

**REQUEST FOR APPROVAL**

**To:**                   **Howard Levenson**  
Deputy Director, Materials Management and Local Assistance Division

**From:**               **Shirley Willd-Wagner**  
Branch Chief, Financial Resources Management

**Request Date:**       **November 17, 2010**

**Decision Subject:**   Approval of a Recycling Market Development Zone Loan for Environ Strategy Consultants, Inc. (Recycling Market Development Revolving Loan Subaccount, Fiscal Year 2010/11)

**Action By:**           **December 1, 2010**

---

**Summary of Request:**

This memo requests approval of a Recycling Market Development Zone (RMDZ) loan to Environ Strategy Consultants, Inc., located in Chino, California (Chino Valley RMDZ). The applicant has leased an anaerobic digestion biomass power facility where it plans to process and convert food waste into biomethane gas. Loan funds will be used to purchase a hydropulper system. This loan project meets the required eligibility criteria established in September 2008 to receive loan funding. The loan application was considered and approved by the Loan Committee on October 7, 2010. If approved by the Deputy Director, this loan will be funded from the Recycling Market Development Revolving Loan Subaccount, Fiscal Year 2010/11.

**Recommendation:**

Staff recommends approval of this RMDZ loan, subject to the conditions and directions specified below in "Deputy Director Action." This project is expected to further increase both local and regional diversion efforts, as well as increase employment and local revenues.

---

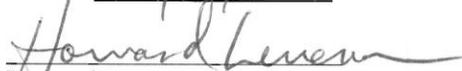
**Deputy Director Action:**

On the basis of the information and analysis in this Request for Approval and the findings set out herein, I hereby approve the following Recycling Market Development Zone loan in the original principal amount shown next to the Borrower's name, subject to all terms and conditions contained in the loan agreement to be prepared by loan program staff in accordance with applicable regulations, and on such other terms and conditions as duly authorized staff in their sole discretion deems necessary or advisable:

Environ Strategy Consultants, Inc.....\$1,637,500

I further direct staff to conduct all acts necessary to fund this loan, including but not limited to the preparation and execution of the loan agreement and other loan documents.

**Dated:** 11/16/10

  
Howard Levenson

Deputy Director, Materials Management and Local Assistance Division

**Proposed Loan Project**

Environ Strategy Consultants, Inc. (Environ) is requesting a loan totaling \$1,637,500 from the Recycling Market Development Zone Loan Program (RMDZ loan). Loan funds will be used to purchase equipment (hydropulpers and ancillary equipment) for an anaerobic digestion project that will process food waste derived from commercial sources (i.e., restaurants, food courts, malls, entertainment centers, theme parks, etc.) and industrial sources (i.e., food processing plants, agricultural operations, rendering plants, etc.) to produce biomethane gas. This biomethane gas will be used to power two engine generators and produce electricity. The hydropulper system will separate the plastic, grit and other contaminants from the food waste into a homogenous organic liquefied pulp/slurry that is used to produce the biomethane gas. This process will also produce organic compost from the recovered digester sludge material. Future expansion plans may include the production of compressed natural gas (CNG) that can be used as a fuel in solid waste collection trucks and other heavy duty truck fleets, and for use in natural gas pipelines.

The project is located at the existing Regional Plant No. 5 Solids Handling Facility owned by the Inland Empire Utilities Agency (IEUA) in Chino, California. Environ has entered into a 10-year lease with the IEUA to rebuild and expand the anaerobic digester (AD) power plant, utilizing existing equipment that is currently dormant. This facility is equipped with a material receiving building, AD equipment, and two 1.5 megawatt bio-gas powered internal combustion engines for generating electricity. The proposed project will use the existing equipment on site, along with new equipment to further process the food waste into biomethane gas.

Environ will be targeting food wastes that are currently disposed of in Mid Valley landfill, Colton landfill, San Timoteo landfill, Lamb Canyon landfill and El Sobrante landfill. In the initial stages of the project, Environ projects to divert 150 tons per day or approximately 54,750 tons per year from California landfills. When more fully operational, the processing capacity will expand to 300 tons per day or approximately 100,000 tons per year. The RMDZ loan fund represents 45% of the total project cost, estimated to be approximately \$3,679,500.

If all project funding and equipment is secured per project timelines, Environ anticipates starting production by October 2011 and selling any surplus power to Southern California Edison. As a result of the proposed loan, Environ plans to divert 100,000 tons of food waste annually from regional landfills and create up to eight new jobs in the City of Chino//San Bernardino County region.

<b>Diversion Volumes</b>	<b>Current</b>	<b>Projected Increase</b>	<b>Total</b>
Tons per Year	0	100,000	100,000
Jobs Created	35	8	43

**Loan Program and Project Eligibility**

The purpose of the RMDZ Loan Program is to provide low-interest loans to private businesses and not-for-profit organizations to increase diversion of non-hazardous solid waste from California landfills and to promote market demand for secondary and postconsumer materials. Funding for the Loan Program is authorized by Statute in Public Resources Code, Section 42023.1.

