

Global Energy Policy Research | GEPR

GEPR??
????http://agorajp.com/??
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?? ? · Thursday, November 24th, 2022



metamorworks/iStock

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1kWh????????????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

1?2020??2030?????????????

??2021?8?3????????2021?8?5?

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	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

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 ??????????LNG???10.7?kWh?????????12.5?kWh?????????????11.5?kWh?????????????1????

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- Harvey,D,2014.*Seventeen Contradictions and the End of Capitalism*,?Profile Books.(?2017????????????????????)
- ??,2009,????????????
- ??,2012,????????????????

- ???,2022a,????????????????????????????????????8?????????????:17-53?
- ???,2022b,????????????????22????.
- Livingston,J.A.,1973,*One Cosmic Instant?Man’s Fleeting Supremacy?*,Houghton Mifflin Company.(?1992????????????????????????????????).
- Marx,K,(traduction de Roy),1872-1875,*Le Capital*,Maurice Lachatre et C^{ie}(?1979????????????????????????????????).
- Mosher,S & Fuller,T.,2010,*Climategate-CRUtape Letters*,Createspace.(?2010 ?????????????????????????).
- Parsons,T.,1951,*The?Social?System*,The?Free?Press.??1974????????????????????
- ????,2022,??11?8??
- ????,2022a,????????????????????????????.
- ????,2022b,??11?19??
- ???,2022,????????????14????????

Posted in ???, ????? | No Comments »

COP27????????14????????

?? ?? · Wednesday, November 23rd, 2022



imagedepotpro/iStock

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

COP27? “?????” ??????????????NHK?

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

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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

46????????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

????????????????2030????5.8??5.9????????

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;

??CO2????????????????????3????????????????????Nationally Determined Contribution??

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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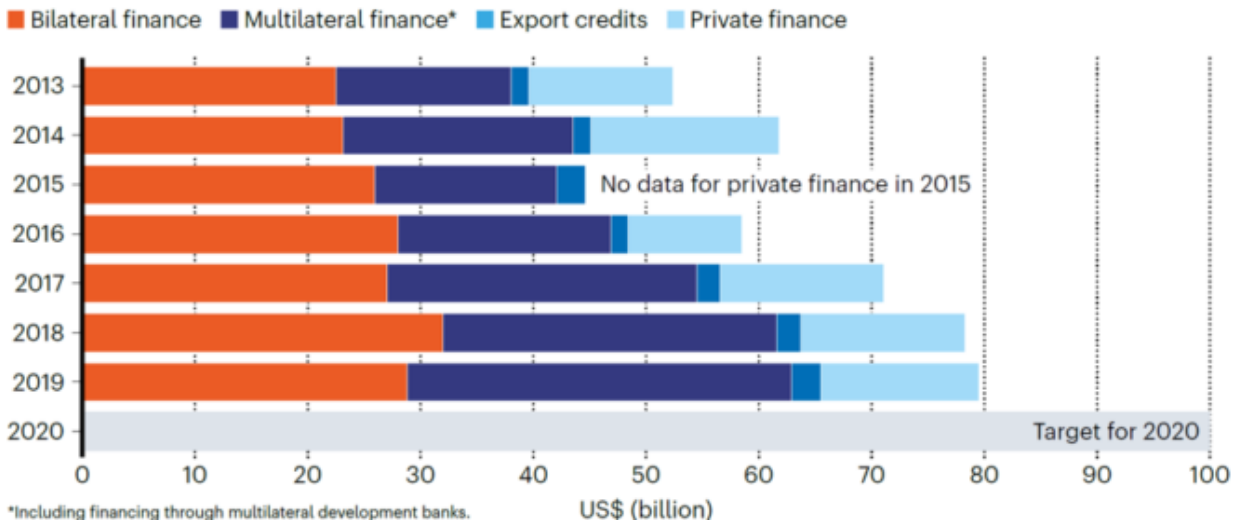
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COP21 in 2015 in Paris. The \$1 trillion per year is a very different concept – it is a requirement based on an analysis of the investment and actions necessary and the domestic finance potentially available, for an internationally agreed and vital 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??2020????????????????????????????????????Nature????????????????????????????

MISSED TARGET

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



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

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Posted in ???, ????? | No Comments »

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?? ?? · Tuesday, November 22nd, 2022



Olga Burkova/iStock

????????COP27????????COP26????????????????????????????????
????????????(loss and damage)????????????

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????(adaptation)????????????????

1997????????????????????????????????(mitigation)????????????
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COP26????????????????????????????????1????????????
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COP27??EU?1.5????????????????????????????????
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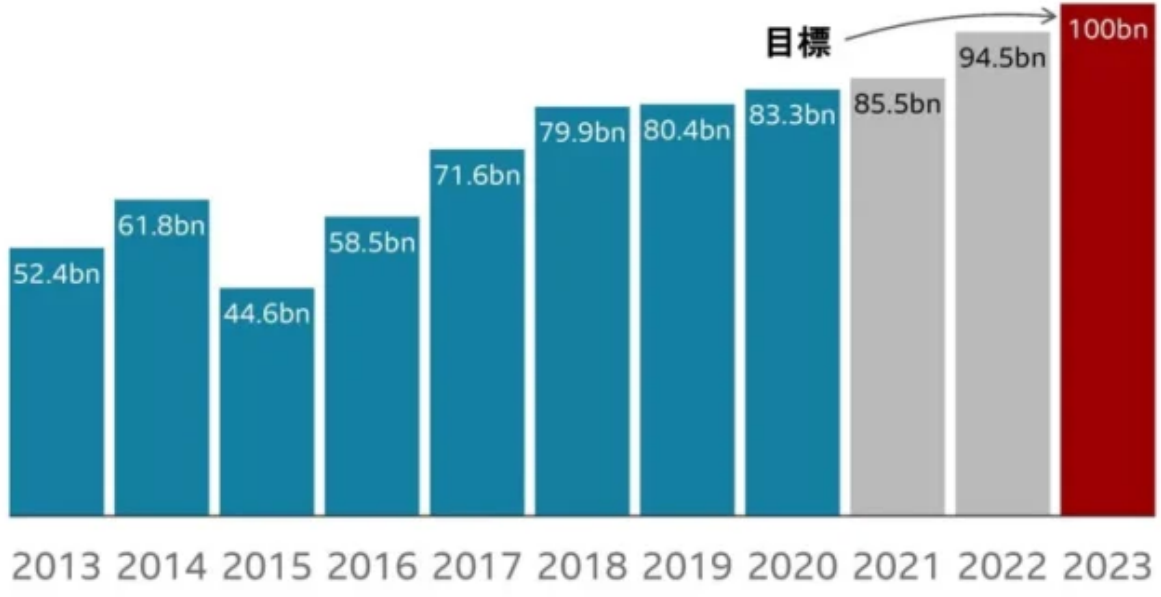
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気候変動対策の支援額 先進国が資金集めと供給を行った額(単位:10億米ドル)



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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COP27????????????COP28?UAE????????????1.5????????????

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Posted in ???, ????? | No Comments »

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?? ?? · Saturday, November 19th, 2022

