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From Disruption to Stabilization: A Functional Governance Perspective on the Renewable Energy Transition in Montenegro

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ABSTRACT

As global climate ambitions intensify, the key challenge lies not in setting renewable energy targets but in designing governance systems that can translate them into lasting transformation. The transition management literature has advanced a valuable research agenda for initiating change through niche innovations and participatory arenas in early transition phases. However, more attention is required to understand the governance functions needed to stabilize and scale these transitions. This article offers a complementary perspective to the transitions management literature by outlining a functional governance framework for assessing Montenegro's renewable energy transition, with a focus on five governance pillars: (1) motivation and actor mobilization (input), (2) policy agenda-setting, translation, and anchoring (process), (3) implementation, enforcement, and accountability (output), (4) resources and competences (support), and (5) leadership and coordination (support). Drawing on expert surveys and focus group interviews, the analysis reveals how the entanglements between weak coordination, fragmented leadership, and inadequate enforcement mechanisms produce systemic inertia despite formal commitments to a renewable energy transition. The functional approach foregrounds governance itself as an object of inquiry and shows how cascading failures across functional domains can stall transitions. Nonetheless, it also identifies emerging synergies, such as donor coordination and cross-sectoral platforms, that may offer entry points for reform. Montenegro's experience underscores the need for context-sensitive, system-oriented governance design in transition-ready states.

1 | Introduction

The chief challenge facing global energy regimes, which account for roughly 75% of all greenhouse gas emissions, is to reach net-zero emissions (NZE) by 2050 (IEA 2021). Under the Paris Agreement, all 197 countries have submitted their nationally determined contributions (NDCs) outlining their policy commitment and plans to meet global reductions in CO_2 emissions. While the commitment to these renewable energy (RE) policies has been vital for placing energy decarbonization on the political agenda and channeling investments in RE infrastructure required to achieve NZE targets, they have evidently been insufficient on their own to ensure success. China, the world's largest emitter (in absolute terms), increased in 2024 its investment into new coal plants with a capacity of upwards 70 GW (GEM 2024), four times the level in 2019, in response to concerns over energy security (White 2024). In parallel, the Russian invasion in Ukraine and the destabilization of European access to natural gas has compelled several Western Balkan countries to offset their loss in energy supply with the increased use of coal (Balkan Green Foundation 2022).

This irregular trajectory, marked by progress and setbacks, underscores the central importance of energy governance, referring

to the coordination mechanisms, institutional frameworks, and requisite mobilization of cross-sectoral competences, resources, and expertise that shape the development, management, and use of energy resources of the RE transition. To address this analytical gap, we propose a functional governance perspective that captures how functionally distinct, yet interdependent governance phases shape the trajectory of the RE transition. The functional governance perspective serves as a theoretical complement to the transitions management (TM) literature, offering a diagnostic view of how core governance capacities (mis)align across the full RE transition cycle. It thereby transcends the predominant focus on change initiation and the disruption of the incumbent fossil-based energy regime of the TM literature, offering a complementary view on how different governance functions must interlock to stabilize and sustain the RE transition.

The framework consists of three core governance pillars aligned with the input, process, and output phases of transitions cycles: the mobilization of actors and motivations (input), the formulation and anchoring of policy agendas (process), and the implementation and enforcement of these agendas (output). These core functions, however, do not operate in isolation but are, in turn, critically dependent on two cross-cutting support pillars: leadership and coordination, which ensure strategic alignment and institutional coherence across governance levels; and resources and competences, referring to the financial, technical, and administrative capacities necessary to sustain momentum. Collectively, these five pillars provide a structured analytical lens through which to identify the functional levers that either enable or constrain effective energy transitions.

We apply the functional governance framework to the case of Montenegro, a country that exemplifies many of the structural tensions and contradictions inherent in the Western Balkan RE transition. As a signatory to the Green Agenda for the Western Balkans (GAWB) and a contracting party to the Energy Community Treaty, Montenegro has formally committed to EU-aligned decarbonization goals but lags behind on its RE transition goals. Despite EU financial support, including the Economic and Investment Plan for the Western Balkans (2021–2027), progress remains uneven, and the decarbonization agenda is repeatedly stalled by governance bottlenecks (European Commission 2020). By focusing on Montenegro, this article offers a context-specific analysis of how governance factors interact across the five functional pillars, shaping the country's RE transition trajectory. The case of Montenegro serves as a critical lens for examining how regional policy frameworks like the GAWB intersect with domestic political, institutional, and economic constraints. This critical case study can furthermore also be construed as a proof-of-concept of the functional governance perspective by providing an in-depth diagnostic of governance failures and partial successes that highlight how certain governance pillars may support RE deployment while others actively constrain it.

The remainder of the article is structured as follows. Section 2 reviews the literature on energy governance, examining how weak governance obstructs RE transitions and positions these discussions in relation to the TM literature. Section 3 presents the functional governance perspective as an analytical counterpoint to the transition management literature, detailing the five governance factors that facilitate the effective coordination of renewable energy policies. Sections 4 and 5 outline the case selection rationale behind Montenegro followed by the case study analysis. Finally, Section 6 synthesizes key findings from the functional governance perspective and discusses its broader applicability to other countries striving to meet NZE targets under diverse governance conditions.

2 | Literature Review: Whither Governance? A Critique of the Transition Management Literature

Energy systems are socio-technical regimes shaped by the coordinated interactions of state and non-state actors—producers, regulators, consumers, and investors—mediated by institutional rules, infrastructures, and sources of authority (Geels 2004; Kuzemko et al. 2016). While these actors are functionally differentiated and often hold divergent interests, they remain interdependent. Their continuous adjustment produces a resilient regime logic, resistant to transformation and prone to path dependency (Andrews-Speed 2016). These interdependencies complicate efforts to restructure energy systems toward RE transitions, making governance failures—defined as the inability to coordinate effectively around collective decarbonization goals—a central obstacle to transition (Jessop 2016). Conversely, effective governance conditions can function as transition drivers, fostering alignment among key actors and enabling structural change. As Patterson et al. (2017, 4) clarify, governance that facilitates transformation "creates the conditions for transformation to emerge" by realigning stakeholder interests across different segments of the energy system (Downie 2022).

In response to these challenges, TM has become a cornerstone of sustainability transition studies by offering a systems-theoretical model that diagnoses regime lock-ins and prescribes strategic interventions to initiate change, emphasizing long-term visioning, reflexive governance, and the creation of protected innovation spaces (Loorbach 2010). It has been especially influential in identifying and addressing early-stage barriers to RE transitions.

Financial constraints—including high upfront costs, long investment horizons, and market volatility—are met with proposals to de-risk innovation through pilot projects and subsidy schemes that build confidence in emerging technologies (Hafner et al. 2021; IPCC 2022). These constraints are especially pronounced in less affluent regions, such as the Western Balkans, where limited access to capital and heightened investment risks further deter private sector engagement (Gajdzik et al. 2023; Polzin and Sanders 2020). According to the TM literature, such financial obstacles can be through the facilitation of niche innovations and the creation of protected experimentation spaces, or transition arenas, which help attract pilot funding, reduce perceived risk, and legitimize emerging technologies in their formative phases (Loorbach 2010). These transition arenas function as participatory platforms where frontrunners and policy entrepreneurs co-develop alternatives, contest incumbent interests, and catalyze niche innovations that may otherwise struggle to compete in mainstream

markets and can, in turn, gradually reorient socio-technical systems by opening pathways for stabilization and subsequent upscaling (Smith et al. 2005).

Another challenge results from infrastructural barriers pertaining to outdated energy systems and their inability to accommodate the variability of solar and wind power (Christophers 2024). Many national grids, designed for centralized fossil-fuel-based power generation, lack the capacity to support decentralized, bidirectional energy flows, leading to curtailment issues, inefficiencies, and investment uncertainty. Weak transmission infrastructure further restricts RE scalability, particularly in regions where high-potential RE sites are located far from major consumption centers, requiring significant investment in long-distance transmission capacity (Ammari 2023). According to the TM literature, such infrastructural constraints must be addressed through strategic visioning that supports reconfiguration of legacy systems and encourages decentralized experimentation with alternative energy models (Kemp et al. 1998; Kuzemko et al. 2016), as exemplified by the gradual spread of decentralized energy communities (Petrovics et al. 2022).

Finally, political and regulatory barriers in the form of fragmented regulatory frameworks, bureaucratic inefficiencies, and complex approval processes have impeded the RE transition by increasing compliance costs and, in turn, amplifying financial and operational risks (Emblemsvåg 2020; Koster and Anderies 2013). These lengthy and unpredictable permitting procedures further weaken investor confidence, particularly in markets where policy enforcement is weak or inconsistent. A notable example is the frequent changes to subsidy schemes, feed-in tariffs, and renewable energy targets, often shaped by short-term political cycles rather than long-term strategic planning, creating an unstable investment climate that deters capital-intensive RE projects (Döme 2024; Hu et al. 2018). The TM literature proposes that such political and regulatory barriers can be mitigated through participatory planning and the empowerment of policy entrepreneurs who can articulate new discourses and disrupt established institutional routines (Smith et al. 2005). To this end, transition arenas also function as political spaces for contesting incumbent interests, fostering alignment across stakeholder groups, and co-producing new governance arrangements.

