REQUEST FOR PROPOSALS

FEASIBILITY STUDY FOR THE

UKRAINE: SUMY WASTE and REFUSE DERIVED FUEL PLANT

Submission Deadline: **4:00 PM**

LOCAL TIME

MAY 14, 2012

Submission Place:

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SEALED PROPOSALS SHALL BE CLEARLY MARKED AND RECEIVED PRIOR TO THE TIME AND DATE SPECIFIED ABOVE. PROPOSALS RECEIVED AFTER SAID TIME AND DATE WILL NOT BE ACCEPTED OR CONSIDERED.

REQUEST FOR PROPOSALS

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Section 1: INTRODUCTION

The U.S. Trade and Development Agency (USTDA) has provided a grant in the amount of US$350,000 to SVIT-M Ltd. (the "Grantee") in accordance with a grant agreement dated March 26, 2012(the "Grant Agreement"). This Grant would fund a feasibility study (the "Feasibility Study") for a proposed Municipal Waste Processing (MSW) and Processed Engineered Fuel (PEF, also known as Refuse Derived Fuel) production plant project (the "Project") in Ukraine (the "Host Country"). The Grant Agreement is attached at Annex 4 for reference. The Grantee is soliciting technical proposals from qualified U.S. firms to provide expert consulting services to perform the Feasibility Study.

1.1 BACKGROUND SUMMARY

Currently, the city of Sumy (population approximately 300,000) produces 110,000 tons of municipal solid waste (MSW) per year. This MSW is collected in a set number of containers throughout the city and deposited into standard loading trucks, which are then driven 20 kilometers (km) to a landfill and dumped. All of the MSW is dumped without any processing or attempts at recycling aside from basic sorting done at individual homes. There was no preliminary sorting of waste by residents prior to August 2010. Food waste, recyclable materials and hazardous items were placed in the same containers. However, the situation is beginning to change due to the arrival of the new private waste management companies.

In May 2009 the City signed agreements with two private companies, GreenCo- Sumy and A-Musson, for MSW collection. The agreements are valid for three years with automatic extensions provided that the City is satisfied with the level of services rendered. Within a one-year term the companies have managed to replace the obsolete fleet of waste-collection vehicles and substitute the majority of containers with lighter easy-to-move ones produced from galvanized steel or wear-proof plastic. The new ergonomic containers comply with European standards and are sanitized and repaired on a regular basis.

SVIT-M was originally founded in 2002 with the purpose of providing the city of Sumy, in Ukraine, with services related to the transporting and reprocessing of solid domestic, non-radioactive, and non-toxic industrial waste. The City of Sumy signed a ten-year tender agreement with SVIT-M in September of 2006 to provide these services. The terms of the agreement include the requirement to build a Municipal Waste Processing (MSW) and Processed Engineered Fuel (PEF, also known as Refuse Derived Fuel) production plant. The proposed 80,000 ton-per-year facility would recycle the paper and cardboard, glass, plastic, rubber, ferrous metal and aluminum in the MSW, which is estimated to be 20% of the MSW. Recyclables would be sold at market prices. The majority of the remaining waste would be processed into PEF and sold to local boiler houses. Electricity production from PEF is considered renewable under Ukrainian law and is subject to a generous feed-in tariff. The remaining MSW would be landfilled.

The absence of a modern MSW processing plant remains a major stumbling block to effective and comprehensive recycling in Sumy. In the meantime, GreenCo and A-Musson are planning to use mobile sorting stations with simple conveyors to sort the waste to be collected in the new containers. However, this is only a temporary solution. Both the companies and the city

authorities are eager for SVIT-M to build the modern MSW processing plant at the designated location provided pursuant to the tender awarded to SVIT-M by the City.

SVIT-M has partnered with GreenCo-Ukraine, the leading waste processing company in Ukraine, which already controls 45% of the waste processing market in Sumy. This provides a significant base of expertise and allows for an initial guaranteed influx of waste to the proposed facility. The signed agreement stipulates that GreenCo will collect and transport waste directly to the plant operated by SVIT-M, and will assist in the operational duties at the plant. SVIT-M is owned by Ukrainian entrepreneur Mr. Sergey Shevchenko, who also controls the Sumykhimtrade Group of companies.

On December 1, 2011, SVIT-M and State Enterprise "UkrEcoResoursy", which is the main state company responsible for waste recycling in Ukraine, signed a joint venture agreement related to the construction of the MSW and PEF production plant in the City of Sumy. According to the agreement, UkrEcoResoursy will be responsible for in-kind contributions and project financing in the amount of UAH 18.0 million (US$2.25 million) in total, while the contribution of SVIT-M into the project should be UAH 12.0 million (US$1.5 million). The full text of the Agreement will be submitted to the Offeror to be selected by the Grantee and approved by the USTDA.

Portions of a background Desk Study is provided for reference in Annex 2.

1.2 OBJECTIVE

The purpose of this Feasibility Study is to assist the Grantee with the technical, economic, and financing viability of building and operating a proposed waste recycling and refuse derived fuel plant. The Terms of Reference (TOR) for this Feasibility Study are attached as Annex 5.

1.3 PROPOSALS TO BE SUBMITTED

Technical proposals are solicited from interested and qualified U.S. firms. The administrative and technical requirements as detailed throughout the Request for Proposals (RFP) will apply. Specific proposal format and content requirements are detailed in Section 3.

The amount for the contract has been established at a **fixed total amount of $456,875**. The contract will be funded by a fixed USTDA grant of US$350,000 and a fixed amount of US$106,875 that will be covered by the Grantee and paid directly to the Contractor. **Accordingly, COST will not be a factor in the evaluation and therefore, cost proposals should not be submitted**. Upon detailed evaluation of technical proposals, the Grantee shall select one firm for contract negotiations.

1.4 CONTRACT FUNDED BY USTDA AND GRANTEE

In accordance with the terms and conditions of the Grant Agreement, USTDA has provided a grant in the amount of US$350,000 to the Grantee. In addition to the USTDA funding provided under this Agreement, the Grantee will cover US$106,875 of costs in cash contributions paid

directly to the Contractor to complete the full Terms of Reference. The funding provided under the Grant Agreement and the Grantee's direct payments to the Contractor shall be used to fund the costs of the contract between the Grantee and the U.S. firm selected by the Grantee to perform the TOR. The contract must include certain USTDA Mandatory Contract Clauses relating to nationality, taxes, payment, reporting, and other matters. The USTDA nationality requirements and the USTDA Mandatory Contract Clauses are attached at Annexes 3 and 4, respectively, for reference. The Grantee's cash contributions are not subject to USTDA's nationality provisions.

Section 2: INSTRUCTIONS TO OFFERORS

2.1 PROJECT TITLE

The project is called the Sumy Waste and Refuse Derived Fuel Plant Feasibility Study.

2.2 DEFINITIONS

Please note the following definitions of terms as used in this RFP.

The term "Request for Proposals" means this solicitation of a formal technical proposal, including qualifications statement.
The term "Offeror" means the U.S. firm, including any and all subcontractors, which responds to the RFP and submits a formal proposal and which may or may not be successful in being awarded this procurement.

2.3 DESK STUDY REPORT

USTDA sponsored a Desk Study to address technical, financial, sociopolitical, environmental and other aspects of the proposed project. Portions of the report are attached at Annex 2 for background information only. Please note that the TOR referenced in the report are included in this RFP as Annex 5.

2.4 EXAMINATION OF DOCUMENTS

Offerors should carefully examine this RFP. It will be assumed that Offerors have done such inspection and that through examinations, inquiries and investigation they have become familiarized with local conditions and the nature of problems to be solved during the execution of the Feasibility Study.

Offerors shall address all items as specified in this RFP. Failure to adhere to this format may disqualify an Offeror from further consideration.

Submission of a proposal shall constitute evidence that the Offeror has made all the above mentioned examinations and investigations, and is free of any uncertainty with respect to conditions which would affect the execution and completion of the Feasibility Study.

2.5 PROJECT FUNDING SOURCE

The Feasibility Study will be funded under a grant from USTDA and through direct payments from the Grantee. The total amount of the grant is not to exceed US$350,000 in addition to the funding from the Grantee Cost Share of $106,875.

2.6 RESPONSIBILITY FOR COSTS

Offeror shall be fully responsible for all costs incurred in the development and submission of the proposal. Neither USTDA nor the Grantee assumes any obligation as a result of the issuance of this RFP, the preparation or submission of a proposal by an Offeror, the evaluation of proposals, final selection or negotiation of a contract.

2.7 TAXES

Offerors should submit proposals that note that in accordance with the USTDA Mandatory Contract Clauses, USTDA grant funds shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in the Host Country.

2.8 CONFIDENTIALITY

The Grantee will preserve the confidentiality of any business proprietary or confidential information submitted by the Offeror, which is clearly designated as such by the Offeror, to the extent permitted by the laws of the Host Country.

2.9 ECONOMY OF PROPOSALS

Proposal documents should be prepared simply and economically, providing a comprehensive yet concise description of the Offeror's capabilities to satisfy the requirements of the RFP. Emphasis should be placed on completeness and clarity of content.

2.10 OFFEROR CERTIFICATIONS

The Offeror shall certify (a) that its proposal is genuine and is not made in the interest of, or on behalf of, any undisclosed person, firm, or corporation, and is not submitted in conformity with, and agreement of, any undisclosed group, association, organization, or corporation; (b) that it has not directly or indirectly induced or solicited any other Offeror to put in a false proposal; (c) that it has not solicited or induced any other person, firm, or corporation to refrain from submitting a proposal; and (d) that it has not sought by collusion to obtain for itself any advantage over any other Offeror or over the Grantee or USTDA or any employee thereof.

2.11 CONDITIONS REQUIRED FOR PARTICIPATION

Only U.S. firms are eligible to participate in this tender. However, U.S. firms may utilize subcontractors from the Host Country for up to 20 percent of the amount of the USTDA grant for specific services from the TOR identified in the subcontract. USTDA's nationality requirements, including definitions, are detailed in Annex 3. Refer to Section 1.4 of this RFP for additional information on the applicability of USTDA's Nationality Requirements." The Grantee's cash contributions are not subject to USTDA's nationality provisions.

2.12 LANGUAGE OF PROPOSAL

All proposal documents shall be prepared and submitted in English.

2.13 PROPOSAL SUBMISSION REQUIREMENTS

The **Cover Letter** in the proposal must be addressed to:

Mr. Sergii Shevchenko
Director
SVIT-M Ltd.
36 Prokofyeva Street
Sumy, 40030
Ukraine

Phone: +38-0675401160

An Original and eight (8) copies of your proposal must be received at the above address no later than 4:00 PM, on May 14, 2012.

Proposals may be either sent by mail, overnight courier, or hand-delivered. Whether the proposal is sent by mail, courier or hand-delivered, the Offeror shall be responsible for actual delivery of the proposal to the above address before the deadline. Any proposal received after the deadline will be returned unopened. The Grantee will promptly notify any Offeror if its proposal was received late.

Upon timely receipt, all proposals become the property of the Grantee.

2.14 PACKAGING

The original and each copy of the proposal must be sealed to ensure confidentiality of the information. The proposals should be individually wrapped and sealed, and labeled for content including the name of the project and designation of "original" or "copy number x." The original and eight (8) copies should be collectively wrapped and sealed, and clearly labeled, including the contact name and the name of the project.

Neither USTDA nor the Grantee will be responsible for premature opening of proposals not properly wrapped, sealed and labeled.

2.15 OFFEROR'S AUTHORIZED NEGOTIATOR

The Offeror must provide the name, title, address, telephone number, e-mail address and fax number of the Offeror's authorized negotiator. The person cited shall be empowered to make binding commitments for the Offeror and its subcontractors, if any.

2.16 AUTHORIZED SIGNATURE

The proposal must contain the signature of a duly authorized officer or agent of the Offeror empowered with the right to bind the Offeror.

2.17 EFFECTIVE PERIOD OF PROPOSAL

The proposal shall be binding upon the Offeror for sixty (60) days after the proposal due date, and Offeror may withdraw or modify this proposal at any time prior to the due date upon written request, signed in the same manner and by the same person who signed the original proposal.

2.18 EXCEPTIONS

All Offerors agree by their response to this RFP announcement to abide by the procedures set forth herein. No exceptions shall be permitted.

2.19 OFFEROR QUALIFICATIONS

As provided in Section 3, Offerors shall submit evidence that they have relevant past experience and have previously delivered advisory, feasibility study and/or other services similar to those required in the TOR, as applicable.

2.20 RIGHT TO REJECT PROPOSALS

The Grantee reserves the right to reject any and all proposals.

2.21 PRIME CONTRACTOR RESPONSIBILITY

Offerors have the option of subcontracting parts of the services they propose. The Offeror's proposal must include a description of any anticipated subcontracting arrangements, including the name, address, and qualifications of any subcontractors. USTDA nationality provisions apply to the use of subcontractors and are set forth in detail in Annex 3. The successful Offeror shall cause appropriate provisions of its contract, including all of the applicable USTDA Mandatory Contract Clauses, to be inserted in any subcontract funded or partially funded by USTDA grant funds.

2.22 AWARD

The Grantee shall make an award resulting from this RFP to the best qualified Offeror, on the basis of the evaluation factors set forth herein. The Grantee reserves the right to reject any and all proposals received.

2.23 COMPLETE SERVICES

The successful Offeror shall be required to (a) provide local transportation, office space and secretarial support required to perform the TOR if such support is not provided by the Grantee; (b) provide and perform all necessary labor, supervision and services; and (c) in accordance with best technical and business practice, and in accordance with the requirements, stipulations, provisions and conditions of this RFP and the resultant contract, execute and complete the TOR to the satisfaction of the Grantee and USTDA.

2.24 INVOICING AND PAYMENT

Deliverables under the contract shall be delivered on a schedule to be agreed upon in a contract with the Grantee. The Contractor may submit invoices to the designated Grantee Project Director in accordance with a schedule to be negotiated and included in the contract. After the Grantee's approval of each invoice, the Grantee will forward the invoice to USTDA. If all of the requirements of USTDA's Mandatory Contract Clauses are met, USTDA shall make its respective disbursement of the grant funds directly to the U.S. firm in the United States. All payments by USTDA under the Grant Agreement will be made in U.S. currency. Detailed provisions with respect to invoicing and disbursement of grant funds are set forth in the USTDA Mandatory Contract Clauses attached in Annex 4.

Section 3: PROPOSAL FORMAT AND CONTENT

To expedite proposal review and evaluation, and to assure that each proposal receives the same orderly review, all proposals must follow the format described in this section.

Proposal sections and pages shall be appropriately numbered and the proposal shall include a Table of Contents. Offerors are encouraged to submit concise and clear responses to the RFP. Proposals shall contain all elements of information requested without exception. Instructions regarding the required scope and content are given in this section. The Grantee reserves the right to include any part of the selected proposal in the final contract.

The proposal shall consist of a technical proposal only. A cost proposal is NOT required because the amount for the contract has been established by a USTDA grant of US$350,000, which is a fixed amount.

Offerors shall submit one (1) original and eight (8) copies of the proposal. Proposals received by fax cannot be accepted.

Each proposal must include the following:

Transmittal Letter,
Cover/Title Page,
Table of Contents,
Executive Summary,
Firm Background Information,
Completed U.S. Firm Information Form,
Organizational Structure, Management Plan, and Key Personnel,
Technical Approach and Work Plan, and
Experience and Qualifications.

Detailed requirements and directions for the preparation of the proposal are presented below.

3.1 EXECUTIVE SUMMARY

An Executive Summary should be prepared describing the major elements of the proposal, including any conclusions, assumptions, and general recommendations the Offeror desires to make. Offerors are requested to make every effort to limit the length of the Executive Summary to no more than five (5) pages.

3.2 U.S. FIRM INFORMATION

A U.S. Firm Information Form in .pdf fillable format is attached at the end of this RFP in Annex 6. The Offeror must complete the U.S. Firm Information Form and include the completed U.S. Firm Information Form with its proposal.

3.3 ORGANIZATIONAL STRUCTURE, MANAGEMENT, AND KEY PERSONNEL

Describe the Offeror's proposed project organizational structure. Discuss how the project will be managed including the principal and key staff assignments for this Feasibility Study. Identify the Project Manager who will be the individual responsible for this project. The Project Manager shall have the responsibility and authority to act on behalf of the Offeror in all matters related to the Feasibility Study.

Provide a listing of personnel (including subcontractors) to be engaged in the project, including both U.S. and local subcontractors, with the following information for key staff: position in the project; pertinent experience, curriculum vitae; other relevant information. If subcontractors are to be used, the Offeror shall describe the organizational relationship, if any, between the Offeror and the subcontractor.

A manpower schedule and the level of effort for the project period, by activities and tasks, as detailed under the Technical Approach and Work Plan shall be submitted. A statement confirming the availability of the proposed project manager and key staff over the duration of the project must be included in the proposal.

3.4 TECHNICAL APPROACH AND WORK PLAN

Describe in detail the proposed Technical Approach and Work Plan (the "Work Plan"). Discuss the Offeror's methodology for completing the project requirements. Include a brief narrative of the Offeror's methodology for completing the tasks within each activity series. Begin with the information gathering phase and continue through delivery and approval of all required reports.

Prepare a detailed schedule of performance that describes all activities and tasks within the Work Plan, including periodic reporting or review points, incremental delivery dates, and other project milestones.

Based on the Work Plan, and previous project experience, describe any support that the Offeror will require from the Grantee. Detail the amount of staff time required by the Grantee or other participating agencies and any work space or facilities needed to complete the Feasibility Study.

3.5 EXPERIENCE AND QUALIFICATIONS

Provide a discussion of the Offeror's experience and qualifications that are relevant to the objectives and TOR for the Feasibility Study. If a subcontractor(s) is being used, similar information must be provided for the prime and each subcontractor firm proposed for the project.

The Offeror shall provide information with respect to relevant experience and qualifications of key staff proposed. The Offeror shall include letters of commitment from the individuals proposed confirming their availability for contract performance.

As many as possible but not more than six (6) relevant and verifiable project references must be provided for each of the Offeror and any subcontractor, including the following information:

Project name,
Name and address of client (indicate if joint venture),
Client contact person (name/ position/ current phone and fax numbers),
Period of Contract,
Description of services provided,
Dollar amount of Contract, and
Status and comments.

Offerors are strongly encouraged to include in their experience summary primarily those projects that are similar to the Feasibility Study as described in this RFP.

Section 4: AWARD CRITERIA

Individual proposals will be initially evaluated by a Procurement Selection Committee of representatives from the Grantee. The Committee will then conduct a final evaluation and completion of ranking of qualified Offerors. The Grantee will notify USTDA of the best qualified Offeror, and upon receipt of USTDA's no-objection letter, the Grantee shall promptly notify all Offerors of the award and negotiate a contract with the best qualified Offeror. If a satisfactory contract cannot be negotiated with the best qualified Offeror, negotiations will be formally terminated. Negotiations may then be undertaken with the second most qualified Offeror and so forth.

The selection of the Contractor will be based on the following criteria:

a) Experience and expertise of the proposed project management and technical personnel (20%)
b) Experience in developing feasibility studies on municipal solid waste processing and refuse derived fuel projects (15%)
c) Proposed technical approach and work plan for developing the FS, including the proposed schedule of performance (10%)
d) Experience in developing technical specifications and tender documentation for international projects of a similar nature (10%)
e) Experience in implementing municipal solid waste processing and refuse derived fuel plants, including comprehensive knowledge of relevant environmental and sanitary regulations (10%)
f) Experience in similar international projects, especially experience in similar projects in former Soviet Union countries or countries in the region. (5%)
g) Experience with and knowledge of relevant Ukrainian norms, including availability of personnel with comprehensive knowledge of Ukraine's construction norms and standards, construction permitting procedures, especially in the area of MSW-processing, as well as other regulations related to design, construction and operation of MSW-processing and utilization of various organic wastes to produce solid fuels. Also, availability of personnel with Ukraine's architectural qualification certificate or an agreement with a local properly licensed engineering/architectural company, which is an obligatory requirement stipulated by Article 20 of the Law of Ukraine "On Architectural Activity" # 687-XI (10%)
h) Proficiency in project financing in Eastern European countries, preferably in Ukraine (10%).
i) Ability to conduct work in the relevant host country language (5%)
j) Past performance (5%)

Proposals that do not include all requested information may be considered non-responsive.

