

Cleco Power LLC
Request For Information (RFI) for Biomass Fuels
December 17, 2010

Cleco Power LLC (“Cleco”) is issuing this Request for Information (“RFI”) to parties interested in providing information regarding potential biomass suppliers and target biomass feedstocks. The information will be used by Cleco in planning a biomass fuel supply system for potential co-firing activities at its Madison Unit 3 (“M3”) power plant (formerly Rode-macher Unit 3), and will assist Cleco in complying with the Renewable Energy Pilot Program (“Renewables Pilot”) approved by the Louisiana Public Service Commission (“LPSC”) in Docket No. R-28271 Subdocket B.

Cleco anticipates issuing a Request for Proposals (“RFP”) during the latter half of 2011 for the procurement of biomass fuels for M3. Information received in response to this RFI will be considered by Cleco as it prepares the RFP documentation.

This RFI document contains:

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| A. Background information on Cleco and its anticipated co-firing activities | E. Sustainability considerations |
| B. Target biomass fuels | F. Biomass fuel supply chain logistics |
| C. Projected biomass fuel requirements | G. Anticipated biomass pricing |
| D. Anticipated fuel specifications | H. Responding to this RFI Response forms |

Cleco is asking that responses to this RFI be provided by **January 28, 2011**; responses can be submitted either by email or hard copy, and are to be addressed to:

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Development
Cleco Power LLC

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Any questions regarding this RFI may be submitted by mail, fax, or email to Mr. Bordelon at the above addresses/numbers; any such questions must be submitted by January 21, 2011. This document in no way commits or obligates Cleco to issue any future RFP or to procure resources from any party that submits information pursuant to this RFI. Any and all costs incurred in association with preparing a formal response to this document will be borne by the preparer. This RFI is strictly an information gathering process and does not create binding obligations on the part of Cleco or any party submitting information pursuant to this RFI. Response to this RFI is not a prerequisite to participate in any RFP for biomass resources that may later be issued by Cleco.

A. Background

Cleco Corporation is an energy services company based in central Louisiana. Cleco Corporation's two primary businesses are Cleco Power LLC, a regulated electric utility business serving approximately 277,000 customers in Louisiana, and Cleco Midstream Resources LLC, a wholesale energy business. For more information, refer to: www.cleco.com.

In July 2005, Cleco Power announced the planned construction of a new \$1 billion, 600 MW, solid-fuel generating unit, using circulating fluidized-bed technology to diversify its fuel mix and lower electricity costs for its customers. The unit, known as Madison Unit 3, or M3, began commercial operation February 12, 2010, and stands as the company's largest generating unit. Among the cleanest solid-fuel units of its kind in the nation, M3 is key to Cleco's strategy to be self-sufficient in its power supply and increase its fuel flexibility. Using a technology that can utilize multiple solid fuels to generate power, M3 will initially use petroleum coke, or "petcoke", a byproduct of the oil refining industry, in its boilers. However circulating fluidized-bed technology also can use biomass as fuel. Cleco has been evaluating various biomass feedstocks (in particular **woody forest biomass** as potential fuel, since the new facility is located in a timber-rich area). Biomass is a carbon-neutral fuel that will help lower Cleco's carbon footprint and serve as a renewable fuel source.

Cleco began detailed evaluations of potential biomass co-firing capabilities at M3 in late 2009. Evaluations have included potential feedstock supplies and characteristics, detailed technical aspects of co-firing biomass with petcoke within the circulating fluidized-bed system, and associated environmental considerations (e.g., potential reductions in carbon emissions, as well as potential impacts on particulate emissions and ash composition). Those efforts are on-going, and are expected to culminate with co-firing tests, currently scheduled during the second quarter of 2011.¹

B. Target biomass fuels

Forest biomass: Cleco's primary target biomass fuel for co-firing at M3 is forest biomass, consisting of harvesting residues (branches and tops), rough/cull material, small diameter saplings from pre-commercial thinnings, and other material² that is not expected to be used as raw material for value-added processing by existing commercial forest products industries.

Other woody biomass: Cleco would also consider other woody feedstocks that might be available from time to time, such as wood processing residuals (e.g., slabs and cuts-offs that have been chipped),³ clean storm debris, clean urban woody debris,⁴ non-merchantable ma-

¹ Fuel required for the co-firing tests will be obtained directly by Cleco and will be outside the scope of any biomass fuel supply contracts that may result from the RFP that is anticipated to be issued in late 2011.

² E.g., underbrush that may be removed in some locations in order to reduce the risk of wildfires.

