

EPA Clean Power Plan

What Now?

PRESENTED TO

Harvard Electricity Policy Group

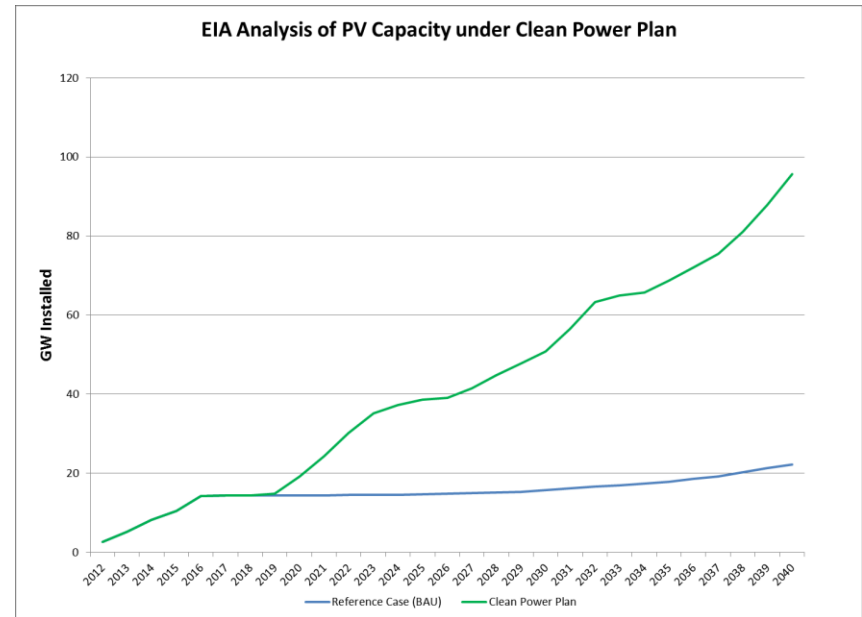
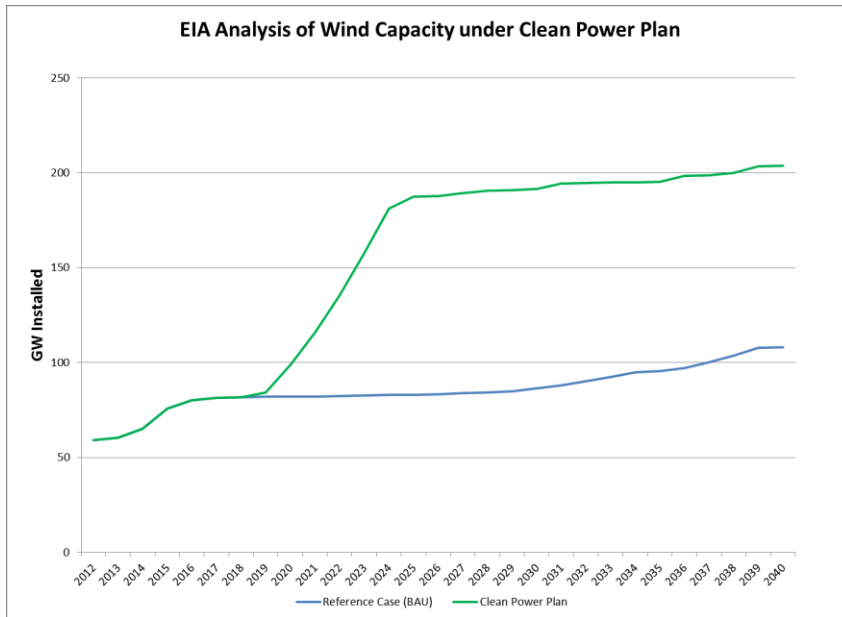
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THE **Brattle** GROUP

