

Data-to-Deal Series

D2D Component 6

POLICY: ENHANCING THE ENABLING ENVIRONMENT – A BEST PRACTICE BRIEF

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SUMMARY

This best practice brief presents Component 6 of the Data-to-Deal (D2D) framework, which addresses how to strengthen the enabling environment for investment. This component focuses on the coherent policy, regulatory, and institutional reforms needed to reduce risk, create clear routes to market, and build investor confidence in clean energy and sustainable transport systems. Stable legal frameworks, predictable pricing and incentive structures, and transparent procurement processes are essential to mobilise capital at scale. Component 6 on successful enabling environments comprises three sub-components: (i) operationalising cross-cutting enablers; (ii) identifying and designing policy reforms; and (iii) developing an

implementation plan to prioritise and sequence reforms. These sub-components are embedded across the D2D pipeline, linking political commitment, technical planning, and finance mobilisation into a coherent reform agenda. The brief draws on case studies from Zambia, South Africa, and the UK to illustrate how targeted reforms can expand renewable energy, reduce costs, and create investor-ready markets, while also highlighting the role of domestic capital market reforms in unlocking long-term sustainable financing. By operationalising this approach, countries can develop integrated, context-specific reform packages that advance development priorities, meet climate commitments, and strengthen resilience.

KEY RECOMMENDATIONS

1. Governments should prioritise improving the enabling environment as this is likely to be the most important factor in unlocking investment flows.
2. Governance arrangements, institutional mandates, and capacity development should be strengthened to support design and implementation of reforms.
3. Policy packages should be developed that help navigate the political economy of reform and address the multiple policy gaps.
4. The international community should work to improve the tools available to countries to help them develop their policy and regulatory environments.

CONTRIBUTING INSTITUTIONS



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This document forms part of a series of guidance notes, each focused on one D2D component. The series provides practical advice to governments and their partners on how to integrate D2D into national planning and financing processes. This series (available [here](#)) is co-authored by leading international organisations, along with contributors from LMIC countries, to reflect a collective perspective on how best to leverage investment for climate-aligned energy and transport transitions.

The primary audience for these briefs includes energy and transport policymakers in LMICs at national and subnational levels, as well as development partners and international organisations that provide technical and financial support. The guidance applies to both mitigation and adaptation priorities, while recognising that the balance between them will differ across country contexts.



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1. Introduction

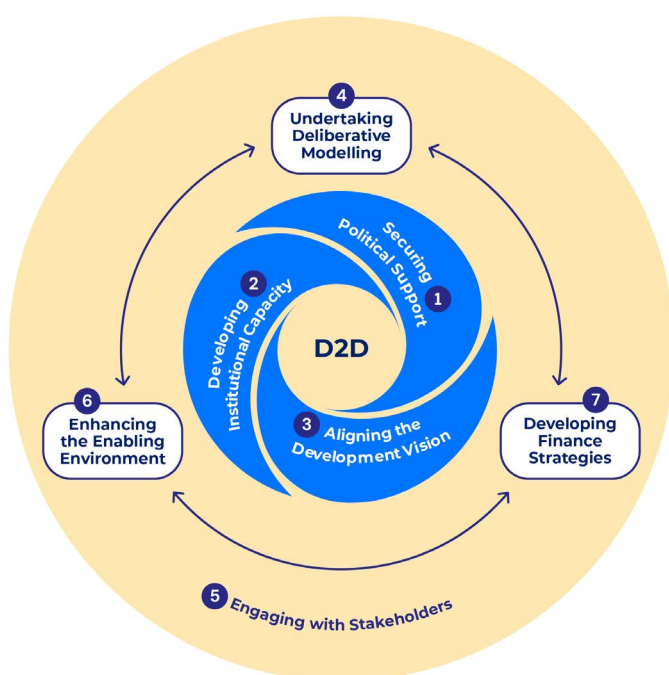
Low- and middle-income countries (LMICs) are working to transform major economic sectors to advance development priorities, meet climate commitments, and strengthen infrastructure resilience. Achieving these objectives will require accelerated socio-economic change across energy, transport, and other high-emitting sectors. Most countries, however, cannot achieve these transformations without mobilising much higher levels of finance [1].

The Data-to-Deal (D2D) framework, developed by over 75 global experts, provides a structured, evidence-based approach to help countries close this gap [1]. The framework consists of seven interlinked components – Politics, Capacity, Vision, Modelling, Engagement, Policy, and Finance – that move from political commitment and institutional readiness through to financing.

These components are designed to be adapted to national contexts, rather than be followed in strict sequence, and they are underpinned by sustained stakeholder engagement.

This brief focuses on **Component 6: Policy – Enhancing the Enabling Environment**, which centres on the policy, regulatory, and institutional reforms needed to create investment-grade conditions for clean energy and sustainable transport. Strengthening the enabling environment reduces risk, improves project bankability, and builds investor confidence by ensuring that legal frameworks, pricing and incentive structures, and procurement processes are stable and transparent. This brief sets out key principles and best practices for designing and sequencing reforms and concludes with practical recommendations for building enabling environments that are coherent, context-specific, and aligned with long-term development and climate goals.

Figure 1: The D2D framework visualised



1.1. Inter-linkages

Within the D2D framework, Component 6 builds directly upon the outputs of other components, as outlined in **Table 1** (below).

1.2. Value proposition

In this brief, we use the term ‘enabling environment’ to mean the combination of policy and regulatory frameworks and institutional and governance arrangements that together determine the legal and commercial conditions in which projects operate. These conditions in turn influence the ease of project development, financial returns, and the allocation of risk between stakeholders.

Table 1: Interactions between Component 6 and other Components of the D2D Framework

D2D Component	Component 6: Policy
1. Politics: Securing political support	Component 1 establishes the political foundation for policy reform by clarifying the governance arrangements that underpin the enabling environment. These arrangements are typically coordinated through the Governance Coordination Facility (GCF), which provides the mandate and oversight needed to align institutions around a shared reform agenda. Political structures, including transparency and accountability mechanisms, shape whether market-based or regulatory approaches are most appropriate for strengthening Component 6.
2. Capacity: Developing institutional capacity	Component 2 enhances the enabling environment by building the institutional capacity required to design, implement, and monitor effective policy reforms. Strengthened ministries, regulators, and implementing agencies improve coordination across energy, finance, and planning institutions, enabling coherent and credible policy design under Component 6. This institutional readiness is essential for translating policy ambitions into implementable measures that attract investment.
3. Vision: Aligning the development vision	Component 3 ensures that a country's long-term development vision aligns with its enabling environment and the political scope for reform. The feasibility of policy and regulatory measures under Component 6 depends on how well national visions integrate fiscal, economic, and environmental priorities. A shared vision among ministries and stakeholders helps build the consensus needed for consistent policy implementation and financial mobilisation.
4. Modelling: Undertaking deliberative modelling	Component 4 informs Component 6 by identifying the investments and policy actions needed to achieve development and climate goals through deliberative modelling. Modelling outputs help prioritise actions that are technically and economically sound, while also considering political feasibility and policy coherence. This two-way linkage ensures that national infrastructure plans reflect both what is needed and what is politically viable, reducing the risk of including measures lacking political or institutional support.
5. Engagement: Engaging with stakeholders	Component 5 strengthens Component 6 by ensuring that the design of policy instruments reflects the interests and expertise of key stakeholders. Different policy choices can create distinct distributions of costs and benefits, making dialogue essential for building consensus and legitimacy. Tailored engagement with government agencies, private investors, and civil society ensures that policies are both socially acceptable and financially investible, improving the effectiveness of the enabling environment.
7. Finance: Developing finance strategies	Component 7 complements Component 6 by identifying the financial instruments and sources of capital best suited to the infrastructure priorities emerging from the enabling environment. The nature of available finance, public, private, or blended, shapes which policy instruments are most needed to mobilise investment. By aligning finance strategies with policy reform priorities, this component ensures coherence between regulatory design, risk allocation, and financial mobilisation.

Figure 2: Enabling environment as a de-risking measure (Source: Authors)

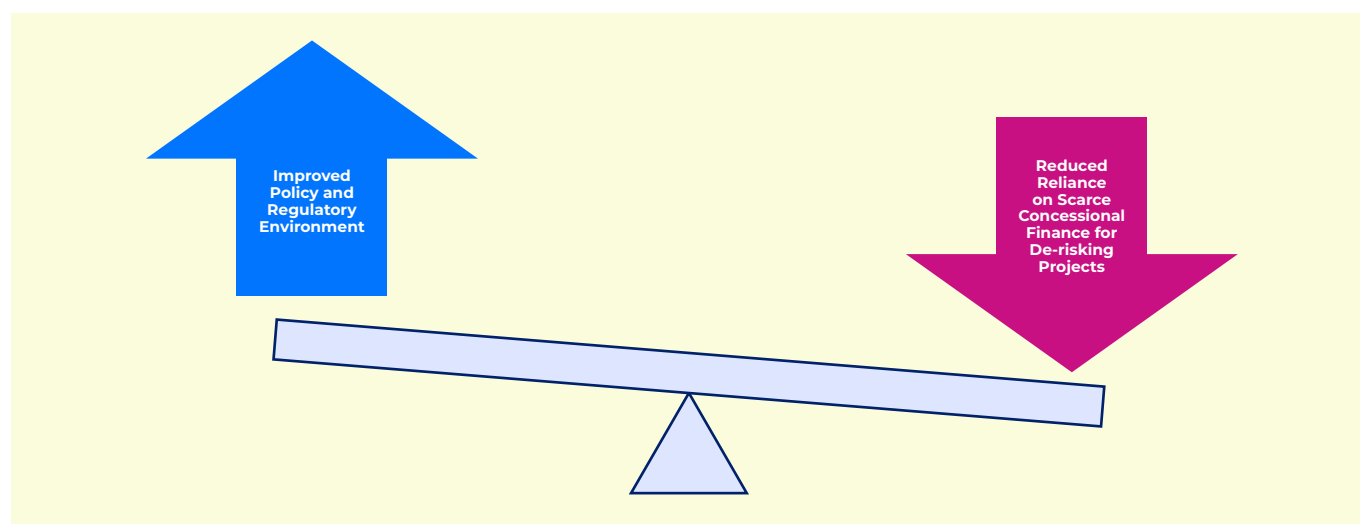


Figure 2 (above) schematically illustrates how improving the policy and regulatory environment can help increase investors' propensity to invest, and in turn reduce the reliance on scarce financial de-risking instruments such as concessional finance and guarantees to make projects bankable (see Component 7: Finance), allowing these scarce resources to be more effectively deployed with greater leverage. The key value propositions of strengthening the enabling environment include:

- **Improved project bankability.**
Clear rules, transparent procurement processes, and predictable incentives create the stability needed for investors to commit capital, lowering reliance on concessional finance and de-risking instruments.
- **Efficient allocation of risks and returns.**
Policy and regulatory frameworks clarify how financial and operational risks are shared across governments, developers, and financiers, increasing the financial sustainability of investment.
- **Progressive sequencing of reforms.**
Managing the timing and phasing of reforms helps remove barriers, build investor confidence, and align interventions with long-term development, climate, and resilience priorities.
- **Strengthened institutional capacity and ownership.**
Establishing clear mandates, ensuring adequate technical and financial resources, and embedding horizontal coordination across ministries reduces dependency on external consultants and strengthens national ownership of reforms.
- **Improved tools for implementation.**
Countries need practical resources, including standardised templates and peer-learning platforms, to accelerate policy design and reform. Identifying gaps in the current toolkits creates opportunities for the international community to provide support.

