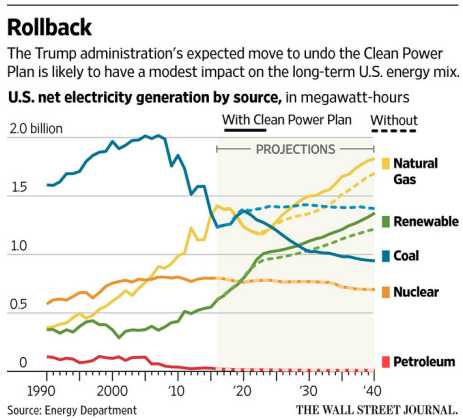
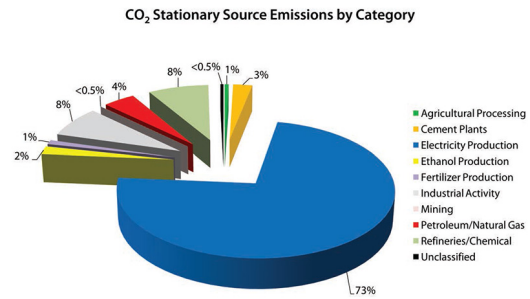
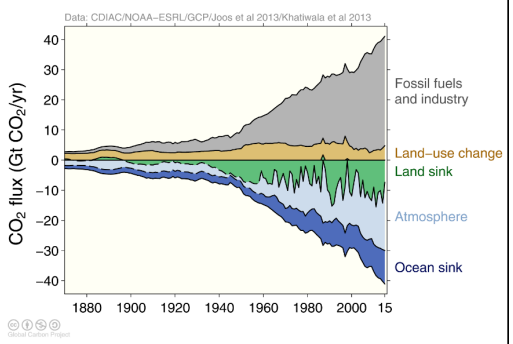
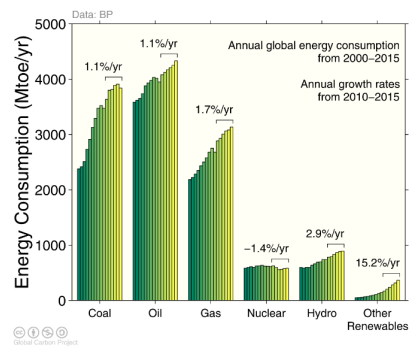
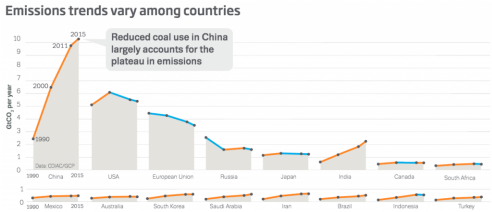
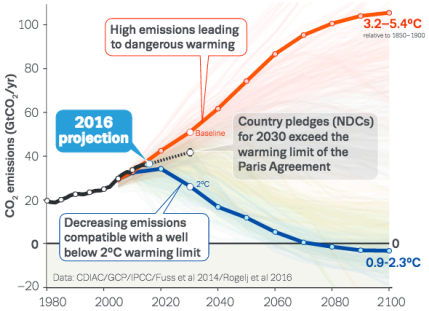

Rollback
The Trump administration's expected move to undo the Clean Power Plan is likely to have a modest impact on the long-term U.S. energy mix.
U.S. net electricity generation by source, in megawatt-hours
With Clean Power Plan
Without
2.0 billion
1.5
1.0
0.5
0
PROJECTIONS
Natural Gas
Renewable
Coal
Nuclear
Petroleum
1990
2000
'10
'20
'30
'40
Source: Energy Department
THE WALL STREET JOURNAL.

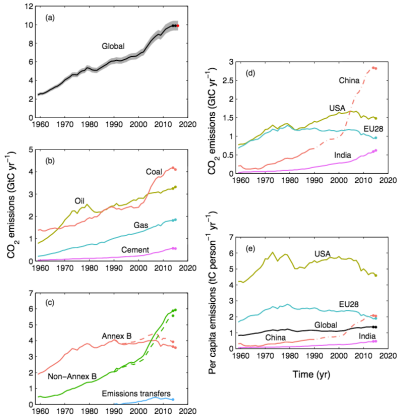

CO2 Stationary Source Emissions by Category
8%
<0.5%
1%
3%
<0.5%
4%
8%
1%
2%
73%
Agricultural Processing
Cement Plants
Electricity Production
Ethanol Production
Fertilizer Production
Industrial Activity
Mining
Petroleum/Natural Gas
Refineries/Chemical
Unclassified

