

Renewable Energy Procurement Under Public Procurement Act and Rule

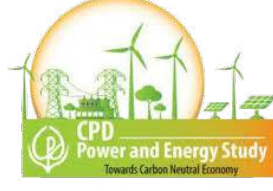
Enterprise Survey Findings on Transparency, Accountability, and Efficiency

Khondaker Golam Moazzem
Atikuzzaman Shazeed



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Executive summary

The Interim Government of Bangladesh, as a part of its reform initiatives in the power and energy sector, has repealed the Quick Enhancement of Electricity and Energy Supply (Special Provision) Act (2010) and brought back the Public Procurement Act (PPA) and Public Procurement Rule (PPR) for the procurement in the power sector. The repeal of the Special Act ended a decade of unsolicited negotiations, non-competitive awards, and opaque decision-making, restoring competitive tendering and procedural discipline. However, the previous procurement experiences in power sector under the PPA/PPR were not satisfactory as procurement under them faced significant delays, and inflexibility. Besides, compatibility of the PPA and PPR for the power sector's procurement, especially for renewable energy procurement, needs to be assessed.

Therefore, to understand how this shift is playing out in practice, the study undertook a comprehensive assessment of the first major round of renewable energy tenders issued under the PPA/PPR regime. It reviewed the regulatory provisions of the PPA and PPR to identify areas for improvement in line with international standards in the power sector; closely monitored the public procurement processes of newly launched 55 packages for renewable energy-based power plants under the Public Procurement Act and Rule; and suggested measures to strengthen the legal, institutional, and operational frameworks to enhance accountability, transparency, and efficiency from an energy transition perspective.

The findings show that transparency has improved markedly. Firms generally received timely information, clear contacts, and responsive communication from BPDB during pre-bid stages. The return to open tendering, publication of tender opportunities, availability of standard documents, and public bid openings has enhanced procedural visibility. However, critical gaps persist that prevent transparency from translating into full accountability. Tender evaluation reports are not disclosed, bid opening minutes and financial offers are not published online, and confidentiality clauses remain excessively broad. The two-tier award publication rule keeps a portion of awards outside public scrutiny, and a quarter of surveyed firms reported facing bribe requests during complaint processes. Overall, accountability was rated as moderate, with a notable share of firms expressing dissatisfaction.

Efficiency emerged as the weakest dimension in whole the procurement process. In the solar tenders, nearly 45 per cent of firms rated the process as inefficient and another 18 per cent as very inefficient. Fully foreign firms were even more critical. Although information flow during the tendering phase was smooth, firms anticipate delays in evaluation, contract approval, and post-award processes. Over half of the respondents believe that procurement under the PPA/PPR is less efficient than under the Special Act, primarily because of bureaucratic delays and the absence of streamlined post-award procedures.

The design and qualification criteria for the recent solar were stringent, which limited market participation. Out of 55 packages, 23 attracted only one bidder, and 13 received no bids at all. However, despite low participation, the average tariff fell by 24.6 per cent compared to the average tariff of the recently cancelled LoIs under the Special Provision Act. The biggest hurdle was the unusually high working capital requirement of USD 1.14 million per MW, which was well above both regional standards. This effectively excluded many technically capable local firms. Full responsibility for land acquisition fell on developers in a country with scarce, fragmented, and bureaucratically controlled land, further discouraging participation. About 72 per cent firms also mentioned the lack of sovereign guarantees or escrow accounts

impacted their decision to bid. Technical conditions, such as a mandatory fixed annual generation for 20 years regardless of weather changes or grid limitations, were seen as unrealistic.

Post-award challenges further exacerbate these issues. The PPA/PPR framework covers only the tendering and contract award stages. It does not offer guidance for the complicated implementation timeline of renewable energy projects. The winning firms face serious difficulties in securing financing, acquiring and developing land, getting multiple no-objection certificates, navigating through administrative procedures of multiple organizations for approvals and clearance, and obtaining grid connections. These institutional challenges are made worse by poor coordination among agencies and by contractual clauses, such as a 28-day termination notice, that do not match the realities of large-scale infrastructure development.

In conclusion, the study shows that while the move to competitive bidding is a step in the right direction, the Ministry of Power, Energy and Mineral Resources (MoPEMR) are not yet fully prepared to ensure a transparent, accountable, and efficient process that earns the confidence of private sector. Low participation in recent tenders, overly strict qualification requirements, limited transparency in evaluation, and major post-award hurdles continue to undermine investor confidence. Strengthening the procurement process through clearer renewable energy guidelines, digitalized procedures, better coordination, and supportive post-award mechanisms will be essential for building a procurement environment that is transparent, efficient, and capable of accelerating Bangladesh's renewable energy transition.

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Acronyms

ADB	Asian Development Bank
BIDA	Bangladesh Investment Development Authority
BPC	Bangladesh Petroleum Corporation
BPDB	Bangladesh Power Development Board
BPPA	Bangladesh Public Procurement Authority
CCGP	Cabinet Committee on Government Purchase
CfD	Contract for Difference
CGFR	Compilation of General Financial Rules
COD	Commercial Operation Date
CPAR	Country Procurement Assessment Report
CPGCBL	Coal Power Generation Company Bangladesh Limited
CPTU	Central Procurement Technical Unit
DC	Deputy Commissioner
DEWA	Dubai Electricity and Water Authority
DG	Director General
DISCOMS	Distribution Companies
EBRD	European Bank for Reconstruction and Development
EEU	Ethiopian Electric Utility
e-GP/eGP	Electronic Government Procurement
ERL	Eastern Refinery Limited
FiTs	Feed-in Tariffs
FY	Fiscal Year
G2G	Government-to-Government
GDP	Gross Domestic Product
GoB	Government of Bangladesh
GW	Gigawatt
ICB	International Competitive Bidding
IFT	Invitation for Tender
IPP	Independent Power Producer