While TM does not typically offer concrete technical blueprints, it promotes strategic reflection on infrastructure lock-ins and supports the incubation of alternatives that challenge dominant configurations. Above all, the strength of TM lies in its capacity to activate bottom-up change processes and strategically guide them through iterative cycles of experimentation, learning, and adaptation. This prescriptive approach offers solutions to overcoming the inertia of incumbent regimes and initiating sustainability transitions from within the system. However, despite these strengths, TM has been critiqued for overemphasizing regime destabilization and niche development in early transition phases, while paying relatively less attention to the institutional stabilization, administrative coordination, and cross-sectoral integration required to embed and scale these innovations in later phases (Meadowcroft 2009; Miorner et al. 2025). However, once momentum is achieved, transitions hinge on the capacity to align new policies with mainstream regulatory systems, bureaucratic routines, and broader political mandates, which are areas where TM's conceptual toolkit remains underdeveloped.

The TM literature tends to implicitly assume that once technological viability is demonstrated and stabilized through pilot projects or protected innovation spaces, investments will follow naturally (Gajdzik et al. 2023; Polzin and Sanders 2020). However, this overlooks the structural asymmetries in capital allocation, particularly in developing or institutionally weaker contexts, where financial markets may lack the depth, risk tolerance, or policy support to fund long-term, high capital expenditure RE projects. In such settings, the gap between niche innovation and system-wide transformation is not merely one of technological diffusion but of resource mobilization and financial governance.

A final theoretical obstacle is how TM treats governance as a reflexive outcome of stakeholder learning rather than as an object of inquiry in its own right. It lacks a robust account of how formal governance structures—such as inter-ministerial coordination bodies, monitoring and enforcement mechanisms, and administrative competencies—either enable or obstruct the transition process (Avelino and Rotmans 2009). This theoretical gap limits TM's capacity to explain why transitions stall, fragment, or are co-opted, particularly in politically volatile or post-socialist contexts where institutional fragility and fragmented authority severely constrain implementation.

In sum, TM offers compelling insights into how transitions can be initiated, especially through the formation of transition arenas, in the form of innovation networks, while embracing adaptive governance and long-term strategic visioning. However, we propose that more emphasis can be placed on explaining the later stages of transition trajectories, that is, how transitions are stabilized and scaled within mainstream governance structures. Its prescriptive interventions are, above all, oriented toward regime disruption rather than consolidation. To address this gap, the following section introduces a functional governance perspective, which foregrounds the functional levers of governance as the central explanatory foci. By structuring the analysis around these functional dimensions, this framework enables a systematic evaluation of whether the institutional conditions for transition are present and aligned. It complements TM by shifting attention from early-stage innovation to the administrative and political processes that determine whether transitions are sustained and scaled.

3 | Theoretical Framework: A Functional Perspective on the Five Pillars of Energy Governance

A functional governance perspective outlines a structured, phase-sensitive framework that disaggregates the transition process into three functional phases—input, process, and output—each coupled with specific functional imperatives and institutional prerequisites. In contrast to TM's focus on early-stage disruption, the functional governance perspective is explicitly diagnostic and operational by identifying the concrete institutional capacities and coordination mechanisms required to translate political ambition into durable, system-wide

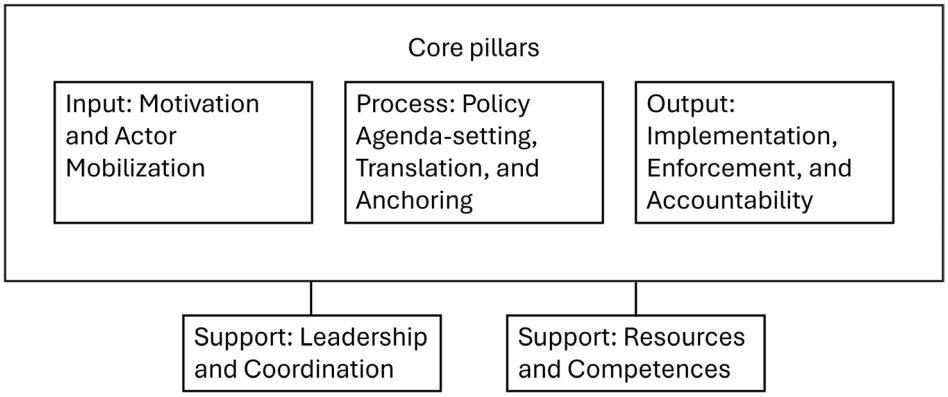

FIGURE 1 | Overview of the five governance pillars.

transformation. This makes it particularly relevant to the current phase of the global RE transition, which has reached a pivotal inflection point. In many countries, the incumbent fossil-based energy regime is already being disrupted and its replacement by RE is gaining momentum, both in terms of scaling and technological advancements (Alkemade et al. 2024); the challenge, thus, is not necessarily a lack of ideas, policies, or experimentation, but rather the missing cross-sectoral alignment and institutional follow-through within fragmented governance systems that result in uneven developmental trajectories of different energy regimes. The functional governance perspective is introduced here as an integrative analytical framework, which does not derive from a single canonical "school," but synthesizes complementary strands of governance and public policy research that address different segments of the transition cycle.

The functional governance perspective foregrounds governance itself as an object of inquiry, asking whether and how core governance functions are being adequately fulfilled. This can be contrasted with certain strands of the TM literature, in which an analytical emphasis is imposed on reflexive, participatory steering (e.g., arenas, visioning, learning), and often offers a less developed account of the political–administrative capacities through which transitions are stabilized in practice (e.g., coordination authority, regulatory implementation, monitoring and enforcement) (Braams et al. 2024; Meadowcroft 2011; Newell 2026). The approach is functional in the sense that it treats governance as a set of capacities and tasks that must be performed, rather than assuming that particular actors or formal institutions will automatically deliver these tasks. This lens is especially useful in fragmented transition contexts where authority is distributed across ministries, regulators, state-owned enterprises, private developers, municipalities, donors, and civil society networks, and where "who governs" may vary across sectors and phases. This functional lens does not analytically prioritize state governance; it treats governance as a set of functions that can be performed by different actor constellations. It therefore accommodates substitution (non-state actors perform functions the state cannot) and complementarity (non-state actors strengthen how state functions are performed). This actor-agnostic view should nevertheless be read in the "shadow of hierarchy" (Scharpf 1994; Whitehead 2003), that is, even when non-state actors perform key functions, the state typically retains ultimate authority, which structures the institutional space within which hybrid governance arrangements operate.

In effect, the functional governance perspective thereby emphasizes the functional sequencing and layering of initial motivation and actor mobilization (input), followed by the institutional translation of those commitments into coherent policy agendas (process), and their implementation, enforcement, and evaluation (output). These three functional phases are, in turn, critically supported by two crosscutting, supporting pillars: (1) leadership and coordination, which ensures strategic direction and institutional coherence; and (2) resources and competences, encompassing the financial, technical, and human capacities required to sustain the transition (see Figure 1 and Supporting Information 1 for an elaboration).

A prerequisite for stabilizing and sustaining a RE transition is the presence of sufficient political and economic will, public support, and stakeholder buy-in to overcome the inertia of fossil-based energy regimes (Hughes and Zabala 2023). To this end, governance structures must foster motivation and actor mobilization during the input phase, ensuring that key political, institutional, and societal actors are engaged, aligned, and prepared to initiate and sustain the transition. Motivation must be conceived as a cross-sectoral and multi-level phenomenon, encompassing not only formal political commitment but also the embedded interests, incentives, and capacities of non-state actors such as industry associations, municipalities, and civil society (Heinen et al. 2022; Standal et al. 2023). Effective mobilization depends on governance arrangements capable of recognizing, activating, and coordinating this diverse constellation of actors around a shared transformation agenda. The input phase thus sets the political and social foundation of the transition, determining who is mobilized, how they are engaged, and whether this engagement yields a cohesive front for change.

However, motivation alone is not sufficient. It must be institutionalized and converted into organized mobilization through mechanisms that encourage inclusive, cross-sectoral participation (Ansell et al. 2022). These include multi-stakeholder platforms, incentive schemes that lower barriers to entry (e.g., for RE producers or community energy groups), and strategic public framing that channel and amplify the perceived urgency and co-benefits of transition (Ansell and Gash 2018). Above all, interest alignment in this phase is focused on structurally aligning stakeholder interests, that is, turning diverging motivations and capacities into a foundation for collective engagement in the RE transition. To this end, governance serves the function of not

merely convening actors but also structuring deliberation and bargaining over sources of social tension, for example, how the costs, benefits, and responsibilities of transition are to be distributed (Dunsire 1993). This structural mediation is necessary to ensure that stakeholders advancing the RE transition are not counteracted by oppositional forces, obstructing potential progress through countervailing actions, for example, incumbent institutions continuously investing in additional fossil fuel infrastructure (Smith and Raven 2012).

