

Global Energy Policy Research | GEPR

GEPR??
????http://agorajp.com/??
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????100%????????????????????????????????

?? ?? · Tuesday, January 31st, 2023



Planet Flem/iStock

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??2050????????????2030?46%
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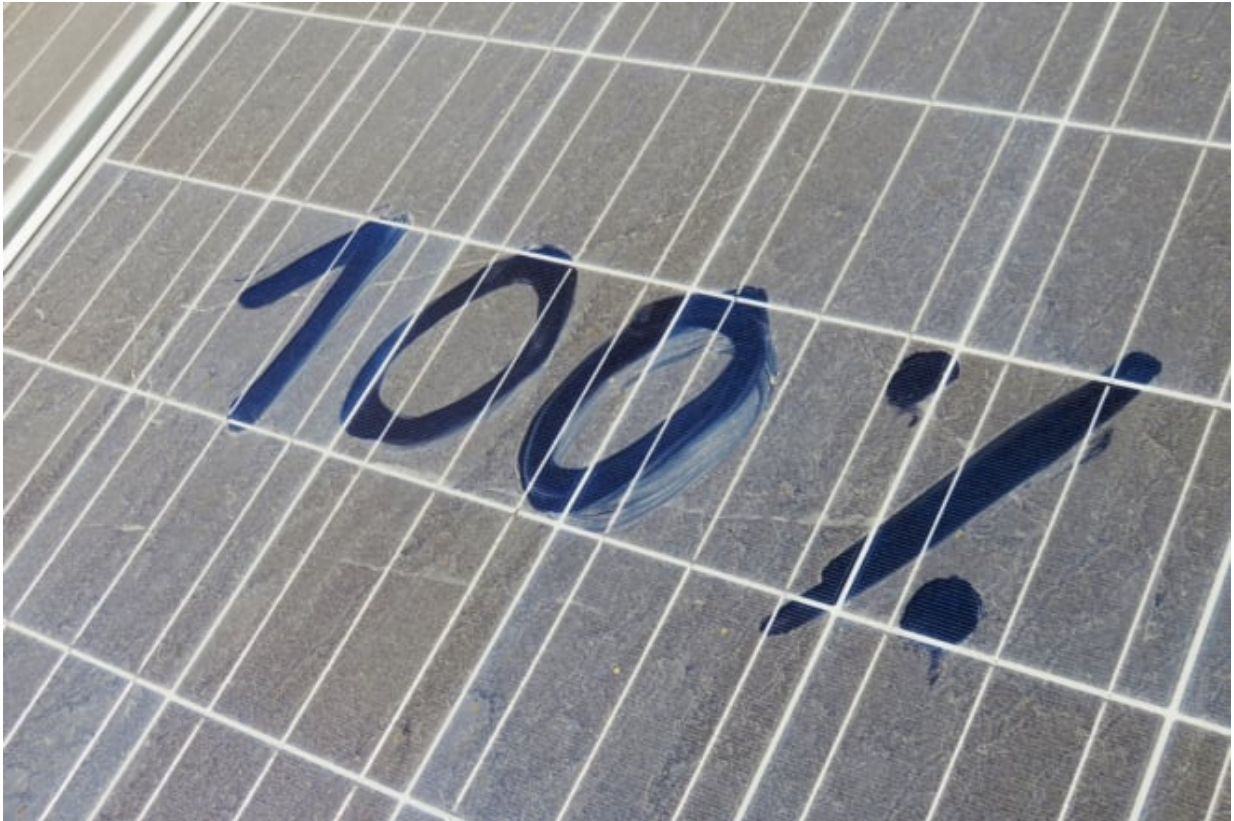
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?SDGs?????????

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

????100%????????????????????

?? ?? · Monday, January 30th, 2023



tzahiV/iStock

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3????????????????100%??
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脱炭素施策	順守事項
サプライヤーへの脱炭素要請	【優越的地位の濫用】 独禁法、下請法、行動指針、調達基準
中国製太陽光パネルの利用	【人権侵害、強制労働】 行動指針、人権宣言、SDGs
「再エネ 100%」表示	【優良誤認】 景表法、環境表示ガイドライン、行動指針

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A????????80%????????????????????????????100%????????????????

????????????2????????PPA????????????8????CO2????????????????
????100%????????????????????????????????????

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??ESG?SDGs?????

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

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?? ? · Sunday, January 29th, 2023

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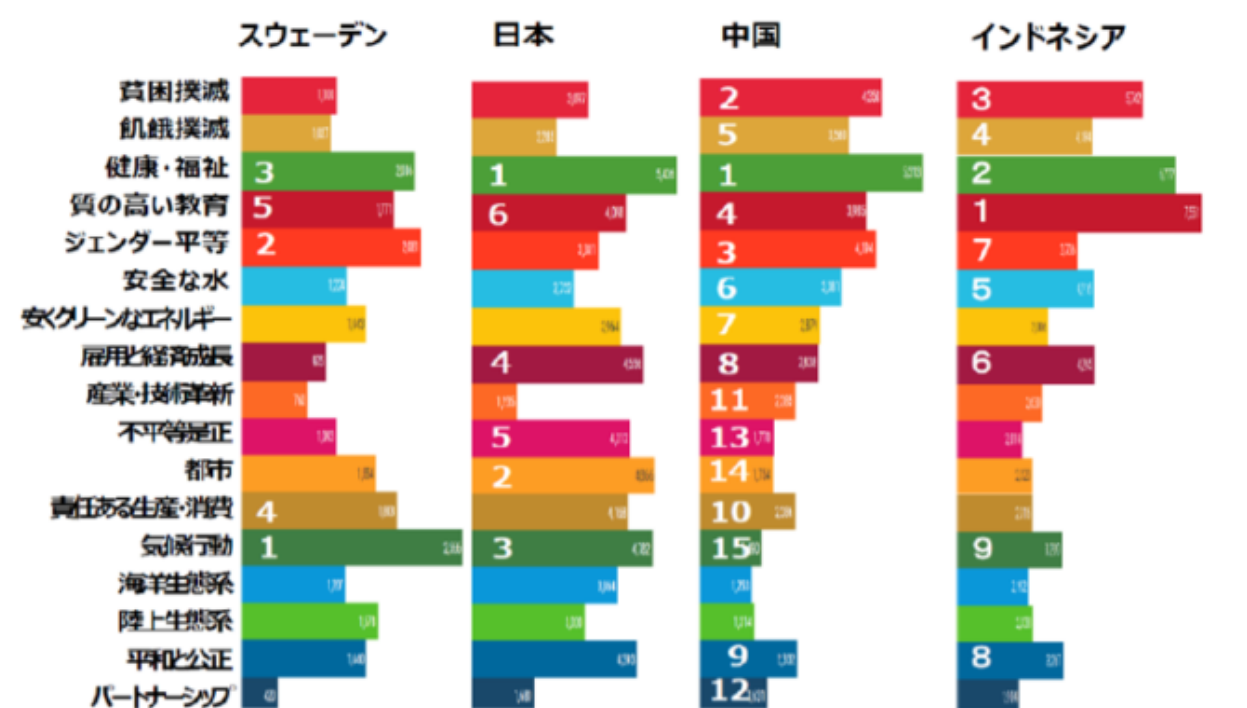
????????????????????2019????????????????????2019????
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??How dare
you!??

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2015????????????????????????My World 2030
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?????????17?SDG?????????????????????1????????????????????????????15?????????????????9???????



???United Nations My World 2030 ??????

????????????????????GDP????????SDG13????????????????????????????????GDP????????????????
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?????????????3?E????????????????Energy Security?????????Environmental
Protection????????Economic
Efficiency??
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2022?3????????????????????Vervox????????????54????????????????????????????42????????

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????2022?6????????????????????????????????2??
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Posted in [???, ?????](#) | [No Comments](#) »

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?? ?? · Thursday, January 26th, 2023

??COP26????????????????????????????????154????
????????????????GDP??90??????????

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????EU??2035??
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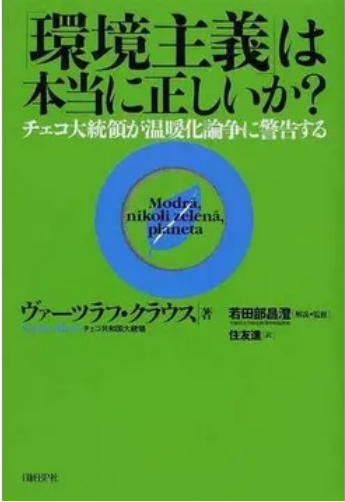


Halfpoint/iStock

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??2003???2013????????????????????2????????????????????
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Posted in ??????????, ??, ????? | No Comments »

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?? ?? ?? · Sunday, January 22nd, 2023

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1?18????2021????????????????84??
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Kolonko/iStock

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3.1.??????BEVs??????

???BEVs(?????)CO2??BEVs????????????????????CO2?????
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analysis????LCA??
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?????honest assessment??

???BEVs????????CO2????????????????????CO2????????????????CO2????????????????????????????????
??LCA??????????????

??CO2????61?106kg-
CO2/kWh????????1kWh????????61?106kg?CO2????????????????

????????????70????????????????????????????125kg-
CO2/kWh????????60kWh????????BEVs????????????????7.5t?CO2????????125kg/kWh×60kWh?

7500kg)?

? ?????????????S???BEV?????100kWh???12.5t CO2????

????????CO2????????BEVs?CO2????ICEVs????????????????????????????????????
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???HTP?human toxicity potential??BEVs????????????????????????????????????HTP?ICEVs?????3
?5????????????????BEVs??

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Rucksack????????????1????????????????????????500????????????????????????????500????????????
????????????????500?????????7500????????????35???????

?????????????????????500????????????????????????40kWh?300kg????????????????150t????????????
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3.2.????????????

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???BEVs????????????????????????29????????????????????????ICEV?????????14?????????????
????????????????????????2030?????BEVs?ICEVs??
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LCA????????????????BEV????????ICEVs?30??
????????????????BEVs????????????????????????BEVs????????????????ICEVs????????????????BEVs
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000????????????LDVs?28?????????10??100????????????????????????

?????????1?????7kW?????????100?????7GW??700? kW????????????????????????2?????????
? ?????????2014????????????????????????????????????

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3.3.????2030????BEVs????????????CO2????????

????????????????????LDVs????????????70????????????12????????????BEVs?LCA?????C
 O2????????????????????ICEVs????????????25????????????????????IEA????????

????????????2030????BEVs?1000????????LDVs?28????????????????????4.9%????
 ?LDVs????70????28?BEVs?BEVs?CO2????25?0.7×0.28×0.25?0.049??

