RECOMMENDATIONS TO THE COMMISSIONER ON THE SELECTION OF PHASE II FINALISTS

DECEMBER 29, 2017

Contents

I. LEGAL AND PROCEDURAL BACKGROUND

In 2014, Governor Dannel P. Malloy signed Public Act 14-94 (C.G.S. Sec. 22a-268g), calling for the Commissioner of the Connecticut Department of Energy and Environmental Protection ("DEEP" or "Department"), in consultation with the Materials Innovation and Recycling Authority ("MIRA"), to solicit proposals for the redevelopment of the Connecticut Solid Waste System Project ("CSWSP").

The CSWSP is composed of six (6) facilities (collectively the "Facilities"):

- The Connecticut Solid Waste System Resource Recovery Facility (CSWS RRF) in Hartford, CT, including a Waste Processing Facility (WPF) and Power Block Facility (PBF);
- The MIRA CSWS Recycling Facility in Hartford, CT;
- A transfer station in Watertown, CT;
- A transfer station in Torrington, CT;
- A transfer station in Essex, CT (site owned by Town of Essex, leased to MIRA); and
- A transfer station in Ellington, CT (not currently in operation).

The Connecticut Solid Waste System Resource Recovery Facility (CSWS RRF) (formerly referred to as Mid-Connecticut RRF), has operated since 1988 with a permitted capacity to process 888,888 tons of Municipal Solid Waste (MSW) per year. The CSWS RRF is approaching the end of its service life and must be upgraded or replaced due to:

- Aging equipment that is difficult and expensive to maintain;
- Recurring plant shutdowns cause backups in processing trash;
- Maintaining the current facility will require major capital investments, with costs exceeding one hundred million dollars;
- The facility is at the hub of a "hub and spoke" system of facilities identified above that are owned and managed by MIRA (formerly Connecticut Resources Recovery Authority or CRRA) and currently serves over 50 municipalities.

The intent of PA 14-94 was to ensure the viability of waste management services for the MIRA Facilities and to accelerate the development of newer waste conversion technologies to increase efficiency and decrease the environmental and community impacts (greater energy production, lower emissions, etc.) from the current plant. As stated in the DEEP Phase I and Phase II RFPs, the goals of the final project are that:

1. The selected project will result in an integrated materials management system modeled after the state's materials management hierarchy. Thus, the project will maximize materials recovery, with remaining waste managed through efficient conversion to compost, renewable energy, fuel, chemicals, and/or other usable products. A successful project will be consistent with achieving the state's goal of 60 percent diversion from landfill and combustion by the year 2024.

2. To serve contracted communities and other customers, the selected project will have the capacity to process a minimum of 1,500 tons/day of post-recycled MSW (465,375 TPY assuming 85% availability) and up to 100,000 TPY of source-separated recyclables, and up to 2,250 tons/day of post-recycled MSW (698,063 TPY assuming 85% availability) and 100,000 tons/year of source-separated recyclables.

3. The selected project will provide stable and competitive pricing for municipalities for up to 30 years, including the ability to provide uninterrupted services to the Connecticut towns under contract with MIRA through the year 2027.

4. The selected project will enhance host communities by providing quality jobs, purchasing of local goods and services, and taking steps to mitigate potential negative impacts such as traffic, odors, human health, environmental impacts, and a host community fee or other compensation.

5. The selected project will maintain services at CSWSP transfer stations for as long as required by current contracts through the year 2027.

6. The selected project will minimize negative environmental and health impacts of waste management, including minimizing greenhouse gas emissions.

7. The selected project will continue current practices for source separation and collection of designated recyclables (including glass and metal containers, HDPE and PETE plastic containers, white and mixed paper, old corrugated cardboard; boxboard; yard waste; and food scraps).

8. The selected project will include technologies to sort incoming post-recycled MSW to recover additional recyclables and organics and/or achieve optimal feedstock compositions for conversion to compost, fuels, chemicals, electricity or other products.

9. It is planned that the project will be privately financed. The State retains the right of public financing.

10. The selected project will make use of existing sites within the CSWSP as advantageous and to the greatest extent possible.

11. The selected project will make use of the existing patterns of municipal and subscription-based collection services for waste and recycling.

12. The selected project will commence operations within five (5) years of contract execution, contingent upon timely state and local approvals.

At the conclusion of DEEP's solicitation the Commissioner, no later than December 31, 2017, may select one or more Finalist(s) and direct MIRA to enter into contract negotiations on the basis of the responses to the Department's RFP. This report provides a summary of the Evaluation Team's RFP process, proposal ranking, and other findings for the Commissioner's determination. The Commissioner is given discretion to use this report and any other factors that are consistent with the goals and requirements of the RFP to render his final selection. DEEP's selection is conditional based upon the ability of the parties to reach a Comprehensive Development Agreement by August 31, 2018. DEEP reserves the right to extend the timeframe, and also reserves the right to select a different proposer if the selected proposer and MIRA cannot come to terms.

II. OVERVIEW OF PROCUREMENT PROCESS

In accordance with the legislation, DEEP provided for a two-phase approach for its RFP process.

Phase I

In the fall of 2015 DEEP convened an Evaluation Team comprised of DEEP staff, a consultant with expertise in waste management trends and industries, a MIRA representative, a representative from the Hartford Mayor's Office, and a representative from the Capitol Region Council of Governments (CRCOG) to facilitate the solicitation. Representatives of the City of Hartford and the CRCOG were invited to continue their participation, although they elected to participate on a limited basis. A website was also created for the purposes of the DEEP RFP titled: Resource Rediscovery – Modernizing the CT Solid Waste System Project, available at: http://www.ct.gov/deep/ResourceRediscovery.

The website continues to be updated with publicly available information and documents relating to the RFP process.

On November 6, 2015 DEEP issued the Phase I RFP. Phase I was a qualifying phase to consider teams and technologies and provide for a selection of three bidders in accordance with statute to continue onto Phase II. Proposers were also asked to provide private financing for facilities and to assume that the Facilities would continue under public control with MIRA in an administrative role.

