

# Japan's service stations are becoming a coverage portfolio

The operating challenge is no longer to make every station look alike. It is to give each site a viable economic role while protecting the access, resilience and trust that the network provides.

Japan · Service stations · 2027-2030 · COO agenda

Extended executive perspective

Audience: COO

Approx. 18-minute read

# At a glance

## The business decision behind the demographic story

|                                           |                                           |                                                                     |                                               |
|-------------------------------------------|-------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------|
| 27,009                                    | –55%                                      | 615                                                                 | 120.1m                                        |
| registered service stations at FY2024-end | network contraction since the FY1994 peak | municipalities classed as service-station underserved at FY2025-end | projected population in 2030, medium scenario |

Japan’s station problem is not simply declining fuel volume. It is the divergence of commercial demand, local access, emergency resilience and operator economics across one branded network.

The country’s registered station count fell from 29,005 at FY2020-end to 27,009 at FY2024-end, a 6.9% contraction in four years. The longer arc is more dramatic: 60,421 sites at the FY1994 peak became 27,009 by FY2024-end.<sup>[3][4]</sup> Over approximately the same recent period, Japan’s population fell by about 2.5% between the 2020 and 2025 censuses.<sup>[1]</sup> Station count is therefore shrinking faster than population, but the national average conceals where closure is commercially rational and where it creates a material access or resilience problem.

The COO question for 2027–2030 is not “How do we keep every site?” It is “Which form of viability should each site pursue, who captures the value, and which obligations must the portfolio protect?” That shift leads to a different operating system: segment sites by their economic and societal role; assign a distinct service model; use customer and operational data to make weekly decisions; and share the economics with the dealer or sales company that actually runs the station.

# The diagnosis: decline is becoming uneven

## Four forces are separating station economics

### 1. Demography is lowering the floor under routine demand

Japan counted 122.97 million residents in October 2025. The official medium projection puts the total at 120.12 million in 2030, while the 15–64 population falls from 72.74 million in 2026 to 70.76 million in 2030.<sup>[2]</sup> Fewer residents and workers do not translate mechanically into the same percentage decline in station visits: vehicle ownership, tourism, freight, household structure and regional mobility all intervene. But they do make undifferentiated volume recovery an implausible portfolio strategy.

Oil demand adds a second structural signal. The IEA reports that Japanese oil demand fell 4.4% in 2024 and stood 11.8% below 2019; its 2026 review says Japan and Korea again recorded lower transport demand in 2025.<sup>[6][7]</sup> Its medium-term outlook expects OECD oil demand to contract through 2030 as efficiency and electric vehicles displace road-fuel use.<sup>[8]</sup> The EIA's older country analysis independently identifies population ageing, efficiency and alternative vehicles as structural pressures on Japanese petroleum use.<sup>[10]</sup> OPEC's 2025 outlook is less bearish for the immediate period, keeping OECD Asia-Pacific oil demand broadly stable from 2024 to 2030 before a longer decline.<sup>[9]</sup> The disagreement matters: it argues against a single-point volume forecast, not against action. A portfolio that works under flat regional demand and under faster contraction is more robust than one optimised for either forecast alone.



## 2. Coverage value rises where commercial density falls

At FY2025-end, the government identified 615 municipalities with three or fewer stations, or residents located at least 15 kilometres by road from the nearest station; 57 met both criteria.<sup>[4]</sup> The policy language is revealing: local fuel supply is treated as infrastructure for vehicles, agriculture, heating and daily life, particularly in depopulating areas. Japan also listed 14,215 resident-base stations with emergency generation at 31 March 2026, underscoring the role of stations in disaster continuity.<sup>[5]</sup>

This creates a hard asymmetry. A rural site may generate limited direct contribution yet carry high access and resilience value. An urban station may have high commercial potential but little strategic scarcity. Using one hurdle rate, one format and one assortment for both will misallocate capital. Coverage must become an explicit portfolio variable rather than an unpriced exception discussed only when a site is about to close.



### 3. The customer relationship is moving ahead of site economics

The portfolio question is material at ENEOS scale: the company reports more than 11,000 stations and approximately 50% of Japan's domestic petroleum-product sales volume (gasoline, kerosene, diesel fuel and fuel oil A) in its FY2025 results.<sup>[11]</sup> ENEOS also reported approximately 21 million members in its official app by June 2026. The app already combines payment and coupon functions with vehicle-related information such as fuel economy, battery status and maintenance prompts.<sup>[13]</sup> Reach at that scale is strategically useful, but membership is not the same as economic value. The next operating question is whether the organisation can connect customer behaviour to a site-level decision: which visit is incremental, which offer lifts gross margin rather than merely discounting fuel, which ancillary service converts, and which customer lapse signals a local proposition problem.

