

**Attachment B: Summary of Proposed Contract Terms and Conditions
GRU Biomass RFP No. 2007-135**

1. COVANTA ENERGY CORPORATION

- **Project Description**
 - Design, build, and operate a 50 MW biomass- fueled generating facility.
 - Fluidized bed combustion and boiler technology combined with steam driven turbine fueled by woody biomass, post-recycled MSW, and other approved sources such as tires.
- **Contract Structure**
 - Base load capacity and energy will be provided to GRU via a long-term, firm priced, take and pay PPA of up to 15 years or more.
 - Pricing structured as “all in” energy charge with indexing.
- **Risk Mitigation**
 - Redundant fuel systems are being considered.
 - Performance guarantees will be included in the terms of the PPA.
 - 90% availability guarantee.
 - No liquidated damages or payment for replacement power is offered, however Covanta is open to discussing possible mechanisms for replacement power or capacity as part of binding proposal.
- **Title to Excess Energy or Capacity**
 - GRU retains 100%.
- **Ownership of Environmental Attributes**
 - All currently existing environmental offsets and renewable attributes will be retained by GRU.
 - Covanta proposes to share any future attributes 50/50 with GRU as they become available.
- **Project Financing**
 - Plans to use financing approach similar to other projects, seeking to employ tax-exempt financing where possible.
 - GRU input to financing structure not addressed.

2. ENVORTUS, INC.

- **Project Description**
 - Develop, construct, and operate a net 17.6 MW continuous base load facility with expected availability of 85-90%; scalable to 35 MW as additional sources of waste are identified and contracted.
 - Facility would recover energy via gasification from 400-500 dry tons per day of biomass from urban wood, C&D, yard waste, cardboard, and land-clearing waste.
- **Contract Structure**
 - Proposing 20-year energy-only “take or pay” PPA, but willing to explore:
 - Build, operate, transfer model.

- Joint-venture arrangement.
 - Demand and energy pricing.
 - Project proposed as “must-run” facility; if GRU wants dispatchability, demand and energy pricing will be required.
- **Risk Mitigation**
 - Envortus expects the PPA to address liquidated damages and remedies with market-based terms.
 - Would agree with GRU to reasonable market based terms and conditions for performance guarantees and other risk mitigants.
 - Envortus recommends that GRU propose a term sheet for the PPA that includes performance security requirements.
- **Title to Excess Energy or Capacity**
 - GRU retains 100%.
- **Ownership of Environmental Attributes**
 - GRU retains 100%.
- **Project Financing**
 - A special purpose entity will be formed for the purposes of entering into all of the requisite agreements and will house all of the project’s contracts, operating agreements, permits, etc.
 - Funding will be a combination of equity and debt.
 - Envortus will source the equity funding required from USRG, a renewable energy fund formed to invest in renewable energy products; USRG has reviewed the terms of the RFP and has committed to providing the equity required for the project.
 - Balance of the funding to be secured from a third party lender.
 - Envortus states that it will “maintain flexibility in its financing strategy to ensure it can secure the lowest cost capital for the Project.”

3. GREEN POWER SYSTEMS, LLC

- **Project Description**
 - Two 500 ton per day Westinghouse plasma arc reactors combined with a series of package boilers and a steam turbine to produce 35 MW net output.
 - Fuel stream to include MSW, bio-solids from sewer treatment plants, tires, and yard waste.
- **Contract Structure**
 - 30-year take and pay PPA with single energy fee starting at \$68 per MWh with an escalator.
 - Must run base load unit, GRU must take output.
- **Risk Mitigation**
 - Green Power is prepared to provide a performance bond, letter of credit, or other surety to provide for replacement power if the plant does not meet an 85% capacity factor.

- **Title to Excess Energy or Capacity**
 - GRU retains 100%.
- **Ownership of Environmental Attributes**
 - GRU retains 100%.
- **Project Financing**
 - Green Power intends to use 100% private financing through the Controlsud International Group, the investor that is also financing the Tallahassee project.
 - No GRU financing participation is required.

