PUBLIC SERVICE COMMISSION OF WISCONSIN

Memorandum

September 6, 2017

FOR COMMISSION AGENDA

TO: The Commission

FROM: Jeffrey J. Ripp, Administrator
Division of Energy Regulation

Sarah Klein, Administrator
Maria Redmond, Director, Office of Energy Innovation
Division of Business and Program Management

RE: Quadrennial Planning Process II 5-FE-100

Integrated Anaerobic Digester Program Awards

Suggested Minute: The Commission reviewed the proposals for the Integrated Anaerobic Digester Program and directed the Program Administrator to (award/award with modifications/not award) funds to support an Integrated Anaerobic Digester System (IADS) and determined which applicant(s) should receive awards for Fiscal Year 2018.

The Commission (allocated/did not allocate/directed the Focus Program Administrator to propose allocations for spending) unspent IADS funds on Focus programs.

Background

In its Final Decision of September 5, 2014, the Public Service Commission of Wisconsin (Commission) authorized $6.4 million in Focus on Energy (Focus) funds to be directed towards "a dairy digester program" designed to explore the feasibility of installing anaerobic digesters on small- to medium-sized farms. (PSC REF#: 215245.) The Focus program administrator, APTIM (previously Chicago Bridge & Iron or CB&I), designed a program to distribute the funds through a competitive Request For Proposals (RFP) process, the same process already used to

award Focus funds for projects involving other renewable technologies. An RFP was issued in July 2015. However, the proposal review committee, which included Focus staff as well as representatives of the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP), concluded that none of the submitted proposals met the RFP's minimum requirements, and requested further guidance from the Commission on how to proceed. (PSC REF#: 292767 at 36-37.)

In its Interim Order of November 3, 2016, the Commission acknowledged that a program focusing "solely on individual small- to medium-sized farms has not been successful," but added that it continued to find anaerobic digesters "promising," not only for generating energy but to "address other challenges facing the state of Wisconsin such as manure management and water quality." (PSC REF#: 294032 at 10.) The Commission concluded that it was reasonable to establish an interagency working group, led by the Executive Assistant to the Chair of the Commission, to develop another RFP without the "small to medium farm size limit" and focused instead on "the concept of concentrating biogas production by bringing together large and small farms in the same areas to achieve economies of scale in biogas production." (*Id.* at 10-11.) The Commission ordered the interagency working group, along with APTIM, to develop and present within 30 days a program proposal consistent with that approach. (*Id.* at 21.)

The interagency workgroup, consisting of staff from the Commission, DATCP and the Wisconsin Department of Natural Resources (DNR), commissioned two studies to assess the concept of concentrated biogas production. Both studies indicated that an integrated, hub-and-spoke network of existing new digester infrastructure could be effective in addressing renewable energy production, manure management, and water quality, by processing a larger quantity of manure than can be treated through current infrastructure. The studies also noted that

some uncertainty remains about economic assumptions for a project of this type due to a lack of existing experience nationwide with digester networks.

In its Final Decision of December 20, 2016, the Commission authorized issuance of a joint RFP drafted by the interagency workgroup, encouraging applicants to propose "hub-and-spoke" digester networks built on partnerships between multiple farms in a geographic area, and between the farms and relevant firms with knowledge of digester engineering, project development, construction, and operation and maintenance. (PSC REF#: 295733.) APTIM contributed recommendations to ensure the content of the RFP was consistent with Focus program requirements, including a requirement that Focus funding provided under the RFP would only be available for the energy-related components of a proposed project, including interconnection, generators, conditioning, piping and storage, and compression equipment. The Commission did not accept APTIM's additional recommendation that the RFP cap the total amount of incentives available for a given project, but did find it "reasonable to allow the evaluation panel to give priority to projects that proposed a reasonable incentive structure . . . and those that propose matching contributions from the applicants." (*Id.* at 22.) The Commission's Final Decision authorized a budget of $20 million in Focus funds to be made available for RFP awards.