Once the actor constellation is mobilized, the process phase must build upon and sustain this momentum by translating broad-based motivation into strategic policy direction. Governance here centers on agenda-setting, policy translation, and anchoring. This functional phase determines whether emerging commitments can be transformed into coherent strategies, backed by legislation, fiscal instruments, and institutional mandates (Loorbach 2010). Agenda-setting involves raising the political salience of energy transformation and framing it as a central policy concern, including clarifying problem definitions and signaling that decarbonization will transcend symbolic commitments (Keskitalo et al. 2012). Policy translation then operationalizes this ambition into concrete and actionable programs, targets, and budgets, and clarifies who is responsible for delivery across governance levels by raising institutional expectations and anchoring (Hustad 2023). Anchoring, finally, embeds these commitments in legal norms, organizational routines, and planning instruments that persist beyond short political cycles—thereby stabilizing expectations for investors and implementers and reducing the risk of policy reversals (Inderberg and Bailey 2025).

At this juncture, interest alignment shifts from building a shared purpose to managing institutional and sectoral coherence. It entails continuously maintaining and reworking compromises among diverging stakeholders in light of the evolving transition trajectory and establishing integrated planning mechanisms that connect energy targets to related domains such as spatial planning, permitting, grid development, and industrial policy. This is achieved through vertical integration between national and subnational authorities, horizontal coordination across ministries, and participatory governance mechanisms that bolster legitimacy and reduce resistance (Heinen et al. 2022; Jänicke and Quitzow 2017). The process phase thus serves as a strategic fulcrum, translating initial ambition into actionable and resilient governance arrangements. If this translation and anchoring fail by remaining vague or underdeveloped, then even high levels of initial buy-in may dissipate or be captured by incumbents.

At the output phase, governance must ensure that these strategic frameworks are effectively implemented, monitored, and enforced between state and non-state actors (Schoenefeld and Jordan 2019). This phase is where the viability of prior agenda-setting is tested in practice. Effective implementation depends on successful vertical (across administrative tiers and levels of agencies) and horizontal policy and governance integration (cross-sectoral coordination) (Christopoulos et al. 2012; Geels 2011; Heinen et al. 2022; Jayaraj et al. 2024). In practice, this includes the ability to translate formal targets into shared delivery routines across the organizations involved in implementation, for example, by clarifying responsibilities across implementing bodies, standardizing procedures, coordinating timelines across permitting and grid connection processes, and ensuring that participating organizations have sufficient personnel, expertise, and financial room to act. Output governance also entails the enforcement and accountability infrastructures that sustain compliance and enable correction over time. Enforcement mechanisms ensure fidelity to transition goals through inspections, compliance rules, and sanctions (Tosun 2012), but also through contractual, market, and networked arrangements that condition behavior and reduce opportunism (Jessop 2016). Accountability mechanisms similarly enable and complement mid-course corrections by making performance visible and contestable through audits, indicators, reporting obligations, and adaptive feedback loops (Schoenefeld et al. 2018).

Here, it is useful to distinguish governance outputs from broader transition outcomes and impacts. Output refers to the delivery of policy and administrative actions (e.g., permits processed, inspections conducted, reporting systems established), whereas outcomes and impacts concern the effects of these actions on system performance and societal goals (e.g., renewable deployment, emissions reductions, affordability and distributional consequences). Robust monitoring and evaluation systems connect outputs to outcomes by establishing what works, identifying unintended consequences, and providing an evidence base for recalibrating implementation practices (Nair and Howlett 2016). Relatedly, interest alignment also plays a role here, albeit in a functionally distinct form. While the process phase aligns actors around shared policy goals and frameworks, the output phase requires operational alignment among implementing agencies, regulators, and service providers. Conflicting mandates and incentive misalignments can derail otherwise coherent plans by generating delays, strategic non-compliance, or blame-shifting across institutions. As such, interest alignment in the output phase centers on execution: Are the implementing bodies incentivized and empowered to act? Do their roles complement rather than contradict one another? Without this alignment at the level of practice, transition efforts risk hollow implementation and, in turn, policy failure, even if upstream planning has been sound (Melidis and Gouglas 2025).

Above all, the successful coordination of all three governance phases depends on two cross-cutting governance pillars. First, leadership and coordination ensure strategic direction and institutional coherence across governance levels and sectors (von Homeyer et al. 2021). Facilitative leadership with political capital and strategic capacity is critical for resolving conflicts, bridging sectoral divides, and sustaining momentum throughout the transition (Hofstad et al. 2023; UNDP 2023). Second, resources and competences refer to the financial, technical, and human capabilities required to operationalize transition goals (Downie 2022). Without adequate investments, expert knowledge, and capacity-building support, even the best-designed policies may falter (Raupp et al. 2023). Above all, these pillars are not to be construed as auxiliary; instead, they are enabling conditions that support functionality and responsiveness across all phases.

A functional governance perspective emphasizes the functional interdependence of these five governance factors. Each has a distinct role, yet their effectiveness depends on their coherence

TABLE 1 | A summary of governance interventions across five governance pillars.

Functional governance pillar	Examples of governance interventions
Input: Motivation and actor mobilization	• Multi-stakeholder platforms • Incentive schemes (e.g., feed-in tariffs) • Public engagement and consultation processes • Strategic communication and narrative framing • Community energy planning
Process: Agenda-setting, translation, anchoring	• Integrated policy frameworks • Legislative instruments (e.g., energy transition acts) • Inter-ministerial coordination bodies • Strategic foresight and scenario planning • Regulatory anchoring
Output: Implementation, enforcement, accountability	• Monitoring and evaluation systems • Performance audits and scorecards • Regulatory enforcement (e.g., inspections, fines) • Implementation protocols • Adaptive management frameworks
Support: Leadership and coordination	• High-level transition taskforces • Cross-sectoral coordination units • Leadership training programs • Political mandate agreements • Crisis or transition leadership mechanisms
Support: Resources and competences	• Green finance instruments (e.g., green bonds) • Capacity-building programs • Technical assistance platforms • Knowledge-sharing networks • Resource mobilization strategies

and interaction. When fully aligned, they create a governance framework capable of translating political ambition into durable outcomes. When misaligned or incomplete, however, they can produce fault lines that stall, fragment, or even reverse transition progress. The input, process, and output phases should not be interpreted as temporally linear and sequential, implying that one is followed by the other. Rather, they are mutually imbricated and operate as an iterative feedback loop: input conditions shape agenda-setting and policy translation (process), which in turn condition implementation, enforcement, and accountability (output); observed outputs and outcomes then feed back into subsequent rounds of mobilization and agenda revision, thereby reshaping the next iteration of inputs and the governance trajectory over time. Insofar as the three pillars represent different functional phases of the RE transition, they should instead be envisioned as analytically distinct aspects that require targeted governance interventions.[1]

The framework thus serves as both a heuristic and a diagnostic tool: it enables policymakers and researchers to identify governance bottlenecks, analyze institutional misalignments, and assess the transition-readiness of specific energy regimes (see Table 1). Ultimately, the aim is not to reject TM but to extend it by embedding its insights into a comprehensive framework that addresses the full arc of transition governance, from disruption and initiation to institutional embedding and sustained implementation. In the next section, we outline how using Montenegro's RE transition can be utilized as a critical case study to stress test the functional governance perspective, exemplifying how it can be methodologically realized through a mix of quantitative and qualitative measures.

4 | Methodology

4.1 | Case Context: Montenegro's Impending Renewable Energy Transition

Montenegro offers a compelling but understudied case for analyzing the RE transition through a functional governance lens due to its historic reliance on fossil fuels and its untapped potential for renewable energy, particularly in hydropower, solar, and wind (Bogdanović and Ivošević 2024). While hydropower accounted for 43.5% of electricity generation in 2022, wind contributed only 9.8%, leaving coal's share at a persistent 47% (see Figure 2). Seasonal variability and climate-induced fluctuations in hydro output continue to drive reliance on coal-fired power and electricity imports, exposing the country to price volatility and supply risks. These structural dependencies are compounded by significant levels of energy poverty, characterized by the average households' limited capacity to afford or access adequate energy services (Bouzarovski et al. 2024).