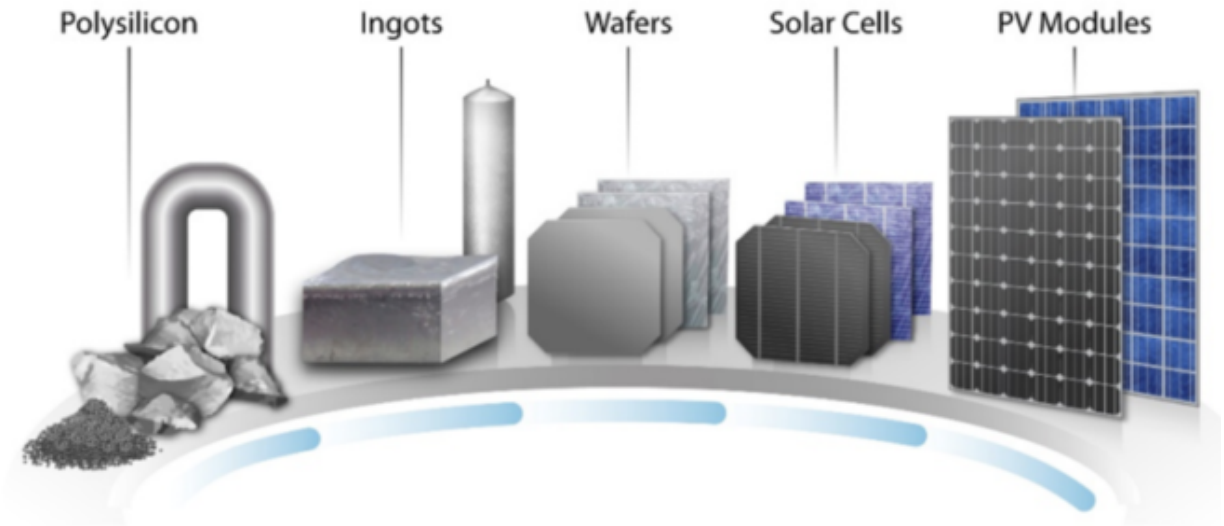


chuyu/iStock

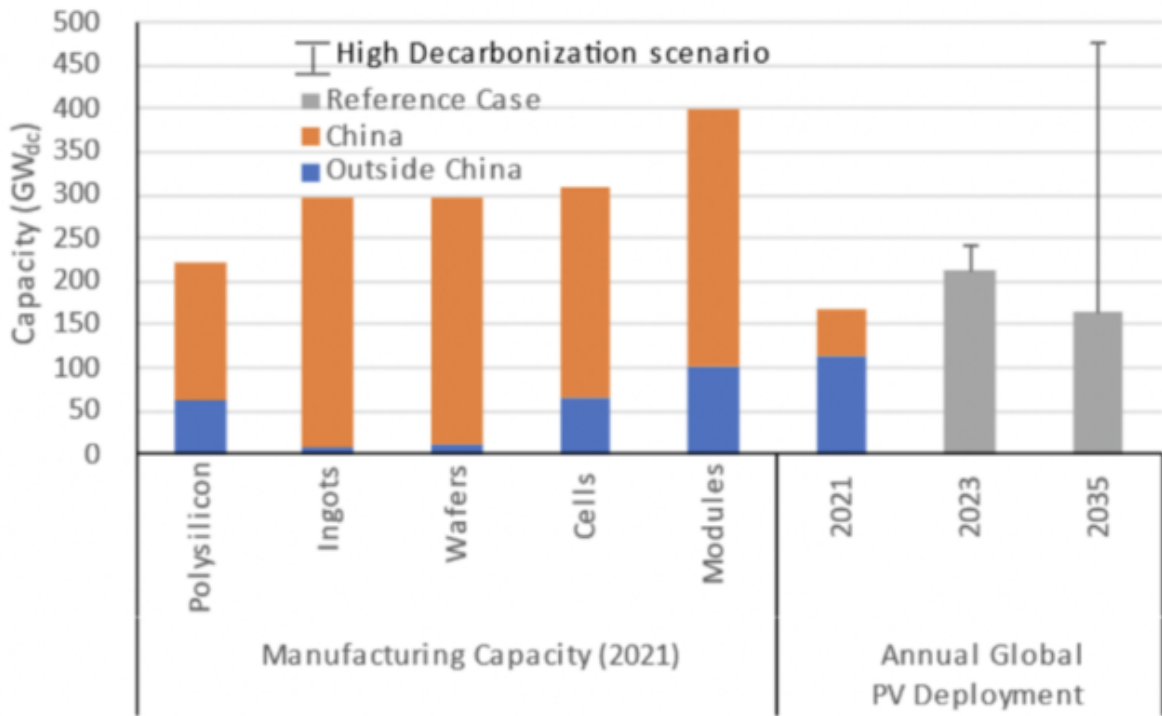
????????????????(Sins of a solar empire)??10????????CO2??????????????

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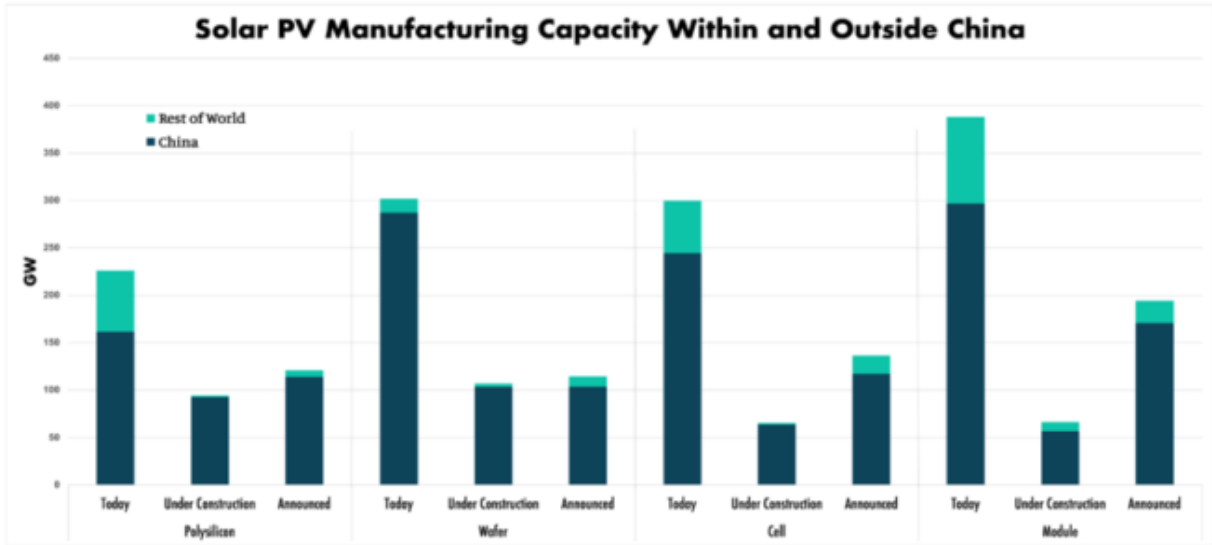
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5????????????????2021??

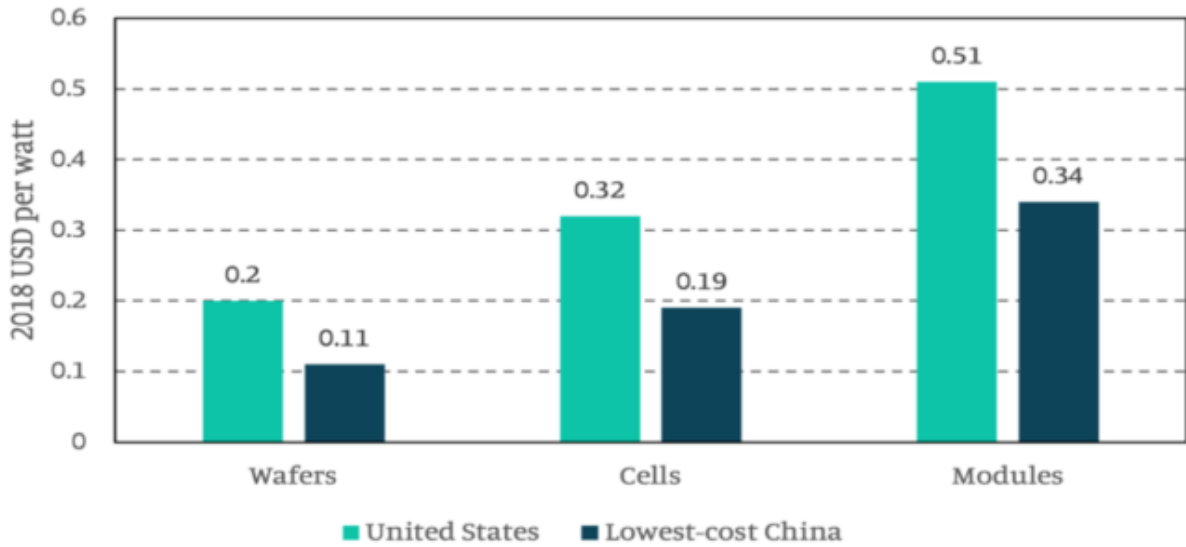


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Minimum Sustainable Price (MSP)



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?? ? · Saturday, November 19th, 2022



Nastco/iStock

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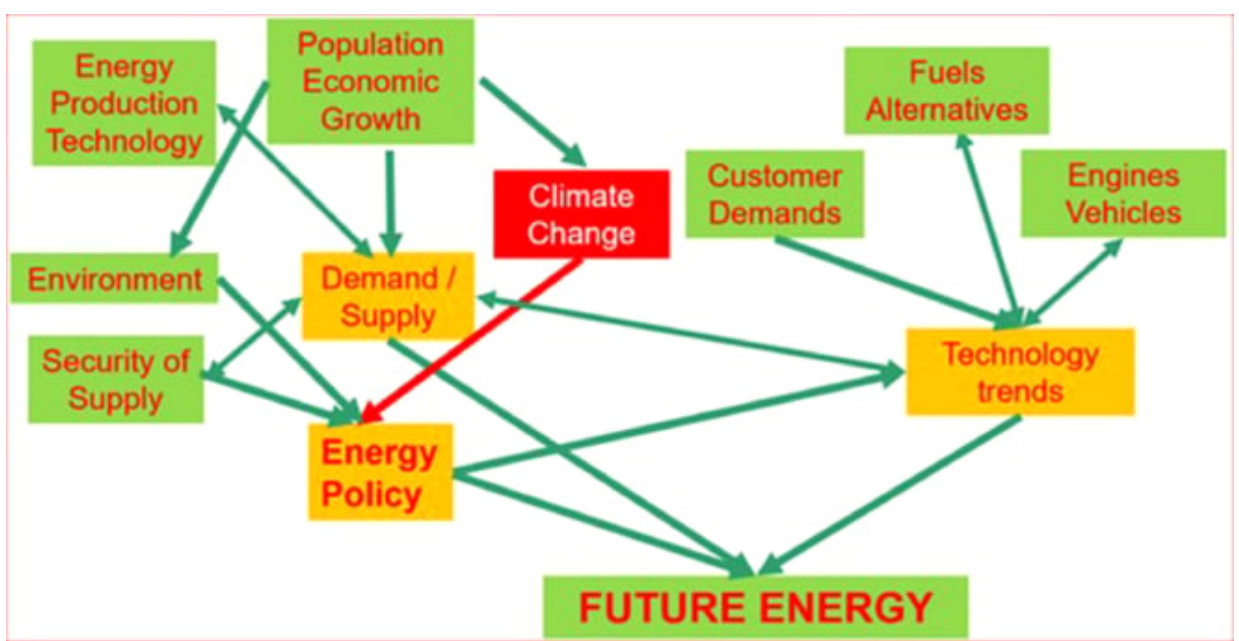
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BP 82.3% 489.66EJ/595.15 EJ 1.75%

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.

