Southern Alberta Energy from Waste Association (Est 2012)

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

Briefing Update – June 1, 2022

SAEWA after successfully being awarded the Alberta Community Partnership Intermunicipal Funding in the amount of $143,000 April 2022:

The EOI Steering Committee in support of HDR as the "firm" as the leading Energy from Waste specialist engineering firm for Canada has 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.

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

SAEWA is pleased to advise members, stakeholders and the public that they are now officially engaged in the formal process of review of the (3) Energy-from-Waste (EfW) Consortia Expressions of Interest (EOI).

Background:

Expression of Interest to partner with SAEWA – completed October 2021

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

1. Covanta – EQT Infrastructure

2. Hitachi Zosen Inova - ACCIONA

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.