Energy Strategies to Power our Future

Session co-chairs:
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and
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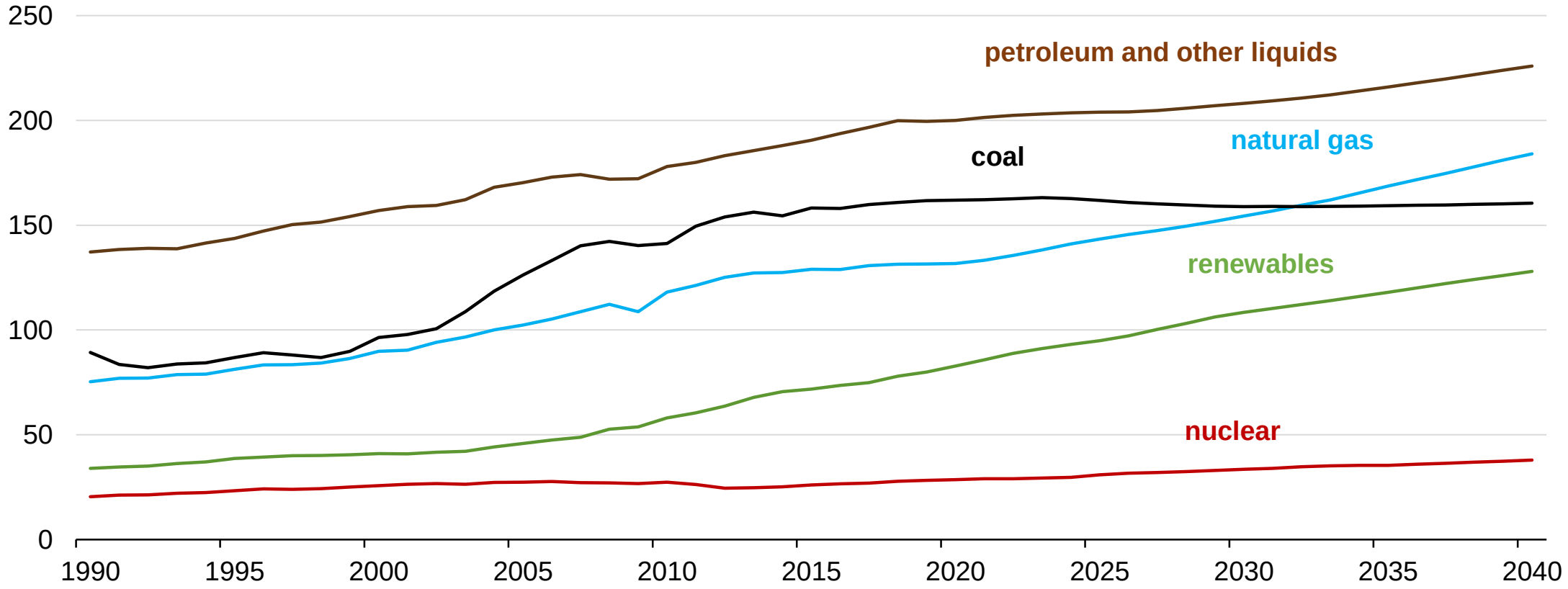
743 M
(Europe)
323 M (US)
4.4 B (Asia)
1.2 B (Africa)

