

Beyond the Meter

How Energy Storage & Utilities win with
outcome-based service models.

THE CEO'S GUIDE TO TURNING TECHNICAL PERFORMANCE INTO
CONTRACTABLE OUTCOMES, RECURRING REVENUE, AND CONTROLLED RISK.

WWW.P2SCONSULTING.COM

About the research

Cross-sector evidence from more than 500 industrial As-a-Service cases - not theory modelled from the outside.

P2S Management Consulting draws on more than 500 industrial As-a-Service cases across 12 industries - Energy Storage & Utilities, HVAC & Building Systems, Machine Tooling, Packaging, MedTech, Fluid & Process Equipment, Electrical Appliances, Material Handling, Testing & Certification, Industrial Mobility, Construction Tools, and Industrial Automation.

This depth of cross-sector experience and focus on industrial firms is what separates a P2S whitepaper from a general industry report: the patterns, failure modes, and commercial frameworks described here have been *observed and tested* across real transitions.

This whitepaper combines structured stakeholder interviews with operators at different stages of the outcome-based transition, thematic analysis across practitioner cases, and deep-dive consultations with C-levels, commercial leaders, and asset operators managing the financial and contractual architecture of service models in the energy sector.

Market data is sourced from **BloombergNEF**, **IoT Analytics**, **IEA**, **Lawrence Berkeley National Laboratory**, and the **European Commission**, and is cited at point of use. All practitioner cases are anonymised except where publicly disclosed.

SCOPE DEFINITION

By **Energy Storage and Utilities**, this paper means the full range of actors who build, own, operate, contract, or depend on battery energy storage systems and distributed energy infrastructure: BESS manufacturers and integrators, energy service providers, commercial and industrial site operators, grid operators, DSOs, TSOs, virtual power plant operators, and regulated asset owners procuring flexible capacity as an alternative to network reinforcement. The commercial frameworks apply across that entire landscape, though contract mechanics vary by segment. The paper is best read from a *manufacturer, dealer, or integrator* point of view.

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The three archetypes

What every executive in Energy Storage & Utilities needs to decide.

Industrial markets are not moving uniformly toward subscription. They are moving toward contracted outcomes. For energy storage and utilities specifically - battery energy storage systems, distributed energy infrastructure, virtual power plants, and the grid operators, DSOs, TSOs, and service providers who deploy and contract these assets - the growth opportunity is no longer only in selling hardware or building capacity. It is in turning technical performance into a commercially enforceable promise.

But outcome-based models do not work by default. They work only when the outcome can be measured continuously, the technical and commercial risk can be priced correctly, and the financing structure fits the contract and the asset life. That creates the central question for every executive in this sector: **which outcomes are truly contractable?**

\$115/kWh

**2024 Li-ion pack price
Down 20% year- on-year**

Source: BNEF Battery Price Survey, 2024

890GW

**Storage in US interconnection
queues at end-2024**

Source: Lawrence Berkeley National Laboratory

16+

**EU Member States facing
grid connection bottlenecks**

Source: European Commission

P2S DATA SIGNAL

P2S research across more than **500 industrial As-a-Service cases** consistently finds that providers who move from equipment sales to outcome-based contracts report deal values **2 to 3 times higher** than equivalent CAPEX transactions, with significantly stronger customer retention and renewal economics. The model does not merely shift revenue timing. It changes the commercial relationship fundamentally.

Why product-only growth is *under pressure*.

Four structural signals every executive in energy storage and utilities should track - reshaping competitive logic faster than most providers are adapting.

Four signals every executive should track

The shift is not pricing creativity. It is the ability to measure, verify, and control performance over time.

SIGNAL 01

Grid friction is making service models faster to deploy

Interconnection has become a strategic bottleneck. In the US, **~890 GW of storage** was sitting in interconnection queues at end- 2024, with median queue duration now **exceeding four years** (LBNL, 2024). In Europe, at least **16 Member States** face connection queues or related grid bottlenecks.

Behind-the-meter and service-led models win not just on economics but on **speed**. Non-Wires Alternatives - where a DSO contracts distributed storage as a grid service rather than building substation infrastructure - are gaining traction precisely because they bypass the queue.

SIGNAL 03

BESS is now core infrastructure, not a niche add-on

The global battery storage market **more than doubled in 2023** to over **90 GWh** of annual deployment, with total installed battery storage in use exceeding **190 GWh** (IEA, 2024).

For utilities, DSOs, and TSOs, BESS is no longer supplementary. It is a primary tool for managing intermittent generation, deferring costly network investment, and maintaining grid stability. Buyers apply the same procurement logic they use for other mission-critical systems: **guaranteed performance, clear accountability, predictable cost**.

IMPLICATION

The strategic risk is not missing growth. It is *scaling hardware volume while margin migrates* into software, lifecycle services, financing, and performance accountability.

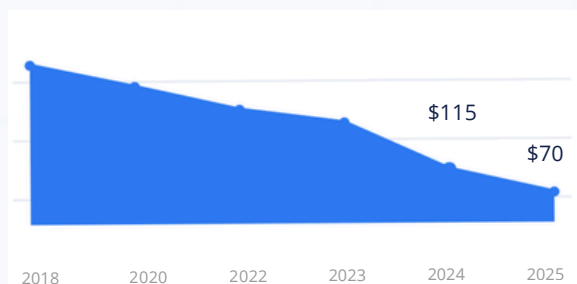
Providers who do not capture that shift will find themselves competing on price in a commodity market they helped build.

