



Fuel alternatives such as wood chips are an efficient and lower carbon alternative to fossil fuels.

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The Manufacturing and Energy Opportunity

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To say you're just “a little bit” sustainable wouldn't really stack up in a company's annual report. But if you look closer at the current manufacturing and supply chain model this is exactly how many industries operate.

For years, domestically and internationally, the primary and consumer manufacturing industries have become accustomed to playing what might be called ‘partial life-cycle economics’. Somehow adopting the mindset that it's alright to ignore the real cost that operations are having on the environment.

Somewhere in the mix, the end-of-life cost of disassembly, waste, disposal, and carbon impact related to operations, have disappeared.

But our past has now caught up with us.

As GM of EFI's industrial energy solutions – providers of energy and waste-to-energy solutions for industry – it's clear that the shift to a less resource-intensive, resilient and whole-of-life-based economic future for manufacturing will require a lot of things to change. Companies can take a leading role in differentiating their products to consumers on the merits of lower carbon manufacture and processing with governments supporting this initiative through a more transparent carbon pricing model.

Leading businesses are already taking up this challenge where they recognise the value of the sustainable supply chain becoming part of their brand fabric. However, only we, as consumers, wield the power to make this mainstream and place demands on industry to retool.

A ‘fully priced’ processing/manufacturing chain model or an ‘Extended Producer Responsibility’ (EPR) recycling system for the consumer industry including fully pricing carbon, water and waste disposal and end-of-life considerations will play a pivotal role in making the vital transition towards a fair and sustainable system for all.

Further, framing a sustainability model out to 2050 would see a more representative price of carbon coupled with a mandatory carbon-reporting regime.

Both such mechanisms send a clear economic signal to companies and consumers regarding the true price of the product or service you're buying. A price that accurately reflects impacts of production and end-of-life disposal or recycling costs. We already see fully priced models emerging in Europe with a cost of disposal of packaging – for example where the consumer can see a measurable price directly attributable to the cost of landfill or reprocessing. This is more transparent than our current system of landfill and council-levied street pick-ups.

By pinpointing rogue manufacturing practices and products from cradle-to-grave the system encourages manufacturers and companies to come up with safer, more efficient, and more cost-effective solutions. When a fully priced system works as it's supposed to, industry and consumers end up with less waste, less emissions, less packaging – or, at the very least, systems that are more environmentally benign, and products that are easier to reuse, recycle, or compost.

At EFI we are increasingly seeing our partners in the primary processing and exporting sectors becoming aware of these shifts in market mechanisms and consumer demands where bar-coding of supply chain inputs are now demanded in some markets. But carbon pricing still has some way to go in terms of it being a meaningful and transparent mitigating factor in waste reduction and energy efficiency. The current price and mechanism simply does not support a trusted or competitive alternative to lower-priced fossil fuels.

To address this EFI has successfully carved a unique position in the industrial and commercial energy sector by designing and delivering energy solutions that meet our customers' specific energy needs while transitioning

them towards a lower carbon economy. We provide dual-fuel or “co-fired” solutions that displace fossil-fuelled burners – with modern, more efficient plants and waste-to-energy technologies including harnessing landfill gas, wood and biomass. Our solutions give our customers the best of both worlds; significantly reducing energy costs and environmental impact without sacrificing security of supply. By investing in plant technology we've also successfully created new energy ‘clusters’, where neighbouring businesses and institutions share the benefits of owned and operated energy plants.

But sustainability isn't a short-term fix. It requires long-term, strategic thinking and commitment. Where we see sustainability commitment at the board level and willingness for businesses to look beyond the current 2-3-year horizon EFI has added significant value at a systems level.

Progressive companies are now installing our solutions with a 30-40-year lifespan. Why? The decision to invest in multi-fuel options gives companies long-term options and better bottom lines. The initial capital cost of EFI's energy solutions is only a fraction of the full operational cost over its lifespan. Moreover, opting for the lowest capital cost option now only restricts fuel options for companies going forward as well as locking in high-cost fossil fuels into the future. Who wants to play that game?

We believe that if most New Zealand businesses took a 5 – 10-year horizon with their energy supply needs and included sustainable alternatives including biomass and other renewable fuel alternatives, our economy would be well positioned to weather what will be a very different energy future. When you are used to seeing immediate returns the ability to see beyond the initial hurdles of investing in long-term sustainable manufacturing and energy options can be difficult. But the economic and environmental gains in making the shift are rich with clean reward.

For further information visit energyforindustry.co.nz