Since ratifying the Paris Agreement in 2017, Montenegro has increased its climate ambition, now committing to a 55% emissions reduction below 1990 levels by 2030. These targets reflect both domestic objectives and Montenegro's alignment with the EU accession process. As a contracting party to the

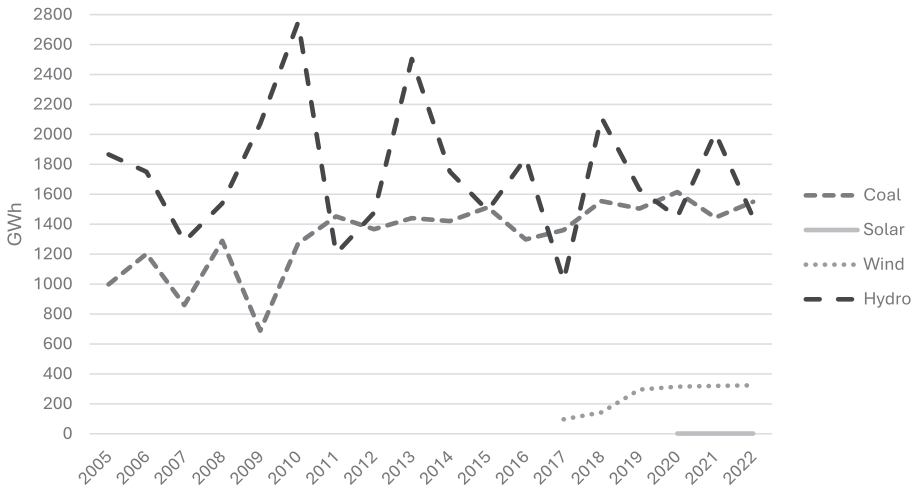

FIGURE 2 | Electricity generation by source in Montenegro (2005–2022). *Source:* IEA (2025).

Energy Community Treaty, the country is obliged to align its national legislation with EU energy law, particularly the "Clean Energy for All Europeans" package adopted in 2016 (European Commission 2016), which mandates environmental compliance, market liberalization, and regulatory harmonization. In this context, Montenegro has prioritized RE development, with recent efforts accelerating under the GAWB, endorsed at the 2020 Sofia Summit. The GAWB commits signatories to comprehensive reforms aligned with the European Green Deal (EUGD), including targets for carbon neutrality by 2050 in alignment with the European Union, by mainstreaming strict climate policies and undertaking structural reforms in the energy and transport sectors. A central part of the adoption of the GAWB is the impending development and commitment to a National Energy and Climate Plan (NECP), which entails national commitments to targeted climate action across five dimensions of the European energy union: decarbonization, energy efficiency, energy security, internal energy market, and research, innovation and competitiveness. In effect, these commitments necessitate that Montenegro formulate concrete, monitorable actions to ensure compliance with its pledged targets.

Through the GAWB, Montenegro, alongside its regional counterparts, has committed to a wide-ranging set of reforms across five thematic areas. Of particular relevance is the climate, energy, and mobility pillar, which pledges alignment with EU goals for carbon neutrality by 2050. To support these ambitions, the EU has mobilized a suite of financial instruments. The Instrument for Pre-Accession Assistance includes €9 billion in grants earmarked for advancing the GAWB, with an additional €20 billion expected to be mobilized through the Western Balkans Investment Framework between 2021 and 2027. These funds combine grants, concessional loans, and technical assistance to support renewable energy deployment, energy efficiency upgrades, and infrastructure modernization. A major milestone was reached in October 2024 when the European Commission approved the Reform Agendas for the Western Balkans, paving the way for the €6 billion Reform and Growth Facility (2024–2027), of which €2 billion will be disbursed as grants and €4 billion as loans through the Western Balkans Investment Framework. Based on population, GDP, and other distribution criteria, Montenegro is expected to receive approximately €383 million conditional upon the fulfillment of reform milestones outlined in its national agendas (WeBalkans.eu 2025).

While these policy targets are ambitious and aligned with EU strategies, the gap between commitment and execution remains substantial. Montenegro's energy transition is constrained by persistent infrastructural bottlenecks, particularly within its transmission grid, which limit the integration and scalability of new renewable capacity. Although significant funding is becoming increasingly available, grid modernization remains uneven and underfunded, impeding technical progress (Causevic et al. 2023; Đurašković et al. 2021). Parallel challenges arise from a fragmented policy environment and weak administrative coordination, which hinder the consolidation of progress into sustained implementation. These governance gaps are reflected in international assessments, evidenced by the fact that Montenegro ranks 67th globally on the World Economic Forum's Energy Transition Index (World Economic Forum 2024), highlighting the gap between declared ambitions and tangible outcomes.

In sum, Montenegro offers an instructive case for analyzing the interplay between political commitment, financial assistance, and implementation capacity in the context of RE transitions. It exemplifies a broader regional dynamic wherein the political willpower to decarbonize is shaped by institutional constraints and executional lag. Applying the functional governance perspective enables a structured assessment of how these factors intersect, and what conditions are required to translate policy ambition into durable, system-wide transformation.

4.2 | Data Collection and Analysis

To evaluate the current state of energy governance in Montenegro and to assess how recent policy commitments align with the five governance factors identified in our framework, a mixed-methods data collection strategy was employed. This approach combined a quantitative questionnaire with qualitative follow-up focus group interviews to triangulate expert assessments and generate a nuanced understanding of governance dynamics in the RE transition.

Expert input was obtained from individuals with substantial experience in climate and energy governance in Montenegro, including both former and current public policy officials, as well as private sector and civil society stakeholders. Expert insight from those involved in the functional coordination of energy governance was prioritized, given their proximity to the institutional mechanisms under review and their capacity to assess the operational performance of key governance functions.

Given the institutional concentration of RE governance in Montenegro, the study employs an expert-elicitation design rather than population inference. The aim is therefore not statistical generalization but analytical insight into how key governance functions are perceived and experienced by actors positioned within the main decision, regulatory, and implementation nodes of the system. In this context, a small number of highly knowledgeable informants has been methodologically appropriate, provided that the sample is information-rich and covers the principal institutional sites where transition governance is made and enacted (Farquharson 2005). Institutions represented include the (1) Office for Sustainable Development, (2) the Energy Agency, (3) the Ministry of Energy and Mining, (4) the Center for Climate Change, (5) Eco Fund, (6) the Electric Power Industry of Montenegro, and (7) the Chamber of Commerce. This multi-institutional representation ensured a broad and balanced perspective on governance processes and bottlenecks. The institutions included are all state institutions not because the functional governance perspective necessarily analytically prioritizes them over non-state actors, but rather in light of the dominant stakeholders involved in the RE transition of Montenegro.

In total, nine experts participated in the survey phase, each an authoritative representative from key institutions involved in Montenegro's energy governance. Experts were selected purposively on the basis of three criteria: (1) formal responsibility for, or direct involvement in, renewable energy policy design, regulation, implementation, or financing; (2) demonstrated institutional proximity to cross-sectoral coordination processes (e.g., strategic planning, permitting, system operation, or climate/energy programming); and (3) capacity to comment on organizational performance beyond a single project or technology. The resulting sample intentionally spans the core governance arenas covered by the framework, thereby maximizing institutional coverage rather than respondent volume. For reasons of confidentiality, all informants are anonymized (assigned no. 1–9), though their identities were verified and are known to the research team. The questionnaire was designed to assess expert perceptions of intersectoral coordination, administrative capacity, and institutional performance across the five governance pillars defined in Supporting Information 1. Each section of the survey corresponded to one of these pillars, with the full structure and question set detailed in Supporting Information 2. Responses were recorded on a 5-point Likert scale and supplemented by open-ended prompts for elaboration.

The small-N design entails limitations, as it cannot support claims about the distribution of views across all stakeholder groups involved in Montenegro's RE governance system, and it may under-represent less institutionalized, second-order actors, for example, emerging local energy communities in light of the EU energy directive of 2019 (Petrovics et al. 2022). To mitigate this risk and strengthen credibility, survey ratings were triangulated with focus group discussions that probed the reasoning behind scores and elicited concrete examples of governance bottlenecks, enabling the analysis to focus on mechanisms and patterns rather than isolated opinions. In total, 3 focus group interviews were conducted to generate "thick descriptions," that is, detailed, context-rich qualitative data that elaborated on the scoring provided in the questionnaires. The questionnaire questions were thereby used as semi-structured interview questions, guiding the discussions and elaborations. These discussions aimed to unpack why particular governance dimensions were evaluated as strengths or weaknesses, and to elicit concrete examples of how barriers manifest in practice. This interpretive layer was necessary for identifying the mechanisms, not just the symptoms, of governance failure or effectiveness in Montenegro's RE transition. While a thematic synthesis of expert inputs has been prioritized to identify broader patterns and governance dynamics, direct quotations are included at key points to illustrate particularly salient or representative views. These quotes are used selectively to maintain clarity and preserve anonymity, while supporting the interpretive analysis.

5 | Analysis

The following section presents a systematic analysis of Montenegro's RE transition through the lens of the functional governance framework. Drawing on empirical data collected from stakeholder questionnaires and follow-up focus group interviews, the analysis evaluates the performance of each of the five governance pillars with respect to their respective functional levers and mechanisms for enabling or impeding transition progress. Each pillar is assessed not in isolation but as an embedded governance function whose effectiveness depends on its interaction with other dimensions of the transition cycle.