SIGNAL 02

Hardware is scaling, but margins are compressing

Average lithium-ion pack prices fell to **\$115/kWh in 2024**, a 20% YoY decline. The global benchmark cost of a four-hour battery storage project fell 27% YoY to **\$78/MWh** in 2025. Stationary storage pack prices reached **~\$70/kWh** in 2025 (BNEF). As hardware commoditises, the margin premium must come from **services, software, and performance guarantees** - not from the cell itself.

LI-ION PACK PRICE · \$/KWH



Directional trendline. Sources: BNEF Battery Price Survey 2024; BNEF 2025 benchmark.

SIGNAL 04

Buyers want outcomes, not ownership headaches

Industrial buyers, commercial sites, and grid operators increasingly prefer lower upfront commitment, faster procurement cycles, and clearer accountability. IoT Analytics estimates 18.8 billion connected IoT devices by end-2024 - the digital infrastructure to support outcome verification and real-time performance monitoring is now mainstream.

The pattern is not new to industrial buyers. Compressed-air-as-a-service, pioneered decades ago and now being scaled by players like Atlas Copco, demonstrates that outcome-based contracting becomes the default purchase mode once measurement and governance mature. Energy storage and distributed flexibility are following the same trajectory, only faster.

The question is no longer whether continuous monitoring is **technically possible**. It is whether providers have built the commercial and contractual architecture to **monetise it**.

The architecture of a contractable outcome

Why the stack matters more than the contract.

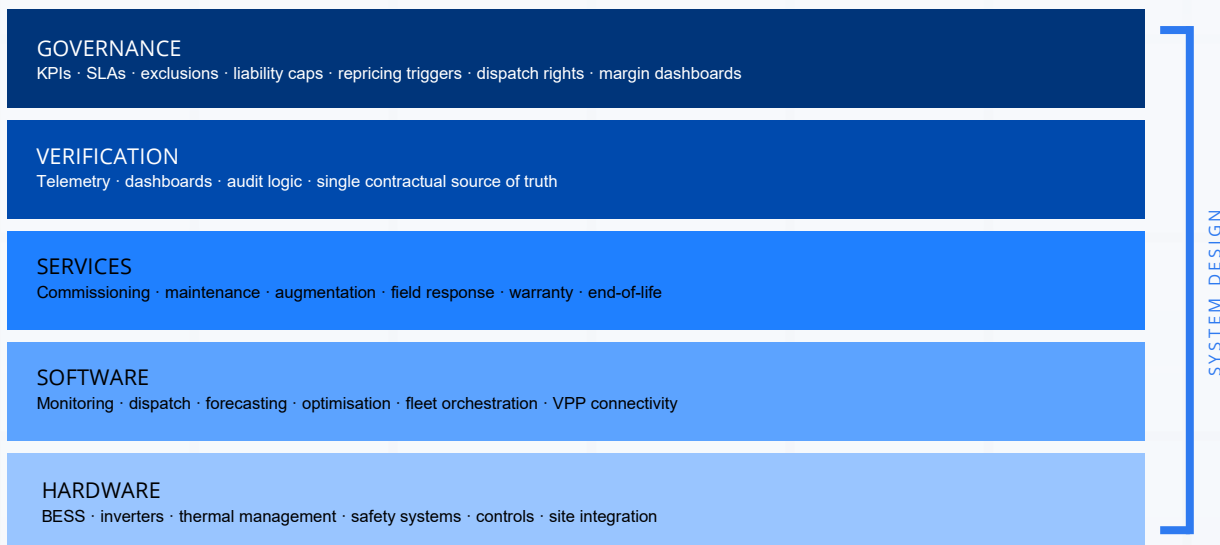
Outcome-based models are not pricing models. They are **system designs**. The promise only works when hardware, software, service, verification, and governance all support the commercial commitment simultaneously. In energy storage, an outcome-based model is only as strong as its weakest layer.

P2S research across more than 500 industrial As-a-Service cases finds that providers who skip the governance and verification layers to accelerate deployment consistently encounter the same outcome: **billing disputes, margin leakage, and contract renegotiation within 18 months**.

In energy storage specifically, margin is rarely won or lost in the battery alone. It is won or lost in **degradation assumptions, augmentation planning, dispatch logic, telemetry quality**, and the alignment between warranty terms and service-level agreements.

THE OUTCOME STACK · FIVE LAYERS

Each layer must be designed before the first contract is signed.



CEO MESSAGE

Do not treat As-a-Service as a commercial wrapper placed over an existing product. Treat it as a *full-stack operating model*. Each layer must be designed before the first contract is signed.

