

Business As Usual Will Not Result in a Decarbonized Grid. Directed Action Is Required to Accelerate Wind Deployment

Accelerating Deployment: An Action Plan To Reach High Levels of U.S. RE Deployment

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Challenge Areas

Market Sectors	Community and Human Use Siting	Environmental Siting and Mitigation	Integration of Wind Power into the Future Electricity Grid	Supply Chain and Workforce Development Needs	Policies, Incentives, and Market Development
Distributed Wind	✓	✓	✓	✓	✓
Utility Scale on Private Lands	✓	✓	✓	✓	✓
Utility Scale on Public Lands	✓	✓	✓	✓	✓

Accelerating the deployment of land-based wind energy will require addressing key siting and deployment challenges that are outside the control of single actors. A strategy is needed to allow a collaborative approach to ensuring an energy transition that is good for businesses, utilities, communities, and people.

Methods

- Understand needs to accelerate land-based wind deployment
 - Utility scale (including private and public lands)
 - Distributed (including public facilities)
- Identify and describe challenges to wide-scale deployment
- Provide a roadmap of research and deployment actions to be undertaken through government and industry partnership
- Identify actors needed to facilitate change.

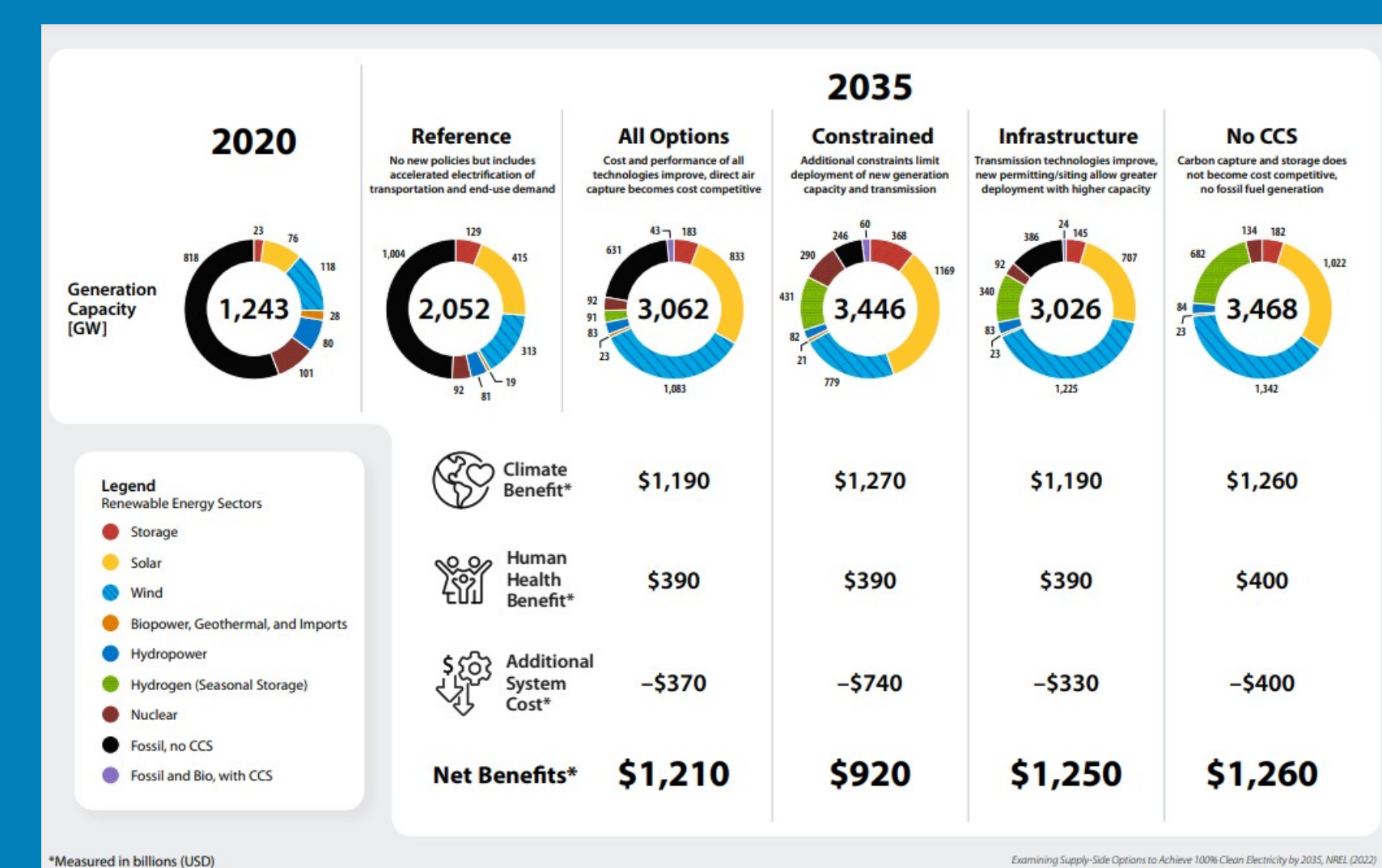
Results

- Land-based wind energy will be key to reaching a decarbonized grid.
- Collaboration, combined with stable market policy, will be needed to address important siting and environmental concerns.
- 40 tasks with over 130 actions that can be led by government with engagement by industry have been identified to overcome challenges to a decarbonized energy sector.
- The cost of investments needed to allow wide-scale deployment of land-based wind is small compared to the potential savings of a successful clean energy transition.

Discussion

- How do we think beyond Levelized Cost of Energy to address social and environmental co-design?
- Will an “all-of-government” approach be possible to support this transition when success does not depend on all of government?
- How can we ensure success through cross-industry collaboration?

Decarbonization Pathways



There are many pathways to the decarbonization of the electricity grid based on renewable energy by 2035, but all call for very large deployments of wind and solar energy (Denholm 2022). These deployment levels can be achieved but not if guided just by market forces alone.

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References

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