³ It is Cleco's understanding that bark and other wood processing residues generated in the central Louisiana region are being fully utilized as fuel for energy systems located at or near the forest products manufacturing facilities where the residues are produced (or the material is being sold into higher value non-energy markets such as colo-

terial damaged by fire or insects or disease, right-of-way clearings, or woody material removed from a tract of land for timber stand improvement or for purposes other than as fuel supply and where said material is not utilized by existing forest products manufacturing facilities. Cleco's use of any such materials would be subject to feedstock quality standards that would be established in each fuel supply contract and further subject to sustainability criteria that will guide acquisition and utilization of all feedstocks.

Dedicated woody energy crops: Cleco will give significant consideration to potential suppliers of dedicated woody energy crops produced specifically for the biomass fuel market. The quantity of material to be used will depend on the material's physical and chemical composition, seasonal availability, cost (including the possibility of BCAP⁵ support), and other factors

Agricultural biomass: Cleco is not currently planning to utilize agricultural biomass.

C. Projected biomass fuel requirements

The target amount of biomass fuel that Cleco may seek to obtain for co-firing at M3 is still being determined and will be affected by numerous factors such as: the technical results of Cleco's co-firing tests scheduled during the second Quarter of 2011; a possible RPS and/or carbon emissions reduction requirements that may be established by the Federal government; and economic factors.

The biomass co-firing rate at M3 is anticipated to range from less than 5% to perhaps as high as 30%. Accordingly, Cleco's anticipated biomass fuel requirements could range from approximately 250,000 green tons per year to as much as 1.5 million green tons per year. A map depicting the location of the M3 facility is shown below. The M3 facility is located in Lena, LA, at the Brame Energy Center.

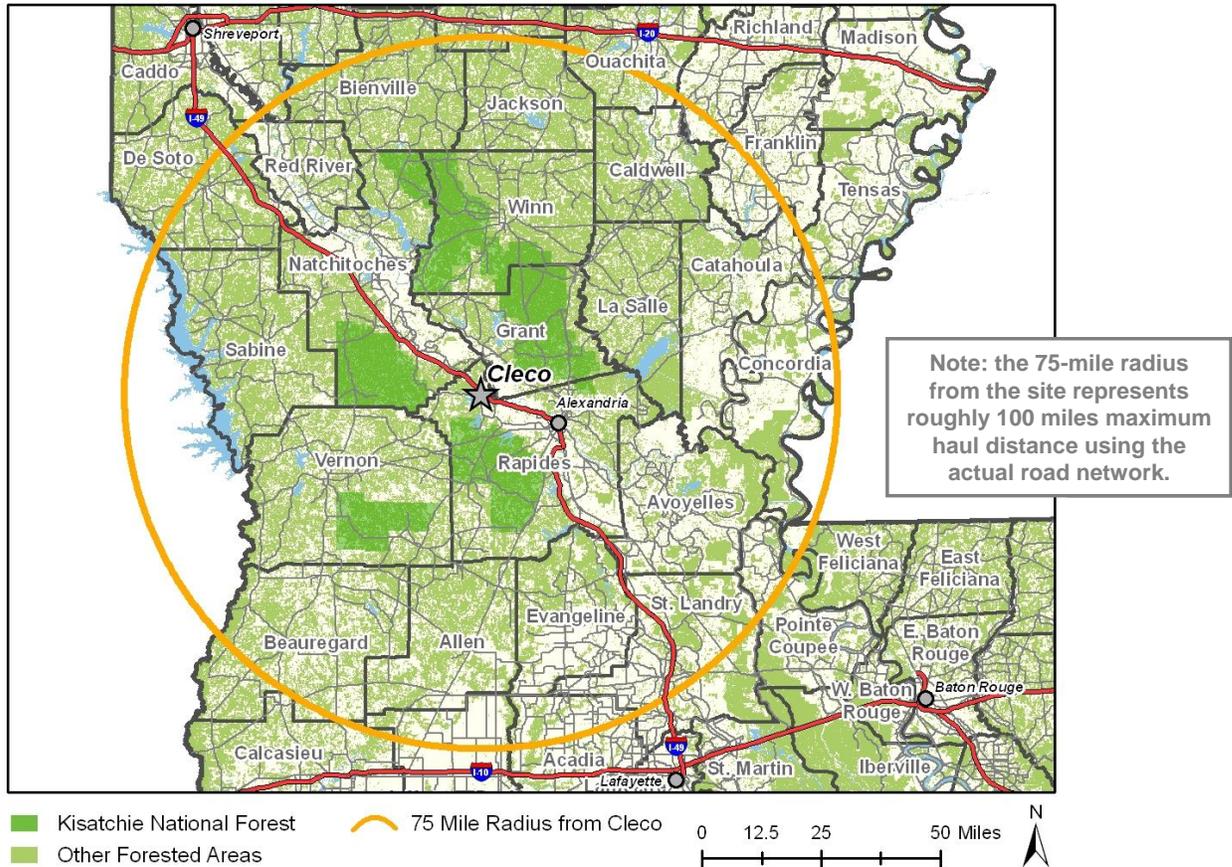
An independent, detailed biomass supply assessment commissioned by Cleco in 2009 determined that the quantity of branches and tops produced from harvesting of timber for the forest products industry in Louisiana is roughly 5.0 million green tons per year.⁶ Note that this figure does not include other forest biomass described above (i.e., rough/cull material or pre-commercial thinnings).

rized mulch). Accordingly, from an economic perspective (primarily due to the additional cost of transport), Cleco anticipates that little if any such material would be provided to M3 as biomass fuel.