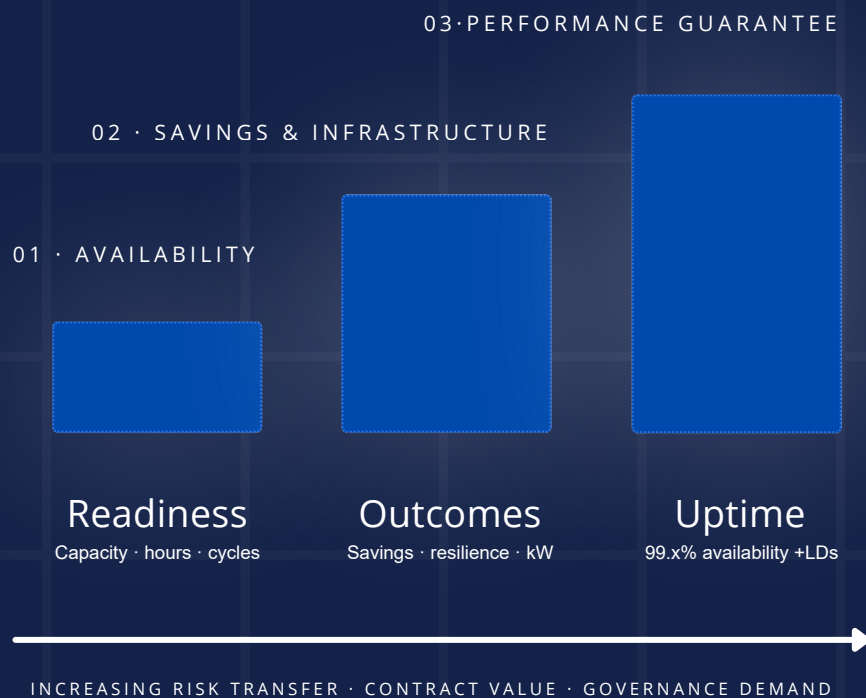
The model scales when all three sides win

The architecture of a durable business model.

The outcome-based model scales when it creates a clear economic win for the **provider**, the **customer**, and the **wider energy system** at the same time. When any one of the three sides loses, the model either fails commercially or fails to scale. Services carry structurally better economics than pure equipment sales. Predictive maintenance reduces cost and downtime. Circularity pressure is rising across the battery value chain. When all three sides win simultaneously, the model *builds switching costs and retention* that hardware sales cannot replicate.

FOR PROVIDERS	FOR CUSTOMERS	FOR THE GRID & PLANET
Stable recurring revenue Flatten lumpy project sales into predictable, compounding cash flows.	CAPEX to OPEX shift Bypass internal investment hurdles. Preserve core capital for business operations.	Asset longevity Providers are financially incentivised to maximise battery health and useful life.
Strategic differentiation Compete on guaranteed performance and risk transfer, not hardware price.	Risk transfer Outsource operational, maintenance, degradation, and obsolescence risk.	Circular economy Second-life pathways, traceability, and organised recycling become manageable at scale.
Enhanced loyalty Shift from transactional vendor to indispensable operating partner.	Future-proofing Continuous access to software upgrades, technical improvements, and managed performance.	Grid stability Distributed assets aggregated into VPPs stabilise local grids and integrate more renewables.

Three commercial archetypes that *actually work.*



Each archetype demands a different contractual architecture, financing logic, and operational depth. Choosing the wrong archetype for the buyer - or worse, promising an archetype you cannot measure - is the most common failure mode P2S encounters in the field.

01 Availability

ARCHETYPE

How it shows up in BESS, battery models, and grid services.

The customer pays for **readiness, not ownership**. In battery models, that typically means paying for usable capacity, uptime, or availability within defined service conditions. For grid operators and aggregators, the same logic applies at scale: contracted availability of distributed storage capacity for dispatch during defined service windows, replacing the need for the grid operator to own or build the underlying assets.

DIMENSION

DETAIL

Best for

Fleets and logistics operators, industrial mobility, backup systems, stationary BESS where availability matters more than ownership, and grid operators procuring firm flexible capacity as an alternative to peaker assets or substation investment.

Typical value metrics

Per battery per month · per usable kWh under defined conditions · per operating hour or cycle band · contracted MW available during defined grid service windows.

Core value proposition

Shields the buyer from residual value risk. Batteries reach end-of-life at approximately **80% state of health**, absorbed by the provider. An availability guarantee replaces asset ownership for the customer.

Key data requirement

Real-time state-of-health monitoring. Without a single source of truth for how the battery is being used, availability models *cannot be priced or governed accurately*.

P2S PRACTITIONER INSIGHT

P2S engagements with battery-as-a-service practitioners in the material handling sector reveal that the most successful availability models use a *cell-phone-style pricing logic*: a fixed energy package with defined usage parameters rather than pure pay-per-kWh billing. Customers consistently prefer predictability over granular usage tracking, and providers benefit from reduced billing variability and dispute risk.

One practitioner described shifting from variable kWh billing to a fixed monthly plan as the **single most important commercial design decision** they made.

IoT connectivity is not optional in this archetype. It serves three simultaneous functions: **accurate billing, performance guarantee enforcement, and contractual protection** if a customer misuses the asset. One CFO interviewed for this research described the IoT layer as non-negotiable, because connectivity allows the provider to monitor usage, prevent asset damage, and maintain residual value - which directly affects downstream financing economics.

For utilities and aggregators, the parallel is direct. Virtual power plant operators contracting availability from distributed BESS assets face the same governance challenge: the telemetry must be the contractual source of truth, **established and agreed before the first dispatch event**, not bolted on at the billing stage.

CEO WATCH-OUT

If lifecycle and utilisation risk is not priced and governed explicitly, *margin leakage becomes structural*. In battery models, margin leakage rarely starts with discounting. It starts with degradation assumptions that were never stress-tested against real operating conditions.

02 Savings & infrastructure outcomes

ARCHETYPE

How it shows up in microgrids, Energy-as-a-Service, and virtual power plants.