1.3. Sub-components

Component 6 is divided into three sub-components that together establish the enabling environment for policy reform and investment mobilisation:

1. **Operationalising cross-cutting enablers.**
It is vital to identify the cross-cutting enablers that set the conditions for successful policy implementation. This process has two elements which focus on developing strong institutions and governance foundations and on overcoming political economy barriers that might otherwise stall reforms.
2. **Identifying Key Policy Reforms.**
Developing a conducive investment environment requires targeted policy and regulatory interventions. These typically involve four main levers of reform: regulation; pricing, taxes, and economic incentives; domestic capital market reform; and social and environmental policies.
3. **Developing an implementation plan.**
Countries need tools and approaches that allow them to tailor these policy and regulatory options to their own circumstances, and to develop an actionable roadmap for implementation. The basis for this roadmap includes prioritising actions with appropriate tools, undertaking a design phase, and establishing institutional responsibilities and resources to drive delivery.

The rest of this brief presents a detailed analysis of these three sub-components, followed by targeted recommendations to support policymakers in designing and implementing effective transition plans that lead to strategic finance mobilisation. Throughout, the brief draws on concise case studies to illustrate practical applications, common pitfalls, and replicable solutions in diverse LMIC contexts.

2. Best Practice Guidelines

2.1. Operationalising cross-cutting enablers

The first sub-component of Component 6 focuses on the foundational conditions needed for effective policy reform. This rests on two core elements, which together establish the institutional strength and political space required to deliver change:

- **Strengthening governance and coordination mechanisms.**
- **Addressing political economy barriers.**

2.1.1. Strengthening Governance and Coordination Mechanisms

Transparent and well-coordinated institutions are essential for creating the stable conditions that attract and sustain investment. Once a transition plan is developed and moves into the implementation phase, governments may act as investors by directly investing in the identified interventions, and/or act as enablers to attract investments. In either case, effective institutional structures and arrangements, decision-making processes, and implementation capacities are key to mobilising and sustaining climate-related investments. Investment-enabling regulations, policies, incentives, and infrastructures require institutions and governance arrangements that are stable, transparent, and effective. This helps provide the institutional backbone for reform by convening finance and sector ministries, regulators, and investors around a shared pipeline. They can help track reform progress, align procurement with finance strategies, and maintain a transparent forum for engagement. These issues are addressed in more detail in D2D Guides for Components 1: Politics and 2: Capacity.

Within the Data-to-Deal (D2D) framework, these coordination functions are supported by the Governance Coordination Facility (GCF), established under Component 1: Politics. The GCF provides the institutional anchor for

coordinating and sustaining engagement across the D2D process. It links political leadership, technical analysis, and stakeholder participation to ensure that reforms are coherent, inclusive, and continuous throughout the strategy cycle. Typically situated at the centre of government, for example within the Prime Minister's or President's Office, the GCF remains closely connected to the lead ministry responsible for developing and implementing the transition plan, such as the Ministry of Energy, Transport, or Finance.

The GCF oversees two complementary coordination mechanisms that operationalise engagement and policy coherence: a Political Steering Committee – Special Interest Group (PSC-SIG) and one or more Technical Delivery Groups – Special Interest Groups (TDG-SIGs). The PSC-SIG ensures high-level political alignment across key ministries, regulators, and state-owned enterprises, while also bringing in non-state stakeholders such as development partners, private-sector representatives, and civil-society observers. The TDG-SIGs coordinate the analytical and operational dimensions of reform design and delivery, convening relevant technical institutions, utilities, and investors. Together, these structures strengthen cross-government collaboration, embed transparency and accountability, and ensure that stakeholder input directly informs policy and investment decisions.

The following institutional and governance foundations represent critical conditions for establishing an enabling environment for climate investments:

- **Clear institutional roles and responsibilities** for supporting implementation and investment. Horizontal coordination is needed across government agencies, particularly between the Ministry of Finance and relevant sectoral ministries (eg Energy, Transport, Planning,

Environment). Vertical coordination is also required between national and subnational levels to ensure that sector-specific priorities are addressed and cross-sectoral investments optimised. Mechanisms and responsibilities for systematic engagement with stakeholders, including financial institutions and investors, should be institutionalised, ideally through the GCF and its PSC-SIG and TDG-SIG structures.

- **Adequate human resources and institutional capacities** to design, implement, and enforce relevant policies and regulations, as well as to manage investment processes effectively.
- **Robust accountability mechanisms**, including clearly defined oversight roles, systems for monitoring and reporting, and processes for periodic review and adjustment of policies and investment strategies.

The presence of these foundations will strengthen the overall framework needed to design and implement policies, incentives, regulations, and infrastructure that attract investment and foster investor confidence. These institutional foundations, supported by the GCF, also provide the basis for improved engagement and coordination of joint actions with wider stakeholder groups, including civil society, international development partners, and business communities, sometimes referred to as Country Platforms [2]. Resources to help strengthen governance frameworks are outlined in the **Appendix: Table 7**.

2.1.2. Addressing Political Economy Barriers
Successful reforms require political backing and social buy-in to overcome vested interests and shifting political dynamics. Regulatory reforms should lead to overall economic gains for a country. However, there will often be distributional impacts which may create groups that are opposed to the proposed changes. Typically, policy design and reform need high-level backing and mandate, ideally from

the Head of Government and senior officials within ministries, to establish political and social buy-in to policy packages, creating clear incentives for implementation by officials [3].

One approach to building social buy-in is through implementing a balance of relatively quick and simple targeted changes alongside more complex (and possibly more disruptive) systemic changes (see Section 2.3.1). This achieves progress while concurrently building public support and laying the ground for transformative potential over the life of the strategy (or Government). Part of this process should include inclusive stakeholder engagement, a vital part of creating reforms that have cross-sector support (see D2D Component 1: Politics and Component 5: Engagement).

However, sometimes the reality of governance can be more complex and must deal with external shocks such as COVID or internal dynamics such as shifting citizen support for different measures or overall political direction. Such factors can change what is considered politically and socially acceptable at any given point in time – the so-called ‘Overton window’ of policy opportunity [4]. One approach to addressing political economy issues is sensitive intervention points (SIPs). This framework is a recent innovation which allows policymakers to consider the optimal timing of reforms in the context of how policies might interact with the wider landscape at any given point in time. Resources for SIPs can be found in **Appendix: Table 8**. These shifts can create opportunities to move more quickly with measures that might otherwise face significant political economy barriers. It is therefore useful to understand how each of the key policy instruments being considered connects to the broader political agenda. Thus, when momentum shifts in one area of policy, or due to external circumstances, parallel reforms may be made at the same time.

BOX 1. Case Study: Zambia's Electricity Market Liberalisation.

Zambia's 2019 Energy Act created an “open access regime”, enabling independent power producers (IPPs) to use national networks and sell electricity directly to consumers. Triggered by severe supply constraints, the pressure for reform created the conditions for overcoming the political economy barriers to ending the monopoly of Zambia's national power utility, ZESCO, which, despite requiring little public expenditure, triggered systemic change. Dozens of new IPPs have since entered the market, particularly in solar, with Africa Greenco reaching financial close on sub-Saharan Africa's largest solar PV project outside South Africa.

Applying a Sensitive Intervention Point lens shows how when conditions are right, moderately sized reforms in Zambia could unlock reinforcing investment feedback loops. Additional measures, such as lowering duties on solar components or publishing a database of project costs, could further amplify success, building transparency, attracting investors, and overcoming political economy barriers to reform. See [Smith School of Enterprise & Environment for more information](#) [5].

2.2. Identifying Key Policy Reforms

The second sub-component of Component 6 concerns identifying options for reforms to the enabling environment which can attract the priority investments that have been identified in the national transition plans described in D2D Components 4: Modelling and 7: Finance. As outlined in the following sections, policy interventions come in different forms and may make use of different levers, including:

- **Regulating markets and procurement.**
- **Pricing, taxes, and economic incentives.**
- **Reforming domestic capital markets.**
- **Integrating social, environmental, and behavioural factors.**

2.2.1. Regulating Markets and Procurement

Modern, investment-grade regulation unlocks private capital and accelerates project delivery.

Regulation typically defines the fundamentals of project development and operation, including ownership structures, terms of the licence to operate, technology performance standards and mandates, and the degree of competition [6]. These market-shaping rules play a decisive role in determining whether investments happen, and at what pace. Important examples include procurement laws, energy codes, electricity pricing systems, and land-use policies.

BOX 2. Case Study: Private Grid Investment in Peru.

Peru demonstrates how modern regulatory design can unlock private finance for grid expansion, reducing costs for governments. Since 1998, the country has procured privately financed transmission lines through a Build-Own-Operate-Transfer (BOOT) model, awarding contracts via competitive auctions. Developers assume construction and financing risks, keeping projects off the sovereign balance sheet while delivering new infrastructure at scale. By 2020, 18 projects covering 7,560 km of 220 kV and 500 kV lines had been built, mobilising USD 2.6 billion. Auctions created downward price pressure, with winning bids averaging 36% below cost expectations. The framework combined clear ownership rules with transparent procurement, lowering risk perceptions and attracting private investors. This illustrates how regulatory design can accelerate grid delivery while reducing costs. See [ESMAP](#) and [US Department of Commerce](#) for more information [7, 8].

An important dimension of regulation is the design of procurement frameworks. Transparent, standardised approaches – such as competitive auctions or requests for offers with clear pre-qualification, published evaluation criteria, and model contracts – reduce costs and help create bankable projects.

By allocating risk consistently and ensuring payment security, well-designed frameworks lower perceived counterparty risk for investors and lenders. Where appropriate, they can also include requirements to use local suppliers or manufacturers (so-called “local content” or community-benefit provisions without undermining the ability of the market to set fair prices. Robust debriefs and disclosure practices further reinforce investor confidence and contribute to a durable pipeline of projects.

Over the past decade, steep declines in the cost of solar panels, wind turbines, batteries, and electric vehicles (EVs) have shifted the frontier of climate action. In many sectors, the binding constraint is no longer technology or cost but regulation. Private investors are often ready to finance climate-aligned projects, but are blocked by rigid tendering procedures, outdated grid connection policies, restrictive market design arrangements, or building codes that

can act as a brake on investment in general or favour fossil fuel systems. In contrast, where governments have modernised these rules and designed enabling frameworks, such as competitive power purchase agreements or performance-based building standards, private capital has flowed rapidly into net-zero solutions.

Regulatory and policy reforms (including those outlined in Section 2.2.2.) can be complex to assess, but ‘investment-grade policy’ design for attracting finance tends to conform to a few simple principles¹:

Based in law with broad political support

Clear, legally established regulatory frameworks, based around binding targets or implementation mechanisms, help to build confidence that the regime is stable, has buy-in beyond the current political cycle, and can provide the basis for long-life capital-intensive investments (see **Table 2**).