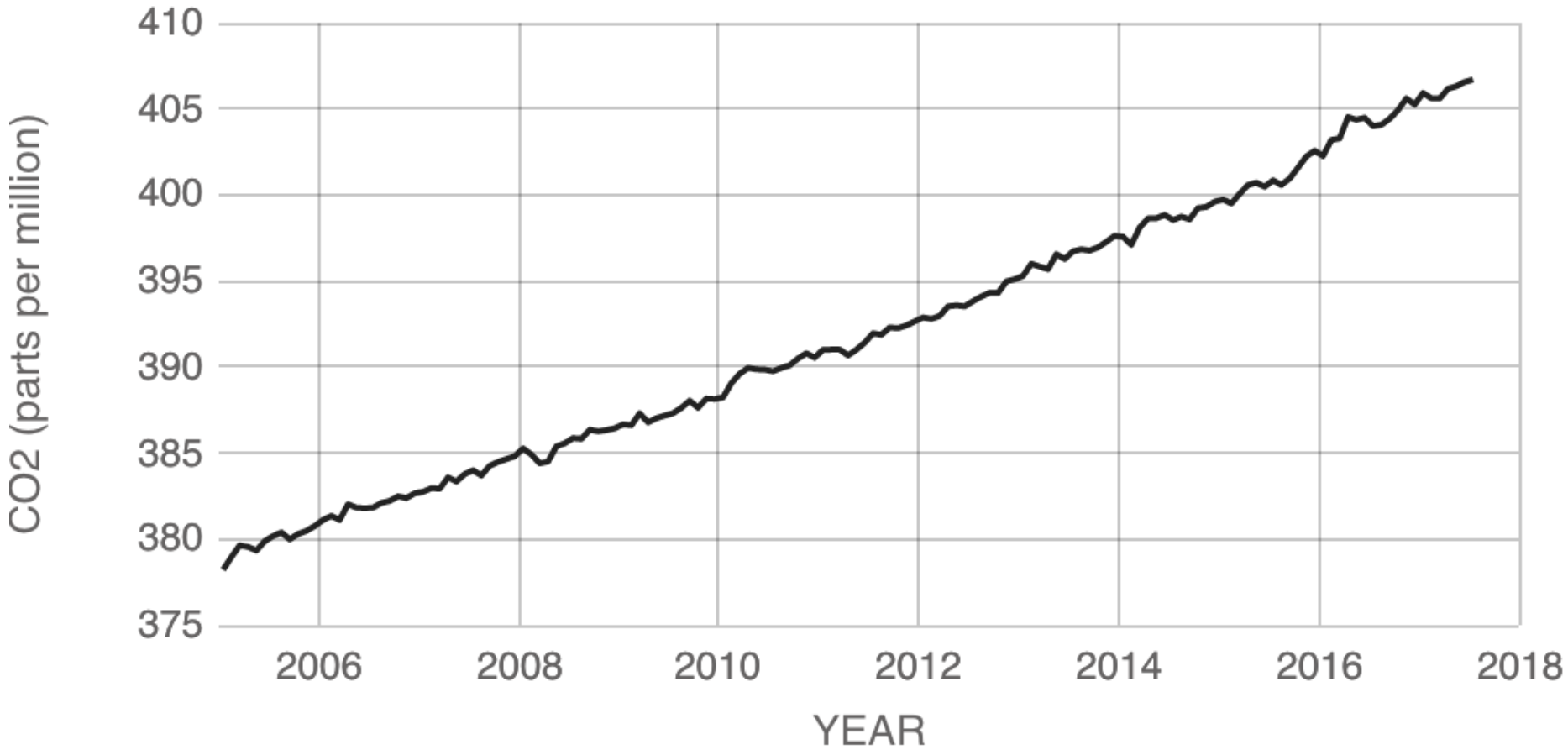
World energy consumption rises 28% between 2015 and 2040



