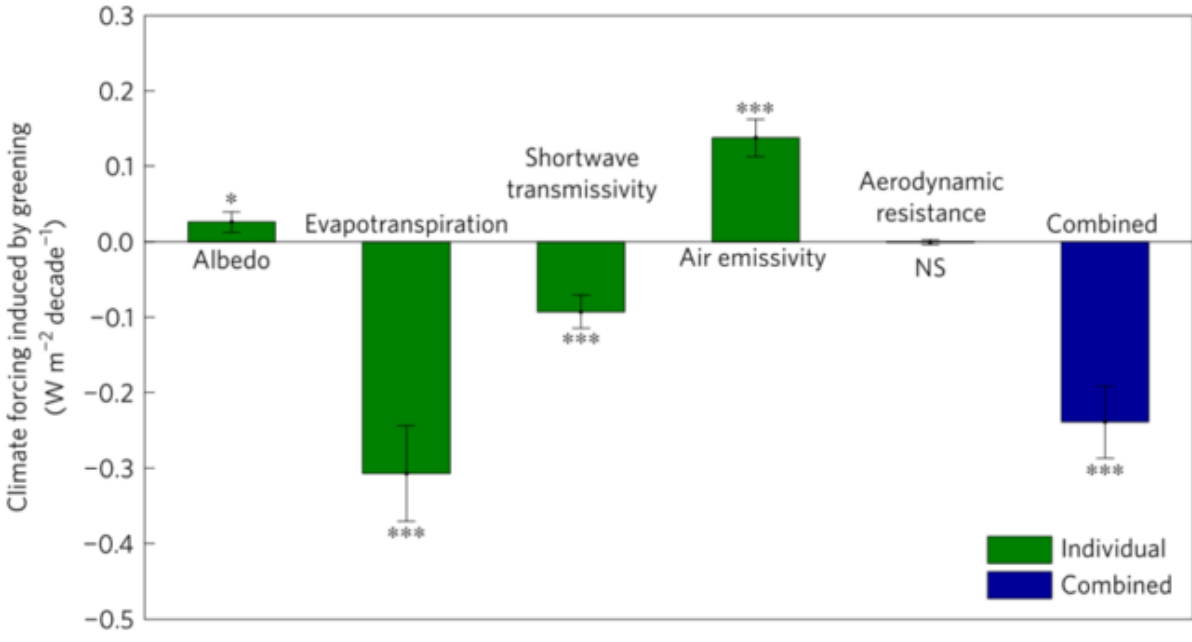
???????LAI???30???8% ??????????CO2??
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Piao, S., Wang, X., Park, T., Chen, C., Lian, X., He, Y., Bjerke, J. W., Chen, A., Ciais, P., Tømmervik, H., Nemani, R. R., & Myneni, R. B. (2020). Characteristics, drivers and feedbacks of global greening. *Nature Reviews Earth and Environment*, 1(1), 14–27.

