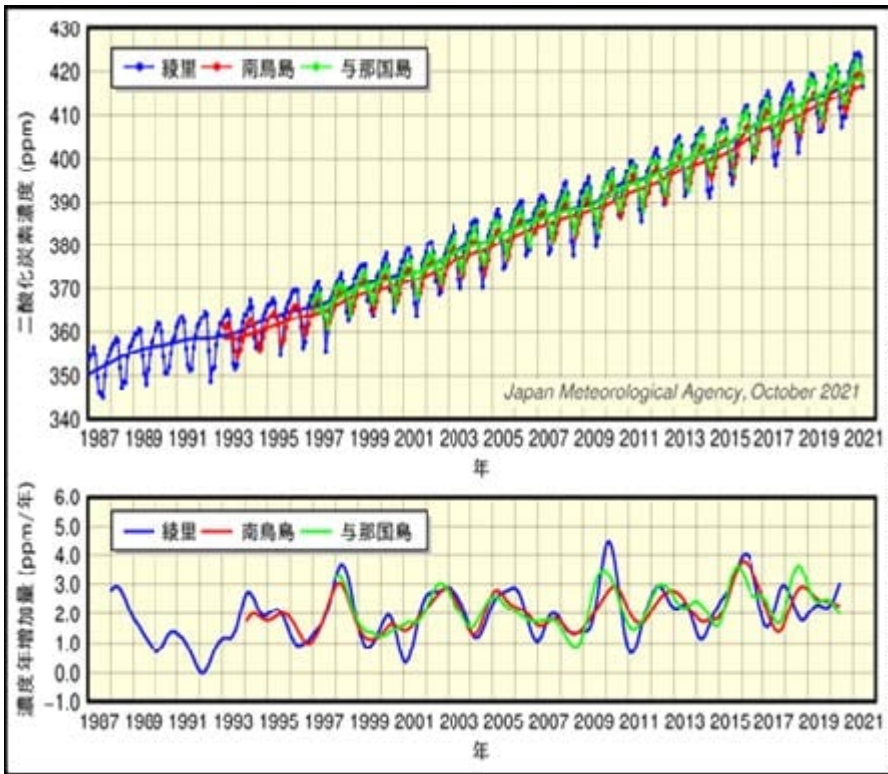


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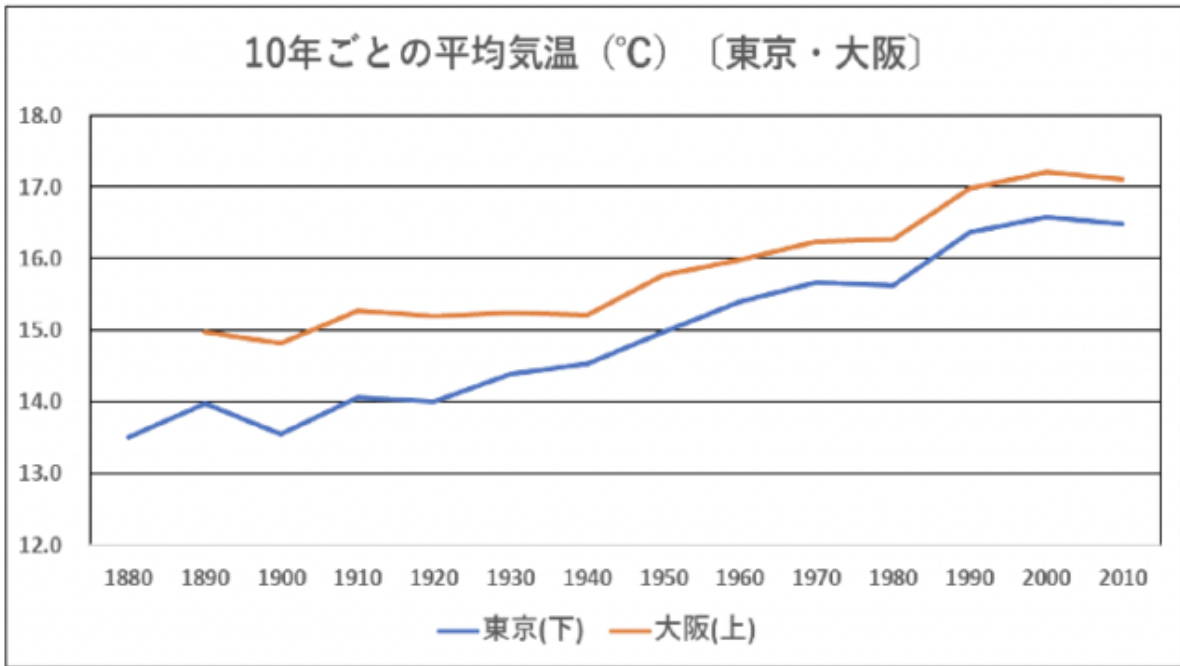
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?? ? · Monday, December 19th, 2022

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<https://www3.nhk.or.jp/news/html/20221110/k10013886821000.html>

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

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2022 COP27 1865=1970:31

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1950=1995:130 2022 110

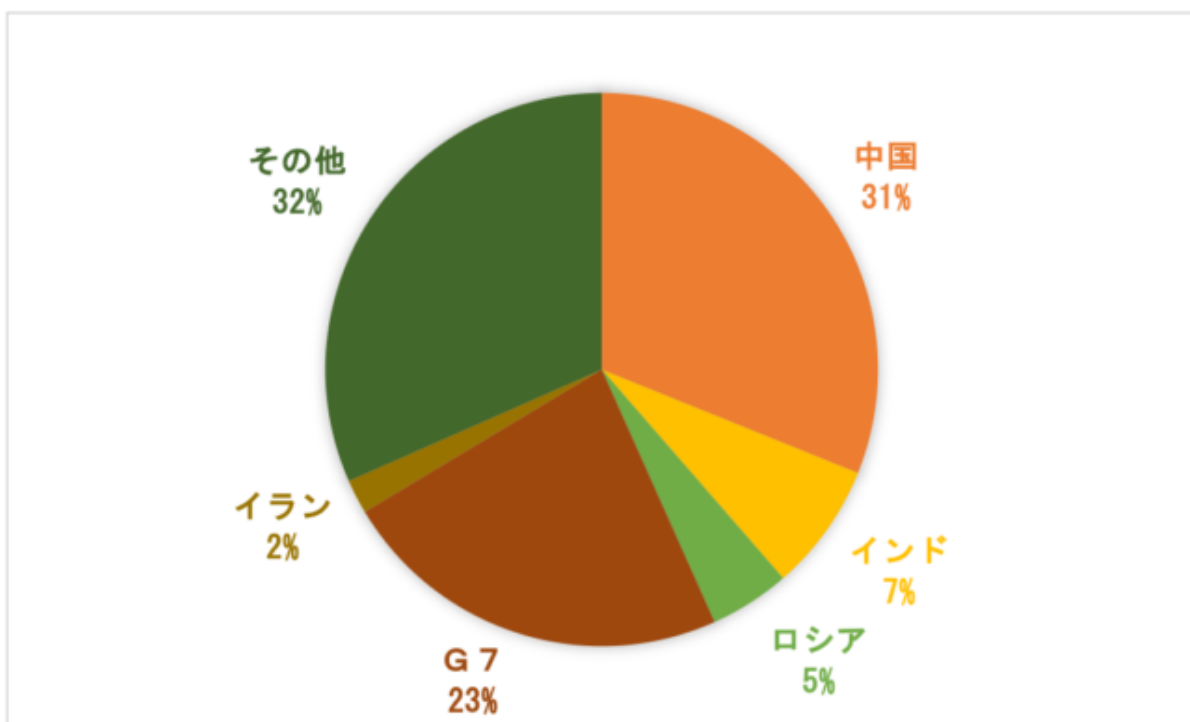
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Global Note

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

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COP27... GN... GS...

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IPCC... COP...

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



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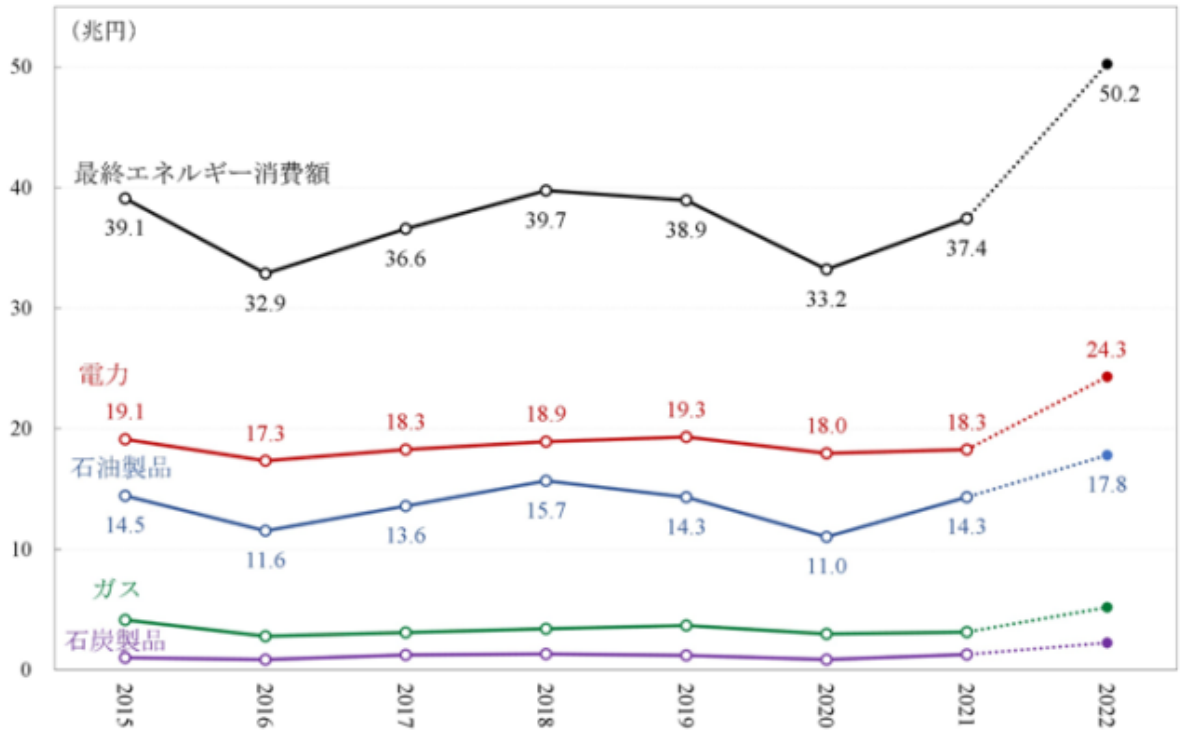
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?? ?? · Monday, December 5th, 2022

