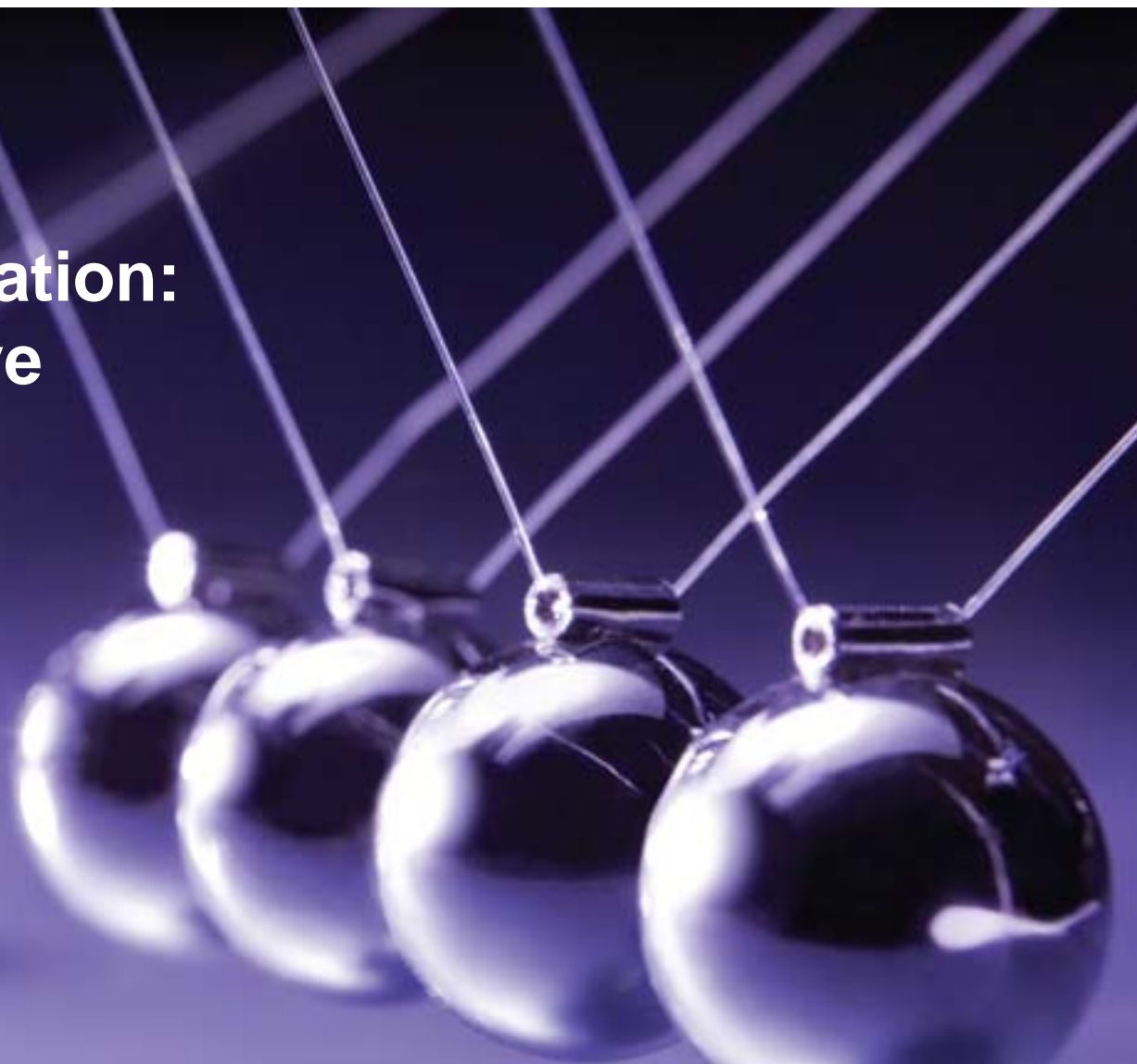


North American Energy Continentalization: Industry's Perspective

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Montréal, Québec

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Head of Global Power Research
Wood Mackenzie

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Key Questions

“Open markets and reliability standards that span borders are examples of continued North American continentalization. But when standardization intersects with jurisdictional issues, difficult discussions sometimes ensue...”