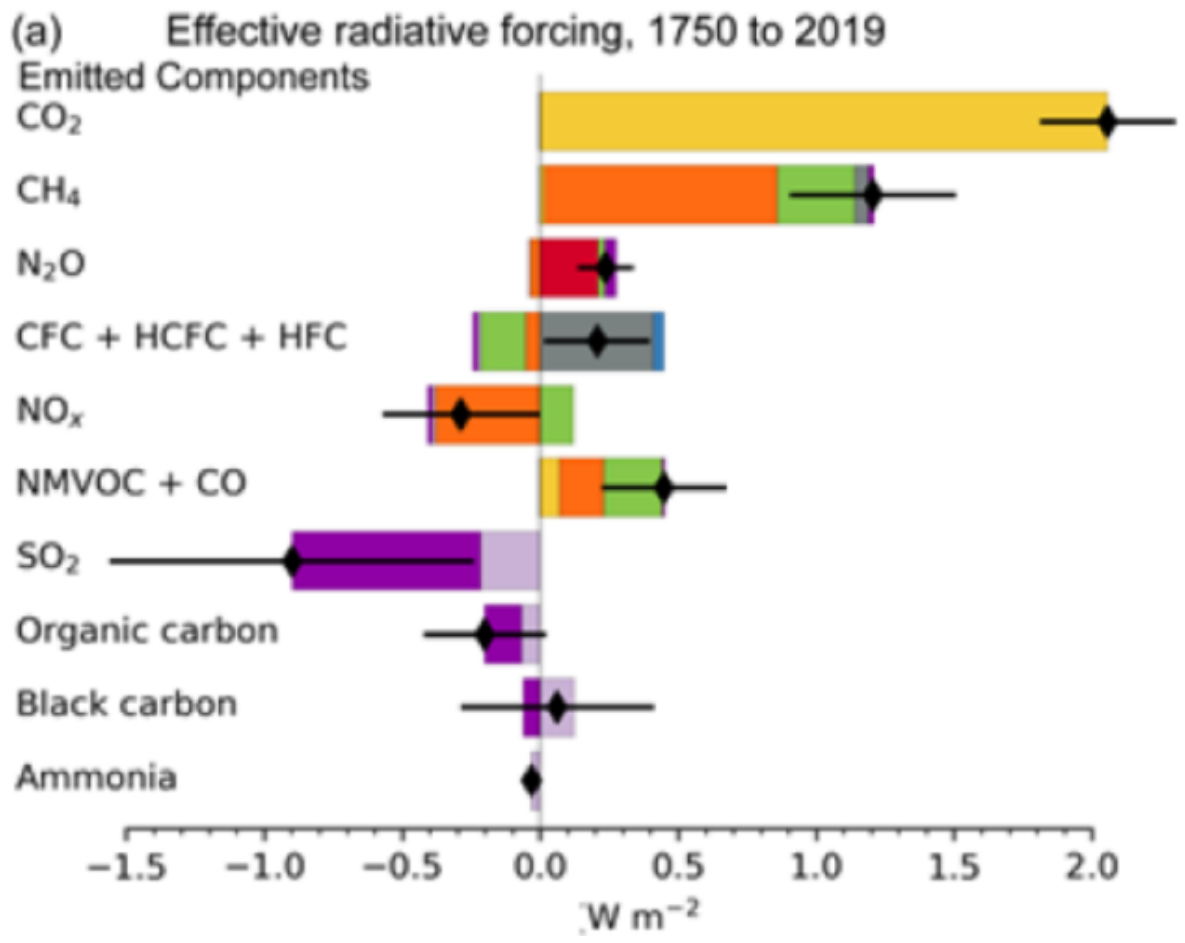
??10?????0.24W/m²???????



Zeng, Z., Piao, S., Li, L. Z. X., Zhou, L., Ciais, P., Wang, T., Li, Y., Lian, X., Wood, E. F., Friedlingstein, P., Mao, J., Estes, L. D., Myneni, R. B., Peng, S., Shi, X., Seneviratne, S. I., & Wang, Y. (2017). Climate mitigation from vegetation biophysical feedbacks during the past three

decades. Nature Climate Change, 7(6), 432–436.

0.24W/m²????????????40????????1W/m²????IPCC????1750????CO2????????2W/m²????
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IPCC AR6 Fig. TS.15

