

**SUBMITTAL TO THE BOARD OF SUPERVISORS  
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**



101

**FROM:** Waste Management Department

**SUBMITTAL DATE:**  
March 6, 2007

**SUBJECT:** Termination Agreement for the Turnkey Design, Construction and Operation of Landfill Gas-to-Energy Facilities with Stewart & Stevenson Power, Inc.

**RECOMMENDED MOTION:** That the Board:

1. Approve the Termination Agreement with Stewart & Stevenson Power, Inc. for the Operation and Maintenance of the landfill Gas-to-Energy (G2E) Facility at the Badlands Landfill and turnkey design and construction of additional Gas-to-Energy facilities.
2. Authorize the Chairman to execute the Agreement on behalf of the Board.

**BACKGROUND:** On April 18, 2000, the Board authorized the execution of the turnkey design, construction and operation of up to seven G2E Units at five landfills with Stewart & Stevenson Power, Inc. (S & S). The Board also authorized the General Manager-Chief Engineer to issue a Notice to Proceed for the first unit at the Badlands Landfill. On June 8, 2000, a Notice to Proceed with Construction of the first Unit at the Badlands landfill was issued. On February 1, 2001, the first Unit at the Badlands Landfill came on-line. It was expected that S & S would conduct a Performance Test within the first months of operation. The contract states that the Performance Test must first be conducted and passed before a Notice of Completion is executed. However, due to the generation of less than expected landfill gas and S & S's difficulties passing the Performance Test, the Notice of (Cont'd)

Hans W. Kernkamp, General Manager-Chief Engineer

<b>FINANCIAL DATA</b>	Current F.Y. Total Cost:	\$ 0*	In Current Year Budget:	NO
	Current F.Y. Net County Cost:	\$ 0	Budget Adjustment:	NO
	Annual Net County Cost:	\$ 0	For Fiscal Year:	06/07

**SOURCE OF FUNDS:** \*The Termination Agreement results in a net payment to the Department of \$912,715, as a settlement for ongoing O&M costs.

Positions To Be Deleted Per A-30   
Requires 4/5 Vote

**C.E.O. RECOMMENDATION:**

**APPROVE**

County Executive Office Signature

Consent  
 Policy  
 Per Exec. Ofc.  
 Policy  
 Dep't Recomm.:  
 Per Exec. Ofc.:

Prev. Agn. Ref.: 12.4 (4/18/2000) | District: 5th | Agenda Number:

**12.1**

**ATTACHMENTS FILED  
WITH THE CLERK OF THE BOARD**

MAR 19 2007

Environmental Concerns

Completion for construction was delayed. However, substantial completion was determined to have occurred on February 1, 2001 when the facility was able to generate electricity.

The Department and S & S have both agreed that they are equally responsible for the G2E facility's less than expected performance during the first three years of operation. The Department did not supply enough landfill gas to properly operate the facility, and S & S did not properly operate the facility due to staffing shortages and inadequate equipment. However, over the last three years, gas quantity and quality has gradually increased at the Badlands G2E facility and S & S has repaired and modified equipment to the Department's satisfaction.

S & S, as required in the contract documents, conducted a Performance Test on the facility on March 12, 2003. The emissions portion of the Performance Test was sent to the South Coast Air Quality Management District (SCAQMD). After review, SCAQMD stated that since the emissions test showed several specific emissions over the allotted permit level, the engine could only be operated at 80% load. The SCAQMD revised the Permit to Operate (PTO) to reflect this reduction in load. After modifying several components to the G2E facility, S & S filed another application to operate at 100% load and conducted another Performance Test on October 12, 2005. The Department and SCAQMD reviewed and approved the Performance Test report results. The SCAQMD, upon review of the emissions portion of the Performance Test conducted on October 12, 2005, required a "30 day Public Notice" per Rule 212, which states that a notice must be sent to the surrounding neighborhood when an application for change of operating condition to an existing facility is received. A "30 day Public Notice" was filed on January 4, 2006. There were no public comments or objections to the revised permit and the SCAQMD issued a new PTO on February 17, 2006 for 100% load.