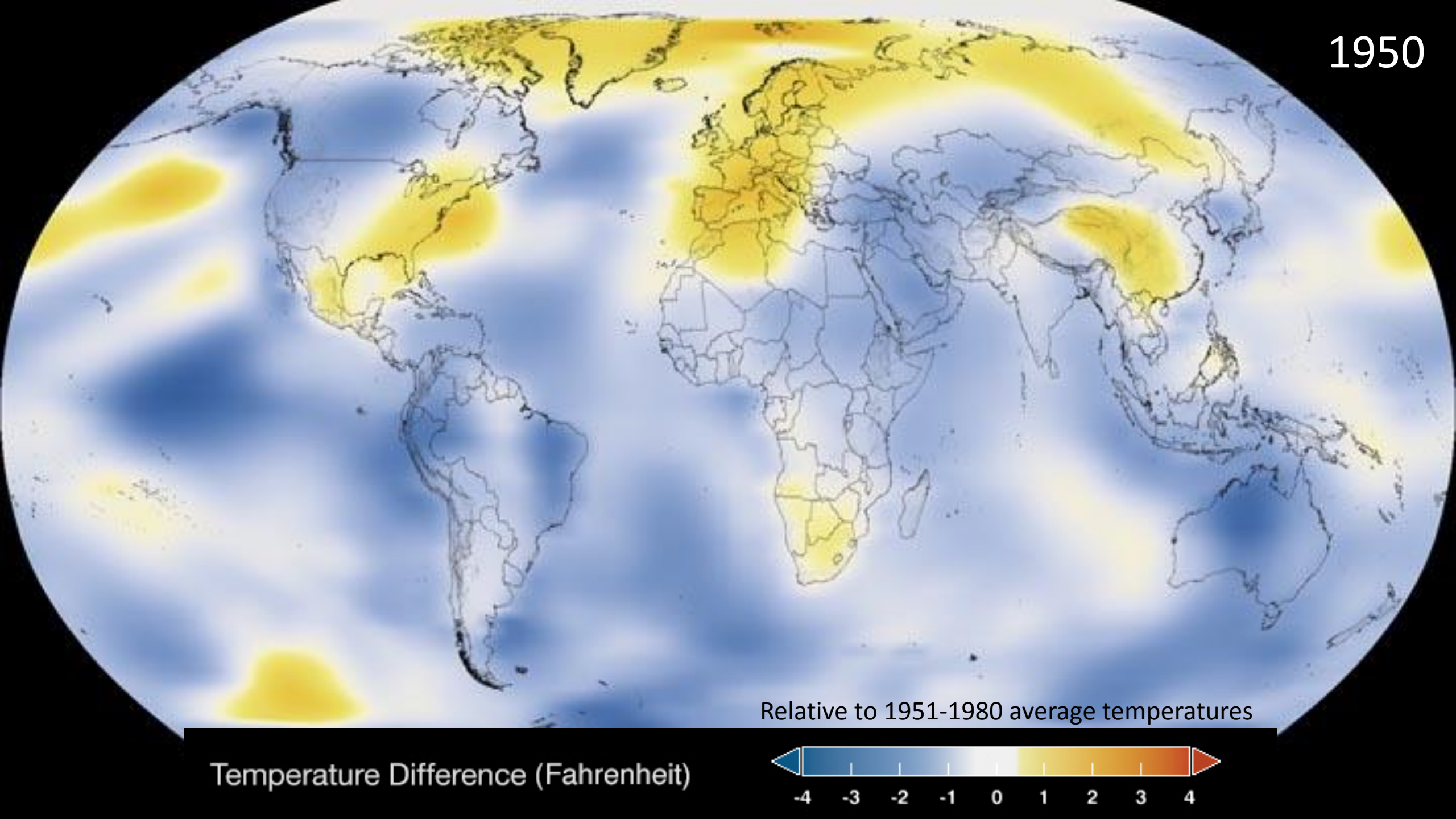
- **World energy consumption by energy source**
- quadrillion Btu

