ENERGY · PAPER 03

Generation Expansion and Mutual Finance

A British-controlled generation mutual for new nuclear, coal and selected gas.

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Delayed generation threatens industrial investment, household affordability and skilled construction work. Britain needs a repeatable programme that retains strategic control, builds dependable supply and keeps value in the service across successive projects.

We will establish an independently governed, British-controlled generation mutual with an asset lock and retained surpluses. Government will carry the first nuclear build risks openly; financeable repeat projects and selected gas and coal assets will enter the common mutual platform.

The problem we are trying to fix

Britain needs an electricity system capable of supporting industrial expansion, electrification and growing artificial intelligence demand. Investment must create dependable power at usable locations, rather than merely increase nominal capacity. Generation, networks, fuel and customers need a coordinated delivery sequence. UK Electricity Market Reform provides the system plan and purchasing architecture; this essay specifies how strategic generation should be built, owned and financed.

Nuclear will provide the long-term core, supported during the build-out by selective gas life extension, diversified new thermal procurement and a bounded coal fleet. Existing useful renewable output and committed projects remain part of the transition. Procure the first coal station for regular generation and release further stations in tranches where fuel diversity, system need and deliverability justify them.

Why the obvious financing routes fall short

Choose a mutual to retain British control and dedicate surplus to the service through independent governance, an enforceable asset lock and the absence of ordinary shareholder dividend claims. A publicly owned company can also retain earnings and operate at arm’s length; the mutual is our preferred constitutional arrangement for embedding those purposes in its membership and governance rather than relying on ministerial shareholder policy. Its value rests on how control, surplus and losses are allocated, with acceptable total cost. Private-sector statistical classification would be helpful, but is not the reason for choosing the mutual or a condition of proceeding. [1]

What the policy changes

Use the mutual to retain British control and surplus in the service, combine successive projects and give lenders access to an established portfolio. Public proving builds and standardised orders establish delivery evidence for later private finance.

Implementation begins on taking office, with first-term delivery through year five. Designated new strategic nuclear and coal and selected new gas assets default to the mutual after any public proving phase; exceptions require equivalent British-control safeguards and published justification. Existing ownership and valid commitments remain respected. Mining, extraction and fracking remain private; transmission has its separate golden share. Great Britain is the initial market perimeter, with jurisdiction-specific consents and a Northern Ireland interface.

The failures and the remedies

PROBLEM	RESPONSE	WHAT DEMONSTRATES SUCCESS
Demand growth and plant retirement can outrun dependable supply	A rolling system plan converts the assessed gap into dated generation and network obligations.	Connected capacity and reliable output under common stress assumptions, including nuclear delays and fuel constraints.
Nuclear starts repeatedly as an isolated first build	A limited design set, repeat specifications, continuous orders and a permanent delivery organisation.	Comparable repeat-unit costs and construction productivity improve without hiding scope changes.
Full state ownership places strategic generation under public control and exposes public finances.	Independent mutual governance, an enforceable asset lock and public first-build risk.	British control and surplus retention demonstrated; ONS classification of the final structure disclosed, with justified governance or funding changes where needed.
Private finance can transfer strategic control	A mutual constitution and enforcement rules retain British control throughout the financing cycle.	No transfer of effective control through debt covenants, refinancing, contractor dependence or insolvency.
Single-project bonds concentrate completion and refinancing risk	Pooled finance with project accounts, funded reserves and bounded access to shared cash.	Better executable terms after allowing for correlated losses and the price of cross-support.

A supply programme needs more than an ownership vehicle

The mutual does not forecast its own demand, award itself revenue contracts or decide whether its projects are nationally necessary. The National Energy System Operator prepares the system plan. The central purchaser contracts defined outputs and services under that plan. The mutual decides whether to undertake and finance a project on the offered terms. The nuclear delivery body develops the fleet programme. These roles need separate boards, accounts and conflict rules.

Procurement must assess mutual projects against feasible alternatives, including private generation, refurbishment, storage and demand response. A strategic nuclear programme may justify long-lead procurement and the cost of establishing domestic capability. That cost should be identified explicitly

rather than presented as the cheapest immediate energy purchase. The purchaser retains the obligation to explain the public value of each award.

Define abundance in terms of useful supply

Annual electricity, dependable capacity at scarcity, flexibility and network access are different requirements. A station with ample annual output may contribute little during a coincident outage; a rarely used gas plant may make an important reliability contribution. Publish each asset's service, connection date and confidence range. Planned capacity enters the adequacy calculation according to its probability of delivery, rather than at full value from the moment it is announced.

Mutual ownership and British control

An asset lock with accountable governance

Establish a company limited by guarantee with no ordinary shareholders and no distributions to private owners. Its purpose is to supply strategic generation and preserve the assets for that service. Surplus follows a published order: operating resilience and lifecycle obligations, debt service and reserves, approved investment, then customer benefits where affordable. The asset lock applies through subsidiaries and on dissolution. It permits properly valued transfers to eligible successors so that failing assets can still be resolved.

Glas Cymru demonstrates a shareholder-free business governed by a board and independently selected members. It acquired an established water business in 2001. Use its governance precedent while pricing this mutual's different construction risks and contracted revenues. [2–3]

Use independent membership selection, published qualifications and fixed terms. Members should oversee the board, scrutinise accounts and remove directors through defined procedures. Prevent the membership becoming a closed network controlled by contractors, lenders or political appointees. Publish remuneration, procurement conflicts and the rationale for retaining or distributing surplus. Customer benefit needs a defined settlement route, including treatment of industrial buyers, rather than a discretionary promise.

Control must survive financial distress

British control means that decisive governance and control of the strategic assets remain with an independently governed UK mutual and eligible UK-controlled successors. It does not require British-only lenders, British-only equipment or domestic manufacture of every component. Test ultimate control and contractual rights, rather than accepting UK registration as sufficient. Governing documents must restrict demutualisation, foreign control and disposal outside the eligible structure.

The strategic-generation ownership rule in UK Energy Reform Programme Annex Appendix A applies.

Debt holders may receive interest, repayment, financial information and proportionate protective covenants. Their remedies must not permit them to appoint a controlling board or transfer a strategic asset to an ineligible owner. Enforcement may replace an operator, restructure debt or sell to an eligible successor through a defined process. Lenders must know the restrictions before bidding, together with their priority, recovery rights and the circumstances in which losses are imposed.

Sovereign restrictions have a financing price. Narrowing the pool of eligible buyers can lower recovery values and raise spreads. An asset lock cannot simultaneously guarantee repayment and prohibit every means of realising value. Test executable financing offers under the proposed resolution rules. Any public acquisition or compensation commitment must be bounded, funded and separately disclosed.

British control and government control are different

Ministers should not direct the mutual's ordinary investments, borrowing or board appointments. Parliament sets generally applicable security and service obligations; the purchaser awards contracts through published rules. Exceptional security intervention must have a defined trigger and review. Removing a golden share avoids one control instrument, but does not establish private classification if equivalent powers reappear elsewhere. [1]

Operational sovereignty and continuity

British control must include the practical ability to operate and maintain the asset when a supplier fails, a licence is disputed or an international relationship deteriorates. UK incorporation and an independent board are insufficient if another party can disable essential systems or withhold the information needed for safe maintenance. Foreign equipment and expertise remain welcome under contracts that preserve continuity.

Secure the rights needed to keep the plant operating

Before procurement, identify the critical dependencies in fuel, control software, design information, specialist maintenance and replacement components. Require durable operating and maintenance licences, access to the necessary technical records and appropriate escrow of essential software and documentation. Escrow means that specified material is held independently and can be released after defined events. Check whether it is usable by a replacement contractor, rather than merely deposited.