The Integrated Anaerobic Digester System Program RFP was issued on January 2, 2017, with proposals due by July 3, 2017. (DL: 1540941.) Eligible applicants included collaborative consortiums that included at least one small dairy farm with less than 700 head of cattle, and that installed digesters at facilities served by utilities that participate in Focus. New equipment was deemed eligible for upgrades, as well as upgrades to existing digesters that substantially increase

energy capacity above previously installed capacity. Evaluation priority was given to proposals with expedited completion dates.

The RFP reinforced that "a successful proposal will involve the creation of a consortium . . . to build, operate and maintain a system that includes renewable energy production, water treatment, pathogen reductions and transport of manure," in order to explore "innovation in manure management" and "maximize the renewable energy benefits of anaerobic digesters." (DL: 1540941.) The evaluation criteria under the RFP were designed to reflect this range of considerations by establishing separate point totals for scoring each applicant's proposed digester arrangement: water treatment system; nutrient management arrangement; and energy production under Focus' cost-effectiveness standard. Additional evaluation categories assigned points based on the likely impact of funding awards on the implementation of the project: the location of the proposal in areas of the state that would benefit from enhanced water treatment and nutrient management; and the demonstrated capability of the vendors providing the technologies used in the proposed system.

To be eligible for a funding award, proposals were required to reach minimum point scores for digester arrangement, water treatment, nutrient management, and project location, as well as an overall minimum score of 235 points out of 350 points available. Most points were assigned based on the submitted written proposal, but 35 of the available points were allocated based on the oral presentations applicants could be invited to give after initial submission to explain their proposals in more detail and respond to questions from the RFP scoring committee.

Applicant Details

Three applicants submitted proposals in response to the RFP:[1]

1. Agri-Waste Energy Operations, Inc. (Agri-Waste Energy Operations) applied for a project titled "Western Wisconsin Biogas and Nutrient Recovery (WWBNR) Project." The proposed project would be located in St. Croix County, Wisconsin, and includes 7 participating dairy and poultry operations, with 21,095 animal units. The consortium requested funding of $2,371,115 through the RFP to support a total project cost of $57,506,650.

2. BC Organics, LLC (BC Organics), applied for a project titled "Green Pastures Bio Energy Center." The proposed project would be located in Brown County, Wisconsin, and includes 9 participating dairy operations with 22,882 animal units. The consortium requested funding of $15,000,000 through the RFP to support a total project cost of $60,254,620.

3. US Venture, Inc. (US Venture), applied for a project titled "Gemini Consortium." The proposed project would be located in Kewaunee County, Wisconsin, and includes 11 participating dairy operations, with approximately 30,000 animal units. The consortium requested funding of $27,258,402 through the RFP to support a total project cost of $55,629,392.

Evaluation Process

The RFP Evaluation Team (Evaluation Team) consisted of five members: one designated staff member each from the Commission, DATCP, and DNR; a Focus staff member from APTIM; and a faculty member from UW-Madison's School of Engineering with expertise in biodigestion. The Evaluation Team conducted an initial review of all three applications

[1] Copies of the applications and related materials are being separately provided to the Commissioners under separate, confidential cover. As the RFP for this project is a competitive bidding process and the Commission's review of the proposals in this competitive selection process is on-going, copies of the responses and the detailed specifics of the proposed projects have and will remain confidential until the Commission concludes its selection process.

immediately after the submission deadline on July 3, 2017, and concluded that it would be helpful to request supplemental information from each applicant on a variety of topics, including further details on the design and operating practices of each applicant's digester system and water treatment system; more detailed projections of energy production from digester activities; more detailed descriptions of the marketing plan each system would follow to derive revenue from the energy produced; refined calculations of project cost-effectiveness; and further information on other supplementary information requested in the RFP, such as plans for odor control and community outreach. Each applicant received an identical request for supplemental information. Supplemental information was submitted by all three applicants by the deadline of July 26, 2017.