Price will not be a factor in contractor selection.

ANNEX 1

Mr. Sergii Shevchenko
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UKRAINE: SUMY WASTE & REFUSE DERIVED FUEL PLANT FEASIBILITY STUDY (USTDA Activity Number 2012-61007A)

POC: Robin Yavuz, USTDA, 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901, Tel: (703) 875-4357, Fax: (703) 875-4009.

The Grantee invites submission of qualifications and proposal data (collectively referred to as the "Proposal") from interested U.S. firms that are qualified on the basis of experience and capability to develop a feasibility study for a waste recycling and refuse derived fuel plant in Sumy, Ukraine.

The Grantee, SVIT-M, Ltd., was originally founded in 2002 with the purpose of providing the City of Sumy with services related to the transporting and reprocessing of solid domestic, non-radioactive, and non-toxic industrial waste. The City of Sumy signed a ten-year tender agreement with SVIT-M in September 2006 to provide these services. The terms of agreement include the requirement to build a Municipal Waste Processing (MSW) and Processed Engineered Fuel (PEF, also known as Refuse Derived Fuel) production plant.

As such, the Grantee plans to build and operate a MSW processing (sorting and recycling), PEF manufacturing plant and transfer station at an existing site in the City of Sumy in Ukraine. MSW collected by the collection contractors will be delivered to the Project site and sorted to separate glass, ferrous and non-ferrous metals, and a potion of plastics, paper and cardboard for recycling. The remaining combustible materials, after removing inert and non-combustible material, is dried, compressed and pelletized or briquetted for use as fuel in the boiler houses of Sumska Oblast . An oblast is a type of administrative division in Ukraine, similar to a zone or province. The non-combustible material or tramps (e.g., any non-recyclable glass, and metals, food scraps, construction waste such as drywall, etc.) will be transferred to a recently opened landfill for disposal. The proposed project will also be used as a transfer station where MSW received in smaller trucks could be combined and reloaded into larger trucks and delivered to the new landfill 45 kilometers (km) from the city. The project site is only about 7 km from the center of the city, and the use of the transfer station is expected to result in transportation fuel cost savings.

The purpose of this study is to assess the technical, economic, and financing viability of the proposed project.

The U.S. firm selected will be paid in U.S. dollars from a $350,000 grant to the Grantee from the U.S. Trade and Development Agency (USTDA) and in direct payments of cash contributions from the Grantee in the amount of $106,875. The total contract amount will be fixed at $456,875.

A detailed Request for Proposals (RFP), which includes requirements for the Proposal, the Terms of Reference, and portions of a background definitional mission/desk study report are available from USTDA, at 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901. To request the RFP in PDF format, please go to: https://www.ustda.gov/businessopps/rfpform.asp. Requests for a mailed hardcopy version of the RFP may also be faxed to the IRC, USTDA at 703-875-4009. In the fax, please include your firm's name, contact person, address, and telephone number. Some firms have found that RFP materials sent by U.S. mail do not reach them in time for preparation of an adequate response. Firms that want USTDA to use an overnight delivery service should include the name of the delivery service and your firm's account number in the request for the RFP. Firms that want to send a courier to USTDA to retrieve the RFP should allow one hour after faxing the request to USTDA before scheduling a pick-up. Please note that no telephone requests for the RFP will be honored. Please check your internal fax verification receipt. Because of the large number of RFP requests, USTDA cannot respond to requests for fax verification. Requests for RFPs received before 4:00 PM will be mailed the same day. Requests received after 4:00 PM will be mailed the following day. Please check with your courier and/or mail room before calling USTDA.

Only U.S. firms and individuals may bid on this USTDA financed activity. Interested firms, their subcontractors and employees of all participants must qualify under USTDA's nationality requirements as of the due date for submission of qualifications and proposals and, if selected to carry out the USTDA-financed activity, must continue to meet such requirements throughout the duration of the USTDA-financed activity. All goods and services to be provided by the selected firm shall have their nationality, source and origin in the U.S. or host country. The U.S. firm may use subcontractors from the host country for up to 20 percent of the USTDA grant amount. Details of USTDA's nationality requirements and mandatory contract clauses are also included in the RFP. The Grantee's cash contributions are not subject to USTDA's nationality provisions.

Interested U.S. firms should submit their Proposal in English directly to the Grantee by 4:00 PM, May 14, 2012, at the above address. Evaluation criteria for the Proposal are included in the RFP. Price will not be a factor in contractor selection, and therefore, cost proposals should NOT be submitted. The Grantee reserves the right to reject any and/or all Proposals. The Grantee also reserves the right to contract with the selected firm for subsequent work related to the project. The Grantee is not bound to pay for any costs associated with the preparation and submission of Proposals.

ANNEX 2

DESK STUDY
WASTE RECYCLING & REFUSE DERIVED FUEL FEASIBILITY STUDY
CITY OF SUMY, UKRAINE

1. EXECUTIVE SUMMARY

SVIT-M Ltd (SVIT-M and /or Grantee), a private Ukrainian company, has applied to the U.S. Trade and Development Agency (USTDA) to fund a Waste Recycling and Refuse Derived Fuel Project feasibility study. The Project is proposed to be located in the City of Sumy, the capital of Sumska Oblast (State), in the Northeast of Ukraine. A U.S. firm, selected competitively, will carry out the Feasibility Study (FS), should USTDA provide funding for the study.

In late February 2011, USTDA awarded 3E Consulting LLC (3E) to conduct a brief study ("Desk Study") to:

a. Assess whether or not the SVIT-M proposed project meets USTDA's basic funding criteria;
b. Recommend appropriate Terms of Reference (TOR) for the feasibility study;
c. Develop an appropriate budget for the recommended TOR for the feasibility study.

The city currently generates 110 tons per year of municipal solid waste (MSW), which is land filled. SVIT-M plans to construct and operate a nominal 80,000-ton per year MSW processing and refuse derived fuel (RDF) manufacturing plant. Once the processing plant is constructed and operational, it is envisioned that approximately 20% of the MSW delivered to the processing plant will be sorted and recovered as recyclable material (e.g. paper and cardboard, glass, plastic, rubber, ferrous metal, and aluminum) and approximately 13% of the MSW will be converted to RDF, reducing the need for land filling of MSW by more than 30% and extending the life of a recently opened landfill from 4 years to over 5 years . Recyclable material will be sold at market prices and RDF will be sold to the boiler houses in the Oblast. The selling price of RDF is currently assumed to be 80% of coal prices for financial analysis purposes and will be established based on the economics of the plant and confirmed as a part of the feasibility study.

The MSW processing plant is to be constructed on a 4.5 acre (1.82 hectare) lot located in an industrial zone in the City of Sumy. SVIT-M plans to use a portion of the leased lot (about 30%) for sorting and recovery of recyclables and manufacture of pelletized or briquetted RDF and the remainder for storage and as a transfer station. The transfer station will receive MSW from small (15 and 35 cubic meter) refuse tippers, recombine and load it into much larger (105 cubic meter) trucks for delivery to the landfill.

Upon an initial review of the Grantee's proposed scope of work, schedule and costs, 3E concluded that the Grantee's cost and schedule is somewhat conservative. USTDA has also indicated that funding might not be available at the levels the Grantee has requested. Thus, 3E developed two alternative scopes of work for the feasibility study. Alternative No. 1 is a

modified version of the Grantee's scope of work. The Grantee's scope of work was modified to moderate the requirement for the FS Contractor to perform certain task elements that are not generally included in a feasibility study. These elements included requirements for ± 10% accuracy in capital cost estimate, obtaining permits, preparing architectural and/or construction drawings which are signed by a Ukrainian firm, and assisting in contract negotiations. Alternative No. 2 reduces the scope of work by eliminating tasks for conducting market assessments and preparing draft agreements. This alternative relies on publically available information, as well as information that may be available to SVIT-M and its partner GreenCo from other projects in Ukraine and other Eastern European countries, to establish typical recyclables and PEF characteristics and composition as well as recyclables prices for conducting the feasibility study. Should the feasibility study results be positive (e.g. currently assumed capital costs are confirmed, boiler tests with REF are successful, required infrastructure upgrades can be accomplished without having a negative impact on project economics, acceptable return on investment can be realized, etc.) then MSW and recyclables market assessments and preparation of draft sales agreements can be carried out as a part of a financing due diligence study as most financial institutions require such due diligence studies to be performed by their selected consultants.

Based on the review and analysis of the information provided by the Grantee, development of alternative scopes of work, schedule, and costs, discussion with USTDA, International Finance Corporation (IFC), Overseas Private Investment Corporation (OPIC), U.S. Export Import Bank (EXIM), Lundell Enterprises, Inc. (a potential, small U.S. equipment supplier), and Grantee representatives and past experience with similar projects, 3E concludes that:

- The Grantee's proposed scope of work is for an expanded feasibility study and includes certain elements of front end and detailed engineering design and construction services.
- The Grantee's proposed cost and schedule is conservative

- The City of Sumy generates sufficient MSW to meet the proposed plant demand. The City has a total area of about 56 square miles (145 square kilometers) and a population of 280,000. Most residents reside in high-rise buildings and the city generates 110,000 to 125,000 tons of MSW annually. This amount of MSW accounts for 80% of the total solid waste generated and is exclusive of any waste produced by commercial, industrial, and institutional (public) sectors of the economy. The average MSW per capita generated in Sumy is lower than U.S. counties in early 1990s (per curb-side recycling) and is expected to increase as the standard of living continues to increase in Ukraine.

- The project is a priority for SVIT-M, City of Sumy and the Oblast and consistent with the country's environmental laws. The project has received letters of support from the Sumy City Council and Mayor, the Sumska Oblast Administration, and the First Deputy Minister of Housing and Communal Services of Ukraine. SVIT-M has been developing this project since 2006 and has:

    - ✓ Obtained exclusive right, on a competitive basis, to construct and operate the project in the City of Sumy;

- ✓ Formed an alliance with GreenCo, a leading MSW management company in Ukraine, to access their expertise;
- ✓ Retained GreenMax, a U.S. firm, to promote the project among financial institutions; and
- ✓ Has obtained a 49-year lease on a 4.5 acre plot of land for the construction of the project.

➢ The Grantee's estimated project capital cost of US$13.2 million is optimistic and the eventual project capital cost could be as high as US$20 million to US$32 million. The project's IRR is higher than 10% at a capital cost of less than US$25 million assuming all other project economic and financing variables remain the same as those assumed by the Grantee. Due to uncertainties in the capital cost estimate at this stage of project development, the average of the low and high capital cost is used for estimating the IRR. The project capital costs and other financial assumptions will be confirmed as part of the Feasibility Study.

➢ SVIT-M and GreenCo, together, have the necessary technical and financial resources to implement the project and the Oblast has tentatively agreed to purchase the plant fuel output. However:

- ✓ The roles and responsibilities of SVIT-M's partners, specifically those of Silver Star, Inc. (a U.S. firm), are not well defined. Nor is the nature of an exclusive agreement between Lundell and Silver Star and/or SVIT-M for supply of equipment; any advantage or disadvantage that this agreement may provide Lundell; or the ability of Silver Star to provide 25% of the project equity.
- ✓ The market for the recyclable products, especially paper, cardboard, plastics, and glass, will have to be verified as a part of the FS.

➢ U.S. Export Import Bank, Overseas Private Investment Corporation, and International Finance Corporation representatives have expressed interest in providing debt financing/guarantee for the project should the feasibility study outcome be positive and the project meets their specific requirements. An equity contribution of 25% or greater by a U.S. entity will enhance the possibility of debt financing/guarantee by the U.S. Overseas Private Investment Corporation.

➢ The potential for export of U.S. goods and services for this project alone could range from US$8.9 million to US$11.8 million based on the estimated total project cost (or 37% to 68% of the total estimated total project cost). The U.S. export potential of US$8.9 million is based on capital cost estimates developed by SVIT-M and US$11.8 million potential U.S. export is based on 3E's capital cost estimate. The Oblast Administration plans to implement four other similar projects at four other cities should this project be implemented successfully.

➢ Depending on the USTDA investment and potential U.S. export levels, the return on the USTDA potential investment (the ratio of the potential U.S. export to USTDA investment) for the proposed project alone could range from 16% to 31% and from

40% to 79%, assuming a 50% probability that this and four other projects under consideration by the Oblast Administration are implemented.

- Currently, BPR, a recently acquired Canadian subsidiary of a U.S. firm (Tetra Tech based in Pasadena, CA) is the only U.S. firm active in MSW management activities in Ukraine. U.S. companies meet strong competition from European companies, especially Swedish, French and German firms.

3E believes that the proposed project meets USTDA's basic funding criteria, although it may not be as competitive as other projects currently being considered by USTDA. 3E recommends that USTDA consider providing FS grant funding for this project provided that the Grantee agrees to cost sharing.

2. INTRODUCTION

SVIT-M Ltd (SVIT-M and /or Grantee), a private Ukrainian company, has applied to the U.S. Trade and Development Agency (USTDA) for funding a Waste Recycling and Refuse Derived Fuel Project feasibility study. The Project is proposed to be located in the City of Sumy, the capital of Sumska Oblast, in the Northeast of Ukraine. A U.S. firm, selected competitively, will carry out the Feasibility Study (FS), should USTDA provide funding for the study.

In late February 2011, USTDA awarded 3E Consulting LLC (3E) to conduct a brief study ("Desk Stud") to:

a. Assess whether or not the SVIT-M proposed project meets USTDA's basic funding criteria;[1]
b. Recommend appropriate Terms of Reference (TOR) for the feasibility study;
c. Develop an appropriate budget for the recommended TOR for the feasibility study.

3E has prepared this report based on the review of the following documents:

- SVIT-M's grant application submitted to USTDA, and
- SVIT-M's response to 3E's request for clarification and additional information (Appendix A)

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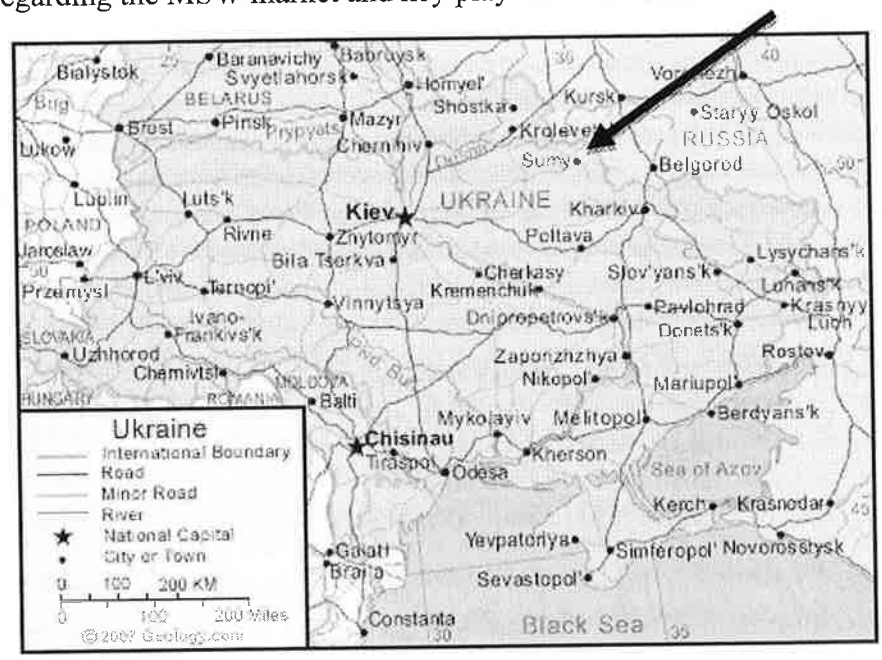
[1] USTDA funding criteria are that the project must: (1) be likely to receive implementation financing, and in addition, have a procurement process that provides "equal access" to U.S. firms; (2) represent an opportunity for sales of U.S. goods and services that is many times greater than the initial investment of USTDA assistance; (3) be a development priority of the project sponsor and country where the project is located and have the endorsement of the U.S. Embassy in that nation, and (4) involve U.S. companies that are facing market entry problems and/or strong competition from foreign companies which often receive subsidies and other support from their governments.

Furthermore, 3E held discussions and exchanged e-mail correspondences with a potential U.S. equipment supplier, the Grantee and GreenMax Capital Advisors, an International Finance Corporation (IFC) representative in Ukraine, USTDA, U.S. Export Bank (USEXIM) and Overseas Private Investment Corporation (OPIC) representatives in the U.S., and conducted Internet searches regarding the MSW market and key players in Ukraine.

This report presents our work as of May 3, 2011 and is dependent on the above-described sources of information.



3. PROJECT DESCRIPTION

SVIT-M plans to construct and operate a nominal 80,000-ton per year municipal solid waste (MSW) processing and refuse derived fuel (RDF)[1] plant. It is envisioned that approximately 20% of the MSW delivered to the processing plant will be sorted and recovered as recyclable material (e.g.; paper and cardboard, glass, plastic, rubber, ferrous metal, and aluminum) and approximately 13% of the MSW will be converted to RDF, reducing the total landfill requirement by more than 30%, once the processing plant is fully constructed and operational. It is anticipated that DRF/EPF will consist of sufficient combustible material (e.g., paper, plastic, wood waste, etc.) to produce a fuel with heating values acceptable by boiler operators.

SVIT-M is currently planning to implement the project in two phases subject to the outcome of the proposed feasibility study. The first phase will include all the necessary infrastructure upgrades and/or modifications and construction of a 50,000 ton per year MSW processing and RDF manufacturing plant in addition to an MSW transfer station. The second phase will add equipment for the processing of an additional 30,000 tons of MSW per year. Recyclable material will be sold at market prices and RDF will be sold to the boiler houses in the City of Sumy where the proposed MSW processing plant is located. The selling price of RDF is currently assumed to be 80% of coal prices based on its heating value but will need to be established based on the economics of the plant and confirmed as a part of the feasibility study. SVIT-M presents that "the Sumy regional administration guarantees purchase of the whole amount of solid fuel to be produced by the SVIT-M plant as long as this fuel corresponds to approved standards." The standards are to be developed jointly by SVIT-M

[1] Refuse Derived Fuel (RDF) and Processed Engineered Fuel (PEF) refer to the same process and are used interchangeably in this report. However, RDF generally refers to any fuel produced from MSW and could include fuels prepared for mass burning in stoker boilers whereas PEF generally refers to a fuel produced from MSW which has undergone some sorting and drying and been processed into pellets and/or briquettes.

and the Oblast Administration and will depend on the boiler test runs with PEF that are planned as part of this FS.[1] The boilers are being modified to burn solid fuel.

The MSW processing plant is to be constructed on a 4.5 acre (1.82 hectare) lot located in an industrial zone in the City of Sumy. This lot is leased from the City Council by SVIT-M for 49 years according to the information received for review. This lot is located approximately 7 kilometers (km) from the City's center. The new landfill, where the future MSW must be transferred to, is 49 km from the City (the old landfill, which is 19 km from the city, was recently closed according to updated information provided by SVIT-M). The City owns the landfills and the City's contractors currently collect over 110,000 tons per year of MSW from 627 sites throughout the city and transfer it to the landfill.