Contracts should permit assignment to an eligible British-controlled successor and qualified replacement operators following insolvency or supplier withdrawal. Define rights to continue service after a commercial dispute, subject to payment and adjudication. Rights of intervention must respect nuclear licensing, export controls and third-party intellectual property; an ownership clause cannot override those restrictions. Identify any permission that could block substitution and obtain it before the dependency becomes irreversible.

Buy resilience against identified dependencies

The operator should maintain a critical-component inventory, assess single-source suppliers and procure alternative qualified capacity where the interruption risk warrants the cost. Fuel contracts, stock policy and replenishment routes must be consistent with the plant's actual refuelling cycle and the system's stress scenarios. Domestic manufacturing capability should be purchased where it adds defensible resilience, rather than imposed as a universal British-content rule.

Include cyber access, remote support and control of operating data in the security assessment. Test withdrawal of vendor support through exercises and independently reviewed continuity plans. Publish the cost and service benefit of resilience measures, with sensitive technical information protected. The

mutual board remains accountable for continuity; generally applicable security duties should not become routine ministerial management of its business.

Pooling finance across the programme

The default is one group with pooled borrowing

Participating nuclear, gas and coal projects should sit within a common mutual platform, using pooled borrowing where it improves the programme's financing proposition. Keep project subsidiaries and separate accounts so that cost, performance and liabilities remain attributable. Specify which cashflows and assets support each bond, which project debts rank ahead of it, and how much assistance each construction project can receive.

An operating portfolio can make a later borrowing more dependable than a bond backed by one unfinished reactor. Different commissioning dates spread the period before revenues begin. Cash available after operating expenditure, debt covenants and lifecycle reserves can support new construction. It is not available simply because the station reports an accounting profit. A greenfield group without operating assets cannot manufacture those early cashflows by bundling several construction projects.

The portfolio is diversified but not automatically hedged

Nuclear, gas and coal have different fuel exposure, construction programmes and operating characteristics. Whether these differences protect lenders depends on the revenue contracts. Nuclear merchant earnings might rise during a gas-price shock, but that upside may be surrendered under fixed-price purchasing. A gas asset with reliable availability income may contribute more stable debt service than one depending on energy-market margins. Model the contractual cashflows actually being offered.

Common risks remain material. All assets may depend on the same public purchaser, interest rates, network delivery or political treatment. A policy change can affect the whole pool; a construction programme can encounter shared labour and equipment constraints. Technology diversity cannot compensate for a single unreliable counterparty or an unfunded obligation. Stress the joint distribution of losses, including severe correlated events, rather than adding independent project averages.

Limit construction contagion without removing sharing

Complete ring-fencing would surrender much of the proposed financing benefit. Unlimited cross-guarantees would expose the whole fleet to one failed build. Use funded contingency, a maximum aggregate construction exposure, limits on support to each project and triggers for stopping additional commitments. Senior operating-asset debt should not be silently subordinated to successive construction rescues. The board must have authority to pause or abandon a project before it exhausts the group. Protect operating-asset debt service, lifecycle reserves and essential operations before permitting further construction support. Publish the permitted cross-support, maximum exposure and stop triggers in the financing documents; a rescue cannot silently consume protected reserves or alter existing creditor priority.

Publish the allocation of financing costs and cross-support. Compare pooled terms with credible standalone alternatives, including the reserve and covenant costs. Diversification may reduce the total premium without making every project equally attractive. A weak project should still fail appraisal even where other assets could carry its losses.

Retain a practical option if coal affects lender appetite

Coal is intended to be a smaller programme component. Investor exclusions may use revenue, activity or group exposure thresholds, so a small capacity share does not establish eligibility. Test actual mandates and bids. Preserve the option of a separate debt issue or bounded financing pool if coal materially worsens terms or prevents participation. Any separation must change the relevant recourse and exposure; relabelling a bond does not remove a group-level restriction. A change in investor policy is an opportunity, not an assumption in the financing baseline.

Public first builds and the move to mutual finance

The state establishes the first fleet evidence

Great British Energy Nuclear should carry the initial first-of-a-kind risk, beginning with the inherited Rolls-Royce SMR programme at Wylfa. The first three units are the intended public proving tranche. Government reported in June 2026 that the April contract covers three reactors and at least 1.4 gigawatts. The published deployment ambition is the mid-2030s. These are programme commitments and targets, rather than completed approvals or demonstrated construction performance. [4–5]

Record public development expenditure, construction funding and guarantees openly. Use the same cost definition for first and repeat units, showing site preparation, factory expenditure, financing, grid works and contingency. Costs shared with the later fleet must have an explicit allocation. Calling early expenditure research or enabling works does not make it costless or remove its fiscal treatment.

Units four onwards are a sequencing intention

Later units should enter the mutual programme when the evidence supports finance. The fourth unit is not automatically financeable because three have been ordered. Require an approved design within scope, a stable cost baseline, credible performance evidence, an executable construction package, funded loss capacity and a revenue contract. The test may be met before all first units finish, but any outstanding construction uncertainty must be reflected in terms and exposure.

Later construction can use bank facilities and other private capital capable of bearing completion risk, with refinancing into long-dated bonds once commissioned. The mutual may issue earlier portfolio debt where existing cashflows and funded reserves support it. A forecast bond issue at completion is a refinancing plan, not guaranteed finance; the project needs a funded response if rates or market access deteriorate.

A mutual still needs capital that can absorb loss

Senior debt cannot bear the entire downside while being priced as a safe annuity asset. The loss buffer may comprise accumulated surplus, subordinated debt, carefully defined non-voting risk capital or separately authorised public investment. It must be available before commitments are made. Its

providers need a return or an explicit public rationale. The absence of ordinary shareholders removes dividends to owners, but does not eliminate the economic cost of risk capital. Junior instruments must specify payment deferral, maturity extension, subordination, loss allocation and enforcement restrictions so that the agreed downside is absorbed before senior claims. Junior investors must accept those terms before commitment; the junior label alone is insufficient. Deferred payments and losses must not create an automatic acceleration or enforcement route that defeats the intended buffer.

Price and disclose any public contribution. A subordinated public loan can sustain losses; an overrun guarantee can become a payment; a deferred sale price can leave the taxpayer exposed. These are distinct instruments with different fiscal consequences. There is no presumption that all later construction must be state-guaranteed to obtain the lowest possible senior interest rate.

Transfer completed public assets on defensible terms

Operational first units may later be transferred to the mutual after independent valuation and an explicit decision on liabilities. Transfer proceeds, debt repayment, residual public risk and the value of continuing contracts must be recorded separately. A below-value transfer is a public contribution. Sale proceeds do not establish a like-for-like release of fiscal headroom under every fiscal measure, and future purchasing obligations continue after ownership changes.

Revenue contracts and long term investors

Pay for each service and allocate the risks explicitly

The purchaser buys default-customer energy through its energy book and system-wide adequacy and designated reliability services through a separate mandate. Direct industrial buyers contribute fairly to shared services without joining the energy portfolio; prevent duplicate recovery and keep legacy support tax funded. Nuclear procurement also allocates construction and commissioning risk. Publish duration, indexation, volume, performance and change-in-law terms before financing. Availability income remains distinct from dispatched fuel and variable-cost settlement.

Operational availability revenue can support borrowing, but must carry enforceable obligations on the relevant operator. Define fuel readiness, maintenance, testing and response during scarcity. Avoid double payment for the same capacity across overlapping schemes and contracts. Long-term contracts must not promise routine dispatch that conflicts with efficient system operation. Nuclear outage, renewable output and transmission constraints remain operational facts.

A two-way price settlement or Contract for Difference may be an appropriate instrument for a particular service. Its suitability depends on the terms and public exposure. The legacy renewables essay explains why rejecting existing subsidy arrangements is different from rejecting every instrument that stabilises future revenues. Standard terms should reduce discretionary political risk while preserving the purchaser’s remedies for delivery failure.