Considering this, what is the right balance in terms of standardization of energy markets and infrastructure?

What are the implications for industry?

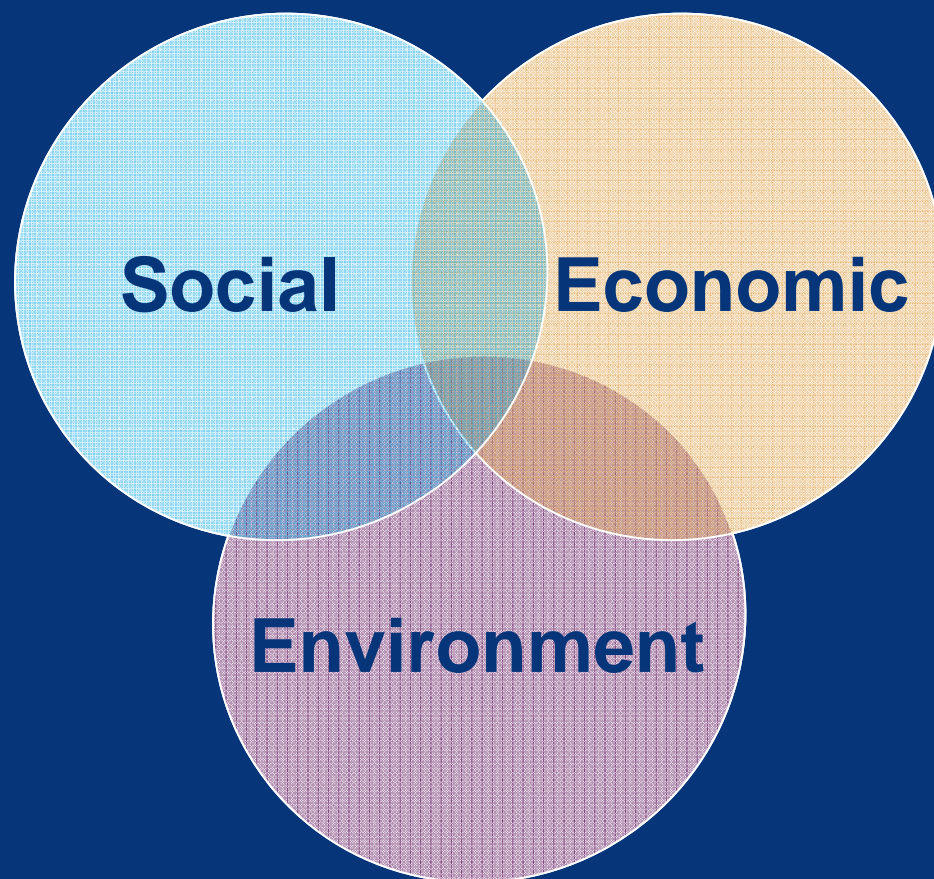
Current Energy Market Fundamentals

- › Demand Destruction/Contraction
- › Many Regions Over Supplied with Power
- › Adoption of Stricter Environmental Standards
- › Growing Renewables Preference
- › Shale Gas Changing the Landscape
- › Future of Carbon Regulations
- › Patchwork of Deregulated and Regulated Power Markets
- › Under-Investment in Transmission
- › Volatile Market Prices Makes Planning Difficult
- › Regulatory Uncertainty

Striking the right balance between competing interests among Economic, Environmental and Social needs

Basic Principles Include:

