GSI and 4FRI work session summary to define forestry issues and GSI potential solutions.

Clearly, a more detailed dialogue is required to finalize a workable and productive collaborative effort. Below is set forth a suggested pathway by identifying what are believed, as benefits to the identified issues. Following our technology presentation, our discussions identified several key obstacles which were highlighted in achieving **4RFI** objectives, incorporated within forest restoration and resiliency strategies and objectives. **GSI** in addressing these issues, presented potential solutions using **GSI** technology, in cooperation with your project operations.

The proposed solutions are set forth below along with the identifiable forestry issues.

Issue:
1) Cut, Skid, Deck, Haul: Removal of materials from thinning operations (fuel reduction) and elimination of such as potential fuel for Catastrophic Wildfire risk/incidents. Transportation to a designated location for processing is very costly and must be reduced as it impedes our scale of operations**.**

Solution:
GSI's system is fully mobile and is transported via helicopter, tractor trailer, ship, plane, or train. Thus, the processing technology is taken to or near the site of thinning operations and processes while generating commodities, at the selected site location. Thus, eliminating/reducing Biomass transportation costs. We **DO NOT** need an electric grid to operate, we generate our own power. The system operates on a 5-10% parasitic load factor, generating higher output. This mobility allows a planned zone for zone processing and upon completion of thinning operation, can be relocated, without additional capital expenditure. The only costs are those of equipment relocation. The system mobility can expedite restoration and resiliency efforts having no imposed and lengthy construction requirements, other than site preparation, which can be done in advance of unit relocation. A continuous and seamless procedure enabling greater acreage treatment in the strategic planning.

Issue:
2) Economics: Successfully underwriting the financial operation converting biomass into marketable demanded commodities.

Solution:
The system generates multiple revenue streams protecting against market fluctuations with multiple off take agreements for all commodities thus achieving sound financial performance. The system is not dependent on one single commodity, as it generates seven plus commodities at present.

Issue:
3) Economics: Multi revenue streams are desired to avoid market fluctuations causing adverse obstacles in achieving a sustainable operation**.**

Solution:
The system having multiple revenue streams can readily adjust to occurring market fluctuations. Continuous market research is conducted to identify, in advance, such potential, in upcoming market fluctuations and adjust commodity production and distribution strategies accounting for market supply and demand changes. Commodities generated include Renewable Energy, Biofuels, Biochar, Water, Blackchar, Resins, Chemicals, Hydrogen, Syngas, Steam and added consumer products.

Issue:
4) <u>Dependability:</u> A continuous assured operational performance in processing the projected Biomass quantities generated.

Solution:
GSI technology's ***<u>operational performance is guaranteed by Lloyd's of London Worldwide.</u>*** All manufacturers additionally issue ***25-year warranties*** on their respective components. All operational components have redundancy avoiding equipment shutdown; thus, sustainable Biomass processing and commodity production is assured. The system operates 24/7 351 days/year.

Issue:
5) <u>Surety of Supply:</u> A coordinated /collaborative sustainable project plan.

Solution:
Plans to be developed through a mutually agreeable collaborative effort and Agreements reflecting such. Zones, acreage, time/ work schedules, contract releases and awards, environmental compliance, thinning/restoration sites identification, system operating site locations/operational/restoration procedures, weather operational time frames, terrain travel permissions/ operational guidelines, site location, commercial and off road road/highways, wild life habitat management , water shed and distribution channels, Biomass calculations. These are a partial representation of planning issues to be addressed in a collaborative planning effort.

Issue:
6) <u>Financial Surety:</u> Financial strength assurance, enabling objectives to be achieved.

Solution:
GSI technology's ***<u>operational performance is guaranteed by Lloyd's of London Worldwide.</u>*** All manufacturers additionally issue 25-year warranties on their respective components. All operational components have redundancy avoiding equipment shutdown; thus, sustainable Biomass processing and commodity production is assured. The system operates 24/7 351 days/year. Additionally, the redundancy designed within the system insures continuous production of both processing and commodity production flows to the off-take markets. Should a component of the system default occur a replacement unit (trailer) will be inserted into the production alignment to maintain continuous operations. This is the procedure for any system technology upgrades from company research/field operations activities.

Issue:
7) <u>Air Quality:</u> Prefer to reduce burn piles to reduce emission releases compatible with air quality standards.

Solution:
Ever increasing air quality standards pose a problem utilizing a burn pile strategy. Processing Biomass feedstock ***(burn piles)*** through **GSI** system will eliminate the release of negative air emissions. **GSI** system operates without any emissions in processing Biomass. **<u>NO</u>** <u>GHG's, SO2, SO3, NOX, VOC's or CO2 emissions and achieves **CCS** Carbon Capture Sequestration</u>. Supports air emission standards compliance.

Issue:
8) <u>Scalability:</u> Need for a scalable system approach due to desired projected quantities of generated Biomass from operations**.**

Solution:
GSI System is scalable to whatever the project will generate. All GSI system components are housed in 53' ISO trailers. The units are stackable and/or horizontal configurations pending the site conditions. The units are "plug and play" in their operation. The greater the Biomass quantity available, it is resolved by adding more units. The system is designed for 25-50-100 tons/day units and the unit configuration would be selected from the collaborative planning guidelines to match the Biomass feedstock quantities to be processed.

53' ISO Trailer

Issue:
9) <u>Fire:</u> Protection against fire hazards.

Solution:
All **GSI** units have built in Fire Suppressant Systems. Additionally, the required added system to the operational site i.e. water tank or membrane for added assurance will be incorporated in the operational site plan.

Issue:
10) <u>Noise:</u> Natural habitat and wildlife compatibility.

Solution:
GSI insulation component is the same specification as used on the space shuttle program which has ***exceptionally*** low decibel rating/reading. The low readings make it compatible to surroundings inclusive of residential and wildlife habitat. It is a good neighbor.

Issue:
11) <u>Water:</u> Support for Water conservation objectives and initiatives.

Solution:
GSI extracts and recovers significant water from its biomass processing, addressing this issue. In fact, it produces Medical Grade Quality - highest grade available, and when minerals are blended can be used as a replenishment for reservoir water storage and/or aquifer replenishment. It can be directed to water shed storage facilities/basins and due to its distilled qualities (no-algae generation) can be stored in tanks, as a source for fire prevention.

Issue:
12) <u>Financial Return:</u> Cost reimbursement program for getting Biomass feedstock to processing sites.

Solution:
Multiple revenue streams from **GSI** commodity generations may be able to achieve this requirement following feedstock characterization. There will be several economic issues at play in achieving this solution including quantity of Biomass feed stock to process, characterization of feed stock, continuous delivery of Biomass, proximity to interstate highways for commodity transport to markets, sustainable continuous operations and a strategic operational site. Aligning these items would provide sufficient revenues to develop a cost reimbursement program. Processing Biomass on site or close proximity to sources will significantly impact current transportation costs, multiple commodity generation protects against market fluctuation, controlling / mitigation of transportation costs should enable strategies in restoration /resiliency efforts to be expanded and a cost reimbursement program will contribute to said objective. Expansion and acceleration of the **4FRI** Restoration and Resiliency goals clearly achieves significant fuel reductions and assists in the combat of Catastrophic Wildfire Instances, however caused. Developing a cost reimbursement program is achievable within the collaborative Agreement.

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