EXHIBIT A

March 1, 2010

Phil Brown
Senior Civil Engineer
City of Tempe
Public Works / Engineering
31 East 5th Street
Tempe, AZ 85281

Dear Mr. Brown,

Enclosed herewith is HDR's proposed scope of work and fee estimate for the South Water Treatment Plant / Environmental Services Green Energy Campus Implementation Plan, based upon the EECBG Activity Sheet and our brief meeting with you on December 15, 2009 and subsequent discussions.

The enclosed scope of work will be executed for an hourly not-to-exceed amount of **$145,813.17(One hundred forty five thousand eight hundred thirteen dollars and seventeen cents)**.

We appreciate the opportunity to provide this proposal subject to the terms and conditions of the City of Tempe professional services contract.

Sincerely,

Tony Mardam, PE
Project Manager

Don Manthe, PE
Vice President
AZ Managing Principal

3200 East Camelback Road
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Exhibit A: Scope of Services
South Water Treatment Plant / Environmental Services Green Energy Campus Implementation Plan
March 1, 2010

HDR has been requested by the City of Tempe to conduct a feasibility study for a waste grease to energy program and develop an associated implementation plan. The implementation plan would describe how Tempe would accomplish the following:

1. Collect waste fats, vegetable oil and/or trap grease from Tempe restaurants;
2. Convert the collected fats, oils and grease (FOG) to biodiesel either at a facility to be constructed at the South Tempe Water Treatment Plant campus, or at a separately-owned site through a contractual agreement; and
3. Generate electrical power from the biodiesel produced using a turbine generator as the primary power source for all energy demand at the campus and offset up to 20% of the City's petroleum diesel demand by blending biodiesel at a 20% concentration at all City diesel fueling sites

Background

The City of Tempe's Water Utilities Department consumes over 36,000 megawatt hours (MWh) of electricity at a cost of over $3.3 million annually in order to provide high quality drinking water and reliable wastewater services to Tempe's customers. Water and wastewater services in Tempe account for approximately 42% of the City's billed annual electricity consumption of 86,000 MWh, resulting in the emission of over 25,000 metric tons of carbon dioxide (CO_2) from electrical generating stations. The South Water Treatment Plant (STWTP) Campus consumes an average of 33.4 MWh daily, or 34% of WUD's energy demand and 14% of the City's total electrical demand, resulting in a cost of over $990,000 and CO_2 emissions of over 8,700 metric tons annually. Energy demands for water treatment are expected to increase significantly in the future due to the additional load needed to meet increasingly stringent water quality regulations. In addition to offsetting up to 14% of the City's total electrical demand using a recycled waste product, the City is anticipating to realize significant savings in sewer maintenance and wastewater treatment costs related to fats, oils and grease (FOG).

Assumptions

- City of Tempe staff will be assisting the HDR team with data collection and analysis, and with providing direction, decisions, and review necessary to complete the project on time.
- Turbine generation is the only power production technology that will be evaluated. A turbine generator would be installed below ground surface at the STWTP site.

Work will be executed pursuant to Contract Number _____ according to the following tasks:

Task 1: Project Management

HDR will provide management services as measures to keep the project on schedule and within budget. HDR's Project Manager will provide monthly progress reports and invoices to the Tempe Project Manager summarizing costs to date, the estimated cost to complete, project status, and any project related concerns. HDR will attend progress monthly meetings with Tempe throughout the eight month project duration (total of eight meetings). HDR's Project Manager will conduct three monthly project QA/QC meetings with senior HDR technical and management professionals to review quality of deliverables and cause project to be delivered in a timely, cost-effective manner.

Deliverables: Progress meeting agendas and minutes, progress reports, and invoices.

Task 2: Best Practices for FOG to Biodiesel Conversion and Use

HDR will research and describe common elements of existing programs and practices for converting FOG to biodiesel and describe up to three case studies that represent "best in class" examples of programs that could be emulated by the City of Tempe. As the availability of information allows, case study descriptions will include an overview of the program, biofuel processing technology, fuel qualities (grades) produced, technologies/machines fueled by the biofuel, permitting issues, incentives employed or taken advantage of, and stated benefits and costs. HDR recommends that its project manager and one or more of the City's staff conduct an in-person review of the San Francisco Public Utilities Commission's "SF Greasecycle" and biofuels program, managed by Ms. Karri Ving. Travel for City staff is funded through Tempe's Energy Efficiency and Conservation Block (EECBG) grant through the U.S. Department of Energy. Research results of Task 2 will be shared in presentation form and with summary handouts with the City during a regular project progress meeting.