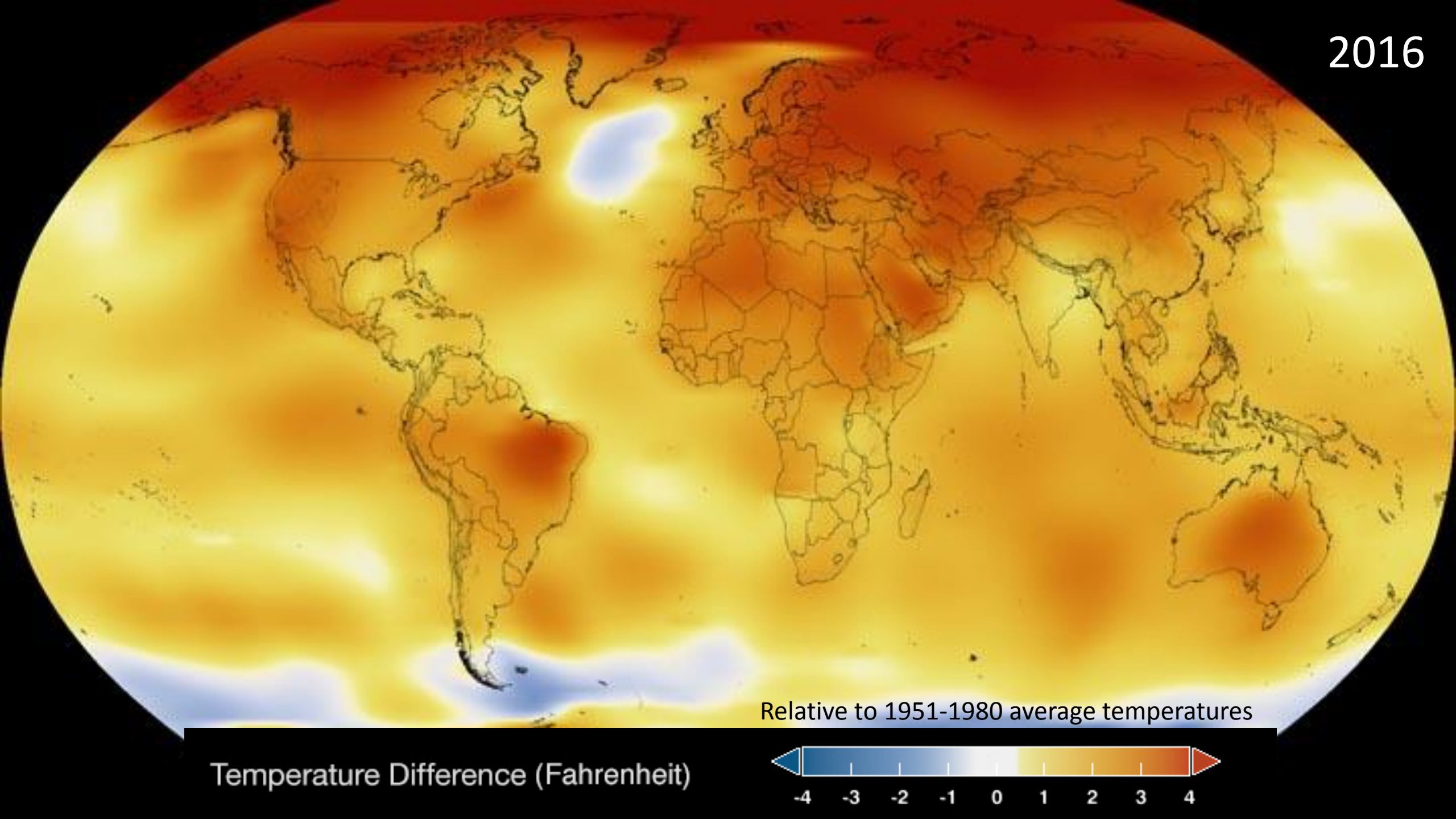
Source: US EIA

Atmospheric CO_2 continues to increase

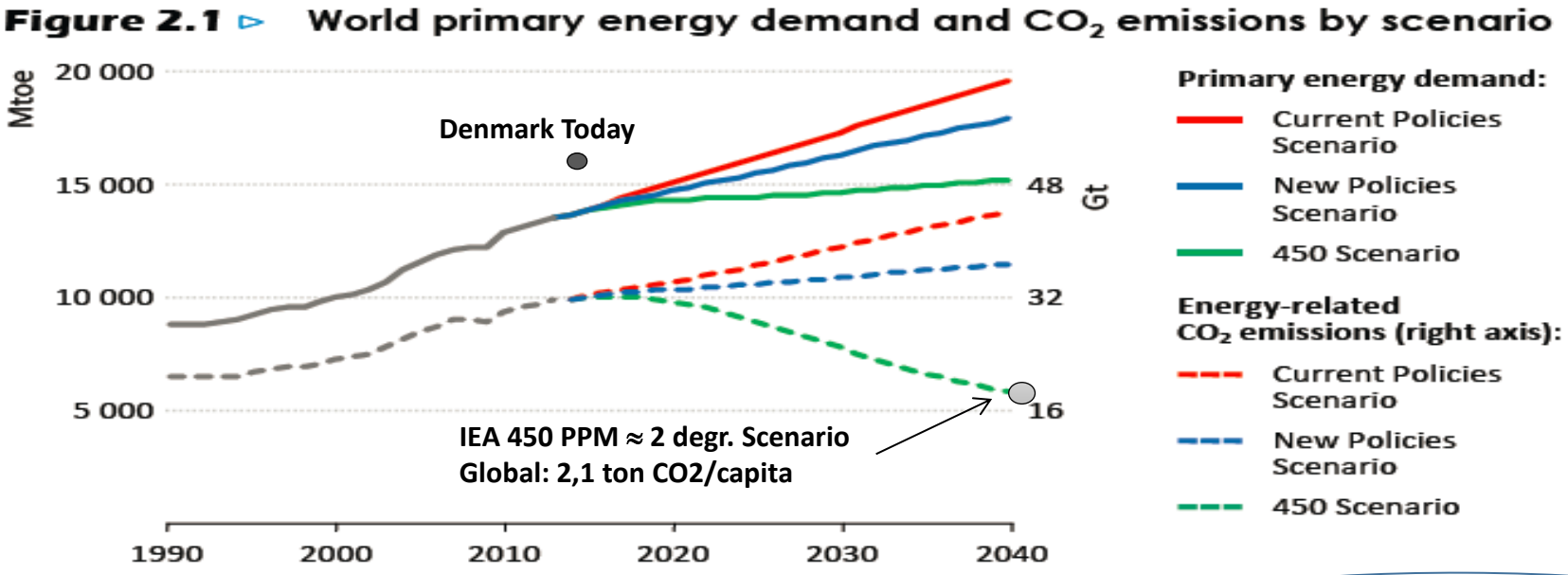


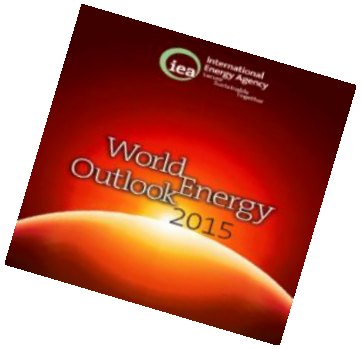
Source: climate.nasa.gov


1950
Relative to 1951-1980 average temperatures
Temperature Difference (Fahrenheit)
-4 -3 -2 -1 0 1 2 3 4


2016
Relative to 1951-1980 average temperatures
Temperature Difference (Fahrenheit)
-4
-3
-2
-1
0
1
2
3
4

Global context – IEA WEO and COP 21





Target:
"Well below 2 degrees"

How do we power the future?

Energy Strategies to Power Our Future

Tim Heidel (National Rural Electric Cooperative Association)
"Agile Fractal Systems: Re-Envisioning Power System Architecture"

Bouchra Bouqata (GE Renewable Energy)
"Big Data & Analytics for Wind O&M: Opportunities, Trends and Challenges in the Industrial Internet"

Mariana Bertoni (Arizona State University)
"Across Dimensions and Scales: How Imaging and Machine Learning Will Help Design Tomorrow's Energy Conversion Devices"

Khurram Afridi (University of Colorado Boulder)
"Wireless Charging of Electric Vehicles"