The analysis proceeds in two stages. First, each governance pillar is examined individually, synthesizing informant perspectives to identify specific governance gaps, enabling conditions, and contextual constraints that affect Montenegro's capacity to initiate, translate, and anchor its RE transition goals. Second, the analysis shifts from a disaggregated to an integrative perspective. It explores the interdependencies and feedback loops among the five governance dimensions, emphasizing how weaknesses in one pillar can cascade across others, undermining system-level coherence and, in turn, slowing progress. Conversely, it identifies emerging synergies or governance innovations that may offer pathways toward improved alignment, stakeholder integration, and institutional resilience.

5.1 | Input: Motivation and Actor Mobilization

Montenegro's current governance frameworks for sustainable energy remain outdated, failing to adequately reflect the targets set by international agreements such as the Paris Agreement. In response, Montenegro is in the process of developing a more coherent and forward-looking governance framework, with the NECP playing a central role. As part of its EU candidacy, Montenegro is required to adopt an NECP that provides

a comprehensive roadmap for achieving its energy and climate objectives, in contrast to the broader political pledges under the Paris Agreement and the accompanying NDC. As one regulatory official noted, the absence of core planning documents aligned with 2050 climate neutrality targets severely hampers the ability to coordinate sectoral activities and realize strategic objectives:

> The country lacks the essential strategic documents [in line with 2050 climate neutrality], which are necessary to establish a clear development vision for the energy sector and related areas. These documents are a precondition for effective coordination and successful management of the energy transition, [without which] it is difficult to coordinate different activities [between societal stakeholders] towards the realization [of Montenegro's RE transition] (Policy Official 1).

Progress is hampered by competing demands from key industrial actors and regulatory institutions, which often express reluctance toward rapid decarbonization due to concerns over financial feasibility and operational disruption. These institutional constraints are compounded by limited administrative capacity, weak policy integration across ministries, and a fragmented regulatory landscape, producing an uneven regulatory environment that sends mixed signals to stakeholders in the RE transition (see also European Commission 2025). While certain segments of the government and civil society have demonstrated a strong interest in pushing forward the RE transition with the support of EU policy frameworks, these remain isolated "islands of commitment" (Policy Official 4) that lack the political cohesion and institutional leverage to mainstream NECP objectives across the broader national governance system.

This disconnect between policy ambition and institutional follow-through is reflected in the first indicator of our survey (see Table 2, item 1), where key informants report moderate progress but stress the absence of unified political momentum and coordinated implementation. According to these informants, one of the most urgent needs is regulatory reform that can catalyze a realignment of sectoral interests with national decarbonization objectives. This would reverse the current pattern in which stakeholder preferences shape the governance agenda from below and instead enable either the state to shape market incentives and institutional behaviors through targeted reforms or non-state actors to engage in bottom-up mobilization to advocate for the RE transition. In line with these reform programs, the Montenegrin government has, since the 2020s, begun to improve incentive structures through financial instruments such as feed-in tariffs, tax exemptions, and grants aimed at promoting the uptake of renewable energy technologies. A milestone in this regard is the Law on Renewable Energy Sources, which introduces direct subsidies for renewable energy facilities and institutionalizes the "prosumer" concept, encouraging citizens and local communities to become active participants in electricity production (see also Spasić 2025).

TABLE 2 | Summary of questionnaire results on motivation and actor mobilization.

Indicator	Value
The alignment of motivation and interests through governance structures	3.5
Institutional mechanisms for stakeholder participation and interest coordination	3.0
Mobilization through policy narratives and agendas	3.55
Average score	3.35

A persistent structural weakness is the limited scope, frequency, and institutional mandate of multi-stakeholder forums. These platforms are essential for articulating, negotiating, and aligning the diverse interests that characterize Montenegro's political economy of energy. The National Council for Sustainable Development and its Working Group on Just Transition do provide some space for such cross-sectoral dialogue. Composed of representatives from ministries, trade unions, state agencies, civil society, academia, media, and employers' associations, the working group has been tasked with producing socio-economic analyses and drafting a national roadmap for a just transition. Nevertheless, the impact of these bodies is constrained by their broad mandate and lack of operational focus on RE governance specifically. As emphasized by one informant, while high-level forums like the National Council exist, the absence of a dedicated institutional platform for sustainable energy governance limits the operational traction of such coordination efforts: "Montenegro's current governance frameworks and policies are outdated and fail to adequately reflect contemporary goals and objectives for sustainable energy" (Policy Official 2). Similarly, while the Competitiveness Council of Montenegro plays an important role in facilitating public-private dialogue, its thematic scope is too broad to provide focused attention to RE issues. This absence of centralized platforms for the RE policy agenda complicates stakeholder mobilization and hinders the formation of a shared national vision. The lack of institutionalized participatory mechanisms also impedes the ability to reconcile conflicting interests and align stakeholder expectations with the NECP. As a result, Montenegro scores relatively lower on stakeholder participation and interest coordination in shaping the RE transition trajectory (see Table 2, item 2).

Montenegro has made some strides in improving political agenda-setting, public awareness and media engagement on the RE transition. For example, there is a national television program dedicated to ecological and energy issues, and international obligations related to climate change are regularly covered by national media. Additionally, EU-funded news agencies (e.g., WeBalkans.eu) have played an increasingly active role in shaping public discourse on the energy transition. One regulatory official noted that although RE topics are visible in the media, existing communication strategies fall short in fostering meaningful public engagement and building durable societal support: "although climate change and renewable energy issues receive media attention, communication strategies must be strengthened to enhance public engagement" (Policy Official 3). Despite a relatively low level of misinformation, public narratives have not been able to communicate the urgency and long-term

implications of the RE transition effectively. This communication gap undermines electoral support for ambitious policy reform and limits the ability of public institutions to legitimate and sustain difficult trade-offs in energy policy. Nonetheless, structural communication deficits persist. Although the government has launched public information campaigns, the overall communication strategy lacks consistency and capacity for targeted engagement. Informants suggest that much of the communication remains technocratic and fails to connect with citizens' everyday concerns or highlight the social and economic co-benefits of renewable energy. This hampers the government's ability to build a durable constituency for change, which is reflected in the moderate score in the questionnaire (see Table 2, item 3).

All these efforts signal a transitional moment in which the Montenegrin state seeks to realign institutional and stakeholder motivations with the broader objectives of the RE transition. As our analysis suggests, Montenegro has begun to formalize its commitment to actor mobilization, but these efforts remain largely confined to the ministries and state-owned enterprises formally tasked with energy and environmental governance. Without broader cross-sectoral uptake, especially bridging the gap to non-state actors, the transition risks remain fragmented and uncoordinated. In conclusion, sustained progress will depend on the extent to which these formal commitments are translated into broad-based actor mobilization. Addressing these gaps will be paramount for turning Montenegro's renewable energy ambitions into an operational and enduring transition pathway.

5.2 | Process: Policy Agenda-Setting, Translation, and Anchoring

Montenegro is actively seeking to align national policies and coordination efforts with its international commitments to a RE transition. However, key informants report persistent gaps in strategic planning, institutional coordination, and stakeholder integration that hinder progress. These shortcomings are reflected in the survey data on agenda-setting, policy translation, and anchoring, where informants indicate moderate or inconsistent performance (see Table 3). Although government officials often issue strong rhetorical endorsements of the RE transition, such statements are frequently perceived as a form of impression management (see also Goffman 1959), signaling commitment without corresponding institutional reform or investment. One informant observed that "political discourse frequently highlights the importance of energy transition, yet structural weaknesses and governance inefficiencies slow progress" (Policy Official 4). As a result, declaratory policies have ostensibly not been translated into integrated frameworks or implementation roadmaps capable of catalyzing system-wide change.

TABLE 3 | Summary of questionnaire results on policy agenda-setting, translation, and anchoring.

Indicator	Value
Goal orientation towards the renewable energy transition in policy agendas	3.22
Political agenda prioritizing the renewable energy transformation	3.11
Coordination and integration of policy agendas	2.75
Average score	3.03

The failure of translation is rooted in structural weaknesses within Montenegrin energy governance. Institutional capacity gaps and unclear mandates continue to obstruct operationalization. A prominent example is the Eco Fund, established in 2018 to channel fiscal support for green projects (Eco Fund 2023). Although modelled on EU structures, its implementation has been undermined by the absence of an adopted NECP. As one regulatory official noted, "Montenegro lacks the essential strategic documents aligned with the 2050 climate neutrality objective [...] Without these documents it is difficult to coordinate the different activities necessary for realization" (Policy Official 1). Consequently, the translation of high-level goals into executable programs remains tenuous, reflected in the moderate scores on goal orientation (Table 3, item 1).

Although economic reform programs formally reference sustainability objectives, stakeholders report that the RE transition remains subordinated to more pressing political priorities such as economic growth and EU accession (see also Bartlett and Uvalić 2022). This form of policy hierarchization means that while RE targets receive rhetorical support and appear in strategic documents, they are not operationalized as core priorities in practice. Informants emphasize that sustainability agendas in the Western Balkans are often pursued instrumentally, primarily as a means of advancing integration into global markets and meeting EU accession requirements rather than being embraced as first-order priorities that are intrinsically valuable objectives. This dynamic creates a persistent mismatch between high-level political signaling and institutional follow-through, inasmuch as national alignment with the GAWB is treated as externally driven compliance rather than domestically embedded ambition. In effect, the prioritization of RE within the national political agenda remains moderate and fragile; that is, structurally vulnerable to being deprioritized when competing political or economic pressures arise. These tensions are reflected in the below-moderate assessment of the political prioritization of the RE transition (see Table 3, item 2).