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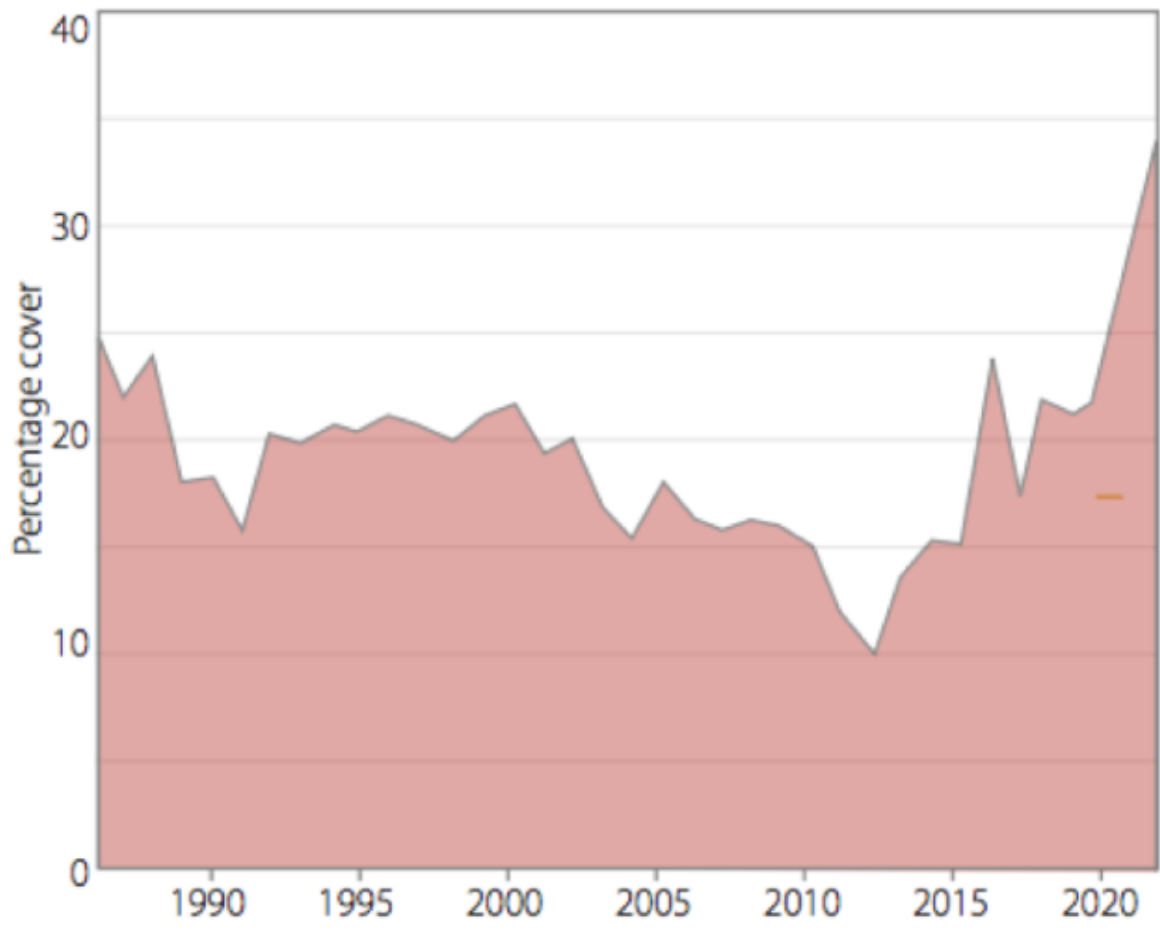
IPCC?????60????????????????????

?? ?? · Sunday, August 7th, 2022



Maerie/iStock

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2022????5%??10%????????????????????????????
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Without significant changes to the rates of disturbance and coral growth, coral cover in the central and southern regions of the GBR is likely to decline to 5–10% by 2022. The future of the GBR therefore depends on decisive

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Great Barrier Reef is damaged beyond repair and can no longer be saved, say scientists

By Helena Horton
29 May 2017 • 1:17pm



Helena Horton, Daily Telegraph, 29 May 2017

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?? ? · Friday, August 5th, 2022

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?? ?? · Thursday, August 4th, 2022



blew_i/iStock

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Q&A??