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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?? ?? · Thursday, December 1st, 2022



y-studio/iStock

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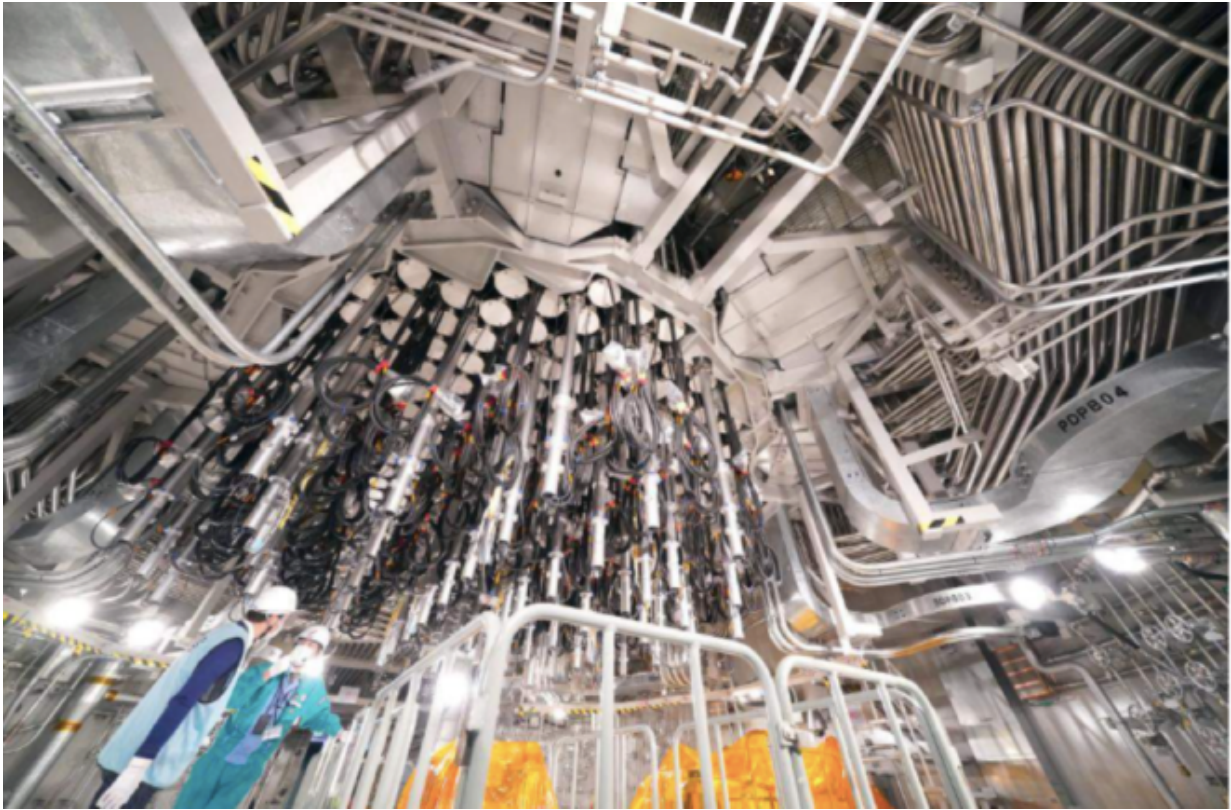
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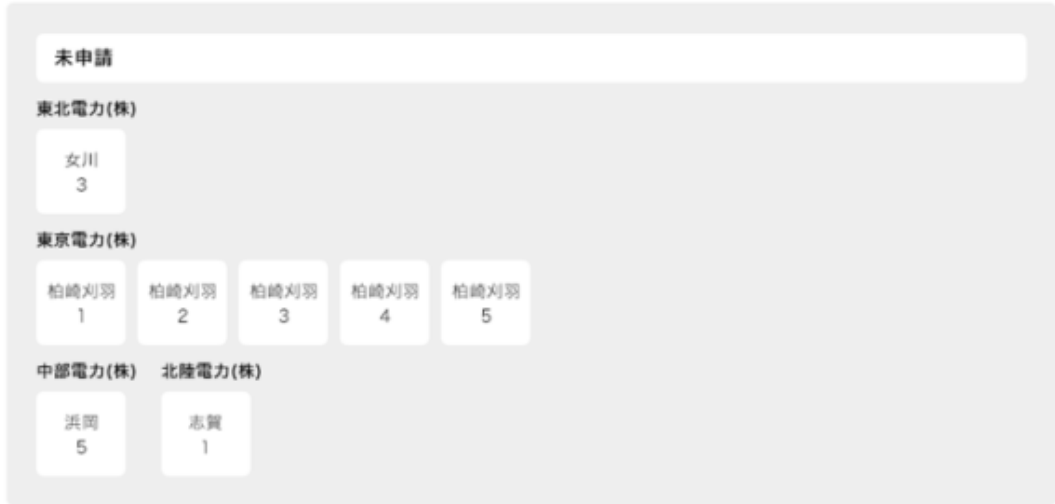
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Posted in ??????????, ??? | No Comments »

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dinn/iStock

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Posted in ???, ????? | No Comments »

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

?? ?? · Friday, November 25th, 2022

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metamorworks/iStock

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1?1 kWh 2020?2030

	2020年	2030年(1)	設備稼働年数	設備利用率	2030年(2)
原子力	11.5円	11.7円	40年	70%	14.4円
太陽光（事業用）	12.9円	8.2～11.8円	25年	17.2%	18.9円
太陽光（住宅用）	17.7円	8.7～14.9円	25年	13.8%	
陸上風力	19.8円	9.9～17.2円	25年	25.4%	18.5円
洋上風力	30.3円	26.1円	25年	30%(33.2%)	
石炭火力	12.5円	13.6～22.4円	40年	70%	13.9円
LNG火力	10.7円	10.7～14.3円	40年	70%	11.2円

2020年2030年
 2021年2022年
 2023年2024年
 2025年2026年
 2027年2028年
 2029年2030年
 2031年2032年
 2033年2034年
 2035年2036年
 2037年2038年
 2039年2040年

2020年2030年

2020年2030年
 2021年2022年
 2023年2024年
 2025年2026年
 2027年2028年
 2029年2030年

2020年2030年
 2021年2022年
 2023年2024年
 2025年2026年
 2027年2028年
 2029年2030年

	原子力発電	石炭火力発電	LNG火力発電
CO ₂ 対策費	0	3.9	1.8
社会的費用	1.9		
（事故リスク対応費用）	0.6		
（政策経費）	1.3		
発電原価	9.6		
（燃料費）	1.7	4.2	6.4
（追加的安全対策費）	1.3		
（運転維持費）	3.3	2.3	1.2
（資本費）	3.3	2.0	1.3
合計	11.5円kWh	12.5円kWh	10.7円kWh

2020年2030年

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imagedepotpro/iStock

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The cover decision, known as the **Sharm el-Sheikh Implementation Plan**, highlights that a global transformation to a low-carbon economy is expected to require investments of at least USD 4–6 trillion a year. Delivering such funding will require a swift and comprehensive transformation of

??4?6?????????GDP??

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22. *Notes with grave concern*, according to information in the contributions of Working Groups II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, the growing gravity, scope and frequency in all regions of loss and damage associated with the adverse effects of climate change, resulting in devastating economic and non-economic losses, including forced displacement and impacts on cultural heritage, human mobility and the lives and livelihoods of local communities, and *underlines* the importance of an adequate and effective response to loss and damage;

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and also welcomes the adoption of decisions -/CP.27¹² and -/CMA.4,¹³ on matters relating to funding arrangements responding to loss and damage associated with the adverse effects of climate change;

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30. *Highlights* that about USD 4 trillion per year needs to be invested in renewable energy up until 2030 to be able to reach net zero emissions by 2050,¹⁸ and that, furthermore, a global transformation to a low-carbon economy is expected to require investment of at least USD 4–6 trillion per year;¹⁹

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32. *Notes with concern* the growing gap between the needs of developing country Parties, in particular those due to the increasing impacts of climate change and their increased indebtedness, and the support provided and mobilized for their efforts to implement their nationally determined contributions, highlighting that such needs are currently estimated at USD 5.8–5.9 trillion²⁰ for the pre-2030 period;

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2030?????????6????????????????2024????2029??6????????????????1????????????

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7. *Decide to establish new funding arrangements* for assisting developing countries that are particularly vulnerable to the adverse effects of climate change, *in responding to loss and damage, including* with a focus on addressing loss and damage by providing and assisting in *mobilizing new and additional resources*, and that these new arrangements complement and include sources, funds, processes and initiatives under and outside the Convention and the Paris Agreement;

8. *Also decide*, in the context of establishing the new funding arrangements referred to in paragraph 2 above, to *establish a fund for responding to loss and damage whose mandate includes a focus on addressing loss and damage*;

Transitional
Committee COP28 10 14

III. Composition

4. The Transitional Committee shall have 24 members, to be nominated no later than 15 December 2022, comprising 10 members from developed country Parties and 14 members from developing country Parties, with geographical representation as follows:

- a) Three members from Africa, including a representative of the President of COP 27;
- b) Three members from Asia and the Pacific, including a representative of the incoming President of COP 28;
- c) Three members from Latin America and the Caribbean;
- d) Two members from small island developing States;
- e) Two members from the least developed countries;
- f) One member from a developing country Party not included in the categories listed above.