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BP IEA

1 EJ = 277.8 TWh

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

2.778×10⁻⁷kWh??10¹⁸????????????????????????????????

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

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

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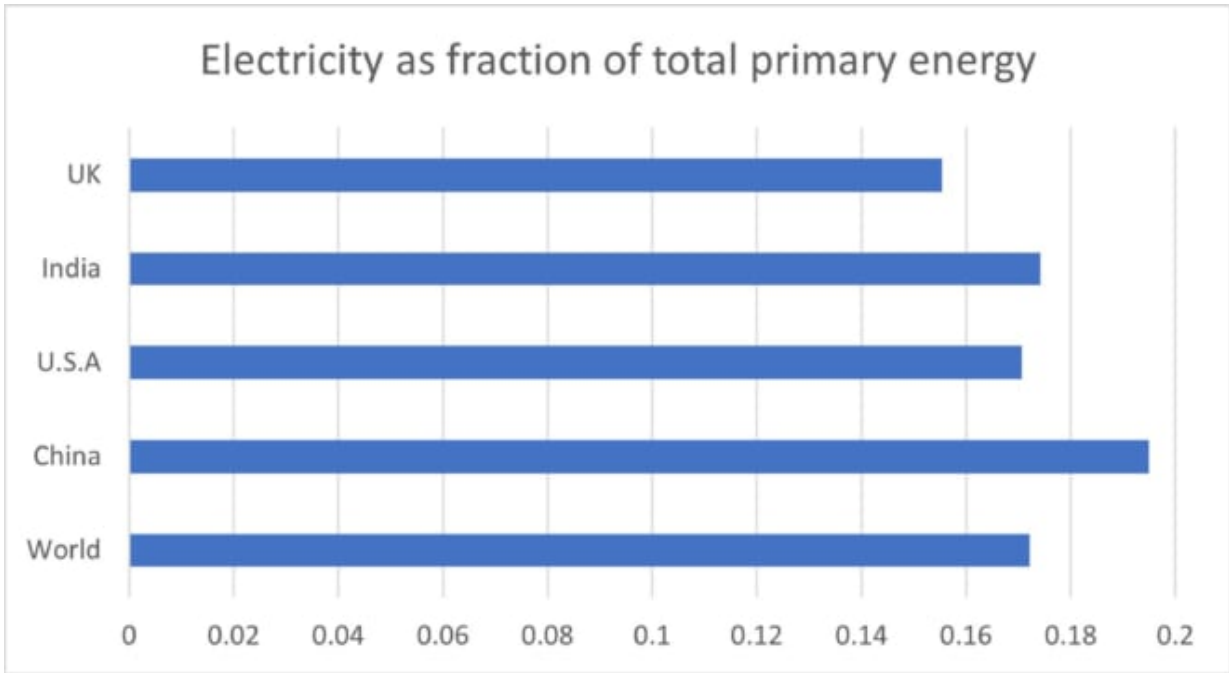
????????????BP????1kWh = 860.6kcal = 3.6kJ?IEA????41.5%????0.415??1kWh = 2074kcal = 8.67kJ????0.415????

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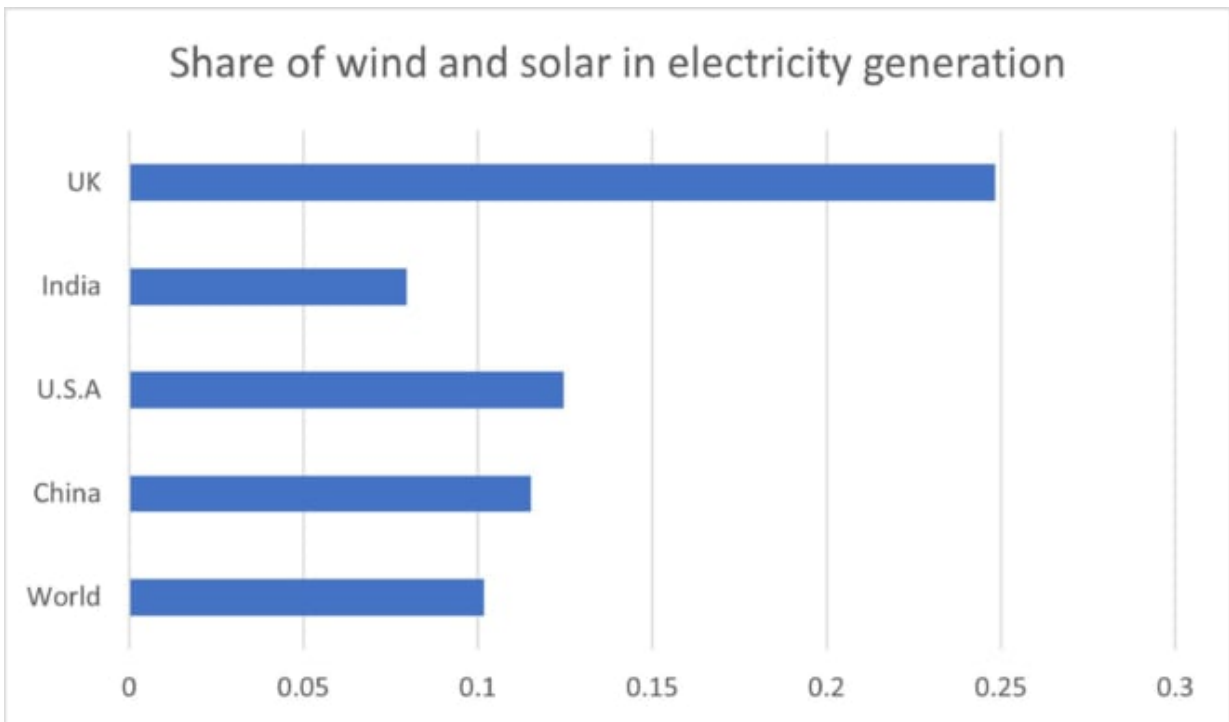
????????1????489.66EJ????105.49EJ??254.19EJ????0.415????2.4????5 95.15EJ??743.85EJ????17.7%?=106.49/595.15????34.2%?=254.19 /743.85????

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



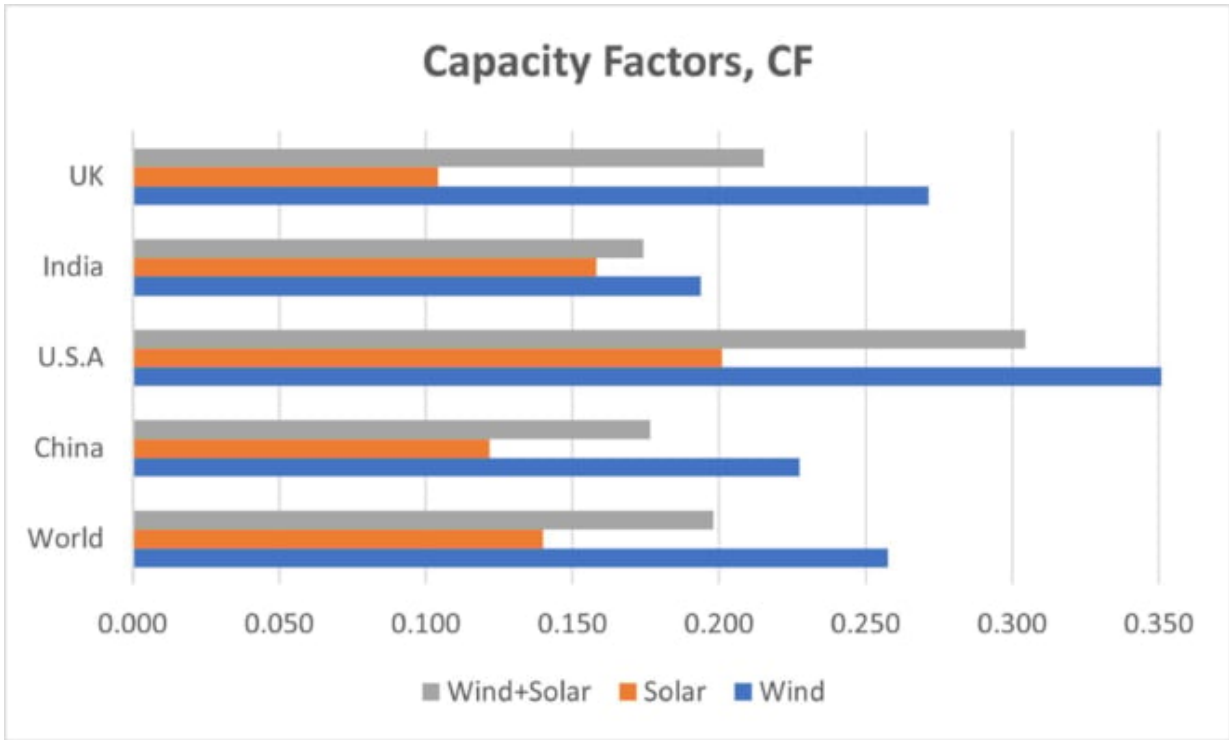
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Posted in ???, ????? | No Comments »

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

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



fergregory/iStock

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CSR ESG?SDGs

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Posted in ???? | No Comments »

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?? ? · Sunday, November 13th, 2022

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

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



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

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?? ?? · Thursday, November 10th, 2022



hanibaram/iStock

2050????????????????????
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Posted in ???, ????? | No Comments »

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?? ?? · Thursday, November 3rd, 2022



bee32/iStock

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

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?? ?? · Monday, October 31st, 2022

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????2017?9?3????????????6????????????10????????16
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兵研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????????????????????????????????

