

CITY OF GREAT FALLS, MONTANA
A G E N D A R E P O R T

AGENDA # 15
DATE: August 2, 2005

ITEM: Renewable Energy Design Services (O.F. 1404)

INITIATED BY: Public Works Department/Utilities Branch

ACTION REQUESTED: Approve Contract

PRESENTED BY: Jim Rearden, Public Works Director

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RECOMMENDATION: Staff recommends that the City Commission approve a contract with Stanley Consultants Inc. for design, construction management and optional alternative analysis of an electric generator using renewable resources at the Wastewater Treatment Plant.

MOTION: "I move that the City Commission approve the attached agreement with Stanley Consultants, Inc. in the amount of \$351,500 to provide services to design and construct renewable energy facilities at the Wastewater Treatment Plant."

SYNOPSIS: The proposed contract will complete the design begun by Veolia Water North America (Veolia) and provide construction management services for an electric generator that will utilize methane gas produced by the recently-completed anaerobic digesters. Optionally, Stanley Consultants, Inc. will examine another type of generator to determine whether it has a lower life-cycle cost. Costs for the contract are \$220,500 for design engineering, \$126,000 for construction engineering and \$5,000 for the optional alternative analysis. Sewer Utility Capital Improvement funds will be used for this project.

BACKGROUND: The recently-completed construction of anaerobic digesters at the wastewater treatment plant has resulted in generation of significant quantities of methane gas. This gas is currently being used in the digester heating boilers, but a considerable quantity of excess gas is being wasted. Veolia completed the design for a 560 KW generator installation to the 30% level to better understand the construction and operating costs for the installation. The City reviewed proposals from Veolia, Stanley Consulting and Black & Veatch for completion of the project. Proposed costs from the other firms were: Veolia at \$491,056 and Black & Veatch at \$449,176. The proposal from Stanley Consultants, Inc. was chosen based on being the lowest cost and having a significantly shorter time line than Black & Veatch's proposal. The optional alternative analysis will determine whether there are options that will generate a similar amount of electricity while having a lower life cycle cost. This analysis will look primarily at microturbines.

Summary of Proposals

Element	Veolia	Stanley	Black & Veatch
Design Engineering	\$245,656 ^①	\$220,500	\$252,476
Construction Engineering	\$245,400 ^②	\$126,000 ^③	\$196,700 ^③
Total Engineering	\$491,056 ^①	\$346,500	\$449,176
Alternative Analysis	N/A	\$20,000	\$42,049 ^④
Construction Cost	\$2,050,950	\$1.6 – 2.0 Million	\$1.6 – 2.2 Million
Time Line for Construction	9-12 Months after Notice to Proceed	12 Months after Notice To Proceed. Add 2 months for Alternative analysis	18 Months after Notice to Proceed. ^⑤

Notes:

- ① The original proposed design engineering cost was \$290,600, making the total cost \$536,000. Veolia indicated verbally they would deduct \$40,000 plus profit that was to reimburse them for preliminary engineering cost overruns.
- ② Design/Construction Management At-Risk approach
- ③ Design-Bid-Build approach
- ④ The scope of the proposed analysis is broader than necessary. The scope – and presumably the cost – would be reduced if this firm were chosen.
- ⑤ B&V will not begin detailed design until equipment bids have been received, resulting in a longer time line.