The CPP seems to push a significant expansion of renewable energy sources

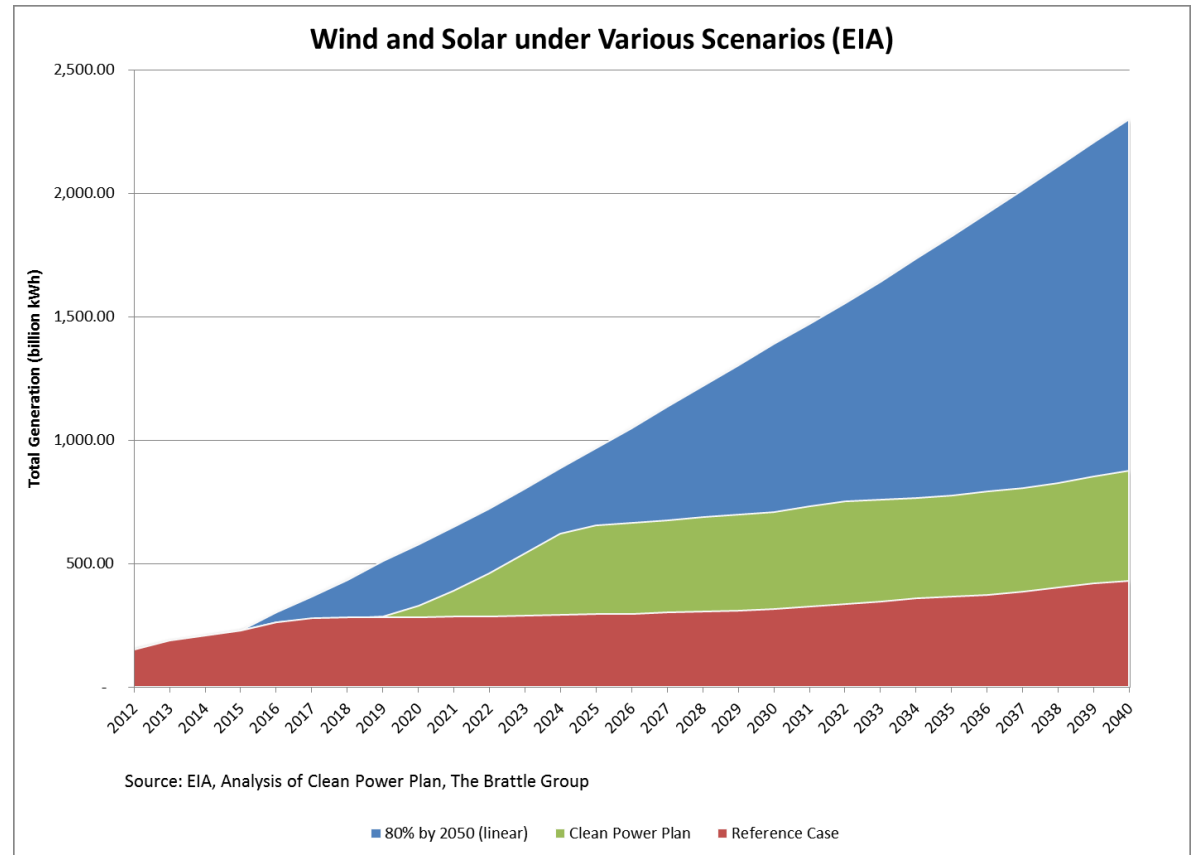


- Relative to Business As Usual the EIA's modeling of the CPP shows significant acceleration of deployment of both wind and solar PV
- Caveat: EIA's projections are always based on EXISTING US laws and regulations
 - Assumes no changes to current state RPS laws
 - Unclear how reliable cost projections and distributed resources deployment dynamics are

But to meet longer-term decarbonization targets, RE needs to increase faster than CPP implies...

