Brick & cement production by country *Table 1*

Brick Production		Cement Production	
Country	**%**	**Country**	**%**
China	67%	China	54%
India	16%	India	7%
Pakistan	3%	Vietnam	2%
Other	14%	Other	37%
Total	**100%**	**Total**	**100%**

Sources[1]

Top exporters & importers of steel 2019 *Table 2*

Steel Exporters		Steel Importers	
Country	**Mt**	**Country**	**Mt**
China	69	EU 28	45
Japan	36	US	32
Russia	33	Thailand	16

Source: World Steel Association[2]

Coal consumption for energy (Mt) *Table 3*

	1990		2013		2019	
China	709	23%	2,922	52%	2,866	53%
India	132	4%	488	9%	585	11%
USA	666	21%	614	11%	397	7%
EU	625	20%	399	7%	250	5%
Other	986	32%	1,168	21%	1,309	24%
Global	**3,118**	**100%**	**5,591**	**100%**	**5,407**	**100%**

Source: International Energy Agency[3]

[1]**Emissions from South Asian Brick Production & Potential Climate Impact** – Ellen Baum – Climate and Health Research Network, presentation – 11 March 2015 – Accessed at https://cdn.cseindia.org/ (August 2020); and

Cement Data Sheet, Mineral Commodity Summaries 2020 – US Geological Survey – https://pubs.usgs.gov – Accessed: August 2020

[2] **World Steel in Figures** – World Steel Association – https://www.worldsteel.org/ – 2019

[3] **Coal Information: Overview** – International Energy Agency – Statistics Report July 2020

Gasoline tax duties ***Table 4***

	Fuel Duty Tax as Percent of Retail Price
USA	19.9%
UK	65.5%
Canada	32.0%
Australia	36.2%
France	63.9%
Germany	63.6%
Average of all OECD countries	**55.1%**

Source: OECD[4]

Sources of electrical energy ***Table 5***

Electricity by Source	
Coal	38.0%
Natural gas	23.0%
Hydro power	16.2%
Nuclear	10.1%
Wind	4.8%
Oil	2.9%
Biofuel and waste	2.4%
Solar	2.1%
Geothermal, tide and other	0.5%
Total	**100.0%**

Source: International Energy Agency 2020 (2018 data)[5]

[4] **Taxation of premium unleaded (94-96 RON) gasoline (per litre), 2017** – OECD Tax Data Base – www.oecd.org – Accessed: September 2020

[5] **Electricity Information Overview 2020 (data for 2018)** – International Energy Agency – July 2020

Costs of Fire vs. Alternatives to Fire *Table 6*

	Price 2019 Average ($/MWh)	Costs of Reliable Electricity from Alternatives to Fire (Wind & Solar Power) As Stored In	
		Electrical Batteries ($/MWh)	Hydrogen ($/MWh)
Onshore wind power	53.0	n.a.	**145.6**
Offshore wind power	115.0	n.a.	**315.9**
Solar power	68.0	**176-208**	**186.8**
Oil ($64.00/bbl; Brent)	**34.1**	n.a.	n.a.
US Coal ($38.53/delivered ton)	**7.2**	n.a.	n.a.
US natural gas ($2.57/mmbtu)	**8.8**	n.a.	n.a.
UK nuclear (£92.5/MWh)	**118.1**	n.a.	n.a.

Sources[6]

[6] **Energy conversion calculators** – US Energy Information Administration – https://www.eia.gov – Accessed: October 2020;

Renewable Power Generation Costs in 2019 – International Renewable Energy Agency – 2020;

Electrical Energy to Hydrogen Conversion Efficiency from HgasXMW Product Specification – ITM Power – https://www.itm-power.com – Accessed: October 2020

Hydrogen to Electrical Energy Conversion Efficiency from Green Hydrogen in Developing Countries – World Bank, ESMAP – 2020;

US energy prices – US Energy Information Administration – https://www.eia.gov – Accessed: December 2020; and