COP28 UAE 1

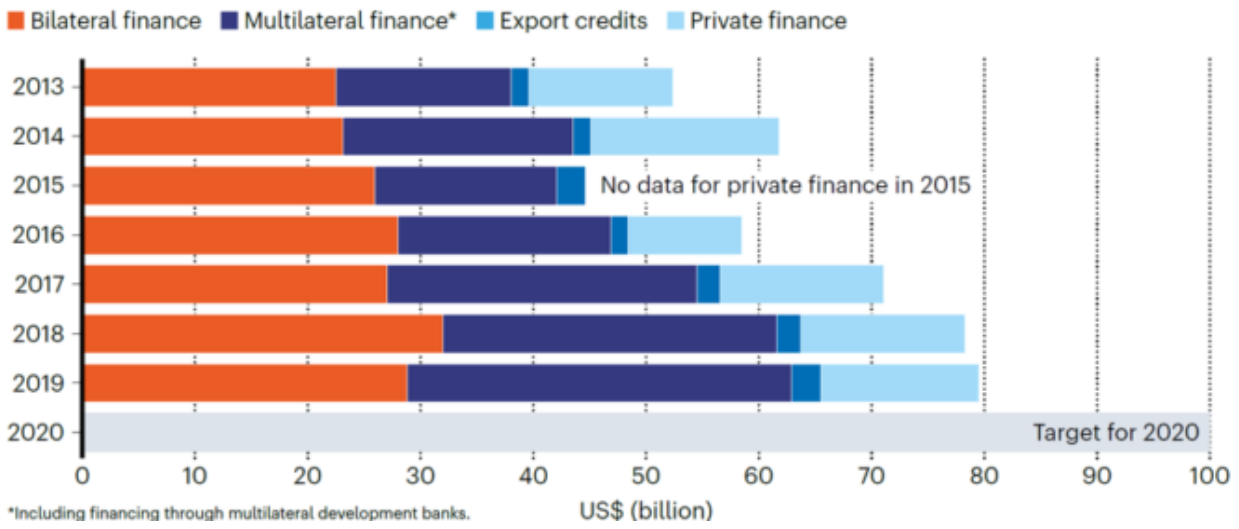
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COP21 in 2015 in Paris. The \$1 trillion per year is a very different concept – it is a requirement based on an analysis of the investment and actions necessary and the domestic finance potentially available, for an internationally agreed and vital purpose. The \$1 trillion is not the new \$100 billion. The latter was negotiated, not deduced from analyses of what is necessary for a purpose.

1000 Nature

MISSED TARGET

Rich countries promised developing nations US\$100 billion a year in climate finance by 2020.



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Posted in ???, ????? | No Comments »

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?? ?? · Tuesday, November 22nd, 2022



Olga Burkova/iStock

????????COP27????????COP26??
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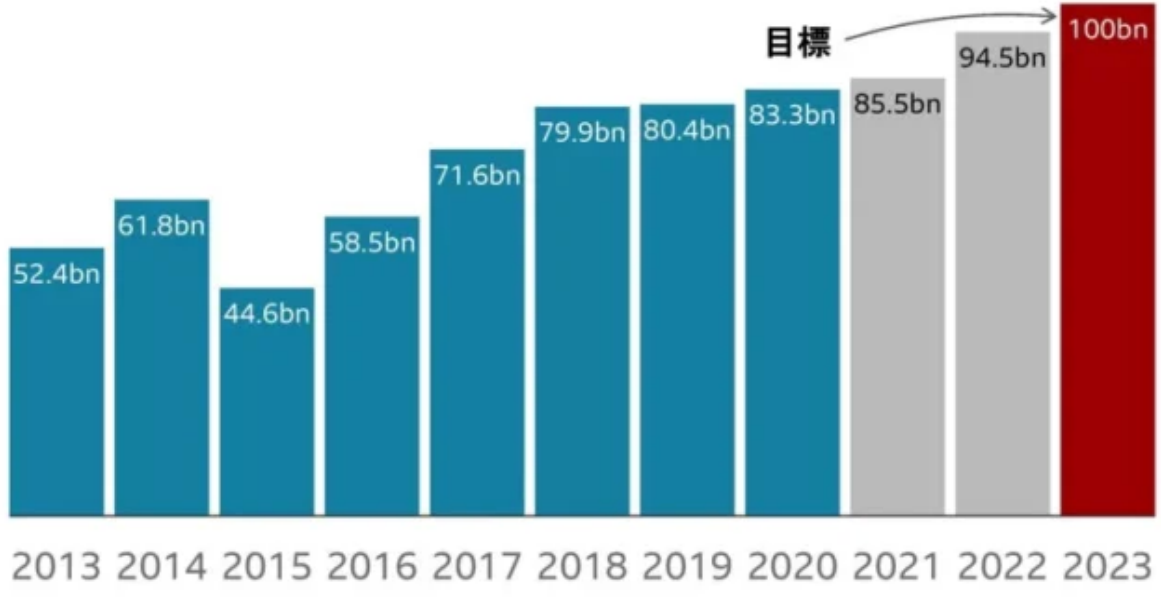
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気候変動対策の支援額 先進国が資金集めと供給を行った額(単位:10億米ドル)



2021年と2022年のデータはOECDによるシナリオの平均値

出典:経済協力開発機構(OECD)



????IEA????????????????4????????????????COP????????????????
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?? ?? · Saturday, November 19th, 2022

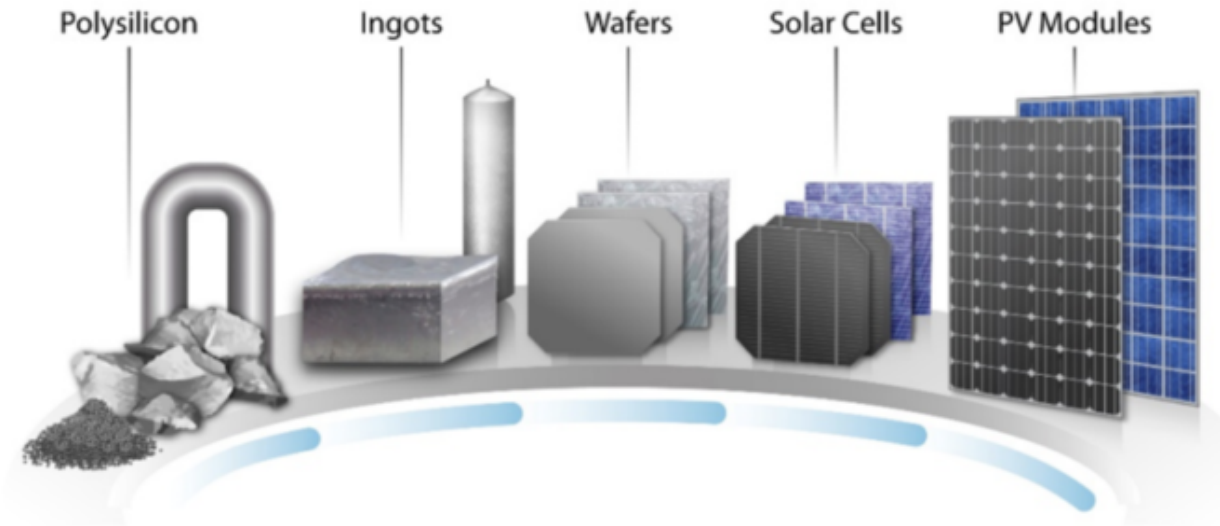


chuyu/iStock

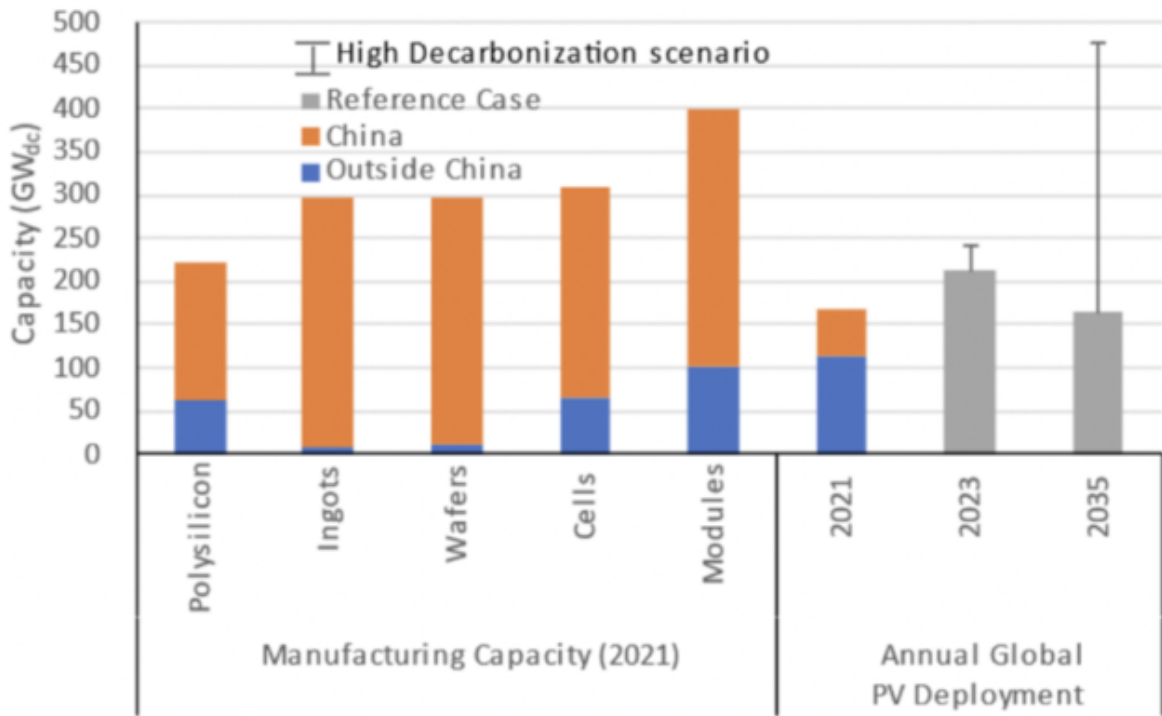
????????????????????(Sins of a solar empire)??10????CO2??????????????