IRQ	International Request for Quotation
ITT	Instructions to Tenderers
KIIs	Key Informant Interviews
kWh	Kilowatt-hour
LNG	Liquefied Natural Gas
LoI	Letter of Intent
MIGA	Multilateral Investment Guarantee Agency
MoPEMR	Ministry of Power, Energy and Mineral Resources
MW	Megawatt
NOA	Notification of Award
NOC	No-Objection Certificate
NREA	New and Renewable Energy Authority
OECD	Organisation for Economic Co-operation and Development
OSTEM	One-Stage-Two-Envelope Method
PGCB	Power Grid Company of Bangladesh
PMO	Prime Minister's Office
PPA	Public Procurement Act
PPR	Public Procurement Rules
PPRP	Public Procurement Reform Project
PSC	Production Sharing Contract
PSF	Payment Security Fund
PWD	Public Works Department
RFP	Request for Proposal
RPGCL	Rupantarita Prakritik Gas Company Limited
SECI	Solar Energy Corporation of India
SME	Small and Medium Enterprise
SPPP	Sustainable Public Procurement Policy
STD	Standard Tender Document
TDS	Tender Data Sheet
TEC	Tender Evaluation Committee
TOC	Tender Opening Committee

Introduction and objectives

In November 2024, the Interim Government of Bangladesh has repealed the Quick Enhancement of Electricity and Energy Supply (Special Provision) Act, established in 2010.¹ The Act, whilst enacted, removed the requirement for competitive bidding, overridden the Public Procurement Act 2006 subverting transparency and accountability of the procurement in the power sector in Bangladesh. Furthermore, the Act allowed the government to accept proposals for importing electricity or energy from abroad without proper scrutiny, nurturing an environment susceptible to lobbying and favouritism (Moazzem et al., 2024).

Without adhering to the standard open tender procedures, numerous high-priced power plants were approved under the *Quick Enhancement of Electricity and Energy Supply Act or the Special Provision Act (2010)*. However, for most of the year these plants have reportedly been functioning at only 25 to 30 percent capacity. Considering the capacity charge of the idle power plants, it was found that the average per unit price of electricity in some plants operated by independent power producers (IPPs) was BDT 100 or more per kwh. Over the last 14 years, approximately BDT 90,000 crore (USD12 billion) has been spent as capacity charges and these payments were made in US dollars.² The electricity purchased from the IPPs through unsolicited proposals at a price which is significantly higher than the possible negotiated price under the open tender system. A significant 81 percent of the total subsidies allocated to the power sector over the years has been directed towards paying capacity charges. In the revised budget for FY2025, about BDT 400 billion is estimated to be paid as subsidy for the electricity sector. Consequently, the power development board (PDB) incurred a loss of BDT 105,419 crore (USD866 million) over the past 12 years.³ Overall, the Act is responsible for fiscal and financial indiscipline of the Ministry of Power Energy and Mineral Resources (MoPEMR).

The cancellation of the Quick Enhancement of Electricity and Energy Supply Act reinstates the Public Procurement Act (PPA) 2006 and the Public Procurement Rules (PPR) 2008 for the procurement of the power and energy sector. Under the PPA and PPR, the ministry of power energy and mineral resources (MoPEMR) has invited tender of 55 solar power plants of size ranging from 10 MW to 200 MW in four lots since November 2024. These tenders are being conducted through a competitive bidding process following the one-stage, two-envelope method, ensuring both technical and financial evaluation in separate phases. The reinstatement of the *Public Procurement Act (PPA) 2006 and the Public Procurement Rules (PPR) 2008* is expected to open opportunities for competitive bidding in power sector procurement, which will help reduce tariffs through increased competition.

Whilst the reinstatement of the *Public Procurement Act (2006) and Public Procurement Rule (2008)* is commendable, they face several challenges in ensuring transparency, efficiency, and accountability as observed in open tender processes practiced in government's other ministries and departments. Studies highlight inconsistencies in procurement practices that create opportunities for corruption and mismanagement as well as undermining

¹https://cao.portal.gov.bd/sites/default/files/files/cao.portal.gov.bd/npfblock/deef250b_7ed5_46ca_b76b_8d3b539734b7/Re-forms%20by%20Interim%20Government_June%2015%2C%202025.pdf

²<https://www.tbsnews.net/bangladesh/energy/ending-capacity-charge-repelling-indemnity-law-suggested-stop-power-sector-woes>

³<https://www.banglanews24.com/english/business/news/bd/153823.details>

accountability (Arifeen & Zakaria, 2013). There are capacity constraints among procurement officials, including inadequate training and skills, which contribute to inefficiencies in interpreting and applying procurement regulations (Mahmood, 2011). Besides, bid rigging, collusion, and bureaucratic delays further disrupt the competitive and timely procurement process, affecting project outcomes (Arifeen & Zakaria, 2013). According to World Bank (2023) before the enactment of the Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act in 2010, Bangladesh's power sector faced significant challenges under the Public Procurement Act (PPA) 2006 and Public Procurement Rules (PPR) 2008. The challenges included delays in procurement, overemphasis on procedures over outcomes, allegations of corruption and favouritism, inadequate monitoring, and inefficiencies that exacerbated power shortages and economic impacts (World Bank, 2023). These weaknesses of the Public Procurement Act and Rules pose a risk of bringing back the malpractices that occurred under the revoked Quick Enhancement of Electricity and Energy Supply Act.

Currently, there is no study that particularly focuses on the challenges of public procurement in Bangladesh's power sector and the issues and weaknesses that the act and rule have from the perspective of energy transition. However, there is a study that analysed the general weaknesses of the public procurement rule in comparison to the Asian Development Bank (ADB) Procurement Regulations (Salah Uddin et al., 2020). The key suggestions of the study include streamlining procurement methods, ensuring transparency in lotteries, and incorporating sustainable procurement, project lifecycle costing, and disposal processes. PPR could also benefit from adopting ADB practices like performance bonuses, non-compliance declarations, performance-based procurement, and community participation. The challenges and weaknesses of the public procurement act and rules from the point of view of energy transition remain unstudied. Therefore, it is essential to evaluate the acts, rules, process, institutions of public procurement from the point of view of energy transition to find the flaws and strengthen them by integrating the good global practices and eventually suggesting a framework to ensure accountability, transparency and efficiency.