The Evaluation Team met on August 3, 2017, to assign preliminary scores. After preliminary scoring, the Evaluation Team extended invitations to BC Organics and US Venture to provide oral presentations. The Evaluation Team did not extend an invitation to Agri-Waste Energy Operations after concluding that the application would be unable to meet the RFP's minimum scoring thresholds regardless of its performance on the presentation. BC Organics and US Venture both provided presentations to the Evaluation Team on August 10, 2017. The Evaluation Team met on August 15, 2017, to determine final scores.

Evaluation Scoring and Award Recommendation

Table 1 shows the Team's final overall scores for each of the three applications. The final score represents the average of scores from each of the five Evaluation Team members.

Table 1.

Applicant	Final Score
Agri-Waste Energy Operations	130.8
US Venture	213.1
BC Organics	291.6

Based on these final scores, the Evaluation Team recommends awarding BC Organics its requested funding of $15,000,000. Ultimately, neither one of the other two proposals met the minimum required RFP score of 235.

BC Organics' score reflects that it provided significantly greater information than the other applicants on numerous aspects of its application, which provided the Evaluation Team with greater confidence that the system would be well designed and positioned for operational success. For example, BC Organics provided significant technical detail on the specifications and operating practices of its digester system, and its presentation satisfactorily addressed a number of questions from Evaluation Team members on how system managers would address potential operational challenges. BC Organics also provided significantly more detail than either one of the other applicants on its plans for water treatment and nutrient management. Furthermore, the application and presentation by BC Organics provided thorough financial projections to establish the economic viability of the system as designed and demonstrated the positive financial implications for all of its participating farms.

BC Organics' proposal also met a number of other goals and priorities of the RFP. The vendors involved in each aspect of the integrated system have demonstrated experience and success delivering similar technologies within Wisconsin. The planned location of the system in

southeastern Brown County would allow its water treatment system to have positive effects on the Lake Michigan watershed, and serve farms in locations at enhanced risk for groundwater pollution due to soil topography. The project scores favorably on Focus' standard cost-effective metrics at the incentive amount requested. The project is designed to complete construction by the RFP's preferred date of December 2018.[2] Finally, the location and design of the system would support scaling up operations in the future if they prove successful at the proposed scale.

The attached report provides more detail on the evaluation process and the development of final scores. (DL: 1534550.)

Commission Alternatives

Alternative One: Direct the Program Administrator to award BC Organics $15,000,000 in Focus funds to build its proposed digester system.

Alternative Two: Direct the Program Administrator to award BC Organics Focus funds to build its proposed digester system at a different amount than requested or with modifications.

Alternative Three: Make no award and direct the interagency workgroup to develop a new proposal for supporting anaerobic digesters.

Allocation of Remainder

The Commission may also wish to consider whether to take further action on allocating any remaining IADS funds. The Commission allocated $20 million of Focus funding for the IADS project. Therefore, if the Commission chooses to accept Alternative One and award $15 million to BC Organics, $5 million in additional funds would remain from the original allocation. Remaining Focus funds could be greater if the Commission decides to modify the

[2] BC Organics noted during its presentation that while construction would be complete and gas production would start by the end of 2018, it plans to undertake a gradual process to ramp up production over time and would project to reach peak system production in 2022.

financial terms of an award to BC Organics under Alternative Two or chooses not to make an award under Alternative Three.

One alternative would be for the Commission to allocate the remaining funds to Focus' core energy efficiency programs. Commission staff and APTIM staff believe that such funds could be cost-effectively spent to address excess demand in popular Focus programs. A second alternative could be for the Commission to direct the Program Administrator to prepare a proposal for spending the funds on other programming options. The Commission could further direct the Program Administrator to consider one or more specific types of programming options in its proposal, including new energy efficiency programming options; additional spending on renewable resources, through Focus' existing RECIP or Renewable Rewards programs or new offerings; or additional spending on the rural/broadband programs authorized by the Commission in its Final Decision of December 20, 2016, (PSC REF#: 295732). Finally, the Commission could choose to take no action at this time. In that case, the funds would remain in Focus accounts until the Commission takes further action to determine their allocation.

