

Western States Petroleum Association

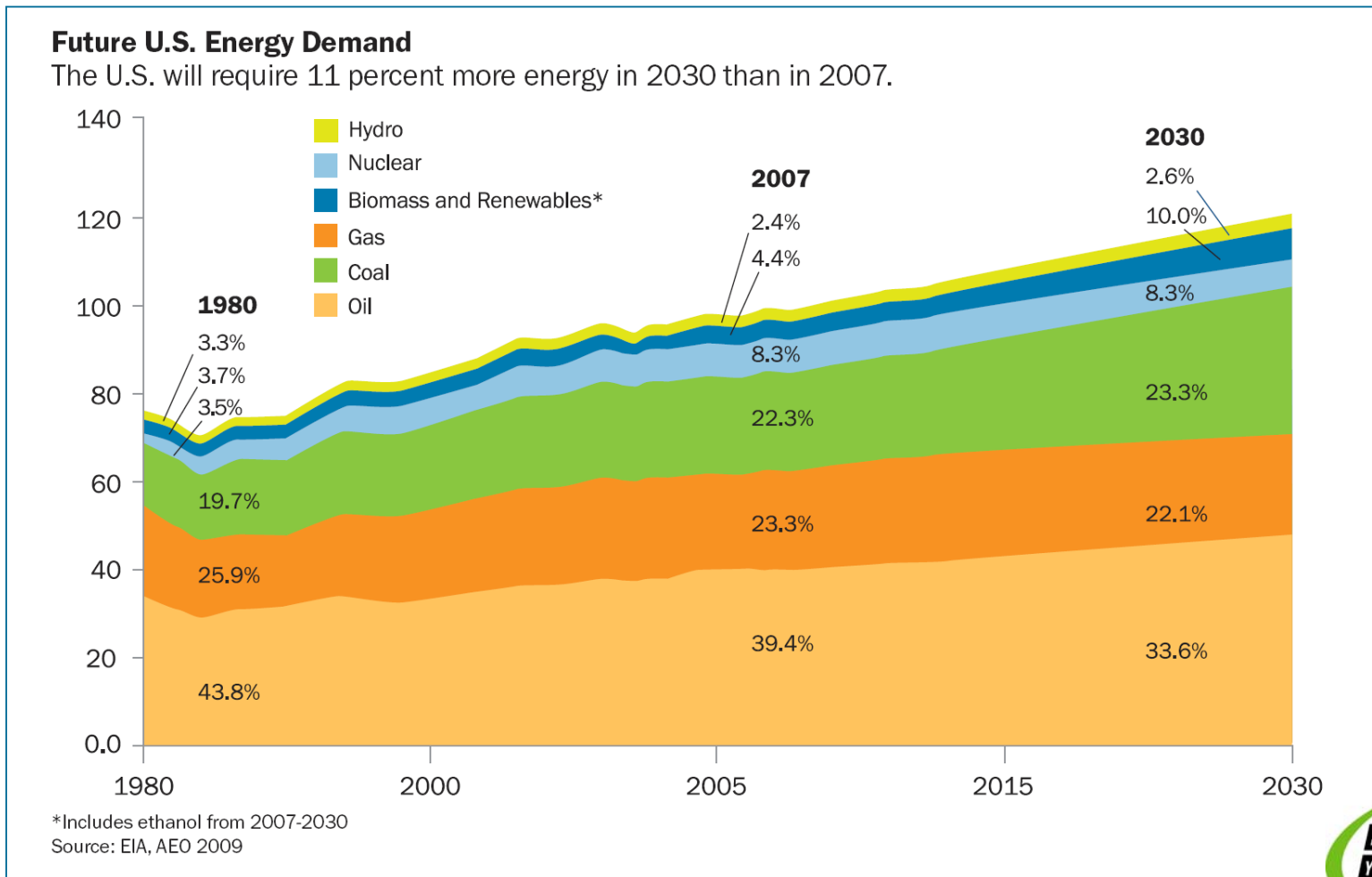
Renaissance of Traditional Fuels and Necessary Infrastructure



Annual Meeting, Western Chapter, Energy Bar Association
Joe Sparano
Western States Petroleum Association
February 27, 2009

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Putting future energy demand into perspective