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??17??SDGs????SDG13?????
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COP27????????????????????

COP27????????????????????COP26????????????????????COP27????????????????????
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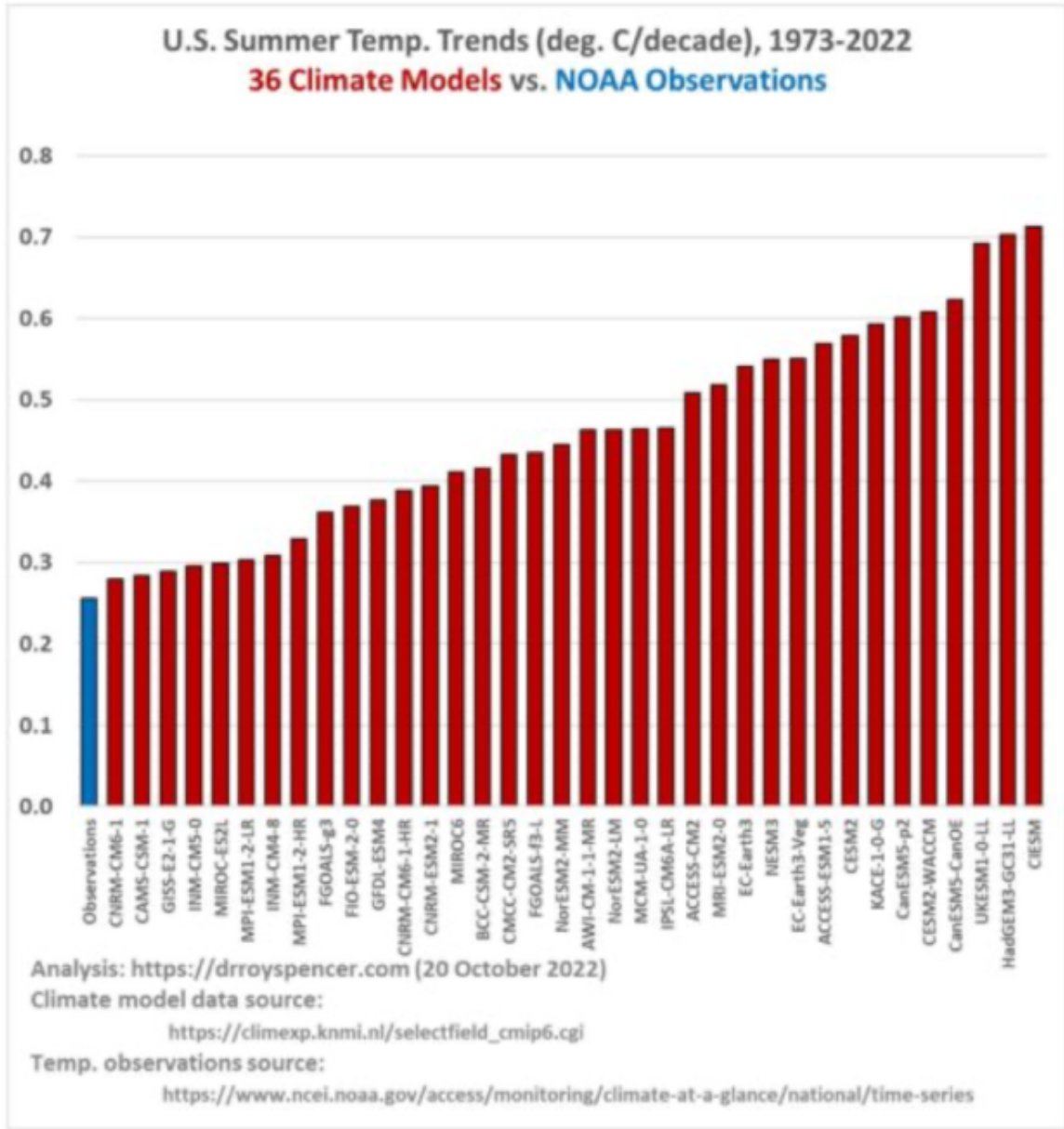
?? ?? · Friday, October 28th, 2022



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

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Research????????????????????????????????ESG??
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ESG Watch: Banks' net-zero pledges in the spotlight at Climate Week New York

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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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????????????????1860????????????ESG????????8????????????ESG????
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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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Posted in ???, ????? | No Comments »

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

GEPR??? · Monday, October 24th, 2022

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Parradee Kietsirikul/iStock

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

??GHG
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????2050????GHG??20
50????GHG??

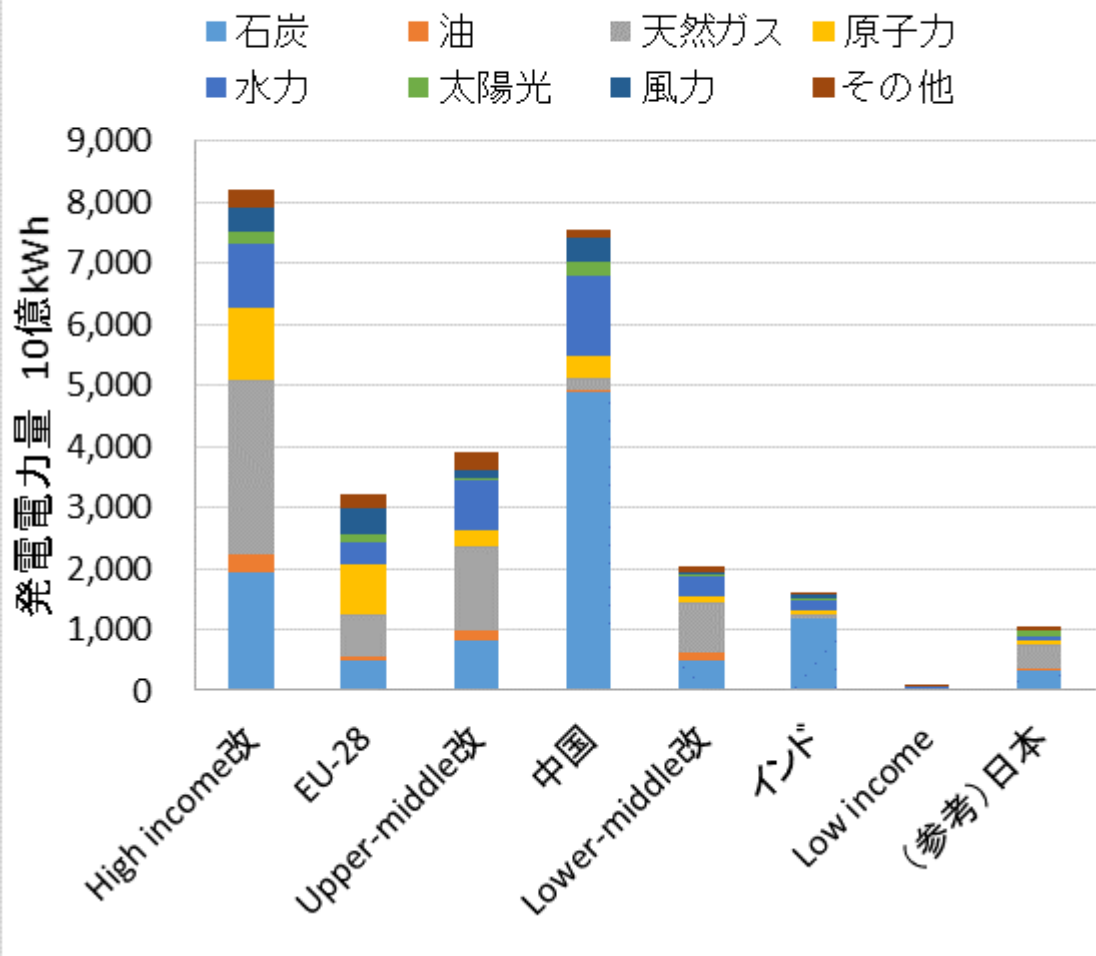
????2050?????????????????? ??

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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



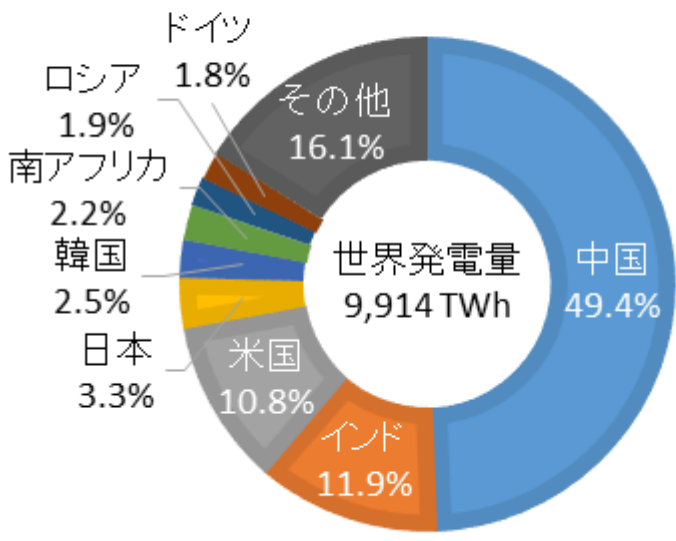
76

?-6????1????????????????65% ???-2?????????G
HG??

