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REGULATORY ASSISTANCE PROJECT

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Empowering regulators for emerging challenges

A policy brief for the Clean Energy Ministerial campaign on Empowering Regulators for Accelerated Decarbonisation

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Introduction[1]

Electricity systems today are undergoing structural change at a speed that current regulatory frameworks are unable to accommodate. Against this fast-transforming background, energy regulators are expected to enable new technologies and market structures, to support investment on an unprecedented scale, and to do so while safeguarding affordability, resilience and security of supply. Their capacity to achieve these aims depends on the strength and coherence of the institutional framework within which they must operate: a clear mandate, sound governance and independence, the support of government and sister agencies, qualified staff, effective decision-making processes, financial stability, up-to-date regulatory instruments and reliable data are all essential elements to have in place.

The Clean Energy Ministerial campaign on Empowering Regulators for Accelerated Decarbonisation (hereafter "the Campaign") rests on the premise that a substantial part of the existing gap between decarbonisation commitments and their delivery is due to the institutions responsible for translating those commitments into licences, tariffs, codes and approvals. The

[1] The authors would like to express their sincere appreciation to the following RAP colleagues who provided helpful insights into earlier drafts of this report: Richard Sedano, Rebecca Wigg, Alejandro Hernández, and Poullette Faraon.

Campaign's 2025 brief, *Pathways for Empowering Regulators to Advance Decarbonisation*, sets out six steps through which governments can close this gap. The second of these is diagnostic and poses three key questions: which institutions hold jurisdiction over regulation related to decarbonisation; whether the regulator has the statutory support required to carry out the tasks assigned to it; and whether it has the capacity to take those tasks on.[2]

This brief focuses on that second diagnostic step, and reports on how it is being applied in real-world contexts. It does this through the lens of the Regulatory Institutional Energy Transition Health Check (hereafter "the Health Check"), which has been developed by the Regulatory Assistance Project (RAP) in collaboration with the Regulatory Energy Transition Accelerator (RETA) and the Campaign. The Health Check is a voluntary review of whether a regulator has the mandate and the institutional capacity required to deliver its responsibilities, and focuses on institutional readiness rather than regulatory outcomes. Its outputs are intended for the regulator's internal use, and it is neither a ranking nor a compliance audit.

The first assessments, carried out in 2026, allow the ideas behind the Campaign to be tested against real evidence gathered within regulatory institutions and from the stakeholders who engage with them. The findings both confirm the Campaign's premise and further refine it: of the three diagnostic questions posed, the assessments reveal that the third requires most attention. Broadly speaking, the regulators assessed are aligned with national goals and operate within frameworks that appear adequate on paper, but they lack the staff, processes and information systems required to apply them.[3]

[2] Gutierrez Tavarez, L.E., & Hernández, A. (2025, August). *Pathways for Empowering Regulators to Advance Decarbonisation*. Regulatory Assistance Project (RAP) for the Clean Energy Ministerial, Section 2. https://www.cleanenergyministerial.org/resource/pathways-for-empowering-regulators-to-advance-decarbonisation/.

[3] Findings attributed to the Health Check assessments are drawn from RAP's Health Check work in 2026. As the outputs of the process are intended for the regulator's internal use, regulators and countries are not identified, and findings are presented as cross-cutting patterns. Regulatory Assistance Project (RAP). (2026, 27 March). *Regulatory Institutional Energy Transition Health Check*. https://www.raponline.org/knowledge-center/regulatory-institutional-energy-transition-health-check/