In this context, it is crucial to assess transparency, accountability and efficiency gaps in the Public Procurement Act (2006) and Public Procurement Rule (2008) for the procurement in power sector especially the procurement of renewable energy. Besides, it is also equally important to monitor transparency, accountability and efficiency aspects of the 55 solar power plant tenders and analyse the lacking in the tender design that is impeding the participation in the tender. Against this backdrop, the Centre for Policy Dialogue (CPD) in partnership with the Australian High Commission in Dhaka has undertaken this study. This study confines its focus on the procurement related to power generation of renewable power plants from the perspective of energy transition in Bangladesh.

The specific objectives of the study are:

1. Reviewing the regulatory aspects of the PPA (2006) and PPR (2008) with a view to identifying the areas of improvement to comply with international procurement-related laws in the power sector;
2. Monitoring and identifying gaps in the public procurement process of the newly launched tenders for renewable energy-based power plants under PPA (2006) and PPR (2008);
3. Reviewing international regulations and guidelines for public procurement to identify gaps in local regulations and processes compared to international ones; and
4. Based on the analysis, the study will put forward a monitoring framework of the procurement system in the renewable energy-based power sector which will ensure accountability, transparency, and efficiency from the perspective of energy transition.

Literature review

2.1 Major issues and concerns related to public procurement: cross-country experiences

Challenges of public procurement

Countries around the world spend around 10 per cent to 12 per cent of their GDP in public procurement (OECD, 2023a). However, corruption and malpractices in public procurement are very prevalent in the developing countries (Aryee et al., 2025). Therefore, it is crucial to review the kind of malpractice there are when it comes to public procurement processes, laws and related institutions.

Public Procurement Process stretches from procurement planning, budget allocation, bid invitation, bid evaluation, contract award, and contract management (Mamiro, 2010). In the developing countries, the trust on these processes are alarmingly low (BĂLĂNEAN, 2017). This lack of trust is largely driven by persistent issues surrounding efficiency, transparency, and accountability.

Efficiency in public procurement

Efficiency-related issues involve a very long process between tender publishing and contract award, bureaucratic red tapes, payment delays, and higher performance guarantee requirement (The World Bank, 2017). The prevalent malpractices regarding transparency in process are rigging of tenders with collusion with the public officials and the bidders, irregular tender process, and inflated prices of goods and services (Ambe & Badenhorst-Weiss, 2012; Munzhedzi, 2016).

Accountability in public procurement

Accountability issues arise when there are no effective and well-established mechanisms to address complaints, resolve disputes, or take corrective actions in cases where flaws are identified in the procurement process. The World Bank decomposed this process in two steps –first tier review, where the complaints before the contract awarding are resolved, and second tier review, where the complaints after contract awarding are resolved. In many countries such as Antigua and Barbuda, El Salvador, Eritrea, and Iraq, for example, the legal framework does not even contemplate the possibility of filing a complaint before the award of the contract, whilst many developing countries does not even have second tier review mechanisms. Besides, timely resolution of conflicts is an issue as several countries do not have a limited timeline (The World Bank, 2017).

Governance related issues in public procurement

Institutions involved in public procurement have a determinant role in shaping the public procurement culture. Auriol et al. (2016), on a study on Paraguay, found that corrupt public institutions operate by offering contracts without competitions. Besides, this corrupt institution and firm pair help firms earn more rents which in turn helps

sustain the malpractice. Besides, as much as they are victim of corruption, the firms used the corrupt system for their advantage. For instance, the entrepreneurs in Nigeria are often active participants who strategically engage in bribery (Ufere et al., 2012). Similarly, (Svensson, 2005) finds that in Uganda, firms routinely pay bribes to public officials to secure government contracts, suggesting that corruption becomes institutionalised within procurement systems. Likewise, (Ware et al., 2011), in their global review of procurement fraud, argue that collusion between firms and procurement officers is a common mechanism for inflating contract costs and manipulating tender specifications.

Regulatory aspects of public procurement

As far as laws are concerned, majority of the developing countries have a strong public procurement law in place. However, those countries have a very fragile enforcement of those laws. Dorasamy (2021) surveyed a few countries in the African region and found that countries struggle not only with weak law enforcement, but also lack of political will, and systemic corruption rooted in nepotism and patronage despite having strong procurement laws.

E-Procurement system

A cross-country study found that adoption of the internet and e-governance helped reducing corruption—via telecommunication infrastructure and online services (Elbahnasawy, 2014). Therefore, to battle the malpractice and corruption in public procurement, several countries introduced electronic public procurement systems. E-procurement has been popular in advanced countries like Australia, UK, and USA as well as in governments in emerging economies including China, India, Mexico, South Korea, and Brazil, which are implementing e-procurement initiatives (Vaidya & Hyde, 2011). A few African countries such as Georgia, and Rwanda implemented e-procurement which found to be effective in enhancing transparency and accountability (Girgvliani, 2023).

2.2 Global best practices in renewable energy procurement

Whilst Bangladesh's plan with the renewable energy is ambitious, the progress remains slow. The recent development of ensuring competition in public procurement in renewable energy can be seen as a step towards propelling the more participation and investment in the sector. To draw lessons for Bangladesh, it is useful to examine how other countries that have achieved massive progress in renewable energy have structured their procurement processes. This section investigates global experiences highlighting a range of best practices across critical areas such as bidding methods, power purchase agreements, financing mechanisms, policy stability, land management, and procurement guidelines for renewable energy.