The customer pays for a defined operating or economic result - such as **resilience**, **deferred infrastructure investment**, or **validated energy cost savings** - rather than for the asset itself. For utilities, DSOs, and grid operators, this model can aggregate decentralised storage into a **Virtual Power Plant**, replacing or deferring the need to build or reinforce central infrastructure. For commercial and industrial buyers, it removes the capital barrier and transfers operational complexity to the provider.

DIMENSION	DETAIL
Best for	Commercial and industrial sites, campuses, transit depots, utilities, DSOs, and network operators seeking Non-Wires Alternatives .
Typical value metrics	Per site per month · per contracted kW or kWh · resilience fee · shared savings · response availability during defined grid events · deferred network investment value.
The utility angle	For DSOs and grid operators facing long interconnection queues and substation bottlenecks, this model is strategically attractive. Instead of building or reinforcing central infrastructure, the operator contracts access to flexible distributed capacity. Prerequisite: <i>clean dispatch rights, verifiable availability windows, and settlement rules agreed before signing</i> . The structural parallel is compressed air: a DSO contracting flexible distributed capacity is buying the same kind of guaranteed industrial utility that a manufacturing plant buys when it switches from owning compressors to contracting Nm ³ .
Key risk	Mixing "shared savings" logic with "capacity access" logic in the same contract. One depends on a verified baseline. The other depends on dispatch control and settlement discipline. Conflating them creates irresolvable billing disputes .

P2S PRACTITIONER INSIGHT · COOLING-AS-A-SERVICE PARALLEL

P2S engagements with practitioners in the cooling-as-a-service sector provide a direct structural parallel for energy storage. One provider, having initially positioned their model around shared savings, deliberately moved away from that structure because it introduced complexity, potential conflicts, and disputes about actual versus projected savings. They shifted to a consumption-based model where the customer pays for **verified output**, not for projected efficiency.

That transition took years. The provider developed a proprietary metering system, built a dedicated asset management division, and restructured their contract template multiple times before arriving at a commercially scalable model.

PRICING ARCHITECTURE · THREE COMPONENTS

A commercially scalable model for Savings & Infrastructure outcomes.

FIXED

Availability fee

Monthly

+

FIXED

Maintenance fee

Monthly

+

VARIABLE

Verified consumption

Per-unit charge

CEO WATCH-OUT

Do not promise savings or shared outcomes unless you have a clean baseline definition and a credible verification methodology in place before the contract is signed. If you cannot prove the savings, you cannot bill for them. This is not a legal nicety. It is an operational prerequisite.

03 Performance guarantees

ARCHETYPE

How it shows up in power, uptime, and mission-critical service models.

The customer pays for guaranteed operating performance under defined conditions. This is the **highest-value archetype** and the most contractually demanding. The provider is no longer selling service effort. It is selling **downside risk transfer**. In high-consequence environments, the customer is not buying maintenance - the customer is buying the reduction of operational uncertainty.

DIMENSION	DETAIL
Best for	Data centres, hospitals, critical infrastructure, utilities, TSOs, and asset owners where downtime has immediate economic consequences.
Typical value metrics	Availability percentage by service window · response or restoration time · power-quality thresholds · efficiency floors · liquidated damages for non-performance.
Core value proposition	Risk transfer. Operational confidence. Clearer downside protection. One accountable party for performance across the full contract life.
Contract requirement	Defined Force Majeure and site-readiness exclusions must be explicit and agreed before signing. Without them, providers absorb penalties for grid failures and external events they did not cause.



WÄRTSILÄ

PROOF POINT · WÄRTSILÄ

Guaranteed Asset Performance

Built around guaranteed reliability, availability, and efficiency with long-term cost predictability and defined performance accountability.

700+

INSTALLATIONS
SERVICED

30 GW+

GENERATING
CAPACITY
COVERED

P2S CASE · CRITICAL POWER BESS

A European provider of mission-critical power systems signed a performance guarantee with a large financial services campus requiring uninterruptible backup power and peak-load support.

99.8 %

AVAILABILITY
GUARANTEE

2.5x

CAPEX-EQUIVALENT
DEAL VALUE

10yrs

CONTRACT
TERM

Three design decisions proved critical to the viability of the model:

- I. **Explicit exclusions** for third-party grid events outside the provider's control were defined and agreed before signing, limiting liability to failures within its operational scope.
- II. **A telemetry-based source of truth** - independently verifiable by both parties - was established as a contractual requirement, not a technical afterthought.
- III. **A risk premium** was priced into the monthly fee to reflect the downside performance liability. Internal modelling showed the risk premium represented **less than the expected cost** of unplanned emergency call-outs and reactive replacements under a conventional service agreement.

CEO WATCH-OUT

This is not a standard service contract. It is an insurance-like promise. If you are absorbing the downside performance risk, your margin must reflect that. If exclusions, causality rules, and remedy caps are poorly defined, the provider has priced a maintenance contract while absorbing insurance-level liability.

Where margin is created and lost

Recurring billing alone does not create margin.

Recurring billing does not create margin by itself. Margin shifts to the player that can *measure, contract, finance, and operate* the outcome better than competitors. The map below shows the primary drivers on both sides of the margin equation.