Executive summary

- **Regulatory readiness has a vital role to play in the energy transition.** Mandates and institutional capacity do not adapt automatically as the power system changes. Where they fail to keep pace with change, policy ambition will be constrained at the implementation stage; emerging challenges such as resilience are adding further urgency to the process.
- **The binding constraint is more often one of capacity than of framework design.** The regulators assessed are broadly aligned with national goals, and their frameworks mostly appear adequate on paper. What is missing is the institutional capacity to apply them.
- **An expanded mandate requires an expanded institution.** Earlier research by RAP and RETA found that only two of 25 regulators interviewed had an explicit decarbonisation mandate. Even where new objectives have been adopted, organisational structures, planning processes and funding models have not kept pace.
- **Staff capacity is the main factor behind readiness.** Understaffing and shortages of specialist skills are compounded by pay scales that cannot compete with the private sector and by a limited transfer of knowledge to newer staff. Workforce planning should be a central element of institutional strategy, rather than being treated as an administrative function.
- **The quality of decision-making depends on staff capacity.** Where analytical capacity and requisite skills are limited, decisions may be delayed and poorly thought through, and stakeholders may not see how their input has influenced the outcome.
- **Regulatory instruments and data have not kept pace with change in the power system.** Tariff methodologies and codes are often reviewed only when a problem arises, new market actors frequently have no clear regulatory category, and information management is generally weak across institutions.
- **Diagnosis is valuable to the extent that it leads to action.** The value of an assessment lies not in a score but in the conversion of institutional gaps into a roadmap owned by the regulator, with clear priorities, responsibilities, resources and timelines against which progress can be measured.

Why regulatory readiness matters now

The demands placed on regulators have increased across several areas. The International Energy Agency (IEA) estimates that more than 2,500 GW of renewable, storage and large-load projects are stalled in grid connection queues worldwide, and that annual grid investment, at around USD 400 billion today, needs to rise by roughly 50% by 2030.[4] Flexibility resources such as storage and demand response are entering markets that have not created clear licensing categories for them. In March 2026, the EU Agency for the Cooperation of Energy Regulators (ACER) recommended that national regulators report on the barriers to flexibility in their markets.[5] Addressing these issues will require regulatory decisions, which have implications for the price and reliability of supply as well as for emissions.

Figure 1. The magnitude of challenges facing regulators today

2 of 25

regulators interviewed by RAP and RETA in 2023 had an explicit decarbonisation mandate

24 of 29

European regulators were given new tasks under 2022–2023 emergency legislation; nine received no additional staff or funding

2,500 GW+

of renewable, large-load and storage projects are stalled in grid queues worldwide

Regulatory mandates have not evolved at the same pace as these demands. Research by RAP and RETA covering 25 regulatory agencies across eight regions found that only two had an explicit decarbonisation mandate, and that most were addressing decarbonisation within mandates centred on just and reasonable tariffs and a reliable and affordable supply.[6] A broad interpretation of such objectives exposes a regulator to legal challenges, while a narrow interpretation may delay decisions that most stakeholders regard as necessary.

[4] The IEA's World Energy Investment 2025 puts spending on grids at around USD 400 billion a year, against roughly USD 1 trillion on generation. International Energy Agency. (2026). *Electricity 2026*, Grids chapter. https://www.iea.org/reports/electricity-2026/grids. The figures on grid and generation spending are from International Energy Agency. (2025). *World Energy Investment 2025*, Executive summary. https://www.iea.org/reports/world-energy-investment-2025/executive-summary

[5] European Union Agency for the Cooperation of Energy Regulators (ACER). (2026, 19 March). *Recommendation No 01/2026 on NRAs' reporting on barriers for non-fossil flexibility*. https://www.acer.europa.eu/sites/default/files/documents/Recommendations/ACER-Recommendation-01-2026-NRAs-reporting-barriers-to-flexibility.pdf

[6] Hernández, A., Fraser, P., Faraon, P., & Gutierrez Tavarez, L.E. (2024, March). *Elevating the Priority of Decarbonization in Energy Regulators' Decision Making*. Regulatory Assistance Project (RAP) and Regulatory Energy Transition Accelerator. https://www.raponline.org/knowledge-center/elevating-priority-decarbonization-energy-regulators-decision-making/. Interviews were conducted between 24 July and 6 October 2023. The number of regulators with an explicit decarbonisation mandate is reported in Gutierrez Tavarez, L.E., & Hernández, A. (2024, October). *Empowering Regulators to Tackle Decarbonisation*. Regulatory Assistance Project (RAP) and Regulatory Energy Transition Accelerator. https://www.raponline.org/wp-content/uploads/2024/09/RAP-gutierrez-tavarez-empowering-regulators-to-tackle-decarbonisation-Oct-2024.pdf