The unit of management should move from campaigns and aggregate transactions to decisions: next-best action by customer, next-best use of space by site, next-best labour allocation by hour, and next-best service mix by archetype. That demands a shared measurement spine across headquarters, sales companies and individual stations.



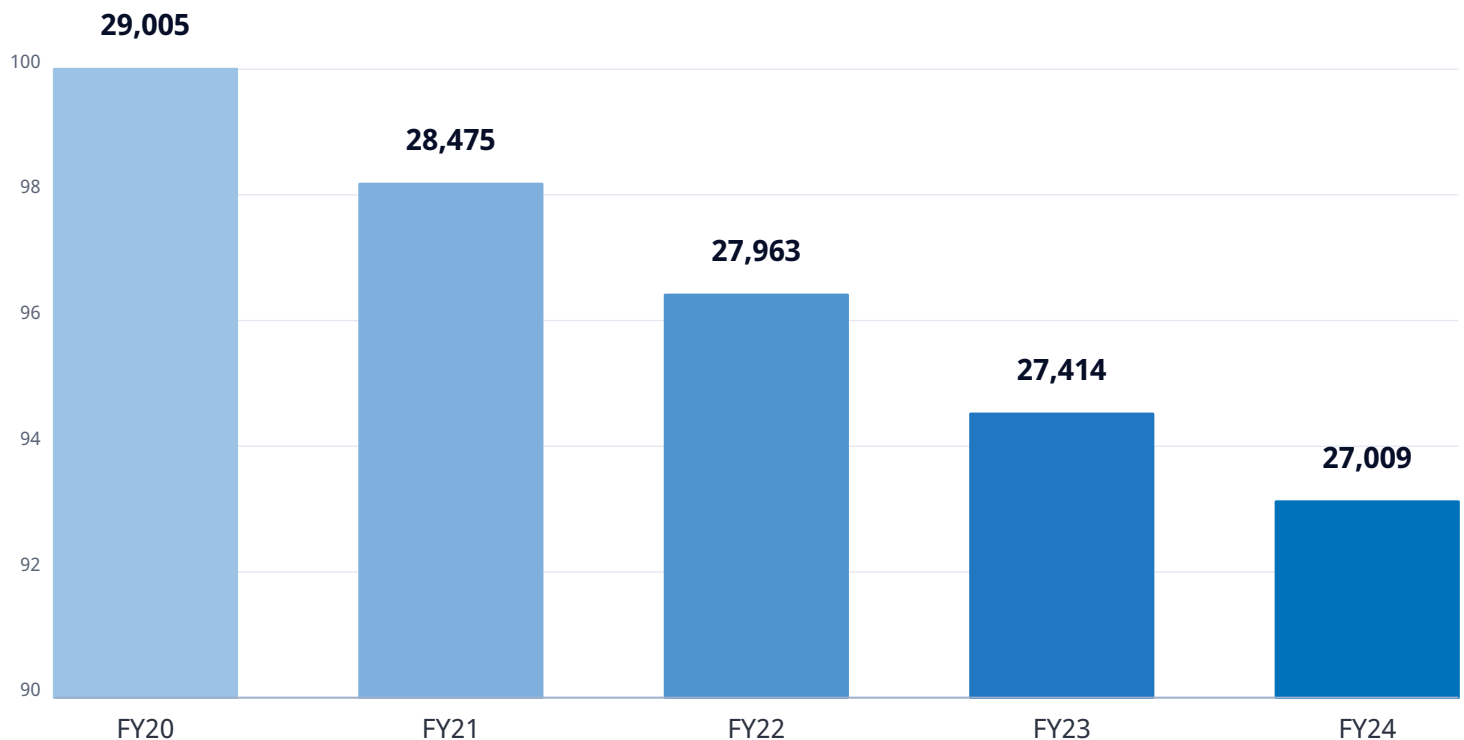
## 4. Labour-saving technology changes the feasible operating envelope

Japan's revised fire-safety framework took effect on 28 February 2026 and permits qualified AI-based automatic monitoring at self-service stations under specified technical and operational conditions. The rules require detection and safe interruption, escalation to a human and defined system controls; they do not amount to permission for an uncontrolled, fully unmanned forecourt.<sup>[15]</sup> ENEOS announced its own AI monitoring rollout in April 2026, framing it as a way to reduce monitoring workload and respond to labour shortages while preserving safety.<sup>[14]</sup>

This is a practical lever, but its value will differ by site. In a high-throughput urban station it may release labour toward higher-value customer tasks. In a low-volume access point it may preserve opening hours with a thinner staffing model. The same technology therefore supports different economics. Deployment should be governed by archetype, verified labour-hour reduction, incident performance and human fallback quality, not by a uniform equipment target.