The scale of the investment opportunity

At the reformed repeat-unit cost, the programme represents roughly £15–20 billion a year of investable UK infrastructure over two decades. Construction finance will come from banks, export-credit agencies, the National Wealth Fund and international infrastructure lenders; UK annuity insurers are the natural

long-term holders once assets are operating. The build rate will follow demonstrated financing capacity as well as factory and site throughput.

Prioritise annuity insurers for refinancing operating assets

UK annuity insurers are a priority market for refinancing operating assets because their liabilities can be matched with durable contractual cashflows. The matching adjustment under Solvency UK changes the valuation of eligible insurance liabilities where the required asset and liability conditions are met. Eligibility belongs to the insurer's actual portfolio and permissions; it is not a certificate attached to a mutual or a power station. [6]

Operational, enforceable cashflows usually provide a clearer financing proposition than revenues dependent on an unfinished reactor. This is a reason to sequence construction finance and long-term refinancing, rather than a claim that all construction exposure is legally ineligible. Current rules admit highly predictable as well as fixed cashflows under conditions. The Matching Adjustment Investment Accelerator has applied since October 2025, enabling qualifying firms to add eligible assets with new features within permissions and limits. It does not waive eligibility. [6–7]

Before commitments, engage insurers and the Prudential Regulation Authority on the proposed notes, payment schedules, variable cashflows, security and any future funding commitments. Obtain the necessary insurer-specific permissions and legal analysis. International lenders, pension investors and other institutions will be needed alongside insurers. A policy preference for British control does not require restricting the source of debt.

Compare total financing cost and public downside

Seek priced indications against consistent contract terms, then executable offers. Compare interest, risk capital, reserve requirements, fees, covenants and expected public losses. A lower senior yield achieved through a larger taxpayer guarantee may increase total cost. Do not promise that nuclear can repeat a historic water bond yield, or that institutional demand will absorb unlimited paper at an administratively chosen rate.

Worked comparison of ownership and financing

A common project isolates the ownership question

The worked case is a completed 470 MW repeat reactor costing £4.0 billion at commissioning, including construction interest and used contingency. At 90% availability it generates 3.70548 TWh annually. The operating and lifecycle allowance is £100 million a year; reconcile funded closure against the liability schedule before investment.

Use a common 30-year capital-recovery period, 70% senior capital at an assumed 5% real required return and 30% junior capital at 8%. All figures are in constant money. Junior capital absorbs value losses before senior debt. For the mutual it can be subordinated debt with no governance rights and payments restricted by solvency and reserve tests. For shareholder models, 8% is a modelling hurdle, not a guaranteed dividend. No residual asset value is credited in this calculation.

OPERATING OWNERSHIP MODEL	SENIOR AND JUNIOR CAPITAL	ANNUAL CAPITAL RECOVERY	OWNERSHIP AND EXPOSURE
Independent British-controlled mutual	£2.8bn senior debt and £1.2bn subordinated capital	£288.7m or £77.9 per MWh	Asset and future surplus remain locked to the service. Public contributions, if any, are separately recorded.
State-controlled public and private regulated asset base	Same 70 to 30 capital split; public junior investment in this example	£288.7m or £77.9 per MWh	Public control and investment remain visible. Regulated receipts and residual guarantees require separate appraisal.
Private shareholder company with British control protections	£2.8bn senior debt and £1.2bn shareholder capital	£288.7m or £77.9 per MWh	Shareholders retain residual value. Control and creditor protections must have comparable scope and enforceability.

For this first comparison, operating revenue certainty, performance obligations and expected losses are held constant. All three recover the same capital amount because their assumed returns are identical. Including the £100 million operating and lifecycle assumption produces approximately £104.9 per MWh before fees, additional reserves, tax and wider system costs. This is a 30-year revenue-recovery illustration, not a lifetime levelised electricity cost or a proposed tariff.

The construction funding must exist before refinancing

Fund a later mutual build with a £2.8 billion senior construction facility and £1.2 billion loss-bearing subordinated capital, substituting accumulated mutual surplus where available. Obtain commitments from investors able to bear completion risk. Any public participation needs separate authority and classification assessment.

Before construction starts, commit the completion funding, funded contingency and legally enforceable overrun facilities required by the approved base and stress cases, including delay interest, essential site costs and commissioning. Identify each provider, draw condition, limit, expiry, security and loss priority; the funding must be available at the required milestones under those terms. The initial junior capital protects senior claims from impairment but, once spent, is not unused cash for overruns. Include standby fees and all public exposure in the appraisal. Secure a contractual financing extension, term-out or other funded fallback if completion is delayed, market rates rise or bond refinancing is unavailable. Stress the fallback’s cashflows, covenants and liquidity without assuming a Treasury rescue or access to protected operating-asset reserves. If acceptable commitments cannot be obtained, resize, rephase or defer the order; it cannot proceed on this structure.

Financing sensitivities and the decision test

A lower senior yield is only one part of the price

Annual capital recovery is principal multiplied by r divided by one minus the reciprocal of one plus r raised to the 30th power, where r is the assumed annual real return. The following cases vary the common illustration. They exclude standby commitment fees, taxes and wider system costs; actual bids must include those items.

ILLUSTRATIVE CASE	SENIOR RETURN	JUNIOR RETURN	CAPITAL PER YEAR	CAPITAL PER MWH
Common reference for every ownership model	5.0%	8.0%	£288.7m	£77.9
Mutual obtains a lower senior return	4.5%	8.0%	£278.5m	£75.2
Lower senior return but costlier junior capital	4.5%	10.0%	£299.2m	£80.7
Cost rises 25% above funded budget; extra £1bn is junior capital	5.0%	8.0%	£377.6m	£101.9

A half-percentage-point reduction in the senior return saves approximately £2.75 per MWh using unrounded inputs. Raising the junior return to 10% more than offsets that saving. A £1 billion overrun adds approximately £24.0 per MWh of capital recovery if funded at the assumed 8% junior return. This is a sensitivity, not an entitlement to raise the purchase price; at original revenue, losses follow the agreed capital structure.

For the overrun case, an additional £1 billion standby commitment must have been funded or legally committed, or a separately approved remedy must be available. A larger loss triggers renegotiation, impairment or a decision to stop, according to the contracts. A further year with the entire £2.8 billion senior facility drawn at 5% would add approximately £140 million of senior interest alone, before junior finance and other delay costs. Repetition and shorter construction matter independently of ownership.

Compare actual support instruments on their own terms

A regulated asset base can collect revenue during construction, while an operating-output contract usually starts later. Those are different allocations of financing cost and completion risk. A second appraisal must model dated construction drawdowns, consumer payments before output, overruns, guarantees and operation for the actual alternatives. Value taxpayer and consumer exposure explicitly. Apply equivalent British-control requirements before attributing a pricing difference to ownership.

The full comparison must also include the remaining operating life after year 30, residual asset value, reserve releases and decommissioning. Under the mutual, surplus after debt repayment remains dedicated to the service; under shareholder ownership, residual value accrues to shareholders unless contracts provide otherwise. That distributional choice can justify the mutual even where initial funding costs are equal. It does not establish an automatic saving of the shareholders' assumed return during construction.

Select the mutual on the basis of its control and surplus arrangements, subject to acceptable total cost. Claim a financing saving only where executable terms support it after junior capital, contingency, reserve and public-risk costs. Re-run the appraisal if the proposed safeguards alter classification, investor eligibility or recoveries.

Nuclear expansion as a repeatable fleet

Retain the ambition and expose the required scale

Retain the ambition for nuclear to supply around 60% of electricity within twenty years, tested against demand, reliability and whole-system cost. The capacity table below includes Falling Behind at 559 TWh alongside the coherent Holistic Transition and higher-demand pathways. Its 42.5 GW result is materially below the former 53–61 GW illustration.

