

FULCRUM SIERRA BIOFUELS, LLC

GREEN BOND

REVISED FRAMEWORK OVERVIEW AND SECOND PARTY OPINION BY SUSTAINALYTICS

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1. PREFACE

The Director of the State of Nevada Department of Business and Industry (the “Issuer”) intends to issue Green Bonds with the proceeds loaned to Fulcrum Sierra BioFuels, LLC (“Sierra BioFuels” or the “Company”), to finance or refinance portion of the costs of the acquisition, construction, improvement, development, equipping and furnishing of a municipal solid waste (“MSW”) to low carbon fuels biorefinery (the “Biorefinery”) and a portion of the cost of the improvements to and equipping of a feedstock processing facility (the “FPF”) being used for preliminary sorting and processing of MSW. Sierra BioFuels engaged Sustainalytics to provide a second party opinion on its Green Bond Framework. Sustainalytics’ opinion intends to provide an assessment of the Green Bond Framework’s alignment with the Green Bond Principles¹ (“GBP”) as well as assess Fulcrum’s overall sustainability performance and its alignment with the framework.

To come to this opinion, Sustainalytics reviewed several public and internal documents provided by Sierra BioFuels and held conversations with members from the Company’s management team. These conversations were held to understand Sierra BioFuels’ product and technology, as well as the use of proceeds, management of proceeds and reporting aspects of the Green Bond. This document contains two sections: Framework Overview – a summary of the Sierra BioFuels Green Bond Framework; and Sustainalytics’ Opinion – an opinion of the framework.

2. OVERVIEW OF THE ISSUER AND THE COMPANY

The Issuer is the Director of the State of Nevada Department of Business and Industry, a duly created department in the executive branch of the government of the State, and duly organized and existing under Section 232.510 of the Nevada Revised Statutes (“NRS”), as amended.

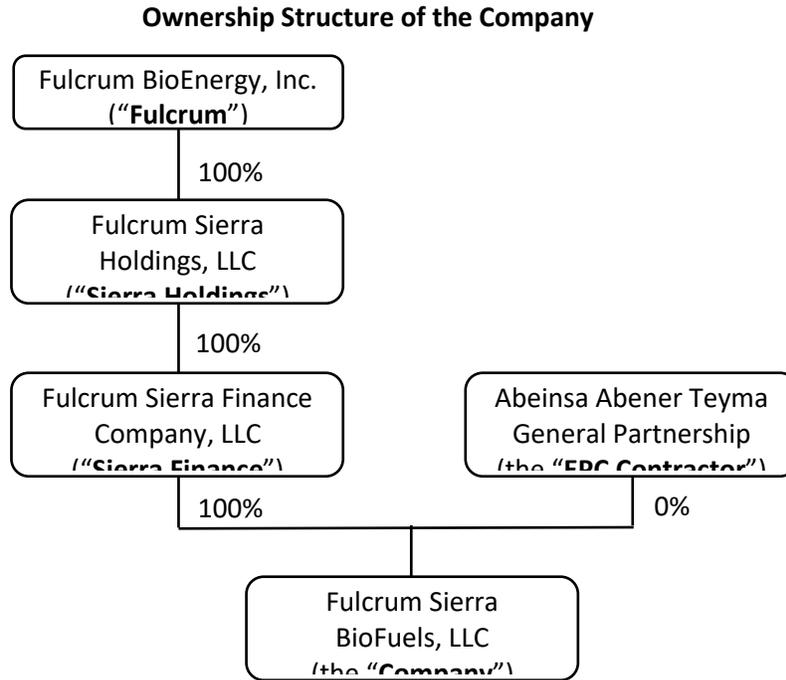
The Company, Sierra BioFuels, is a single-purpose Delaware limited liability company established in 2008 to develop, construct, install, equip, commission, own and operate the Sierra BioFuels Plant. The activities of the Company may include, but are not limited to, entering into project agreements such as the EPC Contract, MSW feedstock supply agreements, product offtake agreements, financing agreements and other relevant agreements and documents necessary for the operation of the MSW to low carbon fuels project, which includes the FPF and the Biorefinery (collectively, referred to as “Sierra”).

