

EIC guest editorial

by **David Nemetz**
CEO Gilmore

Fresh methodologies and improved technologies underpin successful ESG roadmaps



David Nemetz explains how his company's flow control solutions can significantly mitigate its customers' environmental impacts – including via disruptive new offerings in the unconventional market.

As the industrial world responds to the needs of a fast-moving energy transition, setting targets around emissions and net zero ambitions, the oil and gas sector is under pressure to find better ways of doing things: from improved operational performance through to reduced waste. The only way that is going to happen is by embracing new approaches and trusting in new technologies.

Gilmore has been a leading name in the design and manufacture of control valves and regulators for more than 60 years, providing rigorously tested products to the toughest of environments and across all markets where critical service requirements make them essential. But like any forward-thinking business, we have examined our own internal operations and we are enhancing our efficiencies, establishing metrics around water and energy use and waste, so that we can meet our aim of being a carbon net zero company by 2050 or sooner.

We have looked at our own proposition for the market and identified how the core qualities of our portfolio can advance the ESG targets of customers. In Gilmore's area of expertise, reaching for new innovations and better solutions is essential for staying ahead of our competition and now, whenever we strategise new product development, how those valves could directly provide environmental gains is a vital consideration.

Improved operational performance

What we are seeing is that current sentiment in the industry is clearly directed at operational performance, improving efficiencies right across the board. Yet, at the same time, operators and drillers are finding that their chosen valves and regulators are simply not lasting for as long as they require them to. The consequential costs around potential downtime, lost production as well as efficiencies and waste (as parts need replacing more regularly) are obvious.

For Gilmore, making a positive environmental impact for our clients really comes down to the quality of the valves we can deliver.

We have enhanced our designs over years and we utilise high-quality, extremely durable materials meaning that the service life of our components is greatly extended. If you have products that last longer, capable of withstanding challenging temperature, pressure, environmental and flow media conditions, then you need to replace them less often and this fact alone generates less waste. Again, supported by the heightened reliability of a quality component, operational performance and efficiencies are increased, once more generating obvious positive environmental impacts.

Rightly, there is much current attention on the environmental component of the term ESG, but Gilmore also emphasises the S and the G – these are equally important to our business.

When products offer longevity, they need replacing and maintaining less often and that means personnel are not required to undertake interventions so regularly, bringing obvious HSE benefits. Equally, our qualification testing is stringent, exceeding API standards and meeting International Association of Drilling Contractors (IADC) BOP Reliability Committee recommendations, which we helped draft. This demonstrates good governance and gives added reassurance to customers.

Advancing unconventional ESG

There is a lot of innovation taking place right now across the industry targeted at ESG advancement. But operators need to be open minded and willing to try new approaches and techniques to create that step-change around ESG.

The unconventional market is an example where operators are exploring efficiency gains through moving away from the traditional diesel engine powered pumping and utilising natural gas and e-frac, or electrically powered hydraulic fracturing, instead. However, less attention has been given to potentially innovative solutions focused on pressure and flow control.

Typically, pumping equipment on location runs continuously, and during any downtime it just sits idle, still burning fuel. So, when components break down and need replacing or repair, this slows and delays completion of the stage, and all the while more emissions enter the atmosphere.



Unconventionals represent an exciting market for Gilmore and we have harnessed the same qualities around reliability and durability that we have applied for years to our critical service subsea technology to offer operators a genuinely disruptive alternative to their current valve and pressure relief system options through our new Agiliti family of products.

There is a low bar around the levels of quality of valves used in the unconventionals space, with repairs being required every couple of days, in some cases, and there is no expectation of durability. Operations are both equipment and labour intensive and so, whether an operator uses diesel engines or ultimately turns to gas powered turbines, the underlying fact is significant efficiency improvements and emissions reductions will only come when integral components such as valves have been designed to provide greater reliability and longevity.

Our goal with our Agiliti check valves is to potentially extend the life of such components up to ten times, allowing critical maintenance to be carried out at the end of a typical four-well pad job. This means smoother operations, swifter completion of stages, with far fewer unplanned shutdowns and again less human interaction on the asset, enabling pressure pumpers to focus on where they create value for their customers, through optimised production.

The environmental benefits of such a strategy are considerable. An independent carbon emissions consultancy has calculated that an Agiliti check valve could save more than four tonnes of CO₂ equivalent over a one-year product lifespan, when compared to an industry standard product – equating to a 38% reduction in emissions. Meanwhile, utilising one Agiliti relief valve would save almost seven tonnes of CO₂ equivalent, leading to a huge 90% decrease in emissions, over the three-year product lifespan.

Proactive strategy through built-in diagnostics

The next phase of Agiliti offerings is being developed with built-in self-diagnostics, enabling operators to be aware of potential issues before they occur, so that interventions can be planned.

One of the core motivations is to move the unconventional industry from a reactive to a proactive position regarding potential failures, able to undertake maintenance more efficiently and at the optimum time between jobs, not during the current campaign. When high-quality products combine with sophisticated design features, that can make a significant difference to an operator's performance and carbon footprint.

At Gilmore, we have taken a fresh look at how we can enhance our own efficiencies, from sourcing more materials locally and examining ways of reducing material consumption and manufacturing, through to leveraging our rental model to enable the future recycling and reuse of spent valves.

Similarly, operators and OEMs need to be open to exploring multiple ways their partners and suppliers can support their efforts to drive forward their ESG goals through market-leading, innovative products that will hugely impact their performance from the seabed to the frac spread.

Gilmore is part of the Proserv Group of companies



Gilmore components being manufactured

Get in touch Any EIC members who wish to be profiled in this section please contact Mark Risley...
Email mark.risley@the-eic.com