Public procurement system in australia, new zealand, italy and USA

To make the public procurement process transparent, efficient and more participatory, different countries around the world have taken different innovative measures. Western Australia's clear supplier guide improves bidder screening through yes/no compliance checks, enabling evaluators to focus on quality submissions. Finland's feasibility study template supports strategic framework agreements by analysing market conditions and stakeholder needs. France strengthens competition and value for money through volume consolidation and rotational awards under a mini-tendering system. Italy's Consip promotes energy efficiency and SME participation via market consultations, performance-based contracts, and lot division. Similarly, New Zealand's Procurement Capability Index (PCI) encourages continuous improvement through annual self-assessments and stakeholder-verified reporting. The United Kingdom fosters early supplier engagement by publishing procurement pipelines and draft tenders for feedback. The United States' Multiple Award Schedules (MAS) simplify procurement via centralised IDIQ contracts, a comprehensive portal, and continuous training (OECD, 2017).

Contract for difference (CfD)

There are several public procurement mechanisms around the world which have proven to be efficient, transparent as well as conducive for the stability of renewable energy projects and incentivising investments in renewable

energy infrastructure. The notable mechanism to review is the Contract for Difference (CfD). From 2014, the CfD played a vital role in propelling the UK's renewable energy adoption. Recently, under the CfD, the UK government has set aside 1.5 billion pounds budget for renewable energy auction. The auction was for a total of 131 wind, solar and tidal projects capable of generating almost 10 gigawatts (GW) of capacity, which would be enough to power around 11 million homes (Twidale, 2024). In the CfD, the auction takes place under uniform price auction and the last highest bidding price, known as the strike price, is given to all developers, which incentivises the developers to report actual price.

Besides, CfD also gives the developer a guaranteed price and ensures transparency. The developer receives a contract with the Low Carbon Contracts Company, a government owned company, specifying a strike price at which it would buy electricity. The contracted strike price is continuously compared to the market reference price (MRP) where the government would pay any price shortfall below the MRP whereas the developer would return any excess he receives above the strike price. Although the pricing mechanism ensures fair compensation for price gaps, it also deters excessive profiteering (Watson & Bolton, 2025)

Bidding method

Competitive bidding has emerged as the dominant approach to renewable energy procurement worldwide. Competitive bidding leads to reduction in tariffs. Under the National Solar Mission, India introduced reverse auctioning for renewable energy in 2010 when the tariff was around INR 10.95/kWh.⁴ In 2025, the tariff declined to just INR 2.59/kWh,⁵ making solar one of the cheapest sources of electricity in the country. Besides, the competition helped Brazil make massive progress in renewable energy. Since 2007, Brazil has contracted 33 gigawatts of renewable capacity through technology specific auctions in renewable sector. In addition, the competitive auction boosted private investment in the renewable sector it observed around USD 200 billion in clean energy project funding between 2007-2023. Germany, as it aims for 40-45 per cent of the energy mix from renewable energy, switched to competitive auctions for renewable energy in 2017 under the Renewable Energy Source Act or Erneuerbare-Energien-Gesetz (EEG).⁶ The United Arab Emirates (UAE) also uses the reverse auctions which progressively lower the price for the renewable energy.

Along with competitive bidding, several countries have gone to completely digitalised bidding platforms. Digitalisation ensures transparency and reduces manipulation as well as human discretion. Countries including Brazil, India, Germany, Spain, South Africa, Egypt, the UAE, Chile, and Mexico adopted fully digitalised platforms for the auctions of renewable energy where bid submissions, raking of prices and the selection of the winner are done in an automated manner. However, verification of eligibility and compliance criteria still requires human judgment, particularly for checking technical, financial, and legal documentation.

Guidelines for renewable energy procurement /auction

Whilst countries tend to have generic public procurement guidelines, there are also guidelines specifically for the procurement or auctions of renewable energy. The one worth mentioning is the Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV Power Projects issued by the New and Renewable Energy Ministry of India. The guidelines clearly define the roles and responsibilities of all parties, including project developers, SECI, and state utilities. The guideline also specifies detailed eligibility and prequalification criteria, the methodology for bid submission and evaluation, and the post-award terms and conditions. Such guidelines, along with determining responsibility of government agencies, show a clear path to developers for the project implementation.

⁴<https://www.ceew.in/publications/anatomy-solar-power-feed-in-tariff-decline-in-solar-bids-india#:~:text=Key%20High-lights,a%20broader%20set%20of%20developers.>

⁵<https://www.junipergreenenergy.com/wp-content/uploads/2025/06/Industry-Report-CRISIL.pdf>

⁶<https://montel.energy/resources/blog/what-is-the-renewable-energy-sources-act-eeeg>

Standard power purchase agreements

A power purchase agreement (PPA) details the terms, conditions, and responsibilities of the power producer and the off takers. Since renewable energy projects are capital-intensive and long-term, investors and lenders look for certainty before they are committing funds. Having a standardised PPA template provides them with the tariff structure, payment security, termination, dispute resolution and other clauses upfront. Thus, by letting the rules of the game known, a standard provides predictability and ensures confidence among investors.