As of the date of this opinion, 100% of the membership interests of the Company are owned by Fulcrum Sierra Finance Company, LLC (“Sierra Finance”), a Delaware limited liability company, which owns no assets other than its equity interest in the Company. Sierra Finance is wholly owned by Fulcrum Sierra Holdings, LLC (“Sierra Holdings”), a Delaware limited liability company, which owns no assets other than

¹ The Green Bond Principles are voluntary guidelines that recommend transparency and disclosure and promote integrity in the development of the Green Bond market. They provide issuers guidance on the key components involved in launching a credible Green Bond and aid investors by ensuring availability of information necessary to evaluate the environmental impact of their Green bond investments.

its equity interest in Sierra Finance. Sierra Holdings is wholly owned by Fulcrum BioEnergy, Inc, (“Fulcrum” or the “Parent”).

The following organization chart depicts the Company’s ownership structure of the entities described herein following the issuance of the Green Bonds.



Fulcrum, headquartered in Pleasanton, California, was incorporated in the State of Delaware on July 19, 2007 and is the parent company of Sierra BioFuels. Founded by E. James Macias, Fulcrum President and Chief Executive Officer, and James A.C. McDermott, Managing Partner of U.S. Renewables Group (“USRG”) and Fulcrum Chairman of the Board, the Company was formed to develop a reliable and efficient process for converting MSW to low carbon transportation fuels.

Sierra will convert approximately 175,000 tons per year of processed MSW, or household garbage, into approximately 10.5 million gallons per year of low-carbon transportation fuel utilizing gasification and Fischer-Tropsch (“FT”) technologies in combination with other standard refining subsystems. The low carbon fuel competes directly with high-priced fossil fuels and is lower cost, lower carbon and has lower emissions than traditional fossil fuels. Sierra is being constructed in two phases, which includes the FPF and the Biorefinery.

The FPF, the FPF Site, the Biorefinery and the Biorefinery Site are pledged as Collateral for the Green Bonds.

3. FRAMEWORK OVERVIEW

The following section summarizes Sierra BioFuels' Green Bond Framework, which follows the four key pillars of the GBP including: the use of proceeds, project evaluation and selection process, management of proceeds, and reporting.

3.1 Use of Proceeds

The Issuer will use the proceeds from the Green Bonds to provide a loan to Sierra BioFuels which will then use the funds, together with other available moneys, to finance or refinance (i) a portion of the costs of the acquisition, construction, improvement, development, equipping and furnishing of biorefinery facilities and certain infrastructure improvements, to be located in Storey County, Nevada, (ii) a portion of the cost of the improvements to and equipping of the FPF located in Storey County, Nevada being used for preliminary sorting and processing of municipal solid waste, (iii) capitalized interest, (iv) a deposit to the debt service reserve fund and (v) costs of issuance of the Green Bonds. The proceeds of the Green Bond will be allocated towards financing a project that meet the following eligibility criteria.

3.1.1 Eligibility Criteria

CLEAN ALTERNATIVE FUEL AND WASTE REDUCTION

Sierra BioFuels will use the Green Bond proceeds towards capital expenditures and costs associated with the development and related infrastructure improvements of its Biorefinery as well as refinancing costs associated with the improvement to and equipping of the FPF. The Biorefinery will use gasification and the Fischer-Tropsch ("FT") process² to convert municipal solid waste ("MSW") into a synthetic crude ("syncrude") that can further be refined and blended into low-carbon transportation fuels, such as jet fuel and diesel.

Please see Appendix 1 for details of the Sierra BioFuels Plant.