DEEP received and reviewed eight proposals from its solicitation. The technologies reviewed included:

- The use of Mixed Waste Processing Facilities (to separate organics from post-recycled MSW and/or otherwise preprocess the waste for further conversion or use)
- Anaerobic Digestion
- Composting
- Gasification (including plasma arc, pyrolysis, and other forms of gasification)
- Other conversion processes that convert waste to renewable fuel, chemicals, electricity or other usable products

On September 23, 2016, three finalists were selected from the Phase I RFP process in accordance with C.G.S. Sec. 22a-268g. Those finalists were asked to participate in the Phase II RFP process.

Phase II

In Phase II, the three Finalists were invited to respond to a supplemental RFP to conduct further analyses based on the specific technology or mix of technologies proposed during Phase 1, and to submit a final proposal including:

- Firm pricing for a thirty year term that reflects current trends in the region,
- Additional detail on the technical and managerial approach,
- Proposed project structure, such as business, marketing, legal, and financing approach,
- Environmental impacts of the project, greenhouse gas emissions, traffic impacts,
- Community relations plan,
- Submission of contracts, firm letters of intent, or memoranda of understanding with lenders, financial sponsors, guarantors, and insurers required to proceed swiftly with contract negotiations with MIRA and DEEP.

This additional information taken together comprised the "feasibility study" described by C.G.S. Sec. 22a-268g.

The Department conducted the procurement process as outlined in the Phase II RFP issued on March 31, 2017. In addition to issuance of the RFP, the Phase II RFP process included the following steps:

1. On April 28, 2017 the Department posted Appendix K which included key terms of a Model Contract Agreement the proposers would be requested to enter into with MIRA upon being selected as the Finalist. Proposers were asked to submit with their final proposals any proposed changes to the model contract for the Department's consideration.
2. Applicants were requested to submit any questions regarding the Phase II RFP to the Department by July 10, 2017.
3. The Department posted answers to questions submitted by Applicants regarding the Phase II RFP on May 19, 2017, and revised on July 13, 2017.
4. During June and July 2017 the Applicants scheduled informational meetings with representatives of the City of Hartford and members of the Evaluation Team.
5. Proposals were accepted by the Department on July 31, 2017.
6. Finalists were required to conduct public presentations of their proposed projects on September 28, 2017 in the City Council Chambers, 550 Main Street, Hartford, CT.
7. The public was invited to comment based on the three Finalists' presentations and other publically available information posted on the DEEP website: www.ct.gov/DEEP/ResourceRediscovery. Eleven (11) submissions of public comments were received on or before December 8, 2017, considered, and made available on the Resource Rediscovery website.
8. DEEP conducted interviews of the three Finalists on October 30th and 31st 2017.
9. DEEP conducted several briefings to stakeholder and nonprofit organizations including: the Hartford Advisory Commission on the Environment, Hartford Mayor's Office, MIRA board, Metropolitan District Commission officials, Councils of Governments, the CT Solid Waste Advisory Committee, the CT Recyclers Coalition, the Solid Waste Association of North America, and the CT Environmental Business Council.
10. DEEP issued two rounds of clarifying questions to the proposers and reviewed responses to same.
11. On November 15, 2017 the Commissioner of DEEP issued a report to the Connecticut General Assembly.
12. The General Assembly's Environment, and Energy and Technology committees convened a public hearing on December 6, 2017 to consider DEEP's RFP process at which the Commissioner provided testimony on the RFP background and status.
13. From August to December 2017, the Evaluation Team, with the addition of a financial analyst from the Connecticut Green Bank and a representative of the City of Hartford Department of Public Works, analyzed the three proposals received.

In accordance with the RFP, the Evaluation Team developed a ranking of proposals for the Commissioner to consider in selecting a proposal(s) for contract negotiations. This process is described below. Upon

completion of the RFP process and selection of a proposer(s) for contract negotiations, the Commissioner shall direct MIRA and said propose(s) to enter good faith negotiations.

III. SUMMARY OF THE THREE FINAL PROPOSALS

The three proposers that were invited to prepare a Phase II submission are, in alphabetical order:

Covanta Energy, LLC ("Covanta"), a New Jersey-based company which owns and operates many waste-to-energy facilities in the Northeast. If a proposal for source separated organics collection is not pursued, as an option Covanta will partner with Anaergia and Van Dyk Recycling Solutions to provide the technology and equipment for the extraction of organic materials from MSW. It will also partner with Quantum Biopower to serve as a primary off-taker of organics, providing organics capacity in its Southington facility.

Mustang Renewable Power Ventures, LLC ("Mustang"), is an affiliate of the Dewey Group, a California project developer for solid waste management projects. Mustang is teaming up with Sims Municipal Recycling who will be responsible for the operation, maintenance, compliance and materials marketing of recovered recyclables as well as operation of the transfer stations. It will also team with Harvest Power for the recovery of organics from the MSW and O&G Industries as the engineer, procure and construct contractor to Mustang. Mustang is currently developing similar projects in Santa Barbara County, CA. and in Escambia County, Florida.

Sacyr Rooney Recovery Team, LLC ("Sacyr Rooney"), is the alliance of Sacyr, a Spanish international waste management project developer active in more than 20 countries and involved in the development, financing and management of waste-to-energy and recovery facilities and the Rooney family of companies, experienced with national and northeast experience in construction and development. Sacyr Rooney is also teaming with Synagro as the marketer for organics and CWPM of Plainville, CT as operator of the transfer stations. Sacyr Rooney plans to maintain NAES as the continued operator of the resource recovery facility and power block until the project is constructed. Sacyr Rooney has stated during its interview that it would negotiate with NAES to be the operator for the 30 year operating period after the project is constructed. If that negotiation is not successful, Sacyr's subsidiary VSM will operate and manage the plant.