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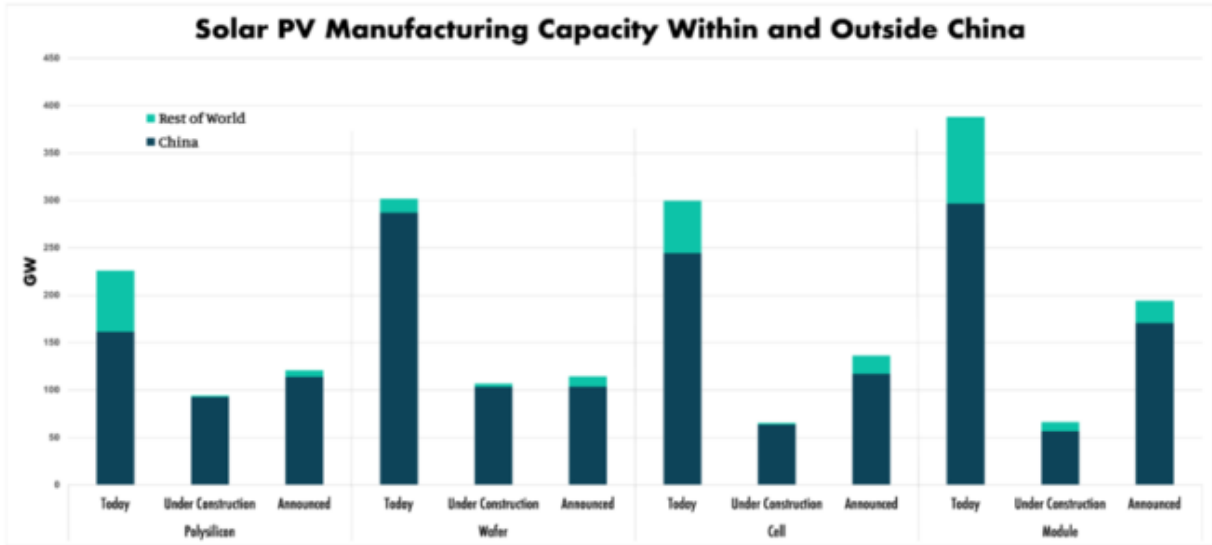
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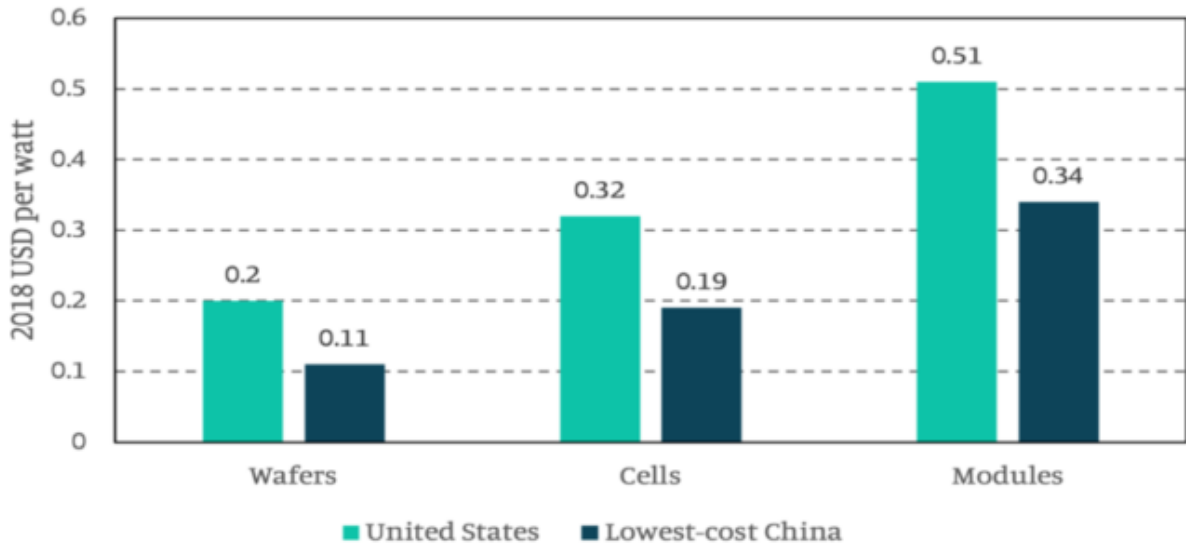


????????????????????????????????Xinjiang????????????????????????KWh????6??????????



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Minimum Sustainable Price (MSP)



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Posted in ???, ????? | No Comments »

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?? ? · Saturday, November 19th, 2022



Nastco/iStock

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Kalghatgi??

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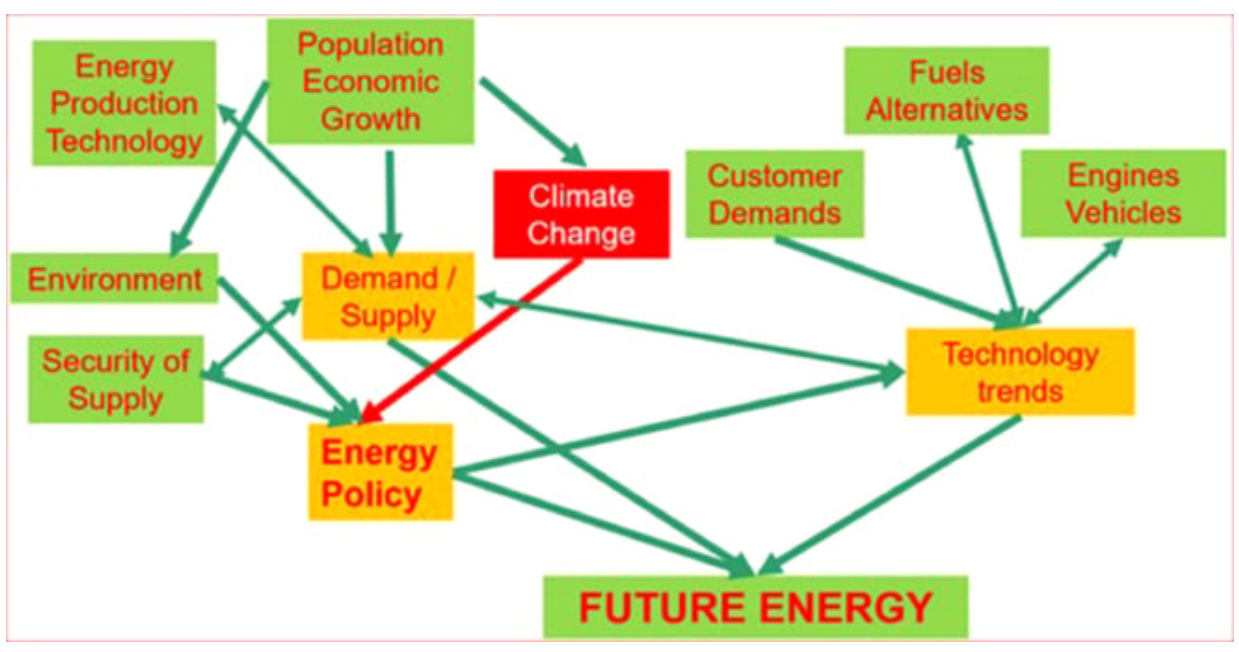
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CO2

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BP 82.3% 489.66EJ/595.15 EJ 1.75%

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

BP IEA

1 EJ 10¹⁸ joules T 10¹² Wh EJ = 277.8 TWh = 1 J

2.778x10⁻⁷kWh??10¹⁸????????????????????????????????

??????1kWh????????????????????1kWh = 860.6kcal = 3.6kJ????100????????????????????100????????????????????40????????

??????1kWh??860.6kcal????860.6kcal????1kWh????????????????Wh????????

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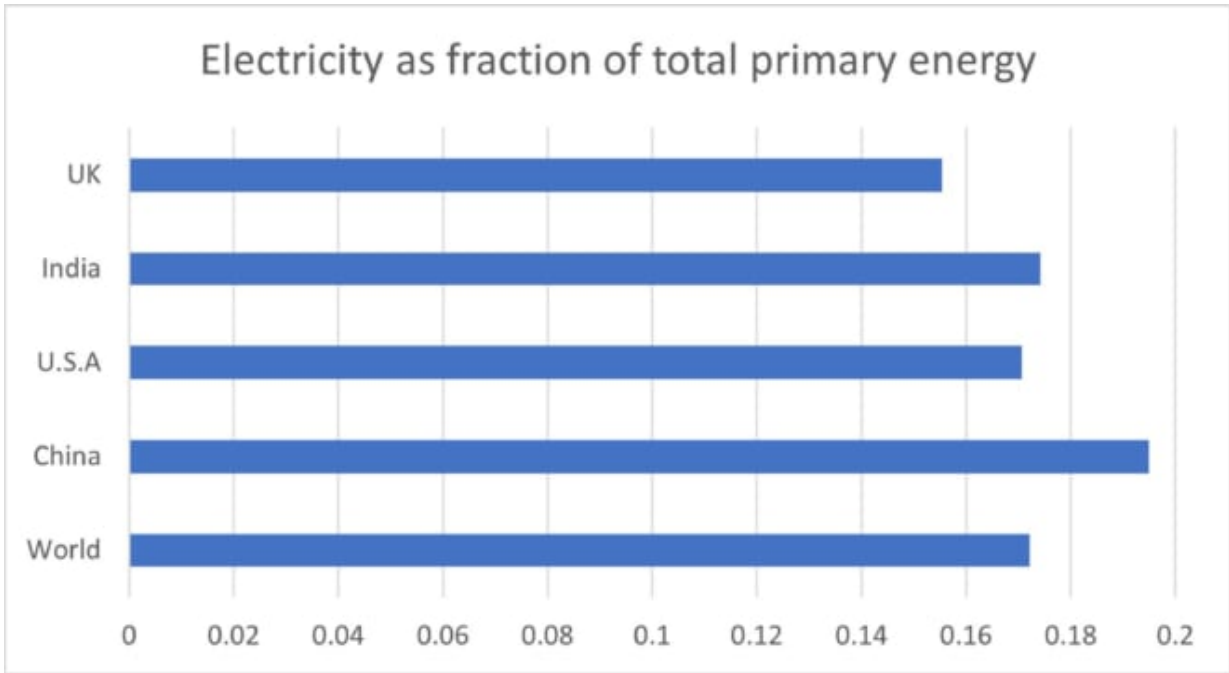
????????????BP????1kWh = 860.6kcal = 3.6kJ?IEA????41.5%????0.415????1kWh = 2074kcal = 8.67kJ????0.415????

