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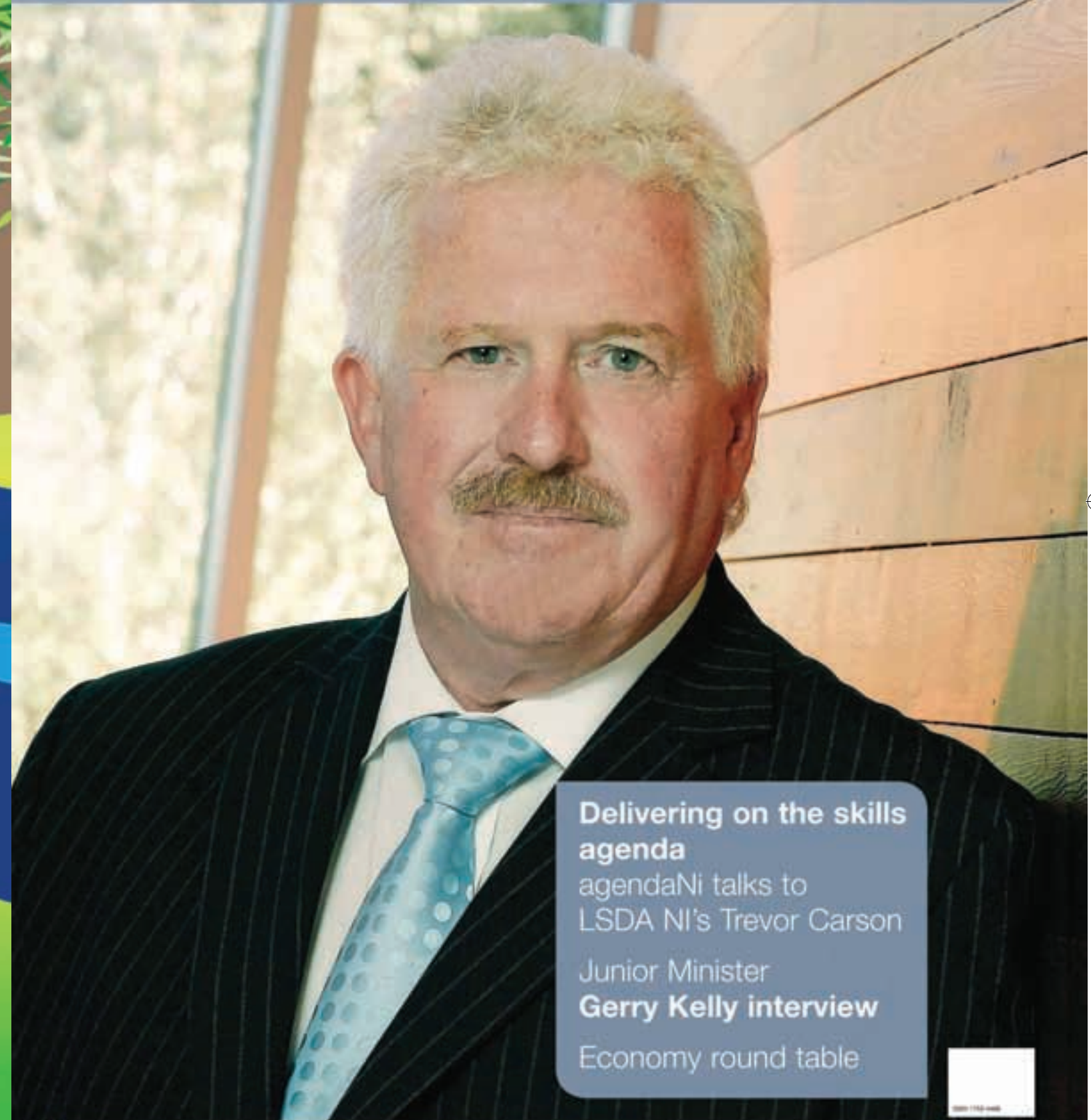
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Linergy leading the way for renewable energy



Mr Richard Moore, Managing Director of Linergy joins The Mayor of Dungannon and South Tyrone Borough Council Maurice Morrow at Linergy based at Granville Industrial Estate.

Developing innovative solutions to industry problems is the bedrock of any dynamic and robust economy. Anyone familiar with the agri-food industry will be well aware of the challenges faced by companies trying to compete in a fiercely competitive environment. Businesses hit by soaring energy prices and waste disposal costs and a changing legislative framework have been forced to rethink how they operate.

Now three major agri-food companies have met those challenges head on and together have joined forces to form a new company called Linergy based in Dungannon. Linergy was set up initially to develop renewable fuels from organic waste and is now seeking to use these fuels to produce renewable energy to power their plants. Richard Moore, Managing Director of Linergy explains...

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framework have been forced to rethink how they operate.

It's an unusual partnership when competing companies collaborate to start a new business. But when faced with a radically changing operating environment rivalries quickly disappear. That was the situation confronting Linden Foods,

Dunbia and Fane Valley, three significant players in the Northern Ireland agri-food industry. Taken together they employ almost 3,000 staff locally, have a combined turnover in excess of £300million and can count Marks and Spencer, Sainsbury's, Supervalu, Co-op and Dunnes Stores as their customers.