A brief summary detailing key elements of each proposal follows:

Covanta proposes to cease operations of the Resources Recovery Facility entirely, i.e., the Waste Processing Facility and the Power Block Facility. The existing single-stream recycling center on Murphy Road would be converted to a Municipal Solid Waste (MSW) transfer station and would accept MSW at an estimated 200,000 tons per year. Source separated recyclables would be managed at the Hartford transfer station and at other third-party facilities in Connecticut or elsewhere in the region. Covanta proposes to incentivize a source-separated organics curbside collection. Organics would then be managed via offsite anaerobic digestion (AD) through one of its bid partners. In its Base Proposal, no new systems are proposed by Covanta to process the post-recycled MSW or to extract recyclables from MSW (such a system was not an RFP requirement). As part of its Base Proposal, Covanta proposes that 150,000 TPY of mixed MSW will be landfilled without recovery of materials or energy. The MSW directed to the new Hartford transfer station would then need to be transported to off-site Covanta resource recovery facilities or third party facilities for landfilling. It should be noted that Covanta may consider expanding its Bristol facility to process additional MSW should adequate waste be available and market conditions permit. Advantages of Covanta's proposal are the diversion of source separated organics, reduced air emissions,

and potential for redevelopment of the site following decommissioning and remediation. Covanta did not estimate the cost for the remediation of the site or the decommissioning of the existing resource recovery facility. Covanta states that since it would not be using the Hartford resource recovery facility it would not be willing to pay a host fee at the level proposed in the RFP but would consider a substantially reduced host fee based on its reduced footprint on Murphy Road. Other project factors under consideration:

Diversion of Materials from incoming MSW stream (698,063 tons)		
	Diverted tons	**Diversion %**
Recovered recyclables	0	
Compost or diverted organics	137,697	19.7%
Losses (Evaporation / Decomposition)	0	
Liquid digestate	0	
PEF creation (for offsite combustion)	0	
Other recovered outputs	17,592	2.5%
Total		**22.2%**

Proposed Financing Structure
Covanta intends to finance any capital project costs from internal resources. Covanta will use cash on hand and/or available under its current banking arrangements. Covanta intends to subsidize the cost of the wheeled carts and kitchen receptacles for its curbside organics collection. Covanta did not provide any detail as to the capital costs associated with its endeavors or explain in detail how project-related costs translated into its proposed "Base Case." Nor did it outline any expected capital costs, O&M costs, financing costs or revenue streams to better evaluate the overall financing assumptions of the proposed project. The financial review of Covanta's proposal was limited by the lack of detail as described above.

Schedule
Covanta is ready to serve under contract as early as July 1, 2019. Covanta has a 2 phased approach. Phase 1 would take seven (7) years for a full roll out of an organic waste curbside program to be implemented on a town-by-town basis from the start of contract service. The timing of phase 2 would depend on securing additional waste under long-term contracts and a corresponding long-term power purchase agreement which would make any expansion of the Bristol facility cost-effective.

Additional Factors for Consideration:

Year 1 MSW Tipping Fees	$78
Proposed Host Community Fee (Hartford)	$500,000
Job Count	not quantified
Products for sale	Recyclables, compost, electricity
Commitment to maintain an education center	Yes

Mustang proposes a system that would eliminate operation of the existing Power Block Facility. Organics would be extracted from MSW for processing on-site via anaerobic digestion and enclosed composting boxes. The anaerobic digestion process generates natural gas which Mustang intends to use for fueling on-site fleet operation as well as injection to the existing natural gas pipeline. MSW would be sorted to extract recyclables, and suitable material is then baled to be processed off-site into a processed engineered fuel (PEF) for use at cement kilns, including the direct incorporation of the PEF ash into the

cement product. Flexibility exists to recover plastics that would otherwise be in PEF and recycle it as plastic resins. Residual material would be sent to a landfill via rail. The existing single-stream recycling center on Murphy Road would continue to manage source-separated recyclables. Advantages of such a system would include: increased diversion of organics; reduced air emissions; elimination of cooling water withdrawal and discharge to the Connecticut River through discontinued use of the Power Block Facility; use of rail for waste transfer; and the potential redevelopment of the Power Block Facility for other commercial/industrial purposes. Remediation of the coal pond is included in the proposal for use by Mustang. Other project factors under consideration:

Diversion of Materials from incoming MSW stream (698,000 tons)		
	Diverted tons	**Diversion %**
Recovered recyclables	98,130	14.1%
Compost or diverted organics	81,077	11.6%
Losses (Evaporation / Decomposition)	196,270	28.1%
Liquid digestate	0	
PEF creation (for offsite combustion)	116,009	16.6%
Other recovered outputs	0	
Total		**70.4%** **w/o PEF – 53.8%**

Proposed Financing Structure

Mustang proposes to finance the project by issuing non-recourse project-level bonds, via Bank of America as the underwriter, for 75% of the total capital costs (~$292.7 million), and financing the remaining 25% of total capital costs (~$97.6 million) with equity. The equity would be ~95% institutional equity (~$92.6 million) and 5% Mustang equity (~$5.0 million). The bonds are envisioned as tax-exempt private activity bonds, closed at financial close, fully amortizing via mortgage-style payments with a rate of 5.50% over a 30-year term.

Schedule

The initial Round 2 proposal from Mustang contemplated construction of the facility in two phases: Phase I with limited processing ability across both the Mixed Waste MRF and Anaerobic Digester, and Phase II with the final, completed processing ability across both. In subsequent conversations and presentations however, Mustang stated its intent to finance and construct both phases at the same time period. Mustang proposes to provide interim service during the transition by December 2019 contingent upon timely execution of a contract with MIRA. Mustang's interim service plan will involve alternative-disposal, including landfilling, of all incoming MSW during the estimated 24-month construction period for the mixed waste processing facility beginning in the 3rd Quarter of 2019. Its Guaranteed In-Service Date for new facilities falls in the third quarter of 2022.

