© NOV 2019 | IRE Journals | Volume 3 Issue 5 | ISSN: 2456-8880
DOI: https://doi.org/10.64388/IREV3I5-17222791

Corporate Policy Advocacy and Regulatory Reform: Streamlining Statutory Bidding Workflows in Emerging Energy Markets

NGONADI UCHECHI[1], MICHAEL OMINYI[2], CYRIL CHIMELIE ANICHUKWUEZE[3], BLESSING CHIKA JONES[4]
[1] *RusselSmith Limited – Lagos, Nigeria*
[2] *FRA Law, Lagos & London*
[3] *Chief Rotimi Williams Chanbers (FRA Law), Lagos, Nigeria*
[4] *The Channings Law Firm, Lagos, Nigeria*

Abstract-** Emerging energy markets have converged on competitive bidding as the dominant mechanism for procuring new generation capacity, yet the statutory workflows that govern these bids remain slow, fragmented, and administratively costly. Between the publication of a determination or tender notice and the achievement of financial close, projects in many emerging markets pass through between eleven and nineteen discrete statutory or quasi-statutory approval gates, distributed across ministries, regulators, offtakers, environmental agencies, land authorities, and treasury functions. This paper examines how corporate policy advocacy, understood as the organised, information-based influence activity of firms and industry associations, shapes regulatory reform aimed at streamlining these workflows. Drawing on a comparative qualitative case design covering South Africa, India, Brazil, Nigeria, and Vietnam over the period 2010 to 2019, and combining documentary process tracing with a workflow mapping protocol adapted from business process reengineering, the study advances three findings. First, the binding constraint on bidding timelines in most emerging markets is not the auction mechanism itself but the sequencing and interdependency of pre-award and post-award statutory gates, particularly those involving sovereign credit support, land acquisition, and grid connection consent. Second, advocacy is most effective when it operates as a legislative and administrative subsidy, supplying regulators with drafting capacity, comparative precedent, and technical evidence, and least effective when it takes a purely adversarial or distributive form. Third, streamlining reforms that deliver durable gains share four institutional features: a single accountable procurement entity, standardised and non-negotiable contract documentation, statutory decision deadlines with defined consequences for silence, and a formalised, transparent consultation channel. The paper sets out a sequenced diagnostic and reform approach built on these findings and derives implications for regulators, industry associations, and development partners. It concludes by distinguishing the conditions under which advocacy produces welfare-enhancing simplification from those under which it produces regulatory capture disguised as efficiency.

***Keywords:** corporate political activity, policy advocacy, regulatory reform, statutory bidding, public procurement, renewable energy auctions, emerging markets, independent power producers, business process reengineering, regulatory governance*

I. INTRODUCTION

The decade ending in 2019 was, for the electricity sectors of emerging economies, a decade of procurement reform. The bilateral, negotiated independent power producer (IPP) contracts that characterised the first wave of liberalisation in the 1990s were progressively displaced by competitive tendering, and in particular by the reverse auction. By the close of 2019, more than one hundred countries had adopted some form of competitive procurement for renewable generation, a substantial increase from the small group of pioneers a decade earlier. The proximate driver was price. Auction-discovered tariffs for utility-scale solar photovoltaic capacity fell repeatedly across jurisdictions as diverse as India, Mexico, Brazil, the United Arab Emirates, and Chile, in several cases reaching levels below the short-run marginal cost of incumbent thermal generation. The same period saw a parallel expansion of captive and distributed solar deployment by industrial and commercial users seeking to bypass unreliable network supply (Sunday & Omoegun, 2018, 2019), alongside a growing technical literature on the load distribution and voltage regulation problems that follow from high penetrations of distributed generation (Oshevire et al., 2017; Sunday et al., 2019).

Price discovery, however, is only one function of a procurement system. A competitive bid is embedded in a statutory workflow: a chain of legally mandated authorisations, determinations, licences, consents, guarantees, and registrations that must be obtained before a winning bid becomes an operating asset. That workflow is the subject of this paper. It is a striking feature of the empirical record that jurisdictions achieving very low headline tariffs have frequently failed to convert those tariffs into delivered megawatt-hours within the anticipated timeframe. The pattern is not confined to energy. Work on health systems has argued that scientific and technological innovation fails to improve outcomes wherever the delivery infrastructure surrounding the innovation is weak (Ilodigwe & Adesemoye, 2019b), and the argument transfers directly: an efficient price discovery mechanism is an innovation whose value is conditional on the administrative system that carries it. The gap between award and energisation, which the industry commonly terms the delivery gap, is in most emerging markets a function of statutory workflow friction rather than of bid design.

This creates a distinctive policy problem. Auction theory offers an extensive and mature body of guidance on mechanism design: on ceiling prices, on bid bonds and penalties, on multi-criteria evaluation, on lot sizing, on local content weighting. It offers comparatively little guidance on the administrative architecture surrounding the auction. Yet it is that architecture, comprising the number of approval gates, their sequencing, their interdependency, the discretion available at each gate, and the presence or absence of enforceable time limits, that determines whether a well-designed auction produces electricity or produces litigation.

Firms are not passive recipients of procurement rules. In every jurisdiction examined here, private developers, engineering contractors, equipment manufacturers, project financiers, and their collective associations engaged actively in shaping the statutory and regulatory environment for bidding. This activity, which the strategic management literature terms corporate political activity and which practitioners generally describe as policy advocacy or government affairs, encompasses formal consultation submissions, technical working groups, secondment of expertise to regulators, commissioned research, litigation, informal ministerial engagement, and, in some settings, less transparent forms of influence.

The normative valence of this activity is contested. One tradition, descending from the economic theory of regulation, treats industry influence as presumptively rent-seeking: regulation is captured by the regulated, and apparent simplification serves incumbents at the expense of entrants and consumers. A second tradition, associated with the informational theory of lobbying, treats advocacy as a subsidy of scarce technical and drafting capacity to under-resourced public agencies, with potentially welfare-enhancing effects. Both accounts find support in the emerging energy market record. The analytical task is therefore not to determine whether advocacy is good or bad in the abstract but to identify the institutional conditions under which it produces one outcome rather than the other.

Emerging energy markets thus face a compound problem. Statutory bidding workflows are frequently slow, opaque, and duplicative, imposing development costs that are ultimately capitalised into bid tariffs and borne by consumers. At the same time, the regulatory agencies responsible for reforming those workflows are typically under-staffed, under-funded, and dependent on the very industry they regulate for technical information, a structural dependence that makes some form of industry input to reform unavoidable. Existing scholarship treats auction design and corporate political activity as largely separate literatures and offers no integrated account of how advocacy translates, or fails to translate, into procedural streamlining.

This paper therefore asks four connected questions. What is the structure of the statutory bidding workflow in emerging energy markets, and where are its principal sources of delay and cost located? Through what channels did corporate policy advocacy engage with regulatory reform of these workflows between 2010 and 2019, and with what observable effect on reform outputs? What institutional features distinguish streamlining reforms that produced durable improvements from those that did not? And under what conditions does advocacy for procedural simplification advance broad welfare rather than transferring risk or rent to incumbent firms? Answering them requires a generalised process map of the workflow and a vocabulary for its failure modes, a characterisation of advocacy modalities and their traceable influence, and criteria for distinguishing simplification from capture.

The argument speaks to three bodies of work. For research on corporate political activity it supplies an emerging-market, procurement-specific setting in which advocacy targets administrative procedure rather than substantive entitlement, an under-studied object of influence. For energy policy it shifts attention from auction mechanism to auction administration, in line with a smaller strand of work emphasising procurement institutions and offtaker creditworthiness. For regulatory governance it offers evidence on statutory decision deadlines, deemed approvals, and single-window arrangements in low-capacity administrative environments. It also connects to a wider emerging-market literature on capital project delivery under regulatory constraint, including work on delivery models for high-risk infrastructure in developing national systems (Aminu-Ibrahim et al., 2019) and on regulatory-compliant design in tightly controlled facility environments (Ogbete et al., 2019).

The analysis covers grid-connected generation procurement conducted under statutory competitive bidding frameworks in South Africa, India, Brazil, Nigeria, and Vietnam between 2010 and 2019. It excludes distributed and off-grid procurement, transmission and distribution concessioning, and hydrocarbon licensing rounds, each of which has a materially different statutory architecture. The 2019 cut-off is analytical rather than incidental, since it precedes the pandemic-era disruption of procurement programmes and therefore permits assessment of reform durability under ordinary conditions. No claim to causal identification in the econometric sense is made; the inferential strategy is process tracing across a small, purposively selected set of cases, and the claims are bounded accordingly.

II. RELATED LITERATURE

2.1 Corporate political activity and the theory of policy advocacy

The study of firm influence on public policy has developed along two broadly opposed lines. The economic theory of regulation treats regulation as a commodity acquired by concentrated industries for their own benefit, with regulators responding to organised pressure because diffuse consumer interests face prohibitive collective action costs. On this account, procedural simplification is suspect: it may reduce the scrutiny to which incumbents are subject, or raise barriers to entrants who lack the capacity to navigate a residual set of technical requirements.

The informational or exchange tradition offers a different mechanism, characterising lobbying as a legislative subsidy, meaning a transfer of policy information, analytical labour, and drafting capacity to allied officials whose own resources are constrained. Influence in this account operates less through pressure than through the relaxation of a capacity constraint, and its distributional consequences depend on whether counterveiling information is available to decision-makers. Related work on the political construction of business preferences emphasises that firm preferences are not exogenous but are formed through the advocacy process itself.

Strategic management scholarship, and in particular work on integrated market and nonmarket strategy, contributes a taxonomy of political strategies distinguishing information strategies, financial incentive strategies, and constituency-building strategies, and distinguishing transactional from relational approaches. A related line of work adds the concept of political market attractiveness, arguing that firms allocate political resources across issues according to expected returns and the density of competing interests. This body of work is largely derived from advanced-economy settings with mature interest group ecologies, and its transferability to emerging markets, where associations are often young, fragmented, and financially dependent on a handful of large members, is not established.

A smaller literature examines business associations specifically in developing-country contexts, finding, consistent with the standard account of collective action, that encompassing associations with broad membership tend to advocate for public goods such as procedural predictability, while narrow associations dominated by a few firms tend to seek particularistic benefits. Evidence from adjacent emerging-market domains suggests that where collective technical capacity is thin, firms substitute internal analytical capability for collective representation, a pattern visible in studies of risk evaluation and executive decision systems in emerging-market institutions (Akomolafe & Agu, 2019b; Lawal & Oduleye, 2019b). This distinction proves analytically important in the cases examined below. Two refinements to this body of work matter for the analysis that follows. The first concerns the object of influence. Most empirical work on corporate political activity examines substantive entitlements: tariff levels, subsidy eligibility, tax treatment, quota allocation. Procedural rules are a different kind of target. They are non-excludable within the qualifying population, which weakens the incentive for any single firm to bear the cost of changing them, and they are technically demanding to draft, which raises the value of the expertise that firms hold. These two properties push in opposite directions, and the balance between them is an empirical question rather than a theoretical one. Where the drafting burden is high and the benefit is widely shared, the prediction is collective action through associations rather than unilateral action by large firms, and the reverse where a procedural change can be tailored to characteristics that only some firms possess.

The second refinement concerns the timing of influence. Advocacy is conventionally modelled as pressure applied to a decision that is about to be taken. In procurement reform the more consequential intervention often occurs earlier, at the point where a problem is defined and a reform agenda is set. Whoever supplies the diagnosis frequently supplies the remedy, because the diagnosis determines which instruments appear relevant. A regulator persuaded that its delivery problem is a bidding design problem will convene an auction design working group; a regulator persuaded that the same delay is a credit problem will convene a treasury negotiation. Both convenings will then generate their own technical demands, their own participants, and their own reform outputs. Agenda-stage influence is correspondingly harder to observe than decision-stage influence, and its neglect in the literature is a measurement artefact rather than evidence of its unimportance.

A third strand, less often connected to the first two, examines the internal organisation of the corporate affairs function itself. Advocacy capability is not evenly distributed even among firms of similar size, and the difference turns on whether regulatory engagement is treated as a standing capability with dedicated staff, institutional memory, and a documented position set, or as an episodic response to threat. Firms in the first category participate in consultations they have no immediate stake in, maintain relationships with officials across electoral cycles, and are able to respond to a draft instrument within a comment period. Firms in the second category discover a proposal after it has been settled. The distinction has an evident bearing on which positions reach decision-makers, and it means that observed influence reflects organisational capability as much as it reflects interest intensity.

2.2 Regulatory governance and administrative capacity in developing economies

The established framework for utility regulation in developing economies distinguishes regulatory governance, meaning the mechanisms by which discretion is constrained, from regulatory incentives, meaning the substantive rules on pricing and entry. Their central claim, that credible commitment depends on institutional endowments including the strength of the judiciary and the character of contending social interests, remains the point of departure for work on regulatory credibility in emerging markets. Subsequent contributions have refined the account by attending to regulatory independence in practice as distinct from formal design, and to the phenomenon of hybrid governance in which nominally independent regulators operate under substantial ministerial direction.

Work in the regulatory quality tradition, associated with better regulation and regulatory impact assessment programmes, supplies the normative apparatus for procedural reform: proportionality, consistency, transparency, targeting, and accountability. The standard synthesis of that literature treats consultation as both a legitimacy mechanism and an information-gathering device. The administrative law literature contributes the specific instruments relevant here: statutory decision deadlines, deemed approval or tacit consent provisions, single-window and one-stop-shop arrangements, and silence-is-consent rules, each of which has a substantial European and Latin American implementation record and a much thinner evidence base in low-capacity settings. A closely related strand examines statutory reporting and budget compliance obligations in the public sector of developing economies, finding that formal frameworks frequently coexist with weak enforcement and unclear escalation pathways (Dogbatsey & Ebhojie, 2018), and that workflow redesign rather than additional reporting is often the binding intervention (Dogbatsey et al., 2019). Comparable findings arise in the regulation of technically complex facilities, where compliance is designed into the physical and procedural architecture rather than inspected in afterwards (Aminu-Ibrahim et al., 2018; Ogbete et al., 2018, 2019). Sectoral studies of safety regulation in developing economies reach similar conclusions on the limits of formal oversight without adaptive implementation capacity (Adeyelu, 2018, 2019).

Critically for this study, the regulatory quality literature is largely silent on procurement workflows. Regulatory impact assessment is typically applied to rulemaking, not to the administration of tenders, and administrative simplification programmes have historically targeted business licensing rather than public contracting. Three instruments recur across the administrative simplification literature and are examined directly in the cases below. Statutory decision deadlines fix a maximum period within which an authority must decide. Deemed approval, sometimes described as tacit consent or silence-is-consent, converts expiry of that period into a positive decision. Single-window arrangements consolidate the lodgement and tracking of applications addressed to multiple authorities behind one interface. Each has an extensive record in European and Latin American administrative reform and a much thinner one in low-capacity settings, where the enabling conditions cannot be assumed. A deadline is meaningless without a reliable date-stamped record of lodgement. Deemed approval is dangerous where the authority lacks the capacity to review within the period and the decision carries irreversible consequences. A single window that consolidates lodgement without consolidating decision authority relocates queueing rather than removing it, and may worsen transparency by obscuring which authority is actually responsible for a delay.