Since the Performance Test has been completed to the satisfaction of the Department, the Department determined in consultation with County Counsel that the construction portion of the contract had been completed and retention was paid for Badlands Landfill Unit No. 1 on November 2, 2006.

The Department and S & S have both agreed that there are certain portions of the operations section of the contract that need clarity for the benefit of both parties. Both parties have negotiated and agreed to terms included in the Termination Agreement (attached) and summarized in the following paragraphs:

#### O&M Price Modification

Form 2 in Exhibit 6 of the contract lists prices for variable O & M in years. The variable O & M price rises each year as more maintenance is required. The Department argued that this list was unfair since the engine at the time was not being operated fully and preventive maintenance and scheduled overhauls to the Unit are based on hours of operation, not years. S & S argued that their pricing in Form 2 was based on the engine being operated at close to full load and that, from February 2001 through February 2005, the Department had requested that the G2E facility be operated at less than full load (due to less landfill gas than expected), causing them financial hardship. However, the contract did not stipulate load requirements. Both parties have agreed to modify Form 2: Operation and Maintenance Costs, of Exhibit 6. The modified form will be retroactive to February 1, 2004. The new form (Annex II) cost for variable O & M is based on a cost per hour, depending on the hour of operation, regardless of year of operation or load. Revised Form 2 (Annex II) is attached to the Termination Agreement package.

#### SCE Standby Power Usage Costs for Non-Operation

There is no mention in the original contract as to which party will pay for SCE's monthly standby cost and power usage when the G2E facility is not operating. Both parties anticipated that the facility would be able to operate 92% of the time at or near full load. Both parties therefore assumed that SCE costs would be minimal. S & S has paid these costs since the facility came on-line February 1, 2001. During the course of the contract, the Department has used power generated from the facility at multiple field offices. S & S has not been paid the variable O & M cost for power supplied to the field offices. Since

the facility operated fewer hours than expected during the first three years, SCE costs have been much greater than anticipated. Since it is not stated in the contract which party would pay for SCE costs, both parties have agreed to split the cost of the first three years. A spreadsheet of SCE costs has been attached as Exhibit 19A to the amended package. Each party will pay \$30,034 of the \$60,068 utility bill.

Retroactive to April 1, 2004, and for the remainder of the contract, the Department has agreed to pay future SCE standby and power usage at the G2E facility in exchange for using power at the landfill's field offices and standby flare station at no cost from S & S. The cost for electrical usage when the engine was off-line was reduced from the total owed S & S. SCE's cost in which S & S will be reimbursed from April 2004 to December 2006 was \$28,434.

#### Past Damages and Penalties from Loss of Power Sales Revenue

It has been agreed to by both parties that past damages from loss of revenue of power sales prior to February 1, 2004, will be split in half. Penalties for scheduled but not delivered power, when determined that the fault lies with S & S, shall be paid in full to the Department. Damages and penalties incurred by S & S will be subtracted from the O & M balance that is owed. S & S is owed \$155,057 for O & M from February 1, 2001 to January 31, 2004. A spreadsheet showing monthly damages and penalties is attached as Exhibit 20 to the Termination Agreement package.

S & S is owed \$115,156 for O & M from February 1, 2004 to December 31, 2006. This amount takes into account an hourly variable O & M rate as well as penalties to S & S for electrical sales losses and under production, as allowed in the provisions of the Termination Agreement.