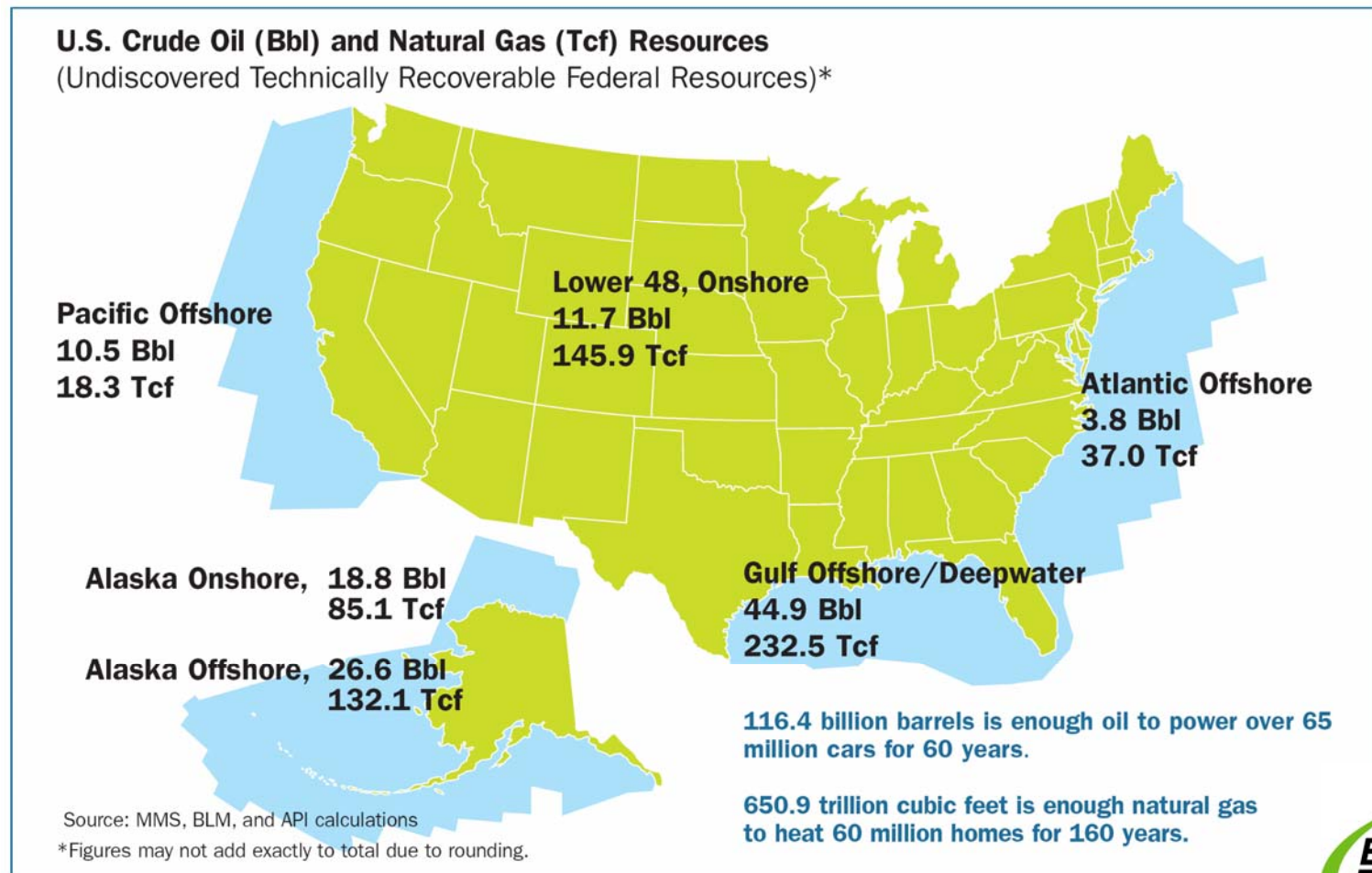


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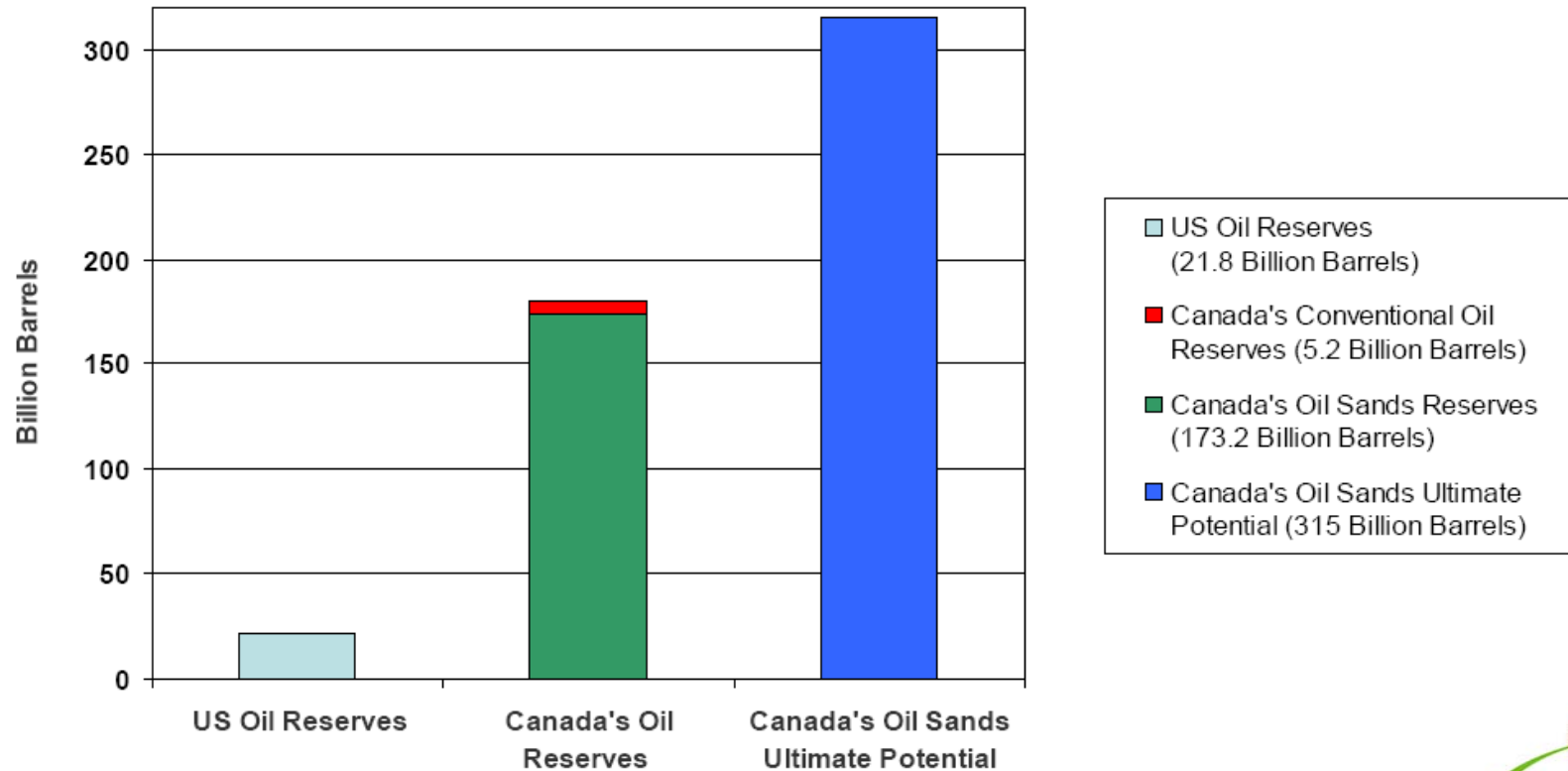
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Renewed interest in energy security



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Canada-US energy profiles



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The future will require multiple sources/strategies

- Despite drop in demand, the U.S. needs to improve energy security by better utilizing domestic energy supplies
- We can develop U.S. energy safely and with environmental sensitivity
- We must:
 - ✓ Add domestic supplies through greater access
 - ✓ Conserve energy
 - ✓ Use energy more efficiently
 - ✓ Develop alternative and renewable fuels and technologies



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What are WSPA members doing?

- Developing new or cleaner ways to generate electricity
- Applying carbon capture and storage/enhanced oil recovery
- Addressing climate change policies
- Investing in alternative/renewable fuels R&D and deployment
 - ✓ Solar, Wind, Geothermal
 - ✓ Hydrogen
 - ✓ Ethanol
 - ✓ Biodiesel
 - ✓ Other biofuels
 - ✓ Emerging fuels/technologies



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Infrastructure constraints pose major challenges

- CEC: California petroleum infrastructure is at capacity
- ICF: Significant increases in imports of supplemental crude oil and product by 2020 will strain West Coast infrastructure, primarily in California
 - ✓ Port and terminal capacity must increase for crude, petroleum products and ethanol
 - ✓ Ethanol production must significantly increase or imports and transfers must occur on a massive scale to meet demands
- ICF: Supply chain breakdowns, inadequate volumes of ethanol, delays in infrastructure improvements could result in increased price volatility and disruptions in supplies of transportation fuels