21???36????BEVs?30????1000????????????????????ICEVs?70????????????????
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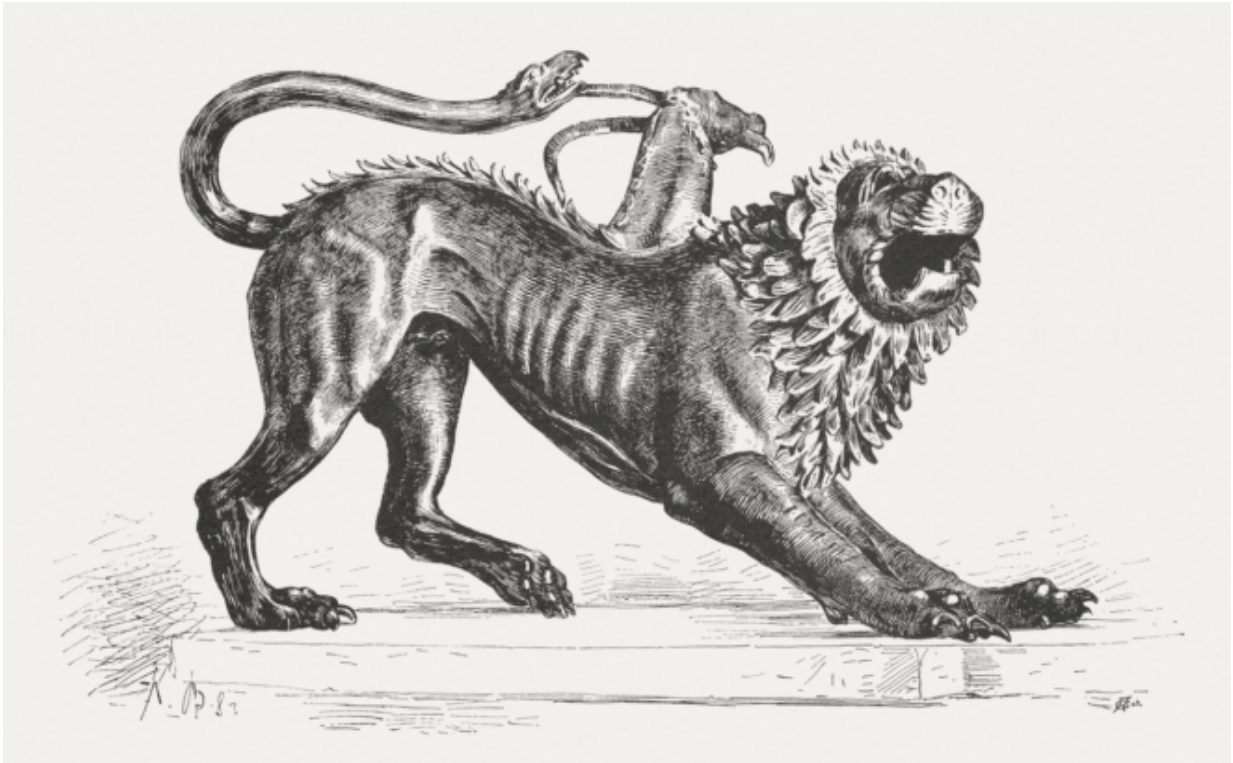
?????CO2?4.9%????BEVs?36????1000????????????????????BEVs????????????
 ?????????????LDVs????????ICEVs????????????????????

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ZU_09/iStock

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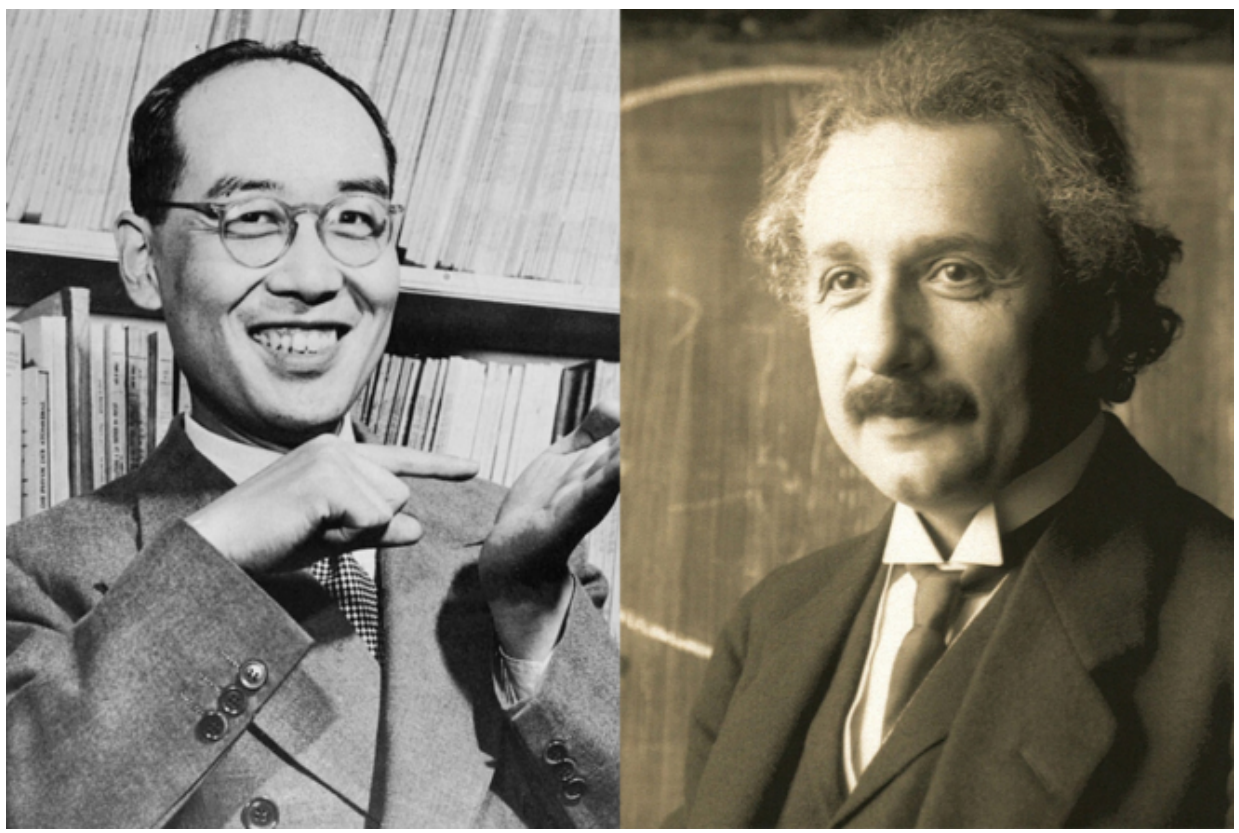
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3000????????????????10????????????????????????????????????
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1920??????
???Wikipedia

<https://www.yomiuri.co.jp/kyoiku/kyoiku/news/20230112-OYT1T50041/>

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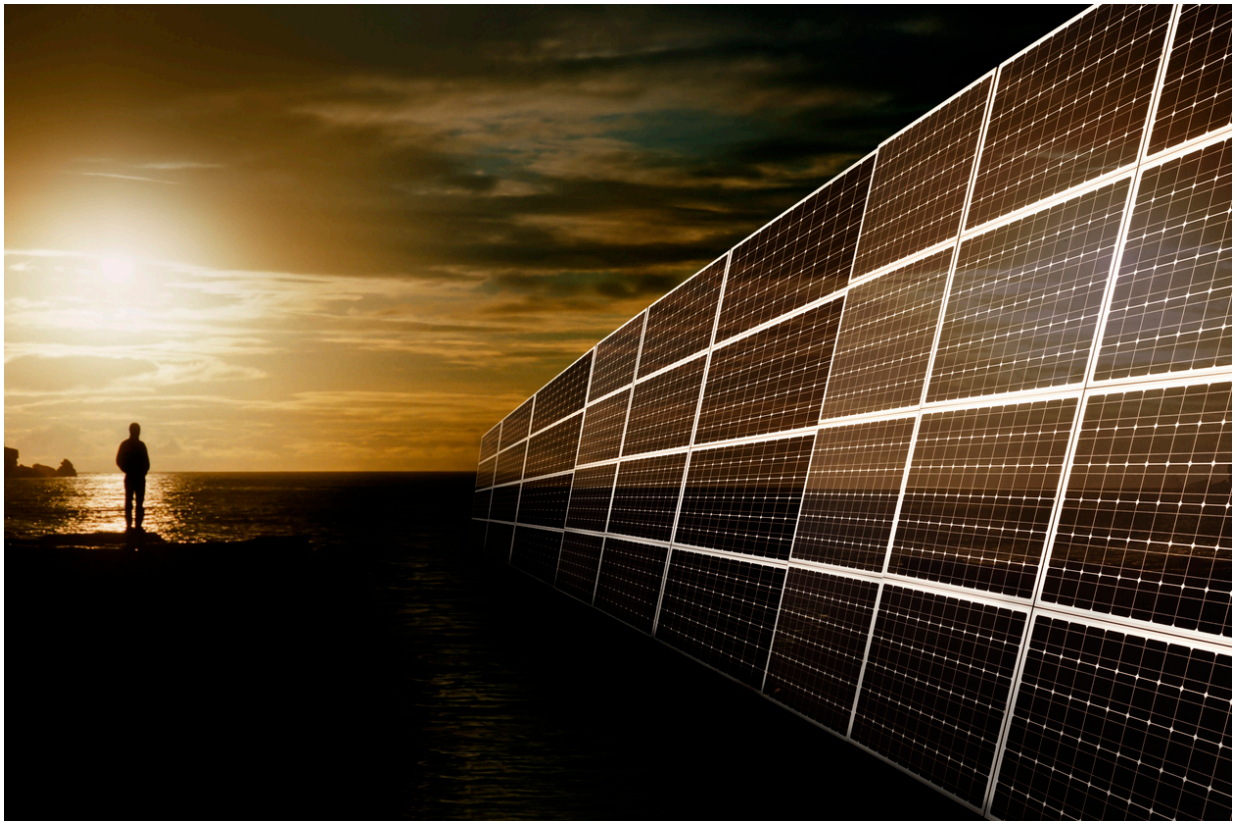
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Posted in ???, ????? | No Comments »

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?? ?? · Tuesday, January 10th, 2023



HadelProductions/iStock

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2021?6?G7????????10?G7????????????????????????????????????2022?6?G7????????????????????
????9?EU????????????????2022?8?G7????????????????????????????????????

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????2022????????????50?G7????????????????????????????1??????

調査項目	公表数
① 行動指針、行動憲章など	50 社 (100%)
② 人権 (強制労働をしない、など)	50 社 (100%)
③ 公正な取引 (優越的地位の濫用をしない、不利益を与えない、など)	43 社 (86%)

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??50????????????????43?86%????
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?1?????CSR?????????????????????????ESG?????????

?2????????50????????????????????????????????
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Posted in ???, ????? | No Comments »

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?? ?? · Monday, January 9th, 2023



NicoElNino/iStock

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2050????2030?CO2????????????????????????2022?2????????????????????40??????????????????????????
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??2050????2030?CO2????????????
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Posted in ???, ????? | No Comments »

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

?? ?? · Monday, January 9th, 2023



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H M Shahidul Islam/iStock

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

Sky New????????????????????????????????????

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???"experts say..."????????????????????????

