

## The Hawaii biofuels opportunity is compelling

- ▶ **Energy security increases with fuel diversification and in state production**
- ▶ **Fundamental economics vs. oil, even without subsidies. Both sugar cane and palm oil can earn return on investment at \$45-50/bbl**
- ▶ **Import substitution is worth >\$300 MM/yr at 20% AFS target**
- ▶ **Next generation biofuels technology will improve both economic returns and environmental sustainability**
- ▶ **Energy crops create opportunity to preserve important agricultural lands and biodiesel could enhance diversified agriculture through animal feed byproducts**
- ▶ **But high feedstock market prices are squeezing out manufacturers, requiring integrated farm to refinery business models**



# Universal barriers across the biofuels value chain



Physical Constraints

Markets / Production Geographic Mismatch

Logistical Infrastructure Bottlenecks & Cost

Legal and Environmental

Permit Time and Complexity

Financial Risks

Oil-Biofuels Spreads vs. Investment Cost Recovery vs Credit/Duration

R&D Knowledge Gaps

Stability and Duration of Government Policies & Incentives

## Legislative Priorities

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- ▶ Investment tax credit for biofuels infrastructure (irrigation, terminals, distribution)
- ▶ Matching funds for agriculture research and development
- ▶ Sliding scale detaxation based on % in state biofuels
- ▶ Support and Enhance Competition