Southern Alberta Energy from Waste Association (Est 2012)

MISSION: To find an alternative to landfilling residential waste that will reduce climate impact.

Briefing Update – September 1, 2022

SAEWA has recently completed the Review of the Expressions of Interest and scoring process and is currently actively engaged in the interview process which is now scheduled to be completed by September 30, 2022.

The original Expression of Interest (EOI) process schedule estimated completion of the interview process by end August 2022 however at the request for extension by consortia the Steering Committee have respectfully granted extensions to allow for those consortia working with European associates to bring their representatives back together after a summer break that does occur July – August annually.

SAEWA Steering Committee anticipates that after completion of the interview process that they will be able to present to the Board end October 2022 a preferred and 2nd contender consortia Energy from Waste (EFW) investor firm along with an analytic report identifying how they came to that recommendation along with an overview of the analytics of the scoring process for the Board to move forward with a decision and

announcement of whom they will be moving forward with in discussions of investment into the $750 Million dollar EFW state of the art facility at the Newell Landfill Site (preferred site selected).

The engineering consultants, HDR have updated the EOI Schedule to reflect the new timelines having been extended by 1-month as a result of requests for extension being granted after conscientious review of the Steering Committee and HDR the project consultant lead engineering firm.

Background:

Thereby resolution of the SAEWA Board made on June 15, 2022 the REOi Committee was appointed in approval of the recommendation received from the Steering Committee. The REOi Committee process was activated on record as commenced on June 20, 2022 so as to commission the confidential review and scoring process. An update to the process schedule was also provided by HDR, the Waste-to-Energy (WtE) EOI Project Engineering firm of record.

The 20-day REOi review and scoring process was scheduled to be completed prior to end July 2022. (The schedule was extended to middle August to reflect request for extension from consortia to complete references).

SAEWA Waste Volumes Review Committee Chair, Member Juska provided a report update to the Board as a result of the current review of waste volumes comparing 2010 waste volumes to 2021. The results demonstrated that volumes have increased marginally by 5,000 tonnes over this period. - This also concludes that the waste volumes have been maintained consistently with only a slight increase through the last decade of membership to SAEWA - despite a general population increase to the membership area as reported at: Statistics Canada for the 2021 Census population results updated April 27, 2022.
https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E

SAEWA was successfully awarded the Alberta Community Partnership Intermunicipal Collaborative Funding in the amount of $149,164.00 on April 2022. The EOI Steering Committee was appointed by the SAEWA Board and HDR

engineering firm hired (a leading Energy from Waste specialist engineering firm for Canada). As part of the process HDR qualified the (3) Consortia Expressions of Interest to move forward with the formal process of review and scoring evaluation of the (3) Consortia submissions received October 2021.

The SAEWA Steering Committee after the review of the NDA, Non-conflict and Anti-Lobbying Agreements by its legal firm of record, Brownlee LLP signed the documents to activate the review and scoring process along with HDR representation as the Lead Engineer in the EOI process.

SAEWA advises members, stakeholders and the public that they officially engaged in the formal process of review of the (3) Energy-from-Waste (EfW) Consortia Expressions of Interest (EOI) June 1, 2022.

Expression of Interest process of submissions of proposal to partner with SAEWA – completed October 2021

- SAEWA as a result of the Request for Expressions of Interest process received 3 Expressions of Interest from (in no particular order):

1. Covanta – EQT Infrastructure

2. Hitachi Zosen INOVA

3. SUEZ - VEOLIA

Membership: Fifty plus communities consisting of Hamlets, Villages, small Urban and Rural Municipalities, and waste authorities

Processing Capacity: Up to 300k tonnes per year.

Potential Outputs: +/- 50 MW electricity +/- 1m tonnes process steam

Estimated tipping fees: $50 per tonne with higher level (non granted) government support. $90 per tonne with debt financing.

Green House Gas Reductions (peer reviewed): 230k tonnes per year, 7m tonnes over 30 year lifespan of the facility

Engineers of Record: HDR Inc.

