

The effects of climate change can be expected to shave 11 percent to 14 percent off global economic output by 2050 compared with growth levels without climate change – Swiss Re, 2020

“The report models the mean damage costs of ‘business as usual’ action on climate change at \$5.4 trillion USD a year by 2070 ... Accounting for these damages will lead to a 10% reduction in GDP growth rate by 2050 ...” - Carbon Disclosure Project & LSE, 2020

## **McKinsey Pegs the Price Tag of a Livable Climate at \$9.2 Trillion a Year**

A new analysis estimates the level of investment needed to reach net-zero emissions by 2050. It's a lot, but less than the cost of inaction.

Under current policy pathways, climate change could reduce U.S. GDP by 3 to 10 percent by the end of this century. -- Network for Greening the Financial System

If variance is wide, specific tolls are acute and likely to bring knock-on macro-instability....

The damage from the **2011 floods in Thailand** amounted to around 10 percent of Thailand's GDP, not even considering all the indirect costs through a loss in economic activity in the country and abroad.

By some estimates, the total costs of the **2018 wildfires in California** were up to \$350 billion, or 1.7 percent of U.S. GDP.

# Fiscal and budgetary impacts ...

“Climate change could lead to an annual Federal revenue loss at the end of the century of 7.1 percent, which in today’s dollars would equal \$2 trillion per year. The Federal Government could spend between an additional \$25 billion to \$128 billion annually on just six types of Federal expenditure: coastal disaster relief, flood insurance, crop insurance, healthcare insurance, wildland fire suppression, and flooding at Federal facilities.”

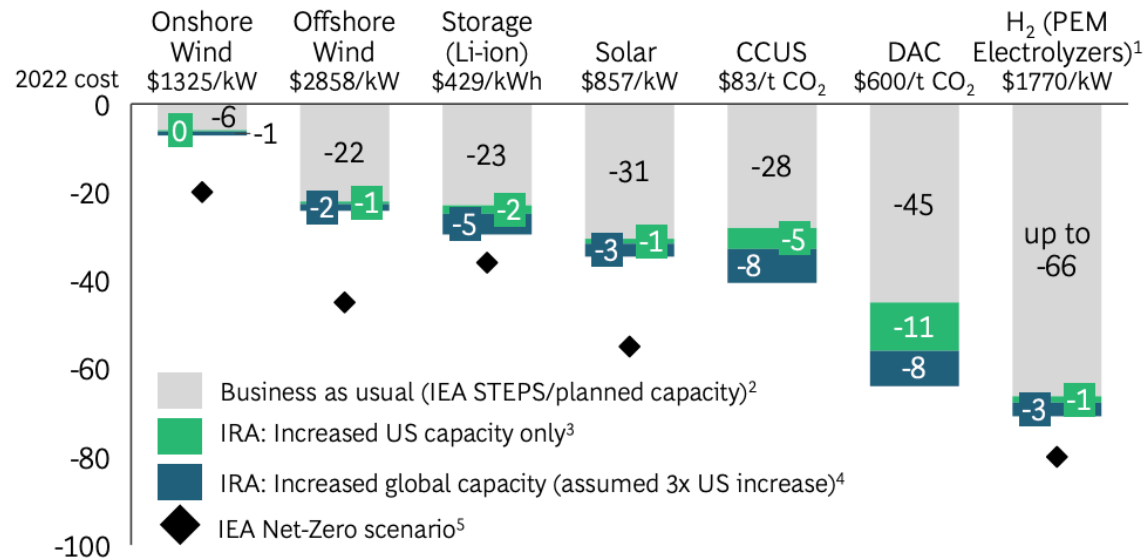
# Jobs estimates also inspire humility...

- A new report released today from the Deloitte Economics Institute shows that the United States economy could gain \$3 trillion if it rapidly decarbonizes over the next 50 years. This once-in-a-generation transformation could add nearly **1 million more jobs to the US economy by 2070.** (Deloitte, 2020)
- A new analysis by the BlueGreen Alliance and the Political Economy Research Institute (PERI) at the University of Massachusetts Amherst has calculated that the Inflation Reduction Act signed into law by President Biden in 2022 will create **over 9 million “climatetech” jobs by 2032.** (BGA / Umass Amherst, Fall 2022)
- **100,000 Green Jobs Announced** Since US Adopted Climate Law, Study Finds (Bloomberg / Climate Power, Feb 2023)

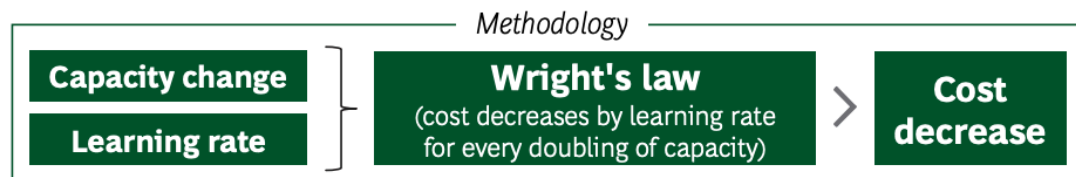
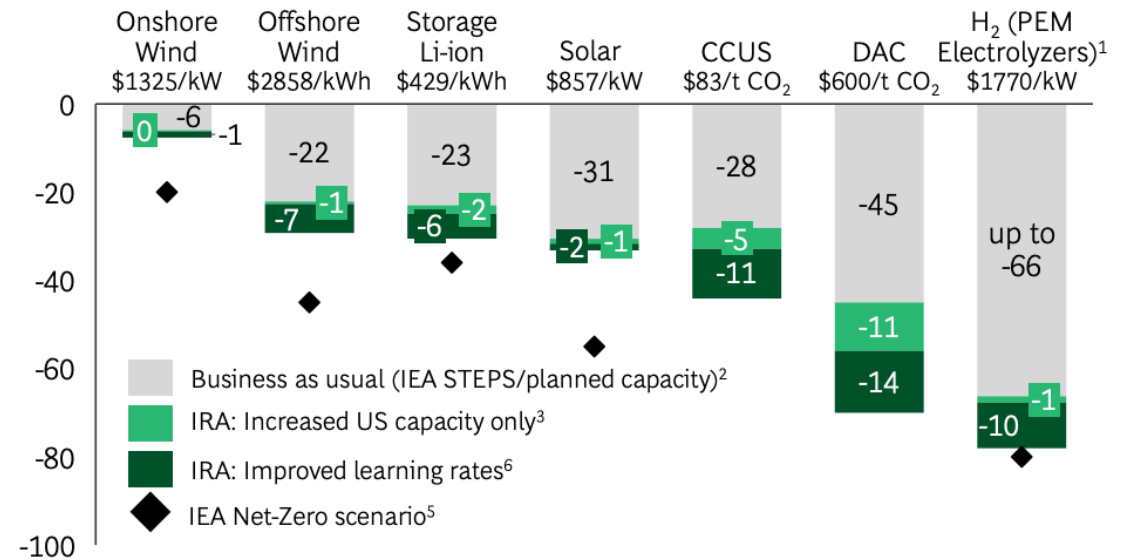
“*Incremental global cost reductions due to IRA range from 1-25% by 2030, with greatest gains for CCUS, DAC, and H<sub>2</sub> electrolyzers*”

See pg. 10 for US added capacity

Capacity effect of IRA: Incremental technology cost reduction due to added US capacity (base case) and additional global deployment



Learning rate effect of IRA: Incremental cost reduction due to de-risked commercialization (US moving early) and innovation



Source: Boston Consulting Group, 2022

© 2022 Boston Consulting Group. All rights reserved.

\$1-7/ton