Task 3: Feedstock Availability

HDR will work with biodiesel manufacturers and FOG collection firms and Tempe staff to determine the availability and quality of FOG in the City of Tempe. If readily available data on quantities of available FOG does not exist, HDR will estimate the FOG production and quality by developing an inventory of sources in Tempe and making assumptions about quality and quantity based upon source categories. HDR will identify the cost associated with the collection of FOG on a volumetric or weight basis, depending upon industry standards. HDR will characterize the FOG that is being collected city-wide and document whether or not it is or could be collected, transported, and stored and processed according to its origin or quality:

- Restaurants
- Rendering Plants
- Food Processing Operations
- Grease Traps (underground interceptors)
- Used Fryer Oil

HDR will identify collection strategies, including incentive programs used by other FOG collection and conversion programs elsewhere in the United States, and will identify or estimate transport distances and associated costs. HDR will review case studies to identify market influences that could effect the cost or availability of grease. HRD will review case studies to assess the effectiveness of incentivized restaurant participation, e.g. recognition programs and/or sewer rebates. Research results of Task 3 will be shared in presentation form and with summary handouts with the City during a regular project progress meeting.

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Task 4: Fuel Processing & Power Generation Technology Evaluations

HDR will identify the challenges and range of solutions of converting yellow (fryer) and brown (trap) grease to biofuel in grades appropriate for turbine generation and vehicle internal combustion. Once the feedstock quality and quantity is known, the appropriate processing technology or technologies will be identified and described for producing a biofuel suitable for turbine generation. The FOG feedstock availability information gathered in Task 3 will be used to identify the daily volume of biofuel that can be reliably produced for turbine power generation to meet power demand at the STWTP.

HDR will evaluate the power load profile for the STWTP for seasonal and daily fluctuation, and make a determination about the optimum size of a turbine for power generation based upon the availability of daily biofuel volume available from the FOG generated within the City of Tempe. Three scenarios are possible:

1. The available biofuel will be sufficient to fuel a turbine large enough to meet or exceed the STWTP's low peak demand and at times produce more power than is required by the STWTP. If this is the case, the City will need to decide if it wants to consider selling power to the grid, or reducing the size of the turbine to match the low peak demand of the STWTP, and all remaining biofuel would be used for fueling the fleet.
2. The available biofuel will be sufficient to fuel a turbine large enough to meet or be less than the STWTP's low peak demand, and thereby reduce the peak demand (and associated rate premium) and a portion of the base load.
3. The available biofuel will not be sufficient to fuel a turbine large enough to make it cost effective to proceed with on-site power generation for the STWTP using biofuel derived from FOG.

If the case is scenario 1 or 2, HDR will identify the most cost effective split between biofuel being produced for a turbine and biofuel produced for the fleet vehicles. This will require an analysis of the power rate plan and the STWTP load, and a determination of an appropriate size for the turbine generator. If the case is scenario 3, it is assumed that all biofuel would be used only to fuel the City's fleet vehicles.

HDR will identify probable emission issues, including permitting and monitoring responsibilities (for both the City and the contractor). Emissions issues will likely have to be considered, investigated, and documented for biofuel processing, storage, and dispensing, as well as for on-site power generation. Emissions and permitting issues (as well as disposal) may also be applicable to the by-products of the fuel production.

HDR will assess the applicability of using combined heat and power (CHP); feasibility of cogeneration equipment and alternatives; and the electrical, cooling, and heating system CHP interface impacts at the STWTP. CHP can be accomplished with turbines (as governed by the fuel characteristics and quantity). HDR will investigate the possibility of supplemental firing of existing boilers, and steam generation of processing of fuels and by-products.

HDR will evaluate available turbine technologies that can be fueled by biodiesel. The type, size, and production capacity of an on-site turbine power generation facility will be governed by the feedstock and fuel grades that are produced from them. HDR will develop the turbine generator size and production capacity, as well as identify space requirements for the balance of facility needs (switchgear,

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storage, receiving, etc.) and discuss operational and access considerations (e.g., operation times associated with on-site fuel production may not coincide with normal WTP plant operations).