SVIT-M plans to use a portion of the leased lot (about 30%) for the sorting and recovery of recyclables and manufacture of pelletized or briquetted RDF and the remainder for storage and as a transfer station. The transfer station will receive MSW from small (15 and 35 cubic meter) refuse tippers, recombine and load it into much larger (105 cubic meter) trucks for delivery to the landfill.

The proposed project site is flat, has a concrete foundation, and is free of any buildings, trees, or other obstacles that would have to be removed. The suitability of the foundation to support the proposed equipment, buildings, and heavy trucks needs to be verified during the feasibility study. This site was previously used as a warehouse for sulfur and clean up of residual sulfur may be required prior to initiation of any construction activities.

The City of Sumy has a total area of about 56 square miles (145 square kilometers) and a population of 280,000. Most residents reside in high-rise buildings and the city generates 110,000 to 125,000 tons of MSW annually. This amount of MSW accounts for 80% of the total solid waste generated and is exclusive of any waste produced by commercial, industrial, and institutional (public) sectors of the economy.

4. PROJECT SPONSOR'S CAPABILITIES AND COMMITMENT

SVIT-M is based in the City of Sumy. Sumykhimtrade Group of Companies, controlled by Mr. Sergey Stanislavovich Shevchenko, a Ukrainian entrepreneur, is a holding company managing activities of subsidiaries supplying equipment to the oil, gas, and building material industries. The Group's annual revenues are reported to be US$5 – US$6.3 million (UAH40 – UAH50 million).

According to the FS grant application, the financial, technical, and human resource of Shery Ltd, the most profitable subsidiary of the Group, will be committed to implementation of the project. Shery's gross income was reported at US$3.6 million in 2010. Shery's clients include UkraTranGas (responsible for supply of natural gas in Ukraine and its transport through Ukraine to Western Europe), Ukrgasvidobuvannya (a gas and oil extraction company), and Sumykhimprom (supplier of paint and varnish products to the state railroad company, Ukrzaliznitsa).

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[1] Translation of letter from Deputy Head of Oblast Administration, M.A. Derkach to Director of SVIT-M, S. S. Shevchenko; August 18, 2010; No. 01-40/123; Submitted with draft Business Plan dated October 2010.

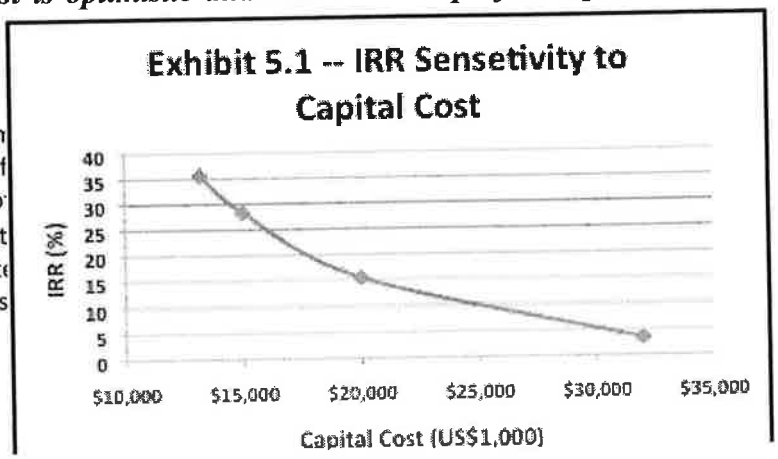
SVIT-M was specially organized to implement energy-efficient solid-waste recycling projects in the City of Sumy. In 2006, SVIT-M was awarded a 10-year exclusive cooperative agreement by the City Council to build and operate a Municipal Solid Waste Processing and Refuse Derived Fuel manufacturing plant in the City. SVIT-M also has formed an alliance with GreenCo Group (GreenCo), an experienced waste collection and processing firm in Ukraine, to access expertise in MSW processing.

SVIT-M initially applied for a USTDA feasibility grant in 2009. However, a review of the project by GreenMax Capital Advisors (GreenMax) found that: (1) SVIT-M lacked experience in the field of MSW collection and processing; (2) SVIT-M needed a more detailed business plan; and (3) a viable financing plan was lacking. Since then, SVIT-M has formed an alliance with GreenCo, an experienced waste collection and processing firm in Ukraine, to access knowhow in MSW processing. However, the exact role of GreenCo in the project is still under discussion. GreenCo-Sumy, a wholly owned subsidiary of GreenCo, has a three year contract with the City of Sumy for collection of MSW.[1] This contract was signed in 2009 and is renewable annually after 2012, provided that the City is satisfied with GreenCo performance. GreenCo is the largest waste management company in Ukraine and operates an RDF manufacturing plant in the Kyiv Region. SVIT-M also retained GreenMAx to assist with the development of their business plan and to promote the project with US Export-Import Bank (USEXIM), Overseas Private Investment Corporation (OPIC), International Finance Corporation (IFC), European Bank for Reconstruction Development (EBRD), and others.

SVIT-M has been developing this project for more than six years, has formed an alliance with the largest MSW transport and processing firm in Ukraine, and retained GreenMax, a U.S. firm, to access expertise and assist in developing a business plan and promoting the project with the financial institutions. SVIT-M and GreenCo together have the technical and financial resources to implement this project should the FS result be positive. However, the nature of the alliance between SVIT-M and GreenCo is yet to be defined.

5. IMPLEMENTATION FINANCING

The total capital cost for the proposed MSW processing and RDF manufacturing project is estimated by SVIT-M to be about US$13,180,000 for an 80,000 ton per year plant.[2] This cost is exclusive of any infrastructure improvements (electricity grid, transformer substation, sewerage, water supply upgrade, replacement, or overhaul) that may be required beyond the proposed project boundary. Such infrastructure improvements may be required to ensure supply of electricity and water to and discharge of wastewater from the project site. ***It is 3E's opinion that this estimated cost is optimistic and that eventual project capital costs could be as high as US$20***



[1] The City of Sumy also has a similar agreen
City's landfill. According to the available inf
market while A-Musson has excess of 55% o

[2] Although SVIT-M intends to first construct
tons per year, the financial analysis presente
a 50,000 ton per year plant is suboptimal, es

million to US$32 million. Exhibit 5.1 shows sensitivity of the project's internal rate of return (IRR) to the capital cost assuming an annual revenue of about $4.6 million in 2012 constant dollars (the financial model assumes an annual revenue increase (inflation) of 4%. **The project's IRR is higher than 10% at a capital cost of less than US$25 million.**

Table 5.1 compares capital cost estimates developed by SVIT-M and 3E. According to SVIT-M the cost of a 200,000-ton per year plant built in Ukraine, in 2005, by a French firm was €14 million (or €15.77 million in 2011, assuming an annual average inflation rate of 2%.) The capital cost of a 50,000-tons per year built in Ukraine by a German firm was €10 million in 2008 (or €10.61 in 2011).

Table 5.1 -- Estimated Capital Cost (US$1,000)

No.	Cost Components	3E Estimate	SVIT-M Estimate
1	Purchased Equipment[1]	6,400	6,400
2	Installation	2,560	3,100
3	I&C	0 – 960	0
4	Piping	0 – 1024	0
5	Electrical	320 – 640	0
6	Building	400 - 1,600	Included in 2
7	Yard Improvements	320 – 640	Included in 2
8	Services	640 - 2,560	Included in 2
9	Land	0	0
10	Total Direct Costs	10,640 - 16,384	9,500
11	Engineering	2,112	680
12	Construction	624 - 2,496	Included in 2
13	Total Direct & Indirect	13,376 - 20,992	10,180
14	Fees	0 – 1,050	0
15	VAT and Contingencies	2,099	2,000
16	Fixed Capital Investment	15,475 - 24,140	12,180
17	Working Capital	1,810 - 3,621	0
18	Commissioning and Start-up	200 – 840	200
19	Vehicles, tools, furniture, telecommunication Equipment	400	400
20	Infrastructure Support	625 - 1,250	0
21	Total capital Investment Exclusive of IDC	18,511 - 30,251	12,780
22	IDC	1,000 - 1,400	400
23	Total capital Investment Inclusive of IDC	19,511 - 31,652	13,180

[1] SVIT-M's best estimate based on information available to them and GreenCo, experience with similar type plants in Ukraine, and discussions held between SVIT-M and Lundell representatives at Lundell's offices in 2009.

Based on this information and using engineering practices for developing preliminary cost estimates, 3E estimates a capital cost of US$15.78 million ± 40% for the proposed project. 3E has also estimated the capital cost of the proposed project using the equipment cost as the bases for estimating other project component costs as shown in Table 5.1. This cost estimate ranges from US$19 million to US$32 million and includes infrastructure improvement costs outside of the project boundary as well as working capital, vehicles, tools, furniture, and telecommunication equipment.

SVIT-M envisions providing 40% ($5,272,000) of their estimated project capital cost of US$13.2 million as equity and borrowing the remaining 60%. 3E estimates that equity financing of US$6 million (at 30% equity financing) to US$12.8 million (at 40% equity financing) will be needed. Currently, it is not clear if additional equity will be available to support the project or how any potential project overruns may be handled, although SVIT-M and GreenCo together do have the financial resources to implement the project should additional equity be required. According to SVIT-M, potential sources of equity include:

- Revenue from operation of Sumykhimtrade Group of companies;
- GreenCo (the extent of GreenCo's interest in the project needs to be verified. The exact role and share of GreenCo in the project has yet to be determined, according to SVIT-M);
- 25% of project equity contribution from Silver Star Inc., a U.S. company (No information is made available by SVIT-M or Silver Star about this company. A Dun & Bradstreet search resulted in a number of companies with the same name but different addresses. An Internet search did not result in any useful additional information).

The exact form of the equity contribution to the project by SVIT-M and its partners is not yet finalized; is subject to the outcome of the feasibility study; and may be in the form of a contribution to the project company (SVIT-M), subordinated debt, or a quasi-debt.

Currently it is not clear additional equity sources, if required, will be available to the project. Furthermore, the extent to which potential project participants are committed to the project remains unclear. An equity contribution of 25% or greater by a U.S. entity increases the possibility of debt financing/guarantee by the U.S. Overseas Private Investment Corporation.

Potential sources of debt financing (60% of the project capital costs) include:

- USEXIM Bank,
- OPIC,
- EBRD's UKEEP credit line managed by UKrEXIMBANK, and
- EBRD's newly launched direct lending facility for renewable energy projects in Ukraine.

It is anticipated that the debt financing will be provided either on a corporate financing or export credit financing basis. The security package is envisioned to include, at minimum, a combination of:

- Mortgage security interest in three real estate premises owned by the Grantee in the City of Sumy with estimated market value of US$1,250,000;
- Corporate guarantee of Shery Ltd;
- Assignment of SVIT-M contracts for sale of recyclables and RDF; and
- Lien on installed equipment.

The envisioned security package should be sufficient for the debt financing subject to verification of recyclable material, PEF prices and project capital and operating costs.

SVIT-M is also in discussions with GreenCo Group and the City authorities for securing additional resources including:

- Corporate guarantee from GreenCo Group, the parent company of GreenCo-Sumy;
- Debt financing guarantees from the City of Sumy; and
- Up to $625,000 from the City of Sumy for infrastructure improvements (at this time it is not clear if the City will provide this amount as a grant, equity, or loan).

USEXIM, OPIC, and IFC representatives have expressed interest in providing debt financing/guarantee for the project should the feasibility study outcome be positive and the project meets their specific requirements. Although each financial institution's requirements may vary somewhat they all require that the following project fundamentals be met: (i) a market exists for the products; (ii) the project is within the demonstrated competence of the proposed management; (iii) the proposed management team has a proven record of success in the same, or a closely related business; (iv) project sponsor(s) have a significant continuing financial risk in the enterprise; and (v) project sponsors can meet project-related financial obligations without jeopardizing operation. Based on the available information, 3E believes that together SVIT-M and GreenCo can currently meet requirements (ii) and (iii). A feasibility study is needed to assess whether the project and/or project sponsor(s) can meet items (i), (iv), and /or (v).

6. U.S. EXPORT POTENTIAL

Table 6.1 shows the potential for export of U.S. goods and services for the Sumy project as well as the ratio of the potential US export to USTDA's investment should the request for a Feasibility Study grant be awarded. SVIT-M's grant request is for US$55,823, however; 3E's estimated cost for conducting the proposed FS excluding any Grantee cost is estimated to be US$741,371 (please refer to Section 13 for details). Table 6.1 shows the ratio of the potential US export to the potential USTDA investment range of US$558,000 to US$741,000 and low and high export potentials based on the range of the capital cost estimate. The Grant Application and the supporting documentation provided indicates that the proposed project is considered a lead or pilot project by the Sumy Oblast (State) Administration, that four other projects are planned for the cities of Shostka, Konotop, Hlukhiv, and Okhtyrka and will be implemented by Sumy Oblast should the proposed project be successful.

The high U.S. potential export is calculated as the low U.S potential export of US$8,935 times 100 divided by the estimated low capital cost of US$13,180 (8.935*188/13,180) and the low U.S. potential as the high U.S. potential export of US$11,838 times 100 divided by US$31,652 (11,838*100/31,652).

Table 6.1 – U.S. Export Potential and Ratio of US Export Potential to USTDA Investment

Cost Items	Estimated Cost (US$1,000)		Potential for U.S. Export		
	Low	High	%	Low (US$1,000)	High (US$1,000)
Purchased Equipment	6,400	6,400	100	6,400	6,400
Installation	3,100	2,560	25	775	640
I&C	0	960	50	0	480
Piping	0	1,024	0	0	0
Electrical	0	640	0	0	0
Building	0	1,600	0	0	0
Yard Improvements	0	640	0	0	0
Services	0	2,560	0	0	0
Land	0	0	0	0	0
Total Direct Costs	9,500	16,384	175	7,175	7,520
Engineering	680	2,112	75	510	1,584
Construction	0	2,496	10	0	250
Total Direct & Indirect	10,180	20,992	260	7,685	9,354
Fees	0	1,050	50	0	525
Contingencies	2,000	2,099	50	1,000	1,050
Fixed Capital Investment	12,180	24,141	360	8,685	10,928
Working Capital	0	3,621	0	0	0
Commissioning and Start-up	200	840	25	50	210
Vehicles, tools, furniture, telecommunication	400	400	0	0	0
Infrastructure Support	0	1,250	0	0	0
Total Exclusive of IDC	12,780	30,252	385	8,735	11,138
IDC	400	1,400	50	200	700
Grand Total	**13,180**	**31,652**	**435**	**8,935**	**11,838**

USTDA Investment		Requested	Alternative No. 1	Alternative No. 2	Requested	Alternative No. 1	Alternative No. 2
Investment Cost (US$1,000)		**558**	**556**	**377**	**558**	**556**	**377**
Ratio of Export Potential to USTDA investment		16	16	24	21	21	31
Ratio of Export Potential for all 5 Potential Projects to USTDA Investment Assuming 50% probability of success		40	40	59	53	53	79
Ratio of Export Potential for all 5 Potential Projects to USTDA Investment Assuming 100% probability of success		80	80	119	106	106	157

Potential U.S. Export		**High**	**Low**
% Capital Cost		68	37

It is 3E's opinion that the potential for export of U.S. goods and services could range from US$8.9 million to US$11.8 million (37% to 68% of the total estimated project cost).

The return on the USTDA investment (the ratio of the potential U.S. export to USTDA investment for Sumy MSW processing and process engineered fuel plant project alone) ranges from 16% to 31%. The return on USTDA's investment ranges from 40% to 79%, assuming a 50% probability that the proposed project and four other projects under consideration by the Sumy Oblast Administration are implemented. At 100% probability, the USTDA return on investment ranges from 80% to 157%.

7. FOREIGN COMPETITION AND MARKET ENTRY ISSUES

8. DEVELOPMENTAL IMPACT

Implementation of this project will have positive impact on the local, Oblast, and Ukraine economy to various degrees. This project will have a significant impact on the local

economy due to an increased number of jobs, increased revenue sources, and cost savings due to the extension of existing landfill life and reduced fossil fuel costs. At the national level, the successful implementation of this project would lead to implementation of other similar projects, which could reduce dependence on imported fossil fuels. These potential impacts will be confirmed and quantified as part of the proposed FS. The potential project benefits include:

- Improvement in Infrastructure:
  - ✓ The quantity of the recoverable and recyclable material is estimated to be 16,357 tons per year (or 20% of delivered MSW). The estimated RDF production annual capacity is 11,660 tons per year of which 10,844 tons per year (or about 13% of delivered MSW) will be available for sale. The remaining RDF will be used on site to generate heat/steam for the plant.
  - ✓ Potential upgrade and refurbishment of local electrical substation, water supply, and sewerage discharge system;
  - ✓ Extended life of the existing MSW landfill from 4 to over 5 years or by about 30%.
  - ✓ Improved MSW collection, transporting and transferring, recycling, and utilization processes;
  - ✓ Increased tax base for local governments;
  - ✓ Replication of the project in other cities within Sumy Oblast (four other projects are planned for implementation by the Oblast Administration).

- Human Capacity Building:
  - ✓ Implementation of this project is expected to generate 85 full-time positions in the short term (during construction phase) and up to 20 full-time positions during the operation phase of the project.
  - ✓ Project staff will be trained on operating and maintaining process equipment.

- Technology Transfer and Productivity Enhancement
  - ✓ Implementation of this project is expected to reduce the MSW landfill requirement by about 25% leading to extension of landfill life.
  - ✓ This project will convert about 13% of MSW to salable fuel resulting in reduction in fossil fuel demand. The estimated reduction in land filling due to production of fuel is 11,660 ton per year tons per year.

- Market Oriented Reform:
  - ✓ Successful implementation of this project will encourage implementation and enforcement of environmental regulations with regard to MSW recycling and utilization and Green House Gas Reduction.

- Other:
  - ✓ Increased tax base for the local governments;

9. IMPACT ON THE ENVIRONMENT

The successful implementation of this project will have significant impacts on reduction of Green House Gases (GHG) and potential contamination of the ground water. Traditional

landfills result in generation and release of GHG due to the decomposition of the MSW over time. They also pose the danger of contaminating ground level water due to heavy metal leaching. The new and technologically advanced landfills are expensive to build, requiring capture and processing of the emitted gases as well as collecting and treating of any water discharges. Implementation of this project will:

- Reduce uncontrolled emission of the GHG from local landfill;
- Will reduce the need for MSW land filling or incineration;
- Will produce fuel that can replace fossil fuels in the city's boiler houses;
- Will recycle paper, metals, and glass reducing the need for primary raw materials, which will have a significant impact on energy consumption, environmental emission due to extracting and processing raw materials.

10. IMPACT ON U.S. LABOR

Implementation of this project will have a positive impact on U.S. labor should U.S firms be able to successfully compete for implementation of this project. The potential for U.S. firms to successfully compete for this project substantially improves, due to the exposure that this project will receive within the U.S. industry, should USTDA provide a grant for the conduct of the feasibility study. In addition to the number of jobs that will be created in the U.S. for conducting the feasibility study and equipment supply, additional U.S. jobs are expected to be created during the design and construction management phase of the project as well as for training of project staff for operation and maintenance of project equipment. More importantly, the implementation of this project by a U.S. consortium of design, engineering, and construction firm(s) and equipment supplier(s) will improve competitiveness of U.S. MSW processing and PEF manufacturers in future projects in Ukraine as well as neighboring eastern European countries where MSW land filling is becoming an increasing problem due to the lack of landfills. Furthermore, additional jobs will be created as the initially supplied equipment must be serviced, refurbished and/or replaced. No negative impact is expected on the U.S. labor from the implementation of this project.

11. JUSTIFICATION

The financial institutions such as IFC, OPIC, and EXIM are interested in financing MSW processing and utilization projects and will provide financing for this project should the feasibility study outcome be positive and the project meets their specific requirements. The European Bank for Reconstruction Development (EBRD) was not contacted; however, a review of the EBRD website indicated that municipal sector financing including investment in solid waste processing in large and medium-sized cities is one of their focus areas. EBRD is promoting institutional reforms and corporatization of municipal utilities, financial and operational performance improvements and full cost recovery through tariffs, taking into account affordability constraints.