⁴ Cleco will not accept construction and demolition waste or other contaminated materials – refer to §D.3.

⁵ The Biomass Crop Assistance Program ("BCAP"), initially established in the 2008 Farm Bill, has undergone several programmatic changes; the latest rules were released on October 27, 2010. Cleco may register as a Qualified Facility. Any biomass fuel supplier intending to provide qualifying feedstocks under BCAP will need to provide explicit information, including cost-related impacts on fuel pricing, in the response to the upcoming RFP.

⁶ This figure was obtained from the U.S. Forest Service's Forest Inventory and Analysis online database at <http://fia.fs.fed.US/tools-data/other/default.asp>



Cleco anticipates the duration of its co-firing activities to be twenty (20) years.⁷ Moreover, Cleco believes that it will be in the best interest of both Cleco and its biomass fuel supply contractor(s) to enter into relatively long-term supply contracts in order to enhance supply stability and reliability.

D. Anticipated fuel specifications

Specific requirements for biomass fuels will be set forth in Cleco’s RFP. Key specifications that will be addressed include:

1. **Moisture content:** It is Cleco’s understanding that the forest products industry has commonly traded biomass (e.g., hog fuel) on a weight basis, regardless of moisture content. Cleco also understands that fresh (green) chipped woody material typically contains 45% - 50% moisture⁸ (although moisture content levels can be significantly outside this range, depending on numerous factors).

However, because fuel moisture content has significant impacts on Cleco’s power generating efficiency, Cleco intends to purchase biomass fuel based on the feedstock’s energy content. Since woody biomass has relatively constant energy content (Btu/pound), on a

⁷ Based on the rules set forth in the LPSC’s Renewables Pilot.

⁸ All references to biomass fuel moisture content reflect “wet basis” calculations (i.e., not dry basis).

practical basis this means that Cleco's woody biomass pricing structure will be adjusted on the basis of the moisture content of the fuel as delivered.

2. **Particle size:** Particle size impacts the effectiveness of materials handling equipment, boiler efficiency, and emissions controls systems. While details regarding acceptable particle size will be set forth in its upcoming RFP. Cleco expects to require that the majority of fuel particles will need to be "one inch minus."
3. **Contaminants:** Examples of undesirable contaminants include soil particles, rocks, metal and glass, paints and preservatives, and waste plastic or tires. Cleco's upcoming RFP will include specific requirements and limitations regarding contaminants.

E. Sustainability considerations

Cleco will require that all aspects of the biomass fuel supply chain adhere to sustainable management practices. For example, removals of forest biomass from forestlands shall be undertaken in accordance with sustainable harvesting plans and/or best management practices as established for each landowner by a certified professional consulting or industrial forester, or by a qualified entity, such as the Louisiana Department of Agriculture and Forestry. In addition, there may be a requirement that all logging contractors would need to be certified as "Master Loggers".

Biomass fuel supply contractors will be required to abide by certain sustainability parameters that will be set forth in detail in the forthcoming RFP (and, eventually, in each fuel supply agreement). For example, Cleco could require every landowner from which forest biomass is sourced to have a forest stewardship plan or similar management plan (i.e., under a third party reviewed sustainability program) developed or approved by a registered and certified consulting or industrial forester. Through this RFI Cleco seeks respondents' comments and recommendations regarding threshold requirements and implementation/monitoring methodologies that should be embodied within fuel supply contracts to ensure sustainability objectives are effectively addressed.

F. Biomass fuel supply chain logistics

All feedstocks shall be delivered to M3 by truck, in chipped form. Supplier will be responsible for all collection, pre-processing (if any), pre-delivery (interim) storage (if any), and transport of the material to M3. If its biomass co-firing project is approved, Cleco will establish and maintain an on-site bulk storage operation at its M3 facility; it is anticipated that the storage system will have a minimum capacity of at least fifteen days. However, since M3 is a 24x7 baseload operation, it is imperative that the facility not experience disruptions in the biomass fuel supply. Accordingly, the reliability of the supply chain will be a fundamental criterion in the selection of a supply contractor(s). Thus, respondents are encouraged to contemplate strategies that could be implemented to minimize the risk of supply disruption.

