VISTECH

The Vistech Client Journey.

From compliance problem to profit opportunity.

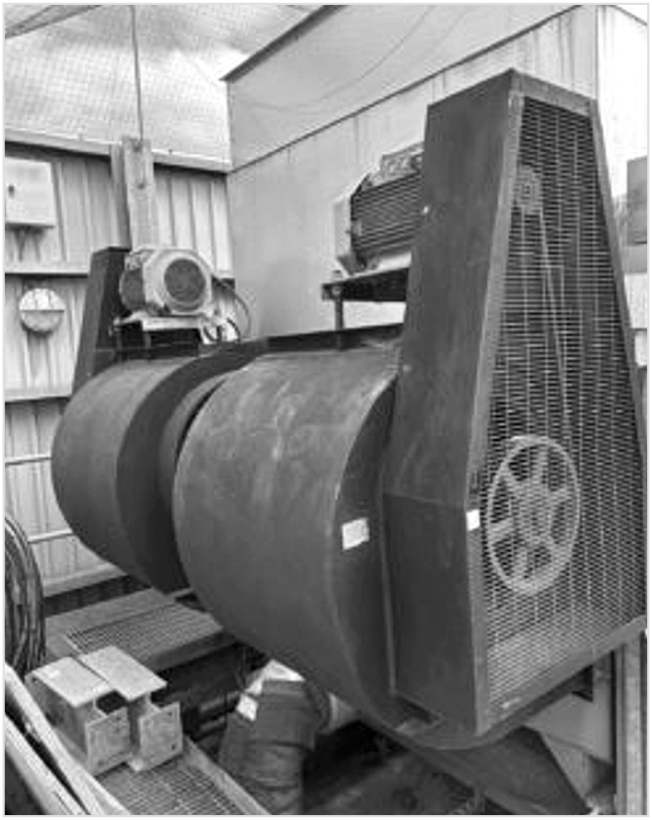


A staged, engineering-led route from the first conversation to a long-term partnership: Efficiency Review, System Discovery, Front-End Engineering Design, turnkey delivery and ongoing optimisation.

We reduce your operating cost and increase your profit. Cooling is the mechanism, not the mission.

THE STARTING POINT

A new tower fixes compliance. It doesn't fix cost.



Most enquiries reach us the same way: a cooling tower that is rusting, non-compliant and visibly at the end of its life, and a plan to replace it like-for-like. That instinct is understandable, the tower is the part you can see failing, and the compliance risk is real. A deteriorating tower is a genuine Legionella liability under ACoP L8 and HSG274, and it does need resolving.

But a like-for-like replacement changes nothing about how the system performs. On established sites the cooling system is typically 30 years old or more: legacy infrastructure carrying assumptions made when the factory was built, for a business that may no longer exist. Newer metal, identical bills.

In our experience the real savings rarely sit in the tower at all. They sit in the system around it: how cooling is distributed, controlled and matched to what production actually demands today. We have surveyed sites where towers were delivering minimal cooling, oversized for the true load, or barely required.

COMPLIANCE

Ticked

The visible risk is closed out.

EFFICIENCY

Unchanged

Same assumptions, same energy and water bills.

OPPORTUNITY

Missed

The system around the tower is where savings hide.

THE SMARTER ROUTE

Refurbish the tower to close the compliance risk now, and review the system in parallel, so the potential is understood before capital is committed, and investment goes where it earns, not just where the rust is.

DOES THIS SOUND LIKE YOUR SITE?

You already know the symptoms. Now prove them.

Legacy cooling systems evolve over decades. Lines are added, processes change, machines are swapped, but the system is rarely re-engineered as a whole. The site team usually knows the symptoms; what's missing is the evidence that unlocks capital. Six patterns come up again and again:

Poor Water Distribution

Site-wide hydraulic imbalance: machines at one end of the site starved of flow while others are flooded, regardless of what production demands. Often mistaken for equipment faults, it is a system design problem.

Minimal or No Control

The system runs flat out whatever production is doing, nights, weekends, half-load. Energy and water are spent cooling nothing, every hour of every day.

Lack of System Knowledge

No single, current picture of how cooling actually works across the site. Drawings are decades old, knowledge lives in a few heads, and the capital case is impossible to evidence.

Capacity Constraints

Cooling caps throughput at peak: cycle times stretch, output drops on hot days, and growth plans stall because the system cannot support another line.

Disparate Cooling Systems

Towers, chillers and DX units bolted on over the years as needs arose, never engineered as one optimised process, each with its own losses and blind spots.

Lack of Resilience

One failure stops production. No redundancy, no fallback, and shutdown risk attached to every maintenance intervention.

If two or more of these feel familiar, the tower was never the whole story.

THE PRIZE

What fixing the system is worth.

Every site is different, and every figure below is validated against your own measured data before it appears in a business case. And while no one controls energy tariffs, you can control how your site uses energy: control what you can control. Typical potential from the legacy systems we assess:



INDUSTRY · CHEMICAL PROCESSING

OPPORTUNITY

Temperature consistency stabilises product quality; control matched to real demand cuts waste.