Countries leading the energy transition tends to have standard PPA for on and off grid solar power projects. For roof top solar, the notable standard PPAs France's standard PV contracts approved by the Ministry of Energy Transition; India's model MoUs, PPAs, EPC contracts, and tenders for CAPEX and RESCO models; Maldives' DBFOOT rooftop bidding documents; the United States' federal sample PPAs for on-site renewables; and Vietnam's model rooftop solar PPA. In addition, several countries also have standard PPA for utility-scale or ground-mounted solar projects. The countries having such PPAs include Argentina's RenovAR draft PPAs and bidding laws; Australia's precedent contracting templates; Ethiopia's 20-year model PPA with EEU; India's model implementation agreements, lease deeds, and state tenders; Malaysia's standard PPAs under feed-in tariff (FiTs); Pakistan's standardized Energy Purchase and Implementation Agreements; Tanzania's model PPAs for IPPs above 10 MW; and the United States' state-level standardized PPAs and Request for Proposal (RFPs).⁷

Providing financial guarantee

In case of providing financial securities such as sovereign guarantee and trust funds, there are mixed practices among countries. Vietnam does not provide sovereign guarantees that backs the PPAs (Urakami, 2023). Like Vietnam, India does not provide sovereign guarantees. However, the Solar Energy Corporation of India (SECI) maintains a fund called the payment security fund (PSF) of INR 1,853.04 crores to guarantee when payments are delayed from the distribution companies (DISCOMS).⁸ In Egypt, the Ministry of Finance provides sovereign guarantees for solar PPAs signed with the Egyptian Electricity Transmission Company.⁹ In addition to the sovereign guarantee, multilateral institutions such as the World Bank Group's Multilateral Investment Guarantee Agency (MIGA) and the European Bank for Reconstruction and Development (EBRD) offered political risk insurance and credit enhancement, further strengthening investor confidence.¹⁰

Land procurement

Procuring and developing the necessary amount of land for the solar power plant, particularly in the developing countries, is very time consuming, cumbersome, and often constrained by high population density, fragmented private land ownership as well as full of bureaucratic maze. To overcome these challenges, several countries have adopted a model where the government takes responsibility for developing land and associated infrastructure, allowing private investors to focus on project execution. In the United Arab Emirates (UAE), the Mohammed bin Rashid Al Maktoum Solar Park, which is planned to be of 5,000 MW capacity by 2030, was built by the Dubai Electricity and Water Authority (DEWA). In Egypt, the Benban Solar Park in Aswan spans 37.2 km² and 1.8 GW of installed capacity. The New and Renewable Energy Authority (NREA) prepared the land, basic infrastructure and access to grid connections. India has built such 50 solar parks totaling approximately 37.5 GW since 2014.¹¹ Besides, China, Philippines and may other countries follow the solar park system to solve the land procurement delays and challenges for the solar power plant.

⁷<https://ppp.worldbank.org/energy-and-power/solar-power-energy>

⁸<https://www.seci.co.in/psm-fund>

⁹<https://www.mercomindia.com/miga-to-fund-egypt-solar-projects>

¹⁰<https://www.miga.org/press-release/miga-supports-egyptian-effort-build-worlds-largest-solar-generation-park>

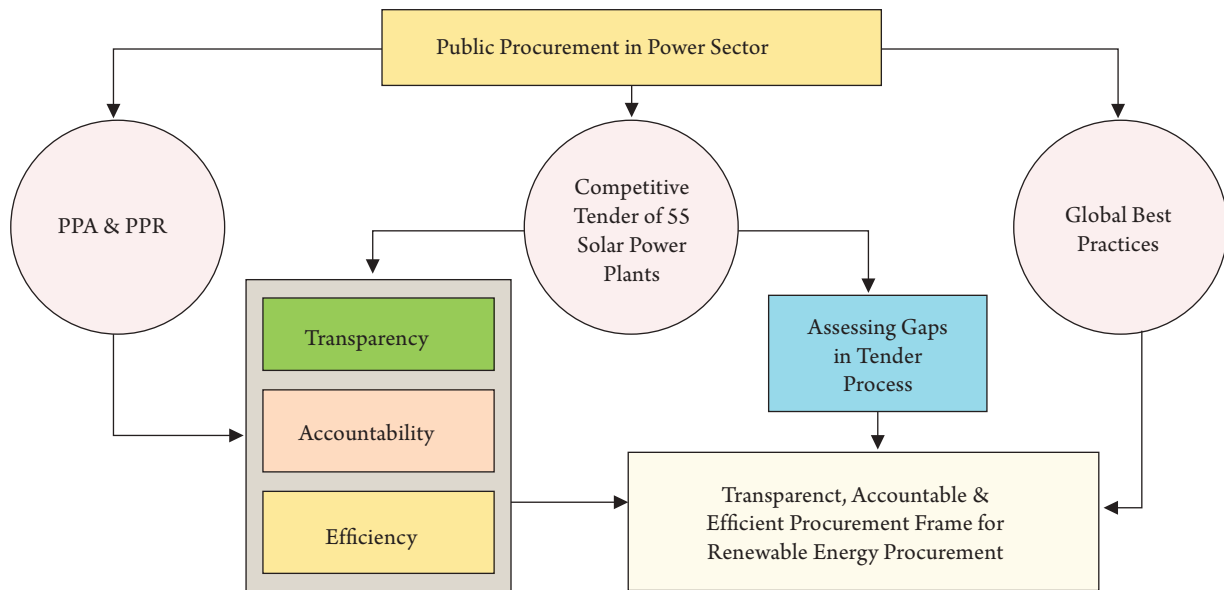
¹¹<https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=1983203>

Analytical framework and methodology

3.1 Analytical framework

This study intends to focus on transparency, accountability and efficiency related issues in the public procurement system under a competitive bidding process for the power and energy sector. Hence, analytical frame of the study needs to be properly defined the scope of the study. Among others, transparency, accountability and efficiency are the key aspects of monitoring the performance of public procurement (OECD, 2025). Transparency can be defined as ‘the access to clear, precise and accurate information that is understandable to all’.¹² Accountability in public procurement means that ‘the officials are responsible for the actions and decisions that they take in relation to procurement and for the resulting outcome’.¹³ Efficiency of the public procurement can be defined as ‘optimal use of resources including time, money and personnel’.¹⁴ Figure 1 shows the analytical framework of study.

Figure 1: Analytical framework of the study



Source: Authors' Illustration.