3.1.2 Exclusionary Criteria

With the exception of using a portion of the proceeds for capitalized interest, a deposit to the debt service reserve fund and cost of issuance, the Company commits to allocate Green Bond proceeds towards capital expenditures and costs associated with the development and related infrastructure improvements of its Biorefinery, as well as refinancing costs associated with the improvement to and equipping of the FPF.

² The Fischer-Tropsch (FT) process is a chemical technique to convert a mixture of carbon monoxide and hydrogen into hydrocarbon chains. FT feedstock can essentially consist of any material containing carbon, such as MSW. This process does not create energy, but simply converts heat energy into chemical energy stored in the hydrocarbon bonds. The hydrocarbon chain length of most interest is usually that of liquid hydrocarbons (C5 - C25), which can be used as synthetic fuel. <http://large.stanford.edu/courses/2010/ph240/liu1/>

3.2 Project Evaluation and Selection Process

Process for Evaluation and Selection of the Eligible Project

Proceeds from the Green Bonds will be used to finance Sierra under the Eligibility Criteria stated in Section 3.1.1.

Fulcrum has demonstrated its MSW-to-biofuels process at a fully-integrated demonstration plant (“PDU”) that utilized the same gasification and FT technologies, the same MSW feedstock, and produced the same FT syncrude product that will be produced at the Biorefinery. The FT liquids produced from the PDU were upgraded into jet fuel at South West Research Institute, tested and passed the American Society for Testing and Materials requirements for use as private and military jet fuel, private and military distillate fuel and United States automobile air emission. Fulcrum’s process has been reviewed by numerous third parties including Leidos (formally R.W. Beck), the U.S. Department of Defense and Department of Agriculture.

Environmental Sustainability Objective of the Issuer

The low carbon fuels process developed by Fulcrum and integrated into the design of Sierra is expected to provide significant economic and environmental benefits for Sierra BioFuels’ customers, suppliers and communities in which it operates. With the diversion of MSW from the local landfill, Sierra is expected to help extend the life of landfill and help cities and communities in the waste shed solve their growing waste disposal problems. Low carbon fuel produced at the Biorefinery is expected to provide customers with a competitively-priced, low-carbon drop-in fuel product. Furthermore, Fulcrum’s process reduces greenhouse gas (“GHG”) emissions by more than 80% when compared to traditional petroleum products.

MSW is an abundant and widely available feedstock that is not susceptible to geopolitical risks, food and commodity price fluctuations or natural disasters. As a true waste product, it has no competing uses, is not sought after by food producers and has no impact on food prices. Decomposition of MSW in landfills produces harmful GHG emissions, including methane. Unlike other types of biomass feedstocks that are grown and harvested such as corn starch, sugarcane juice and crop residues, MSW is continuously generated every day in population centers across the U.S. at an annual rate of approximately one ton of MSW per year per person. With an abundant and interminable supply of MSW nationwide, U.S. infrastructure and logistical networks for the collection, hauling and handling of MSW are already in widespread use. Fulcrum’s feedstock strategy capitalizes on these factors to transform waste that would otherwise be landfilled into a new source of low-cost fuel that is domestic, and low in GHG emissions.

Risk Mitigation

Sierra BioFuels has confirmed that it has received all relevant environmental permits, approvals and authorizations required by local, state and federal agencies for the construction and operation of Sierra. Such approvals include, but are not limited to, a Finding of No Significant Impact (“FONSI”) and Certification of Environmental Assessment, Class II and III Air Permits, Stormwater Discharge Permits, and Solid Waste Material Recovery Facility Approval.

Pursuant to the Council on Environmental Quality regulations for implementing the procedural provisions of the National Environmental Policy Act (“NEPA”), a comprehensive Environmental Assessment was prepared to determine and assess potential natural and human environmental impacts, including socioeconomic factors associated with the development, construction and operation of Sierra. The Environmental Assessment detailed effects on: location and surroundings, neighborhood (noise and odors), farmland, surface water, groundwater, air quality, vegetation, wildlife species, amongst others.