Commission Alternatives

Alternative One: Allocate unspent IADS project funds to core Focus programs.

Alternative Two: Direct the Focus Program Administrator to prepare for Commission approval a proposal for allocating unspent IADS project funds.

Alternative Three: Take no action at this time to allocate unspent IADS project funds.

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Attachment: 5-FE-100 Evaluation Committee Report.doc - DL: 1534550

Key Background Documents
Final Decision (signed 9/3/14 - served 9/5/14) - PSC REF#: 215245
PSC Klein cover letter, staff memorandum, and attachments for comment - PSC REF#: 292767
Interim Order signed and served 11-3-16 - PSC REF#: 294032
Final Decision signed and served 12-20-16 - PSC REF#: 295733
Biogas RFP Errata II 05.24.17.pdf - DL: 1540941

EVALUATION TEAM REPORT	
DEPT/DIV/BUR	Public Service Commission of Wisconsin
RFP TITLE	Integrated Anaerobic Digester Systems Program
DOCKET NUMBER(S)	5-FE-100, 5-FE-102
DATE OF REPORT	*August 30, 2017*
AUTHOR	Maria Redmond Director Wisconsin Office of Energy Innovation
AUTHOR PHONE/EMAIL	608-266-1521 maria.redmond@wisconsin.gov

The purpose of this report is to concisely summarize the activities of evaluation process and recommendations of the evaluation team.

SECTION I – REQUEST FOR PROPOSAL SCOPE:

The Public Service Commission of Wisconsin (Commission) authorized Focus on Energy (Focus) to spend up to $20 million for Integrated Anaerobic Digester projects that meet Focus eligibility requirements. The scope of the Request for Proposals (RFP) was to find projects that meet the following goals, established by an interagency workgroup:

- Leverage and augment existing anaerobic digester infrastructure to improve manure management practices and to take advantage of the opportunity to produce cost-effective renewable energy at an economical scale;
- Improve manure management practices at smaller farms by providing an opportunity to cooperate with larger farms in a cooperative anaerobic digester system, as well as incorporate substrates from other regional organic waste producers through a hub-and-spoke system structure;
- Utilize other renewable energy resources in coordination with digesters to improve system output and economic efficiency; and,
- Ensure that existing and future anaerobic digester systems include water quality improvement projects and, where possible, leverage the expertise and excess capacity of regional municipal wastewater treatment infrastructure.

SECTION II - SUMMARY OF RFP DEVELOPMENT PROCESS:

11/03/16	Commission Interim Order to establish an interagency workgroup and release another RFP to fund up to $20 million in anaerobic digesters and look into options to make existing digesters more viable.
11/04/2016 - 01/03/17	Interagency workgroup established, RFP development commenced, including development of requirements, evaluation criteria benchmarks and weights. Commission staff/DATCP/DNR major developers and final reviewers of the RFP documents.
01/03/17	RFP posted to Commission website, Began posting FAQs on Commission website.
02/01/17	On-site RFP Planning Event held in Appleton, Wisconsin.
02/23/17	First errata issued that provided clarifications on timeline and minor edits.
05/09/17	Interagency Workgroup Meeting.
05/24/17	Second errata issued to provide clarifications on scoring, presentations, and webinar.
06/01/17	Interagency Workgroup Conference Call.
06/05/17	RFP Updates Webinar 1-2 p.m.

SECTION III - SUMMARY OF RFP EVALUATION PROCESS:

05/09/17	Technical Evaluation Team members identified.
05/31/17	Technical Evaluation Team agreements signed and returned to Commission staff.
06/26/17	Technical Evaluation Team Meeting to go over evaluation process and expectations prior to final submission due date.