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??80????????????75????1

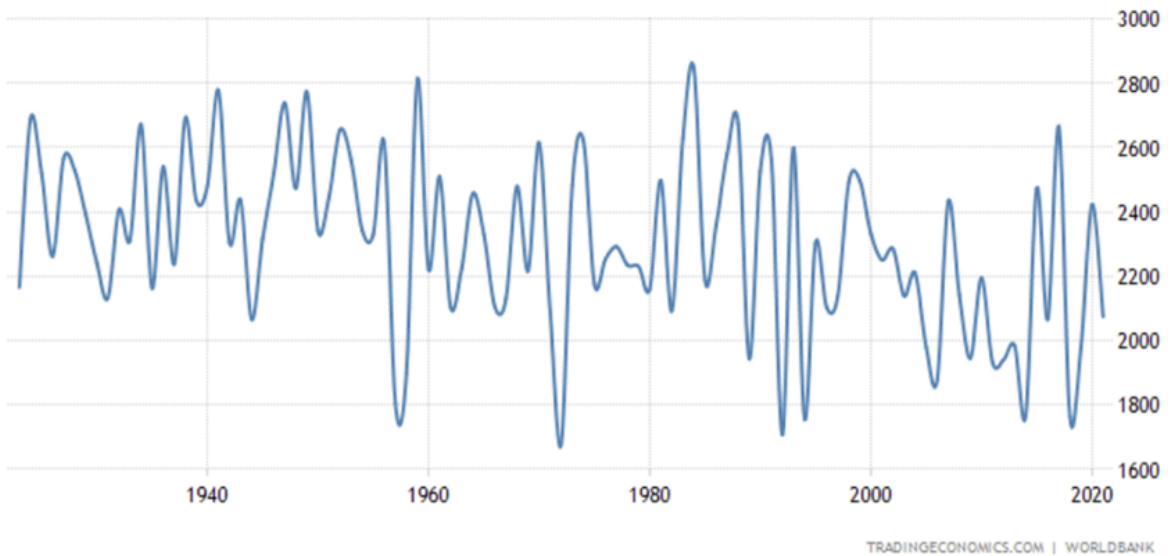
0????????????????????18????????1988????????75????

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?????????????BBC????

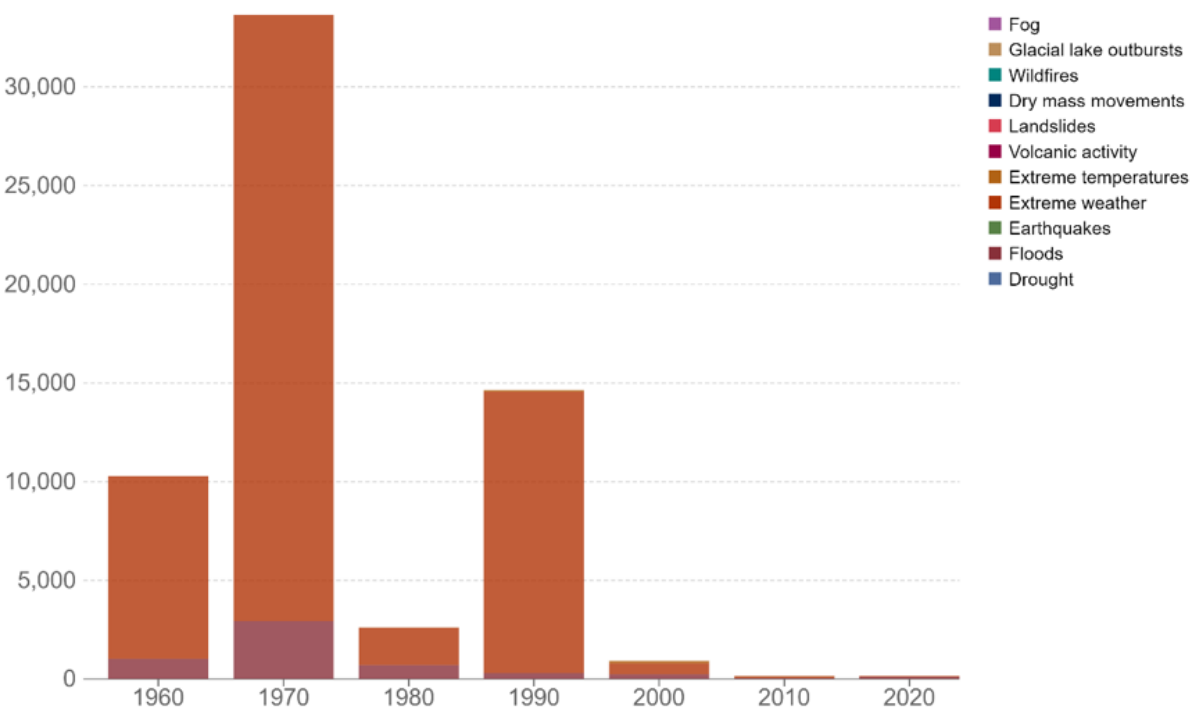
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eme weather ?floods????????????????????????

Decadal average: Number of deaths from natural disasters, Bangladesh



Source: EM-DAT, CRED / Université catholique de Louvain, Brussels (Belgium) OurWorldInData.org/natural-disasters • CC BY

1970 20 50

2000

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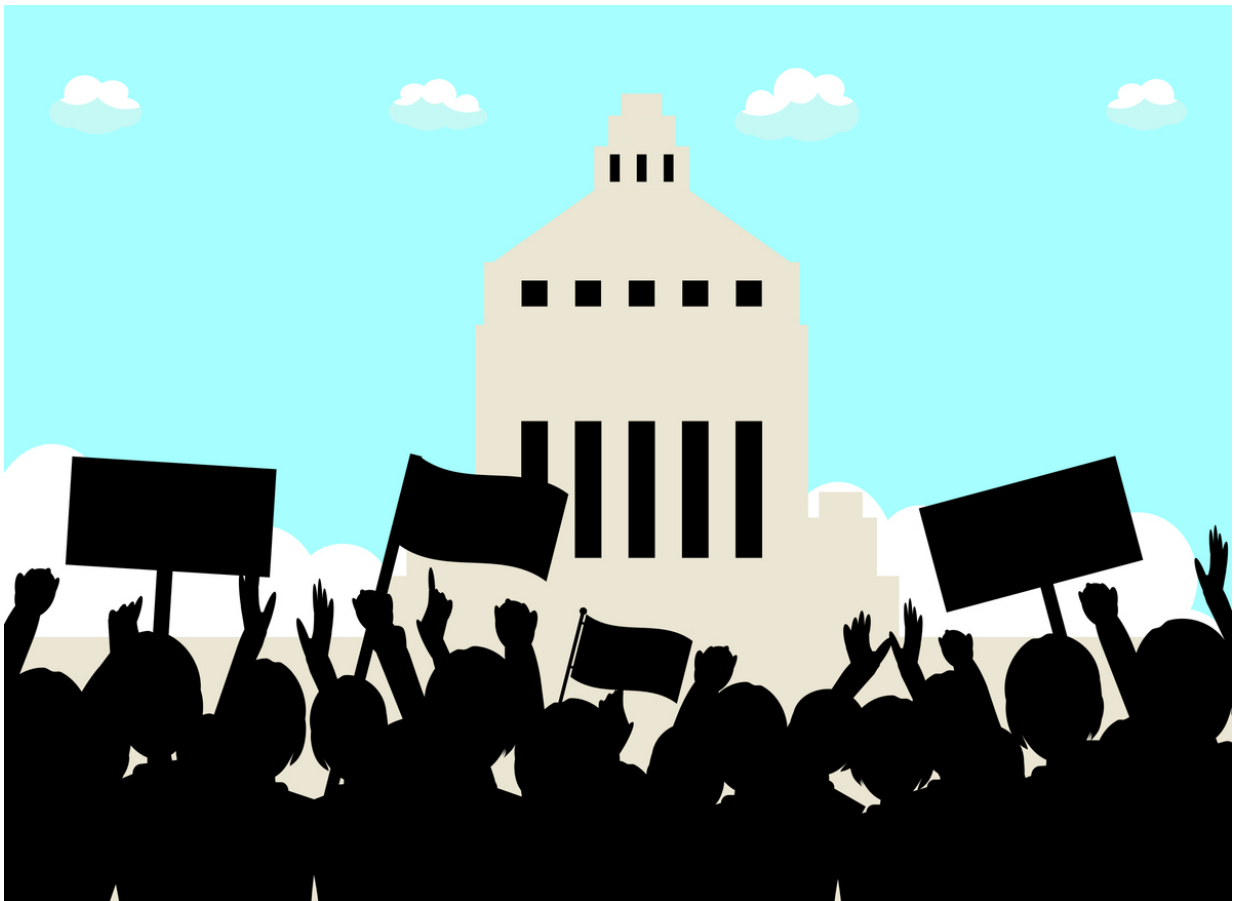
Posted in ???, ????? | No Comments »

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

?? ?? · Sunday, January 8th, 2023

?GDP?2????????????????????????3??
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kid-a/iStock

GX????????

????????????GX????GX????????1?22????????

GX????HP

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?GX????(?)????(?)??

?GX????(?)????

????1?27????

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

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????GX????2022????3????

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そのため、化石エネルギーへの過度な依存からの脱却を目指し、需要サイドにおける徹底した省エネルギー、製造業の燃料転換などを進めるとともに、供給サイドにおいては、足元の危機を乗り切るためにも再生可能エネルギー、原子力などエネルギー安全保障に寄与し、脱炭素効果の高い電源を最大限活用する。

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安定的で安価なエネルギー供給は、国民生活、社会・経済活動の根幹であり、我が国の最優先課題である。今後 GX を推進していく上でも、エネルギー安定供給の確保は大前提であると同時に、GX を推進することそのものが、エネルギー安定供給の確保につながる。

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????????????????????CO2????????????????????RITE????2030??46%????????????30??
GDP????????????????RITE??p8?

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

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???GX??????

?10??150????GX????????20??GX????????????

「GX 経済移行債」(仮称)

国として長期・複数年度にわたり投資促進策を講ずるために、カーボンプライ
シング導入の結果として得られる将来の財源を裏付けとした 20 兆円規模の「GX
経済移行債」(仮称)を、来年度以降 10 年間、毎年度、国会の議決を経た金額の
範囲内で発行していく。

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

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

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????GX????20??
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??GX????????????