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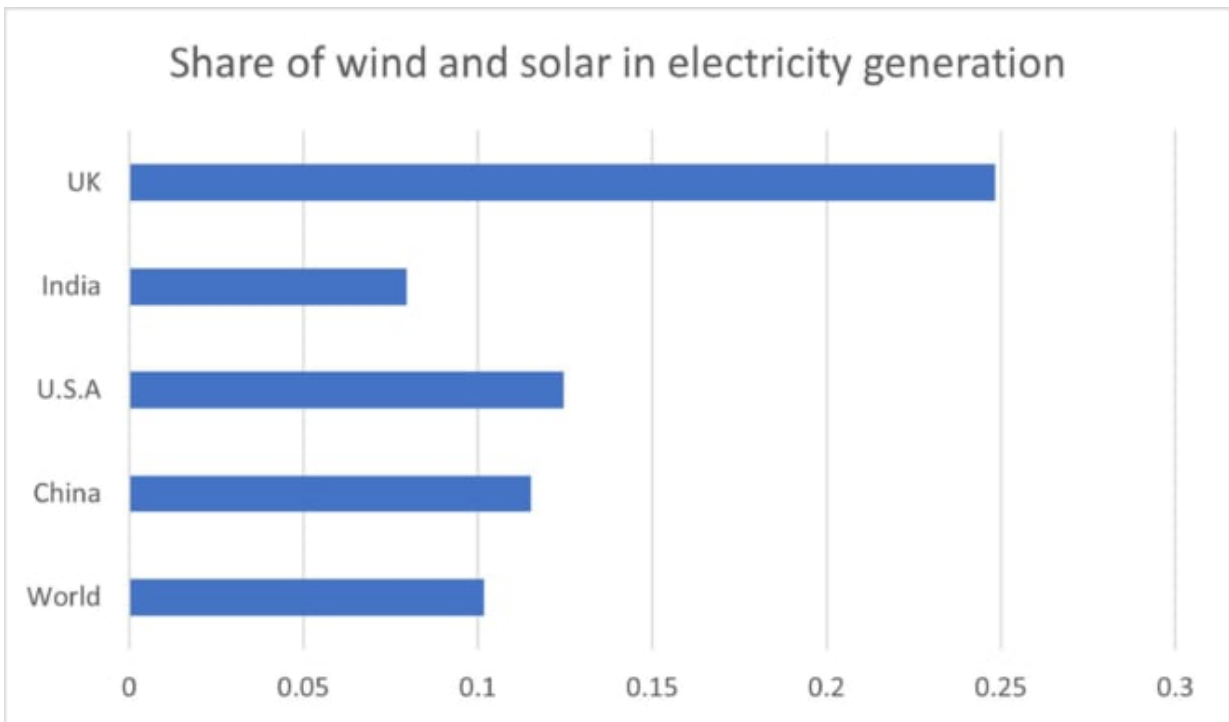
????????1????489.66EJ????105.49EJ??254.19EJ????0.415????2.4????5 95.15EJ??743.85EJ????17.7%?=106.49/595.15????34.2%?=254.19 /743.85????

?2????10????2????34.2%????40????



?2

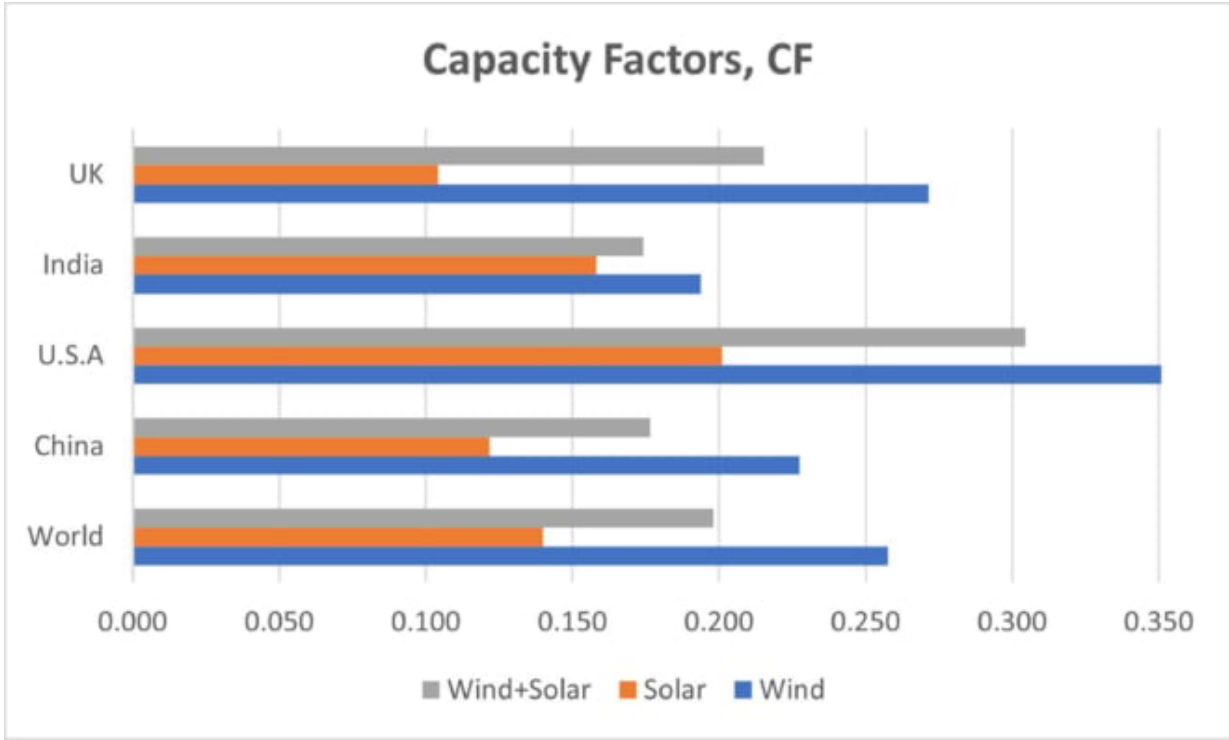
?3??25????????????????????10????????????????????CO2????????????????????
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Posted in ???, ????? | No Comments »

??140????????COP27????????????

?? ?? · Wednesday, November 16th, 2022



fergregory/iStock

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CO2

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SDGs?ESG

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CO2
CO2
ESG

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

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?? ? · Sunday, November 13th, 2022

TBS YouTube

16% 10% 8.8% 2.3% 0.5% 25%

16% 10% 8.8% 2.3% 0.5% 25%

830 769 20



alle12/iStock

30 2018 2530 1765 766 600 324 276 100 830 769 20

30 2018 2530 1765 766 600 324 276 100 830 769 20

30 2018 2530 1765 766 600 324 276 100 830 769 20

30 2018 2530 1765 766 600 324 276 100 830 769 20

30 2018 2530 1765 766 600 324 276 100 830 769 20

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

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?? ?? - Saturday, November 12th, 2022



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

????CO2????????????????????0.1?

?? ?? · Thursday, November 10th, 2022



hanibaram/iStock

?2050????????????????????

??IEEJ ?????? 2023????????????????

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Posted in ???, ????? | No Comments »

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

?? ?? · Thursday, November 3rd, 2022



bee32/iStock

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北兵器研究施設で技術者らと言葉を交わす金正恩・朝鮮労働党委員長。写真はKCNAが2016年3月配信。

©?Reuters

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

????????COP27

?? ? · Sunday, October 30th, 2022

11??7??18????????????????????COP27????????????1????????????COP????????????17????

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Heiness/iStock

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COP27????????????????????????COP26????????????????????????COP27????????????????????
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Posted in ???, ????? | No Comments »