#### Future Damages and Penalties from Loss of Power Sales Revenue

The contract states that S & S guarantees to be on-line 92% of the time during the year. The contract also states that if the G2E facility is not on-line 92% of the time, that there will be damages and penalties from loss of electrical sales revenue or fines from regulatory agencies such as the California Independent System Operator (CAISO) for scheduled but not delivered power. However, the contract does not state how these damages are to be collected and calculated. Both parties have agreed that damages and penalties would start when the facility has surpassed 8% off-line (700 hours) for each contract year. Per the Termination Agreement, damages from loss of electrical sales revenue due to the engine being off-line would be calculated as undelivered kWh multiplied by \$0.04 per kWh minus the variable kWh O & M cost as stated in Annex I and is attached to the Termination Agreement package. S & S shall be liable for penalties and regulatory fines that arise after 700 hours that the facilities are off line due to Contractor's fault in any contract year. The amount of damages and penalties will be subtracted from the monthly invoice amount owed to S & S for O & M. The change will be retroactive to February 1, 2004 and be in effect until the end of the contract.

#### Shut-Down Threshold

S & S has argued that requests by the Department for the G2E facility to be turned on and off, because of part time operation due to a lack of landfill gas, has resulted in excessive wear and tear on the Unit. Both parties have agreed that any start-up of the unit after the thirtieth request by the WMD to shut-down, in any contract year, will result in a charge of \$125 for each unassisted start and stop, and \$375 for each assisted (S & S operator involved) start-up.

In mid 2006, S & S requested the termination of the contract for Turnkey Design, Construction and Operation of Landfill Gas-to-energy Facilities. After several meetings, it was determined that the Department, in order to reach a fair settlement amount, would need to send out an O & M RFP to ascertain the cost of having another contractor take over O & M for the remainder of the contract.

In fall 2006, the Purchasing Department, at the request of the Department, issued a Gas-to-Energy Operation and Maintenance RFP for the Badlands landfill facility. Three proposals were received. The Department is in the final stages of selecting the most qualified candidate. The Department expects to enter into agreement, with Board Approval, with the most qualified candidate in March or April 2007.

In conjunction with County Counsel, the Department has reached a settlement to terminate the Turnkey Design, Construction and Operation of Landfill Gas-to-Energy facilities contract with Stewart & Stevenson, Inc. In exchange for terminating the 10-year duration contract 3.9 years earlier than agreed to and to be released of the responsibility to design and build any other gas-to-energy facilities listed in the Contract, the Department will receive a lump sum payment of \$912,715 and a new back-up 1,800 horsepower Deutz V16 TBG 620 engine.

The Waste Management Department determined that it will cost \$1,215,440 more to have another contractor operate the gas-to-energy facility for the remainder of the 3.9 year contract. S & S is owed a total of \$302,725 for O & M and SCE costs, which results in the aforementioned lump sum payment to the Department of \$912,715.

As part of the termination package, the Department will receive a new back-up 1,800 horsepower Deutz V16 TBG 620 engine at no cost. S & S in turn, will be released of their obligation to design and build any additional gas-to-energy units. The back-up engine can be used to replace the existing engine in Unit 1 or be used on Unit No. 2 which is budgeted for construction in the 07/08 fiscal year. It is estimated that the engine's worth is between \$250,000 and \$400,000.

#### Project Overview

Since February 2001, the Gas-to-Energy facility at the Badlands landfill has generated \$1,300,000 in electric sales revenue. The facility cost \$1,500,000 to build and has cost \$302,725 to operate thus far. With a settlement amount of \$912,715, the project has generated \$409,990 in revenue to fund ongoing maintenance and additional facilities. It is now fully paid for and is in full working order, with a new back-up engine should the Board approve the Termination Agreement. Twenty-two million kilo-watts of renewable power have been generated since start-up of the facility. The power is currently sold to the City of Riverside as part of their "green power" portfolio under an existing five-year power sales agreement.

There is enough landfill gas now at the site to consider installing a second unit. The Department has budgeted for the second unit in the 07/08 fiscal year budget. Going forward, the Department anticipates issuing a Public Works Bid, after obtaining Board approval, for the construction of a second unit and another RFP to maximize power sales revenue. For the foregoing reasons, it is staff's recommendation that the Termination Agreement be approved by the Board.