REQUEST FOR INTEREST – LONG TERM WOOD FUEL SUPPLY

Background

UT-Battelle, LLC (the Company), on behalf of the U.S. Department of Energy (DOE), is seeking interested parties (Sellers) for the supply and long-term delivery of wood fuel for a steam generation plant at the Oak Ridge National Laboratory (ORNL) in Oak Ridge, TN. The viability of this project is dependent on finding a reliable, consistent, and economic source of wood fuel meeting certain specifications for quality.

The Company seeks information from potential Sellers who have access to, and facilities for, the collection, processing, and delivery of wood fuel; and who also desire to enter into long-term agreements for the provision of such services.

PLEASE NOTE: This Request for Interest (RFI) in no way commits the Company to an agreement. A formal solicitation may be issued at a later date.

Quantities Needed

The quantities of wood fuel required will reflect both seasonal trends and other operational aspects of the Company. The best initial estimates of the monthly quantities required are as follows:

	Bone Dry (tons)	**Green Tons @ 35% Moisture (tons)**	**Green Tons @ 45% Moisture (tons)**	**Green Tons @ 55% Moisture (tons)**
January	4,133	6,359	7,515	9,186
February	3,867	5,949	7,031	8,593
March	4,133	6,359	7,515	9,186
April	4,000	6,154	7,273	8,889
May	3,884	5,976	7,063	8,632
June	3,283	5,051	5,969	7,296
July	3,310	5,092	6,018	7,356
August	3,152	4,850	5,732	7,005
September	3,051	4,694	5,547	6,780
October	4,133	6,359	7,515	9,186
November	4,000	6,154	7,273	8,889
December	4,133	6,359	7,515	9,186
Annually	45,082	69,357	81,967	100,182

This table has been included to show the quantities needed and to emphasize that Buyer ultimately seeks to purchase BTU Content in the form of Bone Dry Tons of wood fuel. As all wood contains water, ranging from Kiln Dried wood at 15% moisture, to Air Dried wood at 35% moisture, to virgin Forest Products at up to 60% moisture, the inclusion and transportation of some water is inevitable. The moisture content, however, has no value to the Company.

To accommodate the likely supply characteristics of available wood fuel within ~100 miles of ORNL, the Company seeks to secure a wood fuel supply that averages in the range of 10% to 55% moisture. Within this range, lower is better. However, the Company does not want Sellers to invest in facilities in order to dry the wood, thus increasing the supply cost.

The relationship to be used for contracting (and pricing) between Bone Dry Weight, Green Weight, Water Weight, and Moisture Content Percentage (MCP) are as follows:

Green Weight = Bone Dry Weight + Water Weight

MCP = Water Weight * 100 / Green Weight
MCP = (Green Weight – Bone Dry Weight) * 100 / Green Weight

Bone Dry Weight = Green Weight – Water Weight
Bone Dry Weight = Green Weight * (1 – MCP/100)

Guaranteed Product Quality – Boiler Ready Specifications

For the process selected, wood fuel quality and consistency will be important factors affecting stable operation. Attachment 1 lists the required specifications.

The Company will have the right to perform visual inspection and analytical testing on each delivered load of wood fuel and may reject any load not meeting the criteria specified in the provisions set forth in Attachment 1.

Delivery Schedule

Delivery is based on approximately 300 deliverable days per year, basically every Monday through Saturday, excluding holidays. Delivery hours shall be between 7:00 am and 7:00 pm. The Company estimates that deliveries would commence in October of 2011. In advance of 3 and 4 day weekends, additional deliveries would be required to have the on-site wood storage facility "fully stacked" by 5:00 pm the day before the extended weekend begins. From time to time, Non-Delivery Periods may be necessary for routine maintenance or emergency shutdowns and for major scheduled repairs of the facility. Buyer will provide good faith estimates of its wood fuel requirements prior to the beginning of each month after commercial operation begins.

All wood fuel deliveries shall be made using Live Bottom/Walking Floor Vans.

Contract Term

It is contemplated that the Wood Fuel Supply Agreements will be multiple year agreements, likely a base year with options extending for a minimum of five (5) years.