Deliverable: Technical Memorandum that documents the evaluation and results.

Task 5: Feasibility of Using Biofuel for City Fleet Vehicles
HDR will evaluate the feasibility and cost effectiveness of using biodiesel derived from FOG to fuel the City's fleet. This evaluation will need to be performed at the same time as the fuel production and power generation technology evaluations because the cost effectiveness of fueling the fleet could significantly influence the selection of the fuel production and power production technologies.

HDR will describe vehicle conversion and warranty issues, logistics of biofuel delivery to City fueling stations, and blending protocols. HDR will also address issues related to the following:

- Storage on-site / offsite
- Fuel quality (ASTM fuel requirements)
- Blending onsite or offsite (B2 to B20 seems to be the present range)
- Quantity considerations
- Transport

Results of this feasibility evaluation will be shared in presentation form and with summary handouts with the City during a regular project progress meeting.

Task 6: Site Feasibility
HDR will evaluate feasibility issues associated with the South Water Treatment Plant Site, including:

- Vehicle logistics, i.e. flow in/out of facility site
- Security/vulnerability issues associated with production and use of a combustible fuel at a water treatment facility
- Zoning issues

Based on this review along with the results of emissions issues under Task 4, HDR may identify alternative City-owned sites for biofuel production, e.g. Priest Maintenance Yard.

Task 7: Basis of Design
Based upon the City's review and comments on the Task 4 Technical Memorandum and results of Task 5, HDR will develop a concept basis of design for fuel and power production on the STWTP site. The concept basis of design will then be used for the financial analysis described in Task 7. As part of the basis of design development, HDR will investigate the necessary interconnections and interface that will be required with the local electrical utility.

Deliverable: Basis of Design document for the concept for fuel production and power production.

Task 8: Financial Evaluations (Costs and Savings)
HDR will estimate the feedstock collection and transportation costs using information gathered during Task 3 activities. HDR will work with the City of Tempe and the City's power provider to identify current and projected future STWTP site energy demands, utility rate impacts, and future cost of energy

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projections. HDR will evaluate how the implemented program will affect these projected costs (including the rate plans) for the concept basis of design. HDR will review implementation options including full City implementation and public-private partnerships, to best identify the optimal implementation scenario.

Using the information gathered and generated from Tasks 3 and 4, HDR will evaluate the opportunities and costs associated with fuel production by-product marketing and/or disposal. Depending upon what by-products would be produced by concept basis of design; HDR will identify the marketability and savings that may accrue to the City from selling or using by-products for the following uses:

- Dust suppression
- Wastewater treatment feedstock
- Wastewater biosolids anaerobic digestion feedstock (gas production)
- Methanol production feedstock
- Soap and cosmetics feedstock
- Composting additive

In coordination with City of Tempe staff, and with data collected in Task 2, HDR will estimate the sewer collection maintenance cost (cleaning, clog removal, etc.) and treatment cost (reduced COD load) savings associated with increased grease removal. HDR will use the information collected to compare current and projected electrical, natural gas, and diesel fuel cost offsets by implementing the concept basis of design. HDR will develop biofuel facility and power generation facility Capital and O&M cost estimates for the concept basis of design, and develop a life cycle cost spreadsheet to illustrate the return on investment and the projected payback period under changing variables to facilitate decision making.

Deliverables: Technical Memorandum describing the economic evaluation process and results.

Task 8: Conclusions, Recommendations, and Implementation Plan

HDR will prepare a report describing the evaluation and economic processes and outcomes for Tasks 1 through 7 in accordance with documents required for ARRA and EECBG funding. A final section of the report will be an implementation plan that will describe the steps necessary to proceed with implementation of the concept basis of design, and will include comprehensive cost estimates along with projected payback period based on assumed utility rates

Deliverable: Final Report and Implementation Plan

NOT Included, and anticipated to be performed by the City of Tempe:
Community support, renewable energy credits, GHG emissions and carbon footprint reduction (HDR MPLS)

- Community support may be difficult to gage costs to the community will be a big factor- Free is good
- Determine emissions offsets- again this goes to the Quantity and Quality