EIA modeling suggests a significant uptick in RE deployment until 2025, then back to BAU growth rates

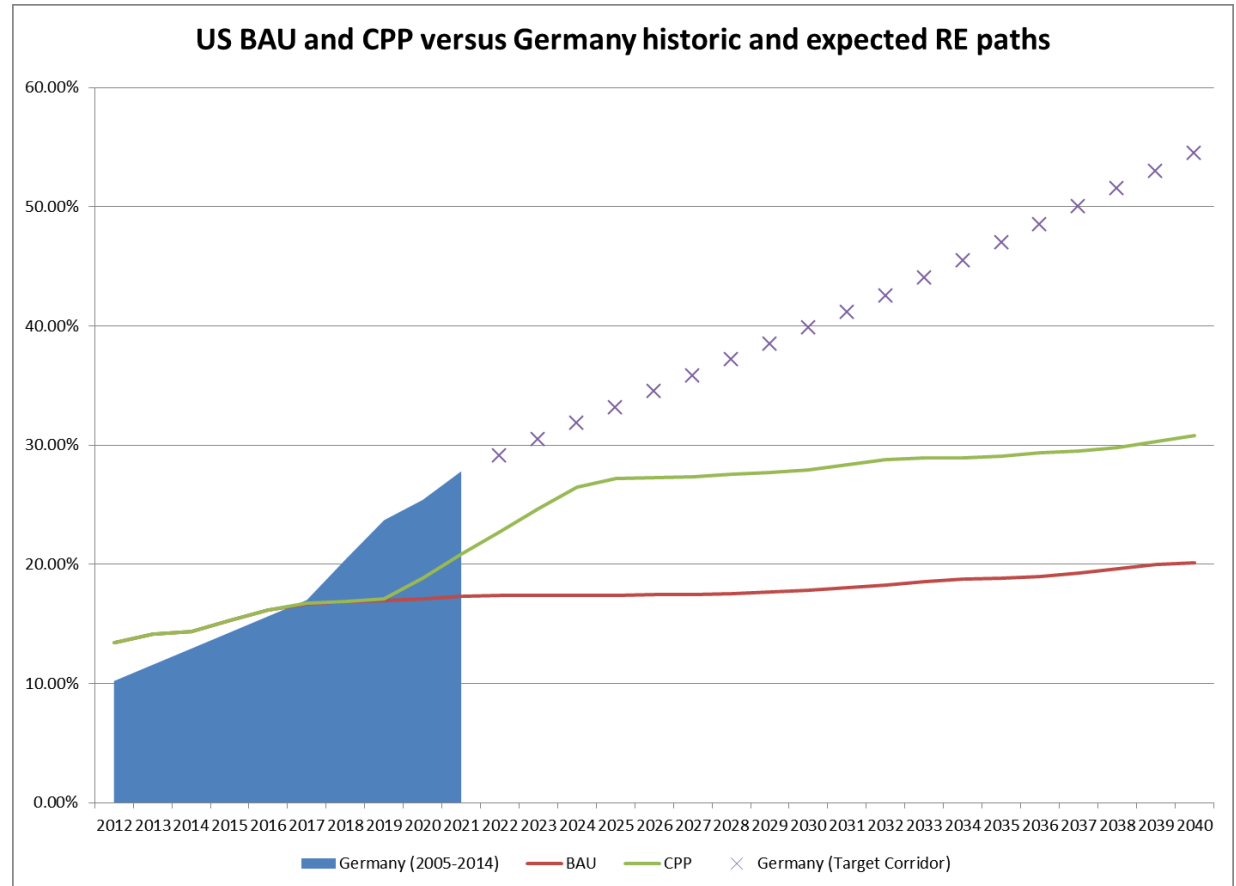
- By 2040 very significant gap to where we need to be to decarbonize
- Hopeful: Recent dynamics for wind and PV suggest EIA projections may not be realistic