MARGIN CREATED BY

- Risk transfer and performance accountability
- Lifecycle monetisation over the asset life
- Software-enabled dispatch and optimisation
- Customer switching costs and high retention
- Capital efficiency for the buyer

MARGIN AT RISK FROM

- Underpriced degradation and augmentation assumptions
- Weak contract boundaries and open-ended liability
- Poor telemetry quality and disputed billing data
- Manual billing processes that cannot scale
- Financing structures misaligned with contract tenors
- Sales incentives rewarding booking volume over contract health

Six recurring margin risks in energy storage service models

- 01 Underpriced technical risk.** Degradation, augmentation, and dispatch assumptions are modelled at best-case rather than field-case conditions. Mid-life BESS augmentation - typically required in years 8-10 to maintain contracted capacity - is the most commonly underpriced cost in long-term storage contracts.
- 02 Weak contract boundaries.** Outcome language is not paired with strict scope definitions and force majeure exclusions, creating open-ended liability. Every unclear boundary eventually becomes a billing dispute.
- 03 Poor telemetry quality.** Inadequate monitoring prevents accurate billing and dispute resolution. In energy storage, disputes about performance are almost always disputes about *whose data is authoritative*.
- 04 Manual billing processes.** Cannot handle large fleets of variable monthly invoices without significant headcount, eliminating the margin benefit of scale that makes the model economically compelling.
- 05 Financing mismatches.** Contract durations are not aligned with available debt tenors or asset depreciation schedules, creating cash flow gaps and balance sheet pressure that undermine the model's fundability.
- 06 Misaligned sales incentives.** Teams undercut subscription offers with CAPEX alternatives to hit short-term booking targets - undermining the transition from within. Commission structures must be redesigned in parallel with the commercial model.

Who is winning, and *why*.

Six practitioner cases from P2S primary research and public sources.
Patterns are consistent across sectors and geographies.

The logo for HOPPECKE, featuring a stylized icon of three vertical bars of increasing height to the left of the company name in a bold, sans-serif font.

HOPPECKE
Industrial Power
EU & NA

The logo for UGO WORK, with 'UGO' in a bold, sans-serif font above 'WORK' in a similar font.

UGOWORK
Material Handling
Canada

The logo for WÄRTSILÄ, featuring a stylized circular icon with a swoosh to the left of the company name in a sans-serif font.

WÄRTSILÄ
Engines & ESS
Finland

The logo for Atlas Copco, consisting of three horizontal bars of increasing length, with the company name in a stylized font below them.

ATLAS COPCO
Industrial Equipment
Global

The logo for AlphaStruxure, with 'Alpha' in a sans-serif font and 'Struxure' in a bold, sans-serif font.

ALPHASTRUXURE
Energy & Grid
USA

The logo for stem, with the word 'stem' in a bold, lowercase, sans-serif font.

STEM
Data & Infrastructure
USA

Availability-As-A-Service

ARCHETYPE 01



HOPPECKE
Industrial Power
EU & North America
Battery-As-A-Service

STRATEGIC FRICTION

Customers want higher-performance battery systems but are wary of upfront investment, lifecycle uncertainty, and the operational burden of managing battery assets in-house.

OUTCOME BASED OFFER

Hoppecke offers service and operator models including rental, financing, and usage-based billing structures, plus remote maintenance and BESS services designed around high availability. The model positions around lower upfront investment, predictable monthly charges, and availability-led outcomes rather than simple hardware ownership.

KEY LESSON

Availability models work when the provider can monitor asset condition well enough to price lifecycle risk with confidence. The IoT layer is the contractual protection mechanism, not a product feature.



UGOWORK
Material Handling
Quebec City, Canada
Pay-Per-Use Model

STRATEGIC FRICTION

Forklift and warehouse operators face downtime risk, battery-management complexity, and spare-battery inefficiency. The upfront cost of lithium-ion batteries relative to lead-acid alternatives creates a significant adoption barrier among smaller operators who cannot absorb the capital.

OUTCOME BASED OFFER

UgoWork's pay-per-use energy model is built around outcomes rather than battery ownership, with 24/7 remote monitoring, uptime support, fleet optimisation, and CAPEX relief. Financing is structured through a dedicated financial partner, with the provider self-funding only edge cases outside defined financing parameters.

KEY LESSON

Separating the software layer from the hardware-backed financing structure creates a cleaner capital path and allows the provider to scale the software offer without putting balance sheet at risk on every deal.

Savings & Infrastructure

ARCHETYPE 02



ALPHASTRUXURE
Energy & Grid
Massachusetts, USA
Zero CAPEX Energy-As-A-Service

Montgomery County, Maryland, needed to electrify 70 buses but faced both a major upfront CAPEX hurdle and a utility interconnection delay that would have stalled the project by years.

OUTCOME BASED OFFER

A long-term Energy-as-a-Service agreement. AlphaStruxure designed, financed, built, and operates the 6.5 MW microgrid supporting the Brookville Smart Energy Bus Depot with no upfront cost for the county. The county buys a guaranteed outcome; AlphaStruxure manages everything required to deliver it.

KEY LESSON

Zero-CAPEX models work when the provider controls the full delivery chain: design, financing, construction, and operation. The buyer's only obligation is to use the service.



STEM
Data & Infrastructure
Texas, USA
AI-Driven Storage-As-A-Service

STRATEGIC FRICTION

Commercial and industrial customers face electricity bills where a significant portion of cost is driven by the timing of demand rather than total consumption. Managing this without operational complexity requires an intelligence layer, not just a battery.