SVIT-M represents that it intends to purchase MSW processing and RDF manufacturing equipment from Lundell Enterprises Inc., a U.S. firm; has visited Lundell facilities in Illinois; and believes that Lundell can provide a complete package for the proposed project. Therefore, Lundell may have an advantage over potential European and other U.S. equipment suppliers should the FS confirm that the project is economically viable and meets financial institutions requirements.

This project represents a potential opportunity for export of U.S goods and services that is 12 to 21 times greater than the USTDA investment in the project. This potential increases up to 53 times greater than USTDA investment assuming 50% probability that this and four other similar projects planned by Sumy Oblast administration are implemented. The potential for export of goods and services increases to 106 times greater than USTDA investment assuming 100% probability that all five projects are implemented.

The project is a priority for SVIT-M, City of Sumy and the Oblast and is consistent with the country's environmental laws. The project has received letters of support from the Sumy City Council and Mayor, Sumska Oblast Administration, the First Deputy Minister of Housing and Communal Services of Ukraine. SVIT-M has been developing this project since 2006 and has:

- Obtained the exclusive right, on a competitive basis, to construct and operate the project in the City of Sumy;
- Formed an alliance with GreenCo, a leading MSW management company in Ukraine, to access expertise;
- Retained GreenMax, a U.S. firm, to promote the project among financial institutions; and
- Obtained a 49-year lease on a 4.5 acre plot of land for the construction of the project.

Currently, only a Canadian subsidiary of a U.S. firm is active in MSW management activities in Ukraine. U.S. companies meet strong competition from European companies, especially French and German firms.

SVIT-M and GreenCo, together, have the necessary technical and financial resources to implement the project and the Oblast has tentatively agreed to purchase the plant fuel output. However, the market for the recyclable products, especially paper, cardboard, plastics, and glass, will have to be verified as a part of the FS.

The project internal rate of return is about 10% at capital costs of $US25 million, 15% at a capital cost of US20 million and about 28% at a capital cost of US$15 million. Although an IRR of 10% may be low for this kind of project, an IRR greater than 15% is generally acceptable. The project capital costs, and product selling prices, and other financial assumptions will have to be verified as part of the Feasibility Study.

ANNEX 3

U.S. TRADE AND DEVELOPMENT AGENCY
Arlington, VA 22209-2131

NATIONALITY, SOURCE, AND ORIGIN REQUIREMENTS

The purpose of USTDA's nationality, source, and origin requirements is to assure the maximum practicable participation of American contractors, technology, equipment and materials in the prefeasibility, feasibility, and implementation stages of a project.

USTDA STANDARD RULE (GRANT AGREEMENT STANDARD LANGUAGE):

Except as USTDA may otherwise agree, each of the following provisions shall apply to the delivery of goods and services funded by USTDA under this Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from host country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for implementation of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in host country are not subject to the above restrictions. USTDA will make available further details concerning these standards of eligibility upon request.

NATIONALITY:

1) Rule

Except as USTDA may otherwise agree, the Contractor for USTDA funded activities must be either a U.S. firm or a U.S. individual. Prime contractors may utilize U.S.

subcontractors without limitation, but the use of host country subcontractors is limited to 20% of the USTDA grant amount.

2) Application

Accordingly, only a U.S. firm or U.S. individual may submit proposals on USTDA funded activities. Although those proposals may include subcontracting arrangements with host country firms or individuals for up to 20% of the USTDA grant amount, they may not include subcontracts with third country entities. U.S. firms submitting proposals must ensure that the professional services funded by the USTDA grant, to the extent not subcontracted to host country entities, are supplied by employees of the firm or employees of U.S. subcontractor firms who are U.S. individuals.

Interested U.S. firms and consultants who submit proposals must meet USTDA nationality requirements as of the due date for the submission of proposals and, if selected, must continue to meet such requirements throughout the duration of the USTDA-financed activity. These nationality provisions apply to whatever portion of the Terms of Reference is funded with the USTDA grant.

3) Definitions

A "U.S. individual" is (a) a U.S. citizen, or (b) a non-U.S. citizen lawfully admitted for permanent residence in the U.S. (a green card holder).

A "U.S. firm" is a privately owned firm which is incorporated in the U.S., with its principal place of business in the U.S., and which is either (a) more than 50% owned by U.S. individuals, or (b) has been incorporated in the U.S. for more than three (3) years prior to the issuance date of the request for proposals; has performed similar services in the U.S. for that three (3) year period; employs U.S. citizens in more than half of its permanent full-time positions in the U.S.; and has the existing capability in the U.S. to perform the work in question.

A partnership, organized in the U.S. with its principal place of business in the U.S., may also qualify as a "U.S. firm" as would a joint venture organized or incorporated in the United States consisting entirely of U.S. firms and/or U.S. individuals.

A nonprofit organization, such as an educational institution, foundation, or association may also qualify as a "U.S. firm" if it is incorporated in the United States and managed by a governing body, a majority of whose members are U.S. individuals.

SOURCE AND ORIGIN:

1) Rule

In addition to the nationality requirement stated above, any goods (e.g., equipment and materials) and services related to their shipment (e.g., international transportation and insurance) funded under the USTDA Grant Agreement must have their source and origin in the United States, unless USTDA otherwise agrees. However, necessary purchases of goods and project support services which are unavailable from a U.S. source (e.g., local food, housing and transportation) are eligible without specific USTDA approval.

2) Application

Accordingly, the prime contractor must be able to demonstrate that all goods and services purchased in the host country to carry out the Terms of Reference for a USTDA Grant Agreement that were not of U.S. source and origin were unavailable in the United States.

3) Definitions

"Source" means the country from which shipment is made.

"Origin" means the place of production, through manufacturing, assembly or otherwise.

Questions regarding these nationality, source and origin requirements may be addressed to the USTDA Office of General Counsel.

ANNEX 4

UKR 2012-61007A

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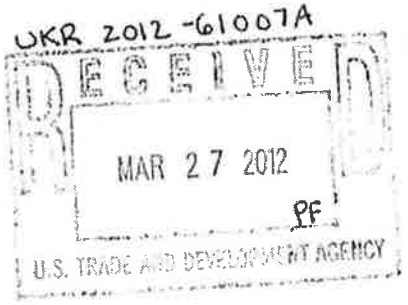

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GRANT AGREEMENT

This Grant Agreement is entered into between the Government of the United States of America, acting through the U.S. Trade and Development Agency ("USTDA") and SVIT-M Ltd. ("Grantee"). USTDA agrees to provide the Grantee under the terms of this Agreement US$350,000 ("USTDA Grant") to fund the cost of goods and services required for a feasibility study ("Study") on the proposed Sumy Waste Recycling and Refuse Derived Fuel Plant ("Project") in Ukraine ("Host Country").

1. USTDA Funding

The funding to be provided under this Grant Agreement shall be used to fund the costs of a contract between the Grantee and the U.S. firm selected by the Grantee ("Contractor") under which the Contractor will perform the Study ("Contract"). Payment to the Contractor will be made directly by USTDA on behalf of the Grantee with the USTDA Grant funds provided under this Grant Agreement.

2. Terms of Reference

The Terms of Reference for the Study ("Terms of Reference") are attached as Annex I and are hereby made a part of this Grant Agreement. The Study will examine the technical, financial, environmental, and other critical aspects of the proposed Project. The Terms of Reference for the Study shall also be included in the Contract.

3. Standards of Conduct

USTDA and the Grantee recognize the existence of standards of conduct for public officials, and commercial entities, in their respective countries. The parties to this Grant Agreement and the Contractor shall observe these standards, which include not accepting payment of money or anything of value, directly or indirectly, from any person for the purpose of illegally or improperly inducing anyone to take any action favorable to any party in connection with the Study.

4. Grantee Responsibilities

(A) The Grantee shall undertake its best efforts to provide reasonable support for the Contractor, such as local transportation, office space, and secretarial support.

(B) In addition to the support provided for by Article 4(A) above and the USTDA funding provided under this Agreement, the Grantee shall be responsible for covering US$106,875 of costs in cash contributions paid directly to the Contractor to complete the full Terms of Reference.

(C) In addition to the support provided for by Articles 4(A) and 4(B) above, the Grantee shall, in accordance with the Terms of Reference in Annex I of this Agreement, provide or assist the Contractor in obtaining all data required for this Study.

5. USTDA as Financier

(A) USTDA Approval of Competitive Selection Procedures

Selection of the U.S. Contractor shall be carried out by the Grantee according to its established procedures for the competitive selection of contractors with advance notice of the procurement published online through *Federal Business Opportunities (www.fedbizopps.gov)*. Upon request, the Grantee will submit these contracting procedures and related documents to USTDA for information and/or approval.

(B) USTDA Approval of Contractor Selection

The Grantee shall notify USTDA at the address of record set forth in Article 17 below upon selection of the Contractor to perform the Study. Upon approval of this selection by USTDA, the Grantee and the Contractor shall then enter into a contract for performance of the Study. The Grantee shall notify in writing the U.S. firms that submitted unsuccessful proposals to perform the Study that they were not selected.

(C) USTDA Approval of Contract Between Grantee and Contractor

The Grantee and the Contractor shall enter into a contract for performance of the Study. This contract, and any amendments thereto, including assignments and changes in the Terms of Reference, must be approved by USTDA in writing. To expedite this approval, the Grantee (or the Contractor on the Grantee's behalf) shall transmit to USTDA, at the address set forth in Article 17 below, a photocopy of an English language version of the signed contract or a final negotiated draft version of the contract.

(D) USTDA Not a Party to the Contract

It is understood by the parties that USTDA has reserved certain rights such as, but not limited to, the right to approve the terms of the contract and any amendments thereto, including assignments, the selection of all contractors, the Terms of Reference, the Final Report, and any and all documents related to any contract funded under the Grant Agreement. The parties hereto further understand and agree that USTDA, in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure the proper use of United States Government funds, and that any decision by USTDA to exercise or refrain from exercising these approval rights shall be made as a financier in the course of funding the Study and shall not be construed as making USTDA a party to the contract. The parties hereto understand and agree that USTDA may, from time to time, exercise the foregoing approval rights, or

discuss matters related to these rights and the Project with the parties to the contract or any subcontract, jointly or separately, without thereby incurring any responsibility or liability to such parties. Any approval or failure to approve by USTDA shall not bar the Grantee or USTDA from asserting any right they might have against the Contractor, or relieve the Contractor of any liability which the Contractor might otherwise have to the Grantee or USTDA.

(E) Grant Agreement Controlling

Regardless of USTDA approval, the rights and obligations of any party to the contract or subcontract thereunder must be consistent with this Grant Agreement. In the event of any inconsistency between the Grant Agreement and any contract or subcontract funded by the Grant Agreement, the Grant Agreement shall be controlling.

6. Disbursement Procedures

(A) USTDA Approval of Contract Required

USTDA will make disbursements of Grant funds directly to the Contractor only after USTDA approves the Grantee's contract with the Contractor.

(B) Contractor Invoice Requirements

The Grantee should request disbursement of funds by USTDA to the Contractor for performance of the Study by submitting invoices in accordance with the procedures set forth in the USTDA Mandatory Clauses in Annex II.

(C) Order of Disbursement

USTDA will make disbursements of Grant funds only after the Grantee has disbursed its full cost share of US$106,875 to the Contractor to complete the Terms of Reference per Article 4(B) of this Grant Agreement.

7. Effective Date

The effective date of this Grant Agreement ("Effective Date") shall be the date of signature by both parties or, if the parties sign on different dates, the date of the last signature.

8. Study Schedule

(A) Study Completion Date

The completion date for the Study, which is October 31, 2013, is the date by which the parties estimate that the Study will have been completed.

(B) Time Limitation on Disbursement of USTDA Grant Funds

Except as USTDA may otherwise agree, (a) no USTDA funds may be disbursed under this Grant Agreement for goods and services which are provided prior to the Effective Date of the Grant Agreement; and (b) all funds made available under the Grant Agreement must be disbursed within four (4) years from the Effective Date of the Grant Agreement.

9. USTDA Mandatory Clauses

All contracts funded under this Grant Agreement shall include the USTDA mandatory clauses set forth in Annex II to this Grant Agreement. All subcontracts funded or partially funded with USTDA Grant funds shall include the USTDA mandatory clauses, except for clauses B(1), G, H, I, and J.

10. Use of U.S. Carriers

(A) Air

Transportation by air of persons or property funded under the Grant Agreement shall be on U.S. flag carriers in accordance with the Fly America Act, 49 U.S.C. 40118, to the extent service by such carriers is available, as provided under applicable U.S. Government regulations.

(B) Marine

Transportation by sea of property funded under the Grant Agreement shall be on U.S. carriers in accordance with U.S. cargo preference law.

11. Nationality, Source and Origin

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and services funded by USTDA under the Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from Host Country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for performance of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in Host Country

are not subject to the above restrictions. USTDA will make available further details concerning these provisions upon request.

12. Taxes

USTDA funds provided under the Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country. Neither the Grantee nor the Contractor will seek reimbursement from USTDA for such taxes, tariffs, duties, fees or other levies.

13. Cooperation Between Parties and Follow-Up

The parties will cooperate to assure that the purposes of the Grant Agreement are accomplished. For five (5) years following receipt by USTDA of the Final Report (as defined in Clause I of Annex II), the Grantee agrees to respond to any reasonable inquiries from USTDA about the status or results of the Project, and upon receipt by the Grantee of the Final Report, will designate (by both title and organization) a point of contact for any such inquiries.

14. Implementation Letters

To assist the Grantee in the implementation of the Study, USTDA may, from time to time, issue implementation letters that will provide additional information about matters covered by the Grant Agreement. The parties may also use jointly agreed upon implementation letters to confirm and record their mutual understanding of matters covered by the Grant Agreement.

15. Recordkeeping and Audit

The Grantee agrees to maintain books, records, and other documents relating to the Study and the Grant Agreement adequate to demonstrate implementation of its responsibilities under the Grant Agreement, including the selection of contractors, receipt and approval of contract deliverables, and approval or disapproval of contractor invoices for payment by USTDA. Such books, records, and other documents shall be separately maintained for three (3) years after the date of the final disbursement by USTDA. The Grantee shall afford USTDA or its authorized representatives the opportunity at reasonable times to review books, records, and other documents relating to the Study and the Grant Agreement.

16. Representation of Parties

For all purposes relevant to the Grant Agreement, the Government of the United States of America will be represented by the U. S. Ambassador to Host Country or USTDA and Grantee will be represented by the Director. The parties hereto may, by written notice, designate additional representatives for all purposes under the Grant Agreement.

17. Addresses of Record for Parties

Any notice, request, document, or other communication submitted by either party to the other under the Grant Agreement shall be in writing or through a wire or electronic medium which produces a tangible record of the transmission, such as a telegram, cable or facsimile, and will be deemed duly given or sent when delivered to such party at the following:

To: Sergii Shevchenko
Director
SVIT-M Ltd.
36 Prokofyeva Street
Sumy, 40030
Ukraine

Phone: +38-0675401160
Fax: +38-0542635823
Email: alex.s.shev@gmail.com

To: U.S. Trade and Development Agency
1000 Wilson Boulevard, Suite 1600
Arlington, Virginia 22209-3901
USA

Phone: (703) 875-4357
Fax: (703) 875-4009

All such communications shall be in English, unless the parties otherwise agree in writing. In addition, the Grantee shall provide the Commercial Section of the U.S. Embassy in Host Country with a copy of each communication sent to USTDA.

Any communication relating to this Grant Agreement shall include the following fiscal data:

Appropriation No.:	1111/121001
Activity No.:	2012-61007A
Reservation No.:	2012091
Grant No.:	GH201261091

18. Termination Clause

Either party may terminate the Grant Agreement by giving the other party thirty (30) days advance written notice. The termination of the Grant Agreement will end any obligations of the parties to provide financial or other resources for the Study, except for payments which they are committed to make pursuant to noncancellable commitments entered into with third parties prior to the written notice of termination.

19. Non-waiver of Rights and Remedies

No delay in exercising any right or remedy accruing to either party in connection with the Grant Agreement shall be construed as a waiver of such right or remedy.

20. U.S. Technology and Equipment

By funding this Study, USTDA seeks to promote the project objectives of the Host Country through the use of U.S. technology, goods, and services. In recognition of this purpose, the Grantee agrees that it will allow U.S. suppliers to compete in the procurement of technology, goods and services needed for Project implementation.

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IN WITNESS WHEREOF, the Government of the United States of America and SVIT-M Ltd., each acting through its duly authorized representative, have caused this Agreement to be signed in the English language in their names and delivered as of the day and year written below. In the event that this Grant Agreement is signed in more than one language, the English language version shall govern.

For the Government of the United States of America

By: [signature]

Date: March 26, 2012

Witnessed:

By: [signature]

For SVIT-M Ltd.

By: Shevchenko [signature]

Date: 26.03.12

Witnessed: CUMYR YURIY

By: [signature]

Annex I -- Terms of Reference

Annex II -- USTDA Mandatory Clauses

Annex I

Terms of Reference

The Grantee plans to build and operate a municipal solid waste (MSW) processing (sorting and recycling), processed engineered fuel (PEF) manufacturing plant and transfer station at an existing site in the City of Sumy ("City") in Ukraine. MSW collected by the collection contractors will be delivered to the Project site and sorted to separate glass, ferrous and non-ferrous metals, and a potion of plastics, paper and cardboard for recycling. The remaining combustible materials, after removing inert and non-combustible material, is dried, compressed and pelletized or briquetted for use as fuel in the boiler houses of Sumska Oblast ("Oblast"). An oblast is a type of administrative division in the Host Country, similar to a zone or province. The non-combustible material or tramps (e.g., any non-recyclable glass, and metals, food scraps, construction waste such as drywall, etc.) will be transferred to a recently opened landfill for disposal. The proposed Project will also be used as a transfer station where MSW received in smaller trucks could be combined and reloaded into larger trucks and delivered to the new landfill 45 kilometers (km) from the city. The Project site is only about 7 km from the center of the city, and the use of the transfer station is expected to result in transportation fuel cost savings.

The purpose of this study is to assess the technical, economic, and financing viability of the proposed project.

The Feasibility Study will consist of the following tasks:

Task 1 -- Technical Assessment

The Contractor shall perform the following subtasks:

Subtask 1.1 -- MSW Quantity and Quality Assessment

The Contractor shall analyze the available historical data that may be provided by the Grantee, the City, GreenCo, and A-Musson regarding the historical volumes and morphological composition of MSW. Using this data, the Contractor shall estimate MSW volume fluctuation during a year. The Grantee will coordinate and assist the Contractor in collection of the historical data from the above sources.

The Contractor shall analyze the climate and various socio-economic factors including any available City population forecast data and developments planned by the City that may influence the MSW quantities and composition.

The result shall be an MSW forecast showing monthly volumes with a breakdown by major components for the next 10 years. Special attention shall be paid to the humidity levels of MSW since it affects the quality of PEF and the energy requirement for MSW drying.

The collected and analyzed data on MSW volumes and composition along with the other findings of this Feasibility Study shall be used by the Contractor to determine the capacity of the Project, including MSW processing, PEF manufacturing and the waste transfer station, as well as to develop a suitable Project plant design.

Subtask 1.1 Deliverable: The Contractor shall provide a letter report on all findings from this subtask, including MSW volume and composition projections. The Contractor shall provide a copy of this Subtask 1.1 Report to the Grantee and incorporate to the extent possible the Grantee's comments into the analysis for the Final Report.