Coordination challenges further weaken implementation. Although several ministries and agencies (notably those responsible for energy, environment, and climate) hold formal mandates, there is little delegation of authority or targeted funding toward implementation actors at the industry or municipal levels. Efforts have been made to address this problem. Since the early 2020s, the state administration has attempted to initiate policy reforms to promote cross-sectoral coordination, including through forums such as the National Council for Sustainable Development and its working groups (e.g., on Climate Change Mitigation and Adaptation). These institutions are intended to facilitate translation and anchoring by linking political goals to actionable programs and mobilizing sectoral actors around shared agendas. However, these cooperative platforms reportedly remain weakly institutionalized. The relationships between ministries, the private sector, and

civil society remain fragile and underdeveloped. Informants report that while these forums offer a potential bridge between sectors, their decision-making authority remain limited. Strengthening these networked relationships is prerequisite for achieving broader coordination and for translating RE objectives into concrete investments, regulatory enforcement, and localized action.

Montenegro has also underutilized opportunities for regulatory alignment with EU frameworks. The country is expected to implement a wide array of regulatory reforms aligned with EU climate and energy policy, including integrating sustainability criteria for biofuels and biomass, completing market coupling through the EU intra-day electricity markets, aligning tariffs with market conditions while protecting energy-poor households, and adopting new air quality standards and eco-design regulations. Informants note that although support mechanisms such as feed-in tariffs have been introduced, "there is still room for improving the effectiveness, accessibility, and inclusivity of these measures" (Informant 5). These implementation deficits have constrained the *de facto* anchoring of RE goals.

Finally, Montenegro's outdated strategic documents continue to undermine the institutional anchoring of its RE agenda. Only recently, as of December 10, 2025, has Montenegro adopted its NECP, consistent with EU climate objectives, ensuring that Montenegro's Energy Development Strategy is finally aligned in terms of policy commitment with the EU's current climate objectives. This persistent planning vacuum resulting from the difficulty of translating broader EU policy agendas to actionable plans has hampered long-term policy coherence and diminished the government's ability to implement and enforce its climate commitments. In consequence, the alignment of national targets with the EUGD has lagged behind, while emissions reduction efforts have stalled due to the absence of clearly defined, legally binding post-2020 objectives. These strategic gaps are reflected in informant assessments, which rate the coordination and integration of RE policies below moderate, signaling persistent fault lines in the institutional architecture underpinning Montenegro's energy transition (see Table 3, item 3).

The findings in this governance pillar illustrate that while Montenegro has made formal progress in recognizing the importance of the RE transition, its governance system still lacks the strategic coordination, regulatory mechanisms, and institutional maturity required to translate and anchor policy agendas into sustained action. Strengthening inter-ministerial coordination, enhancing stakeholder participation, and accelerating the operationalization of the NECP will be crucial next steps. Without these reforms, the anchoring of RE objectives in everyday policy practice will remain uneven and vulnerable to reversal.

5.3 | Output: Implementation, Enforcement, and Accountability

Among the five governance pillars, Montenegro scores lowest on implementation, enforcement, and accountability, highlighting a persistent gap between declared policy ambitions and their practical realization. This weakness is evidenced by the protracted delays in adopting key EU frameworks, including the finalization of the NECP, partial alignment with the EU Emissions Trading System, and the failure to implement the Electricity Integration Package. These omissions point to structural deficits in Montenegro's capacity to enforce compliance and institutionalize accountability in its energy governance system.

Informants consistently emphasized that output-oriented governance mechanisms, while critical to long-term success, are often deprioritized in political and administrative agendas because they yield fewer short-term, visible gains (see Table 4, item 1). As one high-level official from a regulatory agency observed, "Political discourse frequently highlights the importance of energy transition, yet structural weaknesses and governance inefficiencies slow progress" (Policy Official 6). This underscores the emerging recognition that enforcement and accountability mechanisms are indispensable to sustaining momentum beyond initial agenda-setting. Without systems to monitor progress, enforce commitments, or sanction non-compliance, Montenegro risks entering a cycle of symbolic governance and policy inertia (see also OECD 2003).

Two core challenges stand out according to informants. First, most RE-related policies have over the last decade been articulated as general ambitions, not enforceable mandates, which means that public authorities face no institutional or legal consequences for missing targets. Second, the country has lacked a centralized accountability infrastructure capable of reliably tracking energy performance, emissions trends, or renewable investment outcomes. As one policy official noted, "access to financing mechanisms is uneven, with international funding available but national-level resources considered insufficient" (Policy Official 3). This quote, while about financing, illustrates how implementation suffers not only from a lack of rules but from the absence of systems that track how resources are being allocated and used. The absence of reliable Monitoring, Reporting, and Verification (MRV) tools constrains the country's ability to operationalize its NECP or comply with EU frameworks that presume such technical capacity (see Table 4, item 2).

Civil society and private sector actors have begun to take on stronger oversight roles, but their institutional reach remains limited. The Working Group on Just Transition, under the National Council for Sustainable Development, is a step toward inclusive monitoring, drawing together government,

TABLE 4 | Summary of questionnaire results on implementation, enforcement and accountability.

Indicator	Value
Enforcement and accountability mechanisms	3.16
Monitoring, evaluation and learning processes	2.61
Institutional platforms for action and monitoring	2.62
Differentiation of enforcement and accountability mechanisms	2.79
Average score	2.89

civil society, academia, and business. Nonetheless, informants underscore that quality of reporting must first improve. As one put it, "stakeholders are expected to comply with regulations and policies [...] but they are not required to disclose information about their sustainable energy activities, such as energy usage, emissions, and investment in renewable energy projects" (Policy Official 5). Without systematic data disclosure, stakeholder engagement lacks a substantive foundation for evaluating performance or proposing corrective action. These gaps limit both transparency and enforceability, leading to a weak overall rating on institutional accountability (see Table 4, item 3).

In addition to state-centered enforcement, Montenegro has yet to develop robust market- or network-based accountability mechanisms (see Table 4, item 4). Informants stress that the development of a national monitoring, reporting, and verification system would serve as a prerequisite for carbon pricing and participation in the EU's Carbon Border Adjustment Mechanism by 2026. However, implementation of these mechanisms has faced resistance. One informant noted that "Public-private partnerships in the energy sector are underdeveloped, limiting opportunities for joint investments and technological innovation" (Policy Official 7). The absence of effective public-private partnerships and cross-sector alliances compounds the difficulty of integrating RE transition measures into broader economic development strategies. At the same time, the EU's Carbon Border Adjustment Mechanism is often perceived as a coercive mechanism that could impose asymmetrical burdens on Western Balkan economies, triggering political resistance and institutional inertia.

In summary, Montenegro's energy governance suffers from underdeveloped enforcement infrastructure and limited accountability practices. Although access to information and opportunities for consultation have improved, these are not yet accompanied by rigorous mechanisms to evaluate progress or sanction underperformance. Without a comprehensive accountability architecture—spanning state, market, and network governance modalities—the country risks perpetuating a governance cycle characterized by rhetorical ambition and weak follow-through. Strengthening enforcement capacity and embedding monitoring systems will be necessary steps toward a credible and durable RE transition.

5.4 | Support

5.4.1 | Resources and Competences

The rapid expansion of EU and international grants, loans, and funding mechanisms, particularly within the context of the GAWB, has opened multiple avenues for Montenegro to scale up its RE investments. However, informants consistently emphasize that these opportunities are undermined by major access barriers. Regulatory constraints, a shortage of technical expertise, and overly complex administrative procedures limit stakeholders' ability to effectively mobilize available financial resources. In effect, while the formal availability of financial support exists, de facto access remains limited due to structural and institutional weaknesses (see Table 5, items 1 and 2).

TABLE 5 | Summary of questionnaire results on resources and competences.

Indicator	Value
Availability of resources and competences	2.92
Access to financing mechanisms	3.22
Provision of knowledge and expert advice	3.07
Capacity building initiatives	3.21
Average score	3.10

These disconnects underscore the broader point that access to finance is not merely a function of supply, but also of institutional capacity and absorptive competence (see also Polzin and Sanders 2020).

Both public and private actors face overlapping constraints. Public sector bodies, particularly state-owned energy enterprises, often lack strategic financial planning and the cooperative management models necessary to align long-term RE goals with available funding schemes. Informants point to maturity mismatches and short-term financial pressures as key deterrents to proactive investment. On the private side, businesses demonstrate latent investment potential but are constrained by persistent political instability and economic uncertainty. In effect, the lack of clear regulatory signals and the absence of effective risk-reduction mechanisms further discourage private capital.