④ カーボンプライシングの実施等を担う「GX 経済移行推進機構」（仮称）の創設

排出量取引制度の運営や負担金・賦課金の徴収等（先行投資支援の一部を含む）に係る業務を実施する機関として、「GX 経済移行推進機構」（仮称）を創設する。排出量取引制度と炭素に対する賦課金制度との「ハイブリッド型」のカーボンプライシングを導入するため、両制度に関する調整・管理及び徴収業務を、本機構が一体的に実施する。また、2026 年度の「排出量取引制度」本格稼働に向けて、本制度に係る各種実務を円滑に進め、中長期にわたり産業競争力強化と効率的かつ効果的な排出削減の両立が可能な形で制度を安定的に運営するため、排出実績や取引実績の管理、有償オークションの実施、取引価格安定化に向けた監視等を実施する。

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??GX??
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????????GX????????????10??150????GX??
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今後 10 年間で 150 兆円を超える GX 投資を官民協調で実現していくためには、国として長期・複数年度にわたり支援策を講じ、民間事業者の予見可能性を高めしていく必要がある。そのため、新たに「GX 経済移行債」（仮称）を創設し、これを活用することで、国として 20 兆円規模の大胆な先行投資支援を実行する。その投資促進策は、新たな市場・需要の創出に効果的につながるよう、規制・制度的措置と一体的に講じていく。

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10??150????????15????GDP?3%????????2%??
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?GX????????????????????????????

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したがって、支援分野の優先順位付け、支援対象事業の選定等においては、技術や市場の見通し、事業の効果などの要素を検討するとともに、定期的に支援事業の進捗評価・分析を行い、支援継続の要否などを確認するためのチェック機能を設ける。支援対象については、こうした機能を通じて柔軟に見直しを行う。

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

- ?GX????????GX??
- ?????????????????????????????????
- ?????????????????GX????????????????

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世界規模で異常気象が発生し、大規模な自然災害が増加するなど、気候変動問題への対応は今や人類共通の課題となっている。カーボンニュートラル目標を表明する国・地

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

2022????????????????100????98??????

?? ?? · Saturday, January 7th, 2023



Devrimb/iStock

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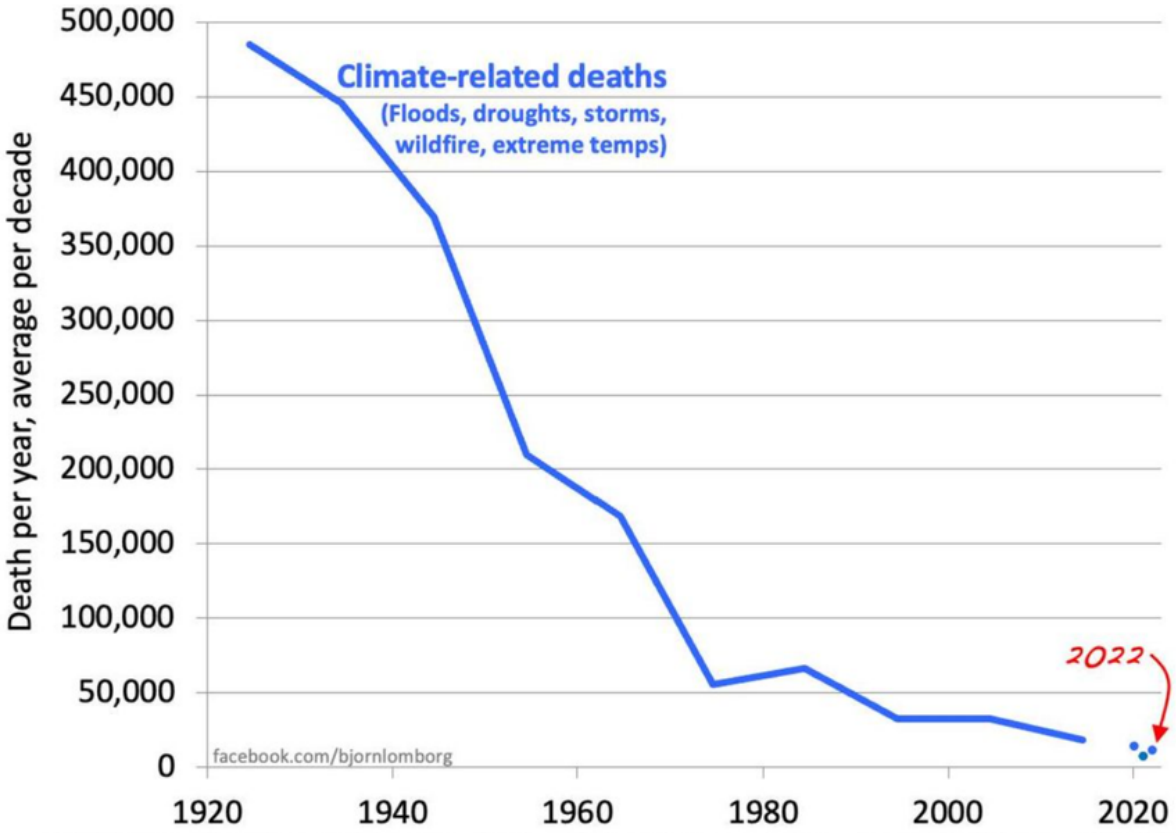
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????????????????????1920????29????????????????2010????2019????????????????????????????????3????????????

Climate-related Deaths: 1920-2022

Deaths have declined precipitously because richer and more resilient societies reduce disaster deaths and swamp any potential climate signal



facebook.com/bjornlomborg
 OFDA/CRED International Disaster Database, <https://public.emdat.be>, deaths averaged over decades 1920-29, 1930-1939, ... 2010-2019 placed at decadal midpoints (1924.5, 1934.5 etc), with annual data for 2020, 2021, and 2022, accessed January 1, 2023. Likely database will be updated further, so the current 2022 estimate is probably low. 2022 at 14,920 dead, 2021: 7,705, 2022: 11,873. Update of Fig. 17 from <https://www.sciencedirect.com/science/article/pii/S0040162520304157>.

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2022??2022??
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Posted in ???, ????? | No Comments »

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?? ? · Saturday, January 7th, 2023



Natali_Mis/iStock

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2.3.???

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??????2040??
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???Typhoon????????????21t??4t????????????????????49MWh????????????????????????
????????180Wh/kg????????????????13??272

t????????49×10⁶Wh/180×10³Wh/t?272.2t????????????

????????TV??
70??=272/4??
????????????????????????????

??????????6.2m×2.5m??4667kg?300????????????S??????????2100kg?100kWh??????300?
????????????

????????2.2????????220kWh??1m²?1
50W??????6.2m×2.5m????????????????95??????220kWh/(0.15kW/m² × 6.2m × 2.5m)?94.6
h????????95????????????1????????????

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??3.1. ??????

2.4.????????????????????

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??3????????

2.5.????????????????????????????

????????????????????????????489.7EJ?60??=293.8EJ??CO₂????????????????????????9320GW????
????40????????????23300GW????????????????????28????????????????????????????
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??2021?11????????????COP26????????????????
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????????????????????????2022?3??8.6%????7?720????????????2022????
????????????????

? ?????2022????????1.2%????80????????????????2????3????4????

????????????????2021??3.54EJ?2019??2.27EJ??56????????????8.47%????
????????24????????2.4%????????????

??2050????2070????????????
????2050????????????

3????????

????????????????????????99.7%????ICE?internal combustion engine????95????

????????????????????BEVs?battery electric vehicles????PHEVs?Plug-in hybrid electric vehicles????HEVs?hybrid electric vehicles????

? ?????PHEV?HEV????????????

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????????????????BEVs??
????FCV??1100????????????????????????????????

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????????????????????EV?PHEV??
??700????????????FCV????????
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??BEVs??LDVs?light duty
vehicles????????????????45??
????????????????????????????

?????A320??19????????????????????????

?????13??LDVs?????2040????17?19?????????????????????3600??LDVs?????2021????B
EVs?36??1%????????????????LDVs????????????????100????????????LDVs????????
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2021????????1250??(??)BEVs????????70??
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Posted in ???, ????? | No Comments »

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?? ?? · Friday, January 6th, 2023



runeer/iStock

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??50??5?????

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Our climate is heating rapidly. Floods, droughts, heatwaves, extreme storms and wildfires are going from bad to worse, breaking records with ever alarming frequency. Heatwaves in Europe. Colossal floods in Pakistan. Prolonged and severe droughts in China, the Horn of Africa and the United States.

There is nothing natural about the new scale of these disasters. They are the price of humanity's fossil fuel addiction. The number of weather, climate and water-related disasters has increased by a factor of five over the past 50 years.



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Wikipedia??

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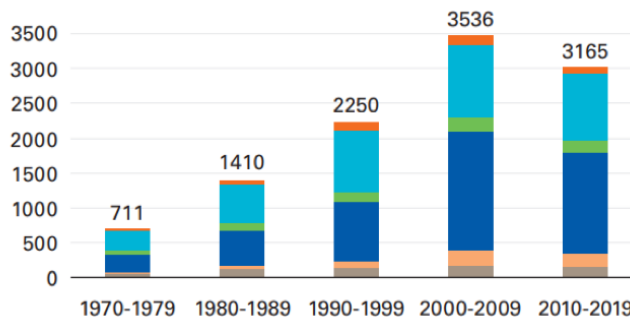
??W
MO????????????????????IPCC??????????



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?????????50??5??
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(a) Number of reported disasters
 Total = 11 072 disasters



■ Drought ■ Extreme temperature ■ Flood ■ Landslide ■ Storm ■ Wildfire

??(United Science)?? in

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Posted in ???, ????? | No Comments »

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?? ?? · Tuesday, January 3rd, 2023