¹Hamilton, K. 2009. Unlocking Finance for Clean Energy: The Need for ‘Investment Grade’ Policy. Developed through consultation with private investors, a Chatham House guide sets out how policy design can address investor needs [15].

Table 2: Examples of how regulatory stability and political support influence investment outcomes in electricity and transport.

	Electricity	Transport
Positive examples where these conditions have helped enable investment	Central government intermediation of auctions for large solar power plants helped reduce counterparty risk in some Indian states contributing to significantly accelerating levels of investment [9].	Regulatory mandates in the Netherlands mean that since 2025, only zero-emission public transport buses can be purchased. The goal is for the entire fleet to be converted by 2030 [11]. The EU Clean Vehicles Directive mandates that 24–45% of new public buses procured by 2025 be clean vehicles, with further increases by 2030 [12].
Negative examples where a lack of these conditions has hindered investment	Political economy constraints in the United States relating to utility resistance to losing control over the grid have historically slowed regulatory reforms that would facilitate third-party access or utility participation in EV charging [10].	Political resistance and policy fragmentation play a role. In the US, several states have passed laws pre-empting city-level clean transport mandates, contributing to policy uncertainty [13]. In the UK, shifting dates for the phase-out of internal combustion engine created uncertainty and concerns from the industry about a lack of level playing-field, and market distortions [14].

Stable and attractive financial implications

Any changes in regulation should be communicated clearly so that investors have clarity over the impact on their cash-flows. This includes how policies and regulations affect the ease of project development and operation, the volume and price of sales, and risk factors around these, as well as appropriate conditions for any procurement process. Ideally regulatory arrangements should be

sustained for a duration that reflects the financing horizons of a project or deal (see **Table 3**).

Clear physical and commercial route to market

Route to market is the physical and commercial link between investors and customers that allows investments to be monetised. This includes sufficient physical infrastructure, clear off-taker / sales arrangements, and / or mandates for the investments to be carried out (see **Table 4**).

Table 3: Examples of how regulatory clarity on financial implications shapes investment in electricity and transport.

	Electricity	Transport
Positive examples where these conditions have helped enable investment	Revenue guarantees. Australia's Capacity Investment Scheme underwrites clean energy investment by guaranteeing revenue, thereby reducing investor risk. It is expected to support 32 GW of new capacity, including 9 GW of battery storage and 23 GW of wind and solar [16].	Reforming procurement frameworks has enabled large-scale deployment in some cities. In Bogotá and Santiago, authorities separated fleet acquisition from operations, allowing large energy firms to lease buses to transport operators [19]. India introduced a Gross Cost Contract (GCC) model that pays operators per km of service, reducing risk and enabling fleet electrification without up-front capital. Mumbai implemented 50 procurement reforms under this model, resulting in the award of 900 e-buses at 35% lower cost than previous tenders [20].
Negative examples where a lack of these conditions has hindered investment	French policy reversals on renewable energy bans have dented investor confidence [17]. In Texas, policy and tariff instability undermines investor confidence: more than USD 7.9 billion in renewable energy projects were reportedly cancelled in early 2025 due to regulatory uncertainty and long delays in connection approvals [18].	Rigid public procurement models remain a primary obstacle. Cities such as Izmir (Turkey), Philadelphia (USA), and Belo Horizonte (Brazil) have faced multiple failed tenders due to strict technical requirements, limited supplier engagement, and an overemphasis on upfront cost as a selection criterion [21].

Table 4: Examples of how clear physical and commercial routes to market influence investment in electricity and transport.

	Electricity	Transport
Positive examples where these conditions have helped enable investment	India's Gujarat state has implemented market-linked incentives and state investment leading to investment of USD 3.5 billion into its Green Energy Corridor III [22]. New South Wales (Australia) established Renewable Energy Zones (REZs) that has increased investment in co-located generation, transmission, and storage infrastructure [23]. Energy market integration in Chile through expansion of cross-regional transmission lines increased investment in clean energy production [24]	Investment in charging infrastructure expanded as a result of improved legal clarity when India's regulators classified EV charging as a service rather than energy resale, allowing private companies to build and operate charging stations without a utility licence [26]. In the US, regulators in 19 states have approved USD 1.3 billion in utility investments for public charging stations [27].
Negative examples where a lack of these conditions has hindered investment	Long grid access queues in the UK and in Chile were exacerbated under a "first-come, first-served" process, leading to stalled investment [25].	Charging infrastructure can be constrained by regulation. In Kazakhstan, outdated building codes prevent installation of chargers in residential buildings and parking garages, creating a structural barrier to market development [28]. Procurement rules can also exclude key segments from public support. In India, early e-bus deployment programmes such as FAME-I and FAME-II restricted subsidies to state-owned transport undertakings, leaving 93% of the country's bus fleet – operated by private intercity providers – unsupported [29]. Standards regulating access to capital is a widespread barrier. Small fleet operators often lack the credit history or collateral required to secure financing for EVs, even when regulation is supportive [30].

2.2.2. Pricing, Taxes, and Economic Incentives

Stable and balanced financial signals are among the most powerful levers for mobilising private investment. In general, a project's economic and commercial case [31] is primarily determined by its balance of revenues and risks. To attract private sector investment in the energy and transport sectors, the prevailing pricing, taxation, and incentive policies, together with the contracting structures that the projects will operate in, need to provide prospective investors with a sufficient risk-adjusted return.

These policies are therefore among the most important tools governments have available.

As noted in Section 2.2.1., pricing policy begins with a country's decision on how it will structure its energy industry and to what extent it will regulate the prices of energy commodities [32]. Under a regulated pricing structure, providing attractive and stable pricing and returns with long-term visibility can directly influence market dynamics and investor confidence in the sector. Independent regulators and legally defined tariff-setting mechanisms can help this process.

Market-based structures on the other hand allow prices to be determined by the balance of supply and demand between consumers and generators, without the need for government price control. Some degree of price protection for vulnerable communities may nevertheless be needed. Investment decisions will be influenced by market prices as well as the ability to assess and manage market risks. Trading and hedging instruments can help manage risks and will typically be more available in larger and more mature markets [33].

BOX 3. Case Study: UK Offshore Wind.

The UK's offshore wind experience shows how pricing frameworks can adapt as markets mature. Early projects were supported by the Renewables Obligation, which offered stable subsidies and created investor confidence in an emerging technology. From 2014, Contracts for Difference (CfDs) introduced competitive auctions, with four rounds in seven years driving down costs through price competition. By 2023, offshore wind costs had fallen by two-thirds, making it competitive with new fossil generation. The auctions created a strong pipeline that gave supply chains visibility, attracted investment, and expanded the domestic workforce. The UK example highlights how shifting from subsidy-based support to competitive allocation can reduce costs while maintaining policy stability and long-term investor confidence. See [The Carbon Trust](#) for more information [34].

Other instruments, such as tax policy and targeted incentives, can be added to further incentivise investment in all or some parts of the energy or transport sector. However,

overly generous terms for investors can create unsustainable fiscal burdens and market distortions. In addition, these can introduce moral hazards and distributional impacts when the private sector is overcompensated at public expense. Striking the right balance is essential for durable, effective energy policy. Two case studies of how this balance has been struck are explored in **Boxes 3 and 4**. Further examples of key pricing policies are included in **Table 5** below.

BOX 4. Case Study: South Africa's REIPPPP Auctions.

South Africa's Renewable Energy IPP Procurement Programme (REIPPPP) demonstrates how well-designed auctions can attract large-scale investment while delivering broader social benefits. Since 2011, the programme has procured over 9.9 GW of capacity through transparent, competitive tenders. Projects are backed by standardised long-term power purchase agreements and government implementation agreements, providing investors with confidence against buyer default. Auctions include mandatory community equity and local content requirements, aligning private investment with national development goals. Cumulative investment has reached ZAR 275 billion (USD 15 billion), with prices falling to around three US cents per kWh. While transmission bottlenecks now constrain further expansion, REIPPPP shows how pricing and contracting structures can mobilise private finance at scale in emerging markets. See Department of Mineral Resources & Energy, Republic of South Africa [IPPPP Tender](#) and [IPPPP Overview](#) for more information [35, 36].

Table 5: Key policy instruments for pricing, taxation, and incentives in the energy and transport sectors.

Type	Description	Examples
Energy pricing and regulation: How energy prices are set for all energy commodities		
Market-Based Pricing	Energy prices, for generators and/or consumers, are set by market dynamics without direct government control, but governments may establish market rules to ensure sufficient price competition.	US wholesale electricity markets, such as PJM (serving the Mid-Atlantic region) and ERCOT (serving Texas); oil market pricing [37].
Regulated Pricing	Government sets energy prices for generators but will revisit these prices periodically with input from industry. In the case of vertically integrated utilities, these regulations may be on what they can charge consumers for service. Pricing can be differentiated between sectors (ie residential, commercial, and industrial) or allow cross-subsidisation (eg. lower tariffs for households that consume less).	See, for example, India's electricity tariffs [38]; China's natural gas pricing [39].
Price caps, floors, and market price indexing.	Limits placed on how high or low energy prices can go in a market, either in wholesale markets or consumers. Alternatively, prices can be indexed to relevant wholesale rates and afford a prescribed range of prices that can be charged which change with global market dynamics.	UK retail price cap [40] and interconnector cap & floor regime [41]; Indonesia's Subsidized Fuel Pricing (indexing) [42].
Energy taxation: Modifying taxes on the sale of energy or energy-related equipment		
Fuel and energy taxes	Taxes on fuels or electricity consumption to raise revenue, to curb use of or exempt certain types of energy from taxation based on energy diversification objectives, or to promote usage in low-income groups.	European fuel excise taxes [43]; Netherlands' Energy Tax Refunds [44].
Import duties, VAT, or sales tax exemptions	Exempting certain types of energy products (including equipment) from import duties to make products and projects less costly. Raising duties can support local supply chains and suppliers.	Clean cooking VAT exemption in Kenya, Tanzania, and Senegal [45]. Germany's PV solar VAT exemption for equipment and installation [46].
Royalties and Resource Taxes	Governments can assess levies on extracted oil, gas, coal, and critical mineral resources.	Canada's oil sands royalties [47]; Norway's petroleum tax regime [48].
Carbon Pricing	Charging for carbon emissions via taxes or cap-and-trade systems.	Sweden's carbon tax [49]; the EU Emissions Trading System (EU ETS) [50].
Incentives		
Consumer energy affordability support	Direct support to certain households to afford basic energy needs.	South Africa's Free Basic Electricity [51]; Winter heating allowances in many countries, such as the UK [52].
Direct incentives, Feed-in Tariffs (FiTs), and net metering	Direct financial support for energy projects, either in grants, or guaranteed purchase prices and/or volumes for energy within long-term contracts (including for distributed generation that feeds surplus back onto the grid).	Germany's Renewable Energy Sources Act (EEG) [53]; Thailand's solar FiTs [54]; China's EV subsidies [55]; UK's Contracts for Difference (CfD) [56]; Net metering policies in California and India [57].
Tax credits and favourable write-down rules	Tax credits can be given for capital invested in energy and transport infrastructure. They can also be based on the quantity of energy generated (typically from renewables or other types of energy with variable output). Governments can also incentivise companies that bear risks (eg exploring new extractive industries or pilot projects) by providing favourable rules for writing down losses for exploration costs.	India's capital subsidy for solar pumps [58]; The Production Tax Credit (PTC) for US wind energy [59]; Brazil's incentives for biomass electricity [60]; Master-limited partnerships in the US [61].
Green certificates and carbon credits	Allow certain types of generation to sell special credits or certificates which parties are obligated to buy, creating an additional revenue stream for low-emissions energy sources.	US states' Renewable Portfolio Standards [62]; the UK Renewable Obligation Certificates (ROCs) [63].