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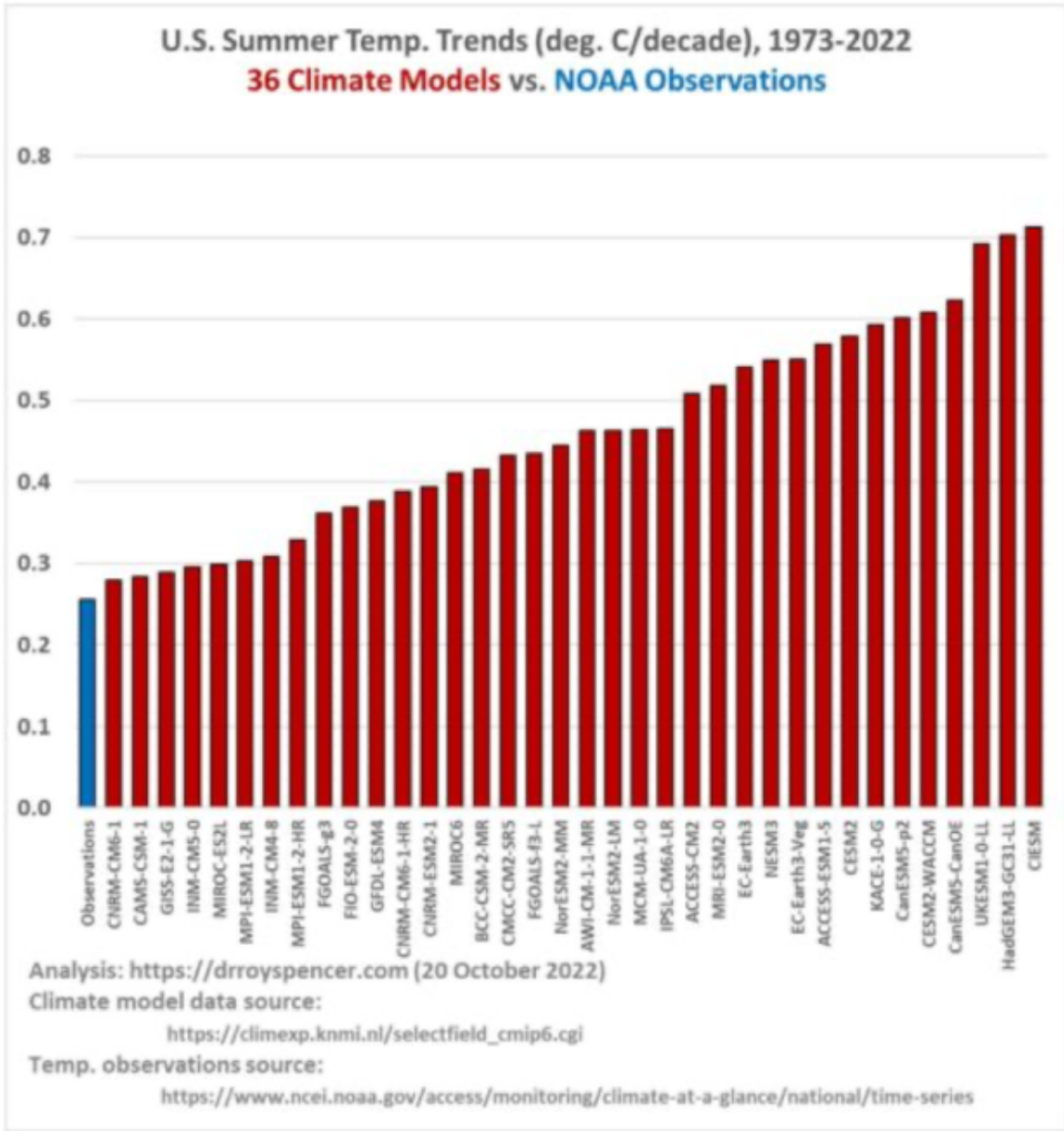
?? ?? · Friday, October 28th, 2022



Tr6/iStock

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Posted in ???, ????? | No Comments »

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

?? ?? · Friday, October 28th, 2022



AleksandrVS/iStock

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

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

ESG??The Epoch Times????????????????????????????

??19??????NZBA????????????????????

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10,500????????????39????NZBA????????2050????????????????????????????????????
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Research????????????????????????ESG??
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ESG Watch: Banks' net-zero pledges in the spotlight at Climate Week New York

????????ESG????????UBS????????

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????UBS????????????????????????????700????585????????

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AG Paxton Demands BlackRock Account for its Underperforming, Potentially Illegal 'ESG' State Pension Fund Investments

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Governor Ron DeSantis Eliminates ESG Considerations from State Pension Investments

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

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?? ?? · Thursday, October 27th, 2022



RapidEye/iStock

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Parradee Kietsirikul/iStock

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2021??GHG????????????????IEA??2050??????

??GHG
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50????GHG??

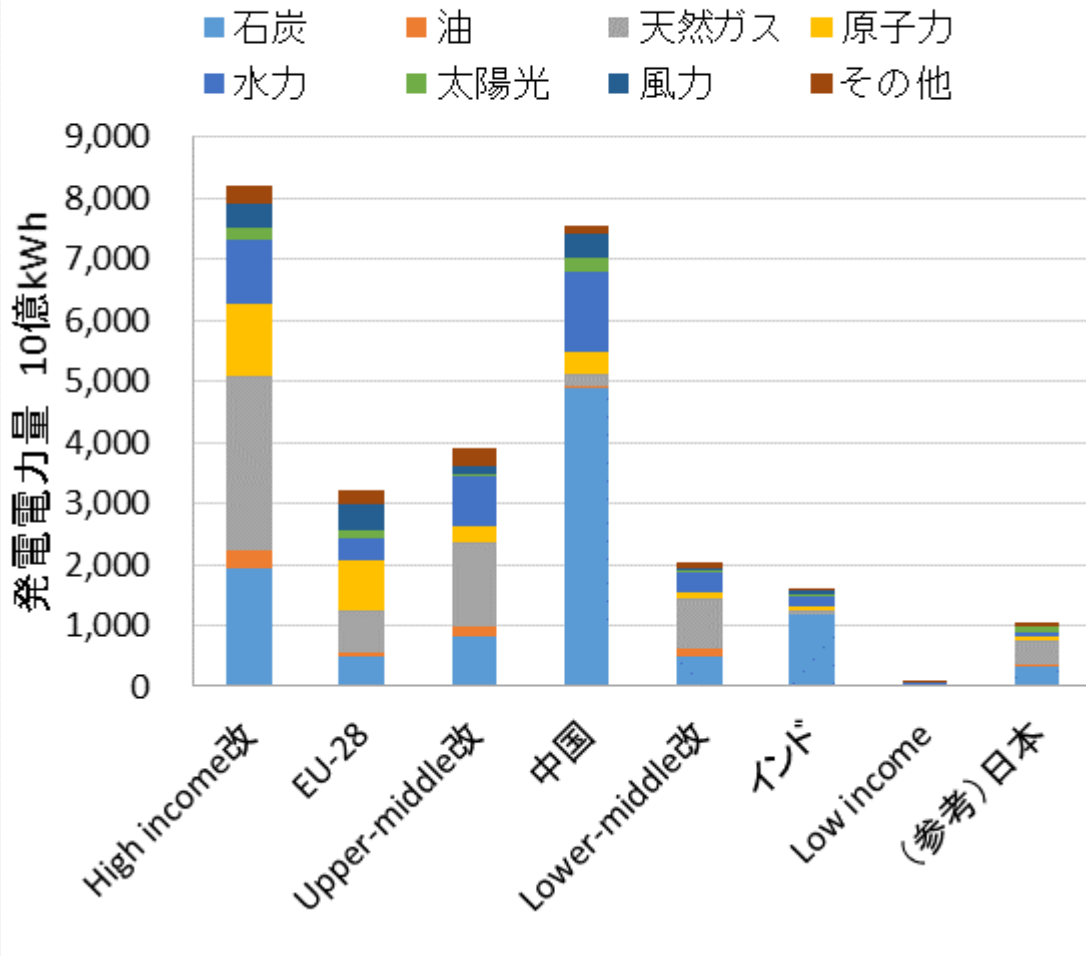
????2050?????????????????? ??

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GHG??-6
?2019??IEA????????????????????????????
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図-6 発電電力量(2019年)

出所:IEAデータベース



76

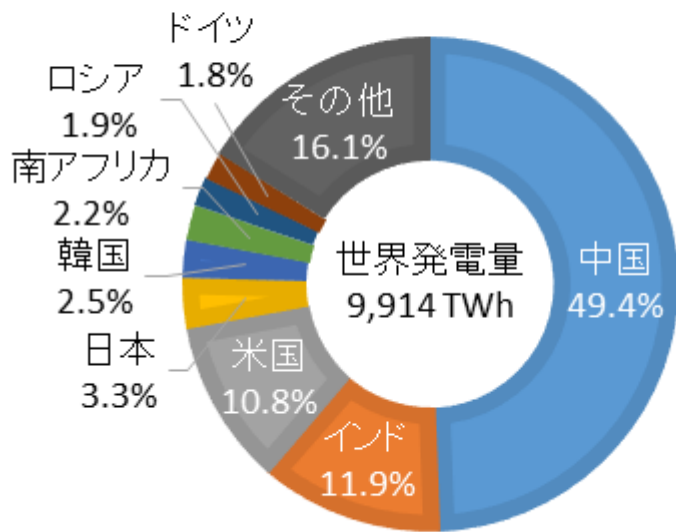
図-6のデータによると、2019年の世界全体の発電電力量は約8,000億kWhであり、そのうち約65%が化石燃料（石炭、油、天然ガス）によって生成されています。これは、2019年のGHG排出量の約65%に相当するものと推定されます。

また、2019年の世界全体の発電電力量は、2023年の推定値と比較すると、約73%に減少する可能性があります。これは、2019年のGHG排出量が約3億トンであり、2023年の推定値が約2億トンに減少することを示唆しています。

さらに、2019年の世界全体の発電電力量は、2019年のGHG排出量の約73%に相当するものと推定されます。これは、2019年のGHG排出量が約3億トンであり、2023年の推定値が約2億トンに減少することを示唆しています。

図-7 世界の石炭火力(2019年)

出所: IEAデータ



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????????31.5%????????1970????????????????????
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4%????????

EU-28????25%?EU????????14%????????????????BRICs????????????
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????????????????GHG????????EU????????

表-2 太陽光発電と風力発電の総電力量比 %

グループ	太陽光発電	風力発電	合計
High income改	2.6	4.6	7.2
Upper-middle income改	1.0	3.0	4.1
Lower-middle income改	0.8	1.0	1.8
Low income	0.8	0.6	1.4
EU-28	4.1	13.4	17.5
中国	3.0	5.4	8.4
インド	3.1	4.3	7.4
(参考)日本	6.6	0.7	7.3

2

?????????9% ??High income?????-6??GHG??

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??GHG??capacity factor??????????

????????????????EU-27????????????????????30-35% ???

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??2??% ?? ???20-30% ???