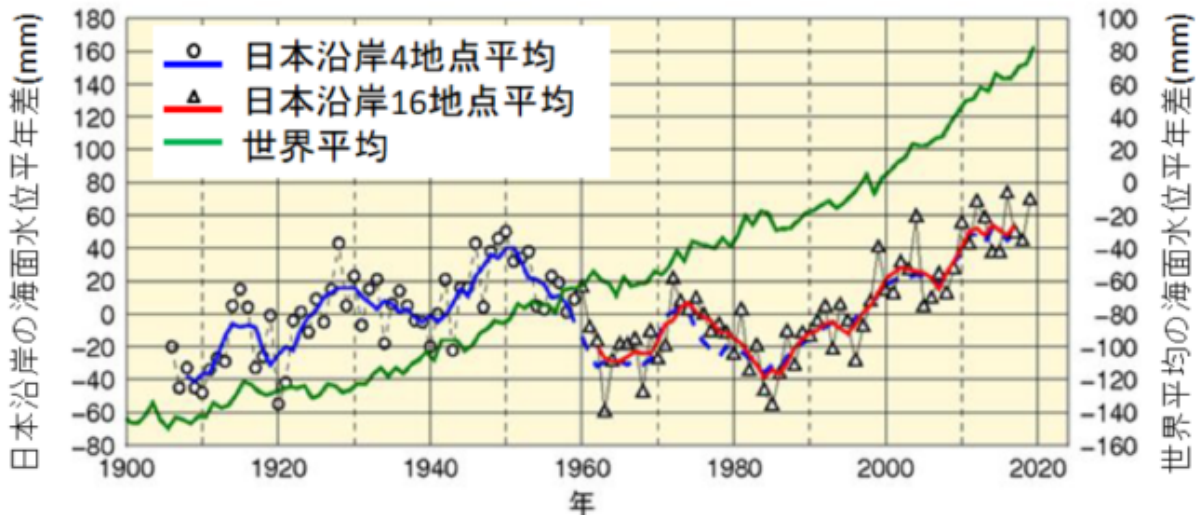


gyro/iStock

2022?11?7????????????????????1.4
m??
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?????????1906????????????????????????????????????10 ??20 ????50
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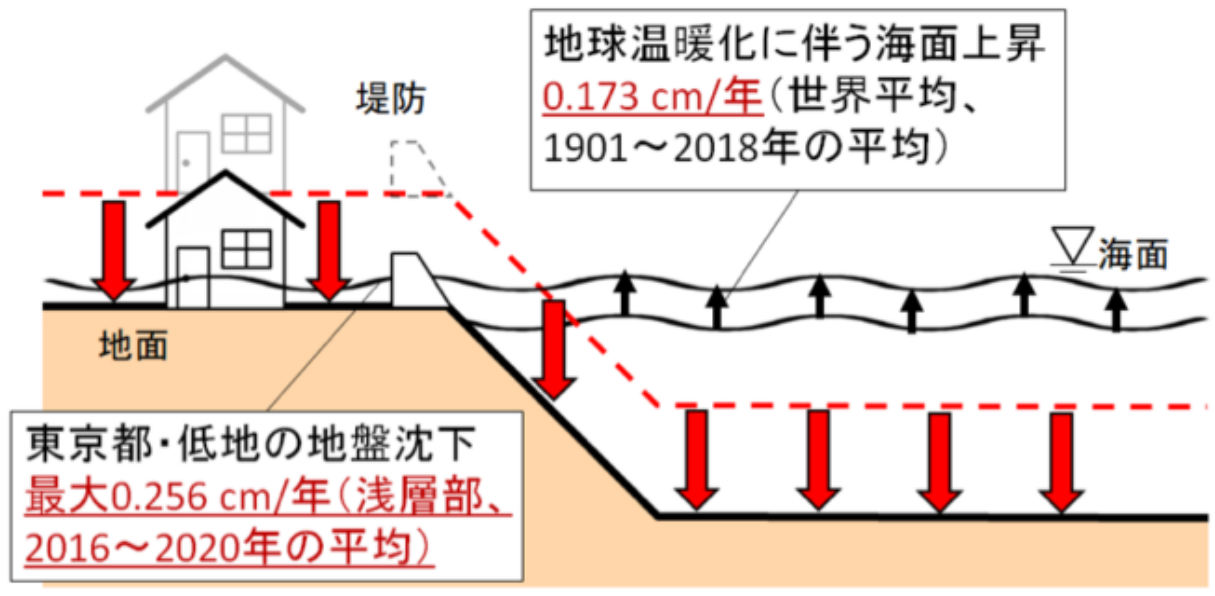
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?1 1906??2019??2020??

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??2??



?2

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??6????????1?????????

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cm??2016?2020????????1????
0.256 cm????????????????????????

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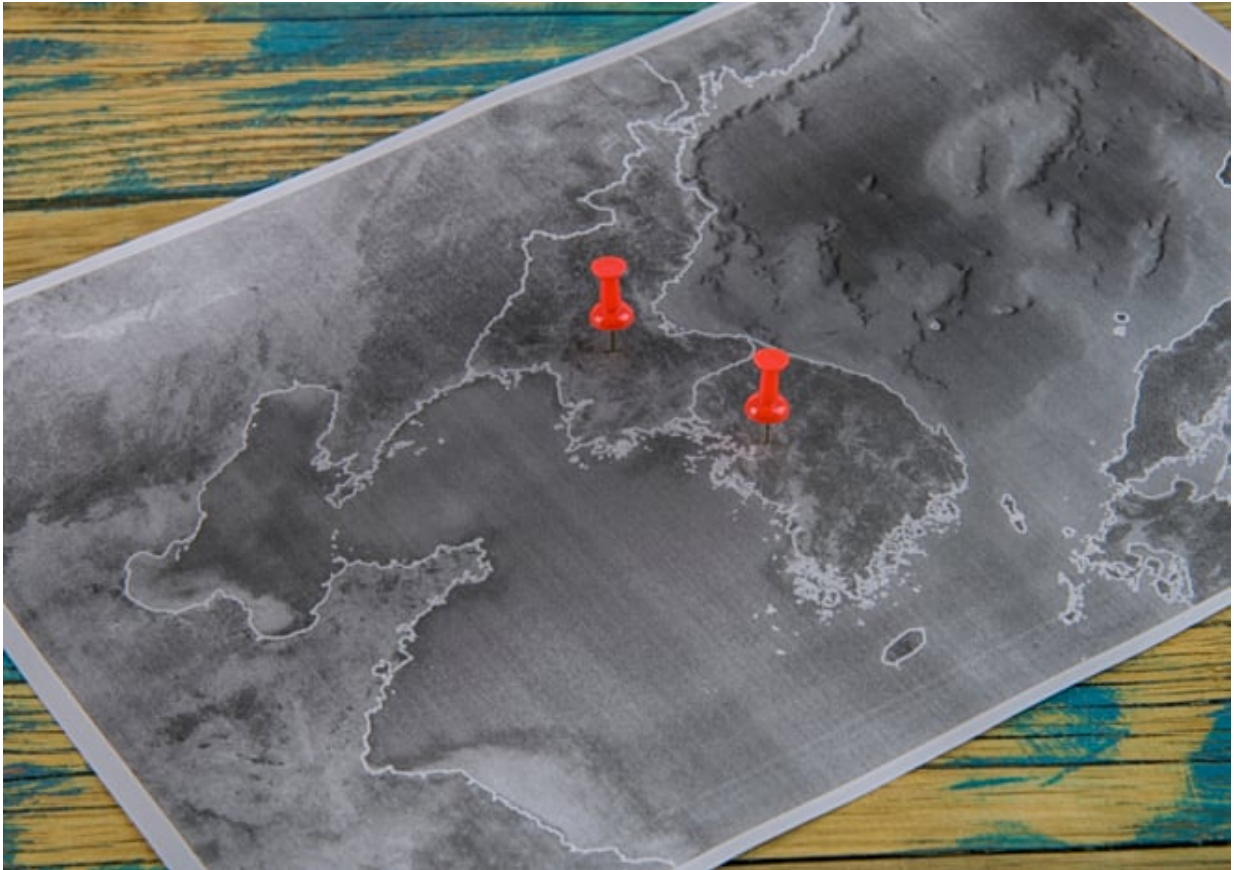
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?????????1891?1970?????4.5
m??

Posted in ???, ????? | No Comments »

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?? ?? · Wednesday, December 28th, 2022



Perytskyy/iStock

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??NPT????????????????????
???VOA Korea 2022?12?23??

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dzika_mrowka/iStock

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1??300??

??????2018??K????????????????BTS????????????????????T????????SNS????????TV????????
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Posted in ??, ????????? | No Comments »

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

?? ?? - Sunday, December 25th, 2022



gremlin/iStock

WEF??2050????????????????????????????????

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????????????????????????100????????250??80????????

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?????6,000??40??80????????????????????????????
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????100????1800??

??200????????????????????
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ESG????????????

WEF????ESG????????????????????????ESG????????????????????????????????????
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ESG????????????

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

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?? ?? · Saturday, December 24th, 2022

EU????????????12?18?????EU??EU????????????????
????????????????????

????EU?CO₂??????4?????EU-
ETS????????????????2030????????????43??62??
????????????????????????????????2026????????????????????????????

????26??2.5????????27?5.0??28?10??29?22.5??30?48.5????????????2034??100????????????????
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Galeanu Mihai/iStock

??EU????????????CO₂????????????
??EU????????????????
????????????

??EU????????????????
????????????????CBAM????????????????????

CBAM??EU??CO₂????EU??ETS????????????

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??WTO????????????????????
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????????????2023?10????25????15??202
6????????????????????????EU????26??
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????????????????CBAM????????????????????Eurofer????????????????????????????????????450????????????
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????????????????????????CBAM????EU??EU????????????????
????EU??2026????EU????????????????????????????

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????????????????WTO????????????????????????????????????

????????????????????????2025????????????????????????????????????WTO????????????????????????????????
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??CBAM????????????

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

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?? ? · Friday, December 23rd, 2022



Artur Nichiporenko/iStock

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2.1. ??????????????????

??????1??????489.7 EJ??60??CO2??

Table 1. Primary energy and electricity sources in exajoules, EJ (10¹⁸ joules) and installed wind and solar capacity in GW for 2021 [7]. Electricity generation converted to EJ from TWh. 1 EJ= 277.8 TWh.

Country	World	China	U.S.A	India	UK
Oil, EJ	184.21	30.6	35.33	9.41	2.5
Natural Gas, EJ	145.35	13.63	29.76	2.24	2.77
Coal, EJ	160.1	86.7	10.57	20.09	0.21
Total fossil fuel, EJ	489.66	130.93	75.66	31.74	5.48
Actual delivered Wind, EJ	6.7	2.36	1.38	0.245	0.232
Actual delivered Solar, EJ	3.72	1.177	0.594	0.246	0.045
Nuclear, EJ	25.31	3.68	7.4	0.4	0.41
Hydro, EJ	40.26	12.25	2.43	1.51	0.06
Other, EJ	29.5	7.253	5.306	1.289	0.953
Total Primary Energy, EJ	595.15	157.65	92.97	35.43	7.18
Electricity Generation					
Installed wind capacity, GW	824.9	329	132.7	40.1	27.1
Installed Solar Capacity, GW	843.1	306.4	93.7	49.3	13.7
Total electricity generated, EJ	102.47	30.72	15.86	6.173	1.116

Other includes bioenergy, geothermal etc.

?1

??1 EJ=277.8 TWh ???1 kWh=860.6 kcal=3597kJ??

????????1kWh=2074kcal=8669kJ????????????????MJ????????kJ????????????????????????????????

??????????860.6 kcal?????1kWh????????????1kWh????????????2074kcal??1 kWh=860.6kcal????????????????????2.4??2?????????17%? 34%??

??23??

