



Agile and Specialist: The Right Approach to Flare Capture

A thought piece by  **capterio**

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Cartoon by Brett Ryder, courtesy of The Economist.

Executive summary

- Gas flaring creates economic and environmental waste. Even though many companies and countries have [committed to reducing flaring](#) (and for many, this forms a key part of their “net zero” ambitions), the global numbers show little progress over the last decade.
- Lack of progress on flare reduction is, in part, due to a mismatch of “intent” and “execution capacity”. Since many flare reduction projects require “small” investments and are “non-core”, it’s not difficult to see why they are not a priority for large international or national operating companies.
- To deliver flare capture projects, therefore, the industry needs more innovative, nimble, flexible, and efficient approaches. Agile and specialist companies (e.g. Capterio which is 100% flare monetisation focussed) can take the right approach can help to overcome the many technical, commercial and organisational barriers. By partnering with large oil and gas operators, agile and specialist companies can get flare capture projects done.

Flare reduction needs capital. Yet current approaches to capital projects frequently under deliver

According to the [World Bank](#), 145 BCM of gas was flared in 2018. This creates waste of some \$27 billion in revenue and over 1 billion tonnes of CO₂-equivalent emissions (see [related article](#)). Yet flare projects, which need capital, create economic value (through revenue creation and cost reduction), drive environmental benefits (lower GHG emissions, less pollution, and improved health and quality of life) and improve reputations (by building sustainable solutions that drive towards net-zero emissions).

The challenge is that conventional approaches to capital projects often under deliver. *“More than half of large-scale projects have miserably poor results: billions of dollars in overruns, long delays in design and construction and poor operability once completed”*, says Edward Merror (a capital projects guru, founder and CEO of [IPA](#)). [McKinsey](#) identifies four reasons why: lack of focus on managing strategy and stakeholders, failure to build effective teams, failure

to provide core management practices, and failure to manage technology and talent.

Smaller, agile and specialist companies have an edge when it comes to delivering small capital projects

Flare capture projects are generally classed as “small capital” investments (with CAPEX in the range of \$15-50 million) and are often non-core to oil and gas operators. Whilst smaller projects are often simpler, perhaps counter-intuitively, large companies struggle to deliver them effectively.

Large companies (those with 1,000+ employees) are tuned to deliver large complex projects and have developed processes and capabilities to suit. Large companies have many positive attributes (not least their large balance sheets, deep expertise and networks). However, some large companies overly focus on process and have creeping complexity; others may be risk-averse, ineffective at innovation and overly-reliant on standardised solutions. Whilst some large companies have a “[globalisation penalty](#)”, others have become too generalised or bureaucratic, as a [McKinsey article](#) noted last week.

Small projects (e.g. flare capture), however, require a different philosophy and a different approach – whilst delivering to the same standards of safety, environment, quality and reliability. Agile and specialist companies have seven advantages that lead them to have organisational “health” and performance better-suited to successfully delivering flare capture projects. By overcoming the technical, commercial and organisational barriers, agile and specialist companies are often ideal partners to help incumbent operators to deliver.

Advantages of specialist companies	Plain-English commentary	Impact on flare project outcomes
1: Simpler organisations: Smaller specialist companies have few organisational layers, leaner management processes, quicker iteration and decision loops. Less hierarchy makes more efficient execution.	“Right size team for the right project”	Faster delivery pace
2: Better accountability: Specialist companies have less “matrixed” organisations, better-defined roles and less complex internal stakeholder management processes. Their fewer staff are more accountable.	“People feel that they are dealing directly with the decision-makers”	Better and faster decision making

<p>3: More empowered and energised staff: Fewer organisational layers mean that smaller companies better empower and engage their staff. Productivity is enhanced leading to better-motivated execution teams that feel they personally own all outcomes.</p>	<p>“Staff deliver the project as if it’s their own”</p>	<p>Higher quality solutions delivered</p>
<p>4: Greater flexibility and agility: Specialist companies are often more agile and better able to react to changes in context, project scope or definition, whilst giving the right attention to detail and to the management of change.</p>	<p>“Nimble enough to adapt on the fly”</p>	<p>Higher quality solutions, faster pace</p>
<p>5: Better value: Specialist companies often have leaner cost structures, lower overheads and deliver more quickly to a “fit for purpose” technical design (with minimum over design and unnecessary spend).</p>	<p>“Fit for purpose, no unnecessary costs”</p>	<p>Better value creation, lower unit cost</p>
<p>6: More impact focus: Specialist companies can attract experienced personnel who want to work with like-minded individuals who balance corporate and cultural dynamics with a desire to solve technical and commercial challenges to have an immediate impact.</p>	<p>“Experienced staff who just get stuff done”</p>	<p>Faster delivery, higher quality solution</p>
<p>7: Free-up bandwidth to enable operators to power ahead: Specialist companies “give back time” to operators to enable them to power ahead with their what they do best – without compromising on the same high standards of safety, quality and reliability.</p>	<p>“Gives operators peace-of-mind to focus on their core business”</p>	<p>Improved focus on other core projects</p>

Overview of the key enablers that agile and specialist companies have (when compared to larger companies) and the outcomes that they deliver.