2.2.3. Reforming Domestic Capital Markets

Strong local markets mobilise homegrown capital and reduce dependence on volatile foreign flows and exchange rates.

A robust domestic capital market can help Low and Middle Income Countries (LMICs) finance clean energy and sustainable transport, reducing reliance on volatile international flows [64] and avoiding exchange rate risks [65]. Recent analysis by the Organisation for Economic Co-operation and Development (OECD) underscores how deepening local bond, equity, and institutional investor markets – enabled by strong regulation, liquidity, and transparency – can help close the financing gap for climate-related and infrastructure investments [66]. Key reform options include:

- **Strengthening legal and regulatory frameworks:**

EMDEs can benefit from laws that support market development, such as clear rules for bond issuance, investor protection, and governance standards. Building blocks like transparent regulation and replicable business models are vital to attracting domestic capital [65].

- **Mobilising institutional investor demand:**

Pension funds, insurance companies, and sovereign wealth funds are often under-leveraged in EMDEs. Policymakers can reform pension fund regulations to allow allocations to green bonds or bundled sustainable infrastructure projects, unlocking long-term capital at home.

- **Developing local currency bond markets:**

Issuing green or sustainability-linked bonds in local currency reduces currency risk for domestic investors and projects alike. Multilateral Development Banks (MDBs) and Development Finance Institutions (DFIs) can help by providing credit enhancements or guaranteeing issues

- **Enabling financial instruments and risk-sharing tools:**

Where domestic markets remain shallow, instrument-based mechanisms (like local currency swaps or blended finance facilities) can act as a bridge. The International Finance Corporation's (IFC) Joint Capital Markets Program (J-CAP) [67] and other initiatives help introduce necessary policy and regulatory platforms to support deeper and risk-aware sustainable capital markets, showing positive results for example in Indonesia [68].

- **Aligning financial sector regulation with climate goals:**

Central banks and financial authorities can integrate climate risk into their supervision of financial institutions, for example by requiring banks to stress-test for climate-related losses and incentivise green lending. Examples such as Morocco [69], the Philippines [70], and Mexico [71] show the role central banks can play in oversight of vulnerabilities of the local financial sectors to climate risks.

These reforms help shift financing from short-term, foreign-led channels toward longer-term, locally grounded pools of capital. That shift not only reduces exposure to exchange rate and external risks but also strengthens national ownership and resilience in energy and transport transition strategies [72].

2.2.4. Integrating Social, Environmental, and Behavioural factors

Policies endure when they reflect real social needs and local contexts.

Designing effective climate policy to support impact-oriented investment requires attention to a range of social, environmental, and behavioural factors (see **Table 6**). These dimensions influence how policies are received, implemented, and sustained over time. While technical and financial considerations are often central to policy design, experience shows that social context and behavioural dynamics can significantly affect the uptake and effectiveness of interventions (see for example the case of Nepal described [73]).

Policy design benefits from early consideration of how new technologies or infrastructure interact with local norms, practices, and institutional arrangements. For example, the cultural acceptability and practical usability of technologies, such as clean cooking solutions [74] or electric mobility, can shape adoption rates and long-term viability. Understanding these dynamics can help policymakers anticipate implementation challenges and design more responsive interventions.

In some contexts, governments and development partners have adopted frameworks that aim to ensure that policy reforms are inclusive and equitable. These include concepts such as:

- Distributive considerations, which assess how costs and benefits are shared across different population groups;
- Recognition of diverse needs and experiences, particularly where certain groups may face structural barriers to participation or access;

- Inclusive decision-making processes, which can help build legitimacy and improve the relevance of policy outcomes.

These approaches are not universally applied, and their relevance will vary depending on the policy area and institutional context. However, where appropriate, they can support more durable and widely supported reforms.

In practice, certain population groups may be more exposed to climate risks or less able to benefit from infrastructure investments. These may include, for example, people living in remote or informal settlements, persons with disabilities, or those with limited access to energy services. Identifying such groups and understanding their specific needs can help ensure that policy interventions do not inadvertently reinforce existing inequalities. A number of tools and methods are available to support this type of analysis (see **Appendix: Table 9**). These approaches can be used to supplement the analysis of social and environmental factors carried out in D2D Component 4: Modelling. These include:

- Disaggregated data analysis, to identify patterns of exclusion or differential impact;
- Social and environmental impact assessments, which can inform mitigation strategies for potential adverse effects;
- Participatory planning processes, which can help surface local knowledge and improve alignment with community priorities.

For example, minimum service guarantees have been used in some countries to ensure universal access to basic energy or transport services, regardless of commercial viability. Similarly, progressive tariff structures can be designed to reflect different levels of usage or vulnerability, such as discounts for older adults, poorer households, and vulnerable populations (eg in Philippines [75], Brazil [76] and India [77]). In other cases, infrastructure design has been adapted to meet specific needs, such as ensuring accessibility for

persons with disabilities or integrating nature-based solutions to enhance resilience.

Communication strategies also play a role in shaping behavioural responses to policy. Tailoring messages and delivery to local contexts, such as through culturally relevant awareness campaigns or user training, can improve understanding, uptake and user-satisfaction of new technologies or practices (for example in the case of inclusive energy service design in Uganda [78]).

Table 6: Social, environmental, and behavioural factors in policy reform.

Thematic Area	Key Considerations	Potential Actions
Social inclusion and impacts	Address systemic exclusions across gender, caste, ethnicity, disability, and geography to ensure equitable access and outcomes.	Planning mandates that are sensitive to Gender Equality and Social Inclusion (GESI) considerations; equality quotas in project teams; equity mapping; gender budgeting; disaggregated data collection; social impact assessments; targeted subsidies; minimum service guarantees.
Participatory governance and accountability	Enable early, inclusive, and transparent participation with clear institutional roles and monitoring mechanisms.	Inclusive consultations; participatory foresight; co-design workshops; decentralised forums; transparency portals; oversight committees.
Environmental and climate justice	Prevent deepening of environmental inequalities; integrate resilience and adaptive capacity into infrastructure.	Justice-based tariffs (for example, tiered tariffs or subsidies and discounts for low-income consumers); resilience standards; nature-based solutions; environmental safeguards; resilience benchmarks in infrastructure standards.
Behavioural and cultural factors	Tailor policies to cultural contexts and user behaviours to increase technology adoption and effectiveness.	Behavioural research units; awareness campaigns; culturally sensitive design; user training and maintenance support.

2.3. Developing an implementation plan

The third sub-component of Component 6 focuses on turning reform options into an actionable process. An implementation plan helps provide clarity to stakeholders on the process for implementing policy and regulatory changes, whether this involves implementing new regulations, or the removal or reform of unhelpful existing regulations. Such plans will vary in complexity depending on the extent of reforms; for simpler reforms, plans can be kept simple and pragmatic, and they should be regarded as an aid rather than a barrier to implementation. This rests on three elements, which together provide a roadmap for delivery and ensure reforms are implemented effectively and sustainably

- **Prioritising actions and interventions.**
- **Conducting a design phase.**
- **Establishing institutional responsibilities and allocating resources.**

2.3.1. Prioritising Actions and Interventions

Governments should prioritise improvements to the enabling environment; starting with the most feasible, high-impact reforms builds momentum for change. The first element of

the implementation plan is to decide which of the available reform options should be prioritised to address the specific constraints and barriers faced in a particular context. This process should assess the current status of policy and regulatory implementation and identify the most promising opportunities for interventions that will address gaps.

Appendix: Table 10 includes a list of tools and resources that can be used to help with this element. These include:

1. Regulatory and policy assessment tools.

These can be a useful first step to understand what is already in place in a given country and identify opportunities for peer-learning.

This process can help identify key gaps and barriers. Resources include the IEA's Energy Policy Inventory and Climate Policy Radar databases which help to understand what policies and laws are in place in different countries.

2. Regulatory indicators showing progress of countries against established best practices.

This allows countries to identify key areas where progress is needed, and to directly benchmark themselves against their peers. Examples include the World Bank B-Ready Indicators, the Regulatory Indicators for Sustainable Energy (RISE), and the Global Electricity Regulation Index (GERI). These indicators can be very detailed and provide specific information on opportunities for improvement to meet globally accepted best practice.

3. Peer-learning platforms and networks

can provide a useful source of peer-to-peer learning about what has worked where. International groups such as the Green Grids Initiative and the Regulatory Energy Transitions provide ecosystems of actors that can help share good practices in the implementation of regulatory reforms.

Multiple gaps usually call for coordinated intervention packages, designed to work together and account for interactions between policies. The IPCC Working Group III report [79] provides a guide on pros and cons of different policy instruments covering economic, regulatory, and other types of instruments, including considerations for how these can be combined into effective policy packages.

2.3.2. Conducting a Design Phase

Drawing on proven approaches, peer learning, and adaptable templates can accelerate reform design while reducing administrative burden. The next stage of policy reform is to design the policy intervention and develop the necessary policy documentation.

Complex reforms can be lengthy and require considerable expert input, but in some cases interventions may be simpler with 'off-the-shelf' solutions that are transferable from other countries.

In principle, countries could therefore aim to accelerate the timetable and reduce the administrative burden of regulatory change by drawing on tried-and-tested approaches to policy implementation, talking directly where possible with those countries who have already implemented these approaches. Peer-to-peer networking and collaboration platforms can be helpful approaches where available. For example, the Regulatory Energy Transition Accelerator works directly with energy regulators to facilitate knowledge sharing, peer-to-peer learning and thought leadership on regulatory issues [80].

Ideally, this process could also draw on standardised policy documentation and draft templates, such as laws, power purchase agreement contracts, technology performance standards and mandates, and procurement process documentation. While there are many examples of good practice sharing between countries, there is currently no recognised repository for such documentation that is easily accessible for countries to use as a starting point for designing their own policy reforms. A key recommendation from this brief is for more work to be done by the international development community to develop such a resource.

However, even with such resources, off-the-shelf solutions need to be adapted to meet local circumstances, and some degree of consultation will nearly always be needed. The more complex the policy intervention, and the greater the degree of distributional impacts, the greater the need for consultation to design policies in a way that can mitigate any negative impacts.

The D2D Component 5: Engagement brief gives practical tips on how to carry out such consultations. In the case of developing finance-oriented policies, these should include consultations with prospective investors and finance experts both within the country and internationally.