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FEE ESTIMATE
City of Tempe
South Water Treatment Plant / Environmental Services Green Energy Campus Implementation Plan

	Labor Hours	Project Manager	Senior Engineer	Project Engineer	Economist	QA Review	QC Review	Draftsmen	Clerical	Accountant		
		$ 214.20	$ 197.25	$ 111.24	$ 200.01	$ 201.94	$ 199.35	$ 103.56	$ 63.00	$ 126.06		
Task 1												**$ 19,216.29**
Project Management												
Monthly meetings w/ Tempe (8)	40	16		24								$ 6,096.93
Project Controls	32	16								8	8	$ 4,939.65
Invoicing	12	8									4	$ 2,217.82
Quality Assurance/Quality Control	29	12				1	16					$ 5,961.89
Task 2												**$ 6,299.21**
Best Practices Review												
Data collection & summary	6	2		4								$ 873.36
Case study preparation	6	2		4								$ 873.36
Review SFPUC's Greasecycle program	18	16								2		$ 3,553.14
Prepare meeting & presentation materials	8	2		4						2		$ 999.36
Task 3												**$ 3,602.86**
Feedstock Availability												
Identify feedstock availability and quality	8	4		4								$ 1,301.75
Collection strategies, incentive programs, transport cost	8	4		4								$ 1,301.75
Prepare meeting & presentation materials	8	2		4						2		$ 999.36
Task 4												**$ 34,322.06**
Fuel Processing & Power Generation Technology Evaluations												
Identify power demands at the STWTP	36	4	16	16								$ 5,792.64
Identify appropriate processing technology to produce fuel for combustion turbine and vehicle internal combustion engine	36	4	8	24								$ 5,104.57
Evaluate STWTP power load profile relative to fuel supply	36	4	16	16								$ 5,792.64
Identify appropriate technology for available fuels	28	4	8	16								$ 4,214.64
Characterize emission and permitting issues	20	4		16								$ 2,636.64
Assess CHP applicability & feasiblity of cogeneration	28	4	8	16								$ 4,214.64
Assess CHP interface impacts	16	4	4	8								$ 2,635.71
Technical Memorandum	36	4		24						8		$ 4,030.57
Task 5												**$ 11,016.66**
Feasibility of Using Fuel for City Fleet												
Vehicle conversion & warranty considerations	20	4	4	12								$ 2,980.68
Onsite Storage / Fueling Station	20	4	4	12								$ 2,980.68
Biofuel delivery, storage, handling	24	4	4	12			2	2				$ 3,783.25
Technical Memorandum	8	2		4				2				$ 1,272.06
Task 6												**$ 15,220.29**
Basis of Design												
Concept level basis of design development	68	4	8	24					32			$ 8,418.62
Interconnects with local electric utility	20	4	4	12								$ 2,980.68
Basis of Design Conceptual Plan	26	2		8			2	8		8		$ 3,820.99
Task 7												**$ 24,571.02**
Financial Evaluations												
Estimate Costs	28	4	4	16	4							$ 4,225.68
Estimate Savings	28	4	4	16	4							$ 4,225.68
Develop Life Cycle Cost Evaluation Spreadsheet	76	2	4	16	40		2	8		4		$ 13,248.32
Technical Memorandum	16	2		4	6			2				$ 2,872.14
Task 8												**$ 28,563.98**
Conclusions, Recommendations, and Implementation Plan												
Describe the process	20	4		16								$ 2,636.64
Explain the economic analysis	20	4		8	8							$ 3,346.79
Provide conclusions and recommendations	34	2	4	8	4				16			$ 4,564.36
Prepare draft report	28	2	4	8			2	4		8		$ 3,612.69
Make revisions	22	4	2	8	4					4		$ 3,193.25
Prepare final report	64	2	4	8	32		2	8		8		$ 11,010.31
Labor Subtotal	935	170	110	376	104		11	50	48	54	12	**$ 142,813.17**
Hours per week assigned												
REIMBURSABLE ALLOWANCES (Not to Exceed)												**$ 3,000.00**
Travel												$ 1,500.00
Postage/Couriers												$ 500.00
Printing												$ 1,000.00
Total Fee												**$ 145,813.17**