In accordance with established procedures, all loan applications are reviewed and evaluated to ensure that the project meets current eligibility and underwriting criteria and has obtained required permits as determined by CalRecycle permit staff. The Loan Committee then considers the fiscal soundness and terms of the proposed loan and recommends that the loan request be either approved or declined. Upon conclusion of this process and Loan Committee approval recommendation, CalRecycle senior management staff reviews the loan request and determines whether to make a commitment to approve and fund the loan.

**Project Eligibility Criteria** for the RMDZ Loan Program were approved in September 2008. Staff reviewed the proposed loan project and determined it is consistent with the established criteria.

**Interdivisional Reviews** were performed by various entities within CalRecycle. Their findings are indicated below:

- The Budgets Office confirmed there are sufficient monies allocated for Fiscal Year 2010/2011 to fully fund this loan.

<b>Fund Source</b>	<b>Amount Available</b>	<b>Amount to Fund Item</b>	<b>Amount Remaining</b>	<b>Line Item</b>
RMDZ Loan Sub Account, FY 2010/11	\$2,805,000*	\$1,637,500	\$1,167,500	Direct Loan

\*Estimated

- Legal Counsel for the RMDZ Loan Program was involved in staff discussions evaluating the merits and eligibility of the loan project prior to the Loan Committee meeting. Legal Counsel is not aware of any significant legal issues related to this loan.
- Staff from the Permitting and LEA Support Division has reviewed the project. A full solid waste facility permit is not required for this proposed project; however, an Enforcement Agency (EA) Notification is required. Environ received the EA Notification from the San Bernardino County LEA and CalRecycle has issued SWIS no. 36-AA-0456.

*Note:* A full solid waste facility permit will be required if Environ moves forward with their plan to produce CNG. Environ will apply for this permit with the LEA during the second year of operation. Environ has provided copies of a Facilities Permit and a Permit to Construct from the South Coast Air Quality Management District that was issued to IEUA (owner of the Chino project site).

- Staff from the Local Assistance and Market Development Division determined that the proposed feedstock (food waste) is currently disposed of in the City of Chino, as well as throughout San Bernardino County.
- Staff from Statewide Technical and Analytical Resources Division determined that the equipment to be purchased with loan funds, though never used in the United States, is currently used in Europe (Italy, Poland, Spain Belgium, Germany and Austria), Japan, South Korea and Canada (Ontario and Toronto) and is appropriate for use in this type of project.

The **Loan Committee** met on October 7, 2010 and recommends this loan be approved for funding.

**Applicant Profile**

Environ Strategy Consultants, Inc. was formed by Jinghui Niu in 1997 as a professional environmental engineering company. Environ specializes in petroleum remediation, water/wastewater engineering and management, landfill engineering and monitoring, groundwater assessment/remediation, storm water monitoring, and regulatory compliance for commercial/industrial companies and public agencies. The company is headquartered in Irvine, California - approximately 20 miles from the Chino project site. Environ has developed a good reputation throughout the industry for performing at a high level in the field of biologic treatment systems including AD operations. In 1997, Environ completed its first biologic waste treatment project, to remove nitrates from groundwater for a waste water treatment plant in Irvine, California. The latest significant project was an AD facility developed for Miller Brewing, in Irwindale, California.

In recent years, the environmental industry has changed due to new laws and regulations regarding greenhouse gas reductions and increases in requirements for renewable energy production. In California, local air districts have also imposed challenging emission limits on projects similar to the IEUA proposal. Environ has assembled a highly qualified and experienced team of professionals that can address these challenges and implement successful AD projects. In addition to Mr. Jinghui Niu, other project staff will include:

*John McNamara* (Project Manager) - has over 20 years experience working on solid waste projects including landfill sites throughout California.

*Christian Tasser* (Senior Engineer) - responsible for feedstock evaluation and pretreatment system management. Mr. Tasser has over 10 years in the industry and is very familiar with European food waste pretreatment systems.

*Kevin O'Malley* (Senior Engineer) – has over 19 years in the industry and responsible for the evaluation of biogas/CNG technologies.

### **Summary**

This project will assist in the implementation of CalRecycle's Strategic Directive Number 6 by providing an RMDZ loan to assist in the development of viable, sustainable markets to divert materials from landfills and Number 9.2 by encouraging the development of alternative energy.

This loan will also result in residual benefits to stakeholders and the State:

- The Zone Administrator for the Chino Valley RMDZ is aware of this project as it has the potential to increase local landfill diversion and create more jobs in the greater San Bernardino region.
- The Inland Empire Utilities Agency is considered a Publicly Owned Treatment Works and supports this project.
- This project contributes to the diversion of food waste from the local waste stream and will assist the City of Chino to comply with the 50% disposal reduction mandate under the Integrated Waste Management Act, Assembly Bill 939.
- The local solid waste company will serve as a viable source of commercial food waste feedstock to sustain biomethane gas production.