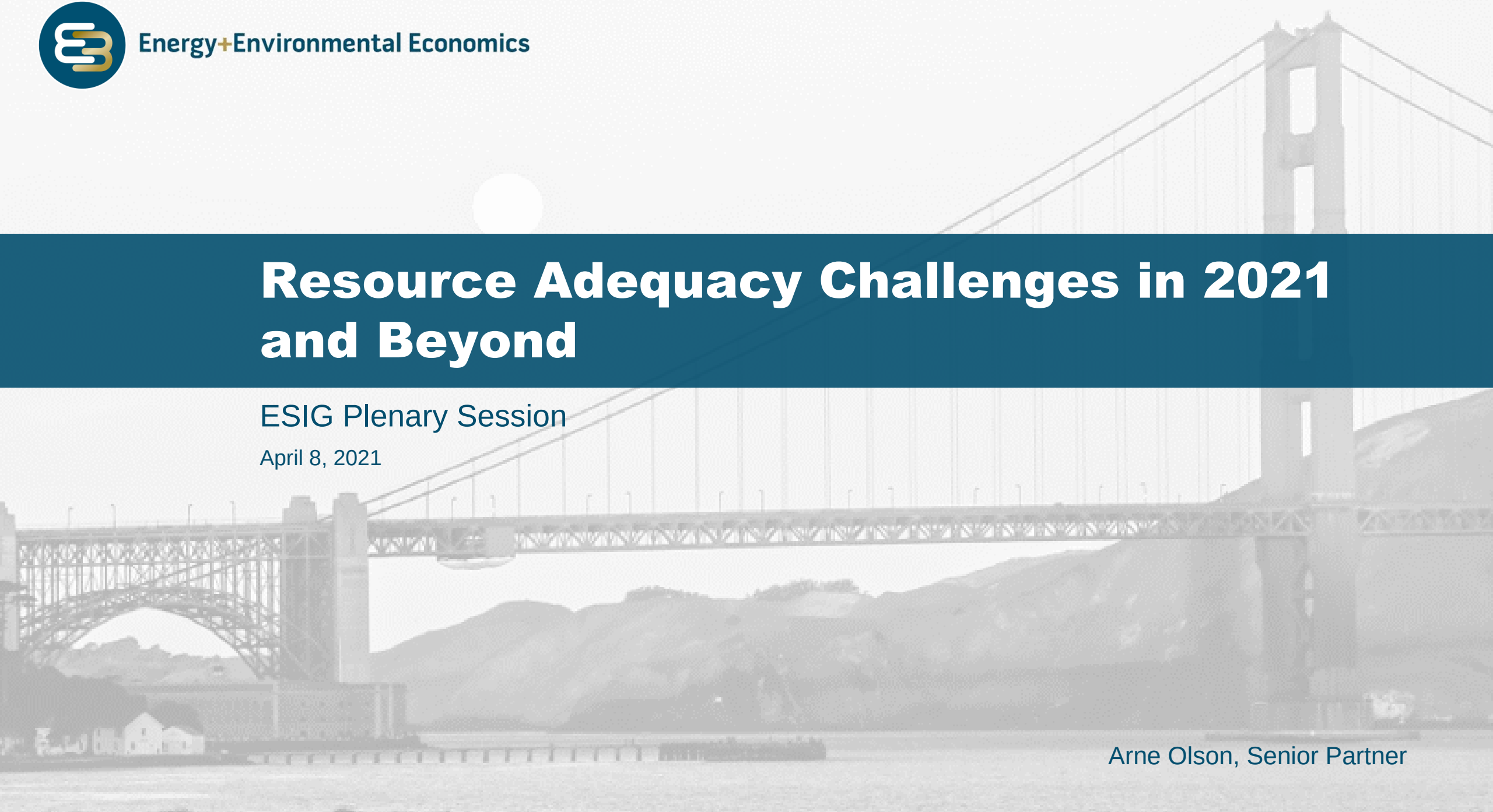
Energy+Environmental Economics

Resource Adequacy Challenges in 2021 and Beyond

ESIG Plenary Session

April 8, 2021



Arne Olson, Senior Partner

Four points about Resource Adequacy today

1. **Not everyone is using best practices today**
   - Organized capacity markets and some vertically-integrated utilities in the South are doing serious Loss-of-Load Probability Work
   - Utilities in the Western U.S. have fallen into the habit of relying on “the market” for purchases of energy and capacity rather than building or contracting for specified resources
2. **Today’s best practices may not be enough to ensure resource adequacy in the future**
   - A changing climate will mean more frequent, and more severe, extreme weather events
3. **The transition to clean energy resources is creating challenges for resource adequacy**
   - Systems with high penetrations of wind and solar can be resource adequate, however, they do require backup from firm generation capacity
   - Gas capacity will be needed until a low-carbon substitute is available, however it can run less and less frequently as more wind and solar are added
4. **We need to know when to admit the market has failed and take steps to limit the damage**
   - The Texas event of 2021, like the California event 20 years before it, resulted in huge transfers from consumers to producers that served no economic efficiency-related purpose

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Thank you!

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