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Q18 国内市場における太陽光パネルの状況について

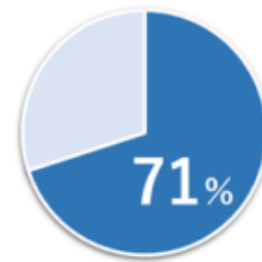
28

住宅用の太陽光パネルの国内市場はどうなっているのでしょうか？

**A 18 国内市場の住宅用の太陽光パネルにおいては、
日本企業が7割のシェア占めています。**

- （一社）太陽光発電協会によると、国内市場における太陽光パネルの日本企業のシェアは、住宅用・産業用等を含めた全体で43%である一方、住宅用では71%を占めています。
- 同協会へのヒアリングによると、日本企業のシェアが大きい理由は、日本の小さい屋根にも載せられる工夫や、保証・アフターサービスの点で、ハウスメーカーに選ばれていること等があげられます。

国内市場の太陽光パネル出荷量(住宅用)に
占める日本企業のシェア（2021年度）



✓小さい屋根に対応

✓保証・アフターサービス業務

※直近実績 2019年度：76.1%
2020年度：70.8%
2021年度：71.3%

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Q19 人権問題について

29

太陽光パネルの生産は中国に集中しており、新疆ウイグル自治区における人権問題が懸念されていますが社会的な問題はないのでしょうか？

**A 19 住宅用の太陽光パネルのシェアが多い国内メーカーのヒアリングによれば、
当該地区の製品を取り扱っている事実はないとの回答を得ています。
引き続き、国や業界団体等と連携しながら、SDGsを尊重した事業活動を
推進していきます。**

- 都は、ヒアリング等を通じ、国内太陽光パネルメーカー等の状況把握に努めています。また、業界団体である太陽光発電協会では「持続可能な社会の実現に向けた行動指針」を掲げ、会員企業、太陽光発電産業に係る事業者に人権の尊重を順守した事業活動を行うこと等を推進しています。都はこうした関係団体と連携を図りながら、国が策定する「サプライチェーンにおける人権尊重のためのガイドライン」も踏まえ、SDGsを尊重した事業活動を推進していきます。

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The world will almost completely rely on China for the supply of key building blocks for solar panel production through 2025. Based on manufacturing capacity under construction, China's share of global polysilicon, ingot and wafer production will soon reach almost 95%. Today, China's Xinjiang province accounts for 40% global polysilicon manufacturing. Moreover, one out of every seven panels produced worldwide is manufactured by a single facility. This level of concentration in any global supply chain would represent a considerable vulnerability; solar PV is no exception.

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

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?? ?? · Wednesday, August 3rd, 2022



HowardPerry/iStock

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Posted in ???, ????? | No Comments »

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?? ?? · Monday, August 1st, 2022



Yamko/iStock

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

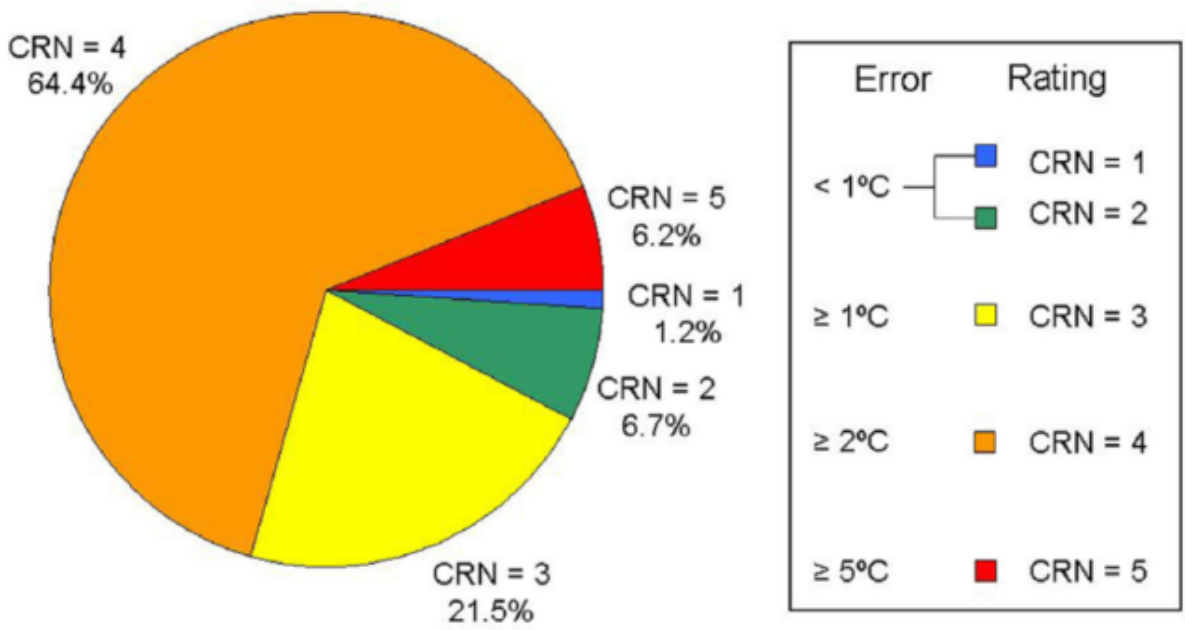
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?? ?? · Monday, August 1st, 2022