Whilst each company processes and subsequently markets different beef, lamb, pork and dairy products to UK and European markets, they have a common challenge in dealing with the organic waste they produce such as animal by-products and food processing waste. In 2005 Linergy was established, with shareholdings by the three companies, to provide an innovative solution to what was an increasingly burdensome problem. Operating from Granville Industrial Estate, Linergy has been producing renewable fuels from the three companies' organic waste and is now aiming to take this to the next stage by using these fuels to generate renewable energy - electricity and heat.

"Linergy came about due to three key factors," says Mr Moore, Managing Director of Linergy. "Commercially it made sense. After BSE the cost to dispose of by-products from meat processors was in excess of £1million per plant when previously such waste had a commercial value. Additionally, competition in the electricity market locally is non-existent. We had to look to our waste streams as a potential source of renewable energy to ensure lower and more competitive energy costs.

"Strategically we knew that the by-products industry was increasingly controlled by meat processors. So we were confident that we had access to adequate raw materials to underpin the start-up of the new company. We knew that in the long term it was important to be able to control our energy and waste disposal costs. Geographically we were able to use the location of two meat

plants, Linden Foods and Dunbia, to establish Linergy on the same industrial estate as an advantage to minimise transport costs and the environmental impact."

Local Assembly representatives and councillors are acutely aware of the difficult policy context in which the development of progressive companies like Linergy takes place. The advent of the Landfill Directive and Nitrates Directive means that organic waste such as animal by-products can no longer be buried or used as slurries to be spread on land. At the same time the Executive is obligated to ensure that by 2012 that 12 per cent of electricity consumption in Northern Ireland will come from renewable and indigenous sources other than wind power. Other legislation has been set in place to ensure that organic waste does not return to the food and animal feed chains.

Given the legislative constraints, what then are the options for the disposal of organic waste? Richard Moore points to the huge potential for using organic waste as a renewable fuel. Each year, Northern Ireland produces 11.6 million tonnes of organic waste which could be converted to heat and electricity to power over 200,000 homes. He says that several million pounds have been invested in the first phase of the company's development to establish a state-of-the-art rendering plant which currently processes animal by-products. The result is the production of two renewable biomass fuels: tallow oil and meat and bone meal.

"We are able to use the tallow oil onsite to raise steam for the rendering process and any excess is exported to produce bio-diesel while the meat and bone meal is exported to Great Britain to produce electricity," adds Mr Moore. "Tallow has the same calorific value as heavy fuel oil and meat and bone meal is equivalent to wood so we are dealing with significant fuels."

Mr Moore highlights Linergy's exciting plans for the second phase of the company's development which includes a proposed £18million extension to the current rendering plant. The result will be to use existing fuels from phase one to produce onsite renewable energy.

"We will be employing some of the most advanced recommended technologies and will be joining with B9 Organic Energy, a world leader in renewable energy, to construct a modern anaerobic digestion plant to treat wet wastes."

So what will the second phase of Linergy



Mr Richard Moore shows Mayor Maurice Morrow around Linergy's state-of-the-art facility.

produce? Mr Moore highlights that Linergy expects to produce approximately 5MW of non-intermittent electrical power once planning is granted and the extension is built. He said: "The combined heat and power generated would be sufficient to cover the heat and electricity needs of both Linden Foods and Dunbia. Not only would this control waste disposal and electricity costs it also ensures the future competitiveness of both companies and local agri-food industry, as well as protecting the jobs of 1,500 people who work in the two plants."

By utilising the waste streams as a resource Linergy will be diverting as much as 500,000 tonnes of waste away from landfill over a 10 year period. It will also save over 35,000 tonnes of CO₂ in emissions; the equivalent of taking 11,000 cars off Northern Ireland's roads for a year. Mr Moore says it will also deliver a 'greening of the supply chain' which opens up the potential to create the first eco-park in the UK and Ireland.

The idea of an eco-park has interested renewable energy experts from as far away as Australia as well as local civic leaders such as Mayor of Dungannon and South Tyrone Borough Council, Maurice Morrow. During a recent tour of Linergy he remarked: "Linergy is a great exemplar for the Northern Ireland economy of how local companies can adapt to changing operating conditions and use these to its best advantage. The result has been the development of an excellent concept for a

potentially world leading renewable energy company which would not only safeguard hundreds of local jobs but also the success of a very important agri-food industry."

As expected, Linergy operates under an Integrated Pollution Prevention and Control (IPPC) permit from the Northern Ireland Environmental Agency which ensures ongoing monitoring. However, Mr Moore points out that the co-location of the meat processors on the same site as Linergy ensures that they always aim to set the highest standards in environmental matters. He adds: "Customers of Linden Foods, who include major retail multiples for example, regularly undertake unannounced audits. The feedback so far is that they are very supportive of Linergy and view it as a very important development given that their supply chain will in the future use renewable energy."

Mr Moore is confident that using organic waste to produce renewable energy is a key way to protect the competitiveness of the agri-food industry. He concludes: "It's about being environmentally responsible and at the same time ensuring that the potential to harvest energy from waste is maximised. If we seize this opportunity now it will ensure that we preserve the very best of what we have and provide sufficient confidence that our investment in such technology will add value for the future."