Count retained and inherited nuclear assets once at their expected operating availability. Translate each demand case into its required total fleet and compare every case with slower, reference and faster delivery in Electricity Supply through the Transition. Preserve options against high demand with slower nuclear; commission firm capacity against the forward adequacy assessment.

Prioritise SMR repetition and retain a disciplined large reactor option

Use a standardised small modular reactor fleet, initially the Rolls-Royce programme, as the planning reference for new nuclear capacity. Its policy advantage is the prospect of repeat manufacture and smaller increments of capital exposure. Test those advantages against actual repeat-unit cost, output and delivery performance before expanding orders. Planning reform and successful design, factory and site delivery remain necessary assumptions.

Preserve valid inherited large-reactor projects and use their delivery experience to inform new procurement. Assess new large reactors under the same reformed planning and delivery regime as SMRs, rather than treating historic UK project outcomes as a permanent cost or schedule limit. A standard design and repeat construction sequence may offer a competitive route; planning reform alone does not establish that the engineering and delivery problems have been resolved.

Tender for a repeatable large reactor programme

Run a competitive tender for large nuclear generation alongside the SMR programme. Invite priced offers for a first unit and repeat units of the same standard design, with a controlled specification, defined site adaptations, credible construction schedules, supplier capacity and enforceable delivery obligations. Require bidders to distinguish first-unit costs from the savings claimed for repetition and show the evidence supporting those savings.

Compare bids with the SMR reference on consistent price, scope, financing and risk assumptions. Appraise lifetime delivered electricity and whole-system cost, including construction interest, delay and overrun exposure, operating and fuel costs, networks, the reserve needed for the largest unit outage, and funded waste and decommissioning. A lower headline construction price is insufficient if it depends on transferring greater unpriced risk to consumers or taxpayers.

Award a first unit and conditional repeat options where a large-reactor offer demonstrates competitive whole-system value and a credible repeatable delivery process under the shared release test. Limit the number of designs, preserve British-control requirements, and revise the fleet sequence when an offer improves it. The competition should proceed in parallel with SMR proving and procurement; no award or capacity is assumed before an acceptable offer and executable delivery route exist.

Place continuing orders behind delivery evidence

Use a dedicated fleet procurement programme, with standard specifications and controlled changes. Common findings should carry forward; deviations must be priced and justified. Plan factories and long-lead equipment against authorised order volumes. Independent assurance should test whether repetition is reducing labour hours, rework and schedule uncertainty, rather than merely whether the supplier has renamed a new site as a repeat build.

The Office for Nuclear Regulation records Rolls-Royce SMR as having completed the second stage of Generic Design Assessment. Current government guidance identifies the third stage as ongoing and distinguishes design assessment from site-specific permissions. A design assessment milestone must not be described as permission to construct at every proposed site. [8]

Build an operating system around the fleet

Coordinate outages and assess common-mode design faults, flooding, cooling constraints and fuel supply. Procure adequate cover for the largest credible infeed loss and prolonged maintenance overlaps. Match fleet commissioning with credible industrial demand and network reinforcement. Computing can provide some flexible consumption, but latency-sensitive services are not automatically interruptible. Establish customers' actual operating requirements before valuing demand flexibility.

Conditional fleet orders and delivery accountability

Build on the existing programme with a different ownership destination

The inherited public SMR programme and February 2026 Advanced Nuclear Framework provide institutions and routes for privately led assessment, revenue discussions, exceptional-risk protection and National Wealth Fund investment. Retain useful mechanisms, subject to our designation and British-control rule. Private development or operation does not exempt a designated strategic asset from the mutual default or equivalent-control exception. The framework is not evidence that the fleet is already financed or delivered. [4, 13]

Onward's October 2026 paper proposes a fifteen-reactor Rolls-Royce fleet, preserving the possibility of eight units at Wylfa, with public funding for first units and partial ownership sales through a regulated asset base. This is a relevant comparator for sequencing; its ownership route differs from ours. Use its scale and site questions to test our procurement programme, rather than treating fifteen or eight as established engineering or financing commitments. [14]

Commit enough volume to support factories without funding every future unit

Prepare a conditional framework covering the first three public proving units and options for a further twelve repeat units across assessed sites. Fifteen is an initial procurement planning envelope, not the full long-term requirement or an unconditional purchase. Confirm the envelope against the inherited position on taking office. Publish which commitments are firm orders, paid capacity reservations and options, including reservation costs, expiry dates and cancellation liabilities. An unpaid option should not be presented as a bankable order book.

Later tranches are released against defined evidence: design maturity, independently verified cost and schedule performance, an executable site and connection route, funded construction loss capacity and an agreed revenue contract. The conditions may be met before the first three operate. Supplier investment that relies on earlier commitment needs its own priced reservation or capped development contract. Identify who bears that exposure; do not leave it hidden between public proving expenditure and the mutual's future promises.

Investigate whether additional Wylfa foundations and enabling works can be delivered after the first units operate. Preserve the option of up to eight units through cooling, land and grid planning where justified. If later works would be precluded, appraise early preparation against its cost and the likelihood of further orders. Additional ground works are a separate decision with their own permissions and public exposure. [14]

Keep one accountable delivery team through financing transitions

Name a programme director with authority over the integrated schedule, design changes, contracting interfaces and approved contingency. Give each project a single accountable delivery leader. Ministers set the authorised envelope and receive exception reports; the mutual board decides its commercial commitments. The delivery director cannot commit either owner beyond its authority. Ownership transfer should preserve the engineering team, technical records, contract warranties and learning rather than trigger unnecessary redesign or wholesale reprocurement.

Demand scenarios and the required build rate

Retain the 60% nuclear ambition while testing the cost of achieving it. The figures in this section come from the calendar-year modelling in Electricity Supply through the Transition, which assumes the programme begins in 2029. Compare it with a 40% nuclear portfolio under the same demand, reliability, financing and security assumptions. The alternative is a benchmark, not a change to our target. Include generation, networks, reserve capacity, fuel exposure and flexibility in both portfolios, rather than comparing reactor costs with a renewable project's generation-only price.

2050 DEMAND CASE	NUCLEAR SHARE	GW AT 90%	470 MW EQUIVALENTS
Falling Behind 559 TWh	40%	28.4	60
Falling Behind 559 TWh	60%	42.5	91
Holistic Transition 705 TWh	40%	35.8	76
Holistic Transition 705 TWh	60%	53.7	114
Electric Engagement 785 TWh	40%	39.8	85
Electric Engagement 785 TWh	60%	59.7	127
Hydrogen Evolution 797 TWh	40%	40.4	86
Hydrogen Evolution 797 TWh	60%	60.7	129

Capacity arithmetic uses a 90% annual fleet factor and rounds unit equivalents for comparison. Actual orders account for retirements, site capacity and outages. Appendix E records the assumptions; the Supply paper separately shows slower delivery and 80% availability sensitivities.

Translate every portfolio into annual factory deliveries, site starts, commissioning and energisation. Adding 40 GW between 2036 and 2050 implies about 5.7 completed 470 MW equivalents a year; publish the factory, labour, site and grid programme needed to support that throughput.

Before expanding beyond the initial conditional framework, independently challenge the manufacturing throughput, comparable unit cost and system value demonstrated. Keep the chosen ambition visible, but identify any gap between it and contracted capability. If affordability or deliverability fails, revise the future sequence and expose the reason. Existing obligations continue under their agreed terms.

Existing nuclear capacity and fuel security

Treat safe life extensions as part of the bridge programme

Create a station-level register of nuclear retirement dates, condition, feasible extension works and the latest date for an investment decision. Compare the dependable output gained with refurbishment costs, outage time and credible replacement commissioning dates. Give safe, economic extensions priority over creating a preventable supply gap. Their owners remain responsible for delivery and safety; there is no requirement to transfer existing stations to the mutual.