OUTCOME BASED OFFER

Stem pairs storage hardware with AI-driven optimisation through its PowerTrack platform, delivering demand charge reductions and verified savings. The platform serves customers across more than 50 countries, with 16,000 customers relying on Stem's software and services. Stem has consistently exceeded its customer savings guarantees by material margins.

KEY LESSON

Savings models only scale when the provider can prove the savings and control the levers that create them. Stem's optimisation platform is the commercial engine behind the service contract.



ATLAS COPCO
Industrial Equipment
Global
Compressed-Air-as-a-Service

STRATEGIC FRICTION

Compressed air typically represents 10 to 30 percent of a manufacturing site's electricity bill, but most operators have limited visibility into leaks, oversizing, and load-matching inefficiency. Capital-constrained sites postpone equipment upgrades, locking in years of avoidable energy cost.

OUTCOME BASED OFFER

Atlas Copco's compressed-air contracting model delivers guaranteed air, meaning pressure, flow, and quality, at a per-Nm³ rate, with the provider owning the compressors, controls, and optimisation layer. Atlas Copco has signalled an intent to scale this offering materially across its global footprint, reframing compressed air as a contracted utility rather than a capital purchase.

KEY LESSON

Compressed air is the closest industrial analogue to the BESS-as-grid-service logic. The buyer no longer cares about the asset, only about the guaranteed flow at a contracted price. The same governance discipline applies in both: telemetry is the contractual source of truth, and lifecycle accountability sits with the provider.

Guaranteed Asset Performance

ARCHETYPE O3



WÄRTSILÄ

Engines & Energy Storage Systems
Helsinki, Finland
Long-term Performance
Accountability

STRATEGIC FRICTION

For grid-scale operators and high-value generating assets, a drop in efficiency or a period of unavailability can destroy value quickly. Asset owners need contractual certainty, not just service effort.

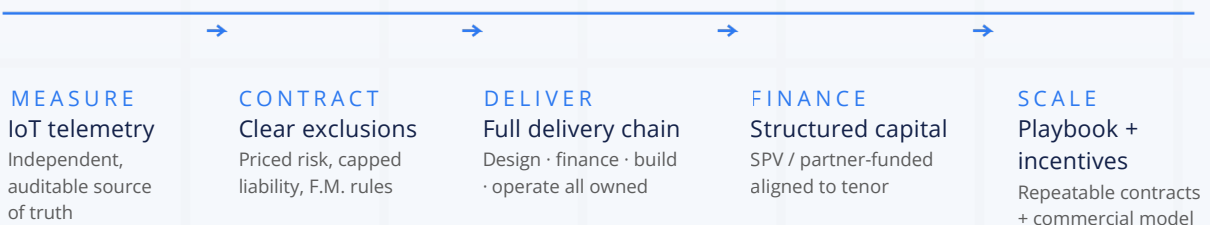
OUTCOME BASED OFFER

Wartsilä's Guaranteed Asset Performance model is built around guaranteed reliability, availability, and efficiency with long-term cost predictability and defined performance accountability. Wartsilä's lifecycle solutions cover more than 30 GW of generating capacity across more than 700 installations. The model includes explicit performance commitments with defined remedies for non-performance.

KEY LESSON

High-stakes models require risk-premium pricing. If you absorb downside performance risk, you must price for it. Wartsilä's scale in lifecycle management reduces the per-unit cost of that risk - a structural advantage that smaller providers must replicate through partnerships or operational depth.

The pattern across all six cases



Every winning case in this research combined all five. Skip one and margin, retention, or scale breaks.

Named companies like Hoppecke, UgoWork, AlphaStruxure, Stem, Atlas Copco, and Wartsilä differ in scale, geography, and target segment - but they share the same operating architecture. Measure, contract, deliver, finance, scale. The firms winning in this space are not the ones with the cheapest hardware.

Most As-A-Service failures are *operating model* failures.

Operating enablers from first deal to full scale.

Six dimensions that need to be designed together

Moving to outcome-based models is a change in operating DNA - not a pricing change.

Value proposition, bundling & pricing

- Define one clear customer value metric before anything else.
- Build pricing logic, bundling structure, and margin guardrails around it.
- Establish discount discipline and renewal mechanics before the first contract.

01

Legal, governance & risk

- Build SLA structures, verification rules, and contractual remedies.
- Define liability boundaries, exclusions, and risk allocation with counsel.
- Monitor margin drift and compliance across the portfolio.

02

Financing & strategic accounting

- Define the capital path: on-balance-sheet, external debt, or SPV.
- Align cash flow logic with contract duration and asset life.
- Self-fund the first 3–5 projects before engaging external partners.

03

Sales motion, culture, & incentives

- Adapt the sales narrative from specifications to outcomes. Align incentives with contract health, retention, and realised margin.
- Misaligned commissions are the primary internal sabotage mechanism.

04

IT infrastructure & billing automation

- Verify CRM, ERP, billing, and contract-management readiness.
- Build usage-to-invoice workflows and automated reporting logic. Manual billing cannot handle large fleets at scale.

05

Digitalisation, data, & performance

- Make the promised outcome measurable, auditable, and manageable.
- Build KPI dashboards, reporting flows, performance visibility.
- The digital backbone must be in place before the first invoice.