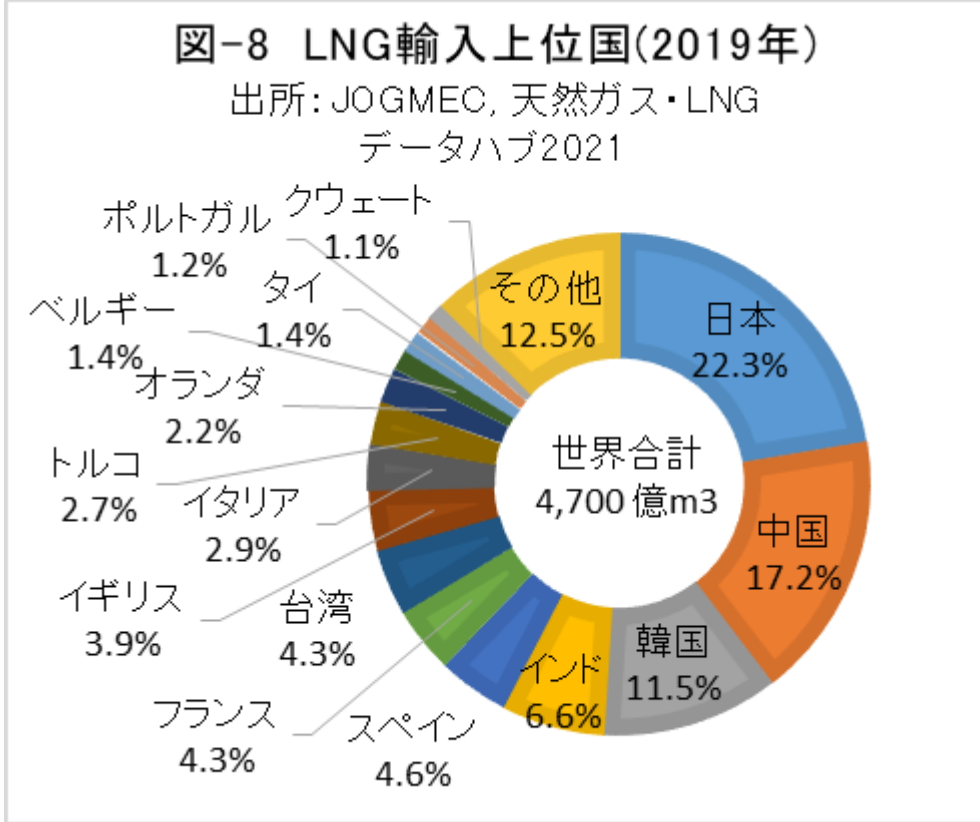
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????????????????????GHG????????????????????????????????Upper-middle income????????????????????????????????Lower-middle income??

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LNG??LNG????????????????LNG????????-8?L
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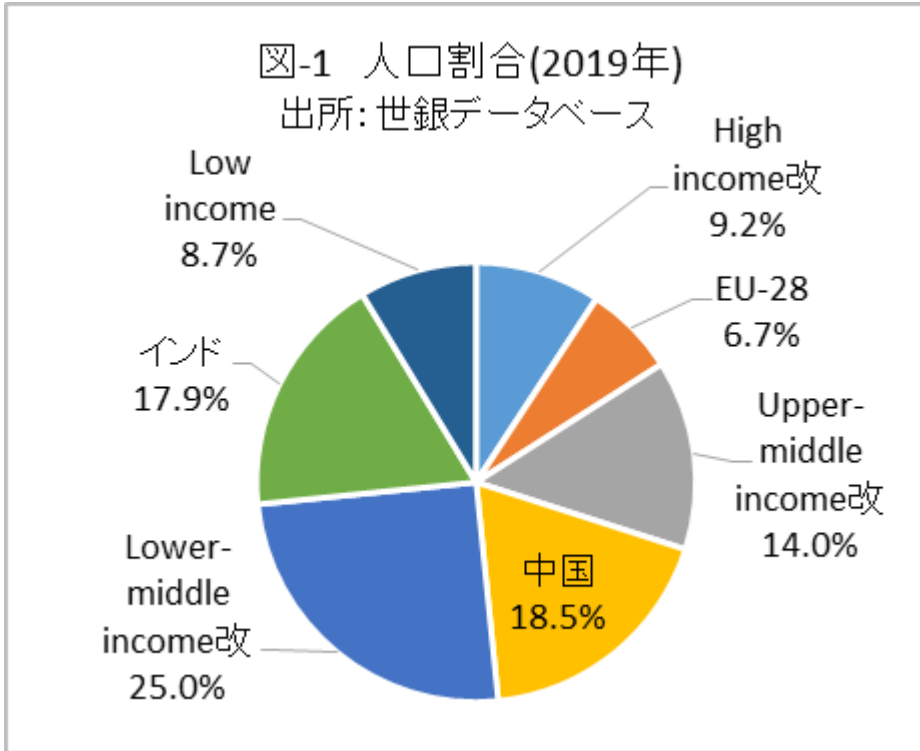
????????GHG????2.5%????????2050?GHG????????????????????2030????????????????GHG?????
????????????????1%????????????????

????GHG????2050??2050????????????????????

?????EU-28????????????High income????????????????????High income????????????????????Upper-middle income?Lower-middle income??

????????EU-28????High income????????????????????Upper-middle income?Lower-middle income????????????Low income??

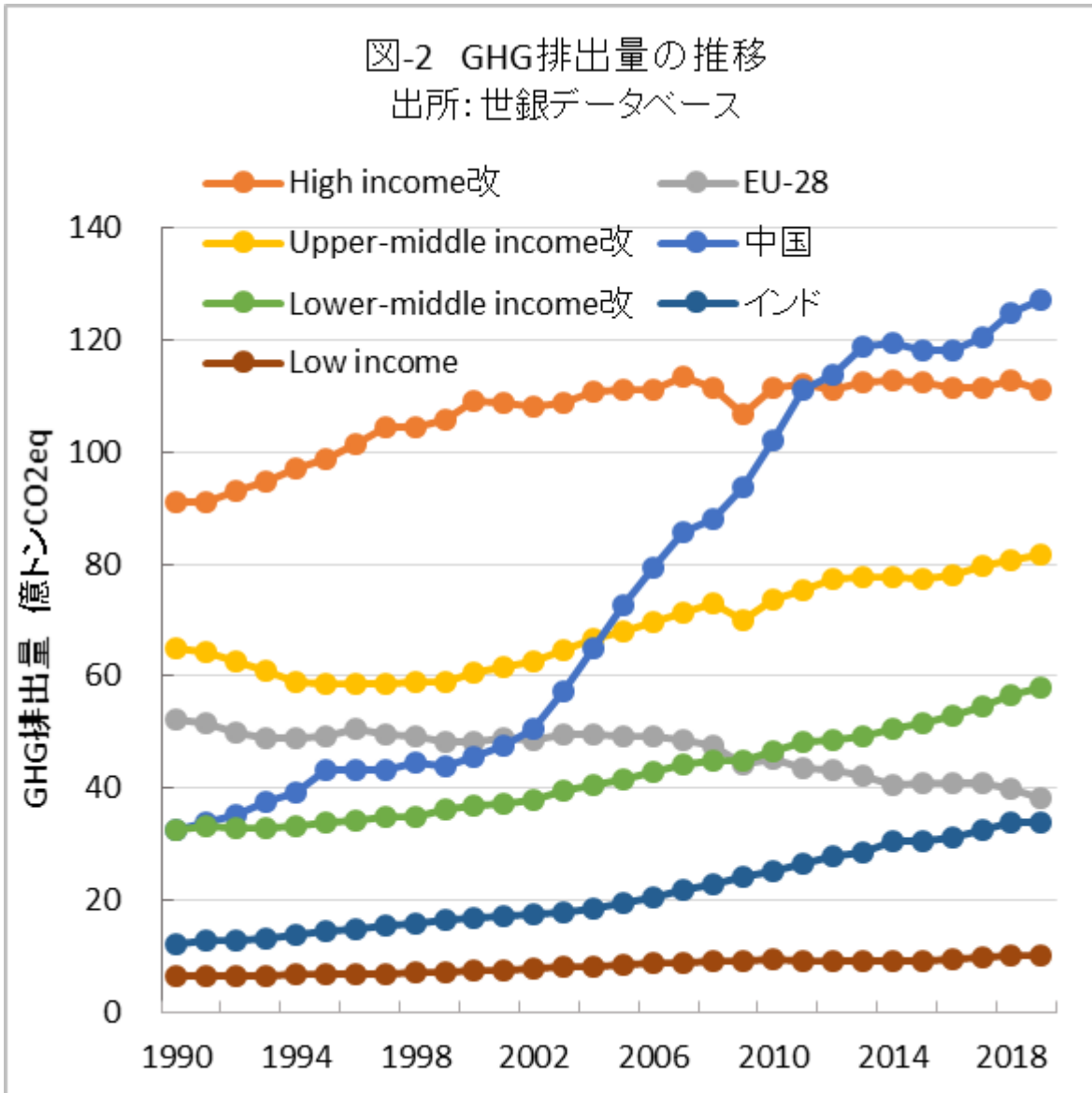
?-1????????????????2019????????????????????????????????????16%????????



?1

?GHG????2/3??????

?-2????????GHG????????????????????????????????????GHG????????????????EU-28?GHG????????????????High income??2010??