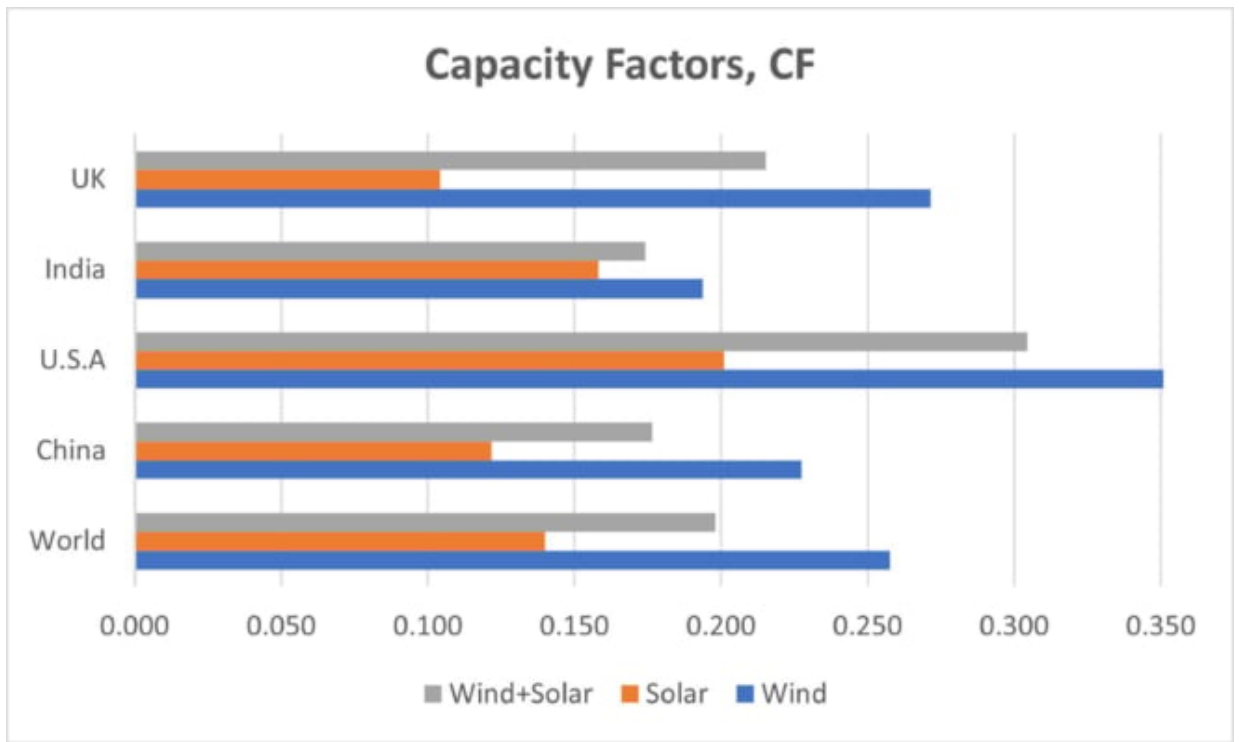
????????489.7EJ??60??=293.8EJ??CO2??60??CO2?????
????????????40??CO2????????????????????????????
????????????????????????

????293.8EJ????????????????????????????9320GW??1?????????
????????????824.9

GW????843.1GW????1668GW??102.47EJ????????????????????1668GW/102.47EJ ×
293.8EJ?4782GW??2????????????2????????????1/2????????
????????????

????????9320GW??3GW??3110????????????GW?100?kW????????100?kW????3????????311
0????????????????2021????????????????436????????396GW????????????????

????????????????????????4????Capacity
Factors????????????25????????????40????????????9320/0.4?23300
GW????????????????????824.9 GW??28????



24

????????????????????60??

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????????????4000?6000??/kW????4000??/kW????279GW????????????1????????
????????????????????????

????????640MWh????2????????????????????8GW?5????????????????????
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2.2. ?????????????????????

????????????????23300GW????????????????????????????????????

- 2500×10⁶ tons?
- 12000×10⁶ tons?
- 70×10⁶ tons?? 2021????????0.21???
- 1.63×10⁶ tons?
- 2.20×10⁶ tons?

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????????????????23300GW????????????????60% ?????????????????????
????????????CO2??CO2????????
????????????????????

2025??
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2.3. ?????????????????????????????????

????????????????CO2????????????????CO2?????e-
fuel????????????44????????????44????????
????????????

Jet/Kerosene????????10.0379EJ????14EJ????44?e-
fuel????14/0.44?31.8?32EJ????1000GW????0.4????2500
GW????

	Million barrels of oil equivalent, MBOE	Energy, exajoules, EJ	Volumetric lower calorific value, MJ/litre	Fuel Volume, billion litres
Gasoline	26.26	0.1607	32.5	4.94
Diesel/Gasoil	28.12	0.1721	36	4.78
Jet/Kerosene	6.2	0.0379	35	1.08
Residual Fuel Oil	6.2	0.0379	38	1.00
Other	32.75	0.2004		
Total	99.53	0.6091		

????????????????1??????1668GW?102.47EJ????????????32EJ????1668/102.47×32?520.9
GW????????????????????????????????????

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

????????????e-fuel????????????????????CO2????????????????????????????e-
fuel????????????????????

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

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

????????????????1?3??CO2????192????0.12ha????
??36?40?????
ha????CO2??8.8????0.12ha??3??1ha??25????3????
??????2????1??6.2 MBOE????2263 MBOE????CO2????9.90??990×10⁶
tons????

0.12 ha × 990×10⁶ t/? ÷ 3 t/? 39.6×10⁶ ha

????????(489.66 EJ)????**2.8%**??????????(35.7×10⁶
ha)????3????

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Posted in ???, ????? | No Comments »

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

?? ?? · Wednesday, December 21st, 2022

????????CO2????10????CO2????CO2????10????
????2030??CO2????

????????CO2????7.1????

????????HTT????HTT????

????5kW?PV????4kWh????

	導入コスト	自家消費	年間メリット	試算諸元	回収年
PVシステム	150万円(5kW) 家庭用のPVシステム導入費30万円/kW、出力5kWと仮定。 ^[1]	30% 現在の住宅用太陽光発電の平均的な自家消費率実績 ^[2]	FIT期間中 12万円/年 FIT以降 6万円/年	資源エネルギー庁「地域活用要件について」(R1)に準じて試算 出力5kW × 8,760h/年 × 設備利用率14% ^[2] = 発電6,132kWh/年 ①自家消費分のメリット 6,132kWh × 30% × 系統単価24.76円/kWh ^[3] = 45,548円/年 ②売電分のメリット(FIT期間中: ~10年) 6,132kWh × 70% × FIT単価(R1)21円/kWh = 90,140円/年 ③売電分のメリット(FIT終了後、電力会社と個別に契約) 6,132kWh × 70% × 想定買取価格8円/kWh ^[4] = 34,339円/年 ④運転維持費(定期点検・パワコン交換1回) ▲3,490円/年・kW ^[5] × 5kW = ▲17,450円/年	15年
+蓄電池	75万円(4kWh) システム導入費18.7万円/kWh ^[6]	+20% ^[5]	3万円/年	①追加の自家消費分のメリット(充放電効率90%と仮定 ^[6]) 発電電力量6,132kWh/年 × 充放電効率90% × 自家消費20% × 系統単価24.76円/kWh = 27,329円/年 ②ピークカット+調整力運用のマルチユースを行った場合のメリット想定: 2,400円/年(600円/年・kWと仮定 ^[7]) ※夜間へのピークシフト運用は併用が難しいとして考慮せず	25年

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

????????????CO2?????1kWh????177kg-CO2????????Kawamoto????3??

??5kW????????CO2?????

177×5=885kg

????????????CO2????????????????????2.19kgCO2/Wp????5kW????????

2.19×5=10.95tCO2

????

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

0.885/10.95=8.08%

????

CO2????????8.08%????????

????????CO2????????7.1????????

7.1×(1+8.08%)=7.7

????????????????????CO2????????7.7?????

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

??CO2????????

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?????Orthosie/iStock

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

CO2削減目標達成率

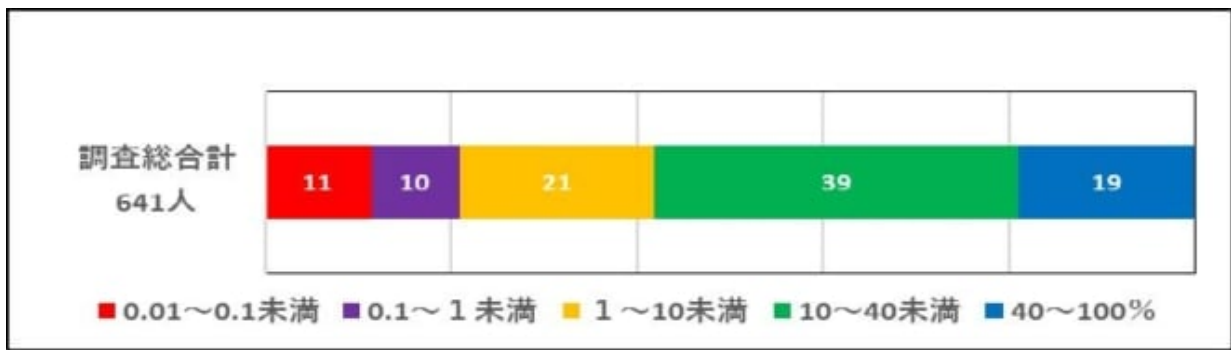
2022年12月20日



artisteer/iStock

CO2削減目標達成率

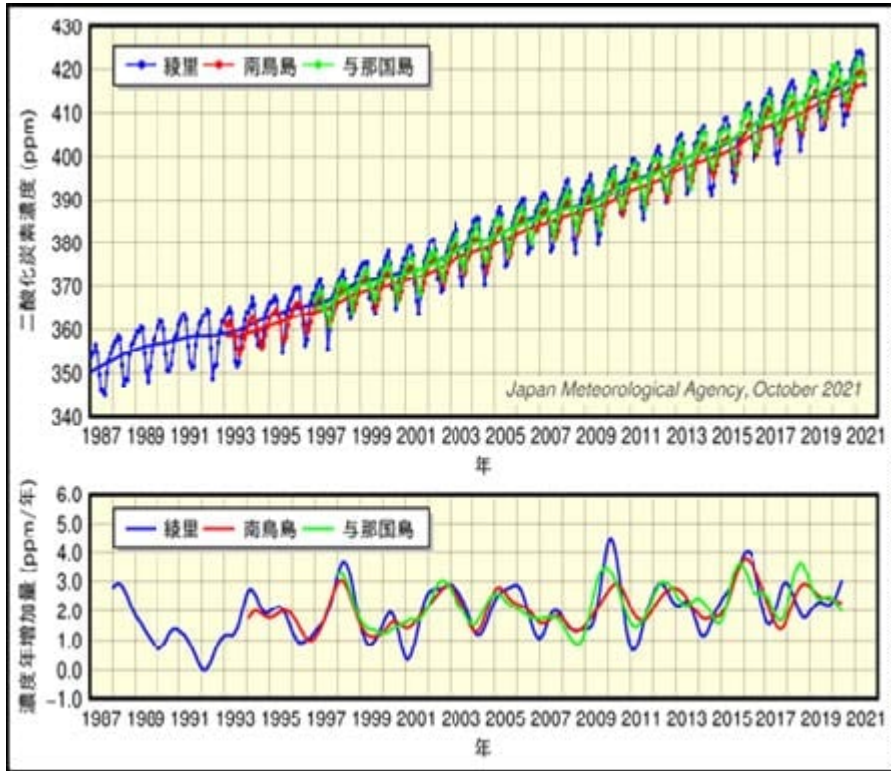
2021年22%削減目標を達成している企業は641社、削減率10%未満の企業は11社、削減率0.1%未満の企業は10社、削減率1%未満の企業は21社、削減率10%～40%未満の企業は39社、削減率40%～100%の企業は19社である。