Resources have likewise not increased in line with the growth in responsibilities. In 2024, the Council of European Energy Regulators (CEER) reported that 24 of 29 regulators surveyed had been given new tasks under emergency energy legislation, but that nine of them received no additional staff or funding and three received resources they considered insufficient.[7] Beyond Europe, the World Bank's Global Electricity Regulatory Index, covering 82 non-OECD countries, found that in only 31% of the countries assessed[8] were regulatory staff wages competitive with those of the private sector utilities they regulate. Similarly, the International Renewable Energy Agency (IRENA) has noted the need to develop institutional and human capacities among those who oversee the energy sector, including regulators.[9]

The need for system resilience has broadened the knowledge expected of regulators. For most of the past decade, security of supply in regulatory practice largely meant ensuring adequacy – that is, having sufficient capacity to meet peak demand. Drawing on lessons from Russia's war on Ukraine, the IEA now defines resilience as the capacity to prepare for disruption, to withstand shocks while maintaining operations, and to restore service rapidly. It also calls for risk assessments involving system operators, regulators and energy ministries, with legal frameworks, decision protocols and in-house technical capacity established before a crisis.[10] The expert panel convened by the European Network of Transmission System Operators for Electricity (ENTSO-E) to review the April 2025 blackout in Spain and Portugal similarly called for closer coordination and data exchange among power system actors, and for regulatory frameworks to adapt to the evolving nature of the power system.[11] Coordination of this kind depends on the regulator having the authority to highlight risks that require action from several institutions, and to require a response: if it is not able to do this, a risk may remain unaddressed until it is too late.

Institutional readiness therefore shapes the way in which competing objectives are resolved. A regulator with a clear mandate and predictable funding, supported by appropriate skills and access to data, is able to assess whether a network investment that improves resilience also reduces curtailment of renewables and lowers long-run costs. A regulator without these

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[7] Council of European Energy Regulators (CEER). (2024, 3 October). *How NRA Independence Is Safeguarded as NRA Competences Keep Expanding*. https://www.ceer.eu/publication/how-nra-independence-is-safeguarded-as-nra-competences-keep-expanding/. Data as of June 2024, covering 29 of 30 CEER member countries.

[8] Ngulube, M. (2023, 6 February). How solid are regulatory frameworks for the power sector in developing countries? *World Bank Blogs*. https://blogs.worldbank.org/energy/how-solid-are-regulatory-frameworks-power-sector-developing-countries. The post draws on the Global Electricity Regulatory Index (2021 data). The index scores rules as they appear on paper (de jure), not necessarily as implemented in practice. OECD refers to the Organisation for Economic Co-operation and Development.

[9] International Renewable Energy Agency (IRENA). (2024, July). *Key Enablers to Triple Renewables by 2030: Skills and Capacities*. https://www.irena.org/News/articles/2024/Jul/Key-Enablers-to-Triple-Renewables-by-2030-Skills-and-Capacities

[10] International Energy Agency. (2026). *Energy System Resilience*, Executive summary. https://www.iea.org/reports/energy-system-resilience/executive-summary.

[11] ENTSO-E Expert Panel. (2026, 20 March). *Final Report on the Grid Incident in Spain and Portugal on 28 April 2025*. European Network of Transmission System Operators for Electricity. https://www.entsoe.eu/publications/blackout/28-april-2025-iberian-blackout/

foundations is more likely to decide on the basis of the most immediate pressure, typically the short-term effect on tariffs, leaving the longer-term costs to be borne by consumers.

Findings of the first Health Check assessments

The assessments combined a review of documentation with structured interviews with the regulators' management and staff, as well as with external stakeholders, including network companies, generators, industry associations and independent analysts. Overlapping questions allowed internal and external accounts of the same institution to be compared, and several of the findings below derive from that comparison. Focus areas were agreed with each regulator at the scoping stage, drawing on eight institutional building blocks: legal mandate and authority, governance and institutional independence, alignment with national goals, regulatory decision-making processes, financial health, human capital, regulatory instruments and data management, and stakeholder engagement.[12] The work was qualitative and covered a limited number of regulators; it therefore describes patterns rather than measuring them.