??73% ???2023??
??2019?????GHG????????????????????3?????????GHG????????????????????
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GHG??-7??GHG????????????????
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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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EU-28????25%?EU????14%????????BRICs????????????

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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????CO2????CCS????????????????????CCS????????????????????
??GHG??
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GHG????????????????????????????????GHG????1%????????????GHG????????
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Posted in ??????????, ??? | No Comments »

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

GEPR?? · Sunday, October 23rd, 2022

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Khaosai Wongnatthakan/iStock

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

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????????????????UNFCCC??LULUCF????????????????????

??210??1????????????????????High income?Upper-middle income?Lower-middle income?Low income?4?????????????

表-1 世界銀行データベース、所得分類 (2021-2022年)

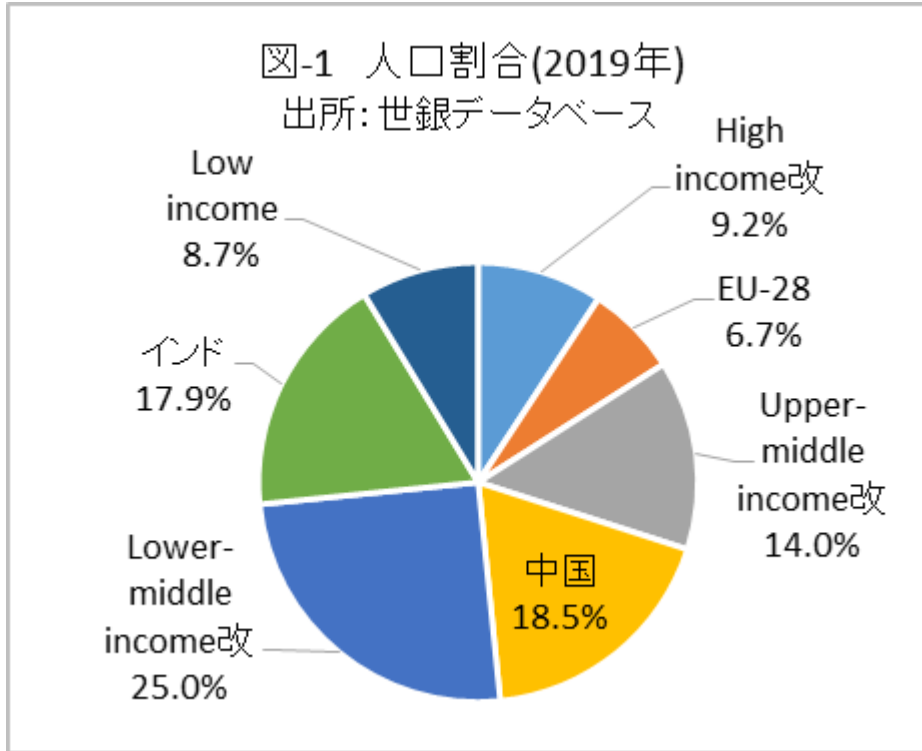
所得グループ	所得範囲 (1人当り名目GNI, US\$)
High income	> 12,695
Upper-middle income	4,096-12,695
Lower-middle income	1,046-4,095
Low income	< 1,046

?1

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

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

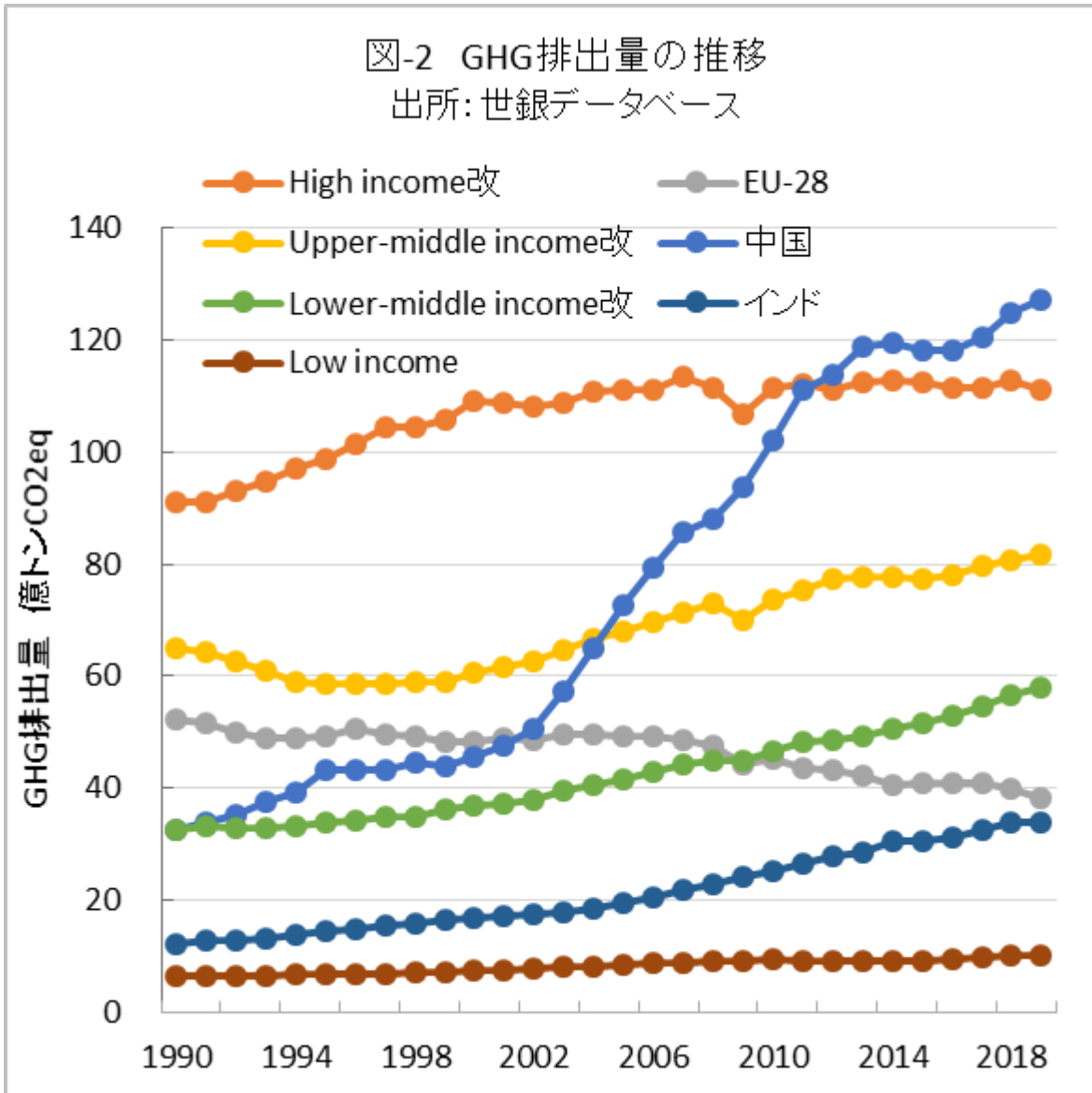
2019 16%



21

GHG 2/3

2010 GHG EU-28 High income

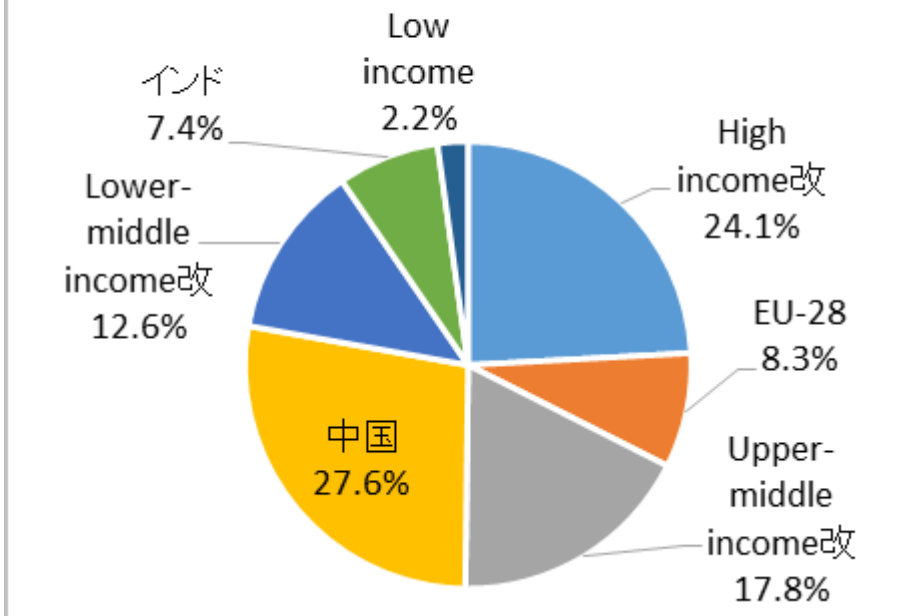


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?-3?2019??GHG????????????????????1/3????????????????2/3????????????????GHG????????????2%??
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図-3 GHG排出量割合(2019年)