2.3.3. Establishing Institutional Responsibilities and Allocating Resources **Clear accountability and sufficient capacity turn reform plans into real outcomes.**

As noted in Section 2.1., implementation of policy reforms requires clear institutional mandates to be allocated, with clear lines of reporting and accountability and sufficient human resources and institutional capacity to manage policy delivery. The more complex the change and the greater its distributional impacts, the more high-level buy-in is needed from top ministry officials to give the mandate and incentives for achieving intended outcomes. In the D2D framework, this accountability is operationalised by designating the Governance Coordinating Function (GCF) as the coordination hub, with the GCF overseeing a Political Steering Committee – Special Interest Group (PSC-SIG) providing political oversight and one or more Technical Delivery Group – Special Interest Groups (TDG-SIGs) leading technical delivery. This includes [81]:

- **Functional mandates:** These cover leadership, technical advice, and planning as well as policy, regulation, monitoring, and execution. The GCF provides institutional oversight, with the PSC-SIG responsible for mandate-setting and milestone approvals within that structure; the GCF should steward the portfolio (workplans, risk/issue registers, decision logs); and TDG-SIGs should hold delivery mandates for modelling, policy drafting, procurement design, and finance strategy inputs, reporting through the GCF to the PSC-SIG.

- **Government coordination:** This includes maintaining formal and in-practice authority and participating in horizontal coordination arrangements as well as making information, resourcing, and incentives publicly available. Coordination should be formalised through written terms of reference (ToR), a published meeting schedule (eg quarterly PSC-SIG; monthly TDG-SIGs), and transparent documentation (agendas, minutes, action trackers) maintained by the GCF Secretariat.
- **Technical capacity:** This encompasses the structuring of coordination units and focal points in key centre-of-government entities (planning, economy, finance, energy, and transport line agencies); seniority and skills of staff; programmes to hire experts; and incentives for skilled in-house staff to develop policy and investment expertise through capacity development. Resourcing should explicitly cover a GCF Secretariat (facilitation, stakeholder engagement, document control), TDG-SIG convening (analytical support, drafting, consultation management), and PSC-SIG support (briefing packs and decision summaries).

The D2D Component 1: Politics brief outlines guidance for setting up institutional governance and coordination

structures, and Component 2: Capacity brief provides practical tips on how to go about addressing capacity gaps.

In some cases, budget may also be needed to support expenditure: for example to develop supporting analysis, engage external experts, and undertake sufficient levels of consultation. Budgets should include a dedicated line for the GCF Secretariat and SIG operations (eg facilitation, translation, inclusive access, publication of minutes), plus ring-fenced funds for priority TDG-SIG deliverables tied to the implementation plan. Many climate funds and other funding sources have technical assistance (TA) components that can be used to support policy reform processes that aim to improve the enabling environment. Applications for support from these funds can be aided if the policy reforms being addressed meet the criteria set out by those funds. Climate funds are tracked in CCG's FinTrack tool, showing the policy requirements of each of the climate funds. This tool can be used to help countries prioritise which of the funds to target depending on the details of their reform packages. Where feasible, governments should align TA requests and disbursement milestones with PSC-SIG approvals and TDG-SIG workplans to ensure financial flows match governance checkpoints.

3. Recommendations

Drawing on the best enabling environment practices identified in the existing literature and on the collective experience of the co-authors, the following recommendations distil key insights into actionable lessons for governments and line ministries to integrate into their national strategy development processes. Designed to align with the broader D2D framework, these recommendations aim to support the development of long-term national plans that attract and secure the required funds for implementation.

1. **Governments should prioritise improving the enabling environment as this is likely to be the most important factor in unlocking investment flows.** A conducive policy and regulatory environment is a key enabler of investment. It can help reduce risks, allowing more efficient use of scarce concessional finance to leverage greater volumes of private sources of finance. In turn, this can reduce the cost of capital and the overall cost of infrastructure investment programmes for reaching development and climate goals. Often the challenges and range of solutions are 'known', and so some measures to improve enabling environments are potential 'quick wins'. These require little public financial investment and can be transformative for countries' prospects.
2. **Governance arrangements, institutional mandates, and capacity development should be strengthened to support design and implementation of reforms.** Policy and regulatory reforms may have distributional impacts which can be politically sensitive, especially if they affect those who currently benefit from the status quo. Reform therefore requires a strong high-level political mandate, combined with sufficient technical resources and institutional incentives to complete the policy design and implementation phases

successfully. Reforms should consider social and environmental impacts through inclusive stakeholder engagement.

3. **Policy packages should be developed that help navigate the political economy of reform and address the multiple policy gaps.**

Reform packages may combine narrowly specified policy instruments (for example, a performance standard targeting particular technologies) with deeper and more complex market reforms affecting a whole sector with wider economic consequences. Reforms may include introducing new policies and regulations, and/or removal of unhelpful existing policies and regulations. Policy packages may combine many such measures with varying degrees of complexity. The depth of reforms will affect the complexity of implementation, and the degree of effort required to address institutional capacity gaps, carry out detailed consultations to cater for stakeholder needs, overcome political economy barriers, and obtain resources to access external expertise.

4. **The international community should work to improve the tools available to countries to help them develop their policy and regulatory environments.** While there is extensive literature and experience on what constitutes a conducive investment environment, and good examples of knowledge transfer across different countries to identify priority policy and regulatory reforms, there is a need to develop improved tools to support countries with the implementation phase of such reforms. In particular, open-source repositories of standardised templates for draft policy documentation, contracts, and laws could help reduce the administrative burden and accelerate the design and implementation phase of reforms.

References

- [1] Luscombe, H., Richardson, E., Foster, V., Howells, M., Quiros-Tortos, J., Jaramillo Gil, M., et al. (2024). Data-to-Deal (D2D): An Emerging and Effective Approach to Financing the Climate Transition. Cambridge Open Engage. DOI: <https://doi.org/10.33774/coe-2024-21xv4-v3>.
- [2] Robinson, M. and Olver, C. (2025). Are 'Country Platforms' the Key to Delivering Green Growth at Scale? World Resources Institute. Available at: <https://www.wri.org/technical-perspectives/country-platforms-delivering-green-growth-scale> [Accessed 15 Oct 2025].
- [3] Mazmanian, D. A. and Sabatier, P. A. (1983). Implementation and Public Policy. Scott Foresman. Available at: <https://archive.org/details/implementationpu0000mazm/page/n7?mode/2up> [Accessed 15 Oct 2025].
- [4] Beck, G. (2010). The Overton Window. Simon and Schuster.
- [5] Smith School of Enterprise & Environment (n. d.). Post-carbon transition. Available at: <https://www.smithschool.ox.ac.uk/research/post-carbon-transition> [Accessed 15 Oct 2025].
- [6] United Nations Industrial Development Organization (2009). Module 3: Introduction to energy regulation. Available at: https://www.unido.org/sites/default/files/2009-02/Module3_0.pdf [Accessed 15 Oct 2025].
- [7] Energy Sector Management Assistance Program (ESMAP) (2015). Private Sector Participation in Electricity Transmission and Distribution: Experiences from Brazil, Peru, The Philippines, and Turkey. Available at: <https://documents1.worldbank.org/curated/en/786091468189572248/pdf/99009-ESMAP-P146042-PUBLIC-Box393185B.pdf> [Accessed 15 Oct 2025]
- [8] US Department of Commerce (2021). Understanding Power Transmission Financing. Available at: https://www.hunton.com/media/publication/79766_Understanding-Transmission-Financing.pdf [Accessed 15 Oct 2025].
- [9] Ryan, N. (2021). Holding up Green Energy. NBER Working Paper Series 29154. Available at: https://www.nber.org/system/files/working_papers/w29154/w29154.pdf [Accessed 15 Oct 2025].
- [10] International Energy Agency (IEA) (2024). United States 2024: Energy Policy Review. Available at: <https://iea.blob.core.windows.net/assets/b5826832-7182-4abe-9041-01c9f000d69d/UnitedStates2024.pdf> [Accessed 15 Oct 2025].
- [11] Netherlands Ministry of Infrastructure and the Environment (2016). Bestuursakkoord Zero Emissie Regionaal Openbaar Vervoer Per Bus [Administrative Agreement on Zero Emission Regional Public Transport by Bus]. Dutch. Available at: https://zeroemissiebus.nl/wp-content/uploads/2020/08/Bestuursakkoord_Zero_OV-Bus.pdf [Accessed 15 Oct 2025].
- [12] European Commission (2019). Directive (EU) 2019/1161 on the Promotion of Clean and Energy-efficient Road Transport Vehicles. Available at: <https://eur-lex.europa.eu/eli/dir/2019/1161/oj/eng> [Accessed 15 Oct 2025].
- [13] Turner, A. (2024). Cities, E-commerce & Public Health: 3 Legal Pathways to Limiting Freight Vehicle Emissions. Sabin Center for Climate Change Law, Columbia Law School. Available at: <https://blogs.law.columbia.edu/climatechange/2024/06/27/cities-e-commerce-public-health-3-legal-pathways-to-limiting-freight-vehicle-emissions/> [Accessed 29 Oct 2025].
- [14] Motor Finance Online (2024). Backtracking on UK EV sales targets could risk billions. Available at: <https://www.motorfinanceonline.com/news/backtracking-ev-could-jeopardise-billions/> [Accessed 15 Oct 2025].
- [15] Hamilton, K. (2009). Unlocking Finance for Clean Energy: The Need for 'Investment Grade' Policy. Energy, Environment and Development Programme Paper. Chatham House. Available at: <https://chathamhouse.soutron.net/portal/public/en-GB/DownloadImageFile.ashx?objectId=6941&ownerType=0&ownerID=152248> [Accessed 15 Oct 2025].
- [16] Climate Policy Database (2023). Capacity Investment Scheme Australia (2023). Available at: <https://climatepolicydatabase.org/policies/capacity-investment-scheme> [Accessed 15 Oct 2025].
- [17] Renewables.biz (2025). UPDATE: French parliament rejects moratorium. Available at: <https://www.renewables.biz/101388/french-lawmakers-to-vote-on-renewables-moratorium/> [Accessed 15 Oct 2025].