# Registered stations continue to contract

Japan, fiscal year-end counts; bar heights indexed to FY2020



Source: METI/Agency for Natural Resources and Energy.<sup>[3]</sup> Visual scale starts above zero to show the sequence; values are labelled.

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The paradox is that the fewer sites remain, the more strategically important some of them become. Decline increases the need to discriminate.

# The coverage portfolio

## A different definition of viability for each quadrant

A coverage portfolio classifies each site on two dimensions: commercial potential and strategic coverage criticality.

Commercial potential combines local demand, traffic flows, competitive intensity, customer quality, physical format, non-fuel headroom and the station's ability to convert digital engagement. Coverage criticality combines distance to alternatives, emergency role, dependence of local households and industries, and the network consequences of closure. Both dimensions should be evidence-led and recalculated as conditions change.

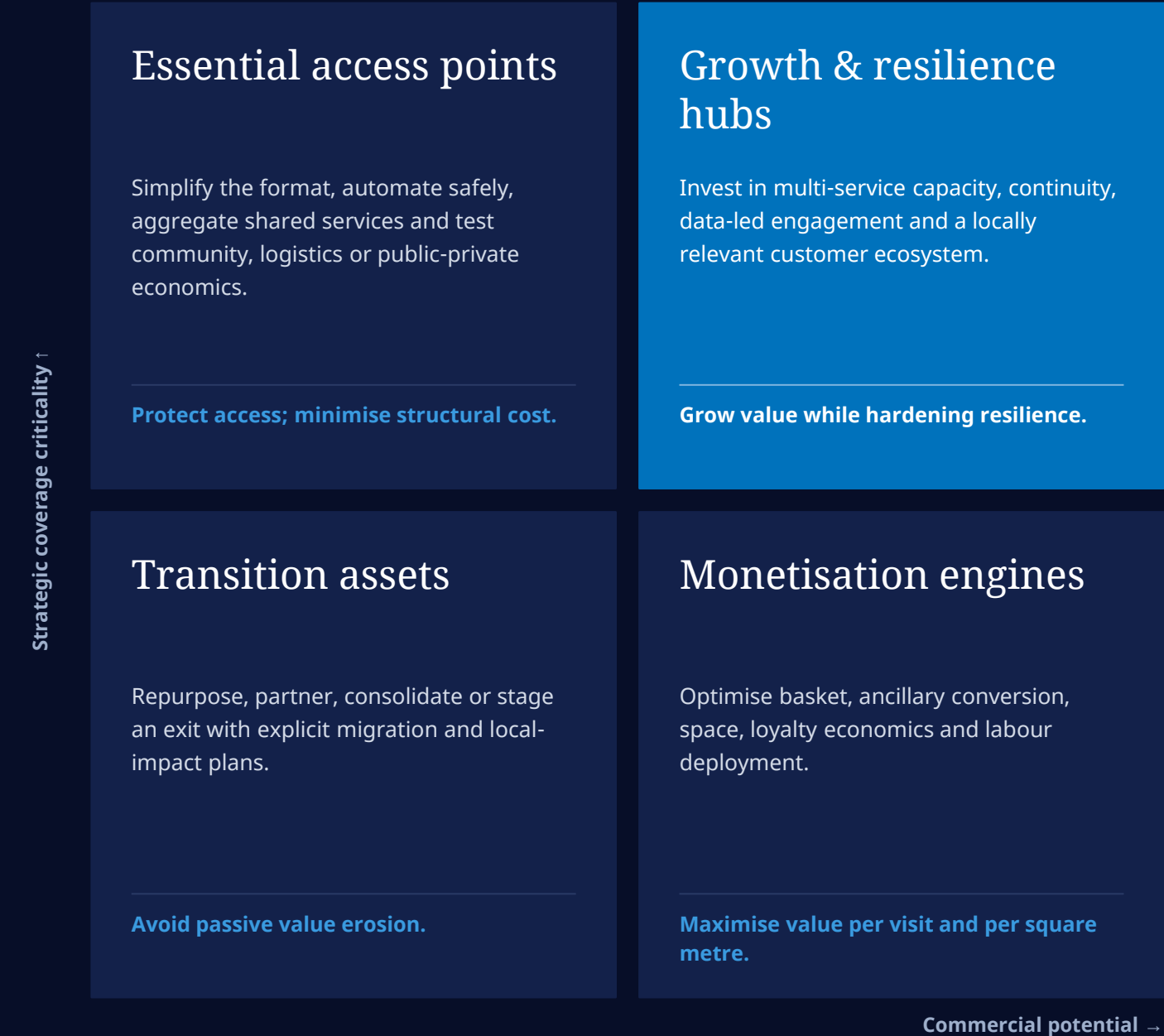
This produces four economic missions. **Growth and resilience hubs** justify investment in a broad service mix and robust continuity. **Essential access points** need radical simplicity, automation and partnership economics, because their public value exceeds what throughput alone reveals. **Monetisation engines** should maximise customer lifetime value, space productivity and service conversion. **Transition assets** require a managed choice: repurpose, partner, consolidate or exit in stages, with customer migration and local impact made explicit.