Subtask 1.2 -- Recyclable Product and PEF Market Assessment
The Contractor shall:

a. Determine which recyclable products can be separated from the existing MSW in large volumes based on the information collected in Subtask 1.1 and discussions with manufacturers of commercially available technologies and process equipment suppliers for MSW separation.
b. Establish the composition of PEF that will be suitable for utilization in the Oblast's boilers based on available information on re-equipped boilers' design. The Grantee shall be responsible for coordinating and collecting any such information that may be required by the Contractor.
c. Coordinate and supervise an eight (8) hour test run at one of the Oblast's re-equipped boilers using information collected in (b). The Grantee and/or the Oblast shall be responsible for procuring pelletized/briquetted PEF, testing and collecting the information required by the Contractor. The Contractor shall develop a test protocol including a test matrix in coordination with the Grantee and the boiler operator. The Contractor shall analyze and evaluate the collected data to establish the technical performance of the boiler and identify the advantages and disadvantages of using PEF, any impact on boiler operation including boiler efficiency, reliability, availability, and emissions. The Grantee shall be responsible for obtaining the Oblast and the boiler house approvals within the project schedule for such a test.
d. Determine the demand, regulations, and risk factors that may impact the PEF market and prices in the Oblast and identify other potential markets that might be able to utilize the Project' s PEF output. Identifying specific clients for the purchase of PEF is not within the scope of this study. Since PEF value cannot be established based on PEF demand and market forces, PEF prices shall be determined based on its dried heating value compared to the heating value of coal that has a similar chemical analysis (i.e., ultimate analysis), as dried PEF is identified for use in Subtask 1.3. The Contractor shall adjust PEF prices for differences in the moisture content of PEF and coal.
e. Assess the Ukrainian market volume for recyclables and establish

recyclable prices based on the available information and a limited survey of potential recyclable material buyers. The Contractor shall forecast volumes of recyclable products and PEF as well as their prices. The Contractor shall also forecast conditions under which the market will be saturated taking into account planned MSW processing and PEF manufacturing plants in the Host Country and their scheduled start-up dates.

Subtask 1.2 Deliverable: The Contractor shall provide a letter report on all findings from this subtask. The Contractor shall provide a copy of this Subtask report to the Grantee and incorporate the Grantee's comments, to the extent possible and when mutually agreed upon, into the analysis for the Final Report.

Subtask 1.3 – Screening Analysis

The Contractor shall develop a methodology for determining a plant-based design and product slate taking into consideration at a minimum the available information on: MSW, recyclables, and characteristics, variation in MSW characteristics, technological constraints of boilers and their ability to handle and process briquettes and/or pellets, the minimum and maximum heating value of the fuel that may be required by the boiler houses, and the maximum acceptable ash content of the fuel. The objective of this Subtask is not to optimize the plant size but to conduct a preliminary and qualitative evaluation to determine the plant-based design for MSW processing, PEF manufacturing, and the transfer station. Pelletizing and briquetting technologies shall be evaluated based on, at a minimum, their relative costs (capital and operating), energy efficiency, scale, and PEF demand, and selected for incorporation in the plant-based design.

Subtask 1.3 Deliverable: The Contractor shall prepare a letter report establishing the plant-based design and providing a rational for selecting the plant scale. A copy of this report shall be provided to the Grantee for their review and comments. The Grantee's comments shall be incorporated in the final report analysis to the extent possible.

Subtask 1.4 -- Plant Conceptual Design

Using the results from Subtask 1.3, the Contractor shall develop a conceptual plant design, including at a minimum:

a. Preparing Process Flow Diagram(s) – Contractor shall prepare a Process Flow Diagram (PFD) showing major equipment.
b. Energy and material balances – Using the PFDs and MSW characteristics and expected equipment performance, the Contractor shall develop energy and material balances for each section of the plant and major equipment.
c. Equipment Specification (process equipment and balance of plant) – the Contractor shall select and specify equipment for: (1) separating recyclables and tramps; (2) PEF manufacturing; (3) transfer station; and

(4) balance of plant. The MSW separating equipment shall include but not be limited to: conveyors, bag slitters, magnetic separators, eddy current separators, air classifiers and trommels. The PEF manufacturing equipment shall include all the necessary equipment for pelletizing or briquetting. The MSW transfer facility shall include: slat conveyor(s) with storage hopper(s), loader(s), additional compacting equipment and crane(s). The balance of plant shall include equipment for water supply, sewerage and wastewater treatment system, ventilation and heating system, fire protection system, and standard and emergency lighting. In selecting and specifying equipment, such factors as size, capital and operating costs, energy efficiency, and environmental emission (air, solid, and water) shall be considered.

d. Automated Control System -- The Contractor shall prepare a conceptual design for an automated control system including communication for the process and the balance of the plant including water supply, ventilation and heating system, fire prevention system, standard and emergency lighting.
e. Equipment Layout and Plot Plan -- Based on the above information, the Contractor shall prepare a general equipment layout, plot plan and preliminary drawings for the building(s) and structures for the MSW processing, PEF manufacturing, transfer facility, storage, and outline main utility and other requirements for the building(s)
f. Electrical Drawing – The Contractor shall prepare a single line electrical drawing showing the facility's electrical power requirements and loads.
g. Interface Points – The Contractor shall determine interface points for connection of the new facility to other networks, including but not limited to: the existing power grid, water supply and sewerage systems and gas supply networks. The selection of interface points shall be based on estimated capital and operating costs as well as the requirements of the local power distribution company, the local water-supply company, and the City authorities.

Subtask 1.4 Deliverable: The Contractor shall define capacities, determine interface points with the existing networks and systems, prepare conceptual design and configuration for the MSW- processing, PEF production and waste transfer facility with a detailed description of each of the systems, and prepare PFD, general plot plan, and single-line-electrical drawings. The Contractor shall provide a copy of these deliverables including all analyses and the conceptual plant design in Subtask 1.4 to the Grantee for comments and incorporate the Grantee's comments into the analysis for the Final Report to the extent mutually agreed upon.

Subtask 1.5 – Infrastructure Assessment and Interface Points

The Contractor shall assess the condition of the existing infrastructure serving the Grantee's designated 4.5 acre lot in the City in order to determine its suitability

for use in conjunction with the MSW processing plant, PEF production facility and waste transfer station, in particular:

a. The Contractor shall consider the operational state and characteristics of the existing electricity grid up to and including the nearby transformer sub-station. The Contractor shall visit the site in early stage of the Study to determine whether these elements can be used as they are or require any upgrading, partial replacement, or complete overhaul. The Contractor shall propose any necessary modifications and estimate the cost of any such modifications.
b. The Contractor shall review the existing layouts and consider the operational state and characteristics of the water supply and sewerage systems to determine whether they require any upgrading, partial replacement or overhaul in order meet the Plant's requirements. The Contractor shall determine any modification required both inside and outside of the Grantee's property up to the main pipeline and estimate the cost of the proposed modifications.
c. The Contractor shall perform a general assessment of the nearby transportation infrastructure as well as the main routes of waste transporters to verify the convenience of the lot's location and to determine if the roads require any upgrading. The Contractor shall also study the approved City expansion plans and their possible impact on the location of the facility.
d. The Contractor shall analyze gas network layouts and other infrastructure only in case of necessity.

The Grantee shall provide the available drawings of the water supply and sewerage systems as well as the existing power grid. The Contractor shall preliminarily determine the interface points for connecting the facility to networks, including but not limited to: existing power grid, water-supply and sewerage systems. The Contractor, in coordination with the Grantee, shall meet with the City authorities, including the power distribution and water supply companies, to seek their input.

Sub-task 1.5 Deliverable: The Contractor shall preliminarily specify the interface points for connection of the new facility to other networks, including but not limited to the existing power grid, water supply, and sewerage systems, and the required updates or replacements of these systems. The Contractor shall provide terms of reference and/or specifications including costs regarding such connections and infrastructure upgrades or replacements for the Grantee comments. The Subtask 1.5 deliverable the Contractor provides to the Grantee shall include all analyses and findings from Subtask 1.5. The Grantee's comments shall be incorporated in the Final Report to the extent mutually agreed upon.

Task 2 -- Environmental Analysis

The Contractor shall complete a preliminary environmental assessment consistent with

the local requirements and those of multi-lateral lending agencies (such as the World Bank). The Contractor shall perform an environmental review, consistent with the requirements for MSW-processing plants and MSW transfer stations. This review shall identify both positive and possible negative impacts, discuss the extent to which the negative impacts can be mitigated, and develop plans for a full environmental impact assessment when the project moves forward to implementation stage. Based on the proposed capacity and design of the facility, the Contractor shall also evaluate greenhouse gas reductions as a result of the new MSW processing and transfer facility's construction and assess possible usage of the Kyoto Protocol Joint Implementation (JI) mechanism and the emerging Green Investment Scheme (GIS), which is expected to replace the JI mechanism in 2013. In addition, the Contractor shall estimate the cost for performing a full environmental impact assessment and identify mitigation measures and associated one-time and annual costs (within ± 25%).

Task 2 Deliverable: The Contractor shall provide all results of this environmental review and analysis in Task 2 in a letter report to the Grantee for comments and incorporate the Grantee's comments into the Final Report to the extent mutually agreed upon.

Task 3 -- Economic Analysis

The Contractor shall perform the following five (5) subtasks as delineated below.

Subtask 3.1 – MSW Tariff Estimate

The Contractor shall analyze the historical and existing tariffs for collection, transportation and utilization of MSW. Based on this analysis, projected inflation rate, and discussions with the City administration and MSW collection contractors, the Contractor shall prepare a 10-year tariff forecast, which in turn shall be used to prepare a 10-year revenue forecast of the MSW processing facility from the tariff payments. The Contractor shall discuss with the City and the City's contractors applicable tariffs and the mechanism of their tariff adjustment in the future to arrive at a reasonable long-term tariff projection.

Subtask 3.2 – Recyclable Products Tariff

Based on available cost data, scenario analysis and projected inflation rate, the contractor shall prepare a 10-year tariff for each recyclable material.

Subtask 3.3 -- Waste Transfer Fee Assessment

With the assistance of the existing waste transportation companies, the Grantee shall provide the Contractor the required information regarding MSW transportation costs in the City. Based on this information, the Contractor shall determine fuel savings and other financial benefits resulting from transporting waste in larger trucks at higher density from the new transfer station seven km from the City to the new landfill site 45 km from the City. This information then shall be used by the Contractor to develop a 10-year projected assessment fee for the transfer station.

Subtask 3.4 – Plant Capital Cost

Taking into consideration the selected design and technical configuration of the facility developed in Task 1, the Contractor shall develop preliminary cost estimates (±25%) in U.S. dollars. The capital cost for each section of the plant shall be estimated separately and shall include, but not be limited to, the following:

a. Installed equipment cost for recyclables and tramp separation section of the plant, including but not limited to installed cost of conveyors, bag slitters, magnetic separation modules, Eddy current modules, air classifiers, trommels, and recyclables packaging;
b. Installed equipment cost for PEF production section of the plant including, pelletizing or briquetting costs and PEF loading and packaging;
c. Installed equipment costs for MSW-transfer station;
d. Installed cost of auxiliary equipment;
e. Vehicle costs;
f. Installed cost of automated control system, lighting system, communication system;
g. Cost of replacing, refurbishing, or upgrading of the water-supply and sewerage systems; electrical grid, transformer station, and/or natural gas supply;
h. Installed cost of fire-protection system; ventilation and heating system;
i. Installed costs of equipment for any environmental measure based on the findings of Task 3;
j. Buildings and structures;
k. Plot preparation, including fence and foundation upgrade;
l. Connection to the local electricity grid including transformer sub-station;
m. Equipment and material delivery costs;
n. Permitting and licensing fees;
o. Financing costs, including but not limited to interest during construction, bank and other creditors' fees and commissions, currency conversion costs and insurance;
p. Land lease payments during construction;
q. Legal fees;
r. Applicable value added tax (VAT), excise tax, customs duties and other obligatory payments;
s. Inspections fees;
t. Insurance;
u. Commissioning, startup, and spare parts; and,
v. Personnel training, working capital, contingency reserve and other costs.

Subtask 3.5 -- Plant Operating Costs

The operating cost estimates shall include, but not be limited to, the following:

a. Operating and maintenance costs for the MSW-processing facility including salaries of operating personnel and long-term service

agreement costs;

b. Operating and maintenance costs for the PEF-processing facility including salaries of operating personnel and long-term service agreement costs;
c. Operating and maintenance costs for the MSW transfer station, including salaries of operating personnel and long-term service agreement costs;
d. Operating and maintenance costs for any environmental measures, including salaries of operating personnel and long-term service agreement costs;
e. Operating and maintenance costs, particularly electricity costs, estimated separately for each section of the plant;
f. Annual electricity costs based on seasonal MSW load fluctuations and operational cycles of the facility;
g. Administrative and management fees;
h. Land lease and other rental and leasing costs;
i. Depreciation and amortization; and,
j. Interest, insurance, taxes, fees and any obligatory payments.

Subtasks 3.4 and 3.5 Deliverable: The Contractor shall provide capital and operating cost estimates based on the selected design and configuration of the MSW-processing, PEF production and waste transfer facility. This deliverable shall include all analyses and findings for Subtasks 3.4 and 3.5. The Contractor shall provide a copy of this cost estimate in a letter report along with projected tariffs for MSW and recyclables, and transfer services fees to the Grantee for comments and incorporate the Grantee's comments into the analysis for the Final Report as mutually agreed upon.

Task 4 -- Financial Analysis

The Contractor shall perform a detailed financial analysis and evaluation, including sensitivity analyses. The Contractor shall consider a 10-year period for the financial analysis and determine the PEF tariff required to meet a desired internal rate of return (IRR) while meeting all project-related financial obligations including, but not limited to, payment of principle and interest, production costs, and taxes. Special attention shall be given to the sensitivity of the project revenue and profitability as it relates to capital and operating cost of producing PEF versus costs related to extraction of additional recyclable products. In the financial analysis, the Contractor shall at a minimum provide the following:

Revenues:

The Contractor shall estimate the projected revenues for the following revenue streams:

- Revenues from rendering MSW transfer services;
- Revenues from sale of the recyclable products;
- Revenues from PEF sales, and
- Revenues from potential carbon credit.

Cash Flow:
The cash flow model shall be based on assumptions of the opening balance sheet of a new joint venture (JV) between the Grantee and its partner, GreenCo, to be registered in the City and shall include projections of the likely financial performance of the JV over at least 10 years. The Contractor may extend this period by an additional 10 years. Only actual payments or receipts shall be included in the cash flow calculation. The cost streams shall include all the costs incurred and shall be quantified with reference to the cash impact of (i) the working capital requirements, including VAT funding, (ii) the cash impact of depreciation and amortization on the capital assets, (iii) applicable profit tax, and (iv) the Project's capital expenditures.

Primary assumptions for determining annual net cash flow due to the investment are (i) recyclable products and PEF volumes and prices; (ii) tariffs for MSW processing and transfer; (iii) expected life of installed components of the new facility; (iv) operation and maintenance costs for the new MSW-processing and transfer facility; (v) insurance and conditions of a long-term service agreement; (vi) taxation structure; (vii) loan and lease terms and conditions; (viii) depreciation method; and (ix) operational cycle and annual hours of operation of the facility.

Profitability Analysis:
The Contractor shall generate and evaluate specific indices of economic performance such as profitability, return on investment, internal rate of return, debt service coverage ratio and net present value. The Contractor shall design the financial analysis to evaluate available financing scenarios, analyze each scenario' s cost effectiveness, and compare each scenario's improvement in relation to the situation at the time of the Feasibility Study. In addition to assessing routine operating and investment costs, the profitability and financial analysis shall compare costs of financing, including but not limited to interest on bank credits and other banking charges.

The Contractor shall assess the potential profitability of a project variant based on conservative assumptions. A project variant may be recommended for financing so long as the estimates demonstrate that the Project is able to generate sufficient cash flow to fund operations and repay debts. No project variant that cannot pay for itself or that would require any additional external subsidies shall be recommended (including investment and financing costs). The Contractor shall calculate other scenarios, such as best and worst case projections for the Project's performance.

The Contractor shall develop a viable financing plan for the Project. In developing a financing plan for the Project, the Contractor shall consider and evaluate sources of funds to cover the capital expenditures and how the free cash flows shall be used to cover the projected debt service. In order to evaluate potential sources of financing, the Contractor shall contact local and international long-term debt financing sources to discuss their requirements for, and interest in, the Project. Sources to contact include, but are not limited to, the U.S. Export-Import Bank, the European Bank for Reconstruction and Development (EBRD), the EBRD – Global Environmental Fund (GEF) credit facility for small and medium renewable energy enterprises in the Host Country, the U.S. Overseas

Private Investment Corporation (OPIC), the International Finance Corporation (IFC), the European Investment Bank, as well as other international financial institutions and local commercial banks that might be interested in providing long-term financing for the project. The Contractor shall obtain indicative term sheets from potential lenders, when possible, and include them in the final Feasibility Study report.

The Contractor shall develop a financing plan taking into account the comments and requirements of the aforementioned institutions. The financing plan should include indicative capital structure, covenants, terms and conditions for borrowings. It should address interest rate and currency hedging, duties and taxes, and foreign exchange availability. In addition to the projected economic analysis, the available sources of financing and proposed financing plan will be used to assess the projected financial viability of the Project.

The Contractor shall also prepare a *pro forma* or projected income statements and balance sheets, and shall conduct and report on a sensitivity analysis to demonstrate the range of conditions under which the project will be profitable and the extent, to which the projections are dependent on uncontrollable conditions or factors. The *pro forma* financial statements will consist of the Income Statement (Profit and Loss Account), the Balance Sheet, Statement of Cash Flows and Financial Ratios that include profitability calculations and cash flow projections. The Contractor shall provide advice on how to make the project most bankable including providing risk minimization strategies to the extent that they are within control of the Grantee and shall anticipate and address risk and return criteria of the most likely sources of bank loan financing.

The Contractor shall calculate projected reductions of greenhouse emissions from the project and shall consider financing alternatives based on the JI mechanism and/or the emerging GIS, which is expected to replace the JI mechanism after 2013.

Sensitivity Analysis:
The Contractor shall evaluate sensitivity of the Project's return as a function of capital costs, recyclable prices, financing costs, and potential delays in construction schedule.

Task 4 Deliverable: The Contractor shall develop financial projections for inclusion in an investment memorandum that will provide potential financiers with the information needed regarding the economic and financial merits of the Project for their decision to invest in it. This deliverable shall include the results of all analyses in Task 4 above. The Contractor shall prepare this memorandum as an independent, stand-alone annex to be submitted as part of the Final Report.

Task 5 -- Implementation Plan
The Contractor shall prepare a detailed plan designed to provide for implementation of the Project in a timely manner and in a cost-effective way. The implementation plan shall establish sequence of tasks, assign responsibility for each process and task, and determine corresponding time limits for their implementation.

Task 5 Deliverable: The Contractor shall provide a copy of the implementation plan to the Grantee and incorporate any feedback from the Grantee into the plan, including a final draft into the Final Report.

Task 6 -- Project Risk Assessment

The Contractor shall perform an assessment to identify project risks, propose strategies for mitigating/minimizing the identified risks, and recommend a reasonable allocation of remaining risks. The primary risk categories to be considered by the Contractor shall include, but not be limited to, the following:

a. Project implementation risks, i.e., the risks of obtaining consents, permits and other agreements and covenants necessary for financial closure;
b. Technical risks, i.e., construction delays, cost overruns, higher-than-expected costs related to the upgrade of the existing networks, and lower-than-expected performance of equipment, MSW quality risks;
c. Project environmental risks, i.e., risks that arise from the economic and regulatory or legal factors governing the project environment. Special attention shall be paid to the risks connected with the tariff determination policies, PEF quality and prices, demand for recyclable products to be produced by the MSW-processing facility and revenue collections.