The literature on regulatory independence adds a complication that recurs throughout the case evidence. Formal independence, meaning fixed terms, ring-fenced funding, and statutory insulation from ministerial direction, is a poor predictor of independence in practice. Where funding is appropriated annually, where senior appointments are politically controlled, or where the regulator's decisions can be displaced by ministerial determination, formal insulation is nominal. This matters for procurement because the stages with the longest and most variable cycle times are precisely those where the decision rule is ministerial rather than regulatory, and because advocacy directed at a formally independent regulator may be addressing an institution that does not in fact hold the decision.

2.3 Competitive procurement and auctions in the electricity sector

The auction design literature for renewable energy procurement matured rapidly during the study period. Successive contributions established a design vocabulary covering auction demand, qualification requirements, winner selection, seller liabilities, and the treatment of realisation risk. A recurring theme is the trade-off between low headline prices and delivery certainty: weak prequalification and low penalties invite underbidding and non-delivery, while stringent requirements raise transaction costs and deter smaller entrants.

The most sustained empirical treatment of independent power producer procurement in developing countries comes from a body of comparative programme evaluation, identifying the determinants of successful programmes as including clear policy and legal frameworks, a competent and adequately resourced procurement entity, creditworthy offtake, standardised documentation, and transparent, well-managed bidding processes. Their analysis of the South African Renewable Energy Independent Power Producer Procurement

Programme (REIPPPP) is the reference case for programme design in emerging markets and is used as such here.

A parallel and largely separate practitioner-facing literature examines procurement performance within energy firms rather than within states. It addresses strategic procurement optimisation in oil and gas operations (Okonkwo et al., 2018a), inventory availability and plant uptime in energy facilities (Okonkwo et al., 2018b), contract negotiation and vendor governance as cost levers (Okonkwo et al., 2019), and supply chain risk in engineering, procurement and construction contracting (Agbabiaka et al., 2019). Its unit of analysis is the firm rather than the state, and it is rarely cited in the policy literature, but it supplies a vocabulary of gate design, qualification, and vendor governance that transfers usefully to statutory procurement.

What this literature establishes but does not theorise is the administrative dimension. Procurement entity competence and documentation standardisation are treated as design inputs rather than as reform outcomes with their own political economy. The question of how a jurisdiction moves from fragmented to consolidated procurement administration, and what role industry plays in that movement, is left largely unexamined. A distinct strand within this literature examines the offtaker rather than the procurement process. The creditworthiness of the purchasing utility determines whether a signed agreement is financeable, and in most emerging markets the purchasing utility is a state-owned entity with tariffs set below cost recovery, substantial receivables from public sector customers, and no independent credit rating. The available responses form a hierarchy. Tariff reform addresses the underlying deficit but is politically costly and slow. Payment security mechanisms, including escrow accounts, revolving letters of credit, and standby facilities, address liquidity without addressing solvency. Sovereign guarantees and put and call option arrangements transfer residual risk to the state balance sheet. Partial risk guarantees from multilateral institutions transfer it further, at the cost of introducing an additional counterparty with its own approval process and its own timetable.

Each rung of this hierarchy has a distinct effect on the bidding workflow, and this is the point at which the credit literature and the procurement literature should meet but generally do not. Programme-level payment security is invisible in the workflow, since it is arranged once and applies to all projects. Project-level sovereign support is highly visible, since it places a treasury approval on the critical path of every transaction and imports the fiscal calendar into the procurement calendar. The choice between them is usually framed as a question of contingent liability management. It is equally a question of administrative design, and the analysis below treats it as such.

A recurring theme in the comparative literature is the distinction between the procurement of a commodity and the procurement of a project. Commodity procurement involves a defined good, a short delivery horizon, and a counterparty relationship that ends on payment, and its administrative requirements are correspondingly light. Project procurement involves an asset with a twenty to twenty-five year operating life, a counterparty relationship that begins rather than ends at award, and a financing structure whose viability depends on the enforceability of terms that will be tested decades after signature. The administrative architecture appropriate to the second is not a more elaborate version of the first. It must support due diligence by parties who are not participants in the tender, principally lenders and their advisers, and it must produce documentation that will be read adversarially in circumstances that no one at award anticipated.

This distinction explains an otherwise puzzling feature of the empirical record, which is that jurisdictions with well-functioning general public procurement systems do not reliably perform well at generation procurement. General procurement law is built for commodity and service contracting, and its characteristic instruments, being open tender requirements, lowest-price rules, standstill and challenge procedures, and restrictions on post-award variation, can actively obstruct project procurement. A lowest-price rule that cannot accommodate multi-criteria evaluation, or a variation restriction that prevents the accommodation of a lender requirement identified during due diligence, will produce either delay or evasion. Several jurisdictions have addressed this by carving generation procurement out of the general procurement statute entirely, and the carve-out is best understood as a recognition that the two activities are administratively distinct rather than as a concession to sectoral special pleading.

2.4 Process perspectives on statutory workflows

The analytical tools for examining workflow performance are drawn from a separate tradition. Business process reengineering offers the core insight that performance improvement requires redesign of end-to-end processes rather than optimisation of functional units, and that information technology enables but does not constitute redesign. Lean methodology contributes the distinction between value-adding and non-value-adding activity, and the identification of waiting, duplication, and unnecessary transport of information as principal waste categories. Process mining and cycle time analysis supply measurement techniques, including the calculation of process cycle efficiency as the ratio of value-adding time to total elapsed time. Process mining supplies the corresponding apparatus for deriving these measures from recorded system events rather than from observation, and enterprise log analytics offers a working template, since it converts dispersed and heterogeneous system events into an auditable process record (Mbonu et al., 2019b).

Application of these tools to public administration is well established under the heading of administrative burden reduction, most systematically in the standard cost model used across the European Union and adapted for regulatory simplification programmes in developing countries. Their application to statutory procurement workflows in the energy sector is, to the author's knowledge, largely absent, and constitutes one methodological contribution of this study. Applications in adjacent regulated domains nonetheless illustrate the transfer: reconciliation control and financial workflow redesign in emerging-market organisations (Dogbatsey et al., 2019), integration and extract-transform-load design in enterprise platforms (Badmus et al., 2019a), continuous integration and deployment pipelines as a model of automated gate management (Badmus et al., 2018), and platform governance frameworks for regulated environments (Badmus et al., 2019b). The last is particularly pertinent, since it addresses the same tension examined here between administrative speed and regulatory control.

Three literatures thus bear on the problem and do not speak to one another. The corporate political activity literature explains how firms influence policy but rarely examines procedural or administrative targets, and rarely operates in emerging market procurement settings. The energy procurement literature identifies administrative competence as a determinant of programme success but treats it as exogenous. The business process literature supplies measurement and redesign tools but is not applied to statutory bidding. The gap this paper addresses is the intersection: an account of how organised industry advocacy interacts with regulatory reform to alter the performance of statutory bidding workflows, together with the measurement apparatus needed to assess that alteration and the normative criteria needed to evaluate it.

Two further gaps are worth naming precisely, because they define what the framework in the next section is built to do. The first is definitional. There is no standard construct in the literature for the object examined here. Procurement scholarship speaks of the tender process, energy scholarship of the programme, administrative scholarship of the licensing regime, and none of these captures the full chain from planning determination to financial close. Without a stable construct, cycle times cannot be compared across jurisdictions, because different studies measure different intervals. The second is evaluative. Procedural simplification is treated in the better regulation literature as presumptively beneficial and in the capture literature as presumptively suspect, and neither position supplies criteria for distinguishing cases. Reform practitioners are consequently left to argue from disposition rather than from evidence.

III. ANALYTICAL FRAMEWORK

3.1 The statutory bidding workflow

The paper defines a statutory bidding workflow as the complete, legally mandated sequence of decisions, authorisations, and instruments required to convert a policy intention to procure generation capacity into an enforceable, financeable, and constructible project. The construct is deliberately broader than the tender process. It extends upstream to the planning and determination decisions that authorise procurement and downstream to the consents and credit instruments required for financial close, because delay in those segments is empirically dominant.

The workflow is decomposed into three phases and eleven canonical stages.

Phase A: Authorisation and preparation

1. Integrated resource planning and capacity determination
2. Ministerial or regulatory determination authorising procurement
3. Programme design, budget approval, and appointment of the procurement entity
4. Publication of the request for proposals and supporting documentation

Phase B: Competitive process

5. Registration, prequalification, and bid bond lodgement
6. Bid submission, compliance screening, and technical evaluation
7. Financial evaluation, ranking, and preferred bidder announcement
8. Award confirmation, standstill, and disposal of challenges

Phase C: Post-award to financial close

9. Contract execution, comprising the power purchase agreement, implementation or direct agreement, and connection agreement
10. Statutory consents, comprising generation licence, environmental authorisation, land rights, water use, and grid connection approval
11. Credit support and financial close, comprising sovereign guarantee or put and call option arrangements, partial risk guarantees, letters of credit, and lender conditions precedent

Stage 10 is the most heterogeneous of the eleven, since it aggregates consents administered by agencies with distinct statutory purposes covering environment, land, water, and occupational safety. Work on safety governance in large construction and energy projects indicates that these consents are not merely procedural, and that their substantive content, covering hazard identification, risk control, and multi-contractor coordination, materially affects delivery outcomes (Obogo et al., 2019b, 2019c; Obriki & Arumosoye, 2018).

Each stage is characterised by five attributes used consistently throughout the analysis: the responsible authority; the statutory basis; the decision rule, being discretionary, rule-bound, or ministerial; the time norm, being the statutory or published deadline where one exists; and the realised cycle time, being the observed elapsed duration. The eleven stages are presented in the table below with their characteristic decision rules and the classes of failure to which each is prone. The pattern worth noting is that discretionary and ministerial decision rules cluster at the two ends of the workflow, in the authorisation phase and in the credit phase, while the competitive phase in the middle is comparatively rule-bound. This distribution anticipates the empirical finding in Section 5 that delay concentrates outside the tender itself.

Stage	Phase	Typical decision rule	Characteristic failure
1. Resource planning and capacity determination	A	Ministerial, plan-based	Plan not updated; procurement proceeds without settled basis
2. Determination authorising procurement	A	Ministerial, discretionary	No time norm; indefinite pendency
3. Programme design and budget approval	A	Administrative and fiscal	Advisory funding gap; procurement entity under-resourced
4. Publication of request for proposals	A	Rule-bound	Documentation issued incomplete, requiring addenda

© NOV 2019 | IRE Journals | Volume 3 Issue 5 | ISSN: 2456-8880
DOI: https://doi.org/10.64388/IREV3I5-17222791

Stage	Phase	Typical decision rule	Characteristic failure
5. Registration, prequalification, bid bond	B	Rule-bound	Thresholds calibrated to incumbent balance sheets
6. Bid submission and technical evaluation	B	Rule-bound, panel-based	Evaluation capacity constraint under high bid volume
7. Financial evaluation and preferred bidder	B	Rule-bound	Ranking disputes; ceiling price disclosure effects
8. Award confirmation and challenge disposal	B	Quasi-judicial	Standstill period absent or unenforced
9. Contract execution	C	Negotiated or standardised	Post-award negotiation reopens priced terms
10. Statutory consents	C	Technical, multi-agency	Serial sequencing; circular conditionality
11. Credit support and financial close	C	Ministerial and fiscal	Project-level negotiation of programme-level instruments

3.2 Bottleneck classes

Analysis of stage attributes yields five bottleneck classes, which together form the diagnostic vocabulary applied in Section 5.

Sequencing bottlenecks arise where stages that could proceed in parallel are required to proceed serially, most commonly where environmental authorisation cannot commence until land rights are secured, and land rights cannot be secured until preferred bidder status is confirmed.

Interdependency bottlenecks arise where a decision by one authority is conditioned on a decision by another that is itself conditioned on the first, producing circularity. The classic instance is a grid connection offer conditioned on a signed offtake agreement where the offtake agreement is conditioned on a firm connection offer.

Discretion bottlenecks arise where a stage has no decision rule, no time norm, and no appeal, so that the duration of the stage is a function of official attention rather than of applicant conduct.

Documentation bottlenecks arise where contract terms are negotiated bilaterally at the post-award stage rather than fixed and published ex ante, converting a competitive process into a negotiation and reintroducing the transaction costs the auction was intended to eliminate.

Credit bottlenecks arise where the offtaker is not creditworthy on a standalone basis and the required sovereign or multilateral credit support instrument is negotiated project by project rather than programme-wide, placing a treasury or ministry of finance approval on the critical path.

The typology is deliberately close in structure to risk taxonomies used in project and supply chain settings, where classification precedes control selection (Agbabiaka et al., 2019; Arumosoye & Obriki, 2019). Its purpose is the same: to direct remedial effort at the class of failure actually present rather than at the most visible symptom. Two properties of this typology deserve emphasis. The first is that the classes are not mutually exclusive at the level of a single stage. Stage 11 in a jurisdiction with a weak offtaker typically exhibits a credit bottleneck and a discretion bottleneck simultaneously, since the instrument is both substantively difficult and procedurally unbounded. The classification is applied to the dominant constraint, established by asking which condition, if relaxed, would most reduce the stage's cycle time.

The second is that the classes carry different reform implications, which is the point of separating them. Sequencing bottlenecks are addressed by permitting parallel processing and by decoupling consents from award status, and are among the cheapest reforms available because they require no new institutional capacity. Interdependency bottlenecks require a coordinating authority empowered to issue conditional decisions, which is an institutional change rather than a procedural one. Discretion bottlenecks are addressed by decision rules, time norms, and consequences for expiry. Documentation bottlenecks are addressed by ex ante standardisation. Credit bottlenecks are addressed outside the workflow entirely, at the level of tariff policy, payment security architecture, and fiscal risk management. A reform programme that misclassifies its dominant bottleneck will select an instrument from the wrong row of this list, which is the most common failure observed in the cases.

3.3 Advocacy modalities

Corporate policy advocacy is disaggregated into six modalities, ordered by transparency and by the type of resource transferred.

Modality	Resource transferred	Typical vehicle	Transparency
Formal consultation	Structured position	Written submission to published consultation	High
Technical subsidy	Analytical and drafting capacity	Joint working group, secondment, funded model or study	Medium to high
Coalitional signalling	Aggregated preference	Association position paper, joint industry letter	High
Investment signalling	Credible commitment or withdrawal threat	Public statements on pipeline, capital allocation decisions	Medium
Litigation and formal challenge	Legal determination	Judicial review, regulatory appeal, arbitration	High
Relational access	Trust and informal information	Ministerial engagement, advisory board membership, personnel exchange	Low

The first three modalities are expected to associate with procedural reforms of broad applicability, and the last three with either project-specific relief or reforms whose distributional incidence favours incumbents. Section 5 examines whether the record bears this out. Litigation is treated here as advocacy rather than as dispute resolution, on the ground that its function in the cases examined was frequently to establish a generally applicable interpretation rather than to obtain project-specific relief. Comparable reasoning appears in work on cross-jurisdictional compliance strategy, where legal action shapes the operating rules for a class of firms rather than for a single claimant (Lawal & Oduleye, 2018b; Mbonu et al., 2019a). It is worth noting what the modality framework does not capture, since the omissions bound the claims made later. It does not measure intensity, meaning the resources committed to a given advocacy effort, because the necessary expenditure data are not disclosed in any of the jurisdictions examined. It does not capture coordination between firms outside formal associational structures, which the record cannot observe. And it treats each modality as if it were deployed independently, when the case evidence indicates that firms combine modalities within a single campaign, submitting a consultation response while simultaneously commissioning analysis and engaging ministerially. The framework is therefore best understood as a classification of channels rather than of strategies, and inferences drawn from the observed distribution of channels are correspondingly limited to statements about where advocacy appears rather than about how much of it there is.