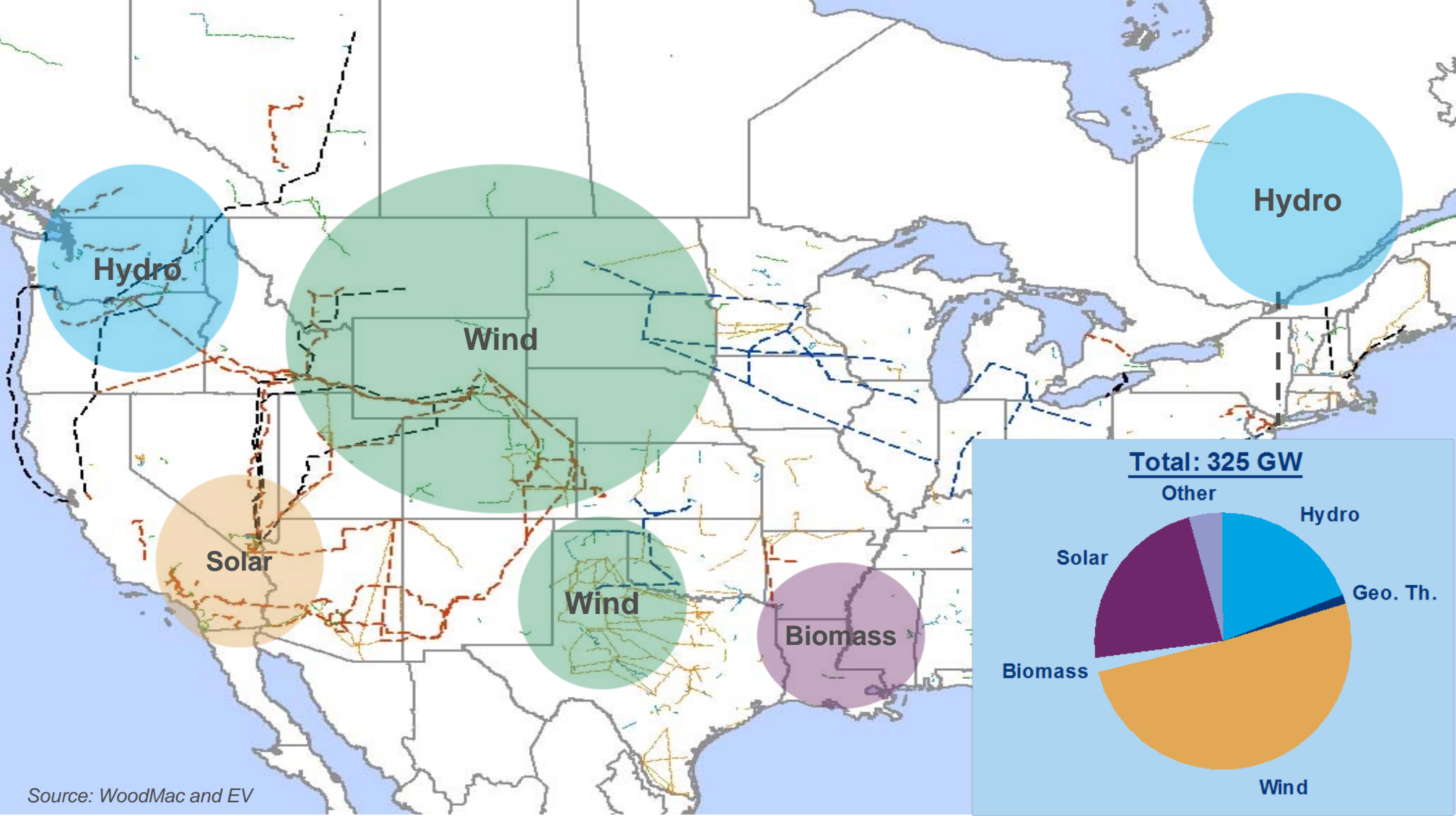
- Transparency
- Balanced
- Fairly Applied
- Coordinated
- Clear Road Map
- Certainty of Outcome
- Harmonization
- Efficient



