UPDATE:

LIBERTY

• POET-DSM Advanced Biofuels continues to make significant progress at LIBERTY

• Plant is operating at ever higher capacities

• OSM was announced earlier this year
REQUIREMENTS FOR REPLICACTION

CONTINUOUS TECHNOLOGY IMPROVEMENT

MARKET ACCESS FOR HIGHER ETHANOL BLENDS

PUBLIC POLICY SUPPORT
Technology improvement must drive:

- Capital cost reduction
- Operating cost reduction
- Conversion efficiency
- Create co-product value

First commercial plants allow practical evaluation
TECHNOLOGY SPECIFICS

Current pretreatment technologies becoming more reliable
Potentially disruptive technologies being researched
  Robustness
  Time for commercialization
Enzyme efficacy improving & cost is being reduced
Multiple commercial yeast offerings with ongoing optimization
PUBLIC POLICY SUPPORT

- RFS is essential for growth of cellulosic ethanol
  - De-risk investment
  - Ensure market access
- Eliminate market obstacles
  - RVP
- Build on public/private collaboration
Higher ethanol blends are required to absorb volume
  - Market access
  - Consumer pull through
EASIER THE SECOND TIME

Issues that will be easier on replication

- Raw material procurement and handling
- Reduced capital costs
- Process startup
CONCLUSION

• Commercial plants are underway in the U.S.

• Replication will be driven by
  • TECHNOLOGY IMPROVEMENT
  • PUBLIC POLICY
  • MARKET ACCESS

• Significant learnings from current plants will rapidly improve replication

• POET and POET DSM Advanced Biofuels are committed to advancing cellulosic ethanol