Additional Factors for Consideration:

Year 1 MSW Tipping Fees	$86
Proposed Host Community Fee (Hartford)	$4 million
Job Count	~175 FTE
Products for sale	Recyclables, compost, PEF
Commitment to maintain an education center	Yes

Sacyr Rooney proposes to refurbish the Power Block Facility but operate only two of the combusters, construct new sorting lines at the Waste Processing Facility for processing both source separated recyclables and extraction of recyclables from MSW (separate "clean" and "dirty" sorting lines), and extract organics from MSW at the plant for processing through onsite, enclosed, aerobic composting and anaerobic digestion facilities. The existing single-stream recycling center on Murphy Road would continue processing source separated recyclables. Advantages of such system would include increased diversion of organics, reduced air emissions through more efficient combustion and potential redevelopment of a portion of the riverfront. Remediation of the coal pond is included in the proposal in order to create additional space for use by Sacyr Rooney. Other project factors under consideration:

Diversion of Materials from incoming MSW stream (698,063 tons)		
	Diverted tons	**Diversion %**
Recovered recyclables	132,338	19.0%
Compost or diverted organics	37,292	5.3%
Losses (Evaporation / Decomposition / other)	144,935	20.8%
Liquid digestate	21,005	3.0%
PEF creation (for offsite combustion)	0	
Other recovered outputs	0	
Adjustment for compost/AD-related inputs	[32,107]	[4.6%]
Total		**43.5%***

Proposed Financing Structure
It is proposed that the Project will be financed with a combination of private debt and equity. The current proposal's term financing structure is based on 6% equity and 94% debt, though that structure can support additional equity under scenarios discussed in the financial analysis report. The debt financing will take place in two phases. A construction loan facility entered into on financial close which will be refinanced by a long-term amortizing bond at the Guaranteed In-Service Date [expected to be Q4 of 2023]. Sacyr Rooney will seek to maximize the debt portion and minimize equity to achieve the lowest cost of capital. The current proposal is based on 6% equity and 94% debt. Prior to the Guaranteed In-Service Date, no debt repayment is planned until the construction facility is refinanced by the long-term bond financing which affords additional time to grow surplus cash flow.

Schedule
Sacyr Rooney expects to assume responsibility upon execution of the Contract. At that time it will accept responsibility for interim service operation of the transfer stations and the RRF. It is partnering with NAES to continue operating the RRF in collaboration with Sacyr so as to avoid any disruption in the current operation of the plant. It plans to interrupt and stop all operations for approximately twenty-two (22) days at the RRF during construction at the facility. It has scheduled one (1) full year to complete permitting and forty-eight (48) months for construction. Its Guaranteed In-Service Date falls in the last quarter of 2022.

Additional Factors for Consideration:

Energy Production	~22.36 MW
Year 1 MSW Tipping Fees	$65
Proposed Host Community Fee (Hartford)	$4 - $5.5 million
Job Count	~265 FTE

Products for sale	Recyclables, compost, fertilizer, RECs, RNG
Commitment to maintain an education center	Yes

IV. EVALUATION CRITERIA

The Evaluation Criteria and itemized scoring summary are provided in Appendix I of this report (and outlined in Sec. 1.8 of the Phase II RFP). The final selection criteria included a review of Finalists' Updated Technical, Financial and Managerial scores that were taken from Phase I and evaluated in conjunction with additional criteria from Phase II. Scores were compiled after receiving responses and conducting in-person interviews with each proposal team. The analysis entailed a review of the scoring criteria and findings to ensure consistency in the proper assessment and application of scoring.

A. SCORING OF UPDATED AND REFINED TECHNICAL AND MANAGERIAL APPROACH, DEVELOPMENT SCHEDULE, AND FINANCIAL PROPOSALS

The Evaluation Team conducted a comprehensive review of the three proposals for this Criteria which constitutes 25% out of the total score. The Step 1 process included the Evaluation Team reviewing the Phase I scores for each proposer and adjusting those scores based on any revised or new information provided in the final submissions. Members of the Evaluation Team then re-scored the proposals based on the original Technical "Non-Cost" Comparative Criteria contained in the Phase I RFP. The adjusted scores of individual team members were averaged to generate a final score for this category.

In order of highest to lowest those scores are as follows:

Updated Phase I (25%)			
Proposer	Updated and Refined Technical/Managerial and Schedule for Project Development	Updated and Refined Financing Plan	Score*
Sacyr Rooney	89	100	93
Mustang	84	92	87
Covanta	84	17	62

*The updated Phase I Scores are weighted as follows:
2/3 = Updated Technical/Managerial and Development Schedule
1/3 = Updated Financing Plan

The three proposals scored relatively closely with respect to their Updated and Refined Technical and Managerial Approaches. The criteria weighted in this category specifically examined the experience and financial strength of the proposal team, the reliability and operating record of the proposed technologies, potential environmental impacts and the opportunity for increasing diversion from combustion and landfilling.

It is important to note that Covanta's approach in Phase II did not adhere to many elements of the Phase II RFP and their final scores which are lower than the other Finalists, reflect their failure to provide sufficient detail on pricing and financing. Even with the deficiencies, the Evaluation recognized that Covanta, as a large U.S. materials management enterprise, could provide services to manage the waste in addition to their curbside "base case" proposal of diversion of organics. However, the Evaluation Team was less confident in Covanta's response which depends largely on third party and out-of-state entities to accept the majority of waste throughput and would involve an increase in trucking waste through the state

to its final destination location for further processing. In addition, several of the potential third party facilities cited in Covanta's proposal have not yet been permitted or constructed.

The financial review showed that the proposed financing structures for Sacyr Rooney and Mustang, under the project-related details and assumptions found in the respective proposals of those bidders, presented viable options for successfully financing the proposed projects. With regards to the financial criteria, the Evaluation Team found that the Sacyr Rooney proposal ranked highest in a several categories that demonstrated overall financial nimbleness of the proposer given various sensitivity analysis cases that were run to evaluate the net effect on financing of the projects if the projected costs, revenues and financing options are not met.

