Customer Breakout Session I:

| Group: | Grp 3 Jackson Rm |
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| Facilitator: | Hans Jung |
| Recorder: | Christian Tobias |
| Presenter: | |

For each of the three major Components, what should be the ARS research priorities over the next five years?

Please make priorities clear, concise and unambiguous

Please list highest priority at the top

Feedstock Development Relative weight (0-10) = 4.4

Lack of effort on new feedstocks (4)

Remove obstacles –lack of information on weediness (1)

Breeding for Agronomic fitness such as disease resistance, N-use efficiency, etc (3)

Plant redesign-Custom designed plant based from ground up (4)

Genetic Maps Genomics (3)

Selection Criterion for energy crops ie include non energy criterion such as habitat, what is economic value of breeding for any given trait (7)

Hybrid production/Traditional Breeding needs to be augmented(6)

System for evaluation of energy crop potential on regional widespread basis (1)

Feedstock Production Relative weight (0-10)=3.5

| Harvesting, storage (4) | |
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| Environmental impacts/ecosystem services (8) | |
| Water use efficiency, water quality (2) | |
| Nutrient Utilization (2) | |
| Risk assessment (3) | |
| Management systems | |
| Yield (tons/acre, net energy-mass vs. quality) (7) | |
| Soil Conservation (tilth, SOC, erosion) | |
| Sustainability standards-including all components of production (3) | |
| Densification on farm/transportation issues, handling-pelletization (2) | |
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• Conversion & Co-Products Relative weight (0-10)=2.1

Improved chemical and biological catalysts (5)

Added value Co-products (8)

Single stage SSF Saccharification & Fermentation (7)

On-farm distributed energy production/scalability for rural development (1)

Closed loop energy production/ conversion facility (1)

Increased titer of ethanol (1)

Alternative end use (3)

Life cycle energy analysis (4)