A further complication concerns the identity of the advocating party. In several of the reform episodes examined, the most consequential technical input came not from developers but from their financiers, whose interest in contractual bankability is direct and whose institutional standing with ministries of finance is frequently stronger than that of any sponsor. Treating lenders as part of the industry coalition is analytically convenient but obscures a genuine divergence of interest: lenders are indifferent to tariff levels within the range that supports debt service, and are correspondingly willing to accept auction designs that compress developer margins provided that offtake risk is adequately allocated. Where lender preferences dominate an advocacy coalition, the resulting reforms tend to strengthen contractual protection at the expense of pricing pressure, which is a distributional outcome that the simple framing of industry versus regulator cannot express.

3.4 Analytical model and propositions

The framework links four blocks. Institutional conditions, comprising administrative capacity, offtaker creditworthiness, judicial independence, and the encompassing or narrow character of industry associations, condition both the modality of advocacy adopted and the receptivity of the state to it. Advocacy modality produces reform outputs, being changes to statutory or regulatory instruments, procurement documentation, or administrative organisation. Reform outputs alter workflow performance, measured through cycle time, process cycle efficiency, gate count, variance in cycle time, and development cost. Workflow performance in turn determines market outcomes, comprising delivered capacity, realisation rate, tariff level, and participation breadth. Two feedback paths are specified: market outcomes alter the resources and legitimacy available to advocacy actors, and reform outputs alter institutional conditions, notably administrative capacity.

Three propositions follow and organise the analysis that follows.

P1. Where the binding bottleneck is credit-related, procedural reform to Phases A and B will not materially improve delivered capacity.

P2. Advocacy conducted through encompassing associations using transparent, information-based modalities produces reforms with broader beneficiary incidence than advocacy conducted through narrow coalitions using relational modalities.

P3. Statutory decision deadlines improve cycle time only where paired with a defined consequence for expiry and an accountable single procurement entity; deadlines without consequence produce no measurable improvement.

The propositions are stated in falsifiable form, and it is worth being explicit about what would count against each. P1 would be weakened by a case in which delivered capacity improved materially following procedural reform while offtaker creditworthiness remained unchanged and unenhanced. P2 would be weakened by a case in which fragmented, relationally conducted advocacy produced a procedural reform of broad and durable beneficiary incidence. P3 would be weakened by a case in which a bare statutory deadline, unaccompanied by any consequence for expiry, was followed by a sustained reduction in cycle time at the stages to which it applied. None of these disconfirming patterns appears in the five cases, but the sample is small and purposive, and the absence is therefore evidence of consistency rather than proof of generality.

IV. DATA AND METHODS

4.1 Design and case selection

The study adopts a comparative, theory-building multiple case design combining documentary process tracing with a structured workflow mapping protocol. The design is qualitative and interpretive, with quantitative elements confined to descriptive cycle time measurement. This choice reflects three considerations. First, the population of national statutory bidding frameworks is small, and the reform episodes of interest are fewer still, precluding large-N inference. Second, the causal mechanisms of interest, being advocacy influence on drafting and administrative organisation, are not observable in outcome data alone and require tracing through documentary evidence. Third, the study is theory-building rather than theory-testing, and its output is a framework and typology rather than a coefficient.

Five jurisdictions were selected purposively using a diverse case logic, maximising variance on two dimensions identified in the framework as consequential: administrative consolidation, meaning the presence or absence of a single accountable procurement entity, and offtaker creditworthiness. The selection is set out below.

Case	Procurement instrument	Administrative consolidation	Offtaker creditworthiness	Association character
South Africa	REIPPPP, ministerial determination and IPP Office tender	High, dedicated IPP Office	Weak utility with sovereign guarantee	Encompassing, technology-specific
India	Central and state reverse auctions under standard bidding guidelines	Medium, intermediary procurers alongside state utilities	Weak state distribution utilities	Encompassing federation plus technology bodies
Brazil	Regulated contracting environment auctions	High, planning agency and clearing chamber	Moderate, pooled distributor offtake	Encompassing, mature
Nigeria	Bulk trader procurement under sector reform statute	Low, fragmented across ministry, regulator, trader	Weak, liquidity-constrained pool	Fragmented, emerging
Vietnam	Feed-in tariff transitioning to auction	Low to medium, single utility offtaker	Weak, no sovereign guarantee	Weak, foreign-investor dominated

Case selection deliberately includes both a widely cited reference case, South Africa, and cases of partial or contested reform, permitting examination of failure as well as success. Three alternative designs were considered and rejected. A large-N panel of bid windows across all jurisdictions conducting competitive renewable procurement would permit statistical testing, but the required independent variables, being gate count, documentation standardisation, and decision rule characteristics, are not available in any existing dataset and would themselves have to be coded from primary instruments for each jurisdiction, which is the labour-intensive step in the present design. A single-case process tracing study of one jurisdiction would permit deeper mechanism identification but could not distinguish features of the case from features of the class. An experimental or quasi-experimental design exploiting reform timing is precluded because reforms are neither randomly assigned nor plausibly exogenous, being typically responses to the very performance problems whose subsequent improvement would be the outcome of interest.

The five-case comparative design is therefore a compromise adopted in awareness of its costs. It permits identification of recurrent institutional features across settings that differ substantially in legal tradition, administrative capacity, market size, and political system, which is the basis for treating those features as candidates for generality. It cannot establish the magnitude of any effect, cannot rank the identified features by importance, and cannot exclude the possibility that an unobserved common cause produces both the institutional feature and the performance outcome.

Case boundaries require definition, since a national procurement framework is not a single object. For each jurisdiction the unit of analysis is the principal statutory competitive procurement programme for grid-connected generation active during the study period, together with the legal and administrative apparatus supporting it. Where a jurisdiction ran parallel programmes at central and subnational level, the central programme is the primary unit and the subnational arrangements are treated as part of the institutional environment. Where a jurisdiction changed instrument during the period, as in the migration from administered tariff to auction, both instruments are examined and the transition is treated as an observation in its own right rather than as a break in the case.

Two exclusions are applied consistently. Emergency and short-term procurement conducted outside the standing framework is excluded, since its administrative shortcuts are not evidence about the framework’s ordinary operation, though their frequency is noted where relevant as an indicator of framework failure. Procurement of capacity from existing plant, including capacity market

© NOV 2019 | IRE Journals | Volume 3 Issue 5 | ISSN: 2456-8880
DOI: https://doi.org/10.64388/IREV3I5-17222791

arrangements and the rehabilitation of state-owned assets, is also excluded, since the workflow lacks the consent and construction stages that are central to the analysis.

4.2 Data sources and workflow mapping

Four evidence streams are used.

Primary legal and regulatory instruments. Statutes, regulations, ministerial determinations, licensing rules, standardised bidding guidelines, and published procurement documentation for each case, collected for the period 2010 to 2019 and coded for stage attributes.

Programme documentation. Requests for proposals, bidder information memoranda, standardised contract templates, prequalification criteria, and published bid window results and timelines.

Advocacy record. Association position papers, published consultation submissions, joint industry correspondence where publicly available, commissioned studies, working group terms of reference and outputs, litigation filings and judgments, and contemporaneous trade press reporting of advocacy positions.

Secondary analytical literature. Programme evaluations by multilateral institutions, academic case studies, and international benchmarking datasets on regulatory frameworks for sustainable energy.

A fifth stream, semi-structured interviews with informants across the five jurisdictions, is specified in outline below and is treated in Section 8.3 as a component of an extended design rather than as evidence relied on here.

For each case, a process map was constructed by the following procedure. Stages were identified from primary legal instruments and validated against programme documentation. For each stage, the responsible authority, statutory basis, decision rule, and time norm were recorded. Realised cycle times were derived from published programme milestones, being determination dates, request for proposals publication, bid submission deadlines, preferred bidder announcements, and reported financial close dates, and were cross-checked against secondary reporting.

Three performance measures were then computed. Total cycle time is elapsed calendar time from determination to first financial close within a bid window. Gate count is the number of discrete statutory or quasi-statutory approvals on the critical path. Process cycle efficiency is estimated as the ratio of active processing time, meaning periods in which a party is demonstrably performing work, to total elapsed time. The third measure is necessarily approximate, since active processing is inferred rather than directly observed, and is reported as a band rather than a point estimate. Where regulators maintain machine-readable case records, the same measures can in principle be computed directly from event logs rather than inferred from published milestones (Mbonu et al., 2019b). The measures used throughout are defined below to permit replication and to make explicit where estimation rather than measurement is involved.

Measure	Definition	Source	Status
Gate count	Number of discrete statutory or quasi-statutory approvals on the critical path from determination to financial close	Primary legal instruments, programme documentation	Measured
Total cycle time	Elapsed calendar months from authorising determination to first financial close within a bid window	Published programme milestones	Measured
Phase share	Proportion of total cycle time falling within Phases A, B, and C respectively	Derived from milestones	Measured
Process cycle efficiency	Ratio of periods in which a party is demonstrably performing work to total elapsed time	Inferred from documented submissions, decisions, and correspondence	Estimated, reported as band

© NOV 2019 | IRE Journals | Volume 3 Issue 5 | ISSN: 2456-8880
DOI: https://doi.org/10.64388/IREV3I5-17222791

Measure	Definition	Source	Status
Cycle time variance	Dispersion of stage duration across projects within a bid window	Programme reporting where disaggregated	Partially measured
Realisation rate	Awarded capacity reaching commercial operation within the programme timeline	Programme and regulator reporting	Measured where reported
Participation breadth	Number of distinct qualifying bidders and share of awarded capacity held by the three largest sponsors	Bid window results	Measured where reported

Two measurement problems affect these consistently across cases and should be stated plainly. First, financial close dates are commercially sensitive and are reported irregularly, so total cycle time is in several instances bounded rather than pinpointed, and is reported as a range. Second, process cycle efficiency depends on an inference about whether work was being performed during an interval in which nothing was published. The inference is drawn conservatively, treating an interval as active where any documented submission, request for information, or decision falls within it, which biases the estimate upward and therefore understates the severity of the waiting problem.

4.3 Coding, validity, and ethics

Advocacy influence was assessed using process tracing logic, requiring for each claimed influence relationship the establishment of four elements: a documented advocacy position ex ante; temporal precedence relative to the reform output; substantive correspondence between the advocated position and the adopted text or arrangement; and a mechanism, being a documented channel through which the position reached decision-makers. Claims satisfying fewer than three elements are reported as suggestive rather than supported.

Documents were coded against a scheme comprising three families: bottleneck class, advocacy modality, and reform instrument type. The scheme comprises bottleneck class (sequencing, interdependency, discretion, documentation, credit), advocacy modality (formal consultation, technical subsidy, coalitional signalling, investment signalling, litigation, relational access), reform instrument (primary statute, subordinate regulation, authorising determination, procurement documentation, administrative reorganisation, guideline or code), and beneficiary incidence (broad, broad with technical incumbency advantage, capital-conditioned, or narrow). Coding was conducted in two passes with reconciliation of discrepant assignments; given single-coder execution, intercoder reliability statistics are not reported, and this is acknowledged as a limitation. The two-pass procedure with documented reconciliation mirrors control-testing practice in audit settings, where a repeatable and evidenced review path is treated as a partial substitute for independent replication when resources preclude it (Akomolafe & Agu, 2018; Dosunmu & Ogundele, 2019).

Construct validity is supported by triangulation across the four evidence streams and by anchoring the workflow construct in primary legal instruments rather than in respondent perception. Internal validity rests on the four-element process tracing standard and on explicit consideration of rival explanations for each reform episode, including fiscal pressure, multilateral conditionality, electoral cycles, and technology cost trends. External validity is limited by design; the five cases are not a sample, and generalisation is analytical, extending to the framework rather than to a population. Reliability is supported by the documented protocol and coding scheme.

The study relies on publicly available documentation. Where the extended design contemplates interviews, standard requirements apply: informed consent, institutional attribution only where consented, anonymisation of individual respondents by role and jurisdiction, and secure data handling. Handling of personal and commercially sensitive material follows the comparative data protection principles synthesised by Mbonu et al. (2019a) and the legal and ethical risk modelling approach set out by Mbonu et al. (2018). Given that some advocacy activity concerns matters of

© NOV 2019 | IRE Journals | Volume 3 Issue 5 | ISSN: 2456-8880
DOI: https://doi.org/10.64388/IREV3I5-17222791

legal and reputational sensitivity, the protocol excludes questions inviting disclosure of unlawful conduct and states clearly that the study does not seek such information.

Two ethical considerations specific to this subject matter deserve statement. The first concerns the attribution of influence. To assert that a particular firm or association caused a particular regulatory outcome is to make a claim with reputational consequences for named parties, and in a field where the boundary between legitimate advocacy and improper influence is contested, such claims require a higher evidentiary standard than ordinary empirical assertions. The four-element process tracing standard is applied strictly for this reason, and where the standard is not met the relationship is described as coincident rather than causal. The second concerns asymmetry of documentation. Advocacy conducted transparently is documented and therefore observable, while advocacy conducted relationally is neither. A naive reading of the record would therefore find that transparent advocacy is more influential simply because it is more visible. This risk is addressed by treating the absence of documented advocacy in a case as uninformative rather than as evidence of absence, and by flagging explicitly, in Section 8.2, that the finding on modality effectiveness is conditioned by this asymmetry.

V. RESULTS

5.1 The anatomy of delay

Applying the workflow mapping protocol across the five cases produces a consistent structural picture. The competitive process itself, being Phase B stages five through eight, is not the principal locus of delay. Across the mapped bid windows, Phase B accounted for a minority of total elapsed time in every case, typically between four and eight months from request for proposals publication to preferred bidder announcement. Delay concentrates at the two ends of the workflow.

Phase A delay is dominated by the determination stage. In several cases, the interval between the identification of a capacity need in a planning document and the issuance of an instrument authorising procurement extended well beyond a year, and in the Nigerian case authorisation and procurement proceeded without a settled and updated plan, generating subsequent contestation of the procurement's legal basis. Phase A delay is characteristically a discretion bottleneck: the determination decision is ministerial, the decision rule is unspecified, and no time norm exists.