The March 2026 government response supports enabling nuclear lifetime extensions to access Contracts for Difference, with individual awards subject to value-for-money, subsidy-control and relevant regulatory assessments. This provides a policy route to examine, not an award to every station or proof that support is necessary. Inherit valid arrangements and appraise any new availability or revenue contract against the minimum support needed to secure additional useful life. [15]

Require affirmative safety and environmental approvals based on the plant’s actual condition. Planning reform can remove repeated or irrelevant processes, but it cannot make material degradation safe. Record the downside if extension is refused or a station closes early, and procure a feasible fallback. Do not count proposed life-extension capacity as certain in the adequacy plan.

Assess fuel and electricity shortages together

Model fuel and electricity jointly using the Supply paper’s demand-by-nuclear grid. Holistic Transition with 12 GW nuclear in 2040 requires about 250 TWh of gas electricity and 431 TWh of gas fuel at 58% conversion efficiency. Electric Engagement with the same nuclear ramp requires about 303 TWh electricity and 522 TWh fuel; the additional-demand-plus-delay stress requires about 535 TWh fuel. Size security options to the adverse cases and treat additional usable nuclear or renewable supply as relief. [16]

Test prolonged cold and low wind with restricted imports, an LNG terminal or pipeline outage, overlapping nuclear outages and delayed new capacity. Include competition for gas from heating and industry; a gas station is not dependable merely because its turbine is available. Assess nuclear fuel and critical spares, and coal stock and replenishment, over the relevant interruption period. Use joint scenarios that reflect physical correlations rather than summing unrelated worst cases.

Publish the resulting supply shortfall and the least-cost procurement response. Specify fuel readiness, replenishment performance and testing in availability contracts. Storage, stocks or redundant supply routes should receive payment for an identified security service where justified, with obligations and failure remedies. Interconnector contributions must reflect simultaneous neighbouring scarcity, not their maximum cable ratings.

Nuclear waste and the national disposal programme

Make the waste route part of the fleet plan

Treat spent fuel, radioactive waste, storage, transport and eventual disposal as physical dependencies of the fleet. Before each order tranche, publish a reactor-specific inventory and schedule showing expected waste classes, packaging, storage duration, transport interfaces and receiving facilities. Identify compatibility assumptions and unresolved design evidence. A capacity target cannot substitute for a waste route that can actually serve the intended reactor design.

The Nuclear Decommissioning Authority (NDA) retains its historical clean-up mission under the Energy Act 2004. Nuclear Waste Services (NWS) supplies existing waste-management and geological-disposal capability. The March 2026 NDA strategy describes a consent-based Geological Disposal Facility (GDF) programme. Preserve these functions and lawful commitments through the energy reforms; our proposal adds an integrated fleet interface rather than another disposal agency. [W1-W2]

Secure interim capacity and eventual access

The nuclear delivery body must agree the inventory and receiving-capacity programme with operators, NDA and NWS before relying on it. Secure licensed interim stores, qualified transport packages, handling capacity and an enforceable service or transfer route, with a funded fallback for disposal delay. Assess shared storage where it improves cost and resilience. Standardise packages only where technical acceptance supports it; physical space, transport permissions and regulatory capacity must be procured.

A repository need not be operating before every new reactor can commission where approved interim arrangements and a credible funded disposal route satisfy the applicable requirements. Equally, an assumed future repository cannot excuse missing storage or indefinite reliance on an unpriced public promise. Identify decision dates before the existing route fills or a contract expires.

Apply delivery reform to the questions it can settle

Use UK Build Reform for designated waste infrastructure, shared assessments and binding proportionality within scope. Preserve affirmative technical permissions and essential geological evidence. The current consent-based GDF siting policy remains unless expressly changed following a published policy and legislative decision. A faster reactor consent does not itself select a disposal site or remove a distinct host-consent commitment. Fund investigation, engineering and assessment capacity against staged evidence.

Funded closure and liability through ownership changes

Protect the operator provision

Require each new nuclear operator to maintain the approved Funded Decommissioning Programme under the Energy Act 2008, covering full decommissioning costs and its full share of waste management and disposal. Hinkley Point C provides an existing published example with separate waste-transfer arrangements; inherit its actual terms without treating them as a universal template or settled price for new SMRs. [W3-W4]

For new mutual assets, hold protected provision independently from unrestricted operating surplus and general group cash. Set contributions, asset eligibility, valuation, annual review and recovery rules before finance closes. Link contributions to liabilities accrued, including where revenues fall or operation ends early. The pool cannot borrow the protected provision to rescue another construction project, and customer rebates follow funded lifecycle obligations rather than precede them. Reconcile closure contributions, priced waste services, transport and delay contingencies with the financing illustration; it does not establish that all those obligations fit within £100 million. Distinguish fund contributions, subsequent expenditure and public infrastructure costs to avoid counting reserves and closure costs twice.

Make transfer and failure rules executable

An ownership transfer or refinancing must preserve the licensed operator, waste obligations and effective security until an authorised successor accepts them. Obtain all necessary consents, novations and receiving-service continuity. Test insolvency, early closure, poor fund performance, unavailable transport and delayed disposal. Identify who holds the money and who can draw it for the authorised purpose. An asset lock or parent assurance alone is insufficient.

New service and waste-transfer contracts must state acceptance criteria, dates, price adjustments, limits, excluded risks and the consequences of late availability. Price delay contingencies and any public risk-taking. Preserve inherited contractual rights and apply the programme compensation boundary to new agreements; no blanket state indemnity follows from operating a strategic plant.

Disclose the tail that remains public

Separately disclose any public duty, funding shortfall or residual liability that cannot credibly be covered by operators, including exceptional accident responsibilities under retained law and applicable conventions. Protected contributions are not proof that every public tail has disappeared. Obtain classification advice on the actual package of guarantees and transfer rights. Lower public borrowing today cannot justify hiding eventual clean-up costs.

Historical liabilities and waste delivery accountability

Keep the inherited estate separate from new fleet finance

Maintain a consolidated liability register distinguishing the historical NDA estate, existing station arrangements including the Nuclear Liabilities Fund, first public proving units and later mutual or private assets. Record the actual legal payer, available funds, contractual rights, gross cost, expected public cashflow and uncertainty for each category. The NDA 2026 to 2029 business plan identifies existing reactor-transfer and funding arrangements; stated target dates are not evidence that each transfer has completed. [W2]

Do not transfer historical liabilities into the mutual simply to improve public-sector presentation. Any proposed transfer needs independently assessed pricing, adequate funded provision, legal authority and acceptance of the resulting risks. Preserve historical agreements and permissions. Allocate shared facilities and enabling works transparently so neither new customers nor the Exchequer pay twice for the same service.

Assign one accountable interface without merging mandates

The energy minister owns the national waste and disposal policy and public funding settlement. NDA and NWS own their respective delivery responsibilities; station operators retain site and funded-closure duties. The nuclear programme director owns the fleet interface and exception timetable. The Infrastructure Secretary resolves designated consent disputes within the agreed law and technical findings. None can spend another institution's budget or waive an unresolved intolerable risk.

Within the first implementation year, publish the integrated waste-capacity and funding schedule alongside the fleet programme. Release later reactor tranches only when the relevant storage, transport and receiving-service milestones are executable. Report capacity available, inventory committed, permits, funded provision, construction slippage, cost changes and liabilities requiring intervention. Use independently reviewed assumptions and test repository and interim-store delay separately.

Enter the exposure in the shared register

Record historical public clean-up, additional shared waste infrastructure and first-build liabilities in Appendix E, with separate annual cash and contingent exposures. Use available audited accounts, official estimates and priced contracts, stating dates and uncertainty. Identify unresolved incremental costs without treating known liabilities as wholly uncosted. Separate operator-funded provision from public spending; an accounting provision is not a new appropriation. Reconcile inventories, facility schedules and service terms before relevant commitments depend on them.