The patterns are consistent across the prioritised areas. They do not in themselves indicate institutional failure; rather, they reflect the fact that the responsibilities of the institutions are expanding more rapidly than their capacity. Table 1 below sets these findings against the campaign's earlier analysis. In each area, the recent assessments build on that analysis and locate the constraint more precisely: the issue is less in the design of the regulatory framework than in the institutional capacity to apply it. The subsections that follow are ordered by the significance of the constraint; observations on stakeholder engagement are reflected in Section 2.2, and those on governance and independence in Section 2.3.

[12] Findings are validated with the regulator, and recommendations are framed as practical interventions that the regulator owns.

Table 1. Earlier analysis and Health Check evidence compared

Area	Earlier analysis (2025)	Health Check evidence (2026)	Recommendations
Human capital	Expanding a remit without assessing capabilities and adjusting staff risks inefficient decision-making.	Understaffing in functions central to the transition, missing specialist skills, uncompetitive salaries, and knowledge held by individuals.	Treat workforce planning, succession and skills development as core institutional requirements, and fund them as such.
Decision-making	Regulators need processes suited to forward-looking questions, including structured stakeholder processes and scenario-based planning.	Decision quality suffers where analytical capacity is short: thin reasoning, uneven standards, layered approvals and little visible response to comments.	Strengthen quality assurance and risk-based approval, and give forward-looking questions a defined route into procedure.
Mandate, alignment and financing	Governments should define the regulator's role explicitly and provide political cover and resources.	Regulators are broadly aligned with national goals, but structures, planning processes and funding models have not caught up with changing remits.	An expanded mandate needs an expanded institution, and a funding model that keeps pace with market structure.
Instruments and data	Gaps between policy and regulatory instruments should be identified and closed, and progress tracked.	Many rules, methodologies and codes need updating; information management is among the weakest institutional capabilities.	Review instruments on a defined cycle, and establish information governance before pursuing digitalisation.

Human capital: the principal constraint

Human capital is the most significant organisational constraint, with understaffing among the most consistent themes across the interviews. The functions most exposed to the transition, such as market oversight and strategic planning, are frequently run by very small teams.

The skills profile has not kept pace with the work required. A workforce assembled for tariff review and licensing is now expected to oversee competitive markets, distributed resources and digital systems: this calls for power system engineers, market economists, and specialists in data analysis and cybersecurity. It is hard to recruit into these roles, as salaries cannot compete with those of the private sector, and there is only a limited national pool of experienced specialists.

Four further patterns are clear:

- **Knowledge is concentrated in individuals.** Limited succession planning and a lack of knowledge-transfer mechanisms mean that institutional memory is lost when experienced staff depart.
- **Structures have not been reviewed against the new work.** Organisational structures, control functions and the allocation of staff still reflect an earlier mandate. Some teams are doing work they were not designed for, while others are supervised too thinly to develop.
- **Training depends on projects rather than plans.** Structured professional development for existing staff is uncommon. Training tends to be provided through externally funded technical assistance that ends when a project ends: this leaves institutional capacity development uneven and uncontrolled.
- **Expertise is purchased rather than developed.** External specialists provide valuable input where specialist knowledge is required, and several regulators use them effectively. However, this often also means that the institution does not retain what it learns, and must purchase the same knowledge again on future occasions.

Workforce planning is key to the successful delivery of an expanded mandate. It should be developed as part of institutional strategy, alongside the regulatory work programme it supports, rather than treated as an administrative function.

Decision-making: quality, timeliness and the capacity for improved process

Formal decision-making processes are generally established, documented and grounded in legislation and published methodologies. However, they come under strain as workload and complexity increase: this is evident in the quality and timeliness of decisions, and in the extent to which stakeholders can discern their own influence on outcomes.

Where analytical capacity is limited, the technical evidence and the policy and legal reasoning behind some decisions are not sufficient, and drafting standards vary between departments without a consistent quality check before approval. Submissions have been reaching governing bodies late, while multiple approval layers and repeated revision lengthen decision cycles without addressing underlying weaknesses. A comprehensive process is not necessarily a reliable one, and in a period of rapid market change, slow and uncertain decisions are likely to hinder investment.