¹²<https://www.crowncommercial.gov.uk/news/how-to-achieve-transparency-in-your-procurement-procurement-essentials>

¹³<https://www.finance.gov.au/government/procurement/commonwealth-procurement-rules/accountability-and-transparency>

¹⁴<https://www.procurementclassroom.com/effectiveness-and-efficiency-in-public-procurement/>

Since the repealed special provision act (2010) was heavily criticised for lack of transparency and accountability, it is crucial to analyse how the public procurement act (2006) and the public procurement rule (2008) performs in this regard. The reinstatement of PPA and PPR will focus on competitive bidding which will require upholding due process and procedural integrity in procurement. Therefore, the efficiency of the procurement under the PPA and PPR needs to be analysed.

At the core of the analysis are the 55 competitive tenders for solar power plants. It is important to monitor the transparency, accountability, and efficiency of those solar power plant tenders, as well as to identify and address the gaps encountered during the emerged during implementation process. Moreover, the global best practices regarding the procurement of renewable energy and the tender process will be studied to draw recommendations for the improvement of the gaps identified.

Thus, the transparency, accountability and efficiency gaps of the PPA, PPR and the tenders along with international best practices will collectively inform the development of a transparent, accountable, and efficient procurement framework for renewable energy in Bangladesh.

3.2 Methodology of the study

3.2.1 Mixed method for conducting the study

This study uses a mixed method which combines qualitative and quantitative techniques to assess the transparency, accountability and efficiency in public procurement of renewable energy in Bangladesh under the PPA and PPR, with a specific focus on solar power plant projects. The analysis includes reviewing documents, interviewing stakeholders, comparing internationally, and quantitative assessments of the firm-level survey.

First, the study reviewed the legal and procedural framework for procurement in the power sector. We looked at the Public Procurement Act (PPA) 2006, the Public Procurement Rules (PPR) 2008, the Special Provision Act (2010) and the tender documents solar power plants. Secondly, Key Informant Interviews (KIIs) were conducted with public procurement experts, power sector stakeholders, international energy specialists, and private investors. These interviews offered qualitative insights into procedural challenges, regulatory issues, and investors' views and experience in renewable energy procurement in Bangladesh. Besides, cross-country experiences were reviewed to extract lessons and best practices in renewable energy procurement.

Following public procurement performance indicators in OECD (2023b), the indicators obtained from the National e-Government Procurement Portal were sorted in transparency, accountability, and efficiency categories. Afterwards, indices were constructed for each category.

Finally, the study conducted a detailed analysis of firm-level survey data to measure firms' experiences and views on transparency, accountability, efficiency, and post-award issues. Descriptive statistics and comparative summaries were used to analyse firms' perceptions and identify recurring procedural and institutional issues.

3.2.2 Secondary data and information

This study utilised both primary and secondary data to analyse transparency, accountability and efficiency of public procurement of renewable energy, along with the associated challenges. The secondary data sources analysed in this study include *Master Public Procurement Dataset* of 187 countries compiled by Bosio et al., (2020), overall public procurement statistics from World Bank (2020), and *Public Procurement Performance Indicators* for the period 2019-2022 from National e-Government Procurement Portal. Following public procurement performance indicators in OECD (2023b), the indicators obtained from the National e-Government Procurement Portal were sorted in transparency, accountability, and efficiency categories as shown in Table 1.

Table 1: Indicators of transparency, accountability and efficiency of public procurement system

Domain	Indicators
Transparency	<ul style="list-style-type: none"> • Percentage of Invitation for Tender/Proposal (IFT) Published in Newspaper • Percentage of Invitation for Tender/ Proposal Advertised in CPTU's Website • Percentage of Tenders/Proposals Following GoB Procurement Rules • Percentage of Contract Award Notice Published in CPTU's Website • Percentage of Fraud and Corruption
Accountability	<ul style="list-style-type: none"> • Percentage of Cases TOC Included At Least One Member From PEC/TEC • Percentage of cases TEC Formed by Approving Authority • Percentage cases TEC Included Two External Members outside the Procuring Entity • Average Number of Tenders/Proposals Approved by Proper Financial Delegated Authority • Percentage of Tenders/Proposals Approved by Higher Tier than the Contract Approving Authority • Percentage of Tender / Proposal Procedure Complaints • Percentage of Complaints Resulting in Modification of Awards • Percentage of Cases Complaints have been Resolved • Percentage of Cases Review Panel's Decisions Upheld
Efficiency	<ul style="list-style-type: none"> • Average Number of Days Between Publishing of Advertisement and Tender/Proposal Submission Deadline • Average Number of Days Between Tender/Proposal Opening and Completion of Evaluation • Percentage of Cases Tender/Proposal Evaluation has been Completed within Timeline • Average Number of Days Between Final Approval and Notification of Award (NOA) • Average Number of Days Between Tender/Proposal Opening and Notification of Award (NOA) • Average Number of Days Between Invitation for Tender/Proposal (IFT) and Notification of Award (NOA) • Percentage of Contract Awarded within Initial Tender/Proposal Validity Period • Per cent of Contracts Completed/Delivered within the Original Schedule as Mentioned in Contract

Source: Prepared by authors.

At the core of the analysis are the 55 competitive tenders for solar power plants. It is important to monitor the transparency, accountability, and efficiency of those solar power plant tenders, as well as to identify and address the gaps emerged during implementation process. Moreover, the global best practices regarding the procurement of renewable energy and the tender process will be studied to draw recommendations for the improvement of the gaps identified. Hence, primary surveys and KIIs have been conducted to appreciate different aspects related to the tenders.

The study has carried out a total of eight KIIs with professionals and experts having experience in public procurement system either in Bangladesh or abroad.