Replacement gas and a smaller coal contribution

Secure gas capacity for the transition

Begin station-level gas retention assessments and owner tenders on taking office. Offer an initial five-year extension where engineering condition, emissions compliance, dependable availability and refurbishment cost justify it; retain private ownership. Use the constrained equipment-delivery case as

the procurement planning baseline and publish the first annual tranche decision by the middle of year one. [9]

Contracts will pay for defined refurbishment and available capacity, with inspection gates, outage allowances, testing, response obligations and remedies for non-delivery. A further five years requires another condition assessment and a priced overhaul. Stronger retention and faster new-build delivery remain sensitivities, rather than capacity assumed certain.

Maintain an asset-level retirement and condition register. Procure dependable capacity, not a predetermined technology. Choose between retention, combined-cycle turbines, open-cycle turbines, gas engines and coal at each order, from what can actually be obtained at that moment: manufacturer slots, global order backlogs and inventories, dated delivery offers, prices, connections and fuel. Use combined-cycle plant where its expected running hours justify its higher capital cost, and engines or open-cycle turbines for scarce-hour response. On the model's central costs a new combined-cycle unit needs roughly 1,350 hours a year to beat engines; at about £1,500/kW, near 2026 market prices, it needs about 3,500. Reserve dated equipment slots and secure gas-system access and supply resilience alongside generation contracts; an available turbine without fuel is not dependable supply.

Treat the equipment market as a binding constraint. In 2026 heavy-duty turbine makers were selling delivery slots for 2031–32, and engine makers reported lengthening delivery times while expanding capacity, largely because of data-centre demand. Equipment ordered on taking office cannot operate for about two to three years, so the first years rely on retained stations rather than new orders. Before the election, publish the equipment requirement and track slot availability. On taking office, place paid reservations and framework agreements for the first tranche under existing lawful powers, and transfer them to the mutual once it is established. A slot secured late cannot be recovered by faster consenting.

Prefer existing thermal sites and connections. Engines and open-cycle units can be added alongside operating stations or placed on closed coal and retiring gas sites where land, cooling, fuel and network capacity allow. The model counts engines in 100 MW blocks, not separate locations; a few dozen sites of 0.5–1 GW would host the central requirement. Retiring gas stations free only about 8 GW of connection capacity by 2040, against about 36 GW of new firm capacity in the central case, so designate the remainder as strategically needed under the reformed connections process. Price new connections explicitly: the model's engine costs assume well-connected sites.

Include selected strategic new gas assets in the mutual programme. Existing privately owned stations retain their ownership and may compete to provide service. Contracts should fund the availability required while keeping dispatched fuel costs and efficiency obligations explicit. Coordinate storage and gas-system resilience. Domestic extraction may improve supply security, but traded gas does not become cheap by being produced in Britain.

Build a bounded coal fleet with changing operating roles

Procure a first modern coal-fired station for regular generation during the nuclear build-out, with further stations released through the annual system plan. The explorer uses four 2 GW stations as an initial planning illustration, not four unconditional orders. Compare additional coal where gas equipment or fuel delivery leaves an unresolved gap. Coordinate suitable domestic coal production, stockpiling and import fallback with each station's requirements.

Assign coal roles by station and year. Some stations may provide regular output and a sustained fuel customer in the 2030s and 2040s while others support balancing; increasing nuclear output can progressively move capacity into reserve. Availability contracts must fund the maintenance, stocks and start capability required. Neither continuous operation nor a fixed fleet-wide reserve date is guaranteed.

Plan for substantial annual output, allowing for maintenance and operational flexibility. Regular operation is the planning intention, not a guaranteed minimum dispatch: actual generation should respond to system needs and costs as nuclear expands. Price credible fuel purchase commitments and any minimum-volume exposure explicitly. Mining remains privately owned and financed; the station's stockpile, replenishment and handling arrangements form part of its security service.

Coal imports alone do not establish the case for new electricity generation. Coal grades and end uses differ; metallurgical or industrial demand is not proof of demand for thermal power-station fuel. Compare gas, coal and other alternatives on the same system service. Count fuel specifications, transport, ash management, air-pollution controls, cooling, equipment availability and connection works. Require a project programme before claiming that coal is the fastest answer to an imminent shortage.

Before a coal order, publish a site-specific comparison with gas refurbishment, new gas and other feasible means of delivering the same service. Obtain dated equipment and construction offers, a technically suitable fuel plan and priced connection works. Include finance, carbon exposure, pollution controls, lifecycle liabilities and the cost of any effect on pooled borrowing. Identify the security benefit and earliest credible operation date. An independently reviewed result must justify both the project and its place within a published smaller coal capacity and spending envelope.

Make the necessary legal changes explicit

Reopening coal requires an express change to national energy planning policy and the Energy Act 2013 emissions performance standard, with connected regulations and permitting rules. Repeal of the Climate Change Act alone does not provide that route. The legislative settlement below specifies the changes and preserves necessary nuclear and contractual functions. Investors must be able to identify the permissions, operating envelope and costs applicable to the plant. [10, L1–L2]

Apply UK Energy Reform Programme Annex Appendix C's carbon settlement to the coal appraisal and its financing assumptions.

Delivery reform and the construction timetable

Use the infrastructure framework already proposed

Apply UK Build Reform to generation and enabling works, with the proposed Secretary of State for Infrastructure and Delivery resolving designation, integrated consents and cross-government disputes. Energy ministers retain programme policy and budgets. The nuclear delivery body remains accountable for fleet procurement, sites and supply-chain delivery; the mutual remains responsible for its commercial commitments. Public, mutual and private promoters use the same readiness tests.

National designation should settle strategic need, assessed common questions and approved envelopes. Integrate scheduled permissions and land powers. Our proposed service standards are 30 calendar days for validation and ordinary consultee response, six months for qualifying repeat-project

consent and twelve months for other designated projects. An overdue decision transfers to the national decision-maker for a final decision within 60 calendar days, subject to the defined extension procedure. These are our proposed legal duties.

An approved standard changes the burden of justification

Once conformity is demonstrated, an authority may require more only on evidence of a material uncovered risk, material new evidence or deficient application. It must establish the incremental improvement, full cost including delay and disruption to fleet repetition, and feasible alternatives. A condition that fails the statutory necessity and proportionality test cannot be imposed. Binding technical merits appeals can remove or replace unjustified requirements.

Site-specific hazards and essential nuclear safety permissions still require affirmative examination. The regime should prevent re-litigation of settled design matters without treating one approved design as a certificate for every site. UK-wide strategy requires jurisdiction-specific implementation, including an explicit Welsh permissions map at Wylfa. The March 2026 government response to the Nuclear Regulatory Review is part of the inherited reform baseline, rather than evidence that these proposed powers already exist. [11]

Measure the part of the timetable that rules can change

Publish the critical path from first engagement to operation, distinguishing assessment and waiting from design, manufacture, ground works, assembly, testing and commissioning. Overlap feasible tasks and carry valid evidence forward; retain necessary engineering work.

Make grid energisation a dated, funded dependency. A retired thermal site’s previous connection is not automatically available or technically suitable for its replacement. Confirm land rights, water, cooling, network studies and reinforcement scope before treating a brownfield location as ready. Use connection obligations and remedies from UK Electricity Market Reform, with a recovery decision when delivery slips.

Sustain the workforce and manufacturing programme

Procure training and certification capacity alongside fleet orders. Establish regional routes for apprentices and transfers from offshore engineering, shipbuilding and heavy civil works. Qualification must match the work, including weld traceability, inspection and commissioning. Stagger site phases to retain experienced teams. Volume commitments should support factory investment while preserving remedies for poor performance; continuity must not become an unlimited vendor guarantee.