Best Management Practices (“BMPs”) were developed to reduce project-related impacts. Although site-specific BMPs were developed once the site layout, engineering specifications, and operating procedures were finalized, BMPs were proposed for air quality and surface water resources within the Environmental Assessment. Additionally, Sierra was determined as not having a significant impact on the natural or human environment and therefore Environmental Assessment was certified and no further assessment was required.

3.3 Management of Proceeds

The Issuer issued its Environmental Improvement Revenue Bonds (Fulcrum Sierra BioFuels, LLC Project), Series 2017 (Green Bonds) in the aggregate principal amount of \$150 million on October 27, 2017, and expects to issue up to \$25 million of additional bonds in one or more series (collectively, the “Bonds”) to finance Sierra under the Eligibility Criteria stated in Section 3.1.1. The Issuer will create and deposit funds to Project Accounts (including a Major Maintenance Reserve Fund and a Project Operating Reserve Fund) as per the Collateral Agency Agreement. Pending such disbursements, the net proceeds from the bonds will be held in funds in the name of the Trustee.

The proceeds will be tracked and accounted for within Fulcrum’s accounting department.

3.4 Reporting

Allocation Reporting

Annually, until the proceeds are fully allocated from the Green Bonds, the Company will provide disclosure regarding the amount of Green Bond proceeds allocated to Sierra. The Disclosure will be made on Intralinks, or a similar virtual data room provider, a virtual data room maintained by the Company. This disclosure will continue until such time as the proceeds of the bonds are fully expended. Once all Green Bond proceeds are allocated and disclosure regarding such allocation is made, no further updates will be provided.

Allocation Tracking

Within 15 days of the end of each month, the Collateral Agent shall furnish to the Company, the Trustee, the Engineer and each Designated Representative, a statement of activity that shall set forth in reasonable detail the account balances, receipts, disbursements (including amounts disbursed, the date of disbursement and the person to whom each payment was made), transfers, investment transactions, and accruals for each of the Project Accounts (including any accounts or subaccounts within the Construction Collateral Fund, but excluding the Operating Account, the Working Capital Account and any Permitted Hedging Operating Accounts) during such month.

Impact Reporting

Sierra BioFuels expects to report on quantitative environmental performance indicators as a result from the development of Sierra. These voluntary performance indicators may include:

- Annual tonnage of MSW diverted from the landfill;
- Annual gallons of low carbon transportation fuel produced;
- Possible GHG emissions saved per year by using MSW feedstock in the gasification and FT technologies vs traditional fossil fuel production.

4. SUSTAINALYTICS' OPINION

Sustainalytics' Opinion on the Issuer's Green Bond Framework

Beyond Business as Usual

Sustainalytics has a positive outlook on Sierra BioFuels' municipal solid waste ("MSW") to low carbon fuels project and is of the opinion that its use of the Fischer-Tropsch ("FT") technology to convert waste-to-biofuel is innovative and goes beyond business as usual. Though waste-to-energy plants are common across the U.S.³ to produce electricity, heat or fuel, Sierra will be the first biorefinery in the U.S. to use gasification technology to convert MSW into syncrude, which will ultimately be upgraded to low carbon transportation fuel products, such as diesel or jet fuel. Studies have shown that the fuel produced at Fulcrum's process, using the FT technology, is 80% less carbon-intensive, on a full-life-cycle basis, than traditional petroleum fuels.⁴ Though technologies involving gasification and FT have been commercially-proven in the traditional energy sectors, their application using MSW as feedstock is unique to Fulcrum.

Additionally, Sustainalytics believes that Sierra Biofuels' product will further assist transportation companies achieve their sustainability goals of reducing GHG emissions as well as energy companies seeking to comply with the U.S. Renewable Fuel Standard and the California Low Carbon Fuel Standard.