A further concern is that stakeholders are not able to see how their input to consultations is treated. If revised drafts do not show how comments have been considered, stakeholders tend to

repeat the same arguments in successive consultation rounds. This reinforces the view that consultation cannot change an outcome, which may weaken confidence in the process even where the eventual decision is sound.

Capacity also limits the extent to which a regulator can move beyond its standard procedures. The Campaign's earlier analysis identified collaborative processes and scenario-based planning as pathways for addressing forward-looking questions,[13] while workshops within proceedings or collaborative discussions before a case is opened can resolve technical questions earlier and on a stronger evidential basis than written submissions alone. Such options, however, presuppose capacity: designing them well requires staff time and judgement that a stretched team can rarely spare. This means the institutions that would benefit most from improved processes are often the least able to develop them.

Mandate, alignment and financial sustainability

The Health Check assessments explore a consideration that is often overlooked: an expanded mandate requires an expanded institution. The regulators assessed are broadly aligned with national energy goals and are already revising their frameworks to reflect them – the constraint lies in implementation. Organisational structures, planning processes and skills have not been adjusted as responsibilities change, while rigid internal planning and heavy reporting requirements limit the time available to analyse what those responsibilities require.

Mandates nonetheless remain important. Most enabling laws were enacted before decarbonisation and resilience became active regulatory concerns, and where responsibilities are unassigned or overlap between the regulator, ministries and system operators, the usual result is delay rather than open disagreement, since no institution is obliged to resolve the question. Several governments, including both co-leads of the Campaign, have taken steps to address this gap:[14] the United Kingdom and Singapore have written decarbonisation into the statutory objectives of their regulators,[15] with Singapore also strengthening its resilience powers,[16] while Australia requires distribution networks and its regulator to take resilience into account in expenditure decisions.[17] Such reforms clarify what regulators are expected to deliver; now they need to be given the institutional capacity to deliver it.

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[13] Gutierrez Tavarez, L.E., & Hernández, A. (2025). *Pathways for Empowering Regulators to Advance Decarbonisation*, Section 4, pathways (a) and (b), drawing on the collaborative process in Oregon and scenario-based integrated resource planning in Michigan. https://www.cleanenergyministerial.org/resource/pathways-for-empowering-regulators-to-advance-decarbonisation/

[14] The United Kingdom and Singapore cases are also discussed in Gutierrez Tavarez, L.E., & Hernández, A. (2025). *Pathways for Empowering Regulators to Advance Decarbonisation*, Section 4(d). https://www.cleanenergyministerial.org/resource/pathways-for-empowering-regulators-to-advance-decarbonisation/. The Australian rule extends a similar approach to resilience.

[15] Energy Act 2023 (c. 52), s. 202, amending s. 3A of the Electricity Act 1989 and the equivalent provision of the Gas Act 1986. UK government. https://www.legislation.gov.uk/ukpga/2023/52/section/202

[16] Energy (Resilience Measures and Miscellaneous Amendments) Act 2021 (No. 37 of 2021). Singapore government. https://sso.agc.gov.sg/Acts-Supp/37-2021. Largely in force from 29 January 2022: https://sso.agc.gov.sg/SL/ERMMAA2021-S61-2022

[17] Australian Energy Market Commission (AEMC). (2025, 8 May). *Including Distribution Network Resilience in the National Electricity Rules*, final rule. https://www.aemc.gov.au/rule-changes/including-distribution-network-resilience-national-electricity-rules

Funding shows a similar gap between design and practice. RAP's Power System Blueprint identifies financial independence as one of four components of regulatory independence – alongside role clarity, leadership independence, and culture and staff behaviours – and calls for multiannual budget allocations to be set using transparent criteria.[18] The assessments indicate that a fee-funded model, often assumed to be more stable than an annual allocation, is not necessarily as reliable as it may appear. Where fees are tied to the volumes of traditional utilities in the power system, the funding base may erode as generation decentralises, leaving the regulator with a declining income at the point at which its workload increases.

Regulatory instruments and data

Tariff methodologies, licence conditions, and technical and market codes are the regulator's principal instrument, and if they are not reviewed on a regular cycle, they may become barriers to the enactment of policy. The World Bank index found that 85% of the frameworks it assessed lacked automatic tariff adjustment mechanisms and that 81% had no scheduled tariff review.[19] The Health Check assessments found a similar pattern: there are numerous methodologies and codes awaiting development or update, in many cases after a legislative amendment or a policy decision has already taken effect.