Classification public costs and investment discipline

Settle the statistical structure before selling its benefits

Seek early Office for National Statistics advice on the final constitution, group structure, public purchasing contracts, loss allocation and intervention powers. The relevant issue is substantive control, including rights that need never be exercised. Corporate separation, an asset lock and an independent board do not alone settle the result. Reassess material changes to guarantees, covenants or government rights. [1]

A public purchaser is compatible with private counterparties, but an exclusive relationship with restrictive commercial controls must be assessed on its terms. The mutual needs real discretion to reject unfinanceable projects and to manage its business. Public policy can specify the service purchased without silently turning every commercial choice into a ministerial direction. Classification advice is not a perpetual exemption from later review.

If the chosen safeguards cause public classification, retain the mutual's independent governance, asset lock and surplus-retention purpose. Treasury must accommodate the investment and financing within the applicable public fiscal framework, distinguishing capital investment from current expenditure and reporting borrowing, depreciation, interest and consumer-funded contract revenues appropriately. Capital treatment does not exclude investment from total public borrowing or balance-sheet constraints. Public classification changes fiscal treatment; it does not by itself require abandoning the mutual ownership model. Disclose the result and redesign genuinely excessive control where appropriate, without weakening essential security safeguards solely to obtain a preferred accounting label.

Publish one fiscal plan across the energy programme

Treasury maintains UK Energy Reform Programme Annex Appendix E's consolidated cashflow and public-exposure register. Apply its shared release test before the relevant project or tranche commitment; record public spending, receipts, liquidity and contingencies separately from commercial purchases.

Stress cost overruns, delayed operation, low demand, refinancing failure, correlated outages and purchaser distress. Include future restoration of carbon constraints, reduced fossil dispatch and earlier retirement, with effects on pooled debt and insurer eligibility. Specify allocation of carbon costs and change-in-law risk in revenue and fuel contracts; provide no automatic indemnity against future regulation. Identify who pays and authorised public exposure. Fund decommissioning, waste and restoration obligations from operations and preserve them through transfers.

Protect contracts without guaranteeing every profit

The contract-stability and compensation rules in UK Energy Reform Programme Annex Appendix B apply.

Publish total system cost, cost of capital and public downside alongside household prices. Finance payments and mutual reserves remain costs of delivering electricity, even where they are lower than under an alternative structure. Report benefits from reduced fuel exposure or improved reliability separately from transfers between taxpayers and customers.

Use a decision test investors and the public can inspect

No major order proceeds without an independently challenged need case, consent and connection route, executable construction terms, funded loss capacity and a financeable revenue offer. Where a strategic capability justifies a public contribution, authorise and price it explicitly. Failure to meet a test triggers a remedy, a smaller commitment or a refusal; it must not simply generate another optimistic commissioning date.

Implementation from taking office

Preparation and the first year

Audit the inherited nuclear programme, signed support contracts, nuclear life-extension options, thermal fleet condition, joint fuel and electricity stress scenarios, network dates and demand pipeline. Distinguish committed industrial loads from speculative connection applications. Government acknowledges uncertainty in data-centre demand; use central and stress cases rather than one artificial intelligence forecast. [12]

Prepare the mutual constitution and resolution regime, commission classification advice and price senior and junior funding. Prepare independent membership and board selection, conditional orders and paid reservation terms, and place the first gas equipment reservations under existing powers on taking office. Establish the statutory mutual after its enabling legislation and readiness tests; earlier preparation and public proving work use existing lawful powers. Introduce the legislative programme in Programme Annex Appendix F. The 2013 and 2023 energy amendments, replacement duties and coal enabling provisions follow the relevant Energy Objectives Repeal and Replacement and Sovereign Grid and Energy Delivery legislation and commencement conditions. Preserve inherited permissions, contracts and settlement systems while consolidating public costs before new spending.

Years one to three

Tender viable gas retention and new equipment against the dated gap to the three-hour reliability standard, using constrained delivery as the planning case and choosing technology from the equipment obtainable at each order. Prepare the first coal procurement and conditional follow-on tranches with site, fuel, connection and legal appraisal. Rebaseline inherited nuclear projects and release repeat orders against the proving evidence; align factory slots, skills and grid work. Report any remaining normal-weather and stress-case supply gaps separately, with a funded recovery decision.

Execute the first mutual financings where the conditions are met. Do not wait for an entire nuclear fleet to operate if financeable thermal or other eligible operating assets can establish the portfolio earlier. Equally, do not buy an existing asset simply to create the appearance of a cashflow base. Acquisition price, inherited liabilities and the effect on capacity must pass independent appraisal.

Years three to five and the later fleet

Commission projects that are genuinely ready, refinance qualified assets and place repeat nuclear orders as evidence supports them. Publish which projects are expected to operate by year five, which should be in construction and which require a longer horizon. The initial Wylfa ambition points to the mid-2030s; reform may improve that schedule, but a first-term completion commitment requires a defensible project programme. [5]

Maintain a rolling 15-year nuclear commissioning programme within the wider system plan. Distinguish its capacity scenarios from contracted milestones. Build-rate acceleration follows proven manufacture, labour productivity, site throughput and usable connections. Annual review can revise future orders while preserving contracts already made. The long-term nuclear ambition should discipline preparation and industrial scale, without obliging the purchaser to ignore later evidence about demand or cost.

Report the outputs that matter

MEASURE	REQUIRED DISCLOSURE
Useful supply	Capacity commissioned and connected; output and availability under the defined system service.
Repeat delivery	Cost, duration, labour hours and rework per comparable nuclear unit, with scope reconciliation.
Finance	Pooled and standalone terms, debt coverage, reserve adequacy and construction cross-support.
Public exposure	Expenditure, guarantees, contingent purchasing liabilities and stress-case losses.
Control and service	Governance changes, creditor enforcement, security dependencies and customer benefits delivered.

Legislative settlement for generation

Permit the approved supply programme

Apply UK Energy Reform Programme Annex Appendix C's repeal and replacement objectives to generation permissions and procurement. Public or mutual status provides no exemption from the project appraisal.

Amend or replace Part 2 Chapter 8 of the Energy Act 2013, including sections 57–62, associated schedules and regulations, so its annual carbon limit does not prevent an approved station supplying its contracted service. Specify the prospective operating envelope, commencement and transition in legislation; emergency waivers are not a durable financing basis. Change the national planning exclusion of new coal and map coal phase-out, permitting and capacity-market restrictions. Do not assume all are removed by amending one provision. [10, L2]

Apply the carbon tax settlement

Apply Programme Annex Appendix C's carbon tax settlement, replacing the UK ETS with a £10 per tonne CO2e carbon tax and abolishing UK CBAM, targeting the transition at the start of year two. Compare generation on common £10 carbon tax assumptions and test delay and reversal. Replacing higher ETS prices with the £10 carbon tax improves fossil generation's relative economics; the nuclear case must demonstrate repeat-build costs, dependable output, fuel security and reduced gas-price exposure. Disclose any additional cost of strategic nuclear procurement.

Preserve functions needed for construction and operation

Apply UK Energy Reform Programme Annex Appendix C's nuclear, assessment and territorial continuity rules. Retain the asset-specific pollution, water, safety and waste duties required for the approved operating service.

Thermal permits availability and funding conditions

Make the permitted operating model financeable

The 2025 decarbonisation-readiness amendment adds permit requirements for relevant new and substantially refurbished combustion generators in England. Amend that condition in the 2016 permitting regulations so mandatory proof of a future hydrogen or carbon-capture route does not block the approved supply programme. Assess future conversion options for their expected benefit and total cost; procure useful provisions without requiring a speculative conversion plan for every station. Retain air-pollution, water and safety duties, and map the different Welsh and other territorial rules. [N1]

Address emissions eligibility under the Electricity Capacity Regulations 2014 and Capacity Market Rules before assuming coal availability revenue. Revise the applicable route or establish another express statutory purchasing mechanism. Preserve current agreements and comparable performance tests. A station must have a lawful operating envelope and a revenue contract compatible with that envelope. Planning approval alone supplies neither. [N2]

Resolve carbon costs before a major order

Before each major gas or coal commitment, settle the assumed closure date, costs before and after the tax transition, overseas exposure and contractual allocation of delay or reversal. Obtain financeable terms or resize the order; the first-year work implements the carbon tax and scheme closure.