- [18] Crownhart, C. (2025). \$8 billion of US climate tech projects have been canceled so far in 2025. MIT Technology Review. Available at: <https://www.technologyreview.com/2025/04/21/1115511/canceled-climate-tech-projects> [Accessed 01 Nov 2025].
- [19] Vogt-Schilb, A., and Blackman, A. (2025). Chapter 9: Barriers En Route to a Net-Zero Economy [Box 9.2: Market Design Can Make or Break Business Models for Electric Buses], in Peril and Promise Tackling Climate Change in Latin America and the Caribbean Beltrán. Eds. Blackman A., Cavalla, E., Hoffmann, B., and Vogt-Schilb, A. Inter-American Development Bank. Available at: <https://publications.iadb.org/en/peril-and-promise-tackling-climate-change-latin-america-and-caribbean> [Accessed 15 Oct 2025].
- [20] Gadepalli, R., Kumar, L., and Nandy, R. (2022). Electric Bus Procurement Under FAME-II: Lessons Learnt and Recommendations for Phase-II. The International Association of Public Transport and Shakti Sustainable Energy Foundation. Available at: https://www.uitp.org/wp-content/uploads/sites/7/2025/04/UITP-India_FAMEII_E-Bus-Procurement.pdf [Accessed 29 Oct 2025].
- [21] Sclar, R., Gorguinpour, C., Castellanos, S., and Li, X. (2019). Barriers to Adopting Electric Buses. World Resources Institute. Available at: <https://www.wri.org/research/barriers-adopting-electric-buses> [Accessed 29 Oct 2025].
- [22] Outlook Planet (2025). Gujarat to Invest Rs 29,000 Crore in Green Energy Corridor-III to Push Renewable Shift. Available at: <https://www.outlookbusiness.com/planet/green-financing/gujarat-green-energy-corridor-investment> [Accessed 15 Oct 2025].
- [23] Vorrath, S. (2024). CEFC makes biggest investment yet to help “close looming gaps” in NSW grid. Renew Economy. Available at: <https://reneweconomy.com.au/cefc-makes-biggest-investment-yet-to-help-close-looming-gaps-in-nsw-grid/> [Accessed 15 Oct 2025].
- [24] Gonzales, L. E., Ito, K., and Reguant, M. (2023). The Investment Effects of Market Integration: Evidence from Renewable Energy Expansion in Chile. *Econometrica* 91(5). DOI: <https://doi.org/10.3982/ECTA20769>.
- [25] GreenbergTraurig (2025). UK Grid Connection Reforms: Breaking the Bottleneck. Available at: <https://www.gtlaw.com/en/insights/2025/4/uk-grid-connection-reforms-breaking-the-bottleneck> [Accessed 15 Oct 2025].
- [26] Central Electric Authority, India (2018). No.12/2/2018-EV (Comp No. 244347): Charging Infrastructure for Electric Vehicles (EV) - the revised consolidated Guidelines & Standards-reg. Available at: https://powermin.gov.in/sites/default/files/Final_Consolidated_EVCI_Guidelines_January_2022_with_ANNEXURES.pdf [Accessed 15 Oct 2025].
- [27] IEA (2022). Global EV Outlook 2022. Available at: <https://www.iea.org/reports/global-ev-outlook-2022> [Accessed 15 Oct 2025].
- [28] Anari Energy (n.d.). Charging Forward: Unleashing the Potential of EV Infrastructure in Kazakhstan. Available at: <https://www.anariev.com/charging-forward-potential-of-ev-infrastructure-in-kazakhstan/> [Accessed 29 Oct 2025].
- [29] Gowande, B. (2025). Electrifying India's buses Insights: from public deployment and case studies of private intercity operators. Zero Emission Bus Rapid-Deployment Accelerator (ZEBRA), International Council on Clean Transportation (ICCT). Available at: https://theicct.org/wp-content/uploads/2025/08/ID-431-%E2%80%93India-intercity-buses_ZEBRA_final.pdf [Accessed 29 Oct 2025].
- [30] Coyne, R. G., Vera, G. J., Monterrubio, M., Jiménez, J., Cerezo, A., and Garduño, T. (2023). Expanding Access to Financing for Zero-Emission Trucks in Latin America and the Caribbean. Global Commercial Vehicle Drive to Zero and CALSTART. Available at: https://globaldrivetozero.org/site/wp-content/uploads/2023/11/Expanding-Access-to-Financing-for-ZETs-in-Latin-America-and-the-Caribbean_English.pdf [Accessed 29 Oct 2025].
- [31] Infrastructure and Projects Authority (2022). Infrastructure Business Case: International Guidance. Available at: https://assets.publishing.service.gov.uk/media/623b24e6e90e07799f0c7c3e/Infrastructure_Business_Case_International_Guidance.pdf [Accessed 15 Oct 2025].

- [32] Akcura, E. and Mutambatsere, E. (2024). Global Evolution of Power Market Designs (English). International Finance Corporation. Policy Research working paper WPS10986. Washington DC: World Bank. Available at: <https://documents1.worldbank.org/curated/en/099821411252439558/pdf/IDU-b5f7d68f-260d-447c-856b-8660d4282e6e.pdf> [Accessed 15 Oct 2025].
- [33] Hahn, R. W., Hendren, N., Metcalfe, R. D., and Sprung-Keyser, B (2024, rev. 2025). A Welfare Analysis of Policies Impacting Climate Change. National Bureau of Economic Research Working Paper 32728. DOI: <https://doi.org/10.3386/w32728>
- [34] Jennings, T., Tipper, H. A., Daglish, J., Grubb, and M., Drummond (2020). Policy, innovation and cost reduction in UK offshore wind. Carbon Trust and The Bartlett Institute for Sustainable Resources. Available at: <https://ctprodstorageaccountp.blob.core.windows.net/prod-drupal-files/documents/resource/public/Policy-innovation-offshore-wind-report-2020.pdf> [Accessed 15 Oct 2025].
- [35] Department of Mineral Resources and Energy, South Africa (2023). PPPP Tender No.: DMRE/014/2023/24. Available at: <https://www.dmre.gov.za/tenders/tender/id/27220> [Accessed 15 Oct 2025].
- [36] Department of Mineral Resources and Energy, South Africa (2024). Independent Power Producers Procurement Programme (IPPPP): An Overview – As at 31 March 2024. Available at: https://www.dmre.gov.za/Portals/0/Resources/Publications/Reports/IPPPP/IPPPP-Quarter4-Report-as-at-31March2024.pdf.pdf?ver=5GTn78y10qvjb_jky7_OXA%3D%3D [Accessed 15 Oct 2025].
- [37] Federal Energy Regulatory Commission (FERC) (2024). RTOs and ISOs. Available at: <https://www.ferc.gov/power-sales-and-markets/rto-and-isos> [Accessed 29 Oct 2025].
- [38] Accelerated e-Mobility Revolution for India's Transportation (e-AMRIT) (n.d.). Electricity Cost for Charging. Available at: <https://e-amrit.niti.gov.in/electricity-cost-for-charging> [Accessed 29 Oct 2025].
- [39] Dong, K. and Huang, M. (2024). China's zonal gas transmission tariff: changes and implications. Wood Mackenzie. Available at: <https://www.woodmac.com/news/opinion/chinas-zonal-gas-transmission-tariff-changes-and-implications/> [Accessed 29 Oct 2025].
- [40] Office of Gas and Electricity Markets (Ofgem) (n.d.). Energy price cap explained. Available at: <https://www.ofgem.gov.uk/information-consumers/energy-advice-households/energy-price-cap-explained> [Accessed 29 Oct 2025].
- [41] Ofgem (2024). Cap and Floor Regime Handbook 2024. Available at: <https://www.ofgem.gov.uk/guidance/cap-and-floor-regime-handbook-2024> [Accessed 29 Oct 2025].
- [42] Ihsan, A., Abriningrum, D. E., Sjahrir, B. S., Rahmawati, A., and Giannozzi, S. (2024). Indonesia's Fuel Subsidies Reforms. Equitable Growth, Finance and Institutions Insight, World Bank. Available at: <http://documents.worldbank.org/curated/en/099748505212431959> [Accessed 29 Oct 2025].
- [43] European Commission, Directorate-General for Climate Action (2025). Weekly Oil Bulletin [Taxes on petroleum products]. Available at: https://energy.ec.europa.eu/data-and-analysis/weekly-oil-bulletin_en#taxes-on-petroleum-products [Accessed 29 Oct 2025].
- [44] Business.gov.nl (n.d.). Energy tax. Available at: <https://business.gov.nl/regulation/energy-tax/> [Accessed 29 Oct 2025].
- [45] International Energy Agency (2025). Universal Access to Clean Cooking in Africa: Progress update and roadmap for implementation. Available at: <https://iea.blob.core.windows.net/assets/f0170390-a39b-407e-9ffe-b1cc865d0c5d/UniversalAccessToCleanCookingInAfrica.pdf> [Accessed 29 Oct 2025].
- [46] Federal Ministry of Finance, Germany (2022). Jahressteuergesetz 2022, Temporäre Absenkung Umsatzsteuer auf Gaslieferungen, Verlängerung Spitzenausgleich: Bundeskabinett bringt Vereinfachungen des Steuerrechts und weitere Entlastungen für Bürgerinnen und Bürger sowie Unternehmen auf den Weg [trans: Annual Tax Act 2022, Temporary reduction of VAT on gas supplies, extension of the peak compensation: Federal Cabinet introduces simplifications to tax law and further relief for citizens and businesses]. Available at: <https://www.bundesfinanzministerium.de/Content/DE/Pressemitteilungen/Finanzpolitik/2022/09/2022-09-14-vereinfachungen-des-steuerrechts-und-weitere-entlastungen.html> [Accessed 29 Oct 2025].

- [47] Government of Alberta. (n.d.). Oil sands royalties – Overview. Available at: <https://www.alberta.ca/royalty-oil-sands> [Accessed 29 Oct 2025].
- [48] Ministry of Energy and the Norwegian Offshore Directorate (2025). The Petroleum Tax System. Available at: <https://www.norskipetroleum.no/en/economy/petroleum-tax/> [Accessed 29 Oct 2025].
- [49] Government Offices of Sweden (n.d.). Sweden's carbon tax. Available at: <https://www.government.se/government-policy/taxes-and-tariffs/swedens-carbon-tax/> [Accessed 29 Oct 2025].
- [50] European Commission, Directorate-General for Climate Action. (n.d.). About the EU ETS. Available at: https://climate.ec.europa.eu/eu-action/carbon-markets/eu-emissions-trading-system-eu-ets/about-eu-ets_en [Accessed 29 Oct 2025].
- [51] South African Government (n.d.). How do I access free basic municipal services?. Available at: <https://www.gov.za/faq/government-services/how-do-i-access-free-basic-municipal-services> [Accessed 29 Oct 2025].
- [52] UK Government (n.d.). Winter Fuel Payment. Available at: <https://www.gov.uk/winter-fuel-payment> [Accessed 29 Oct 2025].
- [53] International Energy Agency (2023). Germany's Renewables Energy Act. Available at: <https://www.iea.org/policies/12392-germanys-renewables-energy-act> [Accessed 29 Oct 2025].
- [54] International Energy Agency (2024). Thai Feed-in Tariff (FIT) Policy [sic]. Available at: <https://www.iea.org/policies/19514-thai-feed-in-tariff-fit-policy> [Accessed 29 Oct 2025].
- [55] Zhang, T., Burke, P. J., and Wang, Q. (2024). Effectiveness of electric vehicle subsidies in China: A three-dimensional panel study. *Resource and Energy Economics* 76. 101424. DOI: <https://doi.org/10.1016/j.reseneeco.2023.101424>.
- [56] Department for Energy Security and Net Zero, UK Government (2016; updated 2024). Contracts for Difference. Available at: <https://www.gov.uk/government/collections/contracts-for-difference> [Accessed 29 Oct 2025].
- [57] International Energy Agency, Photovoltaic Power Systems Programme (2018). Net metering and PV self-consumption in emerging countries. Report IEA-PVPS T9-18:2018. Available at https://iea-pvps.org/wp-content/uploads/2020/01/T9_NetMeteringAndPVDevelopmentInEmergingCountries_EN_Report.pdf [Accessed 29 Oct 2025].
- [58] Shim, H.-S. (2017) Case Study Solar-Powered Irrigation Pumps in India — Capital Subsidy Policies and the Water-Energy Efficiency Nexus. Global Green Growth Institute (GGGI) Available at: https://www.greenpolicyplatform.org/sites/default/files/downloads/best-practices/GGGI%20Case%20Study_Solar-Powered%20Irrigation%20Pumps%20in%20India_June%202017.pdf [Accessed 29 Oct 2025].
- [59] United States Environmental Protection Agency (2025). Summary of Inflation Reduction Act provisions related to renewable energy. Available at: <https://www.epa.gov/green-power-markets/summary-inflation-reduction-act-provisions-related-renewable-energy> [Accessed 29 Oct 2025].
- [60] International Energy Agency, Bioenergy: Technology Collaboration Programme (2024) Implementation of bioenergy in Brazil – 2024 update. Country Reports 12. Available at: https://www.ieabioenergy.com/wp-content/uploads/2024/12/CountryReport2024_Brazil_final.pdf [Accessed 29 Oct 2025].
- [61] Feldman, D. (2013). Master Limited Partnerships and Real Estate Investment Trusts: Opportunities and Potential Complications for Renewable Energy. National Renewable Energy Laboratory. Available at: <https://doi.org/10.2172/1110461> [Accessed 29 Oct 2025].
- [62] United States Energy Information Administration (EIA) (2024). Renewable energy explained: Portfolio Standards. Available at: <https://www.eia.gov/energyexplained/renewable-sources/portfolio-standards.php> [Accessed 29 Oct 2025].
- [63] Ofgem (n.d.). Renewables Obligation (RO). Available at: <https://www.ofgem.gov.uk/environmental-and-social-schemes/renewables-obligation-ro> [Accessed 29 Oct 2025].