4. HORIZON ENERGY GROUP

- **Project Description**
 - Design, build, and operate a 36 MW MSW-fueled facility based on an exothermic process that creates hydrogen and carbon monoxide syngas, which is cleaned and sent to a gas turbine/steam turbine combined cycle to produce energy.
- **Contract Structure**
 - 20-year take and pay PPA with a tariff rate of \$55/MWh for the equivalent of 8,000 of annual full-power operations; escalation on the tariff rate would be capped at 2% per year.
- **Risk Mitigation**
 - Horizon guarantees 283,000 MWh of annual output from the project, which is a 90% capacity factor.
 - If contract MWh cannot be supplied from the plant, Horizon will supply replacement power for remainder of commitment; any difference in cost will be Horizon's responsibility.
- **Title to Excess Energy or Capacity**
 - GRU retains 100%.
- **Ownership of Environmental Attributes**
 - Horizon would like to negotiate a 50/50 sharing of environmental attributes.
- **Project Financing**
 - Horizon will form BioDeerhaven, LLC and will provide and obtain all equity and financing for the project.
 - Equity: use one of the existing Horizon Energy Group and NY Energy Group financial resources in US and Europe; this will range between 10-51% of project development cost.
 - Debt: same source as equity; if not competitive, Horizon will leverage the equity to secure debt financing from one of its other sources.

5. KREBS & SISLER

- Response did not meet demonstrated technology criteria.

6. NACOGDOCHES POWER, LLC

- **Project Description**
 - 100 MW biomass facility with fuel handling system, bubbling fluidized bed boiler, condensing steam turbine generator with evaporative cooling towers and auxiliary support equipment.
- **Contract Structure**
 - Proposes to sell GRU 50-100 MW of capacity, renewable energy, and environmental attributes under a 20-year PPA.
 - PPA charges on a capacity and energy basis rather than an “as-delivered” energy basis.
- **Risk Mitigation**
 - Standard performance guarantees to assure that minimum performance targets are met.
 - Draft PPA will be provided if NP is selected for the short list.
- **Title to Excess Energy or Capacity**
 - If GRU purchases less than full output of Project, NP would sell remaining capacity, energy, etc., to another entity under a long-term PPA with dispatch and control rights to be negotiated accordingly.
- **Ownership of Environmental Attributes**
 - 100% to GRU with cost included in PPA.
- **Project Financing**
 - Financing through combination of non-recourse project debt and equity.
 - Will seek to use tax credits where available to reduce financing costs.
 - Nacogdoches would work with GRU to optimize the financing strategy.

7. NRG ENERGY INC.

- **Project Description**
 - Develop, build, own, and operate a nominal 108 MW Plasma Gasification Combined Cycle plant.
- **Contract Structure**
 - Project to provide GRU with base load power with an 85% net capacity factor via a 20-year capacity and energy payment, must-take, take and pay PPA.
 - Indicative pricing would be revised if GRU wished to retain full dispatch rights.
 - A Fair Market Purchase Option at the initial end of the PPA can be provided.
 - NRG proposes two alternative financial options to the Base PPA:
 - Option A: Tolling Agreement – GRU is fuel supplier and would be buying service of converting fuel into energy. NRG would continue to sell capacity and ancillary services and

GRU would be able to take advantage of lower fuel costs available in the area and any fuel switching opportunities.

- Option B: Pre-pay PPA – GRU pre-pays the PPA capacity charges up front on day one. NRG asserts that GRU's tax-exempt financing makes this a desirable option because the pre-payment could be financed by issuing municipal bonds.

- **Risk Mitigation**

- Natural gas is available as a backup fuel for the GTCC; the GTCC can be configured to co-fire natural gas for normal operations or the gas turbine can be reconfigured to fire 100% gas on a long term basis if there is an extended outage of the Plasma Gasification System.
- Will consider operating performance standards for the capacity payments portion of the PPA if fully dispatchable or heat rate guarantee for a tolling agreement; no liquidated damages considered at this time.
- NRG touts **optionality** embodied in the proposal as additional risk mitigant:
 - Feedstock optionality between biomass and other waste streams as well as natural gas for both backup and fuel-switching.
 - WPC Plasma Gasification can gasify any carbonaceous material and yields lower overall heat rate and emissions profile than conventional combustion technology.

- **Title to Excess Energy or Capacity**

- GRU retains 100%.

- **Ownership of Environmental Attributes**

- GRU retains 100%.

- **Project Financing**

- NRG intends to form a Delaware LLC specifically to build, own, and operate the project. The principal shareholder will be NRG Energy, Inc. with minority interest held by strategic shareholders. Construction will be funded by a blend of cash equity and non-recourse project financed debt.
- NRG encourages GRU to take advantage of low cost of capital to finance and pre-pay capacity portion of the PPA.