The Contractor shall recommend enforceable risk mitigation strategies within local and national legal and regulatory constraints.

Task 6 Deliverable: The Contractor shall prepare a risk assessment and risk mitigation report based on the selected design and technical configuration of the new MSW-processing, PEF manufacturing, and transfer facility. The Task 6 Report shall include all assessments, analyses and recommendations performed as part of Task 6. The Contractor shall provide a copy of this Task 6 Report to the Grantee for comments and incorporate the Grantee's comments to the extent possible and mutually agreed upon into the analysis for the Final Report.

Task 7 – Ukraine Regulatory Assessment

The Contractor shall review local and national policies governing transport, processing, utilization, and disposal of MSW and identify any regulation that would impact the project's viability or prognosis to move forward. The Contractor shall also review the City's policy with regard to collection, transportation, processing and landfill utilization of MSW and determination of the City's willingness and ability to pay for the necessary tariffs especially for MSW collection and PEF.

Task 7 Deliverable: The Contractor shall draft a letter report outlining the key legal issues that will affect the project and provide a copy of this memorandum to the Grantee. This letter report shall include all analyses and the outcomes of all reviews performed in Task 7. The letter report along with the Grantee's comments shall also be included in the Final Report.

Task 8 – Project Developmental Impact

The Contractor shall report on the potential developmental impact of the Project in the Host Country. The Contractor shall focus on what the economic development outcomes will be if the project is implemented according to the Study recommendations. While specific focus should be on the immediate impact of the Project, the Contractor shall assess any additional developmental benefits to the project, including at a minimum the potential for replicating the project in other parts of the Host Country. The Contractor's analysis of potential benefits shall be as concrete and as detailed as possible. The development impact factors are intended to provide the Project's decision-makers and interested parties with a broader view of the Project's potential effects on the Host Country. The Contractor shall provide estimates of the Project's potential benefits in the following areas:

- **Infrastructure**: The Contractor shall provide a statement on the infrastructure impact giving a brief synopsis, including the annual recycling capacity, annual PEF production capacity, and increased landfill life.
- **Market-Oriented Reforms:** The Contractor shall provide a description of any regulations, laws, or institutional changes that are recommended and the effect they would have if implemented.
- **Human Capacity Building:** The Contractor shall address the number and type of positions that would be needed to construct and operate the proposed project as well as the number of people who will receive training and a brief description of the training program.
- **Technology Transfer and Productivity Enhancement:** The Contractor shall provide a description of any advanced technologies that will be implemented as a result of the project and a quantitative description of any efficiency that will be gained, for example the number of years the current landfill life will be extended, reduction in fossil fuel use, and the project overall impact on greenhouse gas reductions (i.e., from the land fill and boiler operation).
- **Other:** The Contractor shall identify any other developmental benefits of the project, including any spin-off, duplication/replication effects or social benefit of MSW processing, recycling, and utilization, such as enhanced environmental benefits or increase in tax revenues.

Task 8 Deliverable: The Contractor shall report all results of this Task 8 activity in the Final Report.

Task 9 -- U.S. Sources of Supply

The Contractor shall identify potential U.S. sources of equipment and services in addition to Lundell Enterprises Inc. (Cherokee, IA, USA), which has been identified by the Grantee as a supplier of MSW-processing, PEF production, and waste transfer facility equipment and equipment design, engineering, and construction services. A list of the U.S. firms who could compete with potential international equipment vendors and engineering, procurement, and construction service providers in the Host Country shall be developed and their potential interest in the project assessed.

Task 9 Deliverable: The Contractor shall identify prospective U.S. sources of supply in the Final Report to be submitted to USTDA in accordance with Clause I of Annex II of the Grant Agreement. In particular, the Contractor shall provide a list of potential interested U.S. vendors, engineers, constructors, and other service providers who may be interested in providing goods and services for this project at internationally competitive prices along with their contact information in the Final Report.

Task 10 -- Draft Agreement Technical Support

The objective of this task is not to draft legal documents or negotiate agreements with various project customers but to (1) assist the Grantee in developing the principles of PEF and recyclables sales and transfer station service fee agreements and (2) develop the technical content of any such agreements in particular as relates to establishing tariff.

The Contractor shall prepare a methodology for setting the PEF tariff and prepare an advisory memorandum summarizing all key issues regarding the approval and consummation of PEF sale agreements that could be sent by the Grantee to the Oblast and/or City Authorities and institutions that are financed by the Oblast and have re-equipped boiler houses capable of burning solid fuel. This advisory memorandum shall identify all necessary PEF price formation procedures, approvals and potential obstacles to consummation of such PEF sale agreements. The Contractor shall also assist the Grantee by reviewing and commenting on business proposals, term sheets and contracts and by participating in the initial discussions with and presentations to the authorities of the Oblast. This assistance shall include a visit to the City by the Contractor's appropriate experts for a maximum of fourteen (14) days of staff effort in total. The Grantee shall be responsible for translating all documents to English for the Contractor's review and provide interpreters as necessary for meetings in the Host Country.

The Contractor shall prepare an advisory memorandum summarizing all key issues regarding the approval and consummation of agreements on rendering waste transfer services to companies responsible for collecting and transport of MSW in the City. This advisory memorandum shall in particular identify the mechanism of waste transfer services fee formulation and potential obstacles to consummation of such agreements. The Contractor shall also assist the Grantee in initial discussions with the local MSW-collection companies as necessary. This assistance shall take the form of one visit to the City by the Contractor' s appropriate experts for not more than five (5) days of total staff effort (overlapping with one of the above visits) to review and comment on business proposals, term sheets and contracts. These documents will be provided to the Contractor in English by the Grantee and the Contractor will not be responsible for translating documents or providing interpreters for the meetings.

With the assistance from the Grantee, which shall submit a preliminary list of major known Ukrainian consumers of recyclable products, the Contractor shall prepare an advisory memorandum that lists potential recyclable products to be extracted by the MSW-processing plant and identify typical product specifications that may be incorporated within standard sales agreements for recyclable products.

Task 10 Deliverable: The Contractor shall provide the advisory memoranda described in Task 10 above to the Grantee in order to assist the Grantee with discussions with potential consumers of its products and services. This advisory memorandum shall include all methodologies and results of the work performed in Task 10. These advisory memoranda shall also be included in the Final Report.

Task 11—Final Report

The Contractor shall prepare and deliver to the Grantee and USTDA a substantive and comprehensive final report of all work performed under these Terms of Reference ("Final Report"). The Final Report shall be organized according to the above tasks, and shall include all deliverables and documents that have been provided to the Grantee. The Final Report shall be prepared in accordance with Clause I of Annex II of the Grant Agreement.

Notes:

(1) The Contractor is responsible for compliance with U.S. export licensing requirements, if applicable, in the performance of the Terms of Reference.

(2) The Contractor and the Grantee shall be careful to ensure that the public version of the Final Report contains no security or confidential information.

(3) The Grantee and USTDA shall have an irrevocable, worldwide, royalty-free, non-exclusive right to use and distribute the Final Report and all work product that is developed under these Terms of Reference.

Annex II

USTDA Mandatory Contract Clauses

A. USTDA Mandatory Clauses Controlling

The parties to this contract acknowledge that this contract is funded in whole or in part by the U.S. Trade and Development Agency ("USTDA") under the Grant Agreement between the Government of the United States of America acting through USTDA and SVIT-M Ltd. ("Client"), dated _____ ("Grant Agreement"). The Client has selected _____ ("Contractor") to perform the feasibility study ("Study") for the Sumy Waste Recycling and Refuse Derived Fuel Plant project ("Project") in Ukraine ("Host Country"). Notwithstanding any other provisions of this contract, the following USTDA mandatory contract clauses shall govern. All subcontracts entered into by Contractor funded or partially funded with USTDA Grant funds shall include these USTDA mandatory contract clauses, except for clauses B(1), G, H, I, and J. In addition, in the event of any inconsistency between the Grant Agreement and any contract or subcontract thereunder, the Grant Agreement shall be controlling.

B. USTDA as Financier

(1) USTDA Approval of Contract

All contracts funded under the Grant Agreement, and any amendments thereto, including assignments and changes in the Terms of Reference, must be approved by USTDA in writing in order to be effective with respect to the expenditure of USTDA Grant funds. USTDA will not authorize the disbursement of USTDA Grant funds until the contract has been formally approved by USTDA or until the contract conforms to modifications required by USTDA during the contract review process.

(2) USTDA Not a Party to the Contract

It is understood by the parties that USTDA has reserved certain rights such as, but not limited to, the right to approve the terms of this contract and amendments thereto, including assignments, the selection of all contractors, the Terms of Reference, the Final Report, and any and all documents related to any contract funded under the Grant Agreement. The parties hereto further understand and agree that USTDA, in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure the proper use of United States Government funds, and that any decision by USTDA to exercise or refrain from exercising these approval rights shall be made as a financier in the course of financing the Study and shall not be construed as making USTDA a party to the contract. The parties hereto understand and agree that USTDA may, from time to time, exercise the foregoing approval rights, or discuss matters related to these rights and the Project with the parties to the contract or any subcontract, jointly or separately, without thereby incurring any responsibility or liability to such parties. Any approval or failure to approve by USTDA shall not

bar the Client or USTDA from asserting any right they might have against the Contractor, or relieve the Contractor of any liability which the Contractor might otherwise have to the Client or USTDA.

C. Nationality, Source and Origin

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and services funded by USTDA under the Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from Host Country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for performance of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions. USTDA will make available further details concerning these provisions upon request.

D. Recordkeeping and Audit

The Contractor and subcontractors funded under the Grant Agreement shall maintain, in accordance with generally accepted accounting procedures, books, records, and other documents, sufficient to reflect properly all transactions under or in connection with the contract. These books, records, and other documents shall clearly identify and track the use and expenditure of USTDA funds, separately from other funding sources. Such books, records, and documents shall be maintained during the contract term and for a period of three (3) years after final disbursement by USTDA. The Contractor and subcontractors shall afford USTDA, or its authorized representatives, the opportunity at reasonable times for inspection and audit of such books, records, and other documentation.

E. U.S. Carriers

(1) Air

Transportation by air of persons or property funded under the Grant Agreement shall be on U.S. flag carriers in accordance with the Fly America Act, 49 U.S.C. 40118, to the extent service by such carriers is available, as provided under applicable U.S. Government regulations.

(2) Marine

Transportation by sea of property funded under the Grant Agreement shall be on U.S. carriers in accordance with U.S. cargo preference law.

F. Workman's Compensation Insurance

The Contractor shall provide adequate Workman's Compensation Insurance coverage for work performed under this Contract.

G. Reporting Requirements

The Contractor shall advise USTDA by letter as to the status of the Project on March 1st annually for a period of two (2) years after completion of the Study. In addition, if at any time the Contractor receives follow-on work from the Client, the Contractor shall so notify USTDA and designate the Contractor's contact point including name, telephone, and fax number. Since this information may be made publicly available by USTDA, any information which is confidential shall be designated as such by the Contractor and provided separately to USTDA. USTDA will maintain the confidentiality of such information in accordance with applicable law.

H. Disbursement Procedures

(1) USTDA Approval of Contract

Disbursement of Grant funds will be made only after USTDA approval of this contract. To make this review in a timely fashion, USTDA must receive from either the Client or the Contractor a photocopy of an English language version of a signed contract or a final negotiated draft version to the attention of the General Counsel's office at USTDA's address listed in Clause M below.

(2) Payment Schedule Requirements

A payment schedule for disbursement of Grant funds to the Contractor shall be included in this Contract. Such payment schedule must conform to the following USTDA requirements: (1) up to twenty percent (20%) of the total USTDA Grant amount may be used as the first payment; (2) all payments (including the first payment), with the exception of the final payment, shall be based upon contract performance milestones; and (3) the final payment may be no less than fifteen percent (15%) of the total USTDA Grant amount, payable upon receipt by USTDA of an approved Final Report in accordance with the specifications and quantities set forth in Clause I below. Invoicing procedures for all payments are described below.

(3) Contractor Invoice Requirements

USTDA will make all disbursements of USTDA Grant funds directly to the Contractor. The Contractor must provide USTDA with an ACH Vendor Enrollment Form (available from USTDA) with the first invoice. The Client shall request disbursement of funds by USTDA to the Contractor for performance of the contract by submitting the following to USTDA:

(a) Contractor's Invoice

The Contractor's invoice shall include reference to an item listed in the Contract payment schedule, the requested payment amount, and an appropriate certification by the Contractor, as follows:

(i) For contract performance milestone payments:

"The Contractor has performed the work described in this invoice in accordance with the terms of its contract with the Client and is entitled to payment thereunder. The Contractor further certifies that the Client has disbursed its full cost share of $106,875 to the Contractor to complete the Terms of Reference. To the extent the Contractor has not complied with the terms and conditions of the Contract, including the USTDA mandatory provisions contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA."

(ii) For final payment:

"The Contractor has performed the work described in this invoice in accordance with the terms of its contract with the Client and is entitled to payment thereunder. Specifically, the Contractor has submitted the Final Report to the Client, as required by the Contract, and received the Client's approval of the Final Report. To the extent the Contractor has not complied with the terms and conditions of the Contract, including the USTDA mandatory provisions contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA."

(b) Client's Approval of the Contractor's Invoice

(i) For contract performance milestone payments, the following certification by the Client must be provided on the invoice or separately:

"The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and the terms and conditions of the USTDA Grant Agreement. The Grantee confirms that it has fully disbursed its cost share of $106,875 to the Contractor to complete the Terms of Reference."

(ii) For final payment, the following certification by the Client must be provided on the invoice or separately:

"The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and terms and conditions of the USTDA Grant Agreement. The Final Report submitted by the Contractor has been reviewed and approved by the Client. "

(c) USTDA Address for Disbursement Requests

Requests for disbursement shall be submitted by courier or mail to the attention of the Finance Department at USTDA's address listed in Clause M below.

(4) Termination

In the event that the Contract is terminated prior to completion, the Contractor will be eligible, subject to USTDA approval, for reasonable and documented costs which have been incurred in performing the Terms of Reference prior to termination, as well as reasonable wind down expenses. Reimbursement for such costs shall not exceed the total amount of undisbursed Grant funds. Likewise, in the event of such termination, USTDA is entitled to receive from the Contractor all USTDA Grant funds previously disbursed to the Contractor that exceed the reasonable and documented costs incurred in performing the Terms of Reference prior to termination.

5) Order of Disbursement

USTDA will make disbursements of Grant funds only after the Grantee has disbursed its full cost share of $106,875 to complete the Terms of Reference, per Article 4(B) of this Grant Agreement.

I. USTDA Final Report

(1) Definition

"Final Report" shall mean the Final Report described in the attached Annex I Terms of Reference or, if no such "Final Report" is described therein, "Final Report" shall mean a substantive and comprehensive report of work performed in accordance with the attached Annex I Terms of Reference, including any documents delivered to the Client.

(2) Final Report Submission Requirements

The Contractor shall provide the following to USTDA:

(a) One (1) complete version of the Final Report for USTDA's records. This version shall have been approved by the Client in writing and must be in the English language. It is the responsibility of the Contractor to ensure that confidential information, if any, contained in this version be clearly marked. USTDA will maintain the confidentiality of such information in accordance with applicable law.

and

(b) One (1) copy of the Final Report suitable for public distribution ("Public Version"). The Public Version shall have been approved by the Client in writing and must be in the English language. As this version will be available for public distribution, it must not contain any confidential information. If the report in (a) above contains no confidential information, it may be used as the Public Version. In any event, the Public Version must be informative and contain sufficient Project detail to be useful to prospective equipment and service providers.

and

(c) Two (2) CD-ROMs, each containing a complete copy of the Public Version of the Final Report. The electronic files on the CD-ROMs shall be submitted in a commonly accessible read-only format. As these CD-ROMs will be available for public distribution, they must not contain any confidential information. It is the responsibility of the Contractor to ensure that no confidential information is contained on the CD-ROMs.

The Contractor shall also provide one (1) copy of the Public Version of the Final Report to the Foreign Commercial Service Officer or the Economic Section of the U.S. Embassy in Host Country for informational purposes.

(3) Final Report Presentation

All Final Reports submitted to USTDA must be paginated and include the following:

(a) The front cover of every Final Report shall contain the name of the Client, the name of the Contractor who prepared the report, a report title, USTDA's logo, USTDA's mailing and delivery addresses. If the complete version of the Final Report contains confidential information, the Contractor shall be responsible for labeling the front cover of that version of the Final Report with the term "Confidential Version." The Contractor shall be responsible for labeling the front cover of the Public Version of the Final Report with the term "Public Version." The front cover of every Final Report shall also contain the following disclaimer:

"This report was funded by the U.S. Trade and Development Agency (USTDA), an agency of the U. S. Government. The opinions, findings, conclusions or recommendations expressed in this document are those of the author(s) and do not necessarily represent the official position or policies of

USTDA. USTDA makes no representation about, nor does it accept responsibility for, the accuracy or completeness of the information contained in this report."

(b) The inside front cover of every Final Report shall contain USTDA's logo, USTDA's mailing and delivery addresses, and USTDA's mission statement. Camera-ready copy of USTDA Final Report specifications will be available from USTDA upon request.

(c) The Contractor shall affix to the front of the CD-ROM a label identifying the Host Country, USTDA Activity Number, the name of the Client, the name of the Contractor who prepared the report, a report title, and the following language:

"The Contractor certifies that this CD-ROM contains the Public Version of the Final Report and that all contents are suitable for public distribution."

(d) The Contractor and any subcontractors that perform work pursuant to the Grant Agreement must be clearly identified in the Final Report. Business name, point of contact, address, telephone and fax numbers shall be included for Contractor and each subcontractor.

(e) The Final Report, while aiming at optimum specifications and characteristics for the Project, shall identify the availability of prospective U.S. sources of supply. Business name, point of contact, address, telephone and fax numbers shall be included for each commercial source.

(f) The Final Report shall be accompanied by a letter or other notation by the Client which states that the Client approves the Final Report. A certification by the Client to this effect provided on or with the invoice for final payment will meet this requirement.

J. Modifications

All changes, modifications, assignments or amendments to this contract, including the appendices, shall be made only by written agreement by the parties hereto, subject to written USTDA approval.

K. Study Schedule

(1) Study Completion Date

The completion date for the Study, which is October 31, 2013, is the date by which the parties estimate that the Study will have been completed.

(2) Time Limitation on Disbursement of USTDA Grant Funds

Except as USTDA may otherwise agree, (a) no USTDA funds may be disbursed under this contract for goods and services which are provided prior to the Effective Date of the Grant Agreement; and (b) all funds made available under the Grant Agreement must be disbursed within four (4) years from the Effective Date of the Grant Agreement.

L. Business Practices

The Contractor agrees not to pay, promise to pay, or authorize the payment of any money or anything of value, directly or indirectly, to any person (whether a governmental official or private individual) for the purpose of illegally or improperly inducing anyone to take any action favorable to any party in connection with the Study. The Client agrees not to receive any such payment. The Contractor and the Client agree that each will require that any agent or representative hired to represent them in connection with the Study will comply with this paragraph and all laws which apply to activities and obligations of each party under this Contract, including but not limited to those laws and obligations dealing with improper payments as described above.

M. USTDA Address and Fiscal Data

Any communication with USTDA regarding this Contract shall be sent to the following address and include the fiscal data listed below:

U.S. Trade and Development Agency
1000 Wilson Boulevard, Suite 1600
Arlington, Virginia 22209-3901
USA

Phone: (703) 875-4357
Fax: (703) 875-4009

Fiscal Data:

Appropriation No.:	1111/121001
Activity No.:	2012-61007A
Reservation No.:	2012091
Grant No.:	GH201261091

N. Definitions

All capitalized terms not otherwise defined herein shall have the meaning set forth in the Grant Agreement.