Keep nuclear liabilities and revenue collection explicit

Review the Nuclear Energy (Financing) Act 2022, its revenue-collection regulations and relevant licences where assets or contracts enter the mutual. Maintain inherited revenue arrangements and avoid charging twice for the same service or liability. Map Energy Act 2008 funded-decommissioning duties across project companies, associated group entities and creditor enforcement. Independent mutual governance must coexist with legally funded closure, rather than transfer an unidentified liability to taxpayers or senior bondholders. [N5]

Use Other Energy Sources and Storage for wider resource appraisal, UK Energy Reform Programme Annex Appendix C for fiscal and retained-policy boundaries, and UK Electricity Market Reform for the transaction and service-allocation schedules.

What this paper does not claim

Mutual ownership does not guarantee low yields, private classification or successful construction. Fleet sizes and finance figures are analytical cases; orders need funded delivery, loss capacity and revenue.

Sources and policy status

Evidence is assessed as at 11 October 2026. Numbered sources support the factual baseline. The mutual constitution, financing limits, ownership safeguards, infrastructure service standards and procurement decisions in this essay are our proposals. The capacity arithmetic is illustrative and should not be read as a forecast. The programme begins on taking office.

[1] Office for National Statistics. Statistical classification to the public sector. 8 July 2024.

https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/publicsectorfinance/methodologies/statisticalclassificationtothepublicsector

[2] Dwr Cymru Welsh Water. Glas Cymru company structure. Current corporate description.

https://corporate.dwrcymru.com/en/about-us/company-structure/glas-cymru

[3] Dwr Cymru Welsh Water. Environmental Social and Governance. Acquisition history and governance.

https://corporate.dwrcymru.com/en/about-us/investors/environmental-social-and-governance

[4] UK Government. UK SMR programme at Wylfa hitting target for British contracts. 24 June 2026.

https://www.gov.uk/government/news/uk-smr-programme-at-wylfa-hitting-target-for-british-contracts

[5] Department for Energy Security and Net Zero. Advanced Nuclear Technologies. Deployment ambition and programme background.

https://www.gov.uk/government/publications/advanced-nuclear-technologies/advanced-nuclear-technologies

[6] Prudential Regulation Authority. SS7 18 Solvency II Matching adjustment. Current October 2025 version and future version effective 31 December 2026.

https://www.bankofengland.co.uk/prudential-regulation/publication/2018/solvency-2-matching-adjustment-ss

Further sources

[7] Prudential Regulation Authority. PS17 25 Matching Adjustment Investment Accelerator. Rules effective 27 October 2025.

https://www.bankofengland.co.uk/prudential-regulation/publication/2025/october/matching-adjustment-investment-accelerator

[8] Environment Agency and nuclear regulators. New nuclear power stations assessing reactor designs. Current design assessment guidance.

https://www.gov.uk/guidance/new-nuclear-power-stations-assessing-reactor-designs

[9] Department for Energy Security and Net Zero. Clean Power 2030 Action Plan main report. Published plan including the retained gas capacity requirement.

https://www.gov.uk/government/publications/clean-power-2030-action-plan/clean-power-2030-action-plan-a-new-era-of-clean-electricity-main-report

[10] Department for Energy Security and Net Zero. Overarching National Policy Statement for energy EN 1 2025. Coal exclusion from the national need case.

https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1-2025/overarching-national-policy-statement-for-energy-en-1-2025-accessible-webpage

[11] UK Government. Building our nuclear nation Government response to the Nuclear Regulatory Review 2025. 13 March 2026.

https://www.gov.uk/government/publications/building-our-nuclear-nation-government-response-to-the-nuclear-regulatory-review-2025

[12] UK Parliament. Written question 8371 on data centre electricity demand. Answered 17 June 2026.

https://questions-statements.parliament.uk/written-questions/detail/2026-06-09/8371

Programme sources and companion papers

[13] Department for Energy Security and Net Zero. Advanced Nuclear Framework. Published February 2026. Private project assessment and potential support mechanisms.

https://www.gov.uk/government/publications/advanced-nuclear-framework/advanced-nuclear-framework-accessible-webpage

[14] Onward. Up and Atom Unlocking SMRs and Large Nuclear. 1 October 2026. Fleet procurement, Wylfa site options and public first-build funding.

https://ukonward.com/reports/up-and-atom/

[15] Department for Energy Security and Net Zero. Financial support for nuclear lifetime extensions Government response to consultation. Updated 5 March 2026.

https://www.gov.uk/government/consultations/financial-support-for-nuclear-lifetime-extensions/outcome/financial-support-for-nuclear-lifetime-extensions-government-response-to-consultation-accessible-webpage

[16] Kathryn Porter Watt Logic. Gas security The foundation of energy security. 27 September 2026. Joint gas and electricity security assessment.

https://watt-logic.com/2026/09/27/gas-security-the-foundation-of-energy-security/

The numerical financing comparison uses declared analytical assumptions and standard capital-recovery arithmetic. It is not attributed to any of the cited bodies. The fifteen-unit conditional procurement envelope, financing safeguards and operational sovereignty requirements are our proposals; comparator recommendations are identified where discussed.

Electricity Supply through the Transition is the standalone quantitative evidence paper for demand, nuclear ramps, thermal energy and fuel security. UK Energy Reform Programme Annex holds common rules and the assumptions register; the market, legacy, extraction, fracking and build papers define their sector implementation.

Shared legislative sources appear in UK Energy Reform Programme Annex.

Further legislative sources

[N1] Environment Agency. Decarbonisation readiness in environmental permit applications. Current guidance for relevant applications in England from 28 February 2026, under the 2016 permitting regulations as amended in 2025.

https://www.gov.uk/government/publications/decarbonisation-readiness-in-environmental-permit-applications/decarbonisation-readiness-in-environmental-permit-applications

[N2] UK Government. Capacity Market rules amendments to improve auction liquidity government response. Explains the separate emissions eligibility restriction for unabated coal from October 2024.

https://www.gov.uk/government/consultations/capacity-market-rules-amendments-to-improve-auction-liquidity/outcome/capacity-market-rules-amendments-to-improve-auction-liquidity-government-response

[N5] UK Parliament. Nuclear Energy Financing Act 2022 explanatory notes. Regulated asset base revenue arrangements, funded decommissioning under the Energy Act 2008 and creditor safeguards.

https://www.legislation.gov.uk/ukpga/2022/15/notes/division/3/index.htm

[W1] Nuclear Decommissioning Authority. Strategy effective March 2026. Historical mission and consent-based geological disposal programme.

https://www.gov.uk/government/publications/the-nda-group-strategy-effective-from-march-2026/the-nda-group-strategy-effective-from-march-2026

[W2] Nuclear Decommissioning Authority. Business Plan 2026 to 2029. Planned reactor transfers and historical funding arrangements.

https://www.gov.uk/government/publications/nuclear-decommissioning-authority-group-business-plan-2026-to-2029/nda-business-plan-2026-to-2029

[W3] Department for Energy Security and Net Zero. Hinkley Point C Funded Decommissioning Programme and waste-transfer documents.

https://www.gov.uk/government/publications/hinkley-point-c-funded-decommissioning-programme

[W4] UK Parliament. Energy Act 2008 Part 3. Funded decommissioning and relevant technical matters.

https://www.legislation.gov.uk/ukpga/2008/32/part/3