Mitigating common environmental risks associated with waste-to-biofuel projects

Biofuels have been controversial because of its use of energy crops as a source of biomass. Energy crops are related to a number of environmental concerns, including the use of pesticides, effects of deforestation and erosion, and reduced yield in crops used for food production. However, Sierra BioFuels is avoiding such risks by opting for a waste-to-biofuel approach. Sierra BioFuels has confirmed that its plant, funded through green bond proceeds, will use MSW which has been sorted in order to separate recyclable materials.

Sierra BioFuels' FPF and Biorefinery have the benefit of being a viable waste management solution. The Company will receive MSW that has been initially sorted by a waste collection company and use its FPF to further sort waste and remove inorganics and other items. Items that are recyclable (ferrous and non-ferrous metals and plastics) are sent to recyclers. Sierra BioFuels' use of separated MSW as the source of its feedstock results in approximately 60% (roughly 238,680 tons per year) of the separated MSW being recycled and diverted from disposal. This tonnage equates to an additional 6% reduction in waste and enhances the municipalities' recycling process.

Furthermore, Sierra BioFuels has taken the following effort to mitigate additional environmental risks associated with its Sierra Plant:

³ In the U.S., there are currently 77 waste-to-energy plants operating in 22 states, which process 95,023 tons of waste yearly.

<https://archive.epa.gov/epawaste/nonhaz/municipal/web/html/>

⁴ <http://www.biofuelsdigest.com/bdigest/2015/05/06/fulcrums-200-million-pick-abengoa-for-epc-contractor-of-first-msw-to-jet-fuel-project-in-the-us/>

- The Company has confirmed that the energy generated during the FT process will also be used to power the Biorefinery thus reducing its electricity requirements from the grid.
- The MSW used to produce the feedstock for Sierra will be sourced from nearby municipalities and thus reduce transportation requirements for procuring the required feedstock.
- The FPF is located on approximately 10 acres of developed property owned by Sierra BioFuels in an industrial area in Storey County, Nevada. Sierra BioFuels selected the location of the FPF to be close to the source of the MSW and within close proximity to the Biorefinery, thus enabling efficiencies within its supply chain.

Alignment with Green Bond Principles 2017

Sustainalytics has determined that the Fulcrum Sierra BioFuels Green Bond Framework aligns to the four pillars of the Green Bond Principles 2017. For detailed information please refer to Appendix 2: Green Bond/Green Bond Programme External Review Form.

Impact of Use of Proceeds

Reduced reliance on fossil fuel / cleaner fuel used by the transportation / aviation industry

Sustainalytics is of the opinion that Sierra BioFuels' MSW to low carbon fuels project will produce a low-carbon fuel which can be used as a sustainable alternative by the transportation industry. Based on studies, Sierra BioFuels' liquid fuel meets the same performance criteria as petroleum, while at the same time being cleaner and running cooler.⁵ Independent emissions consultants from the USDA state that Sierra BioFuels' fuel reduces GHG emissions by more than 80% when compared to traditional petroleum products.⁶

Of particular note, Sierra BioFuels' product has proven to be refinable into jet fuel. Jet fuel in use today is almost exclusively derived from fossil fuels. As such, the aviation industry produces 12% of the emissions resulting from all transportation sources.⁷ Moreover, aviation represents 2% of global emissions and is expected to grow to 3% by 2050. Since emissions of GHGs from the aviation industry are proportionally related to the usage of fossil-based fuel,⁸ an increase in air travel would also translate into an increase in GHGs from the industry.

Low-carbon alternative fuels are critical for reducing aviation GHG emissions. Production and uptake of Sustainable Alternative Fuels ("SAF") have progressed steadily since 2011 with more than 1,500 commercial flights using SAF.⁹ Significant efforts are currently underway in promoting the use of SAFs that have a reduced carbon footprint compared to conventional jet fuel.