The framework rejects two comfortable but costly ideas. First, network preservation cannot mean preserving every operating model. Second, diversification cannot mean placing the same convenience, mobility or logistics offer everywhere. A parcel service may be material in a rural access point and distracting in an urban high-throughput site; premium car care may work in an affluent commuter corridor and destroy labour productivity elsewhere. The portfolio decides where a proposition belongs before technology scales it.



# Coverage Portfolio Matrix

Qualitative framework; thresholds require ENEOS and operator data



**Illustrative economic mechanism, not a forecast.** If visits fell in line with the official 2025-to-2030 population path, about 2.3%, while fixed site cost stayed unchanged, fixed cost per visit would rise by roughly 2.4%. The arithmetic illustrates operating leverage only. Calibration requires actual transactions, gross margin, labour, occupancy, logistics and dealer economics by site.<sup>[1][2]</sup>

# One network, five operating logics

## Rural essential

### Lower the minimum viable throughput

The priority is access continuity at a cost the operator can sustain. Simplify assortment and processes; pool remote support; use compliant monitoring to preserve opening hours; combine fuel with the few locally essential services that improve trip economics; and explore formal partnerships where social value cannot be captured through retail margin.

**Cost per staffed hour · Opening-hour coverage · Distance to alternative · Local service uptake · Operator contribution**

## Urban

### Maximise scarce-space productivity

High land and labour costs make throughput insufficient as the sole objective. Use customer and catchment data to allocate space, reduce low-value dwell time, convert app reach into higher-margin services and test partnerships that fit local movement patterns. Automation should redeploy people to exceptions and selling, not simply remove visible service.

**Gross margin per m<sup>2</sup> · Queue time · Ancillary conversion · Labour hours per transaction · Repeat rate**

## Commuter

### Win frequency without buying it

Regular travel patterns create a strong decisioning opportunity. Identify routines, predict lapse, orchestrate fuel and car-care moments, and measure incremental margin after incentive cost. The trap is rewarding behaviour that would have occurred anyway. Experiments need matched controls and site-level economics.

**Incremental visits · Net margin after offer · Lapse recovery · Service attachment · Time-of-day productivity**

## Convenience-led

### Manage the basket as a local system

Use transaction, loyalty, local-event and assortment data to decide what belongs at each site. The public NTT DATA convenience case reports a 5% average-ticket increase from more than 60 data-led initiatives, but that result is a reference case, not a promise for Japan or ENEOS.<sup>[18]</sup>

**Average ticket · Category margin · Waste · Attach rate · Promotion incrementality**

## Strategic resilience

### Make continuity an operating product

Sites that anchor disaster response or critical mobility need explicit continuity standards, tested fallback operations, energy resilience, communications and prioritisation rules. Their economics should distinguish normal retail contribution from the cost and value of readiness.

**Recovery time · Backup autonomy · Drill performance · Critical-customer coverage · Readiness cost**

# The dealer is part of the design, not a deployment channel

ENEOS states that its stations are operated by different sales companies and that retail prices are independently set by those businesses according to market conditions, payment methods and operating policy.<sup>[12]</sup> This governance fact is economically decisive. A headquarters business case that increases enterprise value while transferring labour, inventory or working-capital burden to the operator will not scale cleanly. Every archetype therefore needs a joint value equation: who invests, who performs the work, who owns the customer signal, who captures margin and how downside is shared.