8. RAILEX POLYGEN

- **Project Description**

- Design, build, finance, and operate Energy Products of Idaho (EPI) fluidized bed system consisting of two 40 MW-rated Siemens SST-600 steam turbines using 30% moisture content wood waste with waste heat boiler.

- **Contract Structure**
 - Offers GRU a specified “Energy & Capital Cost” of energy, blended with fuel tolling @ \$55.57-59.40 per MWh subject to 25-year Off-take or PPA.
 - GRU and City of Gainesville could determine whether they prefer ownership or sharing of ownership.
- **Risk Mitigation**
 - Not specifically addressed in proposal.
- **Title to Excess Energy or Capacity**
 - GRU retains 100%.
- **Ownership of Environmental Attributes**
 - No calculation made for emission offset credits.
 - Railex reserves right to proprietary oversight in creating tradable credits that may be monetized in the future.
- **Project Financing**
 - Not specifically described in proposal.

9. STERLING PLANET

- **Project Description**
 - Build, own, and operate 30 MW biomass plant using bubbling bed/steam turbine technology.
- **Contract Structure**
 - Sell 100% of energy to GRU under a 20-year take and pay PPA with stable energy and capacity charges.
 - Must-run, must-take arrangement.
 - At the end of the 20-year PPA, GRU would have the option to purchase the facility at fair market value or renew the PPA at a renegotiated rate.
- **Risk Mitigation**
 - Guarantees a capacity factor of 88%.
 - If capacity factor falls below 85% for any year, Sterling Planet will pay GRU liquidated damages of \$75,000 per percentage point below 85% up to an annual maximum of \$5 million.
 - If the project qualifies for Production Tax Credits, a portion of the benefits would be returned to GRU to lower the effective energy costs to GRU.
- **Title to Excess Energy or Capacity**
 - GRU retains 100%.
- **Ownership of Environmental Attributes**
 - Renewable energy attributes would be retained and sold by Sterling Planet with a portion of the sale proceeds returned to GRU to lower the effective energy costs to GRU.
- **Project Financing**
 - Sterling Planet will use non-recourse financing at the project level to fund the majority of required capital.

- Equity capital investments may come directly from Sterling Planet or from an environmental or tax investment partner.
- GRU participation in financing strategy not addressed.

10. TAYLOR BIOMASS ENERGY, LLC (TBE)

- **Project Description**
 - Build a solid waste processing system that processes a combination of MSW and wood waste into recyclables, processed biomass gasification fuel, and residual materials.
 - The syngas will be used in a hybrid 1x1 combined cycle plant to generate approximately 35 MW of net electric power based on 500 dry tons per day biomass processed fuel (65% MSW and 35% wood waste).
 - Natural gas will be required for facility start up and back up.
- **Contract Structure**
 - TBE proposes one of two financial and ownership structures:
 - Joint Ownership LLC structure, favored by TBE, where TBE owns 60% and GRU 40%.
 - Take or pay PPA and TBE owns 100%.
- **Risk Mitigation**
 - EPC contractor will provide guaranteed price and schedule.
 - TBE will negotiate an efficacy insurance policy to insure quality and quantity of syngas
 - PPA will be negotiated on an interruptible basis and replacement energy or capacity will be GRU's responsibility.
- **Title to Excess Energy or Capacity**
 - GRU retains 100%.
- **Ownership of Environmental Attributes**
 - PPA pricing does not include RECs that GRU may want to use or sell in secondary markets.
- **Project Financing**
 - TBE plans to finance the facility in the following manner based on a long-term commitment/PPA:
 - Project level or facility level debt – approx. 60% (12 year term)
 - Tax equity financing – approx. 25%
 - Sponsor equity (TBE or TBE and GRU) – approx. 15%

11. TIMBERLAND HARVESTERS, LLC

- **Project Description**
 - Build, own, and operate a 32.4 MW generating facility, which will use 100% woody biomass to fuel a bubbling fluidized bed boiler.
- **Contract Structure**
 - 25-year “take or pay” PPA with both energy and capacity charges that are indexed.

- Timberland is receptive to the opportunity for GRU to have “during and end-of-term” purchase option.
- **Risk Mitigation**
 - Availability guarantee at or above 91%; natural gas as backup to improve availability.
 - Open to negotiation of performance security language.
 - Open to discussion of liquidated damages, replacement power, etc.
- **Title to Excess Energy or Capacity**
 - GRU retains 100%.
- **Ownership of Environmental Attributes**
 - All REC’s transfer to GRU and cost is covered in energy payment.
- **Project Financing**
 - Not specifically addressed.