出所: 世銀データベース



23

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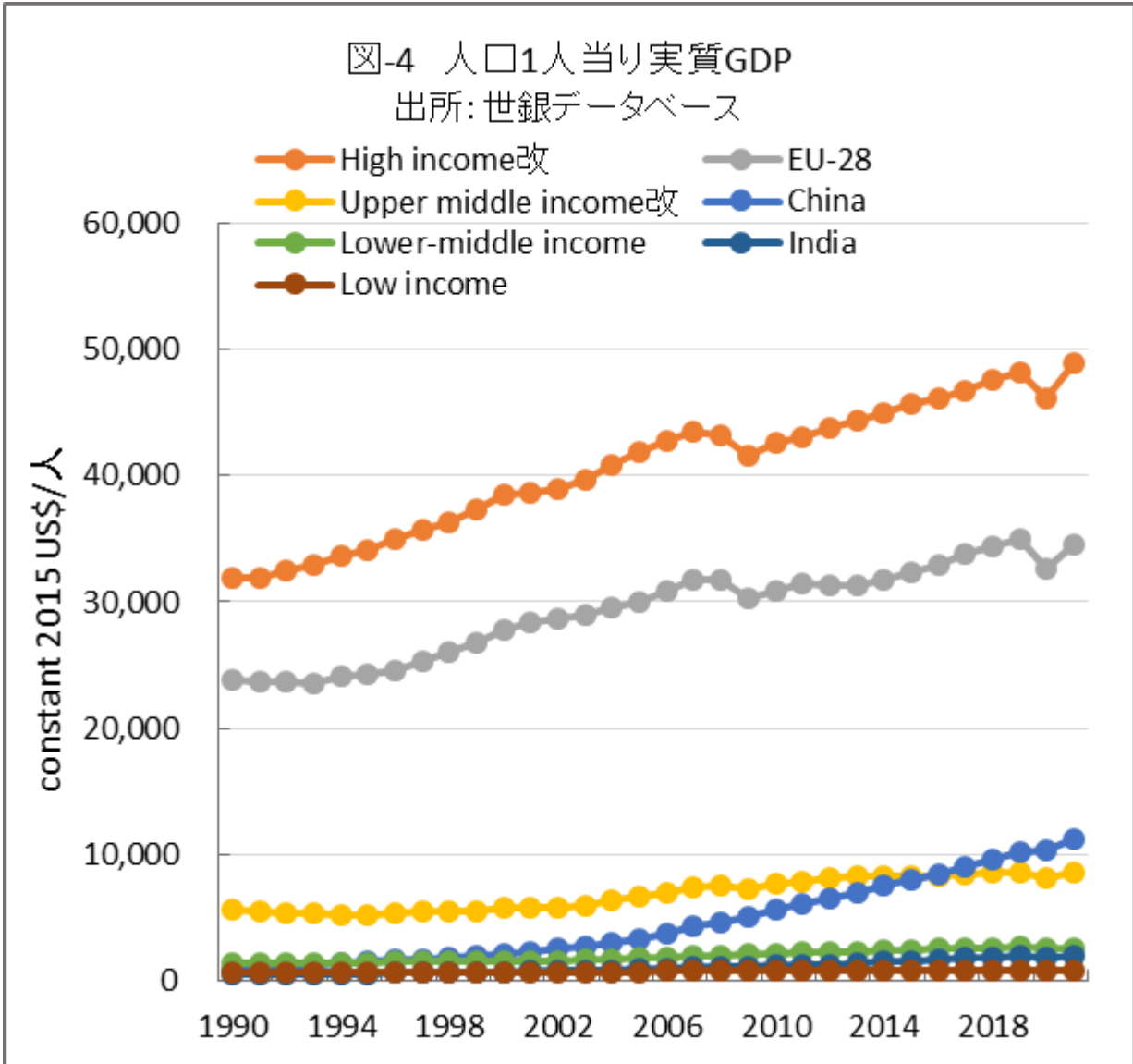
High
 income???2019?GHG??90%?????
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?GHG????????????

2050?????GHG??

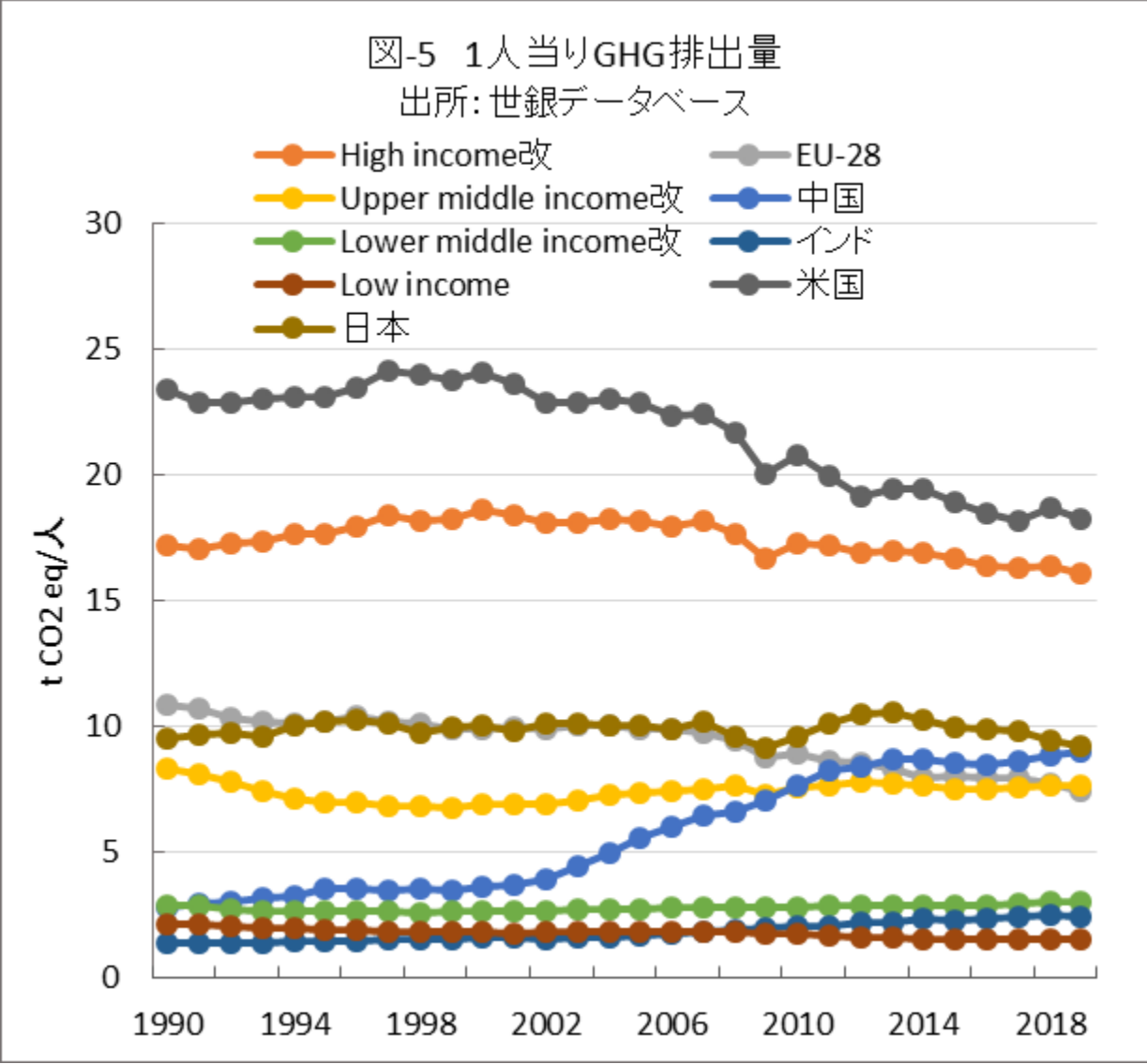
?-4??1?????GDP????????????-1?????????GNI????????????????????????????????????GDP?????G
 DP?GNI????????????????????????GDP??GHG????????????????????1????????????????



24

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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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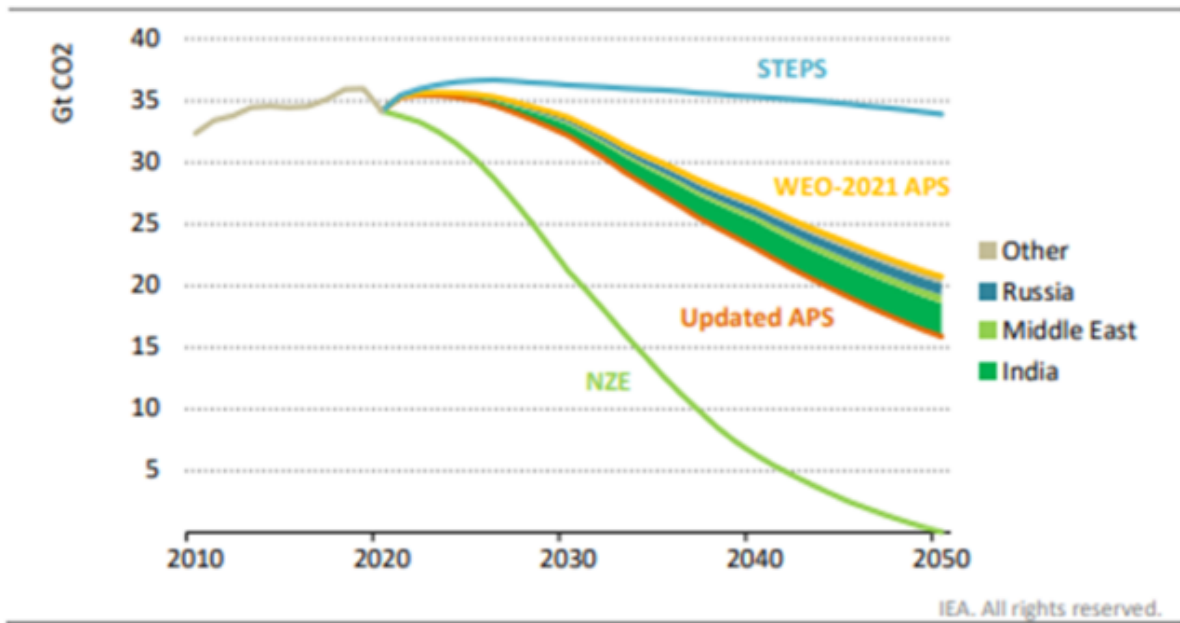
IEA??2050??CO2??????