B. SCORING OF PHASE II CRITERIA

In accordance with the Phase II RFP, the Evaluation Team conducted an analysis of the three Finalists' proposed projects which included an assessment of the following:

- Operation and Management (O&M) Plan
- Firm Pricing
- Conformance to Contract Principles
- Feedstock Acquisition and Product Marketing Plan
- Environmental Assessment
- Transportation Plan
- Community Relations Plan

The Evaluation Team's assessment for these criteria composed 75% of the final score. The Team reviewed the criteria above including: the proposed costs, consideration of best practices for O&M plans, scheduling and need for permitting, ability to market any commodities and the environmental impact of the respective projects. The Team also weighed the proposed transportation and community relations plans of the three projects with a full understanding of the needs and concerns raised in public comment and at the various public comment session. The evaluation is incorporated into a ranking of proposals for the Commissioner's consideration. The results from the scoring are below:

Phase II Additional Criteria (75%)	
Proposer	O&M, Firm Pricing, Contract Principles, Feedstock and Product Marketing, Environmental Assessment, Transportation Plan & Community Relations Score
Sacyr Rooney	86
Mustang	81
Covanta	49

The Updated Phase I scoring and the Phase II Criteria Scores were combined to generate a final Phase II Comprehensive Score.

Phase II Comprehensive Score*			
Bidder	**Phase I Update (25%)**	**Phase II Additional Criteria (75%)**	**Final Scores**
Sacyr Rooney	**93**	86	**88**
Mustang	**87**	81	**83**
Covanta	**62**	49	**52**

***See Appendix I for the itemized scoring comparison**

Covanta's scores were consistently lower than the two other proposals due to their incomplete responses to several key elements of the RFP criteria. Covanta's proposal would suspend use of the Hartford resource recovery facility, and while appealing to the City of Hartford's vision to recapture a large riverfront property that could be redeveloped for higher-value uses, is not sufficiently responsive to the RFP criteria. As proposed the project does not represent a reliable and economically viable option to manage ~ 33% of the State's MSW that the current facility is permitted to manage. The effect of the incomplete responses is to render the proposal as too vague to provide certainty for the State that the project could reliably manage a large tonnage of MSW without relying on third-party entities to further process waste out-side of the state's borders. The project assumes sufficient capacity within the existing regional infrastructure to accept MSW and recyclables; for source separated organics and in the event that the MSW cannot be managed within existing infrastructure, Covanta relies on new facilities not yet built or operating to process additional organics and MSW within Connecticut as well as landfilling of a significant volume of MSW without the recovery of recyclables or extraction of energy. Covanta's team is experienced and many team members are headquartered or currently operating in Connecticut. However, their proposal lacks sufficient specificity, includes many inherent risks and has the lowest diversion rate; hence it ranks lowest in scoring.

Mustang's proposal was found to be complete and to meet the goals of the RFP. The Mustang proposal is feasible within the timeframe proposed, increases the recovery of recyclable materials from the mixed MSW and brings the addition of anaerobic digestion technology and aerobic composting to process organic waste separated from mixed MSW to increase diversion and may require additional permitting and management standards to be developed by the State. The project lessens the environmental impact by eliminating any combustion at the Hartford resource recovery facility. The proposal negates the need to intake water from the Connecticut River for cooling and subsequently discharge heated cooling water to the Connecticut River. This proposal achieves the highest rate of diversion among the Finalists. Mustang's team is experienced and many team members are headquartered or currently operating in Connecticut. Mustang is willing to effectively engage the public and the host communities through the design and permitting process to respond to any concerns and priorities. The Mustang proposal ranked lower than the Sacyr Rooney proposal in the financial criteria. It has a higher proposed tipping fee, which results in less flexibility to respond to potential project risks that could impact financing.

Sacyr Rooney's proposal was also found to be complete and to meet the goals of the RFP. They proposed a facility which continues waste to energy operations in a more cost-effective manner than currently provided, includes anaerobic digestion technology and aerobic composting for organics processing, advances diversion goals by recovering additional recyclables from mixed MSW as well as organics recovery and processing, and provides reduced combustion at the existing plant and lessens the environmental impacts as compared to the current facility. Sacyr Rooney's team is based in Spain and the U.S., is experienced and several key personnel indicated their willingness to relocate to Connecticut. Sacyr Rooney is also willing to effectively engage the public and the host communities through the

design and permitting process to respond to any concerns and priorities, and has proposed to work toward establishing training programs at local colleges.

Sacyr Rooney's proposal scored highest in its pricing proposal and financial criteria. The project also requires additional permitting and management standards to be developed by the State. While the facility would still rely on combustion of waste, the proposal would reduce combustion from current use by approximately one-half and includes modern recycling/waste conversion technologies. Further, Sacyr Rooney's proposal includes remediation of portions of the resources recovery facility property. Sacyr Rooney's team's ability to provide financing is enhanced by its lower proposed tip fees. It should be noted, however, that those lower proposed tip fees require that the plant be fully utilized and fully supplied with waste. Such a determination, like that for Mustang and Covanta, will require securing contracts with municipalities and/or otherwise filling the facility with spot market waste. In addition to ash, Sacyr Rooney will also landfill residuals from the mixed waste sorting process and the single stream processing.

C. CONSIDERATION OF COST

While cost is accounted for as an element in the Phase II evaluation and scoring, the RFP included as a criterion stable, predictable and competitive tipping fees for municipalities. Consequently, particular attention was given to the cost and pricing trends over the thirty (30) year term for the proposed projects. More specifically, C.G.S. Sec. 22a-268g states that the Commissioner will consider, "whether the proposal is in the best interest of the municipalities under contract with the Materials Innovation and Recycling Authority, including, but not limited to, the maintenance or reduction of current tipping fees for contracted waste." Therefore, the Evaluation Team considered the fees charged for waste services, the extent to which they are consistent with the regional market and whether they provide stable, predictable and competitive pricing for municipalities.

Current State

- Tipping fees charged to receive post-recycled MSW at any proposed processing facility in the CSWSP service area (excluding transfer and transport costs from the existing transfer stations) are projected to exceed $70 per ton by 2018. The Evaluation Team notes that the current tipping fee of ~$70 per ton includes a subsidy derived from other MIRA revenues at $15-$30 per ton, which is not expected to continue for the duration of the proposed contract term.