06

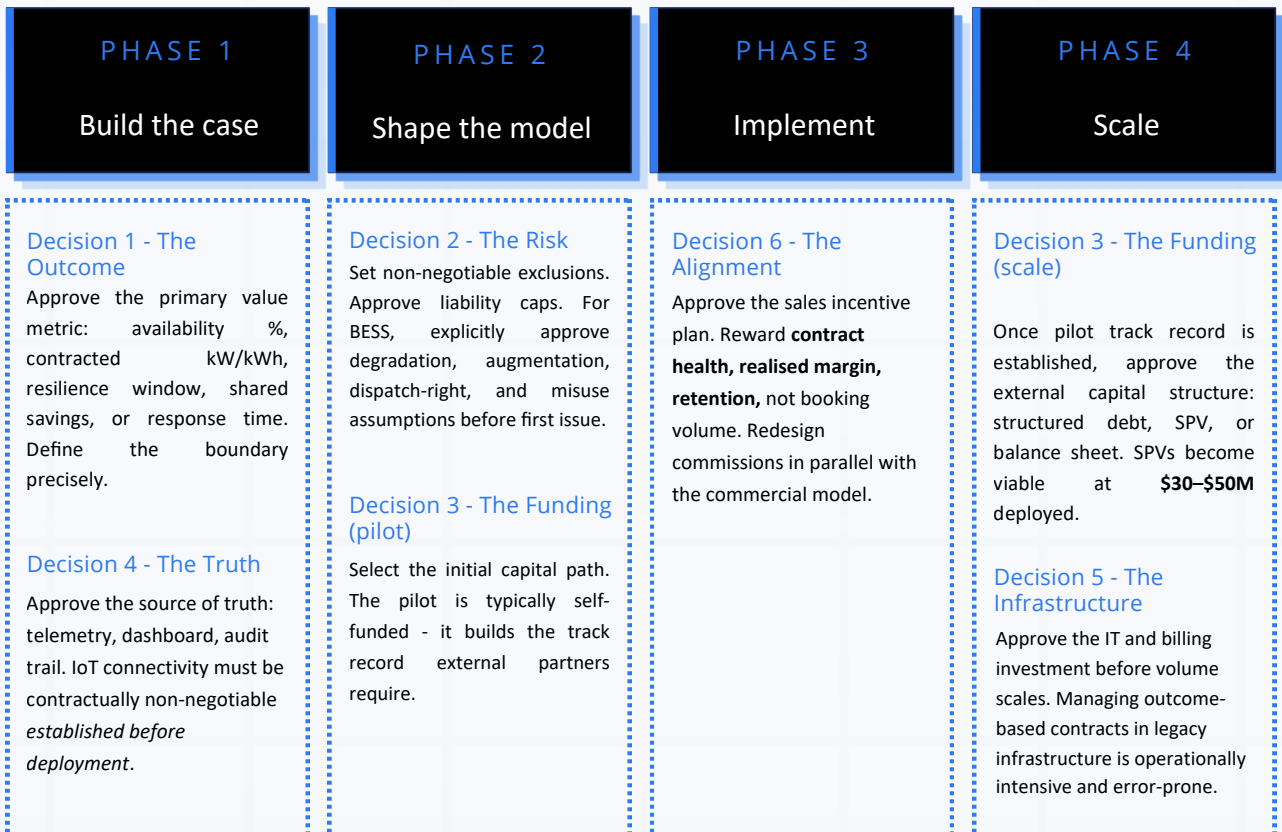
SEQUENCING GUIDANCE

Dimensions 1, 2, and 4 (Value proposition, Legal governance, and Sales incentives) are non-negotiable prerequisites - addressed before the first contract is signed. Dimension 3 (Financing) starts self-funded; external debt or SPVs come at scale. Dimension 5 (IT & billing) must be validated before the first renewal cycle. Dimension 6 (Digital backbone) is built in parallel with the pilot. Retrofitting any of these after scale creates exactly the operational and margin problems the model was designed to avoid.

For the financing architecture that supports this transition, the Fish Model cash-flow profile and the three proven financing paths from pilot to scale, see the Appendix.

From first deal to full scale

Four phases. Six CEO-level decisions that cannot be delegated. The sequence matters as much as the decisions.



BEFORE SCALING, THE CEO SHOULD BE ABLE TO CONFIRM ALL FIVE

- ☐ We can measure the promised outcome reliably and continuously.
- ☐ We control enough of the delivery chain to influence the result.
- ☐ We have priced the technical risk rather than assumed it away.
- ☐ Our financing matches the contract and asset-life reality.
- ☐ Our systems and incentives can scale the model without hidden margin leakage.

How P2S helps

Four types of support - available at any stage. Not sequential. You may need several at once.

Educate

Build understanding across the organisation. Executive briefings on energy storage and utility As-a-Service models, industry playbooks, and readiness assessments - grounded in real case data from more than 500 industrial transitions, not theory.

When your leadership team needs to understand what outcome-based energy models really require before committing.

Advocate

Create internal conviction and stakeholder alignment. Frame the investment case for the board, map decision-makers across commercial, technical, and finance functions, and build cross-functional consensus around the model.

When the idea exists but lacks executive buy-in or cross-functional support to move forward.

Facilitate

Design, build, and launch the model. We co-create the offer, pricing structure, contracts, delivery logic, and financing path for energy storage and utility As-a-Service models - and close the first deal alongside your team.

When you are ready to move from concept to reality and need hands-on execution support.