⁵ <https://archive.epa.gov/epawaste/nonhaz/municipal/web/html/>

⁶ Fulcrum BioEnergy Corporate Website, accessed July 27, 2017, <http://fulcrum-bioenergy.com>

⁷ IPCC, Climate Change 2007: The Physical Science Basis, Cambridge Univ. Press, Cambridge, UK.

⁸ David S. Lee (2010), Aviation Greenhouse Gas Emissions. In ICAO Secretariat's *Aviation's Contribution to Climate Change*, https://www.icao.int/environmental-protection/Documents/EnvironmentReport-2010/ICAO_EnvReport10-Ch1_en.pdf, p. 42-46.

⁹ International Civil Aviation Organization (ICAO), 2016:

<https://www.icao.int/environmental-protection/Documents/ICAO%20Environmental%20Report%202016.pdf>

Diversion of waste from landfills

In the year 2013, the U.S. produced 254 million tons of MSW, among which 87 million tons was either composted or recycled, 32.7 million tons were burned for energy and 134.3 million tons (53%) were directed to landfills.¹⁰ Although the number of landfills from the U.S. decreased over the years, the average size of existing landfills has grown.¹¹ These landfills pose a threat to the environment not only due to the emissions of carbon dioxide and methane into the air, but also because of groundwater contamination resulting from leache. With the diversion of MSW from landfills, Sierra will help to extend the life of landfills and help municipalities solve their growing waste disposal problems.

Alignment with Sustainable Development Goals

The Sustainable Development Goals (“SDG”) were set in September 2015 and form an agenda for achieving sustainable development by the year 2030. Sierra BioFuels’ Green Bond advances the following SDG goals and targets:

Use of Proceeds Category	SDG	SDG target
BioFuels Refinery	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
	11. Sustainable Cities and Communities	11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
	12. Responsible Consumption and Production	12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

Conclusion

Fulcrum has developed the Sierra BioFuels Green Bond Framework. The framework is transparent and provides clarity regarding use of proceeds and the outcomes of the Green Bond investments. Sierra BioFuels’ Use of Proceeds to develop the Plant is recognized as eligible projects by the Green Bond Principles 2017. Conversion of MSW-to-fuel is a sound environmental and climate friendly option to divert waste away from landfills. These activities help in the reduction of GHG emissions and the production of clean fuel from waste. Once Sierra is operational, the Company plans to transform about 175,000 tons of MSW, or household garbage, into about 10.5 million gallons of biofuel per year. Studies have shown that the biofuels produced are 80% cleaner than petroleum. Sustainalytics believes that the Company’s biofuels can be produced as a reliable source of low carbon fuel, which decreases GHG emissions and relieves the pressure on landfills. Sustainalytics is of the opinion that the Sierra BioFuels Green Bond is credible and robust.

¹⁰ <http://blogs.ei.columbia.edu/2016/10/18/putting-garbage-to-good-use-with-waste-to-energy/>

¹¹ <http://blogs.ei.columbia.edu/2016/10/18/putting-garbage-to-good-use-with-waste-to-energy/>

APPENDIX 1

Sierra BioFuels Plant

Sierra BioFuels is the owner of Sierra, which will convert approximately 175,000 tons per year of MSW, or household garbage, into approximately 10.5 million gallons per year of low carbon FT syncrude that will be upgraded and processed into low-carbon transportation fuel products. Sierra is being constructed in two phases, which includes the FPF and the Biorefinery. Both the FPF and the Biorefinery are pledged as Collateral for the Series 2017 Bonds.

Phase 1 is the FPF where MSW delivered by the Company's waste services partners will be sized, sorted and processed into a prepared MSW feedstock. The FPF, which is now in operation, deploys a waste processing system used commercially throughout the waste services industry. This system has been designed to extract from the inbound MSW, high-value recyclable products and inorganic matter not suitable for processing, prior to preparing a MSW feedstock for use at the Biorefinery.