07/03/17	Proposals due 5 p.m. CST, initial review conducted to ensure all requested components present.
07/06/17	Proposals and evaluation forms distributed to Technical Evaluation Team at this time.
07/12/17	Commission staff conducted individual discussion with agencies and determined to request supplemental information from applicants.
07/13/17	Supplemental Information Request sent to applicants.
07/26/17	Supplemental Information submitted by applicants and subsequently distributed to evaluation team.
08/03/17	Technical Evaluation Team initial scoring meeting, 2 applicants invited for presentations along with directions on supplemental information to provide in presentation.
08/10/17	Applicant presentations and questions and answer sessions with Technical Evaluation Team.
08/15/17	Technical Evaluation Team final scoring meeting.

SECTION IV. EVALUATION CRITERIA

Anaerobic Digestion/Biogas	Demonstrated Operating Success of the Proposed Anaerobic Digestion System
	Ability of the Consortium to Successfully Operate an Anaerobic Digester and a Biogas Energy Generation System
Water Quality Management	Demonstrated Operating Success of the Proposed Water Treatment System, Pathogens and Nutrient
	Ability of the Consortium to Successfully Operate the Proposed Water Treatment System
Nutrient Management	Impact to Smaller Farms through Hub-and-Spoke System
	Number of Farms
	Number of Animal Units
Focus on Energy	Customer Cost-effectiveness
	Impact on Project
System Design and Optimization	Demonstration of Design and Optimization of System
Location	Impact on Lake Michigan Watershed
	Geographic Features Related to the Discharge of Nutrient
Vendors	Demonstrated Capability of the Vendor(s) for the Anaerobic Digester(s), Biogas Energy Generation System(s), Nutrient Management System(s), and Water Treatment System(s)

SECTION V. EVALUATION SCORING TEAM MEMBERS:

Name	**Agency, Division/Bureau**	**Title**
Andrew Kell	Public Service Commission, Division of Regional Energy Markets	Program & Planning Analyst –Adv.
Dave Siebert	Department of Natural Resources, Bureau of Energy, Transportation and Environmental Analysis	Director
Daniel Noguera	University of Wisconsin – Madison	Distinguished Professor
Keith Foye	Department of Agriculture, Trade, and Consumer Protection, Bureau of Land and Water Resources	Director
Erinn Monroe	APTIM	Director of Strategy & Innovation

SECTION VI – SUMMARY OF APPLICATIONS:

Applicant Name	Project Title	Description	County	Amount Requested	Other Funds Offered	Total Project Cost
BC Organics, LLC	Green Pastures Bio Energy Center	The project consists of 27 consortium members and includes 9 participating dairy operations, with a total of 22,882 animal units.	Brown	$15,000,000	$45,254,620	$60,254,620
Agri-Waste Energy Operations, Inc.	Western Wisconsin Biogas and Nutrient Recovery (WWBNR) Project	The project consists of 7 consortium members and includes 7 participating dairy and poultry operations, with a total of 21,095 animal units.	St. Croix	$2,371,115	$55,135,535	$57,506,650
U.S. Venture, Inc.	Gemini Consortium	The project consists of 7 consortium members and includes 11 participating dairy operations, with approximately 30,000 animal units.	Kewaunee	$27,258,402	$28,370,990	$55,629,392
			Total	**$44,629,517**	**$128,761,145**	**$173,390,662**

SECTION VII – SUMMARY OF SCORES:

Applicant Name	APTIM	PSC	DATCP	DNR	UW	Average Score	Overall Ranking
BC Organics, LLC	306	291	294	275	292	291.60	1
Agri-Waste Energy Operations, Inc.	127	181	117	120	109	130.80	3
U.S. Venture, Inc.	175	231	238.5	201	220	213.1	2

SECTION VIII - SUMMARY OF AWARD RECOMMENDATION

Based on the final average scores the Technical Evaluation Team recommends awarding BC Organics, LLC its requested funding of $15,000,000. Neither of the other two proposals met the minimum required RFP score of 235.

SECTION IX – AGREEMENT

After review of this report all evaluation, team members are in concurrence with the process and final recommendation.

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