Key Themes of Energy Projects Today

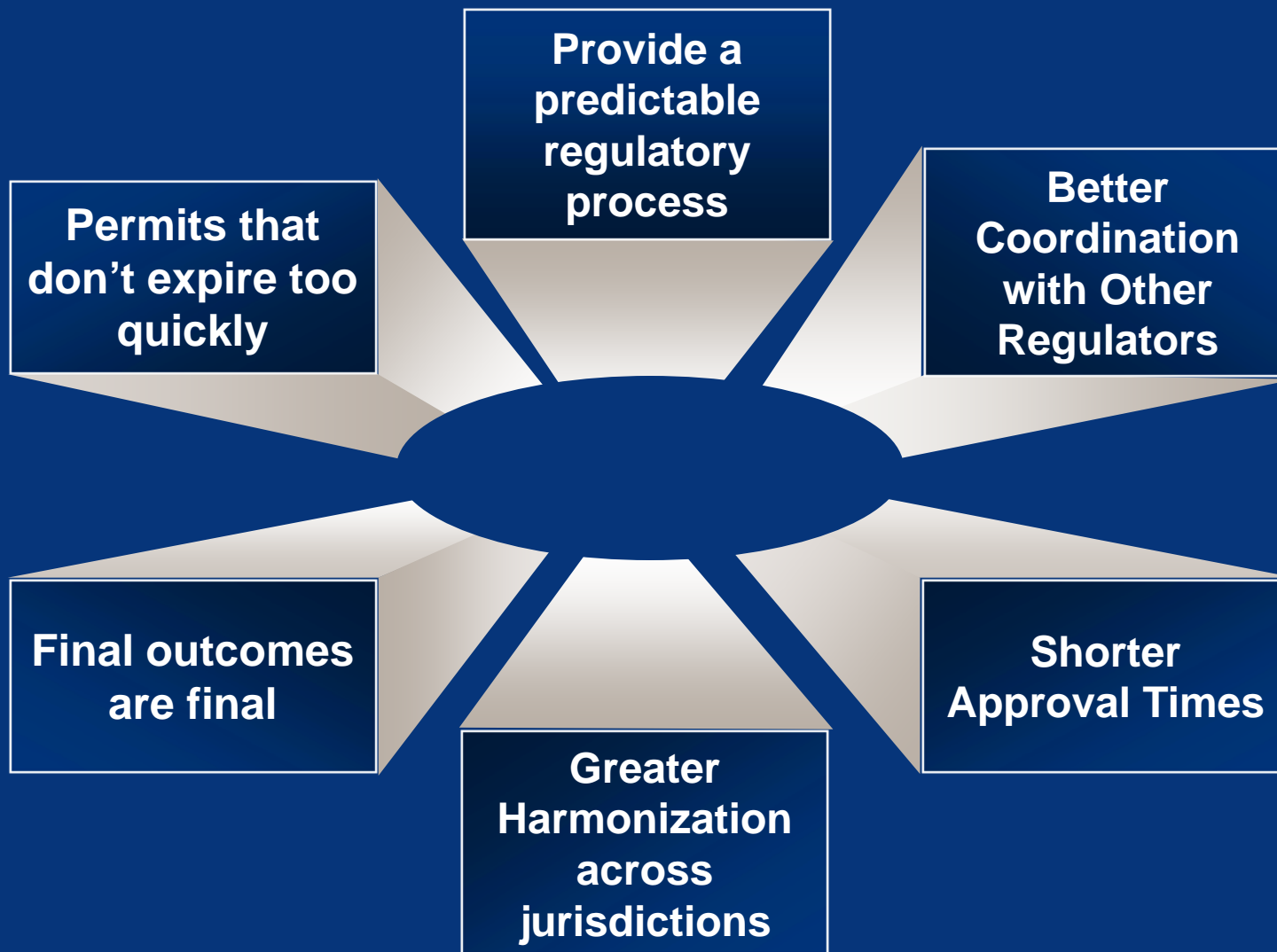
- › **Continentalization arises due to principle of “Comparative Advantage”**
 - Gains from trade can be made
 - Key theme for oil and gas investments
- › **Connect supply with demand better to monetize resource**
 - Increasingly this is a renewable resource
- › **Commercial Viability**
 - Financeability
 - How? Aligns interests of all interested parties
- › **Project Viability**
 - Avoid acrimonious and litigious jurisdictions
 - U.S. LNG Terminals and the “Coastal Zone Management Act”
- › **Meet Aggressive Renewable Portfolio Standards or Goals**
 - Exists in 44 States and Provinces
 - Over 300,000 MW in development today

Renewables & Transmission Projects Under Development



Source: WoodMac and EV

What does Industry Want?



Conclusions

Geographical:

- Connecting new resource areas with load centres grows in importance with projected growth of renewables
- Uneven Benefits/Costs and Cost Allocation

› Generation Intermittency

- Need to keep lights on, but who pays?

› Regulations are a “patchwork quilt”: Dozens of operators, state and provincial regulators, licensing design different, etc...

- Increases the cost of doing everything

› Jurisdictional Avoidance

- Project development that may be sub-optimal

› Regulators play a significant role to ensure balanced and fair application of regulation

- Need to move faster and provide more certainty about outcome
- Need to have longer permits

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