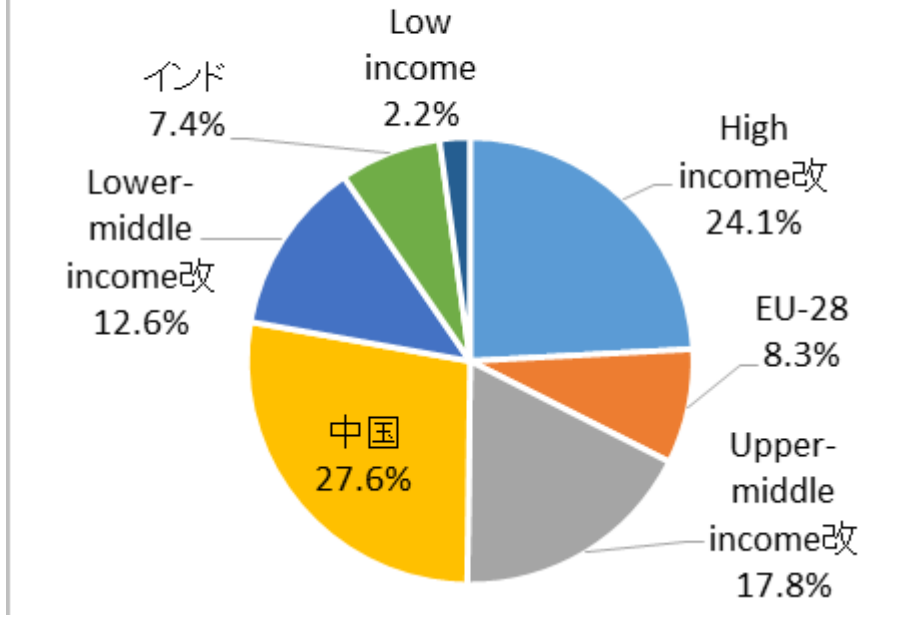


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?-3?2019??GHG????????????????????1/3????????????????2/3????????????????GHG????????????2%??
 ?????????????GHG????????????????????????????

図-3 GHG排出量割合(2019年)

出所: 世銀データベース



23

2050??GHG??????EU-28?GHG????????????GHG??
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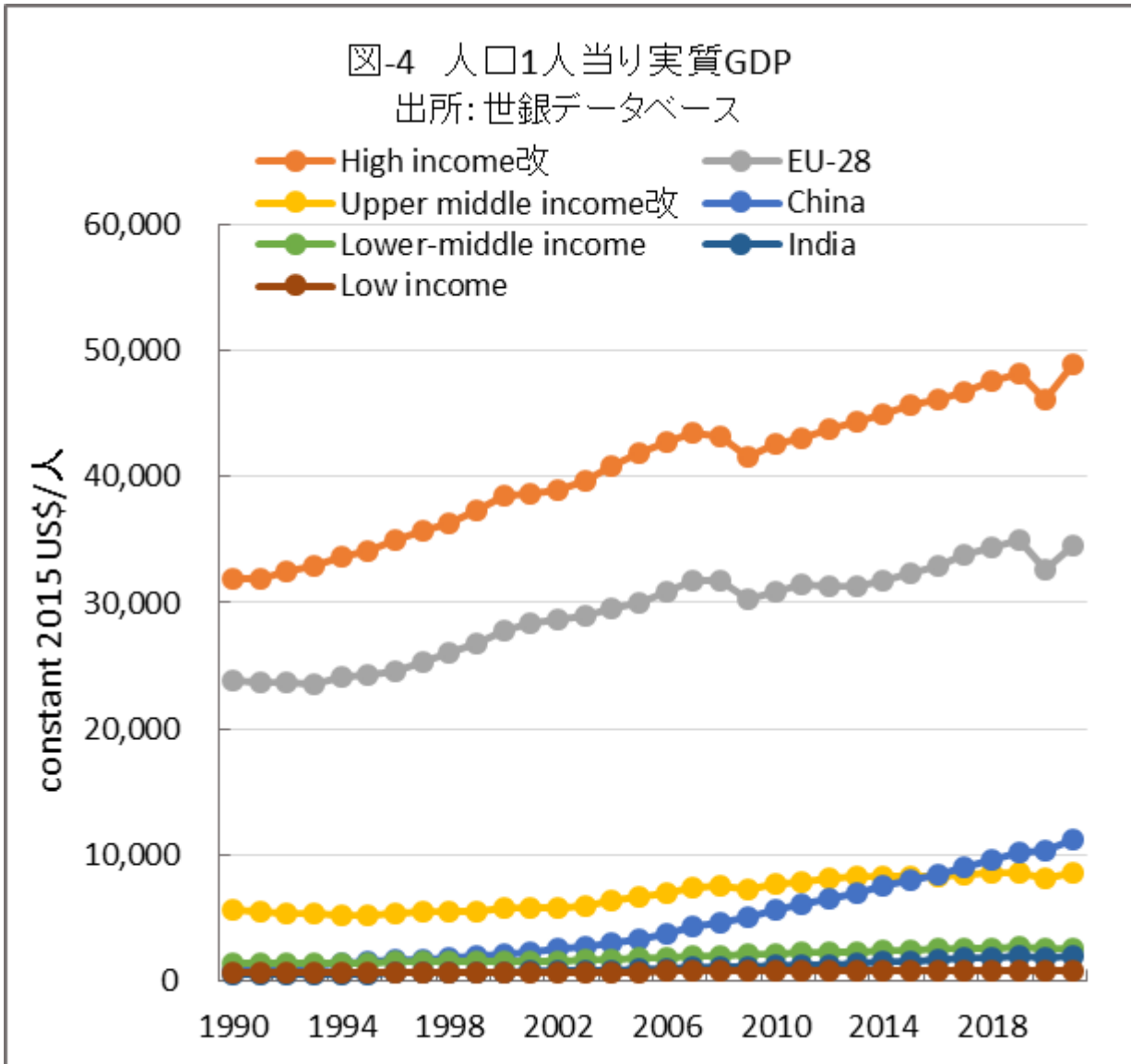
High
 income???2019?GHG??90%??????
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2050?????GHG??

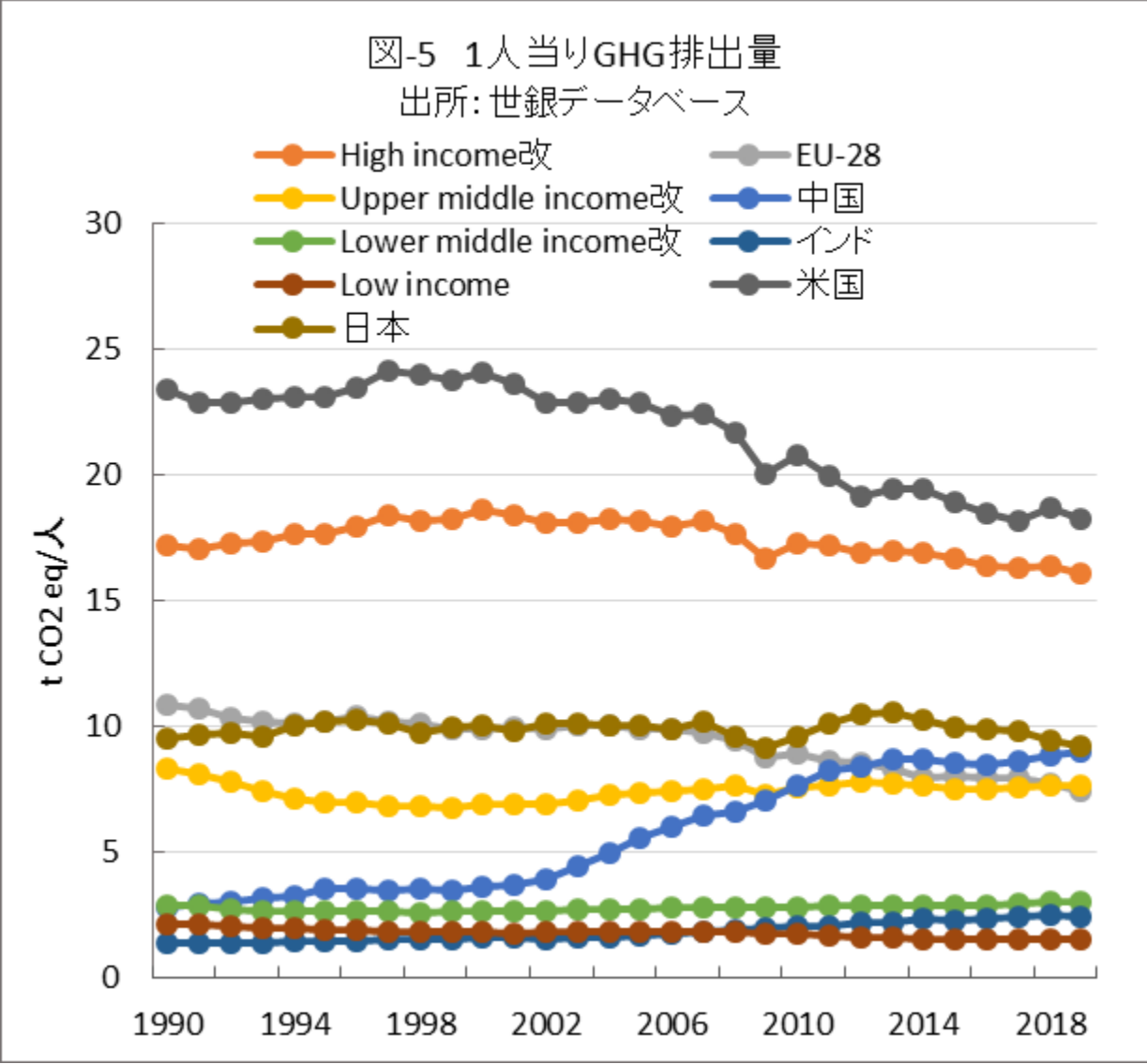
?-4??1?????GDP?????????????-1?????????GNI??GDP????????G
 DP?GNI?????????????????????????????GDP?GHG????????????????????????1????????????????????



24

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?-5??1?????GHG??



25

GHG????????EU????2019??1????????????Upper-middle
income?EU-28????????????1990???GHG????????????????????EU-28???High
income??GHG?????2????????????????Lower-middle
income????????????GHG????????????????????

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??GHG????????CO2????2030????????????2060????????????????????????????????2030????????????????
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1980??COP26????
??2070????GHG??20????????????????30??GHG????????
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????????GHG????2/3????????????2050????GHG????????????????GHG????????????????????
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IEA??2050??CO2??????

??????????IEA??2021??11??Figure
1.1??2050????CO2????????APS????????????????????????GHG????????????????NDCs??
2050????????????????????????????

WEO-2021 APS?2021?5????????????????????????????Updated
APS?2021?10??GHG??CO2????????????
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????STEPS?NDCs??NZE?IEA?202
1?5????2050????????????????