The sole purpose of the FPF is to process MSW received from the Company's waste services partners by (i) separating out recoverable materials such as ferrous and non-ferrous metals and plastics which are then sold under the terms of existing agreements with recyclers, (ii) removing unprocessable materials, such as equipment, appliances and other large and bulky items, which are then disposed of at the Lockwood Landfill at no cost to the Company, and (iii) preparing a MSW feedstock that meets the specifications required by the Biorefinery. The site of the FPF (the "FPF Site") is located less than one mile from the Lockwood Regional Landfill and within approximately 15 miles of the Biorefinery. The FPF site includes a 65,000-square foot pre-fabricated metal building which has the capacity to process more than 1,500 tons of MSW per day.

Phase 2 of Sierra is the Biorefinery and related infrastructure improvements, where the prepared MSW feedstock produced at the FPF will be converted into low carbon FT syncrude. The Company has engaged the Engineering, Procurement and Construction (EPC) Contractor to begin early construction activities on the Biorefinery and is prepared to issue the EPC Contractor a full notice to proceed following the issuance of the Green Bonds. The Biorefinery is expected to begin operations in January 2020.

Sierra BioFuels Plant: <http://fulcrum-bioenergy.com/facilities>

APPENDIX 2

Green Bond/Green Bond Programme External Review Form

Green Bond / Green Bond Programme External Review Form

Section 1. Basic Information

Issuer name: The Director of the State of Nevada Department of Business and Industry

Company Name: Fulcrum Sierra BioFuels, LLC

Green Bond ISIN or Issuer Green Bond Framework Name, if applicable: Fulcrum Sierra BioFuels Green Bond Framework

Review provider's name: Sustainalytics

Completion date of this form: November 29, 2017

Section 2. Review overview

SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBPs:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting |

ROLE(S) OF REVIEW PROVIDER

- | | |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (*if applicable*)

Please refer to Green Bond Framework and Second Opinion Document above.

Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

1. USE OF PROCEEDS

Overall comment on section (if applicable):
Sierra BioFuels' Use of Proceeds to develop the Plant is recognized as eligible projects by the Green Bond Principles 2017. Conversion of MSW-to-fuel is a sound environmental and climate friendly option to divert waste away from landfills. These activities help in the reduction of GHG emissions and the production of clean fuel from waste.

Use of proceeds categories as per GBP:

- Renewable energy
- Pollution prevention and control
- Terrestrial and aquatic biodiversity conservation
- Sustainable water management
- Eco-efficient products, production technologies and processes
- Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs
- Energy efficiency
- Sustainable management of living natural resources
- Clean transportation
- Climate change adaptation
- Other (please specify):

If applicable please specify the environmental taxonomy, if other than GBPs:

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):
Sierra BioFuels will allocate proceeds of the green bond towards the development of Sierra. The Company has selected the application of gasification and FT technologies following various tests, consultations and reviews. The Company has received all relevant environmental permits, approvals and authorizations required by local, state and federal agencies for the construction and operation of Sierra. Sustainalytics is of the opinion that the process to select the application of gasification and FT technologies is credible.

Evaluation and selection

- | | |
|--|--|
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input type="checkbox"/> Documented process to determine that projects fit within defined categories |
| <input type="checkbox"/> Summary criteria for project evaluation and selection publicly available | <input type="checkbox"/> Other (<i>please specify</i>): |

Information on Responsibilities and Accountability

- | | |
|--|---|
| <input checked="" type="checkbox"/> Evaluation / Selection criteria subject to external advice or verification | <input checked="" type="checkbox"/> In-house assessment |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

3. MANAGEMENT OF PROCEEDS

Overall comment on section (*if applicable*):

The Issuer will issue its Green Bonds to finance Sierra under the Eligibility Criteria. The Issuer will create and deposit funds to Project Accounts (including a Major Maintenance Reserve Fund and a Project Operating Reserve Fund) as per the Collateral Agency Agreement. Pending such disbursements, the net proceeds from the bond will be held in funds in the name of the Trustee. The proceeds will be tracked and accounted for within Fulcrum's accounting department.