Contract Price and Adjusted Price

The Contract Price for wood fuel shall be in U.S. Dollars per Bone Dry Ton. The Adjusted Price to be paid for wood fuel will be proportionally less, depending on and subject to the actual delivered moisture content of wood fuel. Attachment 2 illustrates the relationship between moisture content, the price of wood fuel on a wet basis ($/Green Ton), and the price of wood fuel on a dry basis ($/Bone Dry Ton). In the example set forth in Attachment 2, if Seller bids $18.70 for long-term supply of 45% moisture wood fuel, the Contract Price would be $34.00 per Bone Dry Ton. Similarly, if the Contract Price is $34.00 per Bone Dry Ton and a delivered load measures 45% moisture, the actual Adjusted Price paid for that load would be $18.70 per Green Ton.

Contract Quantity

It is important that Seller be able to meet its obligations to provide any mutually agreed upon Contract Quantity of wood fuel to the Company in a consistent manner throughout each day of each month during the term of the Wood Fuel Supply Agreement. If Seller under supplies wood fuel to the Company, even for short periods of time, the Company will burn market priced natural gas to make up the difference in heat requirement. Accordingly, there will be a Liquidated Damages provision in any future Wood Fuel Supply Agreement.

RFI Contact
All interested parties should respond no later than 12:00 Noon EDT on August 31, 2010.

Please return the attached Supplier Information Sheet (3 pages) and address any questions about this RFI to:

Submittal Contact:

Jim Anderson
Oak Ridge National Laboratory
UT-Battelle, LLC
1 Bethel Valley Rd – Room 259-17
Oak Ridge, TN 37830
Office: (865)-241-6851
E-mail: andersonjwa@ornl.gov

Thank you for your interest in being a long-term supplier of wood fuel for this project.

Jim Anderson
Subcontract Administrator

ATTACHMENT 1
WOOD FUEL SPECIFICATION

A. Fuel Size

Wood residue must be sized to 3 in. minus in all dimensions. Long fibers or sticks that are longer than 3 in. in length are not acceptable. Residues sized less than 1/4 in. must be limited to 25 percent or less.

B. Fuel Composition

Wood residue must be a clean fresh mix free of substances foreign to natural composition of wood such as preserving chemicals, paint, processing chemicals, glues, sulphurous, phosphorous or nitrogenous chemicals that might be classified as hazardous or appear in flue gas or ash. The fuel should be free of nails or other metal strips. The wood fuel should be free of rotten material which evidences a state of decomposition. The wood fuel should be free of leafy greens or needles.

Fuel must be well mixed with a consistent moisture content level. The system will be able to accommodate seasonal fluctuations in moisture content.

C. Ultimate and Proximate Analysis

The proximate and ultimate analysis of the design fuel on a dry weight basis for performance calculations is as follows:

Proximate Analysis	
Component	
Moisture Content (wet basis)	10-55%
Volatile Content	70-85%
Fixed Carbon	15-25%
Ash	<10%
Higher Heating Value (HHV)	> 8500 btu/lb

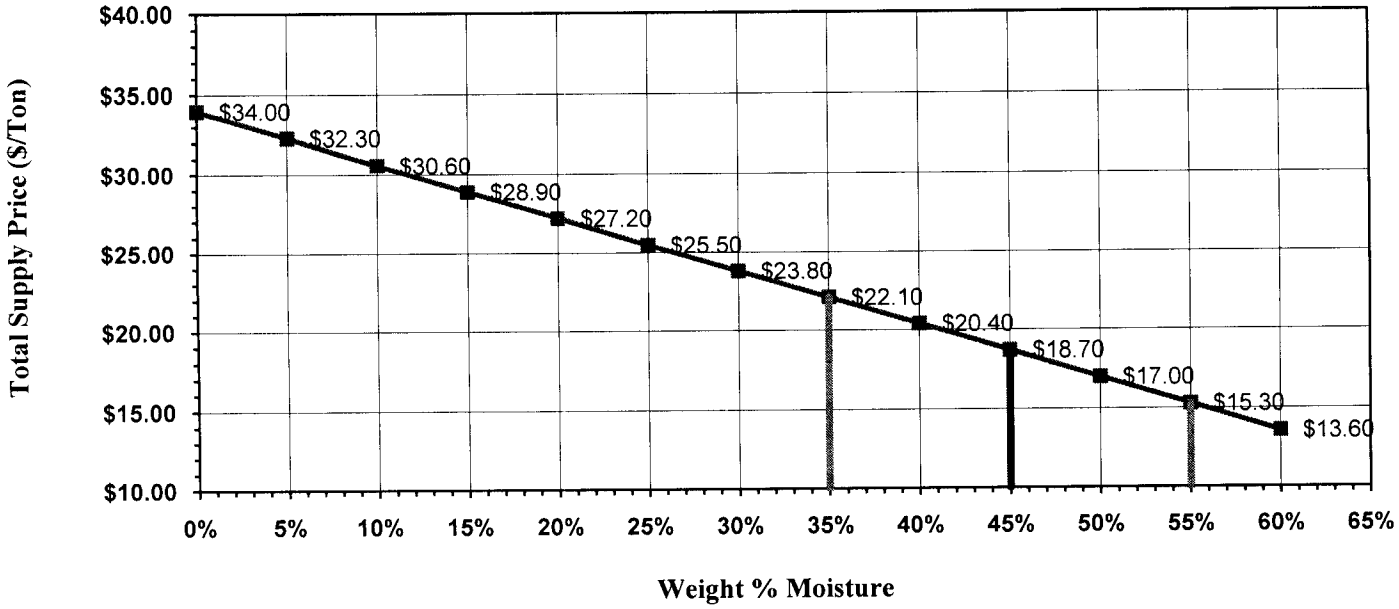
Ultimate Analysis	
Component	
Carbon	48-52%
Hydrogen	5-6%
Oxygen	36-44%
Nitrogen	<0.5%
Sulphur	<0.025%
Chlorine	<0.025%
Total	**100%**

