

Biomass Supply Agreements from a Purchaser's Perspective

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A facility that will use 700,000 Bone Dry Ton's (BDT's) annually needs to have fuel storage, fuel offloading/deliveries and fuel handling systems in place to accommodate various situations that might occur.

Fuel storage is critical for maintaining an inventory that will allow for the ebbs and flows of fuel deliveries. Fuel storage should be capable of holding at the minimum two weeks' worth of fuel, but should have the capability to hold up to a month or more depending upon the availability of space and fuel handling. Fuel should be rotated in a timely manner to avoid the risk of spontaneous combustion.

Fuel deliveries for 700,000 BDT's results in approximately 2,000 BDT's delivered daily or approximately 130 Truck load which requires that 5.4 trucks dump every hour or a truck every 11 minutes. These assumptions are based on the fact that trucks will be evenly dispersed 7 days a week 24 hours a day. A more likely situation is that during the day there might be 8 trucks an hour or a truck dumped every 7.5 minutes.

To accommodate truck dumping every 11 minutes the fuel handling system will have to be very efficient and have a strategy for moving the material away from the truck dump to the fuel storage in a timely manner. As the ability to unload trucks affects delivery costs, the purchaser has some responsibility to keep truck waiting time to a reasonable level and to provide reasonable access to the truck dumps.

Potential feedstock supply disruptions and feedstock quality are important considerations. From a purchaser's standpoint, supply contracts at least 1 year in advance are desirable. Maintaining feedstock supply during the wet season is critical. In addition, to spread the risk, multiple suppliers are desirable. From a purchaser's viewpoint, payment by dry ton is preferable. This requires the purchaser to be able to adequately measure moisture content. Delivery to size specification is also important to facilitate downstream operations. Some things to consider in this process are metal detectors and resizing of the material. These factors may greatly slow the flow of the fuel handling system. Dirt or rock, of course, is always undesirable.