Moreover, successful engagement with modern RE financing instruments requires expertise that goes beyond conventional energy sector knowledge. Informants highlight the need to integrate skills in energy economics, digitalization, and technological innovation into policy and project design. As one policy expert elaborated, "access to financing mechanisms is uneven, with international funding available but national-level resources considered insufficient" (Policy Official 8). This insight underscores the dual challenge of financial availability and institutional readiness. While knowledge-sharing platforms—such as government portals, stakeholder forums, and NGO events—exist, they are inconsistently used and often fail to reach the actors with decision-making authority (see Table 5, item 3).

Multi-stakeholder forums under the National Council for Sustainable Development offer some space for deliberation and capacity exchange, but informants remain skeptical about their strategic value. The lack of systematic engagement across ministries, municipalities, and market actors constrains the development of collective ownership and shared expertise. While institutional representatives engage in training workshops and collaborative programs with European partners, informants suggest that broader participation is needed to bridge critical capacity gaps and improve project execution (see Table 5, item 4).

While Montenegro participates in several international technical assistance programs, informants agree that capacity-building remains uneven in scale and impact. Most notably,

rural municipalities and local governments suffer from underinvestment in human capital and green skills development. The effects of these capacity gaps are particularly pronounced in both the input and output phases of energy governance. On the input side, the absence of robust multi-stakeholder platforms restricts the aggregation of expertise and strategic visioning. On the output side, low institutional competence hampers implementation, monitoring, and iterative project learning. One partial corrective is the Green Agenda Days platform, which supports institutional learning through matchmaking events, technical workshops, and donor coordination. These events represent a move toward more integrated and inclusive capacity-building and help mitigate asymmetries in knowledge access.

In sum, Montenegro's access to international funding may be improving on paper but remains constrained in practice by institutional fragility and technical deficits. The problem is irreducible to financial scarcity, highlighting in turn the limitations in absorptive and organizational capacity needed to mobilize, manage, and implement funding effectively. Without targeted investment in institutional expertise and human capital, the country's RE transition will remain hindered by implementation gaps and slow uptake. Addressing these deficiencies will be critical to unlocking the transformative potential of financial support mechanisms.

5.4.2 | Support: Leadership and Coordination

Montenegro has made incremental progress in advancing its sustainable energy transition, yet persistent deficits in leadership and coordination continue to undermine both momentum and coherence. These shortcomings form a structural bottleneck that reverberates across all the functional phases of energy governance. At the root of these deficiencies lies an enduring political instability. Since 2020, Montenegro has experienced three successive governments and frequent reorganizations of ministerial portfolios. As a result, policy continuity has suffered, institutional memory has eroded, and energy-related leadership has fragmented (see Table 6, item 1). This political turbulence has prevented the emergence of a stable facilitative leader within government who could steward cross-sectoral alignment, maintain long-term planning, and institutionalize reforms.

This institutional fragmentation is exemplified by overlapping mandates across several bodies, including the Office for Sustainable Development, the Ministry of Energy and Mining, the Ministry of Spatial Planning, and the National Council for Sustainable Development. Though each is nominally responsible for RE coordination, the absence of a clearly empowered lead agency has undermined effective collective action. Coordination mechanisms remain siloed, weakly institutionalized, and largely ad hoc, constraining strategic oversight and limiting Montenegro's ability to deliver a coherent national response to climate and energy targets.

TABLE 6 | Summary of questionnaire results on leadership and coordination.

Indicator	Value
Presence and effectiveness of facilitative leadership	2.93
Strategic capacity to steer the climate agenda	3.42
Average score	3.10

These leadership voids have cascading effects across governance dimensions. In the input phase, fragmented leadership impairs stakeholder mobilization. Civil society and private sector actors struggle to identify stable interlocutors within government, which discourages engagement and reduces their willingness to commit resources. This in turn hinders coalition-building and consensus formation around long-term decarbonization goals.

In the process phase, policy agenda-setting and anchoring are obstructed by inconsistent support and weak political commitment. Strategic documents are frequently delayed or remain in draft form, while ministerial cooperation is hindered by a lack of durable leadership structures. The credibility and durability of RE policies thereby remain fragile. As noted earlier, strategic documents are delayed or left in draft form; coordination between line ministries is inconsistent; and the absence of stable political backing weakens the durability of reforms. Consequently, many RE-related policies are perceived as provisional or subject to reversal, limiting their capacity to create investor confidence or long-term implementation pathways.

In the output phase, implementation suffers from a lack of follow-through and weak administrative accountability. Without facilitative leadership to ensure cross-ministerial coordination, monitor performance, or enforce compliance, progress in RE deployment is erratic and uneven. The execution of EU-aligned targets such as the Emissions Trading System or the Electricity Integration Package has stalled, due in part to the absence of centralized oversight and performance management systems.

Despite these challenges, Montenegro's strategic leadership potential is not entirely absent (see Table 6, item 2). Informants note that select institutional actors have shown moderate readiness to engage with RE reforms. Working groups under the National Council for Sustainable Development have supported valuable intersectoral dialogues and generated some reform momentum. However, these platforms remain politically marginal and under-resourced, lacking the authority to drive system-wide change. The result is a system characterized by earlier referenced "islands of commitment" but no overarching strategy. To build more effective coordination, then, institutional actors must extend beyond narrow operational silos by adopting knowledge-sharing practices and investing heavily in personnel development. Among various suggestions, this includes fostering a shared understanding of the governance challenges posed by the RE transition, aligning long-term planning instruments through the institutionalization of mechanisms for institutional learning (see, e.g., Angeles et al. 2021; Döme 2024). In addition, cultivating a shared cross-ministerial understanding of renewable energy transition challenges can support the (re)alignment of long-term planning instruments by tackling persistent, system-wide policy and institutional gaps, rather than relying on ad hoc, piecemeal interventions that are easily destabilized by patchy weaknesses elsewhere in the RE governance system.

While Montenegro has made notable progress in attracting RE investments and implementing partial market reforms, persistent coordination gaps continue to erode credibility. Effective leadership will require both a centralized strategic direction and the institutional authority to guide cross-sectoral implementation. As one informant put it: "Montenegro lacks comprehensive strategies in key areas such as air quality, biodiversity, and climate adaptation (Policy Official 9)" A clear, actionable sustainable energy strategy with concrete timelines and accountability mechanisms remains lacking. In conclusion, Montenegro's RE governance suffers from a deficit in stable and strategic leadership. This leadership vacuum impedes coordination and hinders progress across the governance spectrum. Addressing this gap will require empowering coordination bodies, enhancing inter-institutional collaboration, and ensuring that leadership structures are not only functional but politically anchored. These reforms are indispensable for transforming political commitments into durable, system-wide action.

6 | Integrative Analysis: Interlocking Deficits and Emerging Capacities in Montenegro's RE Governance

Montenegro's RE transition reveals a governance landscape marked by fragmented authority and fragile coordination. While the country demonstrates formal alignment with European climate objectives, its RE governance system suffers from misalignments across the five functional governance pillars. While a disaggregated analysis identifies discrete weaknesses in the form of incomplete planning documents, limited enforcement, and underdeveloped stakeholder engagement, an integrative perspective additionally reveals a pattern of reinforcing vulnerabilities and stagnant feedback loops that cumulatively erode transition capacity.

At the core of Montenegro's governance shortfalls is a failure of integration across policy phases and levels of government. The input phase shows moderate mobilization of political and societal actors around the RE agenda, but the absence of stable leadership structures and under-institutionalized stakeholder platforms has prevented this initial engagement from crystallizing into a coherent and coordinated transition strategy. Informants described a patchwork of political support and incentive schemes, but these are neither coherently sequenced nor mutually reinforcing. Without strong institutional anchoring in the process phase, actor mobilization remains shallow and episodic, leading to diluted accountability downstream.

The process phase, in turn, struggles to translate rhetorical ambition into actionable policy. Montenegro's formal commitments, through the GAWB and the impending institutionalization of the NECP, lack operational anchoring due to policy fragmentation and administrative discontinuity. This policy incoherence has downstream consequences. Implementation actors face inconsistent mandates and regulatory ambiguity, which impedes both output-phase enforcement and public sector learning. In short, weaknesses in agenda-setting and coordination block the institutionalization of transition goals, severing the link between intention and execution.

The output phase reflects the cumulative effects of upstream governance failures. Monitoring, enforcement, and adaptive management structures are underdeveloped, undermining credibility and weakening compliance incentives. Informants highlighted the absence of a reliable MRV system and the lack of institutional consequences for missing targets, both of which are symptoms of a broader erosion in policy follow-through. Importantly, these are not merely capacity deficits, but coordination breakdowns: without strategic leadership and empowered institutions, the feedback loops that allow implementation experiences to inform upstream planning remain inert. The result is a governance system that learns and adapts slowly, if at all.