3.2.3 Firm level survey

As part of the study, an in-depth survey with private firms having experience working on Bangladesh's renewable energy sector has been conducted. The total population was 140 firms which includes the firms that purchased or submitted tender in the solar power plants in 2024 and 2025 under the PPA and PPR, and the firms who received Letter of Intent (LoI) for solar power plant under the Special Provision Act (2010). Given that the entire universe of relevant firms was known and of manageable size, the study adopted a census approach. However, due to practical constraints, including the unavailability of several firms, relocation or closure of offices (especially those not based in Dhaka), and denial of consent by several respondents, the final survey successfully covered 105 firms. Table 2 summarises participation status of these firms in the recent solar power plant tender. Out of the 105 firms surveyed, 48 firms (45.7 per cent) purchased tender documents but did not submit a tender, while 44 firms (41.9 per cent) both purchased and submitted their tenders. A smaller portion, 13 firms (12.4 per cent), did not purchase any tender documents.

Table 2: Surveyed firms by solar power plant tender participation (2024–2025)

Participation Status	Number of Firms	Percentage (%)
Purchased But Did Not Submit Tender	48	45.7
Purchased and submitted Tender	44	41.9
Did not Purchase Tender	13	12.4
Total	105	100%

Source: Authors' Calculation from CPD Solar Power Plant Procurement Survey 2025.

The firms surveyed show a varied ownership structure and operational profile (Table 3). Most of the firms, 66.86 per cent, are fully locally owned. In contrast, 21.90 per cent are entirely foreign-owned, and 15.24 per cent operate as joint ventures between local and foreign entities. When it comes to size, large firms make up most of the sample, representing 58.6 per cent of respondents. Medium-sized firms account for 31.03 per cent, and small firms make up 10.3 per cent. About 86 per cent of the firms have been operating for 10 years or more, whilst only 14.04 per cent have less than 10 years of experience in the industry.

Table 3: Distribution of surveyed firms as per ownership nature, firm size, and experience

	Frequency	Percentage (%)
Ownership nature		
Fully Local	66	66.9
Fully Foreign	23	21.9
Joint Venture	16	15.2
Firm Size		
Small	12	10.3
Medium	36	31
Large	68	58.6
Experience		
Less than 4 years	4	7
5 to 9 years	4	7
10 years and above	49	86

Source: Authors' Calculation from CPD Solar Power Plant Procurement Survey 2025.

The survey questionnaire focused on firm level characteristics, their experience regarding transparency, accountability and efficiency in the solar power plant tender under the PPA and PPR, and the special provision act, along with their perspectives of the terms and conditions in the recent solar power plant tender.

Overview of policies, acts, and procedures of public procurement in Bangladesh

Bangladesh's public procurement system is governed by several laws and policies that regulate how public funds are spent on goods, services, and works. The Public Procurement Act (PPA) of 2006 is the primary legal framework, providing the foundation for all procurement activities. It sets out the principles, methods, and procedures for public procurement and specifies the roles and responsibilities of contracting entities. To operationalise the PPA, the Public Procurement Rules (PPR) of 2008 were introduced. These rules provide detailed instructions on procurement processes, including thresholds for different procurement methods, tendering procedures, and contract management. The PPR also introduced the Electronic Government Procurement (e-GP) system to digitise and streamline procurement activities.

The Bangladesh Public Procurement Authority (BPPA) Act of 2023 established the BPPA as an autonomous organisation to oversee and regulate procurement activities nationwide. The BPPA is responsible for monitoring compliance, providing training, and ensuring that procurement practices align with prescribed rules and regulations. The Sustainable Public Procurement Policy (SPPP) of 2023 focuses on incorporating sustainability considerations into public procurement. This policy emphasises environmental protection, social equity, and economic efficiency as part of procurement decisions. It also aims to promote local industries and align procurement practices with global sustainability initiatives. These laws and policies collectively define the structure and processes of public procurement in Bangladesh, including mechanisms for oversight, dispute resolution, and compliance monitoring.

4.1 Public procurement system in Bangladesh

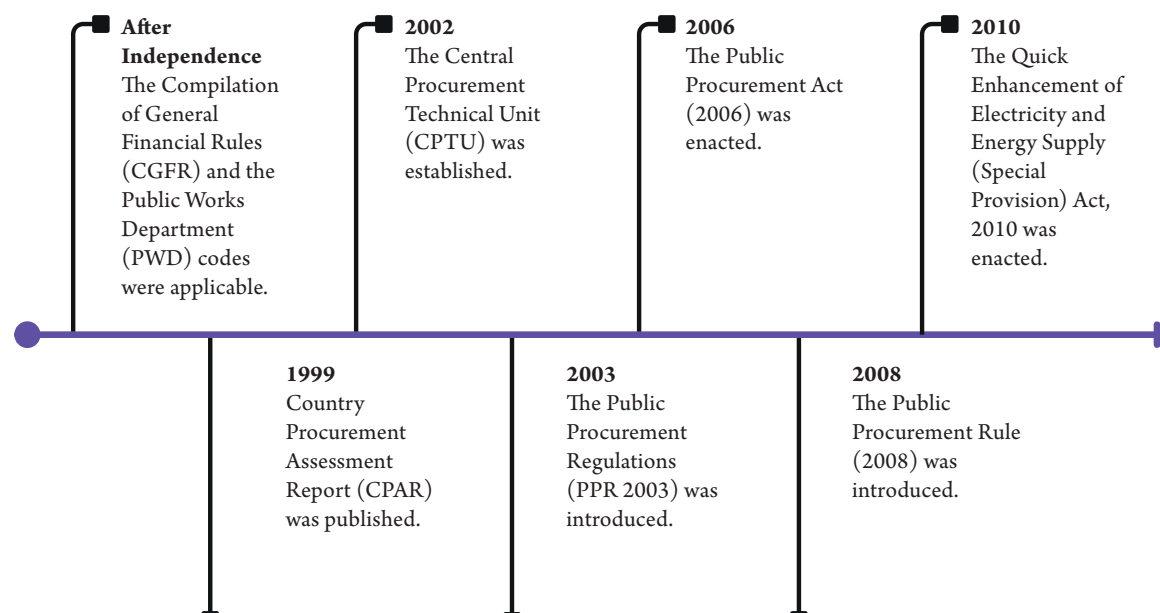
Before the 2000s, Bangladesh did not have any unified legal framework for public procurement (Figure 2). The Compilation of General Financial Rules (CGFR), a rule that has been enacted during British era, was applicable in public procurement in Bangladesh after its independence. In addition to CGFR, the Public Works Department (PWD) codes were followed for public procurement (Mahmood, 2001). However, procurement processes were managed individually by government departments, leading to inconsistent practices across agencies.