Phase C delay is dominated by credit support and by the interaction of land, environmental, and grid consents. Where the offtaker is not creditworthy, the credit instrument sits on the critical path and is subject to negotiation with the treasury or with a multilateral partner, each of which operates on institutional timelines unrelated to the procurement calendar. Where consents are sequenced serially and each is conditioned on the others, the resulting circularity is resolvable only by informal coordination, the availability of which varies with administrative capacity.

The aggregate picture across cases is summarised below. Figures are indicative ranges derived from published milestones and should be read as orders of magnitude rather than precise measurements.

Measure	Observed range across cases	Principal driver of variance
Gate count on critical path	11 to 19	Degree of administrative consolidation
Total cycle time, determination to first financial close	14 to 48 months	Credit support arrangements
Phase B share of total cycle time	20 to 40 percent	Bid volume and evaluation resourcing
Estimated process cycle efficiency	10 to 30 percent	Discretion bottlenecks and serial sequencing

© NOV 2019 | IRE Journals | Volume 3 Issue 5 | ISSN: 2456-8880
DOI: https://doi.org/10.64388/IREV3I5-17222791

Measure	Observed range across cases	Principal driver of variance
Realisation rate of awarded capacity within programme timeline	Highly variable	Offtaker creditworthiness and grid availability

The low process cycle efficiency band is the clearest descriptive result. In the median case, a project spends the substantial majority of its pre-construction life waiting rather than being processed. Waiting is not an inherent property of complex procurement; it is a product of sequencing choices, absent time norms, and unresolved interdependency, all of which are amenable to reform. Comparable ratios of waiting to processing appear in operational studies of energy facilities, where availability rather than capability is typically the binding constraint on output (Okonkwo et al., 2018b). Disaggregating cycle time by phase sharpens the picture. The table below reports indicative phase shares across the mapped bid windows. The dominant pattern is the small share attributable to the competitive process itself relative to the authorisation phase upstream and the consent and credit phase downstream.

Phase	Content	Indicative share of total cycle time	Dominant bottleneck class
A: Authorisation and preparation	Stages 1 to 4	25 to 45 percent	Discretion
B: Competitive process	Stages 5 to 8	20 to 40 percent	None dominant; capacity-constrained
C: Post-award to financial close	Stages 9 to 11	30 to 55 percent	Credit, documentation, sequencing

Two observations follow. First, the phase shares are not stable across cases, and their variation is itself diagnostic. Where Phase A dominates, the constraint is political authorisation and the appropriate intervention is a decision rule with a time norm at the determination stage. Where Phase C dominates, the constraint is bankability or consent sequencing, and procedural reform to the tender will not help. Second, Phase B expands under high bid volume in a way that is capacity-related rather than structural. Evaluation of several hundred bids against multi-criteria frameworks is labour-intensive, and programmes that attracted unexpectedly deep participation extended their evaluation periods accordingly. This is a resourcing problem with a straightforward remedy, and it is the one form of delay in the dataset that is unambiguously a consequence of success.

One further descriptive result concerns the relationship between gate count and cycle time, which is weaker than the reform literature's emphasis on gate reduction would suggest. Across the mapped cases, the jurisdiction with the highest gate count was not the slowest, and the jurisdiction with the lowest was not the fastest. What predicted performance more reliably was the proportion of gates carrying a time norm with a defined consequence. A workflow of nineteen bounded gates outperformed a workflow of twelve unbounded ones. This is a result with direct practical consequence, because gate reduction is politically difficult, requiring institutions to surrender mandates, whereas attaching time norms to existing gates is comparatively cheap and can often be achieved through subordinate instruments. Reform programmes that begin by counting gates and proposing their elimination are therefore starting with the hardest available intervention and one whose expected return is lower than that of the alternative.

5.2 Case evidence

South Africa. The REIPPPP represents the most administratively consolidated case in the sample. Procurement was authorised by ministerial determination under the sector statute, executed by a dedicated procurement office operating with transaction advisory support, and conducted using standardised, non-negotiable contract documentation issued with the request for proposals. The consolidation of documentation is the single most consequential design feature: by removing post-award contract negotiation, the programme eliminated the documentation bottleneck that dominates Phase C elsewhere, and compressed the interval from preferred bidder to financial close substantially relative to regional comparators. Bid windows in the early rounds proceeded on published timelines with a high degree of predictability, and the programme attracted deep participation with progressive tariff reductions across rounds.

The case also demonstrates the limits of Phase A and B excellence. From late 2015, the programme stalled not because of any defect in its bidding workflow but because the utility offtaker declined to execute agreements with preferred bidders from later rounds. Projects that had completed a well-designed competitive process and satisfied their conditions precedent remained unsigned for an extended period, and resolution came only through a change in political leadership and a subsequent signing event covering the outstanding portfolio. The episode is the clearest available demonstration of Proposition P1: where the binding constraint is offtaker willingness and capacity to contract, procedural excellence upstream produces awarded megawatts, not delivered megawatts.

Advocacy in this case was conducted principally through encompassing technology associations using transparent modalities: consultation submissions on programme documentation, published position papers, commissioned economic analysis on the employment and localisation effects of the programme, and coordinated public statements during the signing impasse. Industry also participated in technical working groups on grid code compliance and local content measurement. The observable reform outputs attributable to this engagement include refinements to prequalification thresholds, adjustments to economic development scoring, and clarification of grid connection cost allocation. The impasse itself was resolved by political change rather than by advocacy, though sustained public and coalitional pressure plausibly contributed to maintaining the issue's salience.

Two further features of the South African case bear on the argument. The first is the effect of published, credible round scheduling on bid quality. Because bidders could anticipate a subsequent round within a reasonably predictable interval, the cost of losing was bounded, and the incentive to submit an unrealistically aggressive bid in order to secure a scarce and possibly final opportunity was correspondingly reduced. Programmes without a credible forward calendar face the opposite dynamic, in which each round is treated as potentially the last and bid discipline deteriorates accordingly. Scheduling credibility is thus a component of auction design that operates entirely through the administrative calendar rather than through any feature of the mechanism itself.

The second is the treatment of economic development criteria alongside price. The programme evaluated bids on a combined basis, incorporating job creation, local ownership, and community benefit alongside tariff. This design decision had an administrative cost that is rarely acknowledged in the literature: multi-criteria evaluation is substantially more labour-intensive than price ranking, requires verification of claims that are difficult to verify at bid stage, and creates a compliance monitoring obligation that persists for the life of the contract. Whether the resulting social benefits justify that cost is a policy question outside the scope of this analysis. What the workflow evidence establishes is that the cost is real, that it falls on the procurement entity's evaluation capacity at exactly the stage most sensitive to bid volume, and that it was one contributor to the extension of evaluation periods in the more heavily subscribed rounds.

India. The Indian case exhibits a distinctive institutional innovation: the interposition of central intermediary procurers between generators and financially distressed state distribution utilities. This arrangement addresses the credit bottleneck indirectly, by substituting a comparatively stronger counterparty into the contractual chain and bundling payment security arrangements at programme level rather than negotiating them project by project. Combined with the issuance of standard bidding guidelines under the tariff-based competitive bidding provision of the sector statute, this produced a substantial degree of documentation standardisation and drove the sharp tariff declines observed in the auctions of the period.

The residual bottlenecks are informative. Land acquisition remained a state-level, project-specific process, and grid connection availability constrained deliverability in resource-rich states. More significantly, the case demonstrates the fragility of standardisation under fiscal stress: episodes in which awarded tariffs were subsequently contested, or where signature of agreements was delayed pending renegotiation attempts, revealed that documentation standardisation without enforceable commitment produces only conditional predictability. Advocacy responded to this with a shift in modality, from consultation-based engagement on auction design toward litigation and formal regulatory challenge on contract sanctity, and toward coalitional signalling emphasising the cost of capital consequences of renegotiation risk. The reform outputs included strengthened payment security mechanisms and clearer guideline provisions on tariff adoption. The case supports the proposition that advocacy modality shifts in response to the bottleneck class encountered, moving from informational to legal instruments as the issue moves from design to enforcement.

The Indian case also illustrates the federal dimension of workflow fragmentation, which the other cases in the sample largely lack. Procurement authority, land administration, grid connection at the distribution level, and the ultimate payment obligation are distributed across central and state institutions with distinct incentives and distinct fiscal positions. A central intermediary can substitute its own creditworthiness into the contractual chain, but it cannot substitute itself for a state land administration or a state distribution utility's willingness to sign. The consequence is a workflow in which the central portion is comparatively fast and standardised while the state portion retains every characteristic of the fragmented cases, and the aggregate performance of the system is determined by the slower component.

This has a design implication that generalises to other federal systems. Standardisation at the centre is valuable but incomplete, and its principal effect may be to relocate the binding constraint rather than to remove it. Where the constraint relocates to a level of government that the reforming institution does not control, the available instruments change from direct rule-making to inducement, and the reform question becomes one of fiscal transfer design or conditional access to central procurement rather than one of procedural drafting. The Indian experience with linking access to central schemes to state-level compliance is the relevant precedent, and its extension to workflow performance conditions rather than to capacity targets would be a natural direction for policy experimentation.

Brazil. Brazil possesses the longest continuous experience with competitive electricity auctions in the sample, and its workflow is correspondingly institutionalised. Procurement operates within a regulated contracting environment in which distributors declare demand, a planning agency conducts technical qualification of projects in advance of the auction, and a clearing chamber administers settlement. Pre-auction technical registration is the case's most transferable feature: by requiring projects to demonstrate environmental licensing progress, land control, and grid connection viability before bidding, the system relocates Phase C consent risk to the pre-bid stage, where it is borne by developers as a sunk development cost rather than by the programme as post-award delay.

This design produces high realisation rates and short post-award cycle times, at the cost of raising development expenditure and, arguably, favouring well-capitalised developers able to fund pre-bid consenting. Advocacy in this case operates through mature, encompassing associations engaged in routine consultation on auction calendars, product definitions, and contractual terms, alongside sustained engagement on transmission planning. The case illustrates the trade-off inherent in front-loading: workflow efficiency is purchased with entry cost, and the distributional consequence favours incumbents, a point returned to in Section 6.

The Brazilian case merits a further observation on the institutional architecture that supports its pre-auction qualification model. Front-loading consent risk onto developers is only viable where the consenting authorities themselves operate on predictable timelines, since a developer cannot rationally invest in securing environmental licensing and land control before an auction if the licensing process itself has no time norm. The Brazilian arrangement therefore depends on a prior condition that the fragmented cases in this sample do not satisfy, and attempts to transplant pre-auction qualification into jurisdictions where consent processes are themselves unbounded would convert a realisation-rate improvement into an insurmountable entry barrier.

This is the clearest instance in the sample of a design feature that cannot be adopted in isolation. The recurring temptation in procurement reform is to identify a successful feature in a reference jurisdiction and to import it without its supporting conditions, and pre-auction technical qualification is particularly susceptible because it appears to be a simple change to bid documentation. It is not. It is a reallocation of risk that is only defensible where the risk being reallocated is itself bounded, and its supporting condition is the very consent-stage predictability that most emerging markets lack. Reform sequencing must therefore treat it as a late-stage measure rather than an early one.

Nigeria. The Nigerian case is the sample's principal instance of workflow failure with intact formal design. The sector statute establishes a competitive procurement basis, an independent regulator, and a bulk trading intermediary, and a portfolio of solar power purchase agreements was executed in 2016 following a procurement process. Those agreements did not proceed to financial close on the anticipated timeline. The proximate obstacle was the credit support arrangement: lenders required sovereign backing, which was to be provided through a put and call option arrangement together with a multilateral partial risk guarantee, and the negotiation of these instruments involved the ministry of finance, the trader, the regulator, and the multilateral partner without a single accountable coordinator or an agreed timetable. Tariff levels agreed in the underlying agreements subsequently became contested in the context of a broader sector liquidity crisis and evolving views on achievable pricing.

The case exhibits every bottleneck class simultaneously. Sector-level work on Nigerian energy infrastructure over the same period documents the downstream consequence, being industrial and commercial users investing in captive generation rather than waiting for grid-supplied capacity (Sunday & Omoegun, 2018). Administrative responsibility is distributed across at least four institutions with overlapping mandates, producing interdependency bottlenecks. Determination and approval decisions lack time norms, producing discretion bottlenecks. Contract terms were negotiated bilaterally, producing documentation bottlenecks. The offtaker's liquidity position placed credit support on the critical path. Advocacy capacity was correspondingly constrained: the industry association ecology was fragmented and newly formed, individual developers pursued relational access to ministries independently rather than through collective channels, and the resulting advocacy was largely particularistic, seeking resolution of individual project impasses rather than reform of the workflow itself. The case supports Proposition P2 in its negative form: fragmented advocacy through relational modalities produced neither project-specific resolution nor systemic reform.

Two aspects of the Nigerian experience are worth drawing out because they recur in other fragmented settings. The first is the way in which tariff contestation followed rather than preceded the procedural failure. The agreements were executed at tariff levels that reflected the technology costs and risk perceptions prevailing at the time of negotiation. By the time the credit support instruments were being finalised, technology costs had fallen materially and comparable auctions elsewhere had discovered substantially lower prices, which made the executed tariffs politically difficult to defend regardless of their reasonableness at signature. Procedural delay thus generated a substantive problem that had not existed at the outset, and this feedback from workflow performance to contract legitimacy is a mechanism the auction design literature does not model.

The second is the absence of an institutional actor with both the mandate and the incentive to resolve the impasse. The regulator held licensing authority but not fiscal authority. The bulk trader held the contractual relationship but not the balance sheet. The ministry of finance held the balance sheet but bore none of the cost of delay. The multilateral partner held the guarantee instrument but could not compel a domestic counterparty to conclude. Each institution behaved rationally within its own mandate, and the aggregate outcome was indefinite pendency. This is the characteristic signature of an interdependency bottleneck at its most severe, and it explains why the recommendation for a single accountable entity is stated in terms of accountability rather than efficiency. The problem was not that coordination was costly; it was that no one bore the cost of its absence.

Vietnam. Vietnam's case turns on instrument choice rather than workflow structure. A feed-in tariff with a fixed eligibility deadline substituted an administrative price for a competitive process, and produced an extremely rapid capacity response concentrated in a small number of high-resource provinces. From a workflow perspective, the feed-in tariff is a radical simplification: it eliminates Phases A and B entirely for qualifying projects, replacing them with a registration and planning-inclusion process. The consequence was that the binding constraint migrated to grid infrastructure, and substantial curtailment followed in the most concentrated provinces. The absence of sovereign guarantee provisions and non-negotiable offtake terms simultaneously constrained international project finance, producing a market skewed toward developers able to finance on balance sheet or through domestic banking relationships.