Funds Expended:

Higher level of Governments $1.5m (Federal and Provincial)

Municipal support estimated $2.0m (member representation)

Engineering Work Completed: (FCM & ACP Funding Programs $1.5m)

- Project Development Plan
- Regulatory Requirements Plan
- Siting Process Plan
- Communications Plan
- Procurement Process Plan
- Initial Business Plan
- Detailed Business Plan
- Governance Model established by Brownlee LLP
- Waste Stream Characterization
- Transportation Study and Siting Analysis (U of A)
- Environmental Life Cycle Analysis: HDR with 3rd Party Review by O&G Sustainability and Pembina Institute confirming reduction of 7 million tonnes GHG's and methane over facility lifecycle (35 years)

Work Completed February 2020: (ACP $400,000)

- Site Study Evaluation Analysis completed by HDR and
- Site Announcement: Newell Regional Waste Landfill Site
- Extensive Provincial Government Engagement process completed

Work Completed Summer – Winter 2020 (CARES $48,000)

- EfW Economic & Environmental Outreach Analysis roll-up

Socio-Economic Impact of a Proposed Energy-from-Waste Facility in Newell County

A Better Waste Management Alternative

- The proposed Energy-from-Waste facility to be located in Newell County, is planned to process a maximum of 300,000 metric tonnes of municipal solid waste per year from various SAEWA member municipalities and other waste generators across southern Alberta.
- The primary purpose of the facility is to divert waste streams from landfill sites resulting in GHG emission reductions estimated at 7 million metric tons of CO2-equivalents – equivalent to taking over 53,000 vehicles off the road, and currently valued at $75 million over the lifecycle of the project.
- The facility would generate approximately 205,000 MWh of electricity per year – enough to power over 28,000 homes, resulting in annual revenues of at least $11 million per year. Additionally, alternative energy sales opportunities such as selling steam to neighbouring industrial facilities couldalso prove to be even more valuable.
- The facility is also estimated to recover 5,400 metric tonnes of metal annually for recycling.
- Other waste streams could also be processed at the facility, including railway ties, specified riskmaterials, and other unique waste streams from local industrial facilities.

Economic Impacts

- Development of the 300,000 tonne scale EfW facility in Southern Alberta will stimulate the energy andvalue-add economy which directly represents key pillar priorities framed within the Province's Recovery Plan economic diversification and energy innovation goals.
- The construction of the facility will create approx. 490 high-paying jobs over 3 years (1,471 job-years)generating approx. $108 million in employment income, generate approx. $442 million in business revenues (mainly in Alberta), and add approx. $183 million in GDP.
- The ongoing operations of the facility will create an additional approx. 57 direct permanent jobs andapprox. 69 indirect jobs (for a total of 126), generating approx. $11 million in employment income.
- The EFW facility will spur additional economic development. The facility has the ability to use steamenergy for district heating enabling co-location such as greenhouse, agricultural production, anaerobic digestion facilities and further providing energy to nearby industries such as meat packingplants.

Detailed Economic Impact Estimates

Table 1: Impact of **Facility** Construction, Cumulative over Construction Period

Type of Effect	Output, $M	GDP, $M	Employment Income, $M	Jobs (Job-Years)	Average Salary, $
Direct	$281.1	$89.5	$60.2	762.4	$78,927
Indirect	$106.7	$55.7	$33.6	435.4	$77,146
Induced	$54.3	$38.1	$14.0	273.4	$51,337
Total	**$442.2**	**$183.3**	**$107.8**	**1,471.3**	$73,272

Note: monetary values are in 2015 dollars.

Table 2: Impact of Facility Operations, Average Annual

Type of Effect	Output, $M	GDP, $M	Employment Income, $M	Jobs	Average Salary, $
Direct	$24.7	$12.2	$5.9	56.8	$104,429
Indirect	$14.0	$6.9	$3.5	42.6	$81,355
Induced	$5.3	$3.7	$1.4	26.6	$51,389
Total	**$44.0**	**$22.8**	**$10.8**	**126.0**	$85,421

Note: monetary values are in 2015 dollars.

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