Professionalise

Transfer knowledge, build internal tools and methods, train commercial and operational teams, and create a repeatable playbook for independent scaling across your energy storage or utility portfolio.

When the model works but your organisation needs to own it, replicate it, and scale it independently.

Let's talk about your *outcome-based* model.

In a world where resource scarcity is becoming a structural reality, we believe the shift from *ownership to usership* helps optimise resource utilisation and support more resilient industrial systems. In that context, western industrial firms must accelerate their transition towards service-driven and more circular business models. **P2S exists to support industrial firms in that transition.**

BOOK A CONVERSATION

Florian André
Partner

florian@p2sconsulting.com
+32 479 37 92 10

Juan Baldo
Partner

juan@p2sconsulting.com
+32 471 97 67 09

Grégory Fossey
Partner

gregory@p2sconsulting.com
+32 491 52 02 52



Financing the *transition.*

Appendix

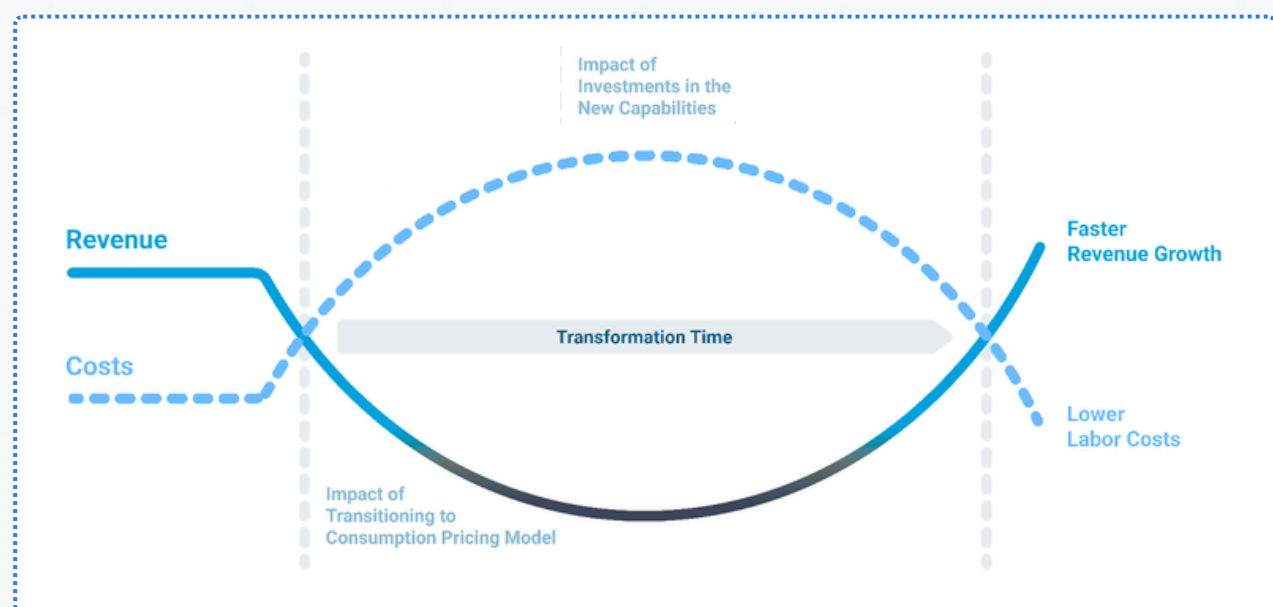
Financing the transition

The shift from CAPEX sales to outcome-based contracts changes the provider's cash flow profile materially. This appendix sets out the cash-flow pattern (the Fish Model) and the three financing paths that have proven viable in moving from pilot to scale.

A CAPEX transaction delivers a large upfront booking with limited recurring revenue. An outcome-based contract requires upfront investment in asset financing and operational infrastructure, with recurring revenue that builds over time.

This cash flow pattern is known as the Fish Model - originally developed by the Technology & Services Industry Association to describe the transition from transactional to recurring business models. The initial dip below the CAPEX baseline - the body of the fish - is temporary, but the recurring revenue tail that follows is structurally more durable and valuable than any single transaction.

THE FISH MODEL · REVENUE & COST TRANSFORMATION¹



Source: Technology-as-a-Service Playbook 2016 (TSIA), adapted. Crossover point depends on contract size, financing structure, and cost-to-serve efficiency. Providers with tighter governance and lower augmentation risk reach crossover earlier.

The **crossover point** - where cumulative outcome-based revenue exceeds the equivalent CAPEX stream - typically occurs **between four and seven years**, depending on contract size, financing structure, and cost-to-serve efficiency. The Fish Model shape is manageable - not a reason to avoid the transition, but a **financing design challenge to solve**.

Financing the transition

01 Self-funding Self-funding the first 3–5 projects builds the operational track record that external financing partners require before committing capital.	02 Structured external debt Accessible once the track record exists and contract revenue is <i>demonstrably predictable</i>. Match tenor to contract life.	03 Special purpose vehicle Ring-fences contract portfolios off the main balance sheet. Viable at \$30 to \$50M of deployed assets.
WHEN · PILOT PHASE	WHEN · EARLY SCALE	WHEN · FULL SCALE

DESIGN PRINCIPLE

Capital structure follows contract structure, not the other way around. A subscription business financed like a product business destroys the crossover year. The right path unlocks each one in turn.