- [64] Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (BMZ) (2023). Joint Action Proposal for the G7 and MDBs/DFIs on Mobilizing Private Capital for Quality and Sustainable Infrastructure Investment. Available at: <https://www.bmz.de/resource/blob/142810/230222-joint-action-proposal-mdb-dfi-expert-group.pdf> [Accessed 15 Oct 2025].
- [65] IEA and IFC (2023). Scaling up Private Finance for Clean Energy in Emerging and Developing Economies. Available at: <https://www.ifc.org/content/dam/ifc/doc/2023-delta/scaling-up-private-finance-for-clean-energy-in-edmes-en.pdf> [Accessed 15 Oct 2025].
- [66] Organisation for Economic Co-operation and Development (OECD) (2025). Supporting emerging markets and developing economies in developing their local capital markets. OECD Policy Briefs, 24. Available at: https://www.oecd.org/en/publications/supporting-emerging-markets-and-developing-economies-in-developing-their-local-capital-markets_4456de62-en/full-report.html [Accessed 15 Oct 2025].
- [67] IFC (n.d.). Joint Capital Market Program (J-CAP). Available at: <https://www.ifc.org/en/what-we-do/sector-expertise/financial-institutions/capital-markets/jcap> [Accessed 15 Oct 2025].
- [68] World Bank Group (2025). Passing an Early Milestone in Capital Market Development. Available at: <https://www.worldbank.org/en/news/feature/2025/06/26/passing-an-early-milestone-in-capital-market-development> [Accessed 15 Oct 2025].
- [69] World Bank Group (2022). Morocco – Country Climate and Development Report (CCDR) : Background Note - Benchmarking Financial Sector Policies for Climate Risk Management and Green Finance. Washington DC: World Bank (English) Available at: <https://documents1.worldbank.org/curated/en/099052223171529139/pdf/P1773760affb2c07b0835b010ce04b8ec21.pdf> [Accessed 15 Oct 2025].
- [70] Regelink, M. G. J. (2019). Philippines – Financial Sector Assessment Program: Climate Change and Environmental Risks and Opportunities – Technical Note (English). Financial Sector Assessment Program (FSAP). Washington, DC: World Bank Group. Available at: <https://documents1.worldbank.org/curated/en/244321629266625579/pdf/Philippines-Financial-Sector-Assessment-Program-Climate-Change-and-Environmental-Risks-and-Opportunities-Technical-Note.pdf> [Accessed 15 Oct 2025].
- [71] Sustainable Banking and Finance Network and IFC (2022). Mexico – Country Status Report: Supplement to the 2021 Global Progress Report of the Sustainable Banking and Finance Network. Available at: https://www.sbfnetwork.org/sites/default/files/2025/Apr/2021_Country_Progress_Report_Mexico.pdf [Accessed 15 Oct 2025].
- [72] Stewart, F., Feyen, E., and Regelink, M. (2024). Acting on climate through the banking sector. World Bank Blogs. Available at: <https://blogs.worldbank.org/en/psd/acting-on-climate-through-the-banking-sector> [Accessed 15 Oct 2025].
- [73] Buchy, M. & Shakya, S. (2024). Exploring policy coherence to understand limited progress of gender and social inclusion in the energy sector: The case of Nepal. Energy Policy, 190, 114140. <https://doi.org/10.1016/j.enpol.2024.114140>
- [74] Abdul Latif Jameel Poverty Action Lab (J-PAL) (2020). Biomass cookstoves to reduce indoor air pollution and fuel use. Available at: <https://www.povertyactionlab.org/policy-insight/biomass-cookstoves-reduce-indoor-air-pollution-and-fuel-use> [Accessed 15 Oct 2025].
- [75] Nineteenth Congress of the Republic of the Philippines (2022). Senate S. No 1066. An Act Granting Senior Citizens a Minimum of Five Percent (5%) Discount on the First 150 Kilowatt Hours of Electricity Consumption and on the First 50 Cubic Meters of Water Consumption, and Exemption from the Value-Added Tax (VAT), Amending for this Purpose Republic Act No. 9994, Otherwise Known as the "Expanded Senior Citizens' Act of 2010". Available at: <https://web.senate.gov.ph/lisdata/3902035471!.pdf> [Accessed 15 Oct 2025].

- [76] Amâncio, M. and Lucinda, C. (2024). Shedding light on the impacts of a social electricity subsidy in Brazil. Associação Nacional dos Centros de Pós-Graduação em Economia [Brazilian Association of Graduate Programs in Economics] Available at: https://www.anpec.org.br/encontro/2024/submissao/files_1/i12-affcd4335697f77c7c2256b60e249e66.pdf [Accessed 15 Oct 2025].
- [77] Government of Telangana (2023). Gruha Jyothi Scheme. Available at: <https://wanaparthi.telangana.gov.in/scheme/gruha-jyothi-scheme/> [Accessed 15 Oct 2025].
- [78] Hirmer, S. A., Mazzone, A., Leonard, A. and Conforti, C. (2022). The power of language: Exploring values, empowerment dynamics and communication strategies for gender-inclusive energy service design in rural Uganda. *Energy Research & Social Science*, 85 (102379). <https://doi.org/10.1016/j.erss.2021.102379>
- [79] Intergovernmental Panel on Climate Change (IPCC). Climate Change 2022: Mitigation of Climate Change. Working Group III contribution to the Sixth Assessment Report of the IPCC. Available at: https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf [Accessed 15 Oct 2025].
- [80] Regulatory Energy Transition Accelerator (n.d.). Accelerating the energy transition. Available at: <https://retatheaccelerator.org/> [Accessed 15 Oct 2025].
- [81] World Bank (2021). Climate Change Institutional Assessment. Equitable Growth, Finance and Institutions Notes: Governance. Washington DC: World Bank. Available at: <https://openknowledge.worldbank.org/entities/publication/2d083d60-f51d-55cf-9b05-2e3328f0f31e> [Accessed 15 Oct 2025].
- [82] Mealy, P., Barbrook-Johnson, P. Ives, M. C., Srivastav, S., and Hepburn C. (2023). Sensitive intervention points: a strategic approach to climate action. *Oxford Review of Economic Policy*, 2023, 39(4). pp. 694–710. DOI: <https://doi.org/10.1093/oxrep/grad043>.
- [83] Hepburn C., Allas, T., Cozzi, L., Liebreich, M., Skea, J., Whitmarsh, L., Wilkes, G., and Worthington, B. (2020). Sensitive intervention points to achieve net-zero emissions (Sixth Carbon Budget Policy Advisory Group). Climate Change Committee Available at: <https://www.theccc.org.uk/publication/sensitive-intervention-points-to-achieve-net-zero-emissions-sixth-carbon-budget-policy-advisory-group/> [Accessed 15 Oct 2025]
- [84] Muiruri, K., Skarbek, A., Mealy, P., and Hepburn, C., (2024). Sensitive Intervention Points for Australia's Transition to Net-Zero Emissions. *Australian Economic Review*, 57(4), pp. 387–400. DOI: <https://doi.org/10.1111/1467-8462.12580>.
- [85] Chung, S. Y., Ives, M. C., Allen, M. R., Doorga, J. R. S., and Xu, Y. (2024). Accelerating carbon neutrality in China: Sensitive intervention points for the energy and transport sectors in Beijing and Hong Kong, *Journal of Cleaner Production*, 450(141681). DOI: <https://doi.org/10.1016/j.jclepro.2024.141681>.
- [86] s-curve economics (2025). System Archetypes of the Energy Transition: Feedback loops and levers of change. Available at: <https://www.scurveeconomics.org/publications/systems-archetypes-of-the-energy-transition/> [Accessed 15 Oct 2025]
- [87] United Nations Office for Project Services(UNOPS), IEA, and Arup (2021). Guidelines for Developing Inclusive Energy Infrastructure. Available at: https://content.unops.org/publications/Guidelines-for-developing-inclusive-energy-infrastructure_EN.pdf [Accessed 15 Oct 2025].
- [88] Mathers, N., Kuss, M. K., and Subramanian, R. (2024). Applying the Gender Integration Continuum to Social Protection: A Guidance Note for Assessing the Level of Gender Integration in Social Protection Policies and Programmes. GRASSP Working Paper. United Nations Children's Fund (UNICEF). Available at: <https://www.unicef.org/innocenti/media/10031/file/UNICEF-Innocenti-GRASSP-Design-Guidelines-2024.pdf>. [Accessed 29 Oct 2025].
- [89] United Nations Development Programme (UNDP) (2021). A 2030 Agenda Accelerator: Gender Equality Seal for Public Institutions. Available at: <https://www.undp.org/sites/g/files/zskgke326/files/2023-09/Tool%200.1%20Brochure%20EN.pdf> [Accessed 15 Oct 2025].
- [90] IFC (2012). IFC's Performance Standards on Environmental and Social Sustainability. Available at: <https://www.ifc.org/en/insights-reports/2012/ifc-performance-standards> [Accessed 15 Oct 2025].