The operating cadence should place headquarters, branches and sales companies around the same evidence. Portfolio reviews decide where capital and experimentation go. Archetype reviews compare sites with relevant peers. Station reviews address exceptions, local propositions and execution. Dealer councils test whether changes are viable in the operator P&L and frontline workflow. This is less glamorous than a new app feature, but it is the mechanism that turns digital reach into repeatable economics.



# NTT DATA point of view

## Station Studio as a portfolio transformation system

Station Studio should not begin with a technology catalogue. It should begin with the future-state economics of each station archetype and carry those economics through strategy, operations and digital execution.

NTT DATA publicly positions Station Studio around digitally enabled mobility hubs and smarter experiences for people and businesses on the move.<sup>[16]</sup> For Japan, the sharper relevance is end-to-end orchestration: turn a national network into a managed coverage portfolio, then connect portfolio choices to site operations, customer decisions, automation and dealer adoption.

|               |                          |                                                                                                                    |
|---------------|--------------------------|--------------------------------------------------------------------------------------------------------------------|
| 01 · Diagnose | Build the evidence spine | Unify catchment, demand, customer, transaction, labour, asset, resilience and dealer-economics data at site level. |
| 02 · Segment  | Assign an archetype      | Score commercial potential and coverage criticality; document confidence, exceptions and ownership.                |
| 03 · Design   | Set viable economics     | Define format, services, staffing, automation, investment logic and value-sharing for each archetype.              |
| 04 · Prove    | Run portfolio pilots     | Test clusters, not isolated gadgets; use control sites and measure net contribution, safety and operator adoption. |
| 05 · Scale    | Install the cadence      | Embed decision intelligence, dealer governance, benefits tracking and periodic reclassification into operations.   |

# Decision intelligence is the connective tissue

A station portfolio does not need another static dashboard. It needs a repeatable chain from signal to action: identify a site or customer opportunity, recommend an intervention, expose the economics and constraints, route the decision to the accountable operator, and learn from the result. NTT DATA's public materials on AI-powered station intelligence and decision intelligence describe this transition from fragmented reporting toward predictive and actionable operations.<sup>[17][20]</sup>

Scale is plausible only when common capabilities coexist with local discretion. A public NTT DATA stations case describes standardisation across more than 2,000 stations in 35 countries and 16,000 users.<sup>[19]</sup> It demonstrates delivery experience at network scale, but not a guaranteed ENEOS outcome. The lesson is architectural: standardise data definitions, controls and core processes; preserve configurable offers, staffing and partnerships by archetype and operator.

## THE OUTCOME TO DESIGN FOR

### A smaller-volume market can still support a stronger station portfolio.

Strength means each site has an explicit mission, a viable operator equation, a measurable customer proposition and a clear place in the network's coverage and resilience obligations.



# The 2027–2030 COO agenda

## Five decisions to take before scaling solutions

|   |                                                                  |                                                                                                                                                                                                                                              |
|---|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | <b>Define what the network must preserve.</b>                    | Set explicit coverage, emergency-readiness and customer-access principles. Without them, site decisions will oscillate between narrow financial logic and ad hoc exceptions.                                                                 |
| 2 | <b>Approve a common station-economics model.</b>                 | Measure contribution and cash effects consistently across company and operator perspectives. Include labour, occupancy, logistics, incentives, investment and service-level obligations. Do not allow fuel volume to stand in for viability. |
| 3 | <b>Classify every station, with confidence levels.</b>           | Use the Coverage Portfolio Matrix and five operating archetypes as a starting hypothesis. Review edge cases locally and reclassify when demand, competition, infrastructure or community dependence changes.                                 |
| 4 | <b>Fund three portfolio pilots, not three technology pilots.</b> | Select clusters representing essential access, monetisation and growth/resilience. Combine proposition, process, data, automation and dealer economics, then compare with matched sites over a complete operating cycle.                     |
| 5 | <b>Make dealer adoption a gated benefit.</b>                     | No initiative advances on enterprise economics alone. Require a workable operator P&L, frontline process, training burden, safety model and benefit-sharing mechanism before network rollout.                                                |

### What this perspective does not claim.

It does not recommend keeping every station open, predict ENEOS demand or profit, quantify the value of emergency coverage, or assert that any public reference-case result will transfer to Japan. Those decisions require ENEOS site economics, operator input and local validation.

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