

Pressrelease 10 Dec, 2008

U.S. Department of Energy to Help Fund Feasibility Study for Incorporating Swedish Biorefinery Technology in a Michigan Pulp Mill

WASHINGTON/STOCKHOLM -- The U.S. Department of Energy has announced an award of \$300,000 to help NewPage Corporation conduct a \$1.2 million feasibility study for incorporating a black liquor-based biorefinery into their pulp and paper mill in Escanaba, Michigan. New Page's project would use the gasification technology developed by Chemrec, a Swedish company, to help transform pulp mills into a biorefinery. Chemrec's proprietary, highly efficient technology enables the conversion of black liquor, a liquid biomass by-product, into renewable motor fuels, biomaterials, or electricity. The global potential of this is equivalent to over 45 billion liters a year of gasoline, or 2% of global fuel demand. This would imply an annual reduction in fossil CO₂ emission of around 100 million ton.

NewPage, an Ohio-based paper company, will use the award to conduct the feasibility study at its pulp and paper mill in Escanaba, Michigan. If determined to be economically viable and subsequently implemented, this gasification system will lead to large scale production of second generation biofuels, increasing revenue and return of capital at the pulp and paper mill.

U.S. Ambassador to Sweden Michael M. Wood first publicly announced this award at the [*Sweden-Michigan Clean Energy Summit: Driving to Energy Independence*](#) held in Detroit, Michigan, on September 26. At the Summit, government leaders, including Governor Jennifer Granholm of Michigan and His Majesty King Carl XVI Gustaf of Sweden, discussed the challenges and strategies of the drive to energy independence. In making the announcement, Ambassador Wood said "This is the kind of thing that I hoped we could do when we started the One Big Thing. To have Swedish and American clean energy technology come together in my home state of Michigan is fantastic." The One Big Thing is the U.S. Embassy in Stockholm's project to develop alternative energy cooperation between the U.S. and Sweden.

Chemrec CEO Jonas Rudberg, also participating in the Clean Energy Summit, said "Our gasification technology is already proven with two plants in operation, one first generation commercial plant in New Bern, North Carolina, and a second generation development plant in Piteå, Sweden. We are currently working with the New Page mill and a leading pulp and paper firm in Sweden to develop the first industrial scale second generation plants and are very appreciative of the support provided by the U.S. Department of Energy. There is no comparable technology in the market and we have a great opportunity to position Chemrec as the leader in pulp and paper mill based biorefineries."

Department of Energy Deputy Assistant Secretary David Rodgers, another speaker at the Clean Energy Summit, said "This feasibility study is a first step in exploring the possibilities of technology that could expand biorefinery applications and biofuel production into the forest products industry. We look forward to continued opportunities for working with our Swedish colleagues to advance alternative energy and reduce international dependence on imported fossil fuels."

Activities such as this study were encouraged by the [*"Implementing Arrangement for Cooperation in Renewable Energy."*](#) signed between the United States and Sweden in June 2007. The initial agreement between Chemrec and NewPage was signed in Stockholm in the

presence of Governor Granholm in August 2007. For details please see this press release:
<http://www.usemb.se/newsflash/8-22-07%20Gov%20Chemrec-Newpage%20release.pdf>

The Department of Energy is a major provider of funding for basic and applied research for converting biomass resources into biofuels. Many financial assistance opportunities are available for small to large-scale research activities.

To learn more about DOE's support of biofuels projects, visit the Biomass Program Past Solicitations Web page: http://www1.eere.energy.gov/biomass/past_solicitations.html.

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