These weaknesses are exacerbated by cross-cutting deficits in leadership and coordination. Institutional memory is thin, strategic oversight is episodic, and high-level political steering is hindered by frequent governmental turnover. This instability weakens all three transition phases. Without a central coordinating actor, cross-sectoral policy integration falters, stakeholder trust diminishes, and line ministries pursue competing agendas. Coordination gaps also undermine the ability to pool resources, align timelines, and prioritize interventions (see also Dunjic et al. 2016). The result is not only policy fragmentation but temporal disjunction, as short-term political cycles repeatedly interrupt long-term transition planning. The governance system's absorptive capacity is similarly impaired by gaps in resources and competences. While EU funding mechanisms offer substantial external support, Montenegro's institutions often lack the technical capacity to access, allocate, and operationalize these funds effectively. This financial underutilization is not only a result of skill shortages but also reflects missing linkages between fiscal planning and strategic prioritization. Without inter-institutional pipelines that translate financing into implementation-ready projects, resource flows remain underleveraged. Such deficits again reverberate system-wide, insofar as funding blockages hinder implementation; implementation delays erode public legitimacy; and lost legitimacy weakens future mobilization.

Nonetheless, the integrative analysis also surfaces emergent horizons of opportunities. Despite the fragmentation, Montenegro's governance system has initiated coordination platforms that offer latent infrastructure for cross-sectoral dialogue, most notably the National Council for Sustainable Development and its Working Group on Just Transition. Similarly, initiatives like the Green Agenda Days and the accompanying Donor Coordination Process demonstrate the potential of networked governance to strengthen capacity, improve alignment, and broker trust across public, private, and civil society actors. Though presently limited in scope and authority, these mechanisms constitute footholds for future systemic improvement, especially if they are strategically resourced and institutionally anchored.

The functional governance perspective reveals that Montenegro's RE governance challenges are not simply additive but mutually reinforcing. Gaps in one functional domain do not remain contained but ripple outward and sap momentum. The transition thus stalls not because any one function fails entirely but because the interplay between functions lacks synchronization. Conversely, nascent improvements in expanded access to international financing, modest growth in intersectoral forums, and

early steps in strategic communication can also generate reinforcing loops, provided they are aligned and institutionalized.

7 | Conclusion

As climate commitments proliferate and global temperatures continue to rise (Smith 2024), the central challenge is no longer the articulation of ambitious RE policy targets, but the creation of governance systems capable of translating those targets into credible, system-wide transformations. TM has significantly advanced our understanding of how sustainability transitions are initiated, through niche innovations, participatory arenas, and long-term visioning that destabilize incumbent regimes. However, as this article has shown through the case of Montenegro, the real bottleneck lies not in disruption alone, but in the scaling, coordination, and institutional stabilization of renewable energy systems once early momentum is achieved. Applying the functional governance framework, we assessed Montenegro's RE transition by disaggregating functional imperatives across input, process, and output phases, while examining cross-cutting capacities such as leadership and resource mobilization. What emerges is not a collection of isolated governance failures, but a pattern of interlocking dependencies and recursive feedback loops. Actor mobilization is weakened by the absence of facilitative leadership; policy translation falters under fragmented authority; and implementation stagnates amid weak enforcement and limited institutional learning. These dynamics exemplify broader functional and structural constraints across the Western Balkans, where externally driven climate goals often lack deep institutional rooting.

Several policy implications follow from the diagnostic evaluation of Montenegro's RE governance through the functional governance perspective. First, Montenegro would benefit from further strengthening and politically empowering a metagovernance coordination unit that that has the mandate to more consistently orchestrate dispersed ministries, regulators, state-owned enterprises, municipalities, donors, and non-state stakeholders, align mandates across governance levels, and "recouple" the five functional pillars (Jänicke and Quitzow 2017; Jessop 2016; Meuleman 2019). In effect, a metagovernance coordination unit would ensure that agenda-setting is more reliably carried through into implementation, enforcement, and learning (Chen and Hustad 2025). Such a unit could also help raise the currently "medium" performance across pillars through a coordinated upgrading effort, insofar as the analysis indicated that dysfunctions in one functional pillar (e.g., fragmented leadership or uneven enforcement) can spill over into others (e.g., diluted mobilization or weak policy anchoring). In turn, reforms are likely also to be more effective when they reinforce multiple pillars in parallel and deliberately leverage complementarities rather than treating bottlenecks as isolated.

Second, the NECP process could be further consolidated as an anchoring instrument by more systematically linking targets to budget lines, implementation responsibilities, and time-bound milestones across sectors. Third, implementation capacity could be improved by further streamlining permitting (including through more integrated "one-stop" procedures where feasible) and clarifying divisions of mandate across agencies, alongside routine inter-agency coordination for grid connection and project approvals. Fourth, Montenegro must accelerate the consolidation of its MRV system by institutionalizing a stable and enforceable indicator set and regular public reporting (see, e.g., Ochieng et al. 2016), thereby enabling audits, corrective action, and credibility vis-à-vis EU conditionality mechanisms. Finally, since constraints are not only financial but also administrative, EU funding and donor support could be paired more systematically with targeted technical assistance for municipalities and regulators, and with structured platforms that more fully incorporate civil society and private developers into monitoring and feedback, thereby broadening governance beyond state–business relations while improving accountability and learning.

While TM provides indispensable tools for understanding how transitions begin, it offers fewer resources for analyzing how transitions are stabilized within formal governance systems. Montenegro's experience underscores the need to move beyond early-phase experimentation toward metagovernance, that is, the orchestration of distributed but coupled governance mechanisms that enable the state to steer in the absence of direct control (Scharpf 1994). Climate and energy policies, in this context, function less as primary levers of change and more as coordination devices that must be supported by robust infrastructures of compliance, monitoring, and administrative coherence. From this perspective, Montenegro's RE transition exemplifies an incongruent constellation of governance factors, insofar as policies, platforms, and resources exist, but their effects are muted by institutional fragmentation and the absence of procedural coupling (Đurašković et al. 2021). As such, Montenegro is best viewed not as a governance failure or success, but as a transitional case whose trajectory depends on whether existing governance components can be strategically aligned, stabilized, and embedded for the purposes of a RE transition.

The functional governance framework contributes to the TM tradition by redirecting attention to the mid- and late-phase dynamics of transition, where fossil-based regime destabilization must give way to administrative coordination, rule enforcement, and institutional embedding. Finally, this analysis affirms the need for context-sensitive and configurational approaches to comparative transition studies (Rihoux and Ragin 2009). Transition success is not the product of universal models but of governance alignments that fit particular institutional and political economies (Geels et al. 2016). For the Western Balkans, this may require regionally differentiated strategies that acknowledge varying capacities while fostering greater synchronization in implementation across governance levels. In effect, the credibility of the EUGD and the effectiveness of the GAWB will depend on whether ambitious targets are matched by adaptive and contextually grounded governance architectures. Montenegro's case demonstrates that achieving such integration will demand not just technical reform but institutional imagination, which is the institutional capacity to redesign governance around the pursuit of coherence itself.

Future research can build on the functional governance perspective by advancing it from a diagnostic framework into a more explicitly theory-driven agenda. The first step is to further specify and systematize the governance mechanisms that can operationalize each pillar across different institutional contexts,

moving beyond illustrative examples toward a more comprehensive typology of intervention modes. Above all, this should include a broader conception of governance that is not limited to state regulation. Many governance functions—hereunder mobilization, coordination, monitoring, and enforcement—may be performed through hybrid arrangements involving regulators, state-owned enterprises, private developers, municipalities, donors, and civil society networks. The second step is therefore to develop and test propositions about functional substitution and functional complementarity, that is, under what conditions non-state actors can compensate for weak state capacity (e.g., via donor-led coordination, industry standards, community energy initiatives, third-party monitoring), and when do state–business configurations instead entrench path dependencies by narrowing participation and weakening public accountability? Comparative designs, within the Western Balkans and beyond, could examine whether similar functional configurations yield similar transition trajectories while remaining attentive to political economy and institutional legacies. In this sense, Montenegro should not be treated as a generalizable benchmark, but as a "critical" and thus theoretically informative case that highlights how renewable energy transitions can stall when governance functions fail to align, and where leverage points for re-coupling those functions (including through non-state and hybrid governance) may lie.

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Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Endnotes

[1] A functional governance perspective should not be conflated with a functionalist theory of governance. The latter typically assumes that governance mechanisms evolve or persist because they fulfill necessary systemic functions, thereby contributing to the stability or reproduction of the overall system. In contrast, the functional governance perspective adopted in this article does not presume that institutions are inherently adaptive or that governance structures are self-reinforcing simply because they serve a particular function in theory. Rather, it treats governance functions as analytically distinct roles and tasks that may or may not be fulfilled in practice. This perspective is diagnostic, not evolutionary. It enables an assessment of whether key governance functions are being adequately performed, rather than assuming they are structurally embedded or automatically activated in response to transition pressures.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section. **Data S1:** An extended research protocol on the five governance pillars. **Data S2:** The questionnaire and semi-structured interview guide used for the data collection process.