Recent case studies highlight the tangible benefits that agile and specialist companies bring

To illustrate our findings, we outline below two case studies of small flare capture projects that were designed and delivered by Capterio’s network of experts.

Case study #1: Delivering an onshore flare gas monetisation project with a fresh and independent approach

Our client needed to monetise gas from 4 onshore wells by installing 2 mechanical refrigeration plants and 31 km of pipeline. Knowing that this was a small capital project (total CAPEX was ~\$40 million), and that their key engineering staff were in short supply, our client (the operator) wanted to explore alternatives to their standard delivery model. Our team was tasked to find a creative development concept, whilst (of course), meeting the highest standards of safety and reliability.

Our team delivered the project in 14 months, considerably earlier than expected, at 30% lower cost, by:

1. Enabling the principals and key decision-makers to engage directly with the key community stakeholders, respond quickly to their concerns and win their support (leading to e.g. faster permitting and approvals and an enduring reputation), plus provide continuity throughout the project life;
2. Ensuring streamlined and single-point accountability, leading to accelerated delivery of critical path items with more competitive supplier quotations;
3. Inspiring others by building a strong sense of momentum and attracting a set of highly-driven and action-oriented staff. Their enhanced motivation led to improved quality and productivity plus faster delivery.

Case study #2: Building a cryogenic gas plant with a tailored engineering approach

(Photograph of our key operations staff doing final pre-commissioning checks before startup).



Another client's new drilling programme delivered a huge increase in rich solution gas from which they wanted to maximise LPG and NGL recovery. Our fresh view challenged the traditional project approach. By making a few small modifications to the operational temperature design criteria, our tailored approach yielded disproportionate capital and operating cost savings (without compromising quality or safety). We were able to engineer, construct and commission a 600,000 m³/day gas processing facility one year ahead of schedule for one-third of the original cost estimate. Our successful outcome was driven by:

1. Our ability, as a small and specialist company, to engage in deeper and more-effective brainstorming unencumbered by complex decision-making. This led to a more fit-for-purpose cryogenic solution – a major improvement on the original, unnecessarily complex, engineering option;
2. Our approach to setting clearly-defined KPIs which were directly and specifically linked to each of the individuals in our team, rather than (as frequently happens in larger companies) being diffused across many individuals/disciplines. This sharp focus on accountability ensured our on-cost and on-schedule delivery;
3. Our multi-skilled expert approach. Whereas large companies often hire employees with deep specialisation, we often notice that this approach makes decision-making slower as it can be hard to “get all the people in the room”. In our small and specialist company, our multi-skilled experts were better able to quickly integrate different disciplines and therefore deliver the project more quickly whilst minimising cost and mitigating risk.

Why a different philosophy is needed for flare capture projects

Flare capture projects generally classify as “small” capital projects and are often non-core to the business of oil and gas operators. When projects are not in their “sweet spot”, large companies can often benefit by partnering with more agile and specialist companies which often have deep expertise and different operating philosophies (but the same standards on health, safety, reliability and ethics).

By “outsourcing” non-core flare projects to experienced specialist companies, large operators can “do what they do best” whilst having the peace-of-mind that their flare capture projects are safely creating value, reducing emissions and improving their reputations with society, investors and consumers alike.

Capterio can help you deliver your net-zero mission ... and get flaring sorted.

About Capterio: Capterio is an agile and specialist project developer focused on monetising waste gas in oil & gas energy systems. We build solutions to quickly capture waste gas and utilise it, taking it to pipelines, injecting it (for storage, enhanced recovery or disposal), converting it to power, liquids (e.g. CNG, LPG, GTL, LNG, etc) or other creative solutions.

We screen and source opportunities powered by our bespoke tools, e.g. Global Flaring Intelligence Tool (GFIT). We select and procure technology, we negotiate commercial contracts, we provide project financing, and oversee construction and operations. We bring together assets together with technologies, know-how and financing to deliver on-the-ground, real-world, safe and reliable solutions.

We are actively seeking pioneering partners which seek to drive value and decarbonise. Since we build and finance on-the-ground solutions, our offer is uniquely attractive to operators and governments and delivers revenue, production and reserves (see [article](#)). See our [website](#) for more information on our proven track record and financing options.