TYPICAL POTENTIAL

20–30% cooling opex saved

£75k–£150k a year on a mid-size site, more at scale

ENGINEERED UK cellulosic-fibre plant: FEED quantified 1.54M kWh/yr saved via VSD fans and optimised pumping · ~£425k/yr.



INDUSTRY · FOOD & BEVERAGE

OPPORTUNITY

Cook-cool and retort cycles are governed by cooling performance. Better cooling releases hidden capacity.

TYPICAL POTENTIAL

10–15% faster cycles

added production capacity worth £250k+ a year

ENGINEERED UK chilled-food site: design cuts retort cooling from 35 to 10 min, a 24.5% uplift worth ~£910k a year.



INDUSTRY · PLASTICS & INJECTION MOULDING

OPPORTUNITY

Mould cooling sets the cycle time, and the cooling system sets the energy bill. Both are design outcomes.

TYPICAL POTENTIAL

Up to 46% less cooling energy

≈£374k a year on a recent UK redesign

ENGINEERED UK plastics manufacturer: redesign cuts energy from 4,340 to 2,001 MWh/yr · ~500 t CO_2 avoided a year.



INDUSTRY · METALS & HEAVY INDUSTRY

OPPORTUNITY

Disparate, ageing systems where one failure stops production. Resilience engineered into the redesign.

TYPICAL POTENTIAL

Single-failure risk removed

unplanned stoppage exposure engineered out

ENGINEERED UK aluminium caster: three circuits, N+1 resilience and 50% more capacity (11.6 → 17.4 MW) designed in.



INDUSTRY · DATA CENTRES

OPPORTUNITY

Legacy cooling carrying heavy water and energy cost. Adiabatic-led retrofits transform consumption without risking uptime.

TYPICAL POTENTIAL

Up to 90% less water

with energy savings on top



INDUSTRY · POWER & ENERGY

OPPORTUNITY

Non-compliant towers driving a like-for-like replacement instinct. FEED reveals the efficiency prize alongside the compliance fix.

TYPICAL POTENTIAL

Compliance closed + 20%+

reduction in parasitic cooling load

WHICH OF THESE IS YOUR SITE?

The Efficiency Review answers it for £2,500, in a day on site, with the fee refunded if we find nothing worth acting on.

Engineered outcomes from issued Vistech FEED studies on anonymised UK sites; every figure is validated against the client's own measured data.

THE ROUTE

The Vistech Client Journey, stage by stage.

1
DISCOVERY
Efficiency Review
One day on site. A process cooling design engineer walks the whole system and talks to the people who run it, assessing it against the six problems and against current plant demand.

£2,500 · REFUNDED IF NOTHING FOUND

2
DISCOVERY
System Discovery
Where the load data doesn't exist, we measure it: flow, pressure and temperature across the network, machine type by machine type, in live operation.

MEASURED BASELINE · 2–4 WEEKS

3
FEED
Concept FEED
High-level options and an order-of-magnitude cost estimate. A defensible answer to “is this viable, at what scale, and at roughly what cost?”

±35–40% COST ESTIMATE

4
FEED
Developed FEED
The preferred solution engineered across all disciplines to a single coordinated baseline, with a budget cost robust enough for capital approval.

±15–25% COST ESTIMATE

5
FEED
Pre-Construction FEED
Construction-ready design and tender package: tie-ins, shutdown strategy and installation phasing engineered before contractors are engaged.

±10–15% COST ESTIMATE

6
DELIVERY
Project Delivery
Turnkey installation and commissioning by the team that designed the system, phased around live production.

FEED FEE CREDITED · UP TO 10%

7
DELIVERY
Ongoing Maintenance
Service contracts, efficiency monitoring and the next review cycle. The journey loops as the plant evolves.

LONG-TERM PARTNER

INCREASING INVESTMENT & ENGINEERING MATURITY

DISCOVERY

Diagnosis before prescription.

STAGE 1 · EFFICIENCY REVIEW

A process cooling design engineer spends a day on your site. No instruments and no disruption, an observational, engineering-led assessment of the system as a complete process.

The engineer walks the full system, towers, distribution, control and the machines it serves, and talks to the operators and stakeholders who live with it: the quirks, workarounds and history that never make it onto a drawing.

Within one week you receive a structured report and a roadmap for reducing operating expenditure or increasing profit, energy, water, cycle times, consistency of throughput, presented live to your engineering, operations and finance stakeholders.

£2,500 per system · refunded if we find nothing worth acting on

STAGE 2 · SYSTEM DISCOVERY

Your tower's duty was calculated when the factory was built. Lines have been added, processes altered, machines replaced, designing a new system from the original commissioning data means designing for a business that no longer exists.

Where the true machine-by-machine cooling loads aren't known, our engineers instrument the system and measure them: flow, pressure and temperature across the network, captured in live operation through the production cycle.

The output is a measured operating baseline, the load profile the FEED Design Basis is built on. Real data, not assumptions.

2–4 weeks priced by measuring points, one per machine type

Do you know the true cooling load of every machine, today?

