

## News & Intelligence

### INTERVIEW: Canadian biomass gasification company shifts focus to UK in wake of collapse in US gas prices

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Canadian biomass gasification systems supplier Nexterra Energy is targeting the UK market after the collapse in US natural gas prices damaged its cost proposition in North America, the company's Chief Executive Officer Mike Scott told Clean Energy pipeline.

British Columbia-based Nexterra has been active in North America since 2003, installing systems that use its fixed-bed updraft gasification system to convert waste feedstock into syngas, renewable electricity and heat.

In 2008, when fossil fuel prices were high and wood waste costs were low, Nexterra made its name through supplying technology for numerous combined heat and power gasification projects in the US and Canada, including a CHP system at the University of British Columbia and an energy-from-waste system installed at the US Department of Energy's Oak Ridge National Laboratory.

"In North America, when the cost for delivered natural gas was \$8-10 million per million Btu, our feedstock was \$3 million per million Btu," explained Scott. "That difference offset the investment required to transfer to using our technology."

Since then, the influx of cheap shale gas reserves into the North American market has drastically damaged Nexterra's business model, with natural gas prices falling to \$2-3 million per million Btu.

"The collapse in gas prices has had a chilling impact on activity levels in North America," said Scott. "We were already on the road to looking at opportunities globally, and the decline in gas prices over the last couple of years has made these efforts even more important to us."

Nexterra will now seek to expand in Europe, Asia and South America in regions where natural gas prices remain expensive. The UK is its first main new market due to its own relatively high energy and gas prices and a readily available supply of waste feedstock. The kind of gasification projects favoured in the UK fit well with Nexterra's systems, which are typically in the 2-10 MW range for electricity and up to 40 MW for thermal energy.

In addition, the UK offers attractive subsidies. Nexterra plans to develop two types of projects in the UK, one which will benefit from the Renewables Obligation (RO) subsidy for electricity and the other of which could potentially access the Renewable Heat Incentive (RHI) for industrial installations.

The UK Department for Energy and Climate Change confirmed in a banding review in July that advanced gasification systems of the kind supplied by Nexterra will benefit from two Renewables Obligation Certificates (ROCs) per megawatt-hour through to April 2015, after which they will decline to 1.9 ROCs in 2015-2016 and 1.8 ROCs from 2016-2017.

Nexterra has already formed a strategic alliance with UK consultancy Stopford Energy to market its products in the country and is now moving forward with expanding its presence.

"We have the highest level of ROC banding, which is an important part of the economics for these projects," said Scott. "We are developing relationships with lots of power project developers and energy performance certificates. All our target projects are in the 2-10 MW range, using waste wood and construction and demolition debris, and many of the project developers we are talking to already have planning permission."

The company hopes to sign its first UK project contract in the first quarter of next year. Projects using Nexterra technology will be capable of utilising waste feedstock in the A, B and C classes.

Scott said that although Nexterra does not own its own projects, it will consider taking stakes in the first UK facilities, which will likely be completely financed through equity or quasi-equity instruments rather than traditional non-recourse loans. These projects could be refinanced when they are up and running, once the approach is more established in the eyes of lenders.

Because of this initial model, Nexterra needs to partner with UK project developers that have access to equity funding. These developers could be supported by Nexterra's private equity owners Tandem Expansion and ARC Financial Corp., which Scott said would provide backing for the "right" projects.

Aside from RO-backed electricity projects, Nexterra also sees a business case in the UK to displace natural gas and other fossil fuels in the processes of large industrial customers. It may be able to access the RHI tariff for biomass CHP or biogas combustion, but there is still uncertainty over whether its technology will qualify for the subsidy. For this reason, progress will be slower in establishing a business for industrial customers than for independent power producers. There is also a third potential opportunity in district heating.

Scott hopes the UK can act as a springboard to other European markets such as Eastern Europe or Germany. In Asia, Korea and Japan have emerged as the most attractive markets for Nexterra, while Brazil is of particular interest in South America.

Nexterra has raised about \$40 million in private equity funding to date, including an extended round of \$17.5 million in 2012.

Scott said there are no firm plans for a new round at present, but indicated the company could raise further capital in the near term at the corporate or project level depending on how quickly the UK opportunity comes to fruition. If it were to raise more capital it would seek to bring in partners for its existing shareholders.

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