削減率80%以上を達成している企業は20社、削減率60%以上を達成している企業は78社、削減率21%未満の企業は11社である。

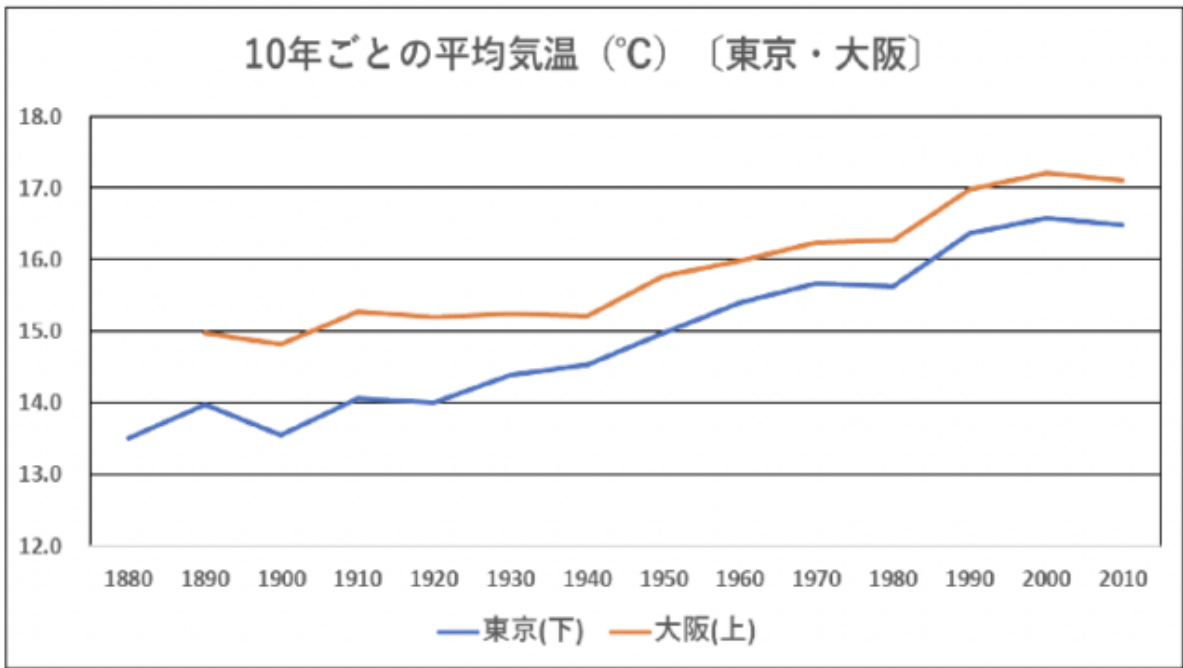
削減率1%未満の企業は10社、削減率0.04%未満の企業は10社である。

2000????CO₂????????????????????????????????



????JMA?HP??????3????????????????????????????????CO₂??1987??
 ?????1958??????????????????63??1958?2021??99ppm?316?415ppm????????????????????????1.57ppm/?
 ?????????????????30??CO₂????????????????????????????????

????????????????????????????????HP????????????>????????????>????????????????????????????????????10????
 00?09??



????1940??2000????????????1980??1990????????????????????????????2000????????????????????????????????
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?????????Spiral **of**
Silence???
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2000????????IPCC????????????????????????????????COP????????????????
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Posted in [???](#), [?????](#), [?????](#) | [No Comments](#) »

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?? ? · Monday, December 19th, 2022

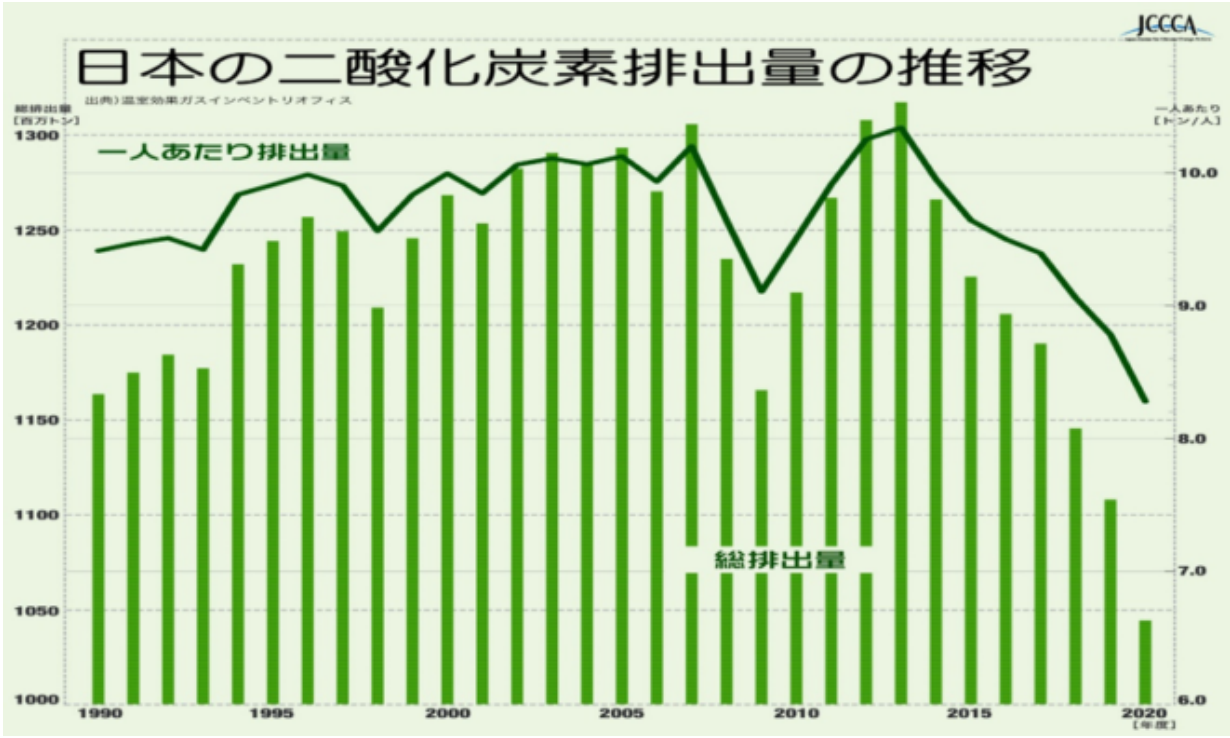
????????COP????????NGO????????????????????COP????????????????

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COP25??
????????????????????1????????????????????NGO????????????????
GO????????????????????

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????????????????????NGO????????????????????

COP27?????11?9????????????????????????????????????
????????????????????NHK????????????????



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???2020??CO2??2019????????????????

?????FIT??

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??CO2

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

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?? ? · Wednesday, December 14th, 2022



suken/iStock

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????????????????????4????????????????2016=2019:201-202??

1. ???
2. ???
3. ???
4. ???

??203?

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??112??
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??26??

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????????????????1988?6??

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

?????2021??COP26????????????????????????????????????2050??2060?????
?????3????????????????????2070??

2022 COP27 1865=1970:31

IPCC COP 105

2022 12 2023 3 31 GDP 3 GX 150 10

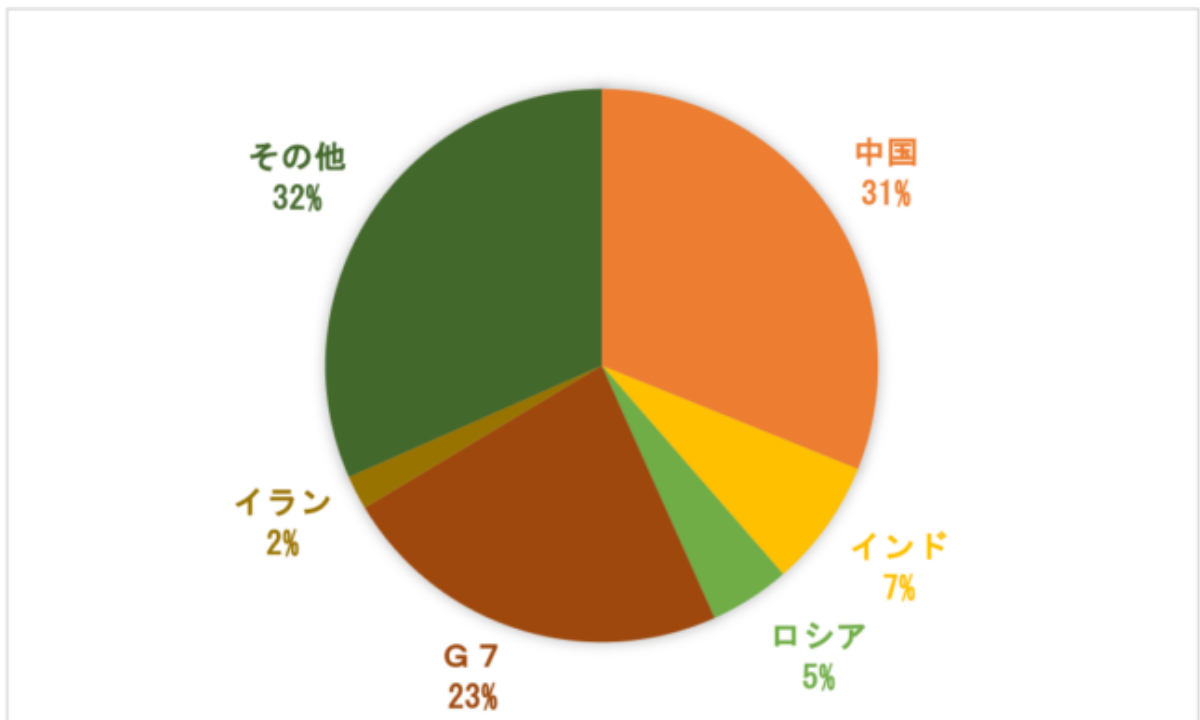
1950=1995:130 2022 110

18 19

2022 12 1751 10 0

16 2)

1 2021 1



2021 BP

Global Note

G7

13.9... 23.1... 1.9... 1.6... 1.0... 0.9... 0.8... 23.2... 43.3...

G7... 3.1... 3.0... 2.8... 3)

1... 2... 3... 4... 5... 6... 7... 8... 9... 10... 11... 12... 13... 14... 15... 16... 17... 18... 19... 20... 21... 22... 23... 24... 25... 26... 27... 28... 29... 30... 31... 32... 33... 34... 35... 36... 37... 38... 39... 40... 41... 42... 43... 44... 45... 46... 47... 48... 49... 50... 51... 52... 53... 54... 55... 56... 57... 58... 59... 60... 61... 62... 63... 64... 65... 66... 67... 68... 69... 70... 71... 72... 73... 74... 75... 76... 77... 78... 79... 80... 81... 82... 83... 84... 85... 86... 87... 88... 89... 90... 91... 92... 93... 94... 95... 96... 97... 98... 99... 100...

universal (particular)

COP27 GN GS

3

IPCC COP

4

5

6

7 100 2022

8 28 2050

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????????????G7????