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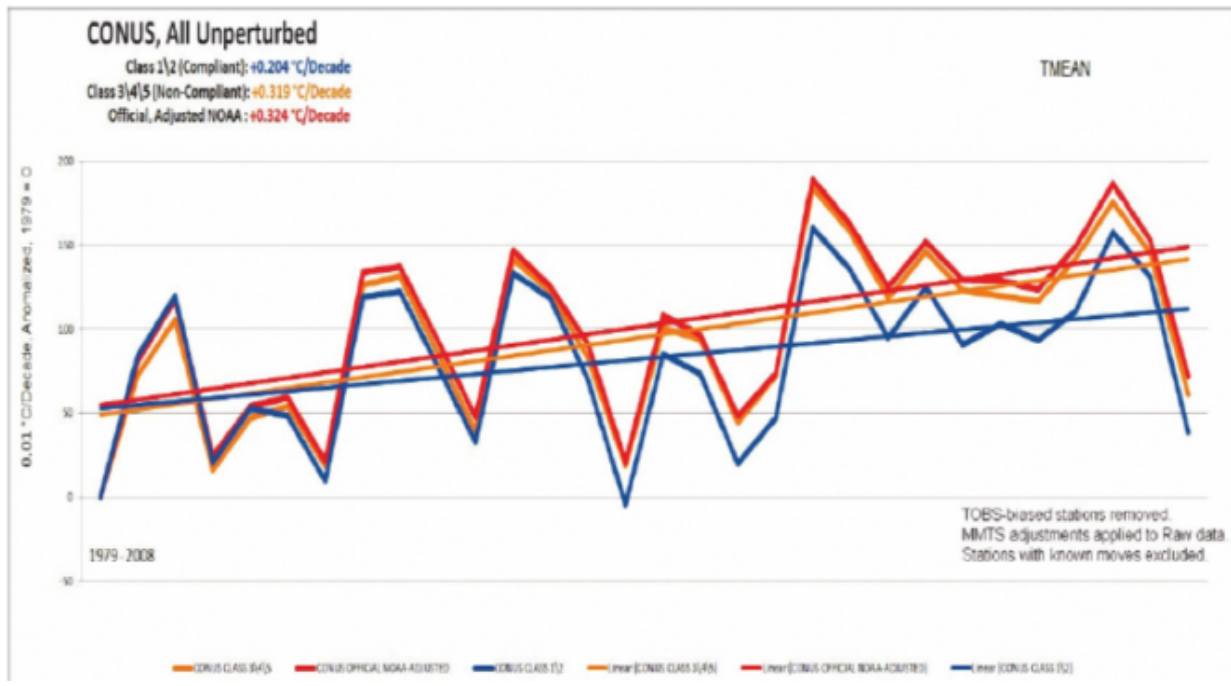


Figure 8: Top: placement of CRS in parking lot at University of Arizona Atmospheric Sciences Department on July 21, 2007. Lower left: detail at ground level of CRS placement on July 21, 2007. Lower right: detail at ground level of CRS after removal on November 23, 2007. Source: Warren Meyer, Bob Thompson.

