



Selection of the Fiberight Technology

The MRC decision to include a waste processing facility using Fiberight technology in its plan for MSW management after 2018 was the output of a long and deliberative process.

2007: the first MRC investigations of emerging technology for MSW processing.

The MRC first began investigating alternative technologies for MSW processing and conversion in 2007. At that time, the MRC focused on methods for updating or retrofitting the PERC facility to extend its life beyond 2018 while maximizing diversion and reducing environmental impacts and overall solid waste management costs. Among the approaches that were investigated were plasma arc reduction, gasification, pyrolysis, thermal de-polymerization, anaerobic digestion and mixed waste composting.

2009: the resolution to extend waste disposal agreements with the use of the PERC facility.

In 2009, the MRC Board passed a resolution that extending the waste disposal agreements for use of the PERC facility was the preferred option for waste management after 2018, provided that it could be implemented at acceptable cost and on reasonable terms. The MRC then proceeded to work with the private owners of PERC to analyze multiple options and a broad range of scenarios on parallel paths. In addition to consideration of emerging technologies, those options included conversion of the PERC facility to mass-burn technology and purchase of the PERC facility by the MRC.

2011: the focus on updating or retrofitting the PERC facility

By the end of 2011, it became clear that use of the PERC facility after 2018 would not be economic without significant retrofit to incorporate alternative technologies. The MRC then investigated down-sizing the PERC facility in order to end acceptance of out-of-state waste, minimize future exposure to shortfall penalties for not delivering sufficient waste, and avoid disincentives to town implementation of waste reduction programs (e.g., pay-as-you-throw systems) and additional recycling programs. Unfortunately, the MRC's analysis showed that the continued operation of the PERC facility at reduced capacity, without out-of-state waste and without a subsidized electricity price, could not be implemented at an acceptable cost, nor did the private partners in PERC put forth any proposal accomplishing these goals.

2013: solicitation of emerging technology vendors and developers.

In 2013, the MRC began active solicitation of vendors that might develop technology alternatives to the PERC facility. The MRC issued a Request for Expressions of Interest (RFEI), advertised nationally, to encourage vendors to provide qualifications and conceptual plans to bring their emerging waste management technology in Maine, either by retrofitting the PERC

facility or by building a new facility on a new site. The MRC received 15 responses representing a wide range of approaches to facility development and use of technology. The responses included proposals for development of, among other things:

- Dirty dry MRFs for recovery of recyclables from mixed MSW through various mixes of manual and automated sorting, with organics management through conventional composting, anaerobic digestion and/or direct gasification for electricity generation.
- Facilities to manage MSW through materials recovery and production of pelletized fuel.
- A MRF for recovery of recyclables from mixed MSW that had been subjected to a wet pulping process, with a unique approach to anaerobic digestion that involves enzymatic hydrolysis for conversion of insoluble organics to sugars for further processing.

2014: selection of Fiberight.

After extensive analysis, in 2014 the MRC Board resolved to work with Fiberight on an exclusive basis to implement a facility in Maine using their proprietary wet pulping and enzymatic hydrolysis process. The MRC's decision considered the following points:

- Fiberight's wet pulping process offers an approach that recovers more high-quality recyclable materials with less reliance on manual sorting than a conventional dry dirty MRF.
- Fiberight's enzymatic hydrolysis process offers a much higher rate of conversion of organic materials to high-value and readily-marketable products than either (a) conventional anaerobic digestion, which cannot process insoluble organic material and, as a result, generates large flows of wastewater requiring treatment or discharge; and (b) large-scale composting from mixed waste, which yields low-value products with seasonal markets.
- Fiberight can operate economically at a scale that fits the MRC region and does not rely on out-of-state waste to run efficiently.
- Fiberight proposed to build, finance, own and operate the facility, which further reduced the financial risks to the MRC and the municipalities it represents.

2015 and beyond: facility development, permitting, approval, construction and operation.

The MRC has now entered into a development agreement with Fiberight, LLC; acquired an option to purchase a site in Hampden where the facility might be built; and worked with Fiberight to prepare and submit permit applications for the facility to the Maine Department of Environmental Protection. Going forward, the MRC anticipates the following schedule:

- Spring 2016: Approval of agreements between Fiberight, the MRC and municipalities that would deliver their solid waste to the facility.
- Summer 2016: financing and the start of construction.
- Spring 2018: start of commercial operation

For more information on the Fiberight facility and the MRC Plan for MSW management after 2018, contact Greg Lounder, Executive Director, MRC, at (207) 664-1700 or glounder@mrcmaine.org.



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