

100% Renewable Energy is Possible both Technical and Political ?!!!

Crisis due to the Broken Paris Accord by USA must be turn to great chance to transit. This report shows you the evident technological validity of realizing **100% Renewable Energy**. Decisive problem left is **the political decision** by global unite with decisive truth. Above all, **climate extinction hell** is nothing, but far more than any historical wars on the planet.

[1]:100% Renewable Energy is Possible !!!

As is seen in T2, energy at now is carbon one by 90%. But those could be turn to renewable one. Because **wind and solar energy resources** are evidently sufficient (=T1).

T1:Global Renewable Energy Resources the Potential Estimation.

	Possible Total Resource	At now	citation
Global Final Energy Consumption 2014	12.5TW.y	12.5TWy	https://en.wikipedia.org/wiki/World_energy_consumption
Wind Power	56 ~148TW	0.43TW	http://iopscience.iop.org/article/10.1088/1748-9326/8/1/015021/pdf
Hydropower	2TW	1.1TW	https://www.worldenergy.org/data/resources/resource/hydropower/
Solar	23000TW	0.16TW	https://waitbutwhy.com/2015/06/the-deal-with-solar.html
Geothermal	~100GW		wiki
Marine Power	5.4 ~24GW		wiki
Uranium	90 ~300TW		
Coal	900TW		
Oil	240TW		
Natural gas	215TW		

*1Mtoe \equiv 11.63 KW \equiv 11.63 \times 10¹²W \times 3600sec \equiv 4.187 \times 10¹⁶J= 1.328 \times 10⁹W.y

T2:Global 2014 Primary Energy*) Consumption in each Sector.

2014 (AIA, 2016)	13,699 mega-toe = 159320TWh = 18.2TW.y
Coal/Peat (40.8%)	7.45TW
Oil (31.3%)	5.7TW
Natural Gas (21.2%)	3.9TW
Biofuels and waste (10.3%)	1.9TW
Hydro Electricity (2.4%)	0.44TW
Others (Renew.) (1.4%)	0.24TW
Nuclear (4.8%)	0.9TW

https://en.wikipedia.org/wiki/World_energy_consumption

*) Primary Energy < 18.2TW.y >

≡ (energy for making final consuming one < 5.7TW.y >) + (final consuming one < 12.5TW.y >).

T3:Energy Efficiency Comparison Table.

type	efficiency	citation
Electric Motor	80%	https://energy.gov/sites/prod/files/2014/04/f15/10097517.pdf
Gilt-Oil Diesel	40%	
H2O Diesel	49~52	http://www.hess.jp/Search/data/31-01-008.pdf
Fuel Cell Vehicle	30%?	
Fuel Cell(proton)	30~50%	https://en.wikipedia.org/wiki/Fuel_cell
Big Hydro PP	90%	
Fire PP	60%	
Wind PP	10~35% (59%)	http://web.mit.edu/windenergy/windweek/Presentations/Wind%20Energy%20101.pdf
	22%	http://www.telegraph.co.uk/news/earth/energy/renewableenergy/8236254/Wind-turbines-less-efficient-than-claimed.html

Possible maximum wind power = (56~148)T.y × 0.22 = **12.3TWy~32.6TWy.**

Adding solar power becomes more than the consumption now 12.5TWy.

[2]:Energy Storage is also Possible by H2 gas.

Note almost renewable energy are **electrical**, however the big storage by **battery** is not sufficient in general for driving {Truck, Train and Ship, etc} the **main transport machines**. Then recent technology succeeded to accomplish big **energy storage by H2 gas** by higher efficiency toward the lower cost. Some citations are not English, because USA and EU seems not doing the R&D. Author is not the expert, so some would be corrected or added hereafter. Especially note **carbon energy is not cheap, but infinitive cost** by causing our **extinction !!**. Once absolute necessity of new energy admitted, the cost would become stable & reasonable due to **nothing price competitor**. However the initiating cost is necessary, which could be supplied by **world military=1.7T\$ /y** & **oil spending=26T\$/y**.

Development of Nigh-based Fuel Cell/Battery (FAB) system: Characterization of Ni(OH)₂/MnO₂ positive electrode for FAB

<http://www.sciencedirect.com/science/article/pii/S037877530901057X>

<http://www.nedo.go.jp/content/100759810.pdf>

H2 gas generation by Water Electrolysis improved efficiency by 91→99%.

Fuel Cell improved overall energy efficiency by 41→91%.

Improvement on H2 gas Generating Reaction Space reduction.

Organic Hydride technology for Hydrogen Storage and Supply for the Hydrogen and Fuel Cell Society

<http://www.hrein.jp/english/about%20organic%20hydride/index.htm>

56000L→100L, H2 gas volume compressing by lower cost of Organic Hydride technology.