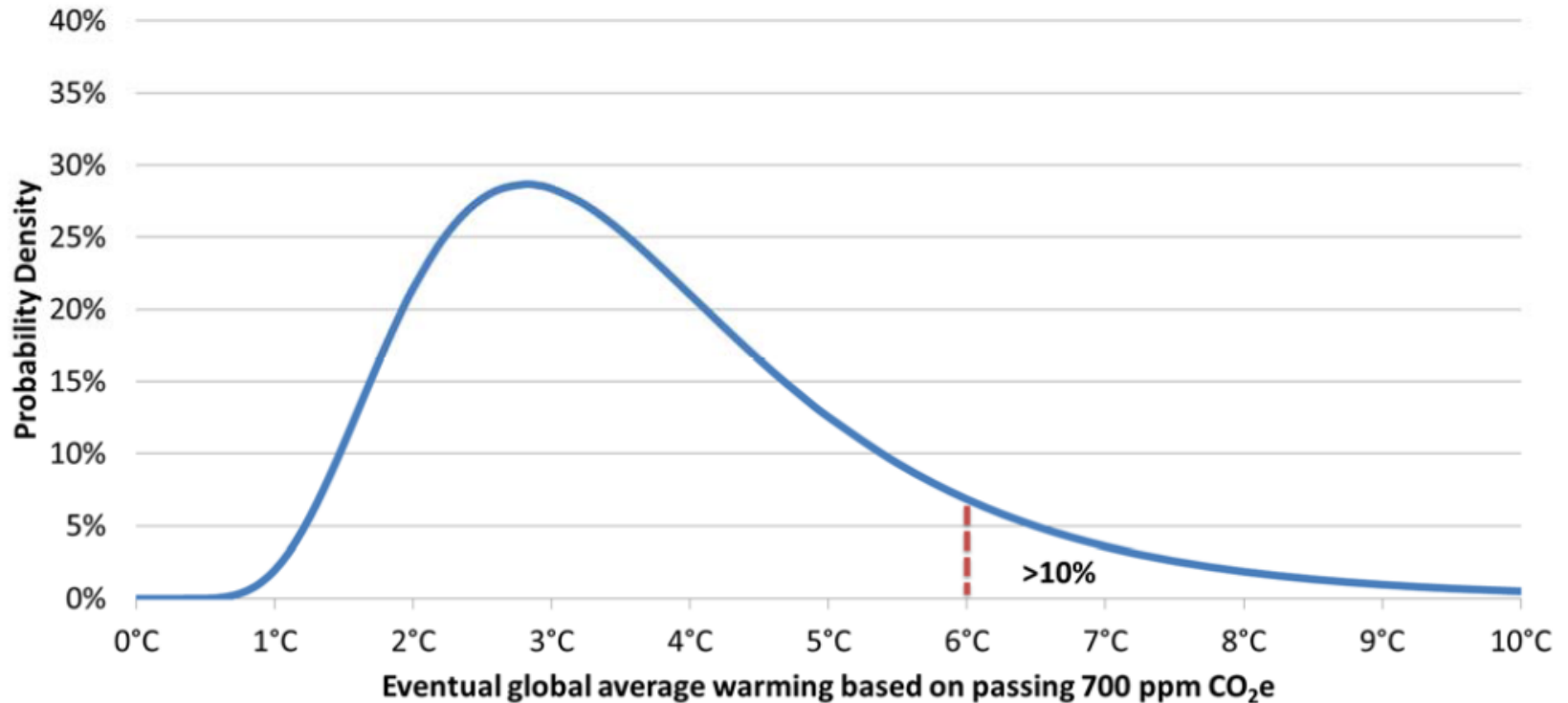
...and are not that ambitious relative to what has been observed

With similar long-term targets, Germany has ramped up faster

- No decline in reliability
- Some reserves have actually decreased (we learn how to deal with RE)
- Critical
 - Long-lead time investments such as transmission
 - Longer term “storage”



If we don't want to gamble the CPP is likely not the binding constraint



Source: Frank J Convery and Gernot Wagner, Reflections—Managing Uncertain Climates: Some Guidance for Policy Makers and Researchers

Thank-you



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Dr. Weiss is an energy economist with 20 years consulting experience. He leads the Brattle Group's climate change practice and specializes in issues broadly motivated by climate change concerns, such as renewable energy, energy efficiency, energy storage, the interaction between electricity, gas and transportation, and carbon pricing.

Jurgen has worked on solar issues in North America, Germany, Japan and Saudi Arabia. He has testified in Federal and State Court and in front of regulatory agencies on issues related to renewable energy.

He holds an MBA from Columbia University and a PhD in Business Economics from Harvard University. He is a native of Germany and works in North America, Europe and the Middle East.

- Disclaimer (always needed): The content of this presentation reflects my own (not the Brattle Group's) opinions. Any errors are entirely my responsibility.