G. Anticipated biomass pricing

Cleco intends to purchase biomass feedstocks on a cost per green ton (as-delivered) basis. However, since lower moisture content fuel will be more valuable to Cleco, price adjustments will be made for moisture content (and perhaps on a transport distance basis – see below). Thus, potential suppliers are encouraged to consider various strategies that will result in lower moisture content fuel delivered to M3.

Cleco envisions a biomass fuel supply contract(s) in which transport costs are divided into a fixed base charge (e.g., \$xx per load) plus a variable distance charge (i.e., \$xx per loaded mile).

Cleco prefers a fixed price contract with annual escalations, but is considering various options regarding how to address future price/cost escalations. For example, a supply contract might incorporate a fiber price index (available from several third-party cost tracking services) for material acquisition costs, a diesel price index (available from the U.S. Department of Energy) affecting transport costs, or a combination of indices. Respondents to this RFI are encouraged to comment on differing pricing options, including fixed price contracts with annual escalations.

H. Responding to this RFI

Responses to this RFI should use the attached form and should refer to the cover page of this RFI for the submission date and contact information for Cleco. Respondents may complete and submit these forms, or develop separate responses, provided that all of the elements contained in the form are addressed and are presented in the same order. Note that this RFI, including the attached response form, is available in Word format on Cleco's website at www.cleco.com.

Respondents may include additional information, such as existing corporate qualifications literature, materials describing the respondent's current activities or relevant experience, discussions regarding supply chain issues, concerns, and recommendations, and any other information respondents believe may be relevant or useful to Cleco regarding a biomass fuel supply chain for M3.

Cleco will maintain all responses to this RFI in strict confidence, except to the extent, if any, that Cleco may be required to share certain information with the LPSC and/or other federal or state regulatory or permitting authorities.

Information to be submitted to Cleco
PAGE 1 of 5
(use separate sheets for each feedstock of interest)

Company information:

Point of contact:

Name: _____

name: _____

address: _____

position: _____

city/state/zip: _____

telephone #: _____

website: _____

email: _____

Type of biomass feedstock:

woody biomass (all material to be delivered in chipped form):

- forest biomass (e.g., harvest slash, rough/cull material, small diameter thinnings)
- wood processing residues (e.g., off-cuts and/or slabs)
- other (e.g., right-of-way clearings, clean urban wood waste, used shipping pallets)
- dedicated woody energy crops (e.g., willow, hybrid poplar, short rotation pine)

What role would you expect to have in the biomass fuel supply chain?

- biomass fuel producer (landowner/lessee)
- harvester
- hauler
- aggregator (supply company or wood dealer)
- equipment supplier
- other (please describe): _____

Describe the biomass fuel you anticipate providing:

- form = chipped other (describe: _____)
- anticipated average moisture content = _____ % wet basis
- haul distance to the Cleco site? average = _____ miles; maximum = _____ miles
- availability: year-round or seasonal? _____

Information to be submitted to Cleco
PAGE 2 of 5
(use separate sheets for each feedstock of interest)

Company name: _____ Target feedstock: _____

Anticipated quantities and sourcing location(s):

How much material would you expect to deliver, at what estimated price (if you are willing to provide non-binding estimates) and from which parish(es) would it be sourced?

Quantity	Estimated Cost (\$/green ton)	Parish(es)
☐ 10,000 ~ 50,000 green tons / year		
☐ 50,000 ~ 100,000 green tons / year		
☐ 100,000 ~ 250,000 green tons / year		
☐ 200,000 ~ 500,000 green tons / year		
☐ over 500,000 green tons / year		

For producers, harvesters, and aggregators:

What types of BMPs and/or sustainability practices or certification programs do you currently follow?

What types of BMPs and/or sustainability practices or certification programs do you anticipate using for this supply?

Do you utilize a professional consulting forester or a certified crop advisor?

Information to be submitted to Cleco

PAGE 3 of 5

(use separate sheets for each feedstock of interest)

Company name: _____ Target feedstock: _____

For aggregators:

Do you envision using an existing/new facility for interim storage or pre-processing prior to delivery of the biomass fuel to Cleco? If yes, please describe.

What plans / techniques do you envision using in order to deliver lower-moisture content biomass fuel to Cleco?

For harvesters:

What type(s) of equipment would you expect to use (e.g., chippers, chopper harvesters)?

For haulers:

What type(s) of trailers would you expect to use? (e.g., chip van, live bottom, other)

Information to be submitted to Cleco
PAGE 4 of 5
(use separate sheets for each feedstock of interest)

Company name: _____ Target feedstock: _____

Supply chain considerations:

How might supply of this material to Cleco affect your ability to meet your current customers' requirements?

What recommendations do you have (and what specific strategies would you expect to pursue) to ensure a reliable feedstock supply chain?

Do you have any comments, suggestions, or recommendations regarding the terms of a supply contract (e.g., the duration, incentive payments, pricing structure re moisture content, pricing structure re transport distance, # of fuel suppliers, etc)?