- [91] World Bank Group (2020). Measuring Energy Access in Multidimensional Way through Household Surveys Multi-tier Energy Access Tracking Framework Global Surveys. Available at: <https://www.worldbank.org/en/results/2020/11/10/measuring-energy-access-in-multidimensional-way-through-household-surveys-multi-tier-energy-access-tracking-framework-global-surveys> [Accessed 29 Oct 2025].
- [92] Asian Development Bank (2023). Framework for Integrating Gender Equality and Social Inclusion in the Asian Development Bank's South Asia Operation. Available at: <http://dx.doi.org/10.22617/TIM230294-2> [Accessed 29 Oct 2025].
- [93] United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP) (2011). Are we building competitive and liveable cities? Guidelines for developing eco-efficient and socially inclusive infrastructure. Available at: https://www.unescap.org/sites/default/files/Guides%20for%20developing%20eco%20efficient%20infra_full.pdf [Accessed 29 Oct 2025].
- [94] United Nations Environment Programme, Finance Initiative (UNEP FI) (2017). Principles for Positive Impact Finance. Available at: <https://www.unepfi.org/industries/banking/principles-for-positive-impact-finance/> [Accessed 29 Oct 2025].
- [95] OECD (2023). Driving Policy Coherence for Sustainable Development: Accelerating Progress on the SDGs. Available at: <https://doi.org/10.1787/a6cb4aa1-en> [Accessed 15 Oct 2025].
- [96] United Nations Statistics Division (UNSTATS) (n.d.). SDG Global Database. Available at: <https://unstats.un.org/sdgs/dataportal> [Accessed 15 Oct 2025].
- [97] Behavioural Insights Team (n.d.). Resources. Available at: <https://www.bi.team/resources/> [Accessed 15 Oct 2025].
- [98] World Bank Group (n.d.). Mind, Behavior and Development Unit (eMBed). Available at: <https://www.worldbank.org/en/programs/embed> [Accessed 15 Oct 2025].
- [99] ImpSciMethods.org (n.d.). Rapid Ethnographic Assessment: Toolkit for understanding implementation context on short timelines. Available at: <https://impscimethods.org/toolkits/rapid-ethnographic-assessment-toolkit> [Accessed 29 Oct 2025].
- [100] IEA (2025). Global Energy Policies Hub. Available at: <https://www.iea.org/data-and-statistics/data-tools/energy-policy-inventory> [Accessed 15 Oct 2025].
- [101] Climate Policy Radar (n.d.). Home Page. Available at: <https://www.climatepolicyradar.org/> [Accessed 15 Oct 2025].
- [102] IEA (2025). Global EV Policy Explorer. Available at: <https://www.iea.org/data-and-statistics/data-tools/global-ev-policy-explorer> [Accessed 15 Oct 2025].
- [103] Transport Data Commons (n.d.). Making high quality transport data accessible. Available at: <https://portal.transport-data.org/> [Accessed 15 Oct 2025].
- [104] Asian Transport Observatory (n.d.). Knowledge base on transport in Asia-Pacific. Available at: <https://asiantransportobservatory.org/> [Accessed 15 Oct 2025].
- [105] Changing Transport (n.d.). NDC Transport Tracker. Available at: <https://changing-transport.org/tracker-expert/> [Accessed 15 Oct 2025].
- [106] International Council on Clean Transportation (ICCT) (n.d.). Tools for Policy & Research. Available at: <https://theicct.org/tools-for-policy-and-research/> [Accessed 15 Oct 2025].
- [107] World Bank (2024). B-Ready. Available at: <https://www.worldbank.org/en/businessready> [Accessed 15 Oct 2025].
- [108] Regulatory Indicators for Sustainable Energy (RISE) (n.d.). Home Page. Available at: <https://rise.esmap.org/> [Accessed 15 Oct 2025].
- [109] Rana, A., Ngulube, M. and Foster V. GERI 2022: Global Electricity Regulatory Index. ESMAP. Washington DC: World Bank. Available at: <https://documents1.worldbank.org/curated/en/099655012072260131/pdf/P1744810738d7b0430923a088b019fd36d7.pdf> [Accessed 15 Oct 2025].
- [110] Green Grids Initiative and Climate Compatible Growth (2023). Electricity Transition Playbook. Available at: <https://greengridsinitiative.net/electricity-transition-playbook/> [Accessed 15 Oct 2025].

APPENDIX 1: RESOURCES

Table 7: Strengthening governance frameworks (Section 2.1.1.)

Resource	Description
Climate Change Institutional Assessment (World Bank) [81]	A diagnostic tool to identify strengths and weaknesses of the institutional framework of a country to develop and implement climate change related policies and investments. It enables the formulation of recommendations for institutional and governance structures and processes to address potential gaps. It is developed around five pillars: organisation, planning, public finance, subnational governments and state-owned-enterprises, and accountability.

Table 8: Key resources on sensitive intervention points (SIPs) (Section 2.1.2.)

Resource	Description
Sensitive intervention points framing [82]	An overview of the SIP framework, defining the three forms of SIPs (critical tipping points, critical actors, and critical points in time) and including examples of proposed interventions for accelerating global decarbonisation.
SIPs examples – UK context [83]	The UK Climate Change Committee's Policy Advisory Group in 2020 produced a series of 40 sensitive intervention points under 9 categories which, taken together, constitute a comprehensive policy package for enabling the UK's net zero transition by 2050. This provides a good example of how the SIP framework applies to a multiple policy setting, and how it has been applied in a formal policymaking process. A similar example for Australia can be found here [84].
SIPs examples – China [85]	This study provides an overview of how expert knowledge can be applied to identify SIPs in energy and transport decarbonisation, specifically using the examples of Hong Kong and Beijing.
System archetypes of the energy transition [86]	This paper provides 10 system archetype models which give examples of the feedback dynamics that are at play in the energy transition. These are represented using causal loop diagrams – a powerful tool for understanding contextual system dynamics.

Table 9: Assessing social, environmental, and behavioural factors (Section 2.2.4.)

Resource	Description
Guidelines for Developing Inclusive Energy Infrastructure (UNOPS) [87]	A comprehensive framework developed by UNOPS in collaboration with the IEA and Arup for mainstreaming gender equality and social inclusion in energy and transport infrastructure projects, based on 'Leave No One Behind', meaningful participation, and system integration principles.
Gender Equality and Social Inclusion (GESI) Continuum (UNICEF) [88]	A strategic framework designed to help organisations assess and enhance the inclusivity of their programmes and policies. It categorises initiatives based on their engagement with GESI principles, guiding a progression from unawareness to transformative action.
Gender Equality Seal for Public Institutions (UNDP) [89]	A certification and toolkit to help governments mainstream gender in policy, budgeting, planning, and monitoring.
IFC Performance Standards [90]	Global benchmarks for managing environmental and social risk, often required by multilateral banks and investors.
Multi-Tier Framework for Measuring Energy Access (World Bank/ESMAP) [91]	A global standard that assesses energy access along six attributes: capacity, duration, quality, reliability, affordability, and legality.
Gender Equality and Social Inclusion (GESI) Framework (ADB) [92]	Developed by the ADB, the toolbox provides sector-specific tools for incorporating GESI principles in infrastructure, energy, and governance projects and policies across the Asia-Pacific region.
Guidelines for developing eco-efficient and socially inclusive infrastructure [93]	Includes diagnostics and capacity-development tools to improve institutional transparency, stakeholder engagement, and coordination.
UNEP FI Positive Impact Framework [94]	Offers guidance for aligning finance with sustainable outcomes, including integrated environmental and social impact assessment.
OECD Policy Coherence for Sustainable Development (PCSD) Framework [95]	Offers tools for aligning cross-sectoral strategies with the SDGs, essential for managing trade-offs and synergies in the enabling environment.
Global Indicator Database for SDGs (UNSTATS) [96]	The official set of indicators to monitor SDG progress: includes social inclusion, climate action, and institutional accountability metrics.
Behavioural Insights Team (BIT) Resources [97]	Offers toolkits and frameworks (eg EAST, MINDSPACE) for incorporating behavioural science into policy design, including energy use and mobility behaviours.
World Bank Mind, Behaviour and Development Unit (eMBed) [98]	Provides behavioural diagnostics and policy interventions targeting poverty, health, energy access, and climate adaptation behaviours.
Rapid Ethnographic Assessment (REA) Toolkit [99]	An adaptable qualitative methods toolkit to explore culturally embedded behavioural norms relevant to public services and energy access.

Table 10: Tools for Identifying and Prioritising Policy and Regulatory interventions (Section 2.3.)

Resource	Description
Policy Databases	
Global Energy Policies Hub (IEA) [100]	Allows benchmarking of the current status of the policy and regulatory environment. This draws on various sources including the mapping key energy policies around the globe, compiling over 50 key policy types from more than 50 countries, and catalogues over 5,000 energy policies to provide a clear snapshot of actions and state of play detailed by sector
Climate Policy Radar [101]	Open knowledge base for climate law and policy based on specialised large language models which extract and translate text from all languages as well as synthesised and searchable resources for analysts and governments.
Global EV Policy Explorer (IEA) [102]	Provides data on current and announced key policies and measures that support the deployment of EVs and zero-emission vehicles (ZEVs) by region and country.
Transport Data Commons [103]	Transport Data Commons aims to improve access, sharing, and analysing of transport data for a more sustainable future. This includes access to databases on transport system characteristics, performance, and policies.
Asian Transport Observatory [104]	A platform that gathers and shares comprehensive datasets, generates unique policy insights, and delivers novel knowledge products for Asia.
NDC Transport Tracker [105]	Allows users to explore and compare the role of transport targets, policies, and measures across different countries' Nationally Determined Contributions and Long-Term Strategies.
Tools for Policy and Research (ICCT) [106]	Provides multiple resources for exploring transport policy design options and informing policy decision-making.
IPCC Working Group III report [79]	Outlines the pros and cons of different policy approaches and conditions for the successful application of policy packages.
Regulatory Indicators	
World Bank B-Ready indicators [107]	B-Ready is the replacement for the World Bank's Ease of Doing Business indicators, which ran until 2021. They are based on three pillars: Regulatory Framework, Public Services, and Operational Efficiency. Indicators are set out under each pillar for 10 different topics, covering Business Entry, Business Location, Utility services, Labour, Financial services, International trade, Taxation, Dispute resolution, Market competition, and Business Insolvency. Digital adoption, environmental sustainability, and gender are then assessed as cross-cutting themes.
Regulatory Indicators for Sustainable Energy (RISE) [108]	RISE is a set of indicators to help countries benchmark their national policy and regulatory frameworks for sustainable energy with their peers. It assesses countries' policy and regulatory support for each of the four pillars of sustainable energy: access to electricity, access to clean cooking (for 56 access-deficit countries), energy efficiency, and renewable energy. Each indicator targets an element of the policy or regulatory regime important to mobilising investment, such as establishing planning processes and institutions, introducing dedicated incentives or support programmes, and ensuring financially sound utilities. Together, they provide a comprehensive picture of the strength and breadth of government support for sustainable energy and the actions they have taken to turn that support into reality.
Global Electricity Regulation Index – GERI [109]	A suite of indicators that portray the extent to which best practice regulatory design for the power sector has been adopted in countries. Substance indicators include economic regulation and tariff setting, quality of service in setting technical regulations licensing frameworks, and institutional capacity. Governance indicators cover the legal mandate for regulators, clarity of roles, independence, accountability, transparency, predictability, participation, and open access to information. Within each of these areas, detailed indicators are set out in the report and scored. Again, this can help with benchmarking, particularly in relation to identifying strengths and weaknesses of the regulators and regulatory frameworks.
Peer support groups and networks	
Green Grids Initiative – Electricity Transition Playbook [110]	The Electricity Transition Playbook is an open-source capacity building and training resource to help policymakers understand key drivers and responses to the global energy transition.
Regulatory Energy Transition Accelerator [80]	Works directly with energy regulators to facilitate peer to peer learning and thought leadership. It provides a central resource for regulators to seek knowledge products and regulatory tools that can help mitigate the challenges regulators face when trying to regulate for the sustainable, affordable, and secure energy systems of the future.

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