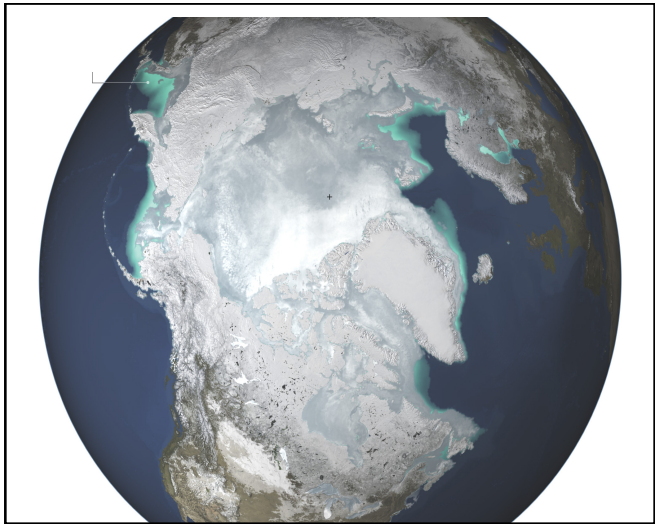

Data: CDIAC/NOAA–ESRL/GCP/Joos et al 2013/Khatiwala et al 2013
CO2 flux (Gt CO2/yr)
40
30
20
10
0
−10
−20
−30
−40
1880
1900
1920
1940
1960
1980
2000
15
Fossil fuels and industry
Land–use change
Land sink
Atmosphere
Ocean sink

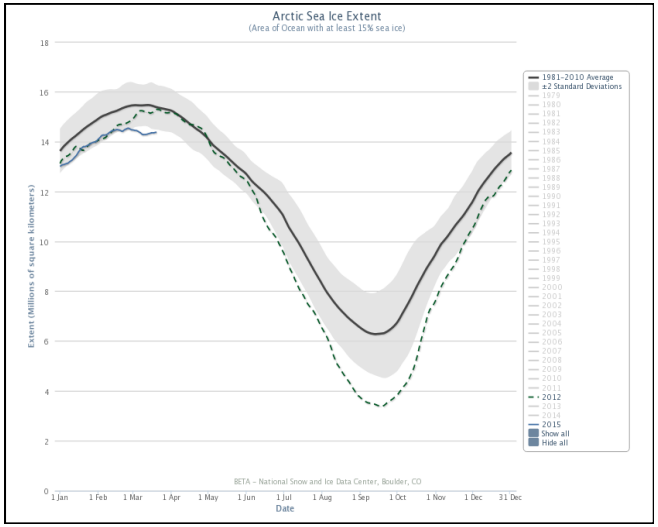

Data: BP
Energy Consumption (Mtoe/yr)
5000
4000
3000
2000
1000
0
Annual global energy consumption from 2000–2015
Annual growth rates from 2010–2015
1.1%/yr
1.1%/yr
1.7%/yr
−1.4%/yr
2.9%/yr
15.2%/yr
Coal
Oil
Gas
Nuclear
Hydro
Other Renewables

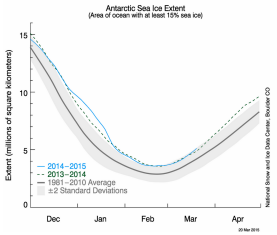

Emissions trends vary among countries
Reduced coal use in China largely accounts for the plateau in emissions
1990
2000
2011
2015
Data: CDIAC/GCP
China
USA
European Union
Russia
Japan
India
Canada
South Africa
Mexico
Australia
South Korea
Saudi Arabia
Iran
Brazil
Indonesia
Turkey

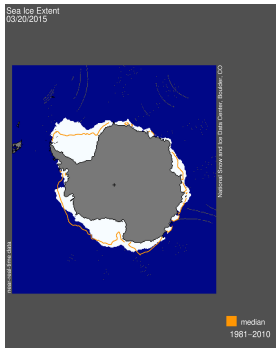

High emissions leading to dangerous warming
3.2–5.4°C
relative to 1850–1900
2016 projection
Baseline
Country pledges (NDCs) for 2030 exceed the warming limit of the Paris Agreement
2°C
Decreasing emissions compatible with a well below 2°C warming limit
0
0.9-2.3°C
Data: CDIAC/GCP/IPCC/Fuss et al 2014/Rogelj et al 2016
CO2 emissions (GtCO2/yr)
100
80
60
40
20
0
−20
1980
2000
2020
2040
2060
2080
2100