The case is instructive precisely because it shows that workflow simplification is not unconditionally desirable. Removing gates without addressing the physical and contractual constraints those gates were nominally coordinating relocates the bottleneck rather than removing it. Advocacy here was dominated by foreign investors and their associations, operating through investment signalling, being explicit statements that bankability constraints would limit capital deployment, and through engagement with multilateral partners who transmitted those positions. The observable reform trajectory, being movement toward auction-based allocation with improved offtake terms and greater attention to grid-constrained zoning, is consistent with those positions, though multilateral advice constitutes a plausible rival explanation. A further observation on the Vietnamese case concerns the interaction between administrative simplicity and spatial concentration. A uniform national tariff with a fixed eligibility deadline contains no locational signal whatever, and rational developers therefore concentrated in the provinces with the best resource, irrespective of network capacity. The resulting curtailment was not a failure of forecasting but a predictable consequence of a mechanism that priced energy without pricing location. Auction-based allocation can incorporate locational constraint through zonal lots, connection-capacity-linked volume caps, or locational adjustment factors, and the migration toward auctions in this jurisdiction is best understood as a response to a spatial coordination failure rather than as a price-discovery reform.

The case also demonstrates that the composition of market participants is endogenous to contractual terms. Offtake documentation that is not bankable to international project finance standards does not eliminate investment; it selects for investors who do not require project finance, being those able to fund from balance sheet or through domestic banking relationships with different risk criteria. The resulting market may be large, as it was here, while remaining shallow in the sense that it excludes an entire class of capital. Judged by installed megawatts the programme was a striking success. Judged by the cost of capital embedded in those megawatts and by the durability of the investor base, the assessment is more qualified, and the difference between the two judgments is entirely attributable to contractual and administrative design rather than to resource or technology.

Read together, the five cases support three cross-cutting observations that no single case establishes on its own.

The first concerns the relationship between administrative consolidation and cycle time variance rather than cycle time level. Consolidated cases were not uniformly faster in absolute terms, since a consolidated entity administering a bankable programme in a complex legal environment may still take eighteen months from determination to close. What consolidation reliably changed was the dispersion of outcomes. In fragmented cases the interval between the fastest and slowest project within the same award cohort was several times the interval observed in consolidated cases. Dispersion matters more than the mean for financing purposes, because lenders price the tail rather than the average, and a programme with an eighteen-month mean and a six-month dispersion is materially cheaper to finance than one with a fourteen-month mean and a twenty-month dispersion. This is an argument for consolidation that does not depend on it accelerating anything.

The second concerns the durability of documentation standardisation. Standardisation delivered its benefits only where the standard was treated as genuinely non-negotiable. In every case where a derogation was granted to an individual project, whether for a sponsor with unusual financing requirements or under political pressure, the derogation became a precedent invoked by subsequent bidders, and the negotiation channel reopened. The finding is that standardisation is a discipline rather than a document, and that its value is destroyed by the first exception rather than eroded gradually by many.

The third concerns what happens when a programme stalls. In all cases exhibiting a prolonged impasse, the stall was resolved by an event exogenous to the procurement system: a change of political leadership, a fiscal crisis that altered the cost of inaction, or the intervention of a multilateral partner with leverage. No case in the sample resolved a stall through the operation of its own procedural machinery. This is a significant negative finding, because it indicates that the workflow reforms examined here improve performance under ordinary conditions but supply no self-correcting mechanism under adversarial ones. Escalation rights, appeal channels, and reasons obligations were present on paper in several cases and were not effective in practice when the blockage was political rather than administrative.

It is worth stating what the cycle time results do not show. They do not show that faster is better. A programme that compresses evaluation to the point where technical review is superficial will award to bidders who cannot deliver, and the resulting non-delivery will be recorded as a realisation failure rather than as a speed-related one. Nor do the results show that the observed variation in cycle time is attributable to administrative design alone. Legal tradition, the complexity of land tenure, the density of environmental protection, and the sheer number of projects in a round all affect elapsed time independently of the workflow's architecture. What the results support is the narrower claim that a large and consistent share of elapsed time is attributable to waiting rather than to any process, that waiting is concentrated at stages with discretionary decision rules and no time norms, and that the jurisdictions differing most in those two attributes differ correspondingly in performance.

A related caution concerns the direction of causation between consolidation and performance. Jurisdictions that consolidated procurement administration may have done so because they already possessed the political commitment and administrative capacity that independently produce good outcomes, in which case consolidation is a marker of underlying capability rather than a cause of performance. The case evidence is partly reassuring on this point, since the consolidating step in the strongest case preceded rather than followed the performance improvement and was contested at the time, but the concern cannot be fully dismissed within a design of this kind and is restated in the limitations.

5.3 Advocacy modalities and reform correlates

Coding the advocacy record across the five cases against the modality framework produces the following pattern.

Modality	Frequency in record	Typical reform output	Beneficiary incidence
Formal consultation	High in South Africa, Brazil, India; low in Nigeria, Vietnam	Refinement of qualification criteria, evaluation weightings, documentation	Broad
Technical subsidy	Medium, concentrated in grid code and localisation working groups	Technical annexes, measurement methodologies, compliance protocols	Broad, with technical incumbency advantage
Coalitional signalling	High during crisis episodes	Political salience, rarely direct textual change	Broad

Modality	Frequency in record	Typical reform output	Beneficiary incidence
Investment signalling	High in Vietnam and during India renegotiation episodes	Instrument redesign, offtake term improvement	Broad, favouring internationally financed firms
Litigation	Medium, concentrated in India	Enforcement of existing terms, clarification of guideline scope	Narrow to broad depending on remedy
Relational access	High in Nigeria, opaque elsewhere	Project-specific relief where any	Narrow

Three observations follow. First, modality composition tracks institutional conditions closely. Where formal consultation channels exist and are used, advocacy concentrates there; where they are absent or perceived as ineffective, advocacy migrates to relational and investment signalling channels. This is consistent with a substitution account of advocacy channel choice and has a direct policy implication: the creation of credible formal channels is itself a governance intervention that displaces less transparent activity.

Second, technical subsidy is the modality most closely associated with textual reform outputs, supporting the informational account of influence. In each case where a documented reform text corresponded closely to an advocated position, the mechanism involved industry supply of technical drafting or measurement capacity to an agency lacking it. This is the mechanism most likely to produce welfare gains and simultaneously the mechanism most vulnerable to subtle capture, since the party supplying the technical definition also shapes the compliance frontier.

Third, coalitional signalling rarely produces textual reform directly but appears to sustain issue salience through periods where decision-making is stalled. Its function is agenda-maintenance rather than drafting. The timing of advocacy relative to reform activity follows a recognisable pattern across the cases, summarised below. Engagement is heaviest at programme design and at moments of crisis, and lightest during routine operation, which is precisely the period in which incremental procedural improvement is most feasible and least contested.

Reform phase	Dominant advocacy modality	Observed intensity	Typical reform output
Agenda setting and diagnosis	Technical subsidy, commissioned analysis	Moderate, concentrated among large firms	Framing of the problem; scope of the reform
Programme design and documentation	Formal consultation, technical working groups	High	Qualification criteria, evaluation weightings, contract terms
Routine operation between rounds	Low across all modalities	Low	Minor addenda and clarifications
Crisis or impasse	Coalitional signalling, investment signalling, litigation	High	Political salience; occasionally enforcement of existing terms
Post-crisis reconstruction	Formal consultation, technical subsidy	Moderate	Structural change to the instrument architecture

The pattern has a practical implication for both sides. For regulators, the quiet period between rounds is the cheapest time to make procedural changes, because positions are less entrenched and no immediate award is at stake, yet it is the period in which industry input is least forthcoming. For associations, sustained low-intensity engagement during routine operation is likely to yield a higher return per unit of effort than crisis mobilisation, which arrives after the decision architecture has already been set.

The modality distribution also varies systematically with firm characteristics in ways the case record makes visible. Internationally financed developers relied disproportionately on investment signalling and on lender-mediated engagement, because the credibility of their withdrawal threat was high and because their financiers held independent channels to ministries of finance. Domestically capitalised developers relied more heavily on relational access, reflecting both stronger existing networks and a weaker capacity to make credible exit threats in markets where they had no alternative deployment. Equipment manufacturers and engineering contractors, whose interest lies in transaction volume rather than in any individual project, concentrated on technical subsidy and on association-level engagement, which is consistent with their interest in the aggregate size and predictability of the pipeline rather than in the terms of any particular award.

This distribution matters because it maps onto the beneficiary incidence findings. The modalities associated with broad-incidence reform, being formal consultation and technical subsidy, were used most heavily by the actors whose interests are aligned with pipeline predictability rather than with individual outcomes. The modalities associated with narrow incidence, being relational access in particular, were used most heavily by actors with project-specific exposure. This suggests that the observed relationship between modality and incidence may be partly compositional rather than causal: transparent channels may be associated with broad reforms because the actors who use them happen to want broad reforms, not because transparency disciplines the content of what is sought. The two mechanisms cannot be separated with the available evidence, and the distinction is noted in the limitations.

5.4 Institutional features of durable streamlining

Comparing reform episodes that produced sustained improvement against those that did not yields four recurrent institutional features, presented here as necessary rather than sufficient conditions.

A single accountable procurement entity. Cases with a dedicated entity holding end-to-end responsibility exhibited materially lower gate counts on the critical path and materially lower cycle time variance. The mechanism is not merely coordination but accountability: a single entity can be held to a published timeline, whereas distributed responsibility produces diffusion of blame.

Standardised, non-negotiable documentation issued ex ante. Publishing final contract terms with the request for proposals converts contract risk into a priced bid variable and eliminates post-award negotiation. This is the highest-leverage single reform identified in the study, since it addresses the documentation bottleneck directly and compresses the segment of Phase C most susceptible to discretionary delay. Firm-level procurement research reaches a convergent conclusion, identifying contract negotiation and vendor governance as disproportionately large cost and schedule levers relative to the attention they typically receive (Okonkwo et al., 2019).

Statutory decision deadlines with defined consequences. Deadlines alone had no observable effect in the record. Deadlines paired with a consequence, being either deemed approval, an obligation to give written reasons for delay, or an escalation right, were associated with improved cycle time. This supports Proposition P3. Deemed approval is, however, unsuitable for decisions with irreversible safety or environmental consequences, and the study finds that the appropriate consequence varies by stage: deemed approval for procedural and registration stages, reasoned-delay obligations for technical stages, escalation rights for political stages.

Formalised and transparent consultation. Published consultation with published responses served two functions: it improved the technical quality of instruments, and it displaced advocacy from relational channels into observable ones. The second function is a governance benefit independent of the first.

Two further features appear in successful cases but are better characterised as preconditions than as reforms: creditworthy or credit-enhanced offtake, and grid connection planning integrated with procurement zoning.

A final result concerns what does not distinguish the successful cases. Three features frequently cited in practitioner guidance showed no consistent relationship with workflow performance in this sample. The first is the choice between a sealed-bid and a descending-clock auction format, which varied across the cases without corresponding variation in delivery outcomes. The second is the presence or absence of local content requirements, which affected bid pricing and administrative complexity at the evaluation stage but showed no relationship with total cycle time. The third is the formal legal independence of the regulator, which was strongest in one of the weakest-performing cases and qualified in one of the strongest. These null observations should be read cautiously given the sample size, but they are consistent with the paper's central claim that administrative architecture rather than mechanism design or formal institutional status governs delivery performance.

A last descriptive note concerns what the record shows about reversal. Two of the five cases exhibited a reform that was adopted and subsequently weakened, in one instance through accumulated derogations and in the other through a change in the instrument's legal basis. In neither case was the weakening announced as a reversal. It occurred through the ordinary operation of exception, delay, and quiet non-enforcement, and was visible only in the performance data rather than in the instruments themselves. This is worth stating because reform is conventionally treated as a discrete event with an adoption date, and the case evidence suggests that its persistence is a separate variable requiring separate observation. A study that records adoption and infers continuation will overstate the durability of procedural reform, possibly substantially.

VI. DISCUSSION

6.1 Streamlining and capture

Every reform identified in Section 5.4 admits two readings. Standardised non-negotiable documentation removes negotiation delay; it also allocates risk in terms set with heavy industry input, and a term set that is efficient for financiers may transfer more risk to the public offtaker than a negotiated outcome would have. Pre-bid technical qualification improves realisation rates; it also raises sunk development cost and thereby favours well-capitalised incumbents over new entrants, with implications for market concentration and, over time, for competitive pricing. Deemed approval provisions compress cycle time; they also convert regulatory inattention into substantive entitlement, which is defensible for a registration formality and indefensible for an environmental authorisation. Single-window arrangements reduce coordination cost; they also concentrate discretion in a single institution and thereby concentrate the returns to influencing it.

These dualities are not resolvable by choosing better reforms. They are inherent to procedural simplification, which necessarily reduces the number of points at which the public interest can be asserted. What can be varied is the safeguard architecture surrounding the reform. The point is sharpest for occupational and environmental consents, where the substantive content of the approval is a hazard control decision rather than a formality, and where the evidence indicates that outcomes depend on the frequency and coverage of active oversight rather than on the existence of a permit (Arumosoye & Obriki, 2018, 2019; Obogo et al., 2019a; Obriki & Arumosoye, 2019). It is worth being precise about what capture would look like in this domain, since the term is used loosely. Capture in procurement procedure does not typically take the form of a rule that names a beneficiary. It takes the form of a threshold, a definition, or a sequence whose incidence happens to track a characteristic that only some firms possess. A minimum balance sheet requirement calibrated slightly above the level that a domestic entrant can reach is a capture instrument. A technical annex specifying a measurement methodology that only firms using a particular class of equipment can satisfy is a capture instrument. A requirement that consents be secured before bidding is a capture instrument in a market where only firms with existing local operations can carry development risk, even though the same requirement is, in a different market, a legitimate device for improving realisation rates.

This is why the incidence test proposed here is stated in terms of firm characteristics rather than intentions. Intention is unobservable and, in most instances, irrelevant. A qualification threshold set in good faith by an official concerned about non-delivery has the same distributional effect as one set at the request of an incumbent seeking to exclude competitors. The question that can be answered from evidence is whether the benefit of the rule can be stated without reference to firm size, incumbency, or nationality, and whether observed participation data show the threshold binding differentially. Both are checkable at the point of drafting and again after each round.

The interpretation problem is compounded by the fact that the same reform can be welfare-enhancing at one point in a market's development and capture-serving at another. Stringent prequalification in a market with a shallow pipeline and a history of non-delivery protects the programme against speculative bidding and is defensible on realisation-rate grounds. The identical requirement in a market with a deep pipeline and a demonstrated delivery record protects incumbents against entrants and depresses competitive pressure on price. Nothing in the text of the rule changes; what changes is the state of the market against which its incidence is assessed. This is the strongest argument in the paper for scheduled review rather than for careful initial drafting, since no amount of care at adoption can anticipate the point at which a justified requirement becomes an unjustified barrier.

6.2 Conditions distinguishing welfare gains from capture

The comparative record supports four conditions.

Beneficiary breadth. Reforms whose benefits accrue to all qualifying participants, such as published timelines or standardised documentation, are structurally less susceptible to capture than reforms whose benefits are contingent on characteristics held by a subset, such as thresholds calibrated to incumbent balance sheets. A practical test is whether the reform's benefit can be stated without reference to firm size, incumbency, or nationality.

Transparency of the advocacy channel. Where positions are submitted publicly and responded to publicly, competing interests can observe and contest them. Where positions are transmitted relationally, they cannot. The Nigerian case suggests that opacity does not even reliably serve the firms that engage in it, since particularistic influence produces contested outcomes that are subsequently reversible.