As the Issuer has sufficient oversight over the management of proceeds; this process is in line with industry norms.

Tracking of proceeds:

- | |
|--|
| <input checked="" type="checkbox"/> Green Bond proceeds segregated or tracked by the issuer in a systematic manner |
| <input type="checkbox"/> Disclosure of intended types of temporary investment instruments for unallocated proceeds |
| <input type="checkbox"/> Other (<i>please specify</i>): |

Additional disclosure:

- | | |
|---|---|
| <input type="checkbox"/> Allocations to future investments only | <input checked="" type="checkbox"/> Allocations to both existing and future investments |
| <input type="checkbox"/> Allocation to individual disbursements | <input type="checkbox"/> Allocation to a portfolio of disbursements |
| <input checked="" type="checkbox"/> Disclosure of portfolio balance of unallocated proceeds | <input type="checkbox"/> Other (<i>please specify</i>): |

4. REPORTING

Overall comment on section (*if applicable*):

Annually, until the proceeds are fully allocated from the Green Bonds, the Issuer will provide disclosure regarding the amount of Green Bond proceeds allocated to Sierra. The Disclosure will be made on Intralinks, or a similar virtual data room provider, a virtual data room maintained by the Company.

Sierra BioFuels expects to report on quantitative environmental performance indicators including: (1) annual tonnage of MSW diverted from the landfill; (2) annual gallons of low carbon transportation fuel produced; (2) possible GHG emissions saved per year by using MSW feedstock in the gasification and FT technologies vs traditional fossil fuel production.

Use of proceeds reporting:

- Project-by-project
- On a project portfolio basis
- Linkage to individual bond(s)
- Other *(please specify)*:

Information reported:

- Allocated amounts
- GB financed share of total investment
- Other *(please specify)*:

Frequency:

- Annual
- Semi-annual
- Other *(please specify)*:

Impact reporting:

- Project-by-project
- On a project portfolio basis
- Linkage to individual bond(s)
- Other *(please specify)*:

Frequency:

- Annual
- Semi-annual
- Other *(please specify)*:

Information reported (expected or ex-post):

- GHG Emissions / Savings
- Energy Savings
- Other ESG indicators *(please specify)*:
diversion of MSW from landfill, amount of low carbon transportation fuel produced.

Means of Disclosure

- Information published in financial report
- Information published in sustainability report
- Information published in ad hoc documents
- Other *(please specify)*: EMMA
- Reporting reviewed *(if yes, please specify which parts of the reporting are subject to external review)*:

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

www.emma.msrb.org

<http://fulcrum-bioenergy.com/facilities/>

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification / Audit | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (please specify): | |

Review provider(s):

Date of publication:

ABOUT ROLE(S) OF REVIEW PROVIDERS AS DEFINED BY THE GBP

- (i) Consultant Review: An issuer can seek advice from consultants and/or institutions with recognized expertise in environmental sustainability or other aspects of the issuance of a Green Bond, such as the establishment/review of an issuer's Green Bond framework. "Second opinions" may fall into this category.
- (ii) Verification: An issuer can have its Green Bond, associated Green Bond framework, or underlying assets independently verified by qualified parties, such as auditors. In contrast to certification, verification may focus on alignment with internal standards or claims made by the issuer. Evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria.
- (iii) Certification: An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against an external green assessment standard. An assessment standard defines criteria, and alignment with such criteria is tested by qualified third parties / certifiers.
- (iv) Rating: An issuer can have its Green Bond or associated Green Bond framework rated by qualified third parties, such as specialised research providers or rating agencies. Green Bond ratings are separate from an issuer's ESG rating as they typically apply to individual securities or Green Bond frameworks / programmes.

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