O. Taxes

USTDA funds provided under the Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country. Neither the Client nor the Contractor will seek reimbursement from USTDA for such taxes, tariffs, duties, fees or other levies.

ANNEX 5

Annex I

Terms of Reference

The Grantee plans to build and operate a municipal solid waste (MSW) processing (sorting and recycling), processed engineered fuel (PEF) manufacturing plant and transfer station at an existing site in the City of Sumy ("City") in Ukraine. MSW collected by the collection contractors will be delivered to the Project site and sorted to separate glass, ferrous and non-ferrous metals, and a potion of plastics, paper and cardboard for recycling. The remaining combustible materials, after removing inert and non-combustible material, is dried, compressed and pelletized or briquetted for use as fuel in the boiler houses of Sumska Oblast ("Oblast"). An oblast is a type of administrative division in the Host Country, similar to a zone or province. The non-combustible material or tramps (e.g., any non-recyclable glass, and metals, food scraps, construction waste such as drywall, etc.) will be transferred to a recently opened landfill for disposal. The proposed Project will also be used as a transfer station where MSW received in smaller trucks could be combined and reloaded into larger trucks and delivered to the new landfill 45 kilometers (km) from the city. The Project site is only about 7 km from the center of the city, and the use of the transfer station is expected to result in transportation fuel cost savings.

The purpose of this study is to assess the technical, economic, and financing viability of the proposed project.

The Feasibility Study will consist of the following tasks:

Task 1 -- Technical Assessment

The Contractor shall perform the following subtasks:

Subtask 1.1 -- MSW Quantity and Quality Assessment

The Contractor shall analyze the available historical data that may be provided by the Grantee, the City, GreenCo, and A-Musson regarding the historical volumes and morphological composition of MSW. Using this data, the Contractor shall estimate MSW volume fluctuation during a year. The Grantee will coordinate and assist the Contractor in collection of the historical data from the above sources.

The Contractor shall analyze the climate and various socio-economic factors including any available City population forecast data and developments planned by the City that may influence the MSW quantities and composition.

The result shall be an MSW forecast showing monthly volumes with a breakdown by major components for the next 10 years. Special attention shall be paid to the humidity levels of MSW since it affects the quality of PEF and the energy requirement for MSW drying.

The collected and analyzed data on MSW volumes and composition along with the other findings of this Feasibility Study shall be used by the Contractor to determine the capacity of the Project, including MSW processing, PEF manufacturing and the waste transfer station, as well as to develop a suitable Project plant design.

Subtask 1.1 Deliverable: The Contractor shall provide a letter report on all findings from this subtask, including MSW volume and composition projections. The Contractor shall provide a copy of this Subtask 1.1 Report to the Grantee and incorporate to the extent possible the Grantee's comments into the analysis for the Final Report.

Subtask 1.2 -- Recyclable Product and PEF Market Assessment
The Contractor shall:

a. Determine which recyclable products can be separated from the existing MSW in large volumes based on the information collected in Subtask 1.1 and discussions with manufacturers of commercially available technologies and process equipment suppliers for MSW separation.
b. Establish the composition of PEF that will be suitable for utilization in the Oblast's boilers based on available information on re-equipped boilers' design. The Grantee shall be responsible for coordinating and collecting any such information that may be required by the Contractor.
c. Coordinate and supervise an eight (8) hour test run at one of the Oblast's re-equipped boilers using information collected in (b). The Grantee and/or the Oblast shall be responsible for procuring pelletized/briquetted PEF, testing and collecting the information required by the Contractor. The Contractor shall develop a test protocol including a test matrix in coordination with the Grantee and the boiler operator. The Contractor shall analyze and evaluate the collected data to establish the technical performance of the boiler and identify the advantages and disadvantages of using PEF, any impact on boiler operation including boiler efficiency, reliability, availability, and emissions. The Grantee shall be responsible for obtaining the Oblast and the boiler house approvals within the project schedule for such a test.
d. Determine the demand, regulations, and risk factors that may impact the PEF market and prices in the Oblast and identify other potential markets that might be able to utilize the Project' s PEF output. Identifying specific clients for the purchase of PEF is not within the scope of this study. Since PEF value cannot be established based on PEF demand and market forces, PEF prices shall be determined based on its dried heating value compared to the heating value of coal that has a similar chemical analysis (i.e., ultimate analysis), as dried PEF is identified for use in Subtask 1.3. The Contractor shall adjust PEF prices for differences in the moisture content of PEF and coal.
e. Assess the Ukrainian market volume for recyclables and establish

recyclable prices based on the available information and a limited survey of potential recyclable material buyers. The Contractor shall forecast volumes of recyclable products and PEF as well as their prices. The Contractor shall also forecast conditions under which the market will be saturated taking into account planned MSW processing and PEF manufacturing plants in the Host Country and their scheduled start-up dates.

Subtask 1.2 Deliverable: The Contractor shall provide a letter report on all findings from this subtask. The Contractor shall provide a copy of this Subtask report to the Grantee and incorporate the Grantee's comments, to the extent possible and when mutually agreed upon, into the analysis for the Final Report.

Subtask 1.3 – Screening Analysis

The Contractor shall develop a methodology for determining a plant-based design and product slate taking into consideration at a minimum the available information on: MSW, recyclables, and characteristics, variation in MSW characteristics, technological constraints of boilers and their ability to handle and process briquettes and/or pellets, the minimum and maximum heating value of the fuel that may be required by the boiler houses, and the maximum acceptable ash content of the fuel. The objective of this Subtask is not to optimize the plant size but to conduct a preliminary and qualitative evaluation to determine the plant-based design for MSW processing, PEF manufacturing, and the transfer station. Pelletizing and briquetting technologies shall be evaluated based on, at a minimum, their relative costs (capital and operating), energy efficiency, scale, and PEF demand, and selected for incorporation in the plant-based design.

Subtask 1.3 Deliverable: The Contractor shall prepare a letter report establishing the plant-based design and providing a rational for selecting the plant scale. A copy of this report shall be provided to the Grantee for their review and comments. The Grantee's comments shall be incorporated in the final report analysis to the extent possible.

Subtask 1.4 – Plant Conceptual Design

Using the results from Subtask 1.3, the Contractor shall develop a conceptual plant design, including at a minimum:

a. Preparing Process Flow Diagram(s) – Contractor shall prepare a Process Flow Diagram (PFD) showing major equipment.
b. Energy and material balances – Using the PFDs and MSW characteristics and expected equipment performance, the Contractor shall develop energy and material balances for each section of the plant and major equipment.
c. Equipment Specification (process equipment and balance of plant) – the Contractor shall select and specify equipment for: (1) separating recyclables and tramps; (2) PEF manufacturing; (3) transfer station; and

(4) balance of plant. The MSW separating equipment shall include but not be limited to: conveyors, bag slitters, magnetic separators, eddy current separators, air classifiers and trommels. The PEF manufacturing equipment shall include all the necessary equipment for pelletizing or briquetting. The MSW transfer facility shall include: slat conveyor(s) with storage hopper(s), loader(s), additional compacting equipment and crane(s). The balance of plant shall include equipment for water supply, sewerage and wastewater treatment system, ventilation and heating system, fire protection system, and standard and emergency lighting. In selecting and specifying equipment, such factors as size, capital and operating costs, energy efficiency, and environmental emission (air, solid, and water) shall be considered.

d. Automated Control System -- The Contractor shall prepare a conceptual design for an automated control system including communication for the process and the balance of the plant including water supply, ventilation and heating system, fire prevention system, standard and emergency lighting.
e. Equipment Layout and Plot Plan -- Based on the above information, the Contractor shall prepare a general equipment layout, plot plan and preliminary drawings for the building(s) and structures for the MSW processing, PEF manufacturing, transfer facility, storage, and outline main utility and other requirements for the building(s)
f. Electrical Drawing – The Contractor shall prepare a single line electrical drawing showing the facility's electrical power requirements and loads.
g. Interface Points – The Contractor shall determine interface points for connection of the new facility to other networks, including but not limited to: the existing power grid, water supply and sewerage systems and gas supply networks. The selection of interface points shall be based on estimated capital and operating costs as well as the requirements of the local power distribution company, the local water-supply company, and the City authorities.

Subtask 1.4 Deliverable: The Contractor shall define capacities, determine interface points with the existing networks and systems, prepare conceptual design and configuration for the MSW- processing, PEF production and waste transfer facility with a detailed description of each of the systems, and prepare PFD, general plot plan, and single-line-electrical drawings. The Contractor shall provide a copy of these deliverables including all analyses and the conceptual plant design in Subtask 1.4 to the Grantee for comments and incorporate the Grantee's comments into the analysis for the Final Report to the extent mutually agreed upon.

Subtask 1.5 – Infrastructure Assessment and Interface Points

The Contractor shall assess the condition of the existing infrastructure serving the Grantee's designated 4.5 acre lot in the City in order to determine its suitability

for use in conjunction with the MSW processing plant, PEF production facility and waste transfer station, in particular:

a. The Contractor shall consider the operational state and characteristics of the existing electricity grid up to and including the nearby transformer sub-station. The Contractor shall visit the site in early stage of the Study to determine whether these elements can be used as they are or require any upgrading, partial replacement, or complete overhaul. The Contractor shall propose any necessary modifications and estimate the cost of any such modifications.
b. The Contractor shall review the existing layouts and consider the operational state and characteristics of the water supply and sewerage systems to determine whether they require any upgrading, partial replacement or overhaul in order meet the Plant's requirements. The Contractor shall determine any modification required both inside and outside of the Grantee's property up to the main pipeline and estimate the cost of the proposed modifications.
c. The Contractor shall perform a general assessment of the nearby transportation infrastructure as well as the main routes of waste transporters to verify the convenience of the lot's location and to determine if the roads require any upgrading. The Contractor shall also study the approved City expansion plans and their possible impact on the location of the facility.
d. The Contractor shall analyze gas network layouts and other infrastructure only in case of necessity.

The Grantee shall provide the available drawings of the water supply and sewerage systems as well as the existing power grid. The Contractor shall preliminarily determine the interface points for connecting the facility to networks, including but not limited to: existing power grid, water-supply and sewerage systems. The Contractor, in coordination with the Grantee, shall meet with the City authorities, including the power distribution and water supply companies, to seek their input.

Sub-task 1.5 Deliverable: The Contractor shall preliminarily specify the interface points for connection of the new facility to other networks, including but not limited to the existing power grid, water supply, and sewerage systems, and the required updates or replacements of these systems. The Contractor shall provide terms of reference and/or specifications including costs regarding such connections and infrastructure upgrades or replacements for the Grantee comments. The Subtask 1.5 deliverable the Contractor provides to the Grantee shall include all analyses and findings from Subtask 1.5. The Grantee's comments shall be incorporated in the Final Report to the extent mutually agreed upon.

Task 2 – Environmental Analysis

The Contractor shall complete a preliminary environmental assessment consistent with

the local requirements and those of multi-lateral lending agencies (such as the World Bank). The Contractor shall perform an environmental review, consistent with the requirements for MSW-processing plants and MSW transfer stations. This review shall identify both positive and possible negative impacts, discuss the extent to which the negative impacts can be mitigated, and develop plans for a full environmental impact assessment when the project moves forward to implementation stage. Based on the proposed capacity and design of the facility, the Contractor shall also evaluate greenhouse gas reductions as a result of the new MSW processing and transfer facility's construction and assess possible usage of the Kyoto Protocol Joint Implementation (JI) mechanism and the emerging Green Investment Scheme (GIS), which is expected to replace the JI mechanism in 2013. In addition, the Contractor shall estimate the cost for performing a full environmental impact assessment and identify mitigation measures and associated one-time and annual costs (within $\pm$ 25%).

Task 2 Deliverable: The Contractor shall provide all results of this environmental review and analysis in Task 2 in a letter report to the Grantee for comments and incorporate the Grantee's comments into the Final Report to the extent mutually agreed upon.

Task 3 -- Economic Analysis

The Contractor shall perform the following five (5) subtasks as delineated below.

Subtask 3.1 – MSW Tariff Estimate

The Contractor shall analyze the historical and existing tariffs for collection, transportation and utilization of MSW. Based on this analysis, projected inflation rate, and discussions with the City administration and MSW collection contractors, the Contractor shall prepare a 10-year tariff forecast, which in turn shall be used to prepare a 10-year revenue forecast of the MSW processing facility from the tariff payments. The Contractor shall discuss with the City and the City's contractors applicable tariffs and the mechanism of their tariff adjustment in the future to arrive at a reasonable long-term tariff projection.

Subtask 3.2 – Recyclable Products Tariff

Based on available cost data, scenario analysis and projected inflation rate, the contractor shall prepare a 10-year tariff for each recyclable material.

Subtask 3.3 – Waste Transfer Fee Assessment

With the assistance of the existing waste transportation companies, the Grantee shall provide the Contractor the required information regarding MSW transportation costs in the City. Based on this information, the Contractor shall determine fuel savings and other financial benefits resulting from transporting waste in larger trucks at higher density from the new transfer station seven km from the City to the new landfill site 45 km from the City. This information then shall be used by the Contractor to develop a 10-year projected assessment fee for the transfer station.

Subtask 3.4 – Plant Capital Cost

Taking into consideration the selected design and technical configuration of the facility developed in Task 1, the Contractor shall develop preliminary cost estimates (±25%) in U.S. dollars. The capital cost for each section of the plant shall be estimated separately and shall include, but not be limited to, the following:

a. Installed equipment cost for recyclables and tramp separation section of the plant, including but not limited to installed cost of conveyors, bag slitters, magnetic separation modules, Eddy current modules, air classifiers, trommels, and recyclables packaging;
b. Installed equipment cost for PEF production section of the plant including, pelletizing or briquetting costs and PEF loading and packaging;
c. Installed equipment costs for MSW-transfer station;
d. Installed cost of auxiliary equipment;
e. Vehicle costs;
f. Installed cost of automated control system, lighting system, communication system;
g. Cost of replacing, refurbishing, or upgrading of the water-supply and sewerage systems; electrical grid, transformer station, and/or natural gas supply;
h. Installed cost of fire-protection system; ventilation and heating system;
i. Installed costs of equipment for any environmental measure based on the findings of Task 3;
j. Buildings and structures;
k. Plot preparation, including fence and foundation upgrade;
l. Connection to the local electricity grid including transformer sub-station;
m. Equipment and material delivery costs;
n. Permitting and licensing fees;
o. Financing costs, including but not limited to interest during construction, bank and other creditors' fees and commissions, currency conversion costs and insurance;
p. Land lease payments during construction;
q. Legal fees;
r. Applicable value added tax (VAT), excise tax, customs duties and other obligatory payments;
s. Inspections fees;
t. Insurance;
u. Commissioning, startup, and spare parts; and,
v. Personnel training, working capital, contingency reserve and other costs.

Subtask 3.5 – Plant Operating Costs

The operating cost estimates shall include, but not be limited to, the following:

a. Operating and maintenance costs for the MSW-processing facility including salaries of operating personnel and long-term service

agreement costs;

b. Operating and maintenance costs for the PEF-processing facility including salaries of operating personnel and long-term service agreement costs;
c. Operating and maintenance costs for the MSW transfer station, including salaries of operating personnel and long-term service agreement costs;
d. Operating and maintenance costs for any environmental measures, including salaries of operating personnel and long-term service agreement costs;
e. Operating and maintenance costs, particularly electricity costs, estimated separately for each section of the plant;
f. Annual electricity costs based on seasonal MSW load fluctuations and operational cycles of the facility;
g. Administrative and management fees;
h. Land lease and other rental and leasing costs;
i. Depreciation and amortization; and,
j. Interest, insurance, taxes, fees and any obligatory payments.

Subtasks 3.4 and 3.5 Deliverable: The Contractor shall provide capital and operating cost estimates based on the selected design and configuration of the MSW-processing, PEF production and waste transfer facility. This deliverable shall include all analyses and findings for Subtasks 3.4 and 3.5. The Contractor shall provide a copy of this cost estimate in a letter report along with projected tariffs for MSW and recyclables, and transfer services fees to the Grantee for comments and incorporate the Grantee's comments into the analysis for the Final Report as mutually agreed upon.

Task 4 -- Financial Analysis

The Contractor shall perform a detailed financial analysis and evaluation, including sensitivity analyses. The Contractor shall consider a 10-year period for the financial analysis and determine the PEF tariff required to meet a desired internal rate of return (IRR) while meeting all project-related financial obligations including, but not limited to, payment of principle and interest, production costs, and taxes. Special attention shall be given to the sensitivity of the project revenue and profitability as it relates to capital and operating cost of producing PEF versus costs related to extraction of additional recyclable products. In the financial analysis, the Contractor shall at a minimum provide the following:

Revenues:

The Contractor shall estimate the projected revenues for the following revenue streams:

- Revenues from rendering MSW transfer services;
- Revenues from sale of the recyclable products;
- Revenues from PEF sales, and
- Revenues from potential carbon credit.

Cash Flow:
The cash flow model shall be based on assumptions of the opening balance sheet of a new joint venture (JV) between the Grantee and its partner, GreenCo, to be registered in the City and shall include projections of the likely financial performance of the JV over at least 10 years. The Contractor may extend this period by an additional 10 years. Only actual payments or receipts shall be included in the cash flow calculation. The cost streams shall include all the costs incurred and shall be quantified with reference to the cash impact of (i) the working capital requirements, including VAT funding, (ii) the cash impact of depreciation and amortization on the capital assets, (iii) applicable profit tax, and (iv) the Project's capital expenditures.

Primary assumptions for determining annual net cash flow due to the investment are (i) recyclable products and PEF volumes and prices; (ii) tariffs for MSW processing and transfer; (iii) expected life of installed components of the new facility; (iv) operation and maintenance costs for the new MSW-processing and transfer facility; (v) insurance and conditions of a long-term service agreement; (vi) taxation structure; (vii) loan and lease terms and conditions; (viii) depreciation method; and (ix) operational cycle and annual hours of operation of the facility.

Profitability Analysis:
The Contractor shall generate and evaluate specific indices of economic performance such as profitability, return on investment, internal rate of return, debt service coverage ratio and net present value. The Contractor shall design the financial analysis to evaluate available financing scenarios, analyze each scenario' s cost effectiveness, and compare each scenario's improvement in relation to the situation at the time of the Feasibility Study. In addition to assessing routine operating and investment costs, the profitability and financial analysis shall compare costs of financing, including but not limited to interest on bank credits and other banking charges.

The Contractor shall assess the potential profitability of a project variant based on conservative assumptions. A project variant may be recommended for financing so long as the estimates demonstrate that the Project is able to generate sufficient cash flow to fund operations and repay debts. No project variant that cannot pay for itself or that would require any additional external subsidies shall be recommended (including investment and financing costs). The Contractor shall calculate other scenarios, such as best and worst case projections for the Project's performance.

The Contractor shall develop a viable financing plan for the Project. In developing a financing plan for the Project, the Contractor shall consider and evaluate sources of funds to cover the capital expenditures and how the free cash flows shall be used to cover the projected debt service. In order to evaluate potential sources of financing, the Contractor shall contact local and international long-term debt financing sources to discuss their requirements for, and interest in, the Project. Sources to contact include, but are not limited to, the U.S. Export-Import Bank, the European Bank for Reconstruction and Development (EBRD), the EBRD – Global Environmental Fund (GEF) credit facility for small and medium renewable energy enterprises in the Host Country, the U.S. Overseas

Private Investment Corporation (OPIC), the International Finance Corporation (IFC), the European Investment Bank, as well as other international financial institutions and local commercial banks that might be interested in providing long-term financing for the project. The Contractor shall obtain indicative term sheets from potential lenders, when possible, and include them in the final Feasibility Study report.