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

Figure 1.1 ▶ CO₂ emissions in the WEO-2021 scenarios and emissions reductions from recent pledges



Note: Other = net zero pledge by Australia and commitment to the Global Coal to Clean Power Transition Statement by Indonesia. Middle East = net zero pledges by Saudi Arabia and the United Arab Emirates.

Updated APS scenario CO₂ emissions 2020-2050. 35 Gt CO₂ in 2020, 16 Gt CO₂ in 2050. 55% reduction. STEPS scenario CO₂ emissions 2020-2050. 35 Gt CO₂ in 2020, 34 Gt CO₂ in 2050.

2050 emissions scenario IEA GHG emissions 2050 scenario. IEA GHG emissions 2050 scenario.

2050 GHG emissions scenario. GHG emissions 2050 scenario.

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1970 scenario kindle

Posted in [unclear], [unclear] | No Comments »

????? "We own the science" ????????

?? ?? · Friday, October 21st, 2022



LewisTsePuiLung/iStock

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NEW – UN Secretary for Global Comms says they "own the science" on "climate change," and opposing viewpoints have now been pushed down in search results through their partnership with Google.<https://t.co/fMaPYsHGUT>

— Disclose.tv (@disclosetv) October 2, 2022

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Disinformation??COVID-19????????????????????????????????
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- ??????????Google??
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You Tube??TikTok?????????Team
Halo????????????????????

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twitter????????Democratic Dictatorship?George Orwell????????????????

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Farm??
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Disinformation????????????????WEF????????????????????COVID-19????????????????????????????
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Posted in ???, ????? | No Comments »

ESG????????3E?S????????????

?? ?? · Thursday, October 20th, 2022



ipopba/iStock

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??COP26????????????ESG????????????????

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EU??

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NZAOA????????????????????
NZAOA???



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COP26????????????????????



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GFANZ??
JP??

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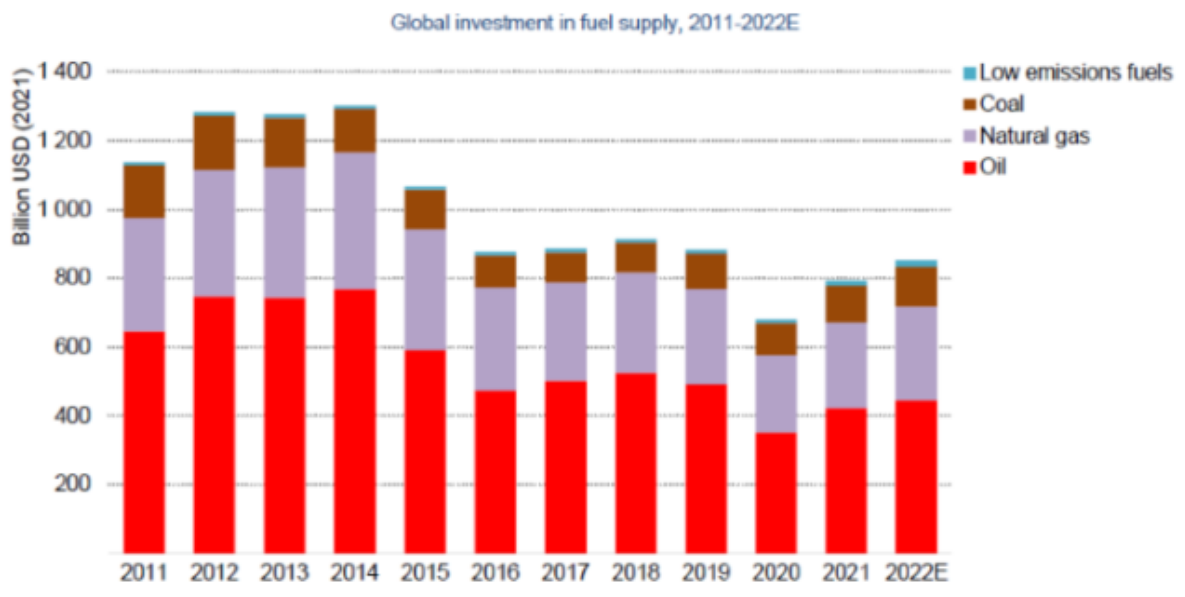
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???World Energy Investment 2022, IEA

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???IEA?????????Net Zero by 2050????????2050????????????????????????????????1.5????????????????????????????????
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Economy?Environment?Energy

Security?2011?Security?E

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ESG?E

Social?S?Sustainability?3E?S

ESG?2.0?

3E?S

2050?2030?

ESG?ESG?E

ESG?80?

10?3E?S

ESG?

ESG?3E?S?2.0?

Posted in [ESG?2.0?](#), [ESG?](#) | [No Comments](#) »

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?? ?? · Thursday, October 20th, 2022



1?2050????????2030????????????????????????????????

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MadamLead/iStock

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

11??COP27????????????????????????????????

?? ?? · Sunday, October 16th, 2022

11?6??????11?18??27????????COP27????????

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Asiya Hotaman/iStock

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COP26??

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Reuters????????????????????????????????????Africa Oil Week 2022 Conference????????????

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2021?4????????????????????????????????????COP26????UNFCCC Race to Zero????????????????????????????????GFANZ????????

GFANZ????????45????????500????????????????GFANZ????????????Race to Zero????????????

????COP27????GFANZ????????????????????

??Climate Change Dispatch????????????JPMorgan Chase, Morgan Stanley, Bank of America????????????????????????????????GFANZ????????????????????????????????

U.S. Banks Threaten To End Support For UN Climate Edicts Over Legal Risks – Climate Change Dispatch

?GFANZ??GFANZ????????????????

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

??JPMorgan Chase
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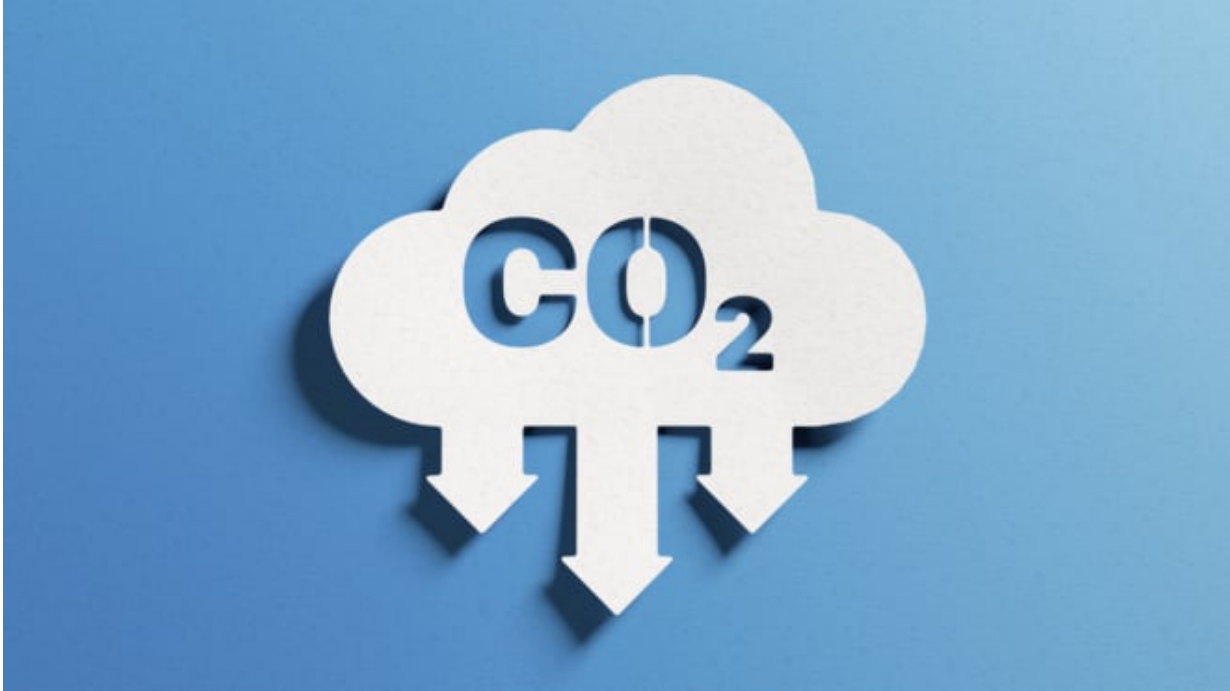
‘Road to hell for America’: JP Morgan CEO snaps back at Rep. Tlaib on fossil fuels

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?? ?? · Tuesday, October 11th, 2022

??2030????CO2????????????????????
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NicoElNino/iStock

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????2030????CO2????2000??2000????CO2????5775????
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- 1. 2000????2030????CO2????????????????????????2030????????????????????????CO2????????????????????
2000????2030????????????????????????????????
- 2. ?????????????????????????????????CO2????????????????????????????CO2?1?????????????????0.5????
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- 3. ?????????????2030?????1??100??1????????
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- 4. ???

