



# **CALIFORNIA WINE – ENERGY & WATER NEXUS**

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Energy, Water and California Agriculture



# California Wine



- 4<sup>th</sup> largest global wine producer
- 3,800 CA wineries produce 90% of US wine & exports
- 4,600 growers farm 546,000 acres
- Economic impact - CA: \$61.5B, US: \$128.8B
- Jobs - CA: 330,000, US: 820,000
- 21M Tourists annually



# Energy & Water Nexus

## Vineyards

- Irrigation
- Frost protection
- Farm equipment



**Conservation**



**Efficiency**



**Renewables -  
Reuse -  
Alternatives**



## Wineries

- Electricity (refrigeration, lighting, motors, HVAC)
- Process Water
- Transportation



# Sustainable Winegrowing - Continuous Improvement