?9????????????????????????????1?23.2????????G7????????43.3????????????????????????????????
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?10????????30????????4????560????????????????????????2022????????25????????????????????
????????????⁴⁾????????????????

?11????50??10????????????????????????????1????
????????????????????G7????????????????????????

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?12????1.5????????????????????.....????????????????????G7????????23????????20????????77
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?13??3??
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?14??GN?GS?????
?????GS??

?????15??⁵⁾?

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?1????????????3.11????????????????????????????????2012)????????????????

?2????????6?100?????1????????

?3?2010????????????????????25????????????????2010?12?1???50????????????????
?2012:91-93??

?4????????????????2022????

?5??
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• Bernard,C.,1865,Introduction à l'étude de la médecine expérimentale .(?1970,????????????).

- ???,2012,??????????????????
- ???,2022,????????????????????????????????11?24??.
- ???,2022,????????????????????????12?8??.
- Shumpeter,L.A.,1950,*Capitalism, Socialism and Democracy*,3rd.??1977??.
- ???,2022,COP27????????????14????????????????????????????11?23??.
- Urry,J.,2016,*What is the Future?* Polity Press Ltd.??2019????????????????????????.
- ???,2022,????????????14?????????

Posted in ???, ????? | No Comments »

????????????SDGs????????????

?? ?? · Sunday, December 11th, 2022



smolaw11/iStock

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

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??10????????????????????20,000????203
0????750,000????????????????

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?? ?? · Monday, December 5th, 2022



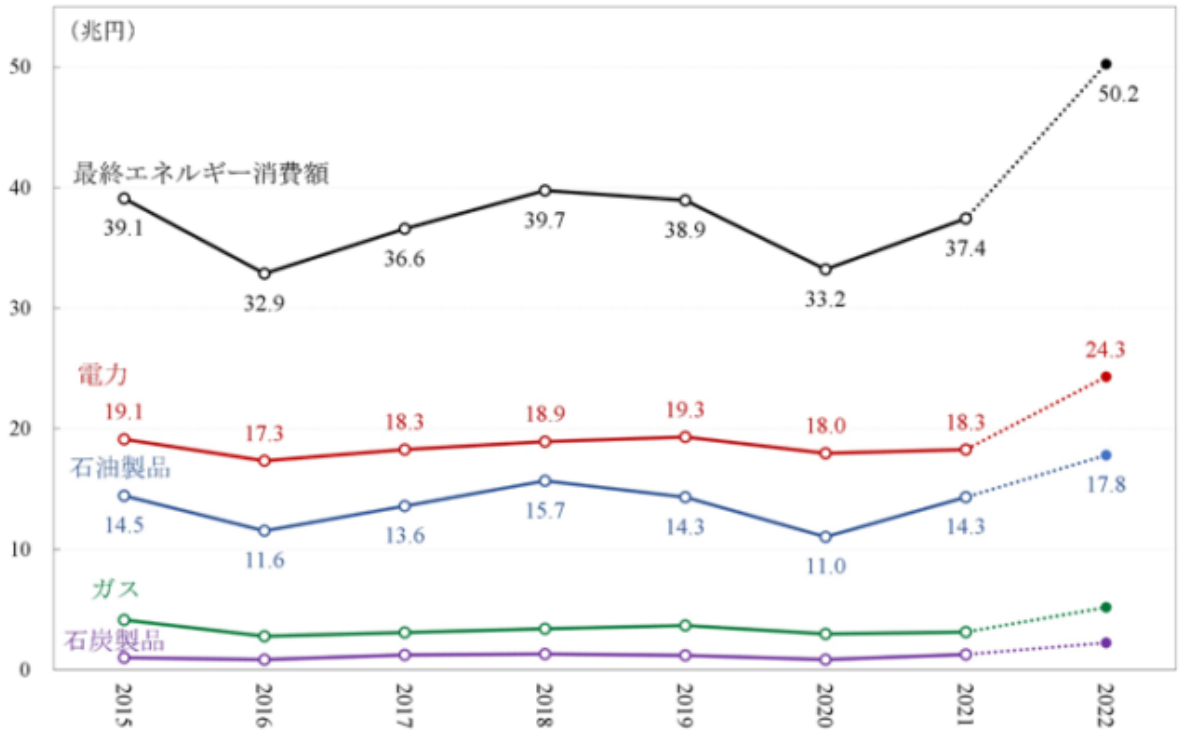
Daniele Mezzadri/iStock

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エネルギーコストの年次動向

- 2022暦年の最終エネルギー消費額（予測値）は50.2兆円、前年差で12.8兆円（前年比34.2%）の増加見込み。
- 2022暦年の電力消費額（予測値）は24.3兆円、前年差で6.0兆円（前年比33.1%）の増加見込み。



エネルギーコスト・モニタリング (ECM) ECM_JPN_202211 © 2022 慶應義塾大学産業研究所 野村研究室

単位：兆円。注：観測期間は2015年—2021年。2022年値は2022年10月値までを反映した予測値。

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????9????????????????????????????2.5??????????????????????

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?? ?? · Thursday, December 1st, 2022



y-studio/iStock

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??Wikipedia

1?????????????????2??BWR?82?kW????2021?9?????????????????1?????????????????
?????2013?????????????2024??1?????????????????????????????1????????????????????

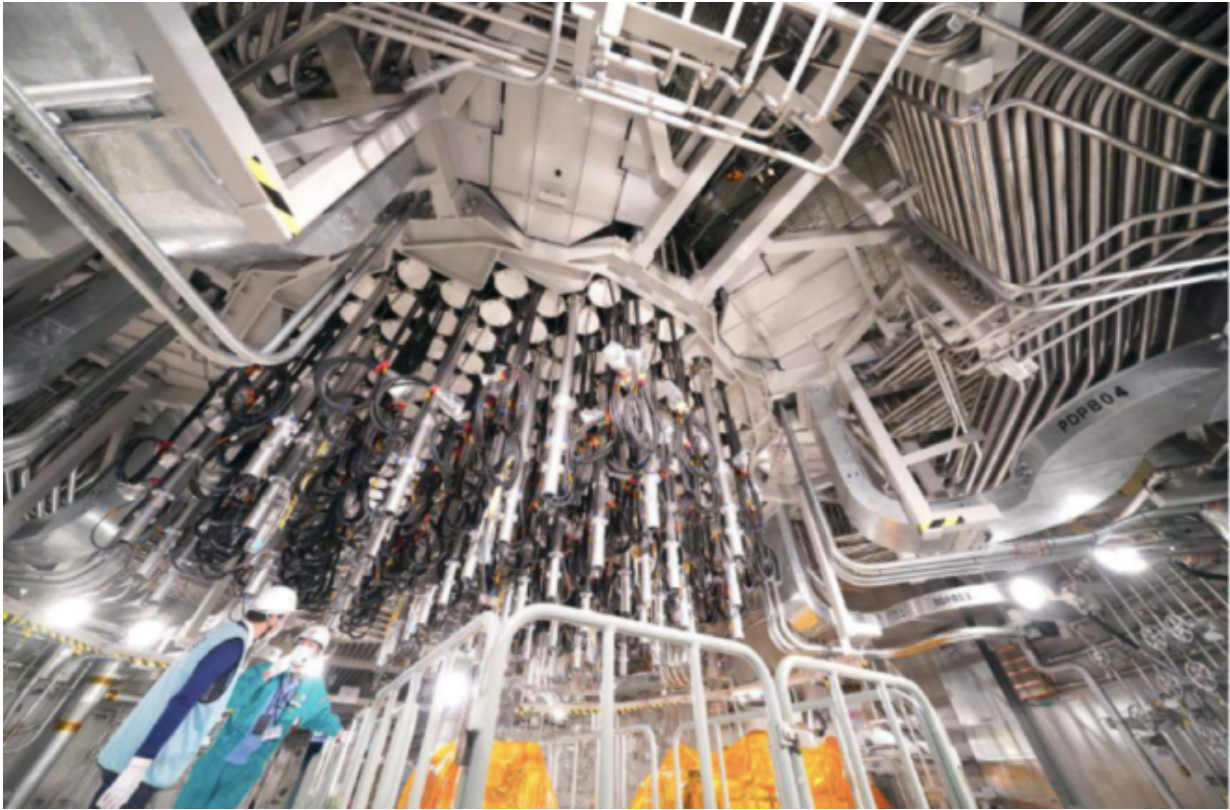
????3??ABWR?????????137.3?kW?????????????90?????????????????3.11??????
???11?????????

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?3.11?????????3?????????????????????3?????????????????????????????????????3??
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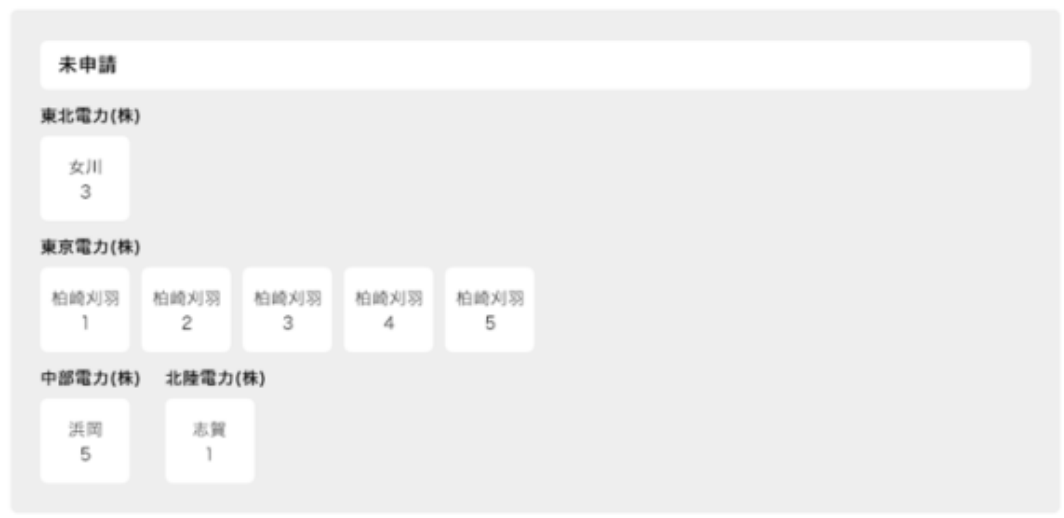
- ?????????????????????????????
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?? ?? · Tuesday, November 29th, 2022

COP27??COP????????????????????????C
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dinn/iStock

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- ??????????2190??CO2?????????????????531??CO2?????????4.1????CO2????????? ?????????????CO2?????2020??????0.441kg-CO2/kWh????
- ?????????????3070??CO2?????????????????662??CO2????????????????????????? ?????1??????2?????????????????????????1????????302??CO2?????????8.8??CO2????????????C O2????????????????CO2????????5.7?????????
- ?????????????2020????????????2030????????????????????????????250kg- CO2/kWh????????CO2?????????????7.3?????????10.1????

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