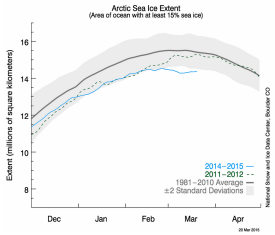

(a)
Global
(b)
Coal
Oil
Gas
Cement
(c)
Annex B
Non–Annex B
Emissions transfers
(d)
China
USA
EU28
India
(e)
USA
EU28
Global
China
India
CO2 emissions (GtC yr−1)
Per capita emissions (tC person−1 yr−1)
Time (yr)
1960
1970
1980
1990
2000
2010
2020

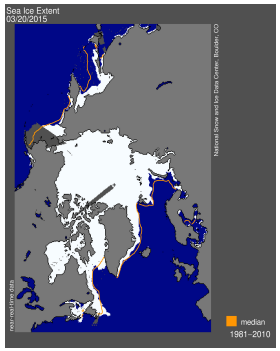


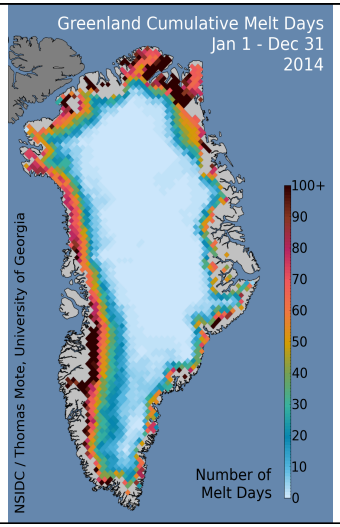

Arctic Sea Ice Extent
(Area of Ocean with at least 15% sea ice)
Extent (Millions of square kilometers)
Date
1981-2010 Average
±2 Standard Deviations
2012
2015
Show all
Hide all
BETA - National Snow and Ice Data Center, Boulder, CO

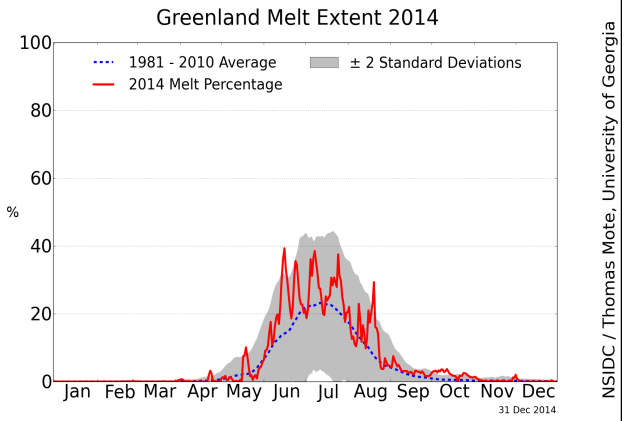

Antarctic Sea Ice Extent
(Area of ocean with at least 15% sea ice)
Extent (millions of square kilometers)
2014–2015
2013–2014
1981–2010 Average
±2 Standard Deviations
Dec
Jan
Feb
Mar
Apr
National Snow and Ice Data Center, Boulder CO

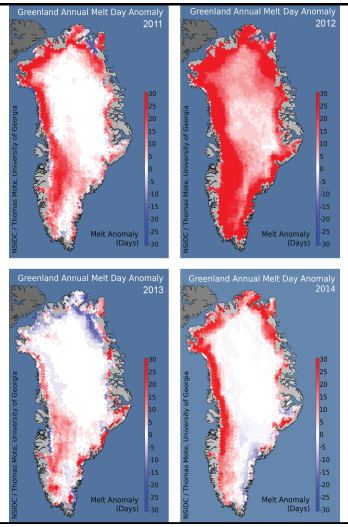

Sea Ice Extent
03/20/2015
median
1981–2010


Arctic Sea Ice Extent
(Area of ocean with at least 15% sea ice)
Extent (millions of square kilometers)
2014–2015
2011–2012
1981–2010 Average
±2 Standard Deviations
Dec
Jan
Feb
Mar
Apr
National Snow and Ice Data Center, Boulder CO


Sea Ice Extent
03/20/2015
median
1981–2010


Greenland Cumulative Melt Days
Jan 1 - Dec 31
2014
100+
90
80
70
60
50
40
30
20
10
0
Number of
Melt Days
NSIDC / Thomas Mote, University of Georgia


Greenland Melt Extent 2014
1981 - 2010 Average
2014 Melt Percentage
± 2 Standard Deviations
%
100
80
60
40
20
0
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
31 Dec 2014
NSIDC / Thomas Mote, University of Georgia


Greenland Annual Melt Day Anomaly
2011
Greenland Annual Melt Day Anomaly
2012
Greenland Annual Melt Day Anomaly
2013
Greenland Annual Melt Day Anomaly
2014
Melt Anomaly
(Days)