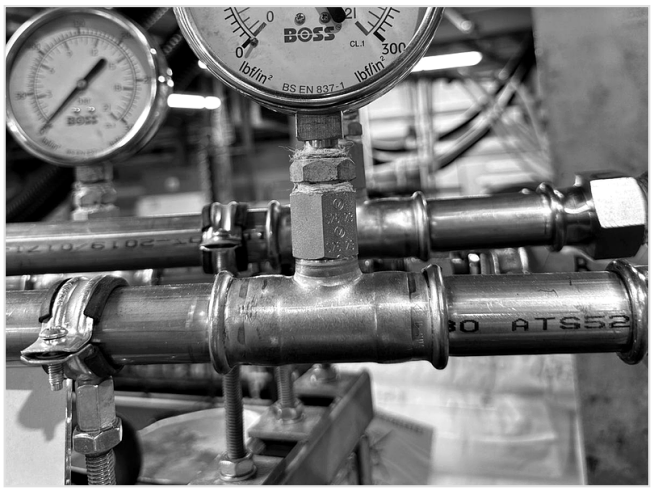
YES · THE DATA EXISTS

Straight to FEED

NO · OR IT'S OUT OF DATE

System Discovery first





ENGINEERING DEFINITION

Three FEED stages, from feasibility to construction-ready.

FEED, Front-End Engineering Design, is where identified opportunity becomes a defined, validated solution. Each stage builds cumulatively on the last, no work is duplicated, and the right starting stage depends on where your decision is, not on project value. As definition deepens, cost certainty tightens:

01 · CONCEPT	02 · DEVELOPED	03 · PRE-CONSTRUCTION
RIBA 2–3 equivalent	RIBA 3 equivalent	RIBA 4 equivalent
±35–40%	±15–25%	±10–15%

CAPITAL COST UNCERTAINTY NARROWS AS ENGINEERING DEFINITION DEEPENS →

Concept Definition

TYPICAL INVESTMENT · £12k–£35k

Establishes feasibility, system intent and the scale of capital required: design basis summary, preliminary heat & mass balance, concept schematics and layouts, and an order-of-magnitude estimate. The business case, before funding coordinated engineering.

Developed Definition

TYPICAL INVESTMENT · £30k–£90k

A coordinated, multi-discipline baseline: PFD and P&ID, GA drawings, equipment datasheets, functional description and a budget-level estimate suitable for capital approval. Integration risk engineered down before commitment.

Pre-Construction Definition

TYPICAL INVESTMENT · £60k–£250k

The final FEED maturity: coordinated 3D model, procurement-level datasheets, structural assessment, tie-in and shutdown methodology, detailed programme and tender documents. Everything contractors need to price, plan and execute.

Typical investment depends on the size and complexity of the site: system duty (kW), measuring points and any subcontracted surveys such as structural investigations.

100%

FEED CREDIT ON IMPLEMENTATION

Your FEED investment is protected twice over: stages are cumulative, so completed work is never re-billed, and if you proceed to implementation with Vistech, FEED fees are credited against the project order, up to 10% of the contracted sum. 12-month qualifying period; terms apply.

DELIVERY & PARTNERSHIP

Designed by Vistech. Delivered by Vistech.

The team that engineered your system delivers it: mechanical, electrical, civil and structural scope under one point of responsibility, in live production environments. Because constructability, phasing, tie-ins and shutdown windows were engineered at Pre-Construction FEED, delivery risk and disruption are managed by design, not hoped away. From survey to commissioning, you deal with process cooling engineers, not salespeople.

£1m–£5m
typical value of major multi-discipline schemes emerging from FEED

12–18
month delivery programmes, phased around production

40+
years of delivery experience in live industrial environments

1
point of responsibility from design basis to commissioning



THE JOURNEY LOOPS

Handover isn't the end. Plants keep changing after commissioning, which is exactly how systems drift out of alignment in the first place. Planned maintenance keeps the system compliant and performing to design; efficiency monitoring tracks performance against the measured baseline so drift is caught early and savings are protected; and as the plant evolves, the next Efficiency Review restarts the cycle.



Long-term partner, not one-off supplier: that is the destination of the journey.

NEXT STEPS

One low-risk first step, whatever your starting point.

01

Book the Efficiency Review

£2,500 per system. One day on site, report within a week, presented live to your team, and refunded if we find nothing worth acting on. Proposal within 24 hours of scope agreement.

02

Confirm the data position

If your true machine-by-machine cooling loads are known, we move straight to FEED. If not, System Discovery builds the measured baseline in 2–4 weeks.

03

Select the FEED maturity

Concept, Developed or Pre-Construction, matched to where your decision is. Fees are cumulative, never re-billed, and credited against the project on award.

~30%
operational savings typically identified

Up to 90%
less water where adiabatic solutions fit

£2,500
guaranteed entry point

ACCREDITED & AUDITED

CERTIFIED
ISO 9001:2015
ISO 14001:2015
ISO 45001:2018

CHAS Accredited Contractor CHAS.co.uk

Constructionline Gold Member

SafeContractor APPROVED

Start with the Efficiency Review: the only risk is finding out you were right all along.