- Tipping fees are charged to receive source-separated recyclables from non-contracted parties.

Most Preferable

- In the proposal reviews, the Evaluation Team considered and compared tip fee schedules from the Proposers for all parties. The Evaluation Team's preference is for stable, predictable and competitive tipping fees.

- The scoring reflects the Proposers' abilities to provide unsubsidized, competitive pricing for municipalities.

The Evaluation Team finds the following with respect to the proposals' tipping fees (assumes private financing, excludes any proposed subsidies by the State or other public entities):

Proposed MSW/Recycling Year 1 Tipping Fees by Facility
(Projected to increase by 2% annually)

Year 1		Hartford RRF	Hartford Recycling Facility	Essex TS - MSW	Torrington - MSW	Watertown - MSW	Essex - Recyclable	Torrington - Recyclable	Watertown - Recyclable
Sacyr Rooney		$65.28	$0.00	$13.39	$11.80	$13.26	$20.68	$22.55	$20.54
Covanta		$78.24	$16.50	$85.42*	$103.81*	$86.47*	$8.75	$36.50	$10.00
Mustang		$86.00	$0.00	$25.83	$31.17	$20.86	$41.33	$51.17	$36.36

*Includes full cost of transport to disposal.

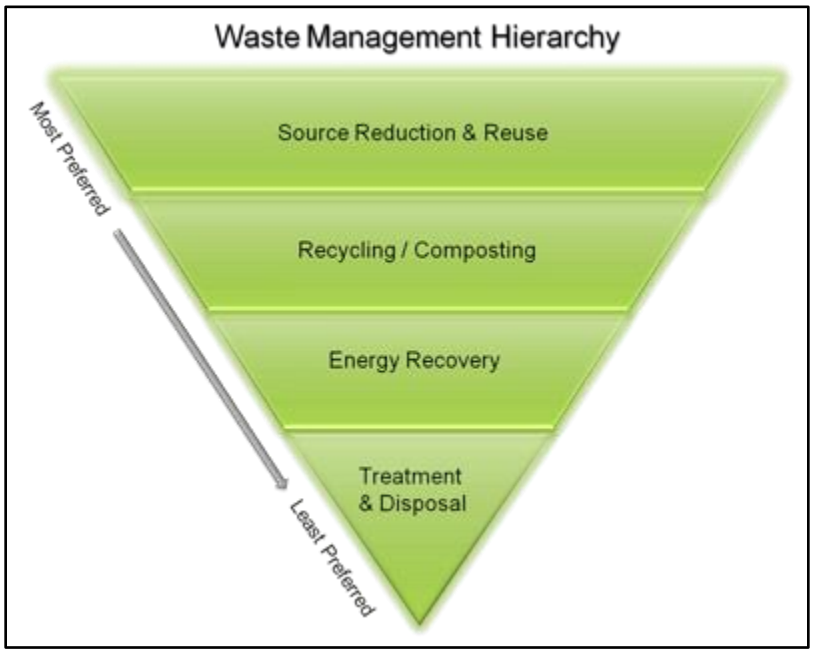
Sacyr Rooney: The Evaluation Team determined that the tipping fees proposed by Sacyr Rooney is most preferable being the lowest of the three and when compared to existing market conditions could better attract short and long-term contracts and spot market waste, as well as encourage in-state processing of MSW. Sacyr Rooney's first year MSW tip fee is $65 for the Base Case proposal, with additional costs depending on which transfer station it is delivered to. They also propose a $0-$23 dollar range fee for recyclables based on delivery to Hartford or the CSWS transfer stations. The proposed tip fees align with the competitive market in the region.

Covanta: The Evaluation Team determined that the tipping fees proposed by Covanta is less preferable and has the potential of fluctuating based on a five (5) year market analysis which provides greater uncertainty to reasonably attract municipalities or other customers to enter longer-term contracts. Covanta's first year MSW tip fee is $78 for the Base Case proposal, with additional costs depending on which transfer station it is delivered to. They also propose a $9-$37 dollar range fee for recyclables based on delivery to Hartford or the CSWS transfer stations. Covanta estimates increasing their $78 Base Case MSW tip fee by an additional $10 if the Department elects a no landfilling proposal. In addition to introducing uncertainly in the market at year 11, and every 5 years thereafter subject to a market test, together with the risk of low recovery rates for the curbside organics collection, the base case as proposed by Covanta could encourage municipalities and other customers to consider out-of-state disposal at a landfill, counter to the material management hierarchy established by CGS Section 22a-228(b) and affirmed by the recently adopted 2016 Comprehensive Materials Management Strategy. In addition, the cost of curbside collection of organics or the delivery of said organics to a transfer station or processing facility has not been included in the tip fees, and this additional cost would be borne by the community or the residential users.

Mustang: The Evaluation Team determined that the tipping fees proposed by Mustang is least preferable, which provides greater uncertainty to reasonably attract municipalities or other customers to enter longer-term contracts. Mustang's first year MSW tip fee is $86 for the Base Case proposal, with additional costs depending on which transfer station it is delivered to. They also propose a $0-$51 dollar range fee for recyclables based on delivery to Hartford or the CSWS transfer stations. Mustang also shared the concern that if the project is unable to attract sufficient commitments of waste, tip fees would have to increase or other measures would have to be taken to secure financing.

D. Discussion of Diversion

Significantly increasing diversion from landfills and combustion with an integrated materials management system modeled after the state's statutorily established materials management hierarchy is a primary goal of the RFP. The materials management hierarchy is the order of priority for managing solid waste and is codified in CGS Section 22a-228(b). The hierarchy favors source reduction and reuse, recycling, and composting, with remaining materials managed for energy recovery, and disposal in landfills as a last resort.



EPA Waste Management Hierarchy (Consistent with CT's adopted Hierarchy)

The state's 2016 Comprehensive Materials Management Strategy (CMMS) envisions moving up the hierarchy, maintaining greatest preference for source reduction, reuse, recycling, and composting, while concurrently focusing on the development of state-of-the-art and emerging waste conversion technologies.