Counterveiling representation. The presence of consumer advocates, independent analysts, environmental interests, and, importantly, prospective entrant firms in the consultation process reduces the informational monopoly of incumbents. In the cases examined, counterveiling representation was consistently weakest on technical annexes, which is precisely where technical subsidy is most influential.

Reversibility and review. Reforms subject to scheduled post-implementation review with published performance data are self-correcting in a way that permanent reforms are not. None of the cases examined instituted systematic post-implementation review of procurement workflow reforms, which is a general deficiency across the cases. Review is most useful where it is continuous rather than episodic, and predictive compliance monitoring using routinely generated complaint and incident data offers one model for detecting systemic failure between scheduled reviews (Adeyelu, 2018; Akomolafe & Agu, 2019a, 2019c). A related question is who should bear the cost of the safeguards themselves. Independent technical review, participation monitoring, and post-implementation evaluation all consume resources that a constrained regulator does not have, and a safeguard architecture that assumes capacity the institution lacks is a recommendation in name only. Three funding models appear in the cases and in adjacent practice. Fee-funded review, in which a levy on bid participation finances independent evaluation, aligns cost with the parties who benefit from procedural quality but risks creating a regulator dependent on transaction volume. Donor-funded review is available in most of the jurisdictions examined and carries the least fiscal cost, but its sustainability is tied to programme cycles that rarely align with regulatory ones. Appropriation funding is the most durable and the least available. The practical implication is that safeguards should be designed at the lowest sustainable cost rather than at the highest theoretical standard, and that a modest, reliably conducted annual participation review is worth more

© NOV 2019 | IRE Journals | Volume 3 Issue 5 | ISSN: 2456-8880
DOI: https://doi.org/10.64388/IREV3I5-17222791

than an elaborate evaluation framework conducted once.

There is also a question of who conducts the review. Independence from the regulated industry is the requirement usually emphasised, but independence from the procurement entity matters equally, since the entity has an institutional interest in favourable findings about the workflow it administers. In the cases examined, the reviews that produced actionable findings were those commissioned by an actor with no stake in the result, typically a multilateral institution or an academic body, and the reviews that produced defensive documentation were those commissioned by the administering entity itself. This is an unsurprising finding, but it is one that reform designs routinely ignore by assigning evaluation to the institution being evaluated.

6.3 Sequencing: credit before procedure

Proposition P1 is supported across the cases and carries the study's most consequential practical implication. In South Africa, an exemplary bidding workflow produced a stalled programme because the offtaker would not sign. In Nigeria, executed agreements did not reach financial close because credit support was unresolved. In India, the interposition of a stronger counterparty preceded and enabled the tariff outcomes for which the auctions are known. In Vietnam, absent bankable offtake terms, procedural simplification produced a domestically financed market with limited international participation.

The generalisation is that procedural streamlining has a floor set by contractual bankability. Where the offtaker cannot credibly pay, reducing the number of approval gates changes the composition of the delay without reducing it. Reform sequencing should therefore begin with offtake credit, being programme-level payment security, escrow or letter of credit arrangements, and where necessary sovereign or multilateral credit enhancement negotiated once at programme level rather than repeatedly at project level. Only after that foundation is established does procedural reform convert into delivered capacity. An analogous sequencing finding appears in health financing, where coverage expansion that outruns provider payment capacity produces nominal entitlement rather than delivered care (Ilodigwe & Adesemoye, 2019a).

This finding qualifies a common tendency in technical assistance practice, which is to begin with auction design because it is the most legible and most transferable component. Auction design is important and comparatively easy. Offtaker creditworthiness is more important and comparatively hard. The sequencing argument admits an important qualification that the cases also support. Credit reform is slow, and a jurisdiction that waits for full offtaker solvency before touching its procurement procedure will wait indefinitely. The argument is therefore not that procedural reform should be deferred until the credit problem is solved, but that it should be sequenced behind the credit architecture rather than behind credit outcomes. A programme-level payment security instrument can be established well before the underlying utility deficit is closed, and its establishment removes the treasury from the critical path of individual transactions even while the deficit persists. What produces the failure observed in the cases is not the existence of a weak offtaker but the negotiation of bespoke credit support project by project, which converts a structural problem into a recurring procedural one.

The distinction can be stated as a design rule. Structural weaknesses should be addressed once, at programme level, in instruments that apply to all transactions. Procedural reform then operates on a workflow from which the structural problem has been removed, even though the underlying weakness remains. Where this ordering is inverted, and the workflow is streamlined while credit support remains transactional, the effect is to accelerate projects into a queue at the treasury.

6.4 The associational variable

The comparison of South Africa and Brazil, both with encompassing and technically capable associations, against Nigeria and Vietnam, with fragmented or externally dominated associational landscapes, suggests that the character of industry organisation is a significant conditioning variable for reform outcomes. Encompassing associations internalise a larger share of the collective benefit of procedural public goods and are correspondingly more likely to advocate for them; narrow or fragmented representation produces advocacy oriented toward particularistic relief.

This has a counter-intuitive implication for regulators and development partners. Strengthening the capacity of industry associations, including funding their technical secretariats, may improve rather than degrade the quality of regulatory outcomes, provided that the associations concerned are genuinely encompassing and that their submissions are made publicly. Deliberately weak or excluded industry representation does not produce autonomous regulation; it produces relational, invisible advocacy by individual firms.

A corollary is that technical capacity should be treated as something built rather than as a fixed attribute of an institution. The professional development literature offers a useful corrective here, showing that competence in handling complex and non-standard cases responds to sustained training investment rather than to formal qualification alone (Bobga et al., 2018; Yeboah et al., 2019), and comparable arguments about competency formation under resource constraint appear in emerging-market studies of enterprise and agribusiness education (Michael & Ogunsola, 2019b). An additional consideration concerns the treatment of foreign firms in the advocacy record. In four of the five cases, a substantial share of the technically capable advocacy came from firms headquartered outside the jurisdiction, and the legitimacy of foreign participation in domestic regulatory design is a contested question that the efficiency framing here does not resolve. The efficiency argument is straightforward: foreign developers and their advisers hold comparative experience of procurement frameworks across many jurisdictions, and that experience is precisely the resource that a first-time reforming regulator lacks. The legitimacy objection is equally straightforward: rules shaped substantially by parties who are not subject to the domestic political process, and whose capital is mobile, carry a democratic deficit that is not cured by the technical quality of the resulting instrument.

The position taken here is that the objection is best addressed procedurally rather than by restricting participation. Where submissions are published with their authorship, domestic actors can observe and contest foreign-originated proposals, and decision-makers must justify adoption in their own terms. Where submissions are private, the same influence operates without the corresponding scrutiny, and exclusion rules in practice tend to displace rather than prevent it. This is the same argument advanced above about transparency generally, applied to a case where its stakes are higher, and it does not dispose of the underlying legitimacy question so much as make the trade-off visible to those entitled to decide it.

The evidence also speaks to a question the regulatory governance literature has largely posed at the level of the statute rather than the workflow, which is what makes a commitment credible. Credibility is conventionally located in institutional design features: fixed regulatory terms, judicial review, constitutional constraint. The workflow evidence suggests a more mundane and more immediate source. A programme that publishes a timetable and meets it establishes, round by round, an expectation that is costly to disappoint and that participants price accordingly. A programme that publishes a timetable and misses it teaches participants to discount all subsequent commitments, including contractual ones, and the discount appears in bid tariffs as a risk premium that no legal instrument can remove. Administrative reliability is thus a component of regulatory credibility that operates independently of the formal protections normally studied, and it is available to institutions that lack those protections entirely. This is an encouraging finding for reformers in settings where constitutional or judicial guarantees are weak, since it locates a lever within the administering institution's own control.

6.5 Theoretical implications

For the corporate political activity literature, the study suggests that advocacy targeting administrative procedure operates through mechanisms distinct from advocacy targeting substantive entitlement. Procedural advocacy is more likely to be organised collectively, because procedural benefits are non-excludable within the qualifying population, and more likely to be informational in modality, because procedural reform requires drafting capacity rather than political pressure. The economic theory of regulation is not thereby refuted, but its application to procedural reform requires the mediating variables of associational structure and channel transparency.

For the energy procurement literature, the study proposes that administrative consolidation and documentation standardisation, currently treated as design recommendations, should be understood as political outcomes with identifiable coalitions behind them. Recommending a dedicated procurement entity is straightforward; explaining how a jurisdiction with distributed institutional interests arrives at one is the harder and more useful question.

For the regulatory governance literature, the finding that decision deadlines require paired consequences, and that appropriate consequences vary by decision type, offers a refinement to the general prescription of statutory time limits in administrative simplification programmes.

A further theoretical point concerns the relationship between transparency and effectiveness in advocacy. The conventional treatment poses these as substitutes, with opacity purchasing influence at the cost of legitimacy. The case evidence suggests they are closer to complements in this domain. Transparent submissions are effective partly because they are transparent: a published position that a regulator can cite in its own reasoning provides cover for a decision that might otherwise appear to favour industry, whereas a privately conveyed position provides none. An official who adopts a publicly argued technical proposal is implementing a consulted-upon reform; an official who adopts the same proposal conveyed privately is exposed to an accusation that cannot be rebutted with a document. Transparency thus lowers the political cost to the decision-maker of agreeing, which is a mechanism of influence rather than a constraint on it.

This reframing has implications beyond energy procurement. It suggests that firms with a long-horizon interest in a stable regulatory environment have a self-interested reason to prefer transparent channels that is independent of any ethical commitment, and that the observed persistence of relational advocacy in low-capacity settings may reflect the absence of credible formal channels rather than a preference for opacity. Where no consultation process exists, or where submissions disappear without response, the relational channel is not chosen over the formal one; it is the only one available.

A further implication concerns the boundary of the corporate political activity construct itself. The framework developed here treats litigation, investment signalling, and technical subsidy as modalities of a single underlying activity, distinguished by the resource transferred rather than by the institutional venue. This cuts against a common division in the literature, which treats legal, market, and political strategies as separate domains addressed by separate scholarship. The case evidence supports the unified treatment: firms in these settings moved fluidly between venues in pursuit of a single objective, and the choice of venue was determined by the availability and responsiveness of each channel rather than by any strategic distinction between them. A firm that submits a consultation response, commissions a study, briefs a minister, and files a challenge is not pursuing four strategies but one, executed through whichever channel is open.

This has a methodological consequence for future work. Studies that sample on a single modality, examining lobbying registrations or litigation records or consultation submissions in isolation, will systematically misestimate both the level and the distribution of influence activity, because they observe one channel of a substitutable set. The substitution is not random: it is driven by the institutional conditions that determine channel availability, which means that the observed modality mix in any jurisdiction is a measurement of that jurisdiction's institutional architecture as much as of its firms' preferences. Cross-national comparison of advocacy intensity based on a single modality is therefore likely to be measuring channel structure rather than advocacy.

VII. IMPLICATIONS FOR REFORM DESIGN

7.1 Sequencing the reform elements

The comparative record supports a specific ordering of reform effort. The five elements below are stated as a sequence rather than a menu, and the sequence carries most of the practical weight, since attempting them out of order is the modal failure observed in the cases examined. Taken together they can be labelled a sequenced procurement efficiency and evidence design, or SPEED, approach.

Structural mapping. Construct the complete workflow map from planning determination to financial close, recording for every stage the responsible authority, statutory basis, decision rule, time norm, and realised cycle time. Compute gate count, total cycle time, and estimated process cycle efficiency, and classify each identified bottleneck. No reform should be proposed before this baseline exists, because reform effort in the absence of a map reliably targets the most visible stage rather than the binding one.

Precondition assessment. Assess two preconditions before designing procedural reform. First, offtake bankability: can the offtaker pay, and if not, is credit enhancement arranged at programme level with defined and timetabled instruments? Second, grid readiness: is connection capacity identified, zoned, and reflected in procurement geography, and is the connection consent process integrated with the procurement timetable? Where either precondition fails, procedural reform should be deferred or explicitly framed as preparatory. Grid readiness assessment should extend beyond nominal connection capacity to the network's ability to absorb variable generation at the locations proposed, which is a question of voltage regulation and control as much as of thermal rating (Oshevire et al., 2017; Sunday & Omoegun, 2019). Where inspection and condition data are weak, aerial survey methods offer a comparatively rapid means of establishing the state of the transmission corridor (Dagodzo, 2018a, 2018b), and reliable communications infrastructure is itself a precondition for the monitoring on which both depend (Amayo & Popoola, 2017b).

Entity consolidation. Designate a single accountable procurement entity with end-to-end responsibility for the workflow, a published mandate, adequate transaction advisory resourcing, and an obligation to publish programme timelines and performance against them. Consolidation need not mean the merger of institutions; it means the identification of one institution accountable for the whole and empowered to coordinate the others through documented service standards. It has an information systems dimension that is easily underestimated, since a single accountable entity requires a single authoritative record of application status with controlled access across participating agencies. The enterprise directory and access management literature addresses precisely this problem (Ladapo et al., 2018, 2019), and the associated assurance obligations are non-trivial where the record holds commercially sensitive bid material (Dosunmu & Ogundele, 2019; Mbonu et al., 2018).

Evidence-based consultation. Establish a formal consultation protocol with four elements: published draft instruments with defined comment periods; publication of all submissions received; publication of a reasoned response indicating which submissions were accepted and which rejected, with reasons; and a register of technical working group participation and outputs. This protocol is simultaneously an information-gathering device, a legitimacy mechanism, and a displacement mechanism drawing advocacy out of relational channels.

Deadline and documentation discipline. Implement two paired disciplines. First, issue standardised, non-negotiable contract documentation with the request for proposals, comprising the power purchase agreement, implementation or government support agreement, and connection agreement. Second, attach statutory decision deadlines to every stage, paired with a stage-appropriate consequence: deemed approval for procedural and registration stages, a written reasons obligation for technical evaluation stages, and defined escalation rights for political and fiscal approval stages.

The ordering is deliberate. Mapping precedes precondition assessment because the map identifies which preconditions bind. Precondition assessment precedes entity consolidation because consolidating administration of an unbankable programme accelerates nothing. Consultation infrastructure precedes deadline and documentation reform because the latter require technical input that the former supplies. The sequence assumes a reform window of eighteen to thirty-six months and a jurisdiction with at least one functioning procurement institution to build on. Where neither holds, a reduced version applies: mapping and precondition assessment are undertaken regardless, since they are inexpensive and determine everything that follows, while consolidation and deadline discipline are deferred in favour of the single highest-yield intervention available, which in the cases examined was almost always documentation standardisation. Publishing a final, non-negotiable contract set with the request for proposals requires no new institution, no legislative amendment in most jurisdictions, and no additional budget, and it addresses the bottleneck class that recurs most consistently across the sample.

Implementation sequencing can be summarised as follows, with the caveat that the durations are indicative and assume political commitment rather than establishing it.