D. Ash Content

Wood fuel may contain less than 10% dry basis inorganic material including materials that are part of the normal composition of wood as well as materials that are not part of the makeup of natural wood. The initial deformation temperature (IDT) of ash must be greater than 2100 ° F.

ATTACHMENT 2

Illustrative Example of Equivalent
Wood Chip Total Delivered Price ($/Ton)
Versus Weight % Moisture
At $34.00 per Bone Dry Ton



Sample Calculations:

Assumptions: Contract Price = $34.00 per Bone Dry Ton (Delivered)
Delivered Moisture Content Percentage (MCP) = 45%

$$\text{Price Paid for Load} = \frac{\$34.00}{\text{Bone Dry Ton}} \times \frac{55 \text{ Bone Dry Ton}}{100 \text{ Green Ton}} = \frac{\$18.70}{\text{Green Ton}}$$

PLEASE RETURN by 8/31/2010

1) Please provide the following Contact Information:

Company Name: _____

Contact Name: _____

Contact Phone (Primary #): _____

Contact Phone (Secondary #): _____

Contact E-Mail Address: _____

2) Please specify the Quantity (in Green Weight Tons) per month you are proposing to supply:

January	=	_____	Green Weight Tons
February	=	_____	Green Weight Tons
March	=	_____	Green Weight Tons
April	=	_____	Green Weight Tons
May	=	_____	Green Weight Tons
June	=	_____	Green Weight Tons
July	=	_____	Green Weight Tons
August	=	_____	Green Weight Tons
September	=	_____	Green Weight Tons
October	=	_____	Green Weight Tons
November	=	_____	Green Weight Tons
December	=	_____	Green Weight Tons
Annually	=	_____	Green Weight Tons

3) Specify the Moisture Content Percentage (MCP) associated with the Green Weight Tons:

MCP = _____ Weight Percent Moisture

4) Provide an estimate of One Way Road Miles from Wood Fuel Source Point to ORNL in Oak Ridge, TN:

Distance = _____ Miles (one way from Source to ORNL).

 PLEASE RETURN by xx/xx/xx

5) Specify the Type of Wood Fuel you propose to supply (check or circle all that apply):

Forest, Land Clearing, Sawmill: (Timber Harvest, Land Clearing for Development, Manufacture of Lumber)	YES	NO
Tree Trimming: (By Tree Service Companies, Municipalities, and Utilities)	YES	NO
Construction & Demolition: (C&D Waste with some non-combustibles: dirt, rock, metal)	YES	NO
Pallets, Packing Crates, Dunnage: (Packing & Shipping Waste with some non-combustibles)	YES	NO

Wood Type: HARDWOOD SOFTWOOD BOTH

6) Describe the exact nature of Wood Fuel you propose to supply:

7) Specify whether your Wood Fuel Supply will meet ALL Boiler Ready Specifications:

YES NO

If no, please explain:

8) Specify the type of size reducing equipment used:

9) Has your company ever been party to a Wood Fuel Supply Agreement before?
If yes, please explain (generally):

10) Please provide a list of your current available delivery equipment.

11) Please provide your DUNS number.