The CMMS set forth and described the state's goal of 60 percent diversion from landfills and combustion by the year 2024. Adoption of this goal in 2016 reaffirmed the previous goal of 58 percent diversion established by the 2006 state Solid Waste Management Plan. In carrying out the vision set forth by the materials management hierarchy, the 2006 state Solid Waste Management Plan and the 2016 CMMS, Connecticut maintains national leadership in moving away from landfilling waste in favor of preferred strategies that move up the hierarchy. Modernization of the solid waste and materials management infrastructure is critical to achieving the state's 60 percent diversion goal.

The Evaluation Team conducted a detailed review of the three proposals to assess each proposer's plan to maximize materials recovery, manage remaining materials through efficient conversion to compost, renewable energy, fuel, chemicals, and/or other usable products, and to minimize landfilling the waste and residue.

All three proposers set forth plans that would achieve higher diversion rates than the current state estimated at 35% and provide a viable pathway towards achieving the CMMS 60 percent diversion goal by 2024.

The Covanta Phase II proposal relies on a plan to boost diversion by an estimated 20 percent through a largely undefined curbside source separated organics household collection program. The Covanta proposal will also result in an additional 150,000 tons per year of MSW directed to landfill disposal. Covanta's proposal does not require the permitting or construction of new facilities and is presented as being capable of immediate implementation. The Phase II proposal combined with the current baseline diversion of 35 percent is expected to result in a total diversion of 49 percent.

The Mustang proposal includes mixed wastes processing that will recover marketable commodities and extract organics for processing by anaerobic digestion and aerobic composting. Remaining suitable MSW will be converted into PEF for use as fuel at cement kilns, with the balance of the non-recoverable residue proposed for rail transfer to out of state landfills. Mustang's proposal combined with the current baseline diversion of 35 percent is expected to result in a total diversion of 81 percent. However, PEF is a form of a waste-to-energy process with the added benefit of incorporating the ash residue into the cement production process. The Evaluation Team determined that for consistency with the CMMS, the appropriate total diversion rate should not include the PEF and thus the Mustang proposal is expected to result in a total diversion rate of 70%.

The Sacyr Rooney proposal will utilize an advanced mechanical and biological treatment system to recovery marketable materials, and convert organics into compost and clean energy. Refurbishment and additions to the existing Mid-Connecticut facility are proposed to be completed and operational to achieve the 60 percent diversion goal by 2023. Sacyr Rooney's proposal combined with the current baseline diversion of 35 percent is expected to result in a total diversion of 63 percent.

The Evaluation Team concludes Mustang proposes to achieve the highest overall diversion rate. However, once the Mustang diversion rate is adjusted downward to exclude PEF, the expected total diversion rate of 70 percent is only slightly better than the total diversion rate of 63 percent for Sacyr Rooney. Covanta's proposed total diversion rate of 49 percent falls below the CMMS goal and is considerably lower than the other two proposals.

E. ENVIRONMENTAL CONSIDERATIONS

While scoring the three final proposals, the Environmental Assessment section called for the Evaluation Team to compare each proposal to the current state of operations at the MIRA facilities. Subcriteria within this category included:

- Accurate Materials Flow diagram and assessments of total amounts of material diverted from disposal and total amounts of materials disposed;
- Air pollution impacts (SO2, NOx, Particulate Matter and Greenhouse Gases (CO2e))
- Water usage
- Transportation miles (one way)
- Other Environmental Benefits/Impacts/Considerations

Taking these factors into consideration, the three finalists earned the following number of points out of a maximum of 15 points.

Proposer	Environmental Assessment Criteria Score
Covanta	7.1
Mustang	13.2
Sacyr Rooney	13.6

The following summary table provides a side-by-side comparison of some of the key environmental criteria that were considered. Overall scoring in the Environmental Assessment section (summarized above) does not capture a direct comparison of the three proposals, and thus two or more proposals could have received the same number of points for a particular scoring subcriteria even when there were more than insignificant differences in the values being evaluated (e.g., Total NOx or CO2e Emissions). When evaluating the Environmental Assessment as part of a final proposer selection, the values in the table below could be considered in addition to the overall score noted above.

Review Criteria	Current State	Covanta	Mustang	Sacyr Rooney
Total SO2 Emissions from onsite and offsite combustion and/or processing (TPY)	37	101	4	21
Total NOx Emissions from onsite and offsite combustion and/or processing (TPY)	710	638	93	425
Total PM Emissions from onsite and offsite combustions and/or processing (TPY)	39	9	29	22
Total CO2e Emissions from onsite and offsite combustions and/or processing (TPY)	576,314	548,454	243,581	345,141
Potable water used onsite (gallons/yr)	76,100	0	1,567	25,401
Volume of CT River water used onsite (gallons/yr)	69,470,000	0	0	46,313,287
Total water discharged – onsite and offsite (gallons/yr)	61,200	134,200	56,582	37,632
Total transportation miles (one way)	353,134 (truck)	4,808,630	213,985 (total) 133,560 by rail, 80,425 by CNG vehicles	229,838 (truck)
Total amount of material diverted from the incoming MSW (%)	0%	22.25%	70.41% (53.79% not counting PEF)	43.47%
Total amount of recyclables recovered from MSW (TPY)	0	0	98,130	132,338
Diverted organics and associated losses (e.g., evaporation, decomposition) (TPY)	0	137,697	214,690	182,227

Review Criteria	Current State	Covanta	Mustang	Sacyr Rooney
Combusted on-site (TPY)	643,951	0	0	385,646
Combusted off-site (TPY)	0	410,466	116,009 (as PEF)	0
Landfilled material (non-ash) (TPY)	134	150,142 (unprocessed MSW)	198,516 (residuals)	8,954 (residuals)
Landfilled material (ash) (TPY)	162,847	102,617	0	97,525

Other environmental considerations:

- The air pollution totals in the table above (including greenhouse gases) may not reflect all transportation-related emissions.