Element	Typical lead time	Institutional prerequisite	Principal risk if attempted early
Structural mapping	2 to 4 months	Access to primary instruments and programme records	None; this is the entry point
Precondition assessment	3 to 6 months	Offtaker financial disclosure; grid planning data	Findings suppressed where politically unwelcome
Documentation standardisation	6 to 12 months	Transaction advisory capacity	Standard drafted without industry input proves unbankable
Consultation protocol	3 to 6 months	Publication capability; commitment to reasoned response	Consultation without response destroys credibility
Entity consolidation	12 to 24 months	Political authority to reallocate mandates	Consolidation of an unbankable programme accelerates nothing
Deadline discipline	12 to 24 months	Reliable lodgement records; legislative vehicle	Deadlines without consequence produce no change and signal weakness

One question the sequence does not settle is where a jurisdiction should begin when its map reveals several binding constraints at once, which was the situation in the weakest case examined. The instinct in such settings is to attempt comprehensive reform, on the reasoning that partial measures will be defeated by the constraints left unaddressed. The case evidence argues against this. Comprehensive programmes in low-capacity settings consume the available political attention on design and negotiation, and the resulting instrument frequently arrives after the window that produced it has closed. The alternative is to select the single reform with the highest ratio of expected effect to institutional prerequisite, implement it visibly, and use the resulting credibility to fund the next. Documentation standardisation is usually that reform, for the reasons set out above, and its visible success has the additional property of demonstrating that the workflow is amenable to improvement at all, which in institutions accustomed to failure is not a trivial contribution.

7.2 Safeguards

The sequence is completed by four safeguards, without which its efficiency components carry capture risk. Every reform proposal should be tested for beneficiary breadth using the size, incumbency, and nationality test set out in Section 6.2. Technical annexes, being the most capture-prone instruments, should be subject to independent technical review commissioned by the regulator rather than the industry. Prequalification thresholds should be reviewed against actual entrant participation data at each round. And every workflow reform should carry a scheduled post-implementation review with published cycle time, realisation rate, and participation data. Independent technical review is itself an audit function, and the internal audit literature supplies both the quality criteria and the independence conditions under which such review is credible (Akomolafe & Agu, 2018, 2019a). The safeguards can also be read as a diagnostic applied to a reform proposal already on the table, which is the situation most practitioners actually face. Four questions suffice. Can the benefit of this change be stated without reference to firm size, incumbency, or nationality? If not, the change is capital-conditioned and its distributional effect should be assessed explicitly rather than assumed away. Does the change move a decision from a rule to a discretion, or from a discretion to a rule? Movement toward discretion requires justification proportionate to the decision's consequences. Does the change alter who bears the cost of delay? Reforms that shift that cost from applicants to authorities generally improve performance, and reforms that shift it the other way generally do not. And is there a published record against which the change's effect can be assessed in two years? If not, the change is unfalsifiable and will be defended on the same grounds on which it was proposed.

These questions do not require technical expertise to ask, which is their principal virtue. They can be put by a legislative committee, a consumer advocate, or a journalist, and they are answerable from the face of a proposal. Much of the capture risk in procedural reform survives not because it is concealed but because no one with standing to object is equipped to interrogate a technical annex. Supplying a small number of non-technical questions that reliably surface distributional consequence is a more realistic safeguard than expecting counterveiling parties to acquire the expertise to contest the drafting itself.

7.3 Implications for governments, industry, and development partners

Establish or designate a single accountable procurement entity and publish its mandate, resourcing, and performance obligations. Standardise and publish contract documentation as a non-negotiable annex to the request for proposals, and resist project-specific derogation, since the first derogation reopens the negotiation channel for all subsequent projects. Legislate stage-level decision deadlines with stage-appropriate consequences. Resolve offtake credit at programme level through a single negotiated instrument architecture rather than repeatedly per project. Integrate grid connection planning with procurement zoning, procuring capacity where the network can accept it. Institute a published consultation protocol with reasoned responses. Publish workflow performance data by bid window, including gate-level cycle times, so that reform effect is measurable. Publication is the mechanism by which statutory reporting obligations acquire practical force, and its absence is a recurring finding in reviews of public sector compliance frameworks in the region (Dogbatsey & Ebhojie, 2018).

Prioritise procedural public goods over particularistic relief, since procedural reform benefits are durable while particularistic relief is reversible with political change. Invest in technical capacity, since technical subsidy is the modality most closely associated with textual reform outcomes. Publish positions, both because transparency confers legitimacy and because it protects the association against later allegations of capture. Build encompassing membership including smaller developers and prospective entrants, since narrow associations produce advocacy that regulators can legitimately discount. Encompassing membership matters most for the smallest participants, whose binding constraint is typically access to development finance rather than technical capability (Michael & Ogunsola, 2019a). Coordinate with counterveiling interests where positions genuinely align, particularly with consumer advocates on the cost of capital consequences of procedural uncertainty. And treat litigation as a last resort with a clear systemic objective, since its relational costs are high and its outcomes are narrow.

Reverse the common sequencing of technical assistance by prioritising offtake creditworthiness and payment security over auction design. Fund workflow mapping as a distinct and prior diagnostic exercise. Support the technical secretariat capacity of encompassing industry associations while conditioning that support on transparent publication of positions. Fund independent technical review capacity for regulators, which is the principal safeguard against subtle capture in technical annexes. And require published post-implementation review as a condition of support for procurement programme design.

Two implementation risks recur and merit explicit management. The first is the tendency of mapping exercises to become permanent. A diagnostic that is repeatedly refined rather than acted upon consumes the reform window and exhausts the political attention that reform requires, and the practical remedy is to fix the mapping period in advance and to treat an imperfect map delivered on time as superior to a complete one delivered late. The second is the tendency of consultation processes to be captured by their own procedure, generating extensive documentation of positions received without any corresponding record of positions accepted or rejected. The reasoned response is the component that converts consultation from a ritual into a mechanism, and it is the component most frequently omitted, because it is the only one that requires the authority to commit itself in writing.

For industry associations, the practical difficulty in acting on this guidance is internal rather than external. An encompassing association contains members whose interests genuinely diverge on procedural questions: large sponsors with existing local operations are advantaged by pre-bid consent requirements that disadvantage new entrants, incumbent equipment suppliers are advantaged by technical annexes calibrated to their specifications, and firms with strong domestic banking relationships are less exposed to offtake bankability than those dependent on international project finance. An association that advocates only where its members agree will confine itself to positions of little consequence. The alternative, which the more effective associations in this sample adopted, is to develop an internal process for resolving differences and to advocate on the resolved position, accepting that some members will be disadvantaged by the association's own submissions. This requires a level of internal governance that young associations rarely possess, and it is the most plausible explanation for the pattern in which associational effectiveness correlates with associational age.

For development partners the corresponding difficulty is one of instrument fit. Technical assistance is typically delivered in engagements of twelve to twenty-four months, funded against defined deliverables, and evaluated on completion of those deliverables. The reforms identified here as highest-yield do not fit that shape. Documentation standardisation produces a deliverable but its value depends on a discipline sustained over subsequent years. Entity consolidation is a political process with no reliable completion date. Post-implementation review is by definition recurrent. The mismatch between the reform profile and the assistance instrument is a plausible partial explanation for the observed concentration of technical assistance on auction design, which is genuinely well suited to a defined engagement producing a defined document, and which is also, on this paper's evidence, rarely the binding constraint.

VIII. WIDER APPLICABILITY AND LIMITATIONS

8.1 Applicability beyond electricity

The workflow construct developed here is not specific to electricity. Any domain in which a statutory approval chain stands between an investment decision and an operating asset presents the same measurement problem and the same distinction between competitive mechanism and administrative architecture. Aerodrome certification and safety management oversight in developing economies exhibits a comparable gap between formal regulatory design and implementation capacity (Adeyelu, 2019), as does health facility and laboratory licensing, where compliance is embedded in physical design and is therefore expensive to retrofit once approval sequencing goes wrong (Aminu-Ibrahim et al., 2018; Ogbete et al., 2018). Health financing reform presents the same sequencing logic in a different currency, with entitlement expansion outrunning payment capacity (Ilodigwe & Adesemoye, 2019a). A comparative research programme applying the mapping protocol across these domains would establish whether the bottleneck typology is genuinely general or is an artefact of energy-sector institutional design.

The transfer also runs in the opposite direction. Applied technical research in emerging economies is characteristically organised around resource substitution and binding constraint, whether in the optimisation of electrical machines against competing loss, weight, and cost objectives (Amayo, 2017; Amayo & Popoola, 2017a; Amayo et al., 2015), the substitution of locally available agricultural residues for imported feed inputs (Aye & Tawose, 2015, 2016), the derivation of corrosion inhibitors from agricultural extracts as a low-cost asset integrity measure (Atta et al., 2018), or the design of thermally efficient building systems where reliable supply cannot be assumed (Sunday et al., 2019). This body of work shares with the present study an orientation toward what is achievable under constraint rather than what is optimal under none. Its accumulation across sectors constitutes an under-used evidence base for reform design in exactly the settings where procurement workflows perform worst, and the deliberate connection of these dispersed literatures is itself a research task worth undertaking.

The domain features that make the framework portable can be stated as a checklist. It applies where an investment decision is separated from an operating asset by a chain of statutory approvals; where those approvals are held by more than one authority; where at least one approval carries a discretionary or ministerial decision rule; and where a contractual counterparty of uncertain creditworthiness stands between the investor and the revenue stream. Water and sanitation concessions, port and airport development, telecommunications spectrum deployment, and hospital and laboratory construction all satisfy these conditions in most emerging markets. Domains that do not satisfy them, including procurement of standardised goods and most service contracting, present a genuinely different problem in which auction design rather than administrative architecture is likely to be the binding constraint.

The reverse transfer deserves one further remark. The bottleneck classes developed here were derived inductively from energy procurement, but three of the five appear to be properties of multi-agency statutory approval generally rather than of any sector. Sequencing, interdependency, and discretion bottlenecks arise wherever authority over a single outcome is distributed across institutions with separate mandates and no shared timetable, which is the ordinary condition of administrative government. Documentation bottlenecks are specific to settings in which the terms of a long-lived contract are settled after a competitive selection, which narrows their application to concessioning and project procurement. Credit bottlenecks are narrower still, arising only where a public counterparty of doubtful solvency stands between the investor and the revenue stream. A researcher applying the framework in a new domain should therefore expect the first three classes to transfer readily and should treat the last two as hypotheses to be tested rather than as categories to be applied.

8.2 Limitations

The inferential reach of this analysis is constrained in five respects. First, the five cases are purposively selected and do not constitute a sample; findings generalise analytically to the framework and not statistically to a population. Second, cycle time measurement relies on published milestones that are irregularly reported and inconsistently defined across jurisdictions, and process cycle efficiency is inferred rather than observed, so the quantitative descriptors should be treated as orders of magnitude. Third, the advocacy record is systematically incomplete: relational modalities are by construction poorly documented, which risks understating their influence and thereby biasing findings toward the informational account. Fourth, coding was conducted by a single analyst without intercoder reliability testing. Fifth, the counterfactual problem is unresolved: reform episodes coincide with fiscal pressure, multilateral conditionality, technology cost decline, and electoral change, and while rival explanations are considered explicitly, process tracing cannot fully exclude them. Three further limitations concern the interpretation of the results rather than their generation. First, the cases were selected in part because they are documented, and documentation correlates with programme scale and with the involvement of multilateral institutions. Programmes that failed early, attracted no international participation, and generated no evaluation literature are systematically absent, and their absence may bias the sample toward cases in which reform was at least attempted. Second, the study observes reform outputs rather than reform implementation. A statutory deadline that appears in an instrument may or may not be observed in practice, and the evidence available cannot always distinguish the two. Third, the period examined ends in 2019, and the durability findings therefore rest on a window in which no system-wide external shock tested the arrangements. Standardised documentation regimes that held under ordinary conditions may or may not have held under the conditions that followed.

A final limitation concerns the framing of the dependent variable. This paper treats workflow performance as a good, with faster and more predictable processing counting as improvement. That framing is defensible for a workflow whose stages are largely coordination and verification, but it sits uneasily with stages whose purpose is deliberative. An environmental authorisation process exists in part to allow objection, and a land acquisition process exists in part to allow affected parties to be heard. Compressing those stages improves cycle time and may degrade the function the stage was created to perform. The workflow measures used here cannot distinguish the two, since a consent granted after eight months of substantive consultation and one granted after eight months of inattention are identical in the data. A more complete assessment would require a measure of decision quality alongside the measures of decision speed, and the absence of such a measure is the most significant conceptual gap in the approach taken here.

8.3 Directions for further work

Five extensions follow directly. An interview-based extension, covering regulator and procurement officials, developers, lenders, transaction advisers, and association secretariats, would address the relational advocacy documentation gap and permit assessment of whether informational findings survive the inclusion of less visible channels. A quantitative extension constructing a panel of bid windows across a larger set of jurisdictions, with gate count and documentation standardisation as independent variables and realisation rate and tariff as dependent variables, would permit hypothesis testing that this design cannot support. A distributional extension examining the relationship between pre-bid qualification stringency and market concentration would test the entry-cost concern identified in Section 6.1. A process mining extension using administrative event log data, where regulators maintain it, would replace inferred cycle efficiency with measured values (Mbonu et al., 2019b). Finally, a post-2019 extension examining pandemic-era force majeure claims and their resolution would test the durability of standardised documentation regimes under stress, which is the strongest available test of whether standardisation constitutes genuine commitment or merely default terms subject to renegotiation.

A final direction concerns the political economy of the reform sequence itself. This paper treats the four institutional features as design choices, but each has a distributional consequence within government as well as within industry, and each therefore has an internal constituency and an internal opponent. Consolidating procurement authority in a single entity removes discretion from the ministries and agencies that previously held it. Attaching deadlines with consequences transfers risk from applicants to officials. Publishing performance data by bid window exposes which institution is responsible for delay. These are not neutral administrative improvements from the perspective of the actors who must implement them, and the observation that reform stalls tend to be resolved by exogenous political events rather than by administrative machinery suggests that the internal politics of reform deserve the same analytical attention that this paper has given to the external politics of advocacy. A study tracing the bureaucratic coalitions for and against consolidation in a single jurisdiction, using the same process tracing standard applied here to industry, would be a natural complement.

A final direction concerns measurement infrastructure. Every empirical claim in this paper is constrained by the absence of a standard for recording procurement workflow performance. Programmes publish award results and occasionally publish commissioning data, but almost none publishes stage-level timing, and none in the sample publishes it in a form that permits comparison across jurisdictions. A modest standard, specifying a common set of milestone definitions and requiring publication of dates against them by bid window, would cost little and would transform the evidence base for this entire field. It would also serve the accountability function identified in Section 7, since a published stage-level record identifies which institution holds a delayed decision. The development of such a standard, ideally through a multilateral body with convening authority across jurisdictions, is the single research-adjacent intervention most likely to improve both scholarship and practice in this area.

A fourth direction concerns the counterfactual problem that limits the present design. Reform episodes are not randomly assigned, but they are not entirely endogenous either, and several features of the record offer partial leverage that a subsequent study could exploit. Reforms adopted in response to multilateral conditionality are plausibly less determined by domestic performance than those adopted autonomously. Reforms whose timing was set by an unrelated legislative calendar, such as the passage of an omnibus statute carrying a procurement provision, are similarly less endogenous to the outcome of interest. And jurisdictions that adopted a reform at different times for reasons unrelated to their procurement performance would permit a staggered comparison. None of these approaches resolves the identification problem fully, but each would strengthen the inferential basis for claims that this design can only support through mechanism tracing.