Hinkley Point C – UK BEIS – https://www.gov.uk – Accessed: December 2020

Energy supply by source *Table 7*

	World	USA	EU
Oil	31.5%	36.7%	32.8%
Natural Gas	22.8%	32.1%	24.6%
Coal	26.9%	11.3%	14.3%
Biofuels	9.3%	4.9%	9.8%
Total from Fire	**90.5%**	**85.0%**	**81.5%**
Nuclear	4.9%	8.5%	13.4%
Hydro	2.5%	2.5%	1.6%
Wind		2.8%	1.9%
Solar	2.1%	1.0%	1.0%
Other		0.1%	0.6%
Total	**100.0%**	**100.0%**	**100.0%**
Year of data	*2018*	*2019*	*2017*
Year of publication	*2020*	*2020*	*2020*
Source	*IEA*	*EIA*	*IEA*

Sources: International Energy Agency, US Energy Information Administration[7]

Rate of increase in the Earth's forested surface area *Table 8*

	American Football Fields	Square Kilometers	Square Miles
Per year	11,922,642.2	64,000.0	24,710.5
Per day	32,644.3	175.2	67.7
Per hour	1,360.2	7.3	2.8
Per minute	22.7	0.1	0.0
Per second	0.4	0.0	0.0

Source[8]

[7] **World Energy Balances 2020 (Data for 2018)** – International Energy Agency – July 2020;

US primary energy consumption by energy source, 2019 – US Energy Information Administration – https://www.eia.gov – Accessed: January 2021; and

European Union 2020, Energy Policy Review (Data for 2017) – International Energy Agency

[8] **Global land change from 1982 to 2016** – Xiao-Peng Song, Matthew C. Hansen, Stephen V. Stehman, Peter V. Potapov, Alexandra Tyukavina, Eric F. Vermote & John R. Townshend – Nature – 8 August 2018.

Rate of increase in the Earth's green leafy surface area ***Table 9***

	American Football Fields	Square Kilometers	Square Miles
Per year	55,887,385.3	300,000.0	115,830.6
Per day	153,023.0	821.4	317.2
Per hour	6,376.0	34.2	13.2
Per minute	106.3	0.6	0.2
Per second	1.8	0.0	0.0

Source[9]

Changes: CO_2, Greening, Forests & Temperature ***Table 10***

	Increase per Decade	Period
Atmospheric CO_2	5.1%	1975-2019
Forested area of Earth (net of losses)	2.0%	2000-2017
Green area of Earth (net of losses)	2.3%	1982-2016
Global surface temperatures	0.15-0.20°C (0.27-0.36°F)	1975-2019

Sources[10]

[9] **China and India lead in greening of the world through land-use management** – Chi Chen, Taejin Park, Xuhui Wang, Shilong Piao, Baodong Xu, Rajiv K. Chaturvedi, Richard Fuchs, Victor Brovkin, Philippe Ciais, Rasmus Fensholt, Hans Tømmervik, Govindasamy Bala, Zaichun Zhu, Ramakrishna R. Nemani & Ranga B. Myneni – Nature Sustainability – 11 February 2019

[10] **Monthly Average Mauna Loa CO_2** – US National Oceanographic and Atmospheric Administration – https://www.esrl.noaa.gov – Accessed: August 2020;

China and India lead in greening of the world through land-use management – Chi Chen, Taejin Park, Xuhui Wang, Shilong Piao, Baodong Xu, Rajiv K. Chaturvedi, Richard Fuchs, Victor Brovkin, Philippe Ciais, Rasmus Fensholt, Hans Tømmervik, Govindasamy Bala, Zaichun Zhu, Ramakrishna R. Nemani & Ranga B. Myneni – Nature Sustainability – 11 February 2019;

Global land change from 1982 to 2016 – Xiao-Peng Song, Matthew C. Hansen, Stephen V. Stehman, Peter V. Potapov, Alexandra Tyukavina, Eric F. Vermote & John R. Townshend – Nature – 8 August 2018; and

World of Change: Global Temperatures – NASA Earth Observatory – https://earthobservatory.nasa.gov – Accessed: February 2021