APERS Hydrogen Chiyogami Hydrogen Supply Business

<https://www.chiyoda-corp.com/technology/en/spera-hydrogen/>

Development of large-scale H2 storage and transportation technology with Liquid Organic Hydrogen Carrier (LOHN)

<https://www.chiyoda-corp.com/technology/files/Joint%20GCC-JAPAN%20Environment%20Symposia%20in%202013.pdf>

De. hydride technology by improved Pt catalyzer with life time more 8000 hours. The catalyzer is reversible by lower cost conveyorization.

[3]: **H2 gas fuel for Truck,Train,Ship and Construction Machines.**

H2 gas can be fuel for traditional **Diesel Engine** of 300KW. Diesel engine is decisive in industry and transportation.

Development of High-powered Hydrogen Engine System

<http://www.hess.jp/Search/data/31-01-008.pdf>

<i>Output power</i>	300kW
<i>Running load rate</i>	33%
<i>Running output power</i>	100kW

1 馬力=0.735499KW

[4]:**100% Renewable Energy is Possible also in Political !!.**

U.S. Mayors Back 100% Renewable Energy, Vow To Fill Climate Leadership Void.

<https://popularrresistance.org/u-s-mayors-back-100-renewable-energy-vow-to-fill-climate-leadership-void/>

The U.S. Conference of Mayors also voted to support quick electrification of vehicles and urged Congress to back the Clean Power Plan and Paris climate agreement.

9.8 Million People Employed By Renewable Energy May 27, 2017

<https://popularrresistance.org/9-8-million-people-employed-by-renewable-energy/>

This deadly problem is once again discussed also in **APPENDIX-2:**

The essence of climate problem is **7billion people dying** which non can imagine !!

Global warming is inevitable and 5 billion until 2043 , , may die if nothing is done in time ,and they are hidden from worldwide population .. says Jocelin Luz

<http://www.jucelinodaluz.com.br/aquecimento-global-inevitavel.htm>

The coming 2043 would not be due to CO2 global warming in rather slow tempo,but to rapid collapse by Arctic methane catastrophe.

<http://www.777true.net/Scientifical-Mechanism-of-Prophecy-by-Paranormalities.pdf>

Real Salvation needs **Quick Global Transition to Global Climate Wartime Regime in time !!.**

Following are the possible methods to accomplish the Quick Transition.

<http://www.777true.net/The-Broken-Paris-Accord-is-Final-Chance-to-Transit.pdf>

<http://www.777true.net/Imminent-Task-of-Us-All-to-Make-Global-Unite.pdf>

APPENDIX-1:The Very Important Related Topics.

Real Salvation needs **Quick Global Transition to Global Climate Wartime Regime in time !!**.

Following are the possible methods to accomplish the Quick Transition.

http://www.777true.net/It-is-not-politician_but-doctor_scientists_only-who-can-declare-patient_climate-worsened_to-urgently-go-hospital.pdf

APPENDIX-2:Notification on the Serious Diplomatic Relation with USA.

Recently author was obliged to disclose invisible, but **actual wartime relation** between Japan and USA due to **the man made earthquake attacks** in 1995/1/17(Hanshin-Awaji big earthquake) and 2001/3/11(Tohoku Fukushima big earthquake) by the USA warmonger.

http://www.777ture.net/the-convergence-to-genuine_J86-the-BETRAYERS.pdf

http://www.777ture.net/the-convergence-to-genuine_J72-Rockefeller-Must-Pay-Damage-Fukushima.pdf

It is his fundamental duty of a citizen toward winning **independent and liberty** in Japan.

<http://www.777ture.net/slavejapan.pdf>

Because Japan has been a politically outrageous stupid slave nation of **USA the warmonger** after the war, who has been dedicating big financial(**7T\$**) and military support to USA..

Also author himself was exploited to be poor by USA in science works in Japan.

<http://www.777true.net/Troublesome-Illusion-of-Elementary-Particle-Physics.pdf>

Thereby the struggle never be ceased until the winning or death of author. However **climate** is far important and **transcendental problem** than domestic one, so he will keep necessary relation with people in USA and the world . Note People in USA(also people in the world)is also slaves of the warmonger. Recently also the president had become a slave. Unique way to win great America may be decisive unite of the nation people against the warmonger.

They are **inherit of NAZIS** reincarnated in USA by so called operation paper clip. NAZIS's fundamental motive is against **Jew ideology**(Religion=justice, truth, brotherhood). That is, **injustice, lie, hatred with violence cult**. toward destruction. Thereby, nations(Japan, USA,

.....)with them could not help, but be **cursed** by Satan. This is nothing , but that had caused America the ugliest(**No1, or 2 the most hated nation in the world**). It is also fact that many American themselves have known it well and they have been struggling against the evil.

NAZIS are brutal enough, but also stupid enough toward **own suicide** by neglecting coming climate hell. The war business must be turned to **global climate fixing operation one**. As was showed at here, it could be **possible** by **global political unite** with the truth **in time**.