Regulators are also expected to decide on the basis of evidence that they do not themselves hold. Data on network constraints, connection queues, outages and load profiles is held by utilities and system operators, but reporting obligations have usually been drafted for other purposes. Reliable data is also required for planning. This is primarily a governance question rather than a technological one: the data exists, but no one is obliged to ensure that it reaches the regulator in a usable form and within a useful timeframe.

Among the weakest of all regulator capabilities is information management: many processes remain manual, documents are held in fragmented storage, and analytical tools are maintained separately by each department. Information governance and process redesign need to come before automation and advanced analytics: there is no point reproducing the current fragmentation in digital form.

[18] Regulatory Assistance Project (RAP). (2022). Effective and independent national regulatory authorities. In *Power System Blueprint*. https://blueprint.raponline.org/effective-and-independent-nras/. The Blueprint is written for European regulators.

[19] Ngulube, M. (2023, 6 February). How solid are regulatory frameworks for the power sector in developing countries? *World Bank Blogs*. https://blogs.worldbank.org/energy/how-solid-are-regulatory-frameworks-power-sector-developing-countries

Recommendations

Most of the recommendations that follow come directly from the findings in Section 2; others draw on the campaign's earlier analysis and on wider regulatory practice. Each recommendation includes the proposed action together with its rationale, so that it can be adapted to different institutional contexts.

For governments and policymakers

1. **Involve regulators early in policy and planning.** Engaging regulators while energy strategies and market reforms are being developed allows implementation constraints to be resolved in the design phase, and clarifies what additional authority, resources or institutional arrangements will be required.
2. **Diagnose institutional readiness before new tasks are assigned.** Where the roles of the regulator, the ministry and the system operator overlap or are left unassigned, it normally results in delay. Mapping responsibilities identifies these gaps and overlaps; a structured institutional diagnostic, such as the Health Check, establishes whether the regulator has the staff, skills, systems and resources required to deliver what it is assigned.
3. **Resource new responsibilities, and keep the funding model aligned with market structure.** Funding arrangements should be predictable enough to allow planning over several years, through multiannual allocations set on transparent criteria, and flexible enough to recruit specialist expertise when required. Funding that depends on the volumes of established utilities should be reviewed regularly to check that it still fits the institutional arrangements, and extended, where appropriate, to new types of sector participants.
4. **Review existing functions as new ones are added.** As systems evolve, some functions become obsolete or more complex than necessary: these can be streamlined or discontinued. In some jurisdictions, lighter regulation of telecommunications has freed up staff to focus on electricity. Retraining these staff is often faster and less costly than recruiting from the limited external labour market.
5. **Align mandates with national objectives while preserving independence.** Where national objectives have changed significantly, governments should assess whether the regulator's statutory mandate remains fit for purpose. There should be a clear distinction between policy direction and regulatory decision-making: governments establish the objectives and the legal framework, while regulators apply them, retaining their independence but backed by the political support required to carry out their duties.[20]
6. **Establish structured channels for coordination.** Regular channels of communication between ministries and regulators, extended to system operators and other stakeholders, ensure that policy changes and implementation constraints can be identified early on. These channels should also enable the regulator to address risks that need a response from several institutions, as coordinated resilience planning requires.

[20] Gutierrez Tavarez, L.E., & Hernández, A. (2025). *Pathways for Empowering Regulators to Advance Decarbonisation*, Section 5. https://www.cleanenergyministerial.org/resource/pathways-for-empowering-regulators-to-advance-decarbonisation/

7. **Monitor implementation as well as policy adoption.** National objectives should include measurable milestones, each assigned to a responsible institution, with a process for identifying and addressing delays and regulatory barriers.