The Contractor shall develop a financing plan taking into account the comments and requirements of the aforementioned institutions. The financing plan should include indicative capital structure, covenants, terms and conditions for borrowings. It should address interest rate and currency hedging, duties and taxes, and foreign exchange availability. In addition to the projected economic analysis, the available sources of financing and proposed financing plan will be used to assess the projected financial viability of the Project.

The Contractor shall also prepare a *pro forma* or projected income statements and balance sheets, and shall conduct and report on a sensitivity analysis to demonstrate the range of conditions under which the project will be profitable and the extent, to which the projections are dependent on uncontrollable conditions or factors. The *pro forma* financial statements will consist of the Income Statement (Profit and Loss Account), the Balance Sheet, Statement of Cash Flows and Financial Ratios that include profitability calculations and cash flow projections. The Contractor shall provide advice on how to make the project most bankable including providing risk minimization strategies to the extent that they are within control of the Grantee and shall anticipate and address risk and return criteria of the most likely sources of bank loan financing.

The Contractor shall calculate projected reductions of greenhouse emissions from the project and shall consider financing alternatives based on the JI mechanism and/or the emerging GIS, which is expected to replace the JI mechanism after 2013.

Sensitivity Analysis:
The Contractor shall evaluate sensitivity of the Project's return as a function of capital costs, recyclable prices, financing costs, and potential delays in construction schedule.

Task 4 Deliverable: The Contractor shall develop financial projections for inclusion in an investment memorandum that will provide potential financiers with the information needed regarding the economic and financial merits of the Project for their decision to invest in it. This deliverable shall include the results of all analyses in Task 4 above. The Contractor shall prepare this memorandum as an independent, stand-alone annex to be submitted as part of the Final Report.

Task 5 -- Implementation Plan
The Contractor shall prepare a detailed plan designed to provide for implementation of the Project in a timely manner and in a cost-effective way. The implementation plan shall establish sequence of tasks, assign responsibility for each process and task, and determine corresponding time limits for their implementation.

Task 5 Deliverable: The Contractor shall provide a copy of the implementation plan to the Grantee and incorporate any feedback from the Grantee into the plan, including a final draft into the Final Report.

Task 6 -- Project Risk Assessment

The Contractor shall perform an assessment to identify project risks, propose strategies for mitigating/minimizing the identified risks, and recommend a reasonable allocation of remaining risks. The primary risk categories to be considered by the Contractor shall include, but not be limited to, the following:

a. Project implementation risks, i.e., the risks of obtaining consents, permits and other agreements and covenants necessary for financial closure;
b. Technical risks, i.e., construction delays, cost overruns, higher-than-expected costs related to the upgrade of the existing networks, and lower-than-expected performance of equipment, MSW quality risks;
c. Project environmental risks, i.e., risks that arise from the economic and regulatory or legal factors governing the project environment. Special attention shall be paid to the risks connected with the tariff determination policies, PEF quality and prices, demand for recyclable products to be produced by the MSW-processing facility and revenue collections.

The Contractor shall recommend enforceable risk mitigation strategies within local and national legal and regulatory constraints.

Task 6 Deliverable: The Contractor shall prepare a risk assessment and risk mitigation report based on the selected design and technical configuration of the new MSW-processing, PEF manufacturing, and transfer facility. The Task 6 Report shall include all assessments, analyses and recommendations performed as part of Task 6. The Contractor shall provide a copy of this Task 6 Report to the Grantee for comments and incorporate the Grantee's comments to the extent possible and mutually agreed upon into the analysis for the Final Report.

Task 7 – Ukraine Regulatory Assessment

The Contractor shall review local and national policies governing transport, processing, utilization, and disposal of MSW and identify any regulation that would impact the project's viability or prognosis to move forward. The Contractor shall also review the City's policy with regard to collection, transportation, processing and landfill utilization of MSW and determination of the City's willingness and ability to pay for the necessary tariffs especially for MSW collection and PEF.

Task 7 Deliverable: The Contractor shall draft a letter report outlining the key legal issues that will affect the project and provide a copy of this memorandum to the Grantee. This letter report shall include all analyses and the outcomes of all reviews performed in Task 7. The letter report along with the Grantee's comments shall also be included in the Final Report.

Task 8 – Project Developmental Impact

The Contractor shall report on the potential developmental impact of the Project in the Host Country. The Contractor shall focus on what the economic development outcomes will be if the project is implemented according to the Study recommendations. While specific focus should be on the immediate impact of the Project, the Contractor shall assess any additional developmental benefits to the project, including at a minimum the potential for replicating the project in other parts of the Host Country. The Contractor's analysis of potential benefits shall be as concrete and as detailed as possible. The development impact factors are intended to provide the Project's decision-makers and interested parties with a broader view of the Project's potential effects on the Host Country. The Contractor shall provide estimates of the Project's potential benefits in the following areas:

- **Infrastructure**: The Contractor shall provide a statement on the infrastructure impact giving a brief synopsis, including the annual recycling capacity, annual PEF production capacity, and increased landfill life.
- **Market-Oriented Reforms:** The Contractor shall provide a description of any regulations, laws, or institutional changes that are recommended and the effect they would have if implemented.
- **Human Capacity Building:** The Contractor shall address the number and type of positions that would be needed to construct and operate the proposed project as well as the number of people who will receive training and a brief description of the training program.
- **Technology Transfer and Productivity Enhancement:** The Contractor shall provide a description of any advanced technologies that will be implemented as a result of the project and a quantitative description of any efficiency that will be gained, for example the number of years the current landfill life will be extended, reduction in fossil fuel use, and the project overall impact on greenhouse gas reductions (i.e., from the land fill and boiler operation).
- **Other:** The Contractor shall identify any other developmental benefits of the project, including any spin-off, duplication/replication effects or social benefit of MSW processing, recycling, and utilization, such as enhanced environmental benefits or increase in tax revenues.

Task 8 Deliverable: The Contractor shall report all results of this Task 8 activity in the Final Report.

Task 9 – U.S. Sources of Supply

The Contractor shall identify potential U.S. sources of equipment and services in addition to Lundell Enterprises Inc. (Cherokee, IA, USA), which has been identified by the Grantee as a supplier of MSW-processing, PEF production, and waste transfer facility equipment and equipment design, engineering, and construction services. A list of the U.S. firms who could compete with potential international equipment vendors and engineering, procurement, and construction service providers in the Host Country shall be developed and their potential interest in the project assessed.

Task 9 Deliverable: The Contractor shall identify prospective U.S. sources of supply in the Final Report to be submitted to USTDA in accordance with Clause I of Annex II of the Grant Agreement. In particular, the Contractor shall provide a list of potential interested U.S. vendors, engineers, constructors, and other service providers who may be interested in providing goods and services for this project at internationally competitive prices along with their contact information in the Final Report.

Task 10 -- Draft Agreement Technical Support

The objective of this task is not to draft legal documents or negotiate agreements with various project customers but to (1) assist the Grantee in developing the principles of PEF and recyclables sales and transfer station service fee agreements and (2) develop the technical content of any such agreements in particular as relates to establishing tariff.

The Contractor shall prepare a methodology for setting the PEF tariff and prepare an advisory memorandum summarizing all key issues regarding the approval and consummation of PEF sale agreements that could be sent by the Grantee to the Oblast and/or City Authorities and institutions that are financed by the Oblast and have re-equipped boiler houses capable of burning solid fuel. This advisory memorandum shall identify all necessary PEF price formation procedures, approvals and potential obstacles to consummation of such PEF sale agreements. The Contractor shall also assist the Grantee by reviewing and commenting on business proposals, term sheets and contracts and by participating in the initial discussions with and presentations to the authorities of the Oblast. This assistance shall include a visit to the City by the Contractor's appropriate experts for a maximum of fourteen (14) days of staff effort in total. The Grantee shall be responsible for translating all documents to English for the Contractor's review and provide interpreters as necessary for meetings in the Host Country.

The Contractor shall prepare an advisory memorandum summarizing all key issues regarding the approval and consummation of agreements on rendering waste transfer services to companies responsible for collecting and transport of MSW in the City. This advisory memorandum shall in particular identify the mechanism of waste transfer services fee formulation and potential obstacles to consummation of such agreements. The Contractor shall also assist the Grantee in initial discussions with the local MSW-collection companies as necessary. This assistance shall take the form of one visit to the City by the Contractor' s appropriate experts for not more than five (5) days of total staff effort (overlapping with one of the above visits) to review and comment on business proposals, term sheets and contracts. These documents will be provided to the Contractor in English by the Grantee and the Contractor will not be responsible for translating documents or providing interpreters for the meetings.

With the assistance from the Grantee, which shall submit a preliminary list of major known Ukrainian consumers of recyclable products, the Contractor shall prepare an advisory memorandum that lists potential recyclable products to be extracted by the MSW-processing plant and identify typical product specifications that may be incorporated within standard sales agreements for recyclable products.

Task 10 Deliverable: The Contractor shall provide the advisory memoranda described in Task 10 above to the Grantee in order to assist the Grantee with discussions with potential consumers of its products and services. This advisory memorandum shall include all methodologies and results of the work performed in Task 10. These advisory memoranda shall also be included in the Final Report.

Task 11—Final Report

The Contractor shall prepare and deliver to the Grantee and USTDA a substantive and comprehensive final report of all work performed under these Terms of Reference ("Final Report"). The Final Report shall be organized according to the above tasks, and shall include all deliverables and documents that have been provided to the Grantee. The Final Report shall be prepared in accordance with Clause I of Annex II of the Grant Agreement.

Notes:

(1) The Contractor is responsible for compliance with U.S. export licensing requirements, if applicable, in the performance of the Terms of Reference.

(2) The Contractor and the Grantee shall be careful to ensure that the public version of the Final Report contains no security or confidential information.

(3) The Grantee and USTDA shall have an irrevocable, worldwide, royalty-free, non-exclusive right to use and distribute the Final Report and all work product that is developed under these Terms of Reference.

ANNEX 6

USTDA-Funded Feasibility Study, Technical Assistance, or Training Grant

U.S. Firm Information Form

This form is designed to enable the U.S. Trade and Development Agency ("USTDA") to obtain information about entities and individuals proposed for participation in USTDA-funded activities. Information in this form is used to conduct screening of entities and individuals to ensure compliance with legislative and executive branch prohibitions on providing support or resources to, or engaging in transactions with, certain individuals or entities with which USTDA must comply.

USTDA Activity Number [*To be completed by USTDA*]	2012-61007A						
Activity Type [*To be completed by USTDA*]	✔	Feasibility Study		Technical Assistance		Other (specify)	
Activity Title [*To be completed by USTDA*]	Ukraine: Sumy Waste & Refuse Derived Fuel Plant						
Full Legal Name of U.S. Firm							
Business Address (street address only)							
Telephone		Fax		Website			
Year Established (include any predecessor company(s) and year(s) established, if appropriate). Please attach additional pages as necessary.							
Please provide a list of directors and principal officers as detailed in Attachment A. Attached?		Yes					
Type of Ownership		Publicly Traded Company					
		Private Company					
		Other (please specify)					
If Private Company or Other (if applicable), provide a list of shareholders and the percentage of their ownership. In addition, for each shareholder that owns 15% or more shares in U.S. Firm, please complete Attachment B.							
Is the U.S. Firm a wholly-owned or partially owned subsidiary?		Yes					
		No					
If so, please provide the name of the U.S. Firm's parent company(s). In addition, for any parent identified, please complete Attachment B.							
Is the U.S. Firm proposing to subcontract some of the proposed work to another firm?		Yes					
		No					
If yes, U.S. Firm shall complete Attachment C for each subcontractor. Attached?		Yes					
		Not applicable					
Project Manager							
Name		Surname					
		Given Name					
Address							
Telephone							
Fax							
Email							
Negotiation Prerequisites							
Discuss any current or anticipated commitments which may impact the ability of the U.S. Firm or its subcontractors to complete the Activity as proposed and reflect such impact within the project schedule.							
Identify any specific information which is needed from the Grantee before commencing negotiations.							

U.S. Firm may attach additional sheets, as necessary.

U.S. Firm's Representations

U.S. Firm shall certify to the following (or provide any explanation as to why any representation cannot be made):

1. U.S. Firm is a *[check one]* ☐ Corporation ☐ LLC ☐ Partnership ☐ Sole Proprietor ☐ Other:

duly organized, validly existing and in good standing under the laws of the State of: [insert state]

The U.S. Firm has all the requisite corporate power and authority to conduct its business as presently conducted, to submit this proposal, and if selected, to execute and deliver a contract to the Grantee for the performance of the USTDA Activity. The U.S. Firm is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment or ineligible for the award of contracts by any federal or state governmental agency or authority.

2. The U.S. Firm has included herewith, a copy of its Articles of Incorporation (or equivalent charter or document issued by a designated authority in accordance with applicable laws that provides information and authentication regarding the legal status of an entity) and a Certificate of Good Standing (or equivalent document) issued within 1 month of the date of signature below by the State of: [insert state]

The U.S. Firm commits to notify USTDA and the Grantee if it becomes aware of any change in its status in the state in which it is incorporated. USTDA retains the right to request an updated certificate of good standing.

3. Neither the U.S. Firm nor any of its principal officers have, within the ten-year period preceding the submission of this proposal, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.

4. Neither the U.S. Firm, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 3 above.

5. There are no federal or state tax liens pending against the assets, property or business of the U.S. Firm. The U.S. Firm, has not, within the three-year period preceding the submission of this proposal, been notified of any delinquent federal or state taxes in an amount that exceeds US$3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.

6. The U.S. Firm has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself of its debts under any bankruptcy, insolvency or other similar law. The U.S. Firm has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

7. The U.S. Firm certifies that it complies with USTDA Nationality, Source, and Origin Requirements and shall continue to comply with such requirements throughout the duration of the USTDA-funded activity. The U.S. Firm commits to notify USTDA and the Grantee if it becomes aware of any change which might affect U.S. Firm's ability to meet the USTDA Nationality, Source, and Origin Requirements.

The U.S. Firm shall notify USTDA if any of the representations are no longer true and correct.

U.S. Firm certifies that the information provided in this form is true and correct. U.S. Firm understands and agrees that the U.S. Government may rely on the accuracy of this information in processing a request to participate in a USTDA-funded activity. If at any time USTDA has reason to believe that any person or entity has willfully and knowingly provided incorrect information or made false statements, USTDA may take action under applicable law. The undersigned represents and warrants that he/she has the requisite power and authority to sign on behalf of the U.S. Firm.

Name		Signature	
Title			
Organization		Date	

ATTACHMENT A

USTDA-Funded Feasibility Study, Technical Assistance, or Training Grant

U.S. Firm Information Form – Directors and Principal Officers

Provide a list of all directors and principal officers (e.g., President, Chief Executive Officer, Vice-President(s), Secretary and Treasurer). Please provide full names including surname and given name.

USTDA Activity Number [*To be completed by USTDA*]	2012-61007A
Activity Title [*To be completed by USTDA*]	Ukraine: Sumy Waste & Refuse Derived Fuel Plant
Full Legal Name of Entity	

Title	Name		
(e.g., Director, President, Chief Executive Officer, Vice-President(s), Secretary, Treasurer) ***** *Please place an asterisk (*) next to the names of those principal officers who will be involved in the USTDA-funded activity*	**Surname**	**Given Name**	**Middle Name**

ATTACHMENT B

USTDA-Funded Feasibility Study, Technical Assistance, or Training Grant

U.S. Firm Information Form – Shareholder(s) and Parent Company(s)

If applicable, U.S. Firm provided a list of shareholders and the percentage of their ownership. This form shall be completed for each shareholder that owns 15% or more shares in U.S. Firm, as well as any parent corporation of the U.S. Firm ("Shareholder"). In addition, this form shall be completed for each shareholder identified in Attachment B that owns 15% or more shares in any Shareholder, as well as any parent identified in Attachment B.

USTDA Activity Number [*To be completed by USTDA*]	2012-61007A
Activity Title [*To be completed by USTDA*]	Ukraine: Sumy Waste & Refuse Derived Fuel Plant
Full Legal Name of U.S. Firm	

Full Legal Name of Shareholder			
Business Address of Shareholder (street address only)			
Telephone number		Fax Number	
Year Established (include any predecessor company(s) and year(s) established, if appropriate). Please attach additional pages as necessary.			
Country of Shareholder's Principal Place of Business			
Please provide a list of directors and principal officers as detailed in Attachment A. Attached?	✔ Yes		

Type of Ownership	☐	Publicly Traded Company
	☐	Private Company
	☐	Other
If applicable, provide a list of shareholders and the percentage of their ownership. In addition, for each shareholder that owns 15% or more shares in Shareholder, please complete Attachment B.		
Is the Shareholder a wholly-owned or partially owned subsidiary?	☐	Yes
	☐	No
If so, please provide the name of the Shareholder's parent(s). In addition, for any parent identified, please complete Attachment B.		

Shareholder may attach additional sheets, as necessary.

ATTACHMENT C

USTDA-Funded Feasibility Study, Technical Assistance, or Training Grant

Subcontractor Information Form

This form is designed to enable the U.S. Trade and Development Agency ("USTDA") to obtain information about entities and individuals proposed for participation in USTDA-funded activities. Information in this form is used to conduct screening of entities and individuals to ensure compliance with legislative and executive branch prohibitions on providing support or resources to, or engaging in transactions with, certain individuals or entities with which USTDA must comply.

USTDA Activity Number [*To be completed by USTDA*]	2012-61007A
Activity Title [*To be completed by USTDA*]	Ukraine: Sumy Waste & Refuse Derived Fuel Plant
Full Legal Name of Prime Contractor U.S. Firm ("U.S. Firm")	
Full Legal Name of Subcontractor	
Business Address of Subcontractor (street address only)	
Telephone Number	
Fax Number	
Year Established (include any predecessor company(s) and year(s) established, if appropriate). Please attach additional pages as necessary.	

Subcontractor Point of Contact

Name	Surname	
	Given Name	
Address		
Telephone		
Fax		
Email		

Subcontractor's Representations											
Subcontractor shall provide the following (or any explanation as to why any representation cannot be made), made as of the date of the proposal:											
1. Subcontractor is a *[check one]*		Corporation		LLC		Partnership		Sole Proprietor		Other	
duly organized, validly existing and in good standing under the laws of:	[insert state (if U.S.) or country]	.									
The subcontractor has all the requisite corporate power and authority to conduct its business as presently conducted, to participate in this proposal, and if the U.S. Firm is selected, to execute and deliver a subcontract to the U.S. Firm for the performance of the USTDA Activity and to perform the USTDA Activity. The subcontractor is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment or ineligible for the award of contracts by any federal or state governmental agency or authority.											
2. Neither the subcontractor nor any of its principal officers have, within the ten-year period preceding the submission of the Offeror's proposal, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.											
3. Neither the subcontractor, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 2 above.											
4. There are no federal or state tax liens pending against the assets, property or business of the subcontractor. The subcontractor, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds $3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.											
5. The subcontractor has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The subcontractor has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.											
6. The Subcontractor certifies that it complies with the USTDA Nationality, Source, and Origin Requirements and shall continue to comply with such requirements throughout the duration of the USTDA-funded activity. The Subcontractor commits to notify USTDA, the Contractor, and the Grantee if it becomes aware of any change which might affect U.S. Firm's ability to meet the USTDA Nationality, Source, and Origin Requirements.											
The selected Subcontractor shall notify the U.S. Firm, Grantee and USTDA if any of the representations included in its proposal are no longer true and correct.											
Subcontractor certifies that the information provided in this form is true and correct. Subcontractor understands and agrees that the U.S. Government may rely on the accuracy of this information in processing a request to participate in a USTDA-funded activity. If at any time USTDA has reason to believe that any person or entity has willfully and knowingly provided incorrect information or made false statements, USTDA may take action under applicable law. The undersigned represents and warrants that he/she has the requisite power and authority to sign on behalf of the Subcontractor.											

Name		Signature	
Title			
Organization		Date	