- The shutdown of power block would result in significant reductions of on-site air emissions in the Covanta and Mustang proposals. In both cases, the air emissions are at least partially shifted elsewhere. For Covanta, much of the diverted MSW would be combusted at other waste-to-energy (WTE) facilities in the northeast. For Mustang, combusted PEF would be displacing coal combustion.

- The shutdown of the power block would also result in significant reductions of on-site usage of Connecticut River water for cooling purposes in the Covanta and Mustang proposals, which could have a positive impact on the aquatic life in the cooling water intake and discharge areas in the river.

- Covanta and Mustang have landfilling totals greater than current state. Mustang has classified much of what it would be sending to a non-ash landfill as non-combustible (or very low BTU value), while Covanta proposes to send approximately 150,000 tons per year of unprocessed MSW directly to landfills. Sacyr Rooney would continue current practices of ash disposal, albeit at a lesser volume because of reduced combustion.

- Covanta's plan to absorb Connecticut-generated waste at other facilities in the region will result in the displacement of other MSW currently being accepted at such facilities. The ultimate fate of that displaced MSW was not addressed in Covanta's proposal, and one could assume that much of that displaced MSW could end up going to landfills if there is no further available WTE capacity in the region.

- The Mustang and Sacyr Rooney proposals both call for the processing (i.e., composting and/or anaerobic digestion) of the separated Organic Fraction of MSW (OFMSW). It should be noted that there are still some uncertainties associated with uses for compost/digestate derived from processed OFMSW in the state.

V. FINAL CONSIDERATIONS FOR SELECTION

DEEP acceptance and Final Selection should be subject to the following Conditions:

1. Selected proposer(s) shall complete negotiations with MIRA to agree upon a Term Sheet by March 1, 2018, and a Comprehensive Development Agreement by August 31, 2018; deadlines which DEEP can extend at its discretion. Parties must finalize a Comprehensive Development Agreement to achieve a project that meets the main goals of the RFP.

2. The selected proposer(s) shall, in consultation with MIRA, negotiate the framework for a host community benefit agreement with the City of Hartford Mayor's Office (for possible incorporation into the Comprehensive Development Agreement). Furthermore, the proposer(s) shall conduct outreach to the City Council and residents to provide details on the proposed project and respond to questions and concerns.

3. All parties will update DEEP regularly as to the progress of the negotiations. DEEP will work with the parties to assist in resolving any issues that may arise during negotiations. If the parties are unable to reach agreement on the Term Sheet or the final Comprehensive Development Agreement by the dates specified above, DEEP may (a) provide additional time for further negotiations between the parties, (b) resolve any outstanding issues and direct MIRA to enter into any agreements necessary to execute the project, (c) terminate negotiations and invite another proposer to initiate negotiations with MIRA, or (d) take other action necessary to comply with the statute.

4. DEEP reserves the right of final approval of the term sheet and the Comprehensive Development Agreement, including any additional agreements pertaining to the project.

VI. CONCLUSION

Given the relative closeness of many of the Phase II criteria scores, the difference in costs, financing and diversion impacts between proposals became a key consideration for the Evaluation Team.

The scores for the Sacyr Rooney and Mustang proposals are close, however, overall Sacyr Rooney scored the highest in Phase II of the RFP and met all evaluation criteria. As Sacyr Rooney has received the highest score and in light of the considerations provided herein, the Evaluation Team recommends that Sacyr Rooney be identified as the successful proposer and directed to enter into contract negotiations with MIRA for the development of a final project for the CSWSP in accordance with C.G.S. Sec. 22a-268g. Notwithstanding the above, the statute provides the Commissioner discretion to use this report and any other factors that are consistent with the goals and requirements of the RFP to render a final selection.

The Evaluation Team also recognizes the potential importance of having an alternate if the selected proposer is unable to close the negotiation with MIRA or unable to achieve contracted tonnage needed for financing to maintain proposed tip fees. If the Commissioner agrees that it is desirable to have such an alternate, then Evaluation Team recommends Mustang as that alternate based on the analysis provided herein.

APPENDIX I: EVALUATION CRITERIA

Each proposer was evaluated on the following criteria:

- Updated Technical, Financial, and Managerial Approach: Updated scoring of the Phase I Criteria in light of any modifications to the proposal team, project scope, technical approach, project assumptions, or other proposal details, made in the Phase II proposals
- Updated Financial Criteria: Updated scoring of the financial viability of the project, revenue streams (including tipping fees), development and operational costs, financing plans, financial partners, and ability to secure project financing.
- Operations and Maintenance Plan: Assessment of requirements as outlined in Appendix D of the Phase II RFP
- Firm Pricing Schedule: Assessment of requirements as outlined in Appendix E of the Phase II RFP
- Conformance to Contract Principles: Assessment of requirements as outlined in Appendix K of the Phase II RFP
- Firm Feedstock Acquisition and Product Marketing Plan: Assessment of requirements as outlined in Appendix F of the Phase II RFP
- Environmental: Assessment of requirements as outlined in Appendix G of the Phase II RFP
- Transportation Plan: Assessment of requirements as outlined in Appendix H of the Phase II RFP
- Community Outreach: Assessment of requirements as outlined in Appendix I of the Phase II RFP

DETAILED SCORING SUMMARY

Scoring Criteria	Maximum Score	Covanta	Mustang	Sacyr Rooney
Revised Technical, Managerial, and Scheduling	16.7	10.3	14.4	15.4
Revised Financial Plan	8.3	5.1	7.2	7.7
Operations and Maintenance	10	4.2	8.8	8.7
Contract Principles	12.5	7.4	10.4	11.0
Firm Pricing	12.5	6.3	11.1	11.2
Feedstock and Marketing	15	4.3	9.1	11.8
Environmental Assessment	15	7.1	13.2	13.6
Transportation Plan	5	1.8	3.4	3.2
Community Outreach	5	2.0	3.1	3.6
Total Score	100	49	81	86