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- 1. ?????????????CO2????????????
????????????CO2????5775???×31=17.9????

- CO2排出量(2019年) = 5775 × 31 × 3 ÷ 4 = 13.4
- CO2排出量(2019年) = 5775 × 31 × 1 ÷ 4 = 4.48
- 4.48 × 0.5 ÷ 10000 = 0.00022
 - 100 × 0.00022 × 0.06 = 0.0013

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- 4.5
- 0.00022
- 0.0013
- CO2排出量(2019年) = 5775 × 31 × 3 ÷ 4 = 13.4

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- ???

■ エネルギー起源CO₂排出量

各部門が、それぞれ現状（2019年）から半減を目指すものとして提示（ただし、現状までに大幅削減の部門は考慮）

(単位：万t-CO₂eq)

	2000年 (基準)	2019年 (現況)		2030年 (目安)			東京都 環境基本計画 (現行) (2000年比)
	排出量	排出量	2000年比	排出量 (目安)	部門別目標 (2000年比)	2019年比	
産業・業務部門	2,727	2,763	1.3%	1,381	約50%程度削減	▲50.0%	20%程度削減
産業部門	679	381	▲43.9%	222		▲41.8%	
業務部門	2,048	2,382	16.3%	1,159	約45%程度削減	▲51.3%	(20%程度削減)
家庭部門	1,283	1,612	25.6%	728	約45%程度削減	▲54.8%	20%程度削減
運輸部門	1,765	940	▲46.7%	612	約65%程度削減	▲34.9%	60%程度削減
エネルギー起源CO ₂ 計	5,775	5,315	▲8.0%	2,721		▲48.8%	

(参考)

廃棄物部門 計	120	190	58.3%	137	2017年比 40%削減 ※1	▲27.9%	
その他ガス (フロン等) 計	325	706	117.2%	252	2014年比 約65%程度削減 ※2	▲64.3%	
温室効果ガス排出量 合計	6,220	6,211	▲0.1%	3,110		▲49.9%	

※ 1 家庭と大規模オフィスビルからの廃プラスチック焼却量の削減目標
 ※ 2 代替フロン (HFCs) の削減目標



Posted in ???, ????? | No Comments »

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?? ?? · Monday, October 10th, 2022

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y-studio/iStock

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allanswart/iStock

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

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?? ?? · Tuesday, October 4th, 2022



Daniele Mezzadri/iStock

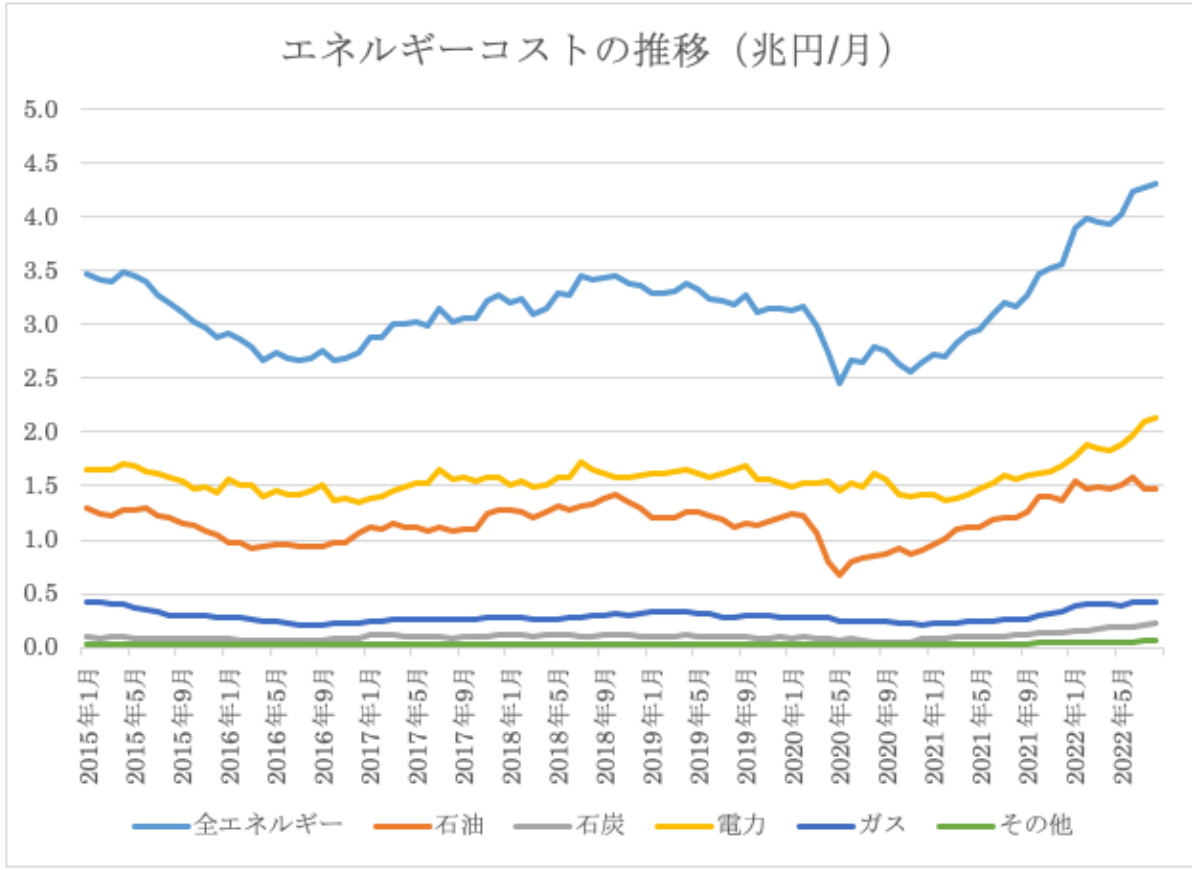
??25????????28????????????????

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

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?? ?? · Monday, October 3rd, 2022



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????????SRZ1200????

?? ?? · Sunday, October 2nd, 2022

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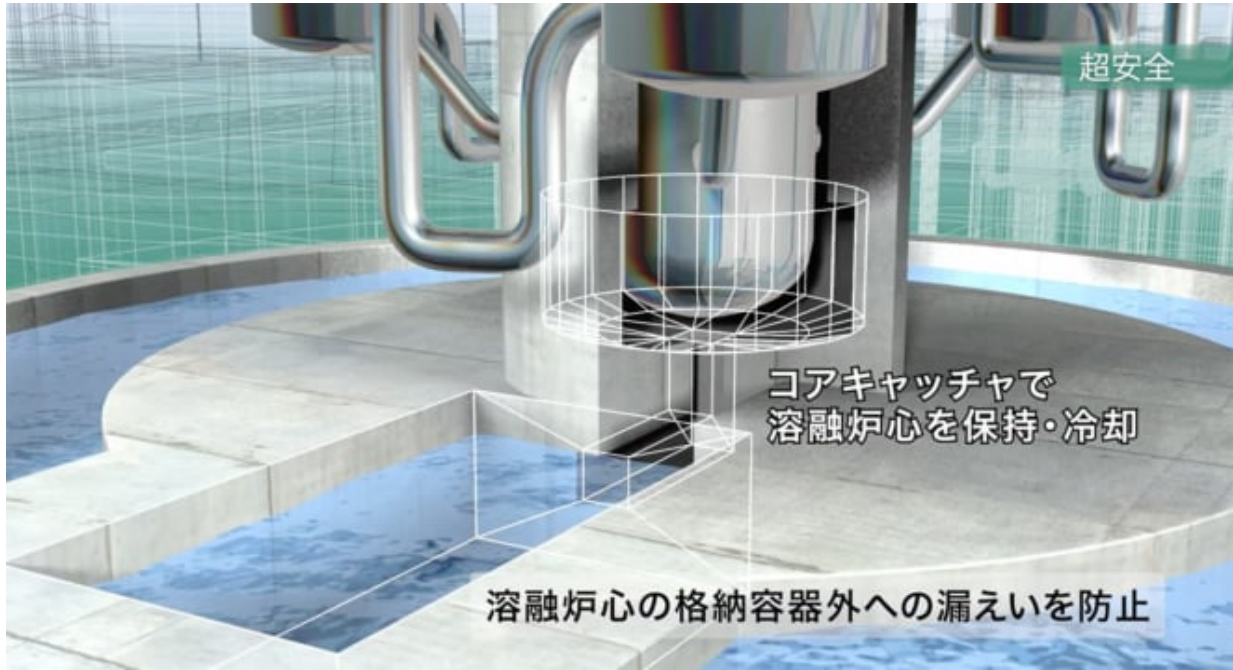
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??????929????????????????????????????????4????????????????????????????????????2030????????????
????10????????????

SRZ1200?????

S????Super-safe????????????Sustainability??R????(Resilience)???Z????????Zero-Carbon????????

1200????????????????120kW??



DiscoverMHI (Mitsubishi Heavy Industries, Ltd.)??

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NHK????????????????????????????

?? ?? · Sunday, October 2nd, 2022



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?2020??CO₂????????????

??28.4??14.7??6.9??4.7??3.2??2.1??1.8??3.7??

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2021?8??2030????????????????????????????2030????????1kW
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record 1.5????????????????????NHK????????????????????

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