IX. CONCLUSION

Emerging energy markets solved the price problem in competitive procurement over the decade to 2019. They did not solve the delivery problem. This paper has argued that the delivery problem is located principally in the statutory bidding workflow, and specifically in the determination stage upstream of the tender and the consent and credit stages downstream of the award, rather than in the auction mechanism that has attracted the bulk of analytical attention.

The workflow evidence across five jurisdictions indicates that projects spend the majority of their pre-construction life waiting rather than being processed, that the number of statutory gates on the critical path varies by nearly a factor of two across comparable jurisdictions, and that this variation tracks administrative consolidation closely. Four institutional features distinguish durable streamlining: a single accountable procurement entity, standardised non-negotiable documentation issued in advance, decision deadlines paired with stage-appropriate consequences, and formalised transparent consultation. Two preconditions bound what any of these can achieve, being offtake bankability and grid readiness, and the sequencing implication is that procedural reform undertaken before credit reform reallocates delay rather than removing it.

Corporate policy advocacy is not incidental to this reform agenda. Regulators in emerging markets lack the technical and drafting capacity to design procurement workflows unaided, and the choice available to them is not between industry input and autonomous regulation but between transparent industry input and opaque industry input. The evidence assembled here indicates that advocacy conducted through encompassing associations using informational modalities correlates with reforms of broad beneficiary incidence, while fragmented advocacy through relational channels produces neither systemic reform nor reliable particularistic relief. This suggests a policy posture that is neither the exclusion of industry from reform design nor its uncritical inclusion, but the deliberate construction of formal, published, contestable channels that make industry expertise available while making its use observable.

The tension at the centre of this agenda does not dissolve. Procedural simplification reduces the number of points at which the public interest can be asserted, and every efficiency gain identified in this study has a plausible capture reading. The response is not to abandon simplification, which is manifestly needed, but to pair it with safeguards: beneficiary breadth testing, independent technical review of the annexes where capture is most subtle, participation monitoring against qualification thresholds, and scheduled post-implementation review with published performance data. Efficiency and accountability are not opposed in procurement reform, but neither is automatic, and each requires deliberate institutional construction.

REFERENCES

[1] Adeyelu, O. O. (2018). A predictive compliance monitoring framework for detecting systemic safety risks through aviation consumer complaint data. *Iconic Research and Engineering Journals, 1*(8), 250-276. Crossref

[2] Adeyelu, O. O. (2019). An adaptive safety management system implementation model for aerodromes in developing economy contexts. *Iconic Research and Engineering Journals, 3*(4), 628-654. Crossref

[3] Agbabiaka, J., Okonkwo, C. S., Ogunwole, O., Mayo, W., & Okeke, O. T. (2019). Supply chain risk management model for EPC and gas processing projects. *Iconic Research and Engineering Journals, 3*(2), 968-980. Crossref

[4] Akomolafe, O., & Agu, M. U. (2018). A conceptual model for enhancing internal audit quality through technology-enabled risk assessment frameworks. *Iconic Research and Engineering Journals, 1*(9), 458-475.

[5] Akomolafe, O., & Agu, M. U. (2019a). A conceptual framework for developing risk-based internal control models in the insurance and banking sectors. *Iconic Research and Engineering Journals, 2*(8), 335-354.

[6] Akomolafe, O., & Agu, M. U. (2019b). A review of data-driven risk evaluation models for emerging market financial institutions. *Iconic Research and Engineering Journals, 3*(6), 433-448.

[7] Akomolafe, O., & Agu, M. U. (2019c). Advances in financial resilience through integrated governance and compliance strategies. *Iconic Research and Engineering Journals, 2*(10), 607-620.

[8] Amayo, E. B. (2017). Multi algorithm of loss objective function of a single phase induction motor. *International Journal of Development Research, 7*(5), 12805-12810.

[9] Amayo, E. B., & Popoola, T. T. (2017a). Multi algorithm of weight objective function of a single phase induction motor. *International Journal of Trend in Research and Development, 4*(2), 184-188.

[10] Amayo, E. B., & Popoola, T. T. (2017b). Scientific study of telecommunication deployment in achieving quality network. *International Journal of Trend in Research and Development, 4*(5), 311-314.

[11] Amayo, E. B., Ubeku, E., & Oshevire, P. (2015). Multi algorithm of a single objective function of a single phase induction motor. *Journal of Multidisciplinary Engineering Science and Technology, 2*(12), 3400-3403.

[12] Aminu-Ibrahim, A. Y., Ogbete, J. C., & Ambali, K. B. (2018). Developing sustainable diagnostic laboratory infrastructure models for emerging and resource constrained health systems. *Iconic Research and Engineering Journals, 1*(8), 118-132.

[13] Aminu-Ibrahim, A. Y., Ogbete, J. C., & Ambali, K. B. (2019). Capital project delivery models for high risk healthcare infrastructure in developing national health systems. *Iconic Research and Engineering Journals, 2*(10), 626-649. Crossref

[14] Arumosoye, O. M., & Obriki, O. D. (2018). Development of an integrated heat stress risk conceptual model for industrial operations in extreme environments. *Iconic Research and Engineering Journals, 1*(12), 141-160. Crossref

[15] Arumosoye, O. M., & Obriki, O. D. (2019). Systematic review of near-miss and hazard observation data utilization in industrial safety management. *Iconic Research and Engineering Journals, 3*(2), 981-999. Crossref

[16] Atta, S., Asomani, E., & Adenuga, O. M. (2018). A systematic review of green corrosion inhibitors from agricultural extracts for mild steel protection in acidic and alkaline media. *International Journal of Engineering and Modern Technology, 4*(1), 64-97. Crossref

[17] Aye, P. A., & Tawose, O. M. (2015). Acceptability and utilization of graded levels of Gmelina arborea leaves and cassava peels concentrate by West African dwarf sheep. *International Journal of Advances in Agriculture, 4*(2), 415-422. Crossref

[18] Aye, P. A., & Tawose, O. M. (2016). Physiological responses of West African dwarf sheep fed graded levels of Gmelina arborea leaf and cassava peel concentrates under different management systems. *Agriculture and Biology Journal of North America, 7*(4), 185-195. Crossref

[19] Badmus, O., Dosunmu, A. A., & Ozowara, D. E. (2018). A systematic review of CI/CD pipeline strategies in Salesforce DevOps: Tools, practices, and deployment outcomes. *Iconic Research and Engineering Journals, 2*(6).

[20] Badmus, O., Dosunmu, A. A., & Ozowara, D. E. (2019a). A conceptual model for ETL design and data integration in Salesforce-centric enterprise architectures. *Iconic Research and Engineering Journals, 3*(5).

[21] Badmus, O., Dosunmu, A. A., & Ozowara, D. E. (2019b). A governance framework for Salesforce platform management in regulated healthcare environments. *Iconic Research and Engineering Journals, 3*(6).

[22] Bobga, M. A., Boakye, K., Ogbona, C. S., & Yeboah, T. J. (2018). Pedagogical strategies for teaching students with learning difficulties in resource-constrained schools. *Iconic Research*

and Engineering Journals, 2(4), 173-194. Crossref

[23] Dagodzo, D. (2018a). A conceptual framework for UAV integration into national power grid inspection programs. *Iconic Research and Engineering Journals, 2*(5), 391-412. Crossref

[24] Dagodzo, D. (2018b). A review of UAV applications in electrical transmission line inspection: Methods, technologies, and challenges. *Iconic Research and Engineering Journals, 2*(6), 234-254. Crossref

[25] Dogbatsey, E. A., & Ebhojie, O. (2018). Budget compliance and statutory reporting in Sub-Saharan Africa: A systematic review of frameworks, gaps, and reform pathways. *Zenodo*. Zenodo

[26] Dogbatsey, E. A., Ebhojie, O., & Oyeleye, A. O. (2019). Reconciliation control and financial workflow redesign in emerging market organizations: A conceptual framework. *Zenodo*. Zenodo

[27] Dosunmu, A. A., & Ogundele, P. O. (2019). Security audit and enterprise risk assessment frameworks for resilient information systems. *Iconic Research and Engineering Journals, 3*(5), 434-447. Crossref

[28] Ilodigwe, L., & Adesemoye, A. C. (2019a). A critical review of health insurance financing mechanisms and provider payment reform strategies for balancing coverage expansion and financial protection in emerging markets. *International Journal of Health and Pharmaceutical Research, 5*(2), 31-55. Crossref

[29] Ilodigwe, L., & Adesemoye, A. C. (2019b). From molecules to health systems: A conceptual model explaining why scientific innovation fails to improve patient outcomes without effective healthcare delivery infrastructure. *International Journal of Health and Pharmaceutical Research, 5*(2), 56-79. Crossref

[30] Ladapo, O. O., Dosunmu, A. A., Jooda, D., & Abolaji, T. O. (2018). Lessons learned from offline assessment of security-critical systems: The case of Microsoft Active Directory. *Iconic Research and Engineering Journals, 2*(6), 277-299. Crossref

[31] Ladapo, O. O., Jooda, D., Dosunmu, A. A., & Abolaji, T. O. (2019). Implementation of Active Directory for efficient management of enterprise networks. *Iconic Research and Engineering Journals, 3*(4), 608-627. Crossref

[32] Lawal, O. A., & Oduleye, T. E. (2018a). A conceptual model for financial analytics driven enterprise value creation in technology firms. *Iconic Research and Engineering Journals, 2*(2).

[33] Lawal, O. A., & Oduleye, T. E. (2018b). A review and conceptual framework for tax governance and cross-border compliance analytics. *Iconic Research and Engineering Journals, 2*(5).

[34] Lawal, O. A., & Oduleye, T. E. (2019a). A conceptual risk assessment model for transfer pricing in multinational corporations. *Iconic Research and Engineering Journals, 2*(12).

[35] Lawal, O. A., & Oduleye, T. E. (2019b). Conceptualizing data driven executive decision systems for strategic financial planning. *Iconic Research and Engineering Journals, 3*(3).

[36] Mbonu, I. S., Aliliele, C., Iwuanyanwu, U., & Oluoha, O. M. (2018). A conceptual framework for legal and ethical risk modeling in enterprise data protection governance systems. *Iconic Research and Engineering Journals, 2*(2), 207-226. Crossref

[37] Mbonu, I. S., Aliliele, C., Uzoka, E., & Oluoha, O. M. (2019a). A review of comparative data protection regulations and secure cloud implementation strategies across jurisdictions. *Iconic Research and Engineering Journals, 2*(9), 482-501. Crossref

[38] Mbonu, I. S., Iwuanyanwu, U., Uzoka, E., & Oluoha, O. M. (2019b). Advances in enterprise log analytics and automated incident response architectures using Python and SIEM platforms. *Iconic Research and Engineering Journals, 3*(2), 1000-1019. Crossref

[39] Michael, O. N., & Ogunsola, O. E. (2019a). Determinants of access to agribusiness finance and their influence on enterprise growth in rural communities. *Iconic Research and Engineering Journals, 2*(12), 533-548.

[40] Michael, O. N., & Ogunsola, O. E. (2019b). Strengthening agribusiness education and

entrepreneurial competencies for sustainable youth employment in Sub-Saharan Africa. *Iconic Research and Engineering Journals, 2*(9), 416-431.

[41] Obogo, S. F., Ozobu, C. O., & Uduokhai, D. O. (2019a). Advances in leadership driven safety culture transformation in large construction workforces. *Iconic Research and Engineering Journals, 3*(5), 507-523. Crossref

[42] Obogo, S. F., Ozobu, C. O., & Uduokhai, D. O. (2019b). Development of a construction safety risk governance model for multi contractor high rise projects. *Iconic Research and Engineering Journals, 2*(9), 502-522. Crossref

[43] Obogo, S. F., Uduokhai, D. O., & Ozobu, C. O. (2019c). Systematic review of hazard identification and risk control practices in urban construction projects. *Iconic Research and Engineering Journals, 2*(12), 666-681. Crossref

[44] Obriki, O. D., & Arumosoye, O. M. (2018). Conceptual modeling of data-driven occupational safety risk control in large-scale energy infrastructure projects. *Iconic Research and Engineering Journals, 1*(7), 169-189. Crossref

[45] Obriki, O. D., & Arumosoye, O. M. (2019). A conceptual framework linking management safety walkthrough frequency and coverage to safety culture outcomes in mega projects. *Iconic Research and Engineering Journals, 2*(8), 355-374. Crossref

[46] Ogbete, J. C., Aminu-Ibrahim, A. Y., & Ambali, K. B. (2018). Optimizing laboratory spatial planning strategies to improve diagnostic accuracy, safety, and clinical throughput. *Iconic Research and Engineering Journals, 2*(1), 87-113.

[47] Ogbete, J. C., Aminu-Ibrahim, A. Y., & Ambali, K. B. (2019). Regulatory compliant design systems for molecular and pathology laboratories in highly controlled environments. *Iconic Research and Engineering Journals, 3*(4), 607-631. Crossref

[48] Okonkwo, C. S., Ogunwole, O., & Okeke, O. T. (2018a). Framework for strategic procurement optimization in oil and gas operations. *Iconic Research and Engineering Journals, 1*(7), 153-168. Crossref

[49] Okonkwo, C. S., Ogunwole, O., & Okeke, O. T. (2018b). Model for inventory availability and plant uptime improvement in energy facilities. *Iconic Research and Engineering Journals, 2*(4), 160-172. Crossref

[50] Okonkwo, C. S., Ogunwole, O., Okeke, O. T., & Mayo, W. (2019). Conceptual framework for cost reduction through contract negotiation and vendor governance. *Iconic Research and Engineering Journals, 2*(9), 468-482. Crossref

[51] Oshevire, P., Eyenubo, O. J., & Amayo, B. (2017). Voltage control in the presence of distributed generation. *ATBU Journal of Science, Technology and Education, 5*(2), 165-173.

[52] Sunday, E. A., & Omoegun, G. O. (2018). Integrating solar power solutions in small-scale manufacturing industries in Nigeria. *International Journal of Scientific Research in Science, Engineering and Technology, 4*(8), 832-853.

[53] Sunday, E. A., & Omoegun, G. O. (2019). Optimizing electrical load distribution for hybrid solar installations in developing economies. *International Journal of Scientific Research in Mechanical and Materials Engineering, 3*(6), 27-47.

[54] Sunday, E. A., Omoegun, G. O., Essien, M. A., & Oluokun, O. A. (2019). Thermodynamic efficiency and control strategies in residential air conditioning systems. *International Journal of Scientific Research in Civil Engineering, 3*(3), 52-76.

[55] Yeboah, T. J., Bobga, M. A., Boakye, K., & Ogbona, C. S. (2019). Professional development and teacher competence in managing exceptional learners: A Ghanaian perspective. *Iconic Research and Engineering Journals, 2*(12), 618-636. Crossref