????????NOAA????????10????0.324????????????????????

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????CRN=1,2 ?????????????10????0.204????????????????6??????



????????????????????(US Climate Reference Network)????????????????????2005??



Posted in ???, ????? | No Comments »

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?? ?? · Wednesday, July 27th, 2022



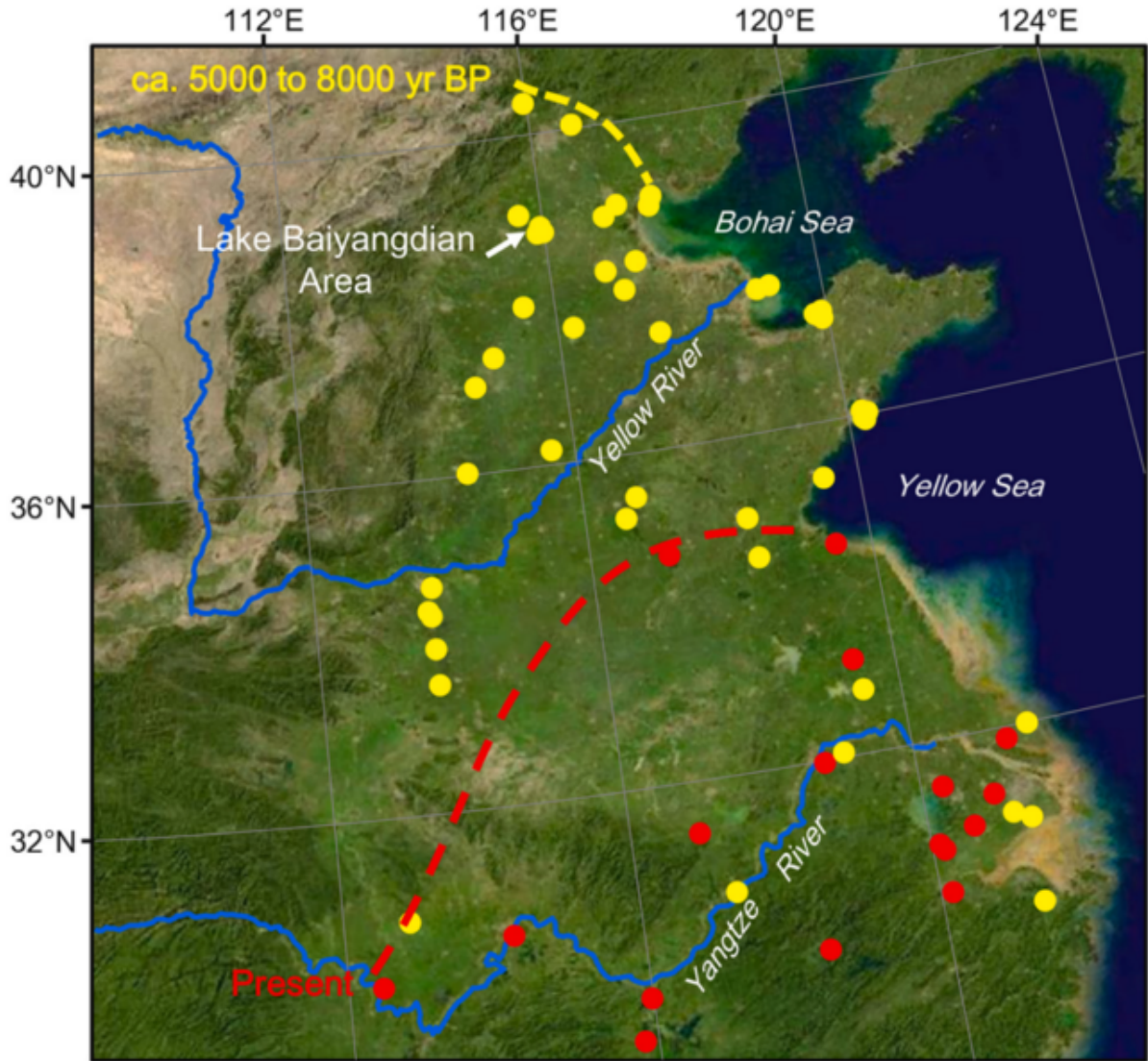
Yuriy_Kulik/iStock

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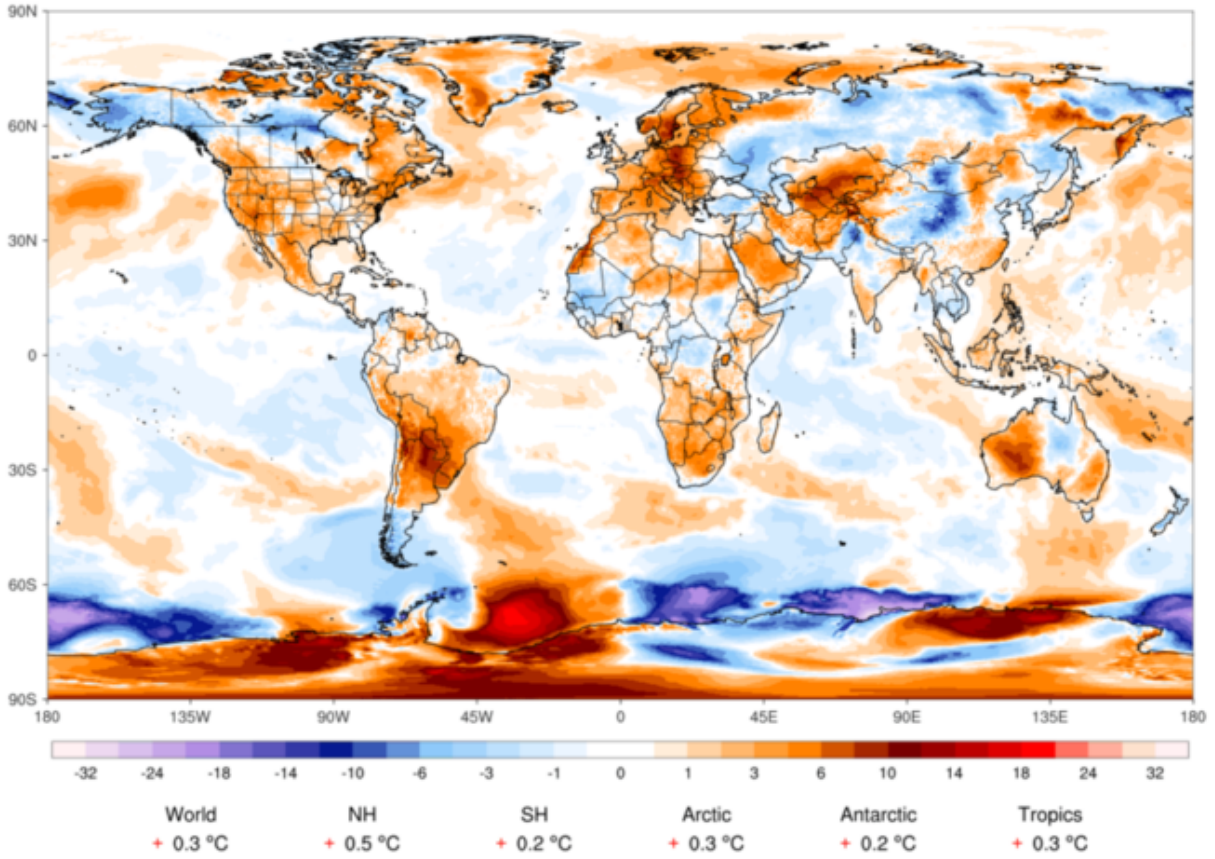
Tomwang112/iStock

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