For regulators

8. **Use the full extent of existing authority.** Some regulators have more room for action within their current mandates than they actually use. Tariff design, licence conditions, connection rules and codes can all carry objectives related to the transition and to resilience without the need for new primary legislation. Regulators should also play a more active role in policy proceedings, and in shaping the evidence used to inform decisions. Legal advisers can support this by setting out the range of defensible options and their risks, rather than only the limits of authority.
9. **Treat workforce planning as a core element of institutional strategy.** A workforce plan should address succession and knowledge transfer, as well as skills development through competency-based training and technical career paths. It should be accompanied by a review of organisational structures and staff allocation against the work expected over the next three to five years.
10. **Strengthen the quality of decisions.** Poor decisions are usually the result of limited evidence and reasoning. Including a quality assurance step can address these issues by testing the legal and evidential basis of a decision, its methodology and its consistency with earlier decisions, shortening decision cycles while improving quality. Publishing how consultation comments were taken into account would also close a gap that stakeholders currently identify.
11. **Create institutional space for forward-looking regulation.** Multi-year regulatory strategies, scenario analysis and anticipatory reviews are needed to establish what the system will need in future. These processes should be planned and resourced within the work programme rather than added on top of it.
12. **Review instruments and institutional performance on a defined cycle.** Tariff methodologies, licence conditions and codes should be reviewed at regular, set intervals, with a trigger for earlier review when circumstances change. An instrument that is never revisited may eventually work against the objectives it was designed to serve. Regulators should also review their own performance against their strategy.
13. **Establish sound data governance before pursuing digitalisation.** Data requirements, reporting obligations and confidentiality rules should be clearly defined before processes are automated and integrated. Where competitive markets are to be monitored, secure data exchange should be designed in from the start.
14. **Prioritise reforms and hold delivery to account.** Institutional reform competes with the regulatory work programme for the same scarce staff time, so the order in which reforms are carried out matters as much as their ambition. Actions should be brought together in a single prioritised roadmap, with an executive sponsor, clearly assigned owners, timelines, resource requirements and indicators for tracking progress.

For development partners and organisations supporting regulators

15. **Support stronger institutions as well as producing technical outputs.** A deliverable produced by external specialists has limited lasting value unless the institution can maintain

it. Projects should include knowledge transfer and should strengthen the regulator's own training and knowledge systems rather than replace them.

16. **Make use of peer learning.** Regulatory networks can help regulators exchange practical experience more quickly and at lower cost than externally delivered projects. Experience from institutions facing similar constraints is also easier to apply than theory.
17. **Start from a diagnosis, and map partners before adding programmes.** Responding to an institutional roadmap owned by the regulator, and mapping existing programmes and partners in advance, reduces duplication between externally driven initiatives.
18. **Link regulatory reform to investment support.** Development partners, including multilateral development banks, should consider institutional and regulatory capacity alongside infrastructure finance. The ability to license and price an asset, and to oversee its operation, affects how quickly and at what cost it is delivered.

Conclusion

The first Health Check assessments confirm the premise of the campaign: regulatory readiness has a key role to play in the energy transition. They also refine this premise. The most consistent constraint is less in the design of mandates and frameworks than in the institutional capacity to apply them. This means the staff, processes, instruments and data systems on which regulators rely cannot adapt to the pace of change without deliberate attention.

The right response is therefore not simply to give regulators additional responsibilities, but to match them with the authority, capability and resources required to carry them out. Governments can support this by setting clear objectives and appropriate mandates, and by protecting the space for independent regulatory decisions. Regulators can contribute by developing their staff, processes, instruments and information systems continuously, rather than in response to a crisis or a legal challenge.

If these things do not happen, the consequences go beyond slower decarbonisation. Consumers may get less value for money in their energy bills, at a time when many households and businesses can least afford it. Leaving existing regulatory arrangements unchanged is therefore itself a choice with costs. Poorly designed or implemented regulatory decisions can lead to inefficient system operation and suboptimal investment decisions, resulting in higher overall system costs that are ultimately passed on to consumers through their electricity bills.

A structured diagnosis makes institutional gaps visible before they become barriers to implementation, and reveals the actions that a regulator can take in response. Governments and regulators that wish to begin this process are encouraged to engage with RAP and other partners, and to use the Health Check as a first step to identify priorities and build on the experience of others. As electricity becomes more central to economies, the ability of regulators to take timely, evidence-based and forward-looking decisions will largely determine whether investment and innovation result in power systems that are affordable, reliable, resilient and increasingly clean.



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