The Government of Bangladesh along with development partners (The World Bank and ADB) prepared the Country Procurement Assessment Report (CPAR) in 1999. CRAR exposed major deficiencies in the country's procurement system which include absence of a legal framework, bureaucratic delays, poor tender documentation, contract mismanagement, and lack of transparency.

Following the CPAR, the Central Procurement Technical Unit (CPTU) was established in April 2002 under the Ministry of Planning. In September 2003, Bangladesh introduced the Public Procurement Regulations (PPR 2003), standard tender documents, procurement approval procedures, and capacity-building initiatives through the Public Procurement Reform Project (PPRP) (BPPA, n.d.).

Bangladesh enacted the Public Procurement Act (PPA) in July 2006, which formalised procurement standards and made them legally binding. Subsequently, in 2008, it has the Public Procurement Rule which replace the Public

Figure 2: Historical account of public procurement in Bangladesh



Source: Authors' Illustration.

Procurement Regulations (PPR 2003). Together the PPA (2006) and PPR (2008) established a comprehensive legal-technical public procurement framework which outlined the requirement for annual procurement plans, standard tender forms, defined evaluation committees, and an institutional review pane and so on.

4.2 Quick enhancement of electricity and energy supply (special provision) act, 2010

Whilst the PPA (2006) and PPR (2008) were applicable for public procurement for every sector including power sector, under these two the procurement of the power sector faced several challenges including significant delays, inflexibility in emergencies, overemphasis on procedures over outcomes, which made the electricity crisis of the country at that time severe (World Bank, 2023).

Following the need to quicken the public procurement procedure in the power sector, the Quick Enhancement of Electricity and Energy Supply (Special Provision) Act 2010 was enacted. The especial act is applicable for the procurement of energy which includes

- Natural gas (NGL), liquefied natural gas (LNG), compressed natural gas (CNG), synthetic natural gas (SNG), and all other related forms of energy used in commercial or industrial activities
- Coal, furnace oil, firewood, biomass, petroleum, renewable energy and any other fuels used for energy generation or supply
- Electricity

Section 3 of this law states that, for procurement in the power sector, the public procurement act 2006 will be overridden by the special act. Section 4 of the Act permits the government to accept proposals for importing electricity or energy from abroad without proper scrutiny, fostering an environment susceptible to lobbying and favoritism. Besides, this Act removes the requirement for competitive bidding, allowing the government to award contracts based on 'good faith'.

4.3 Introduction of public procurement rule 2025

Effective from September 28, 2025, the interim government of Bangladesh has introduced the Public Procurement Rule 2025,¹⁵ which largely follow the previous rules with some amendments. The new rules make electronic government procurement (e GP) mandatory and introduce sustainability considerations in public procurement. However, since the solar power plant tender was invited before it came to effect, the public procurement rule 2008 will be applicable for these tenders.

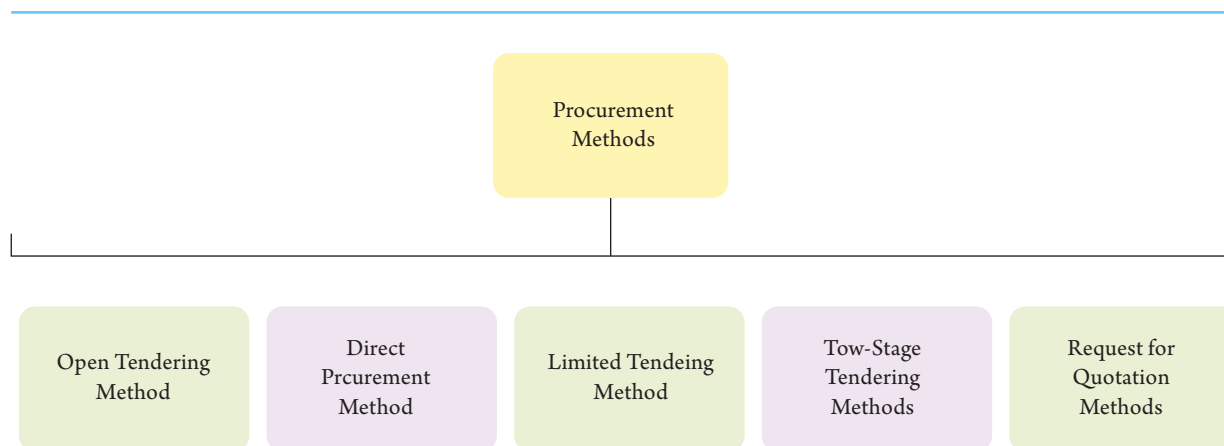
¹⁵<https://www.bppa.gov.bd/upload/policyandprocedure/2025-09-29-20-12-59-PPR2025.pdf>

Procurement methods across different energy sources

5.1 Different types of procurement process followed in the energy sector

There are different tendering methods in practice, including Open Tendering, Limited Tendering, Direct Procurement, Two-Stage Tendering, and Request for Quotation (Figure 3). Each method has specific situations where it works best. For example, Limited Tendering is used when there are few suppliers or when evaluating bids would take too much time and money compared to the contract's value. Direct Procurement is allowed when only one bid is suitable for technical reasons, for extra purchases from the same supplier, or for urgent needs. Request for Quotation is good for low-cost items or quick repairs, whilst Two-Stage Tendering is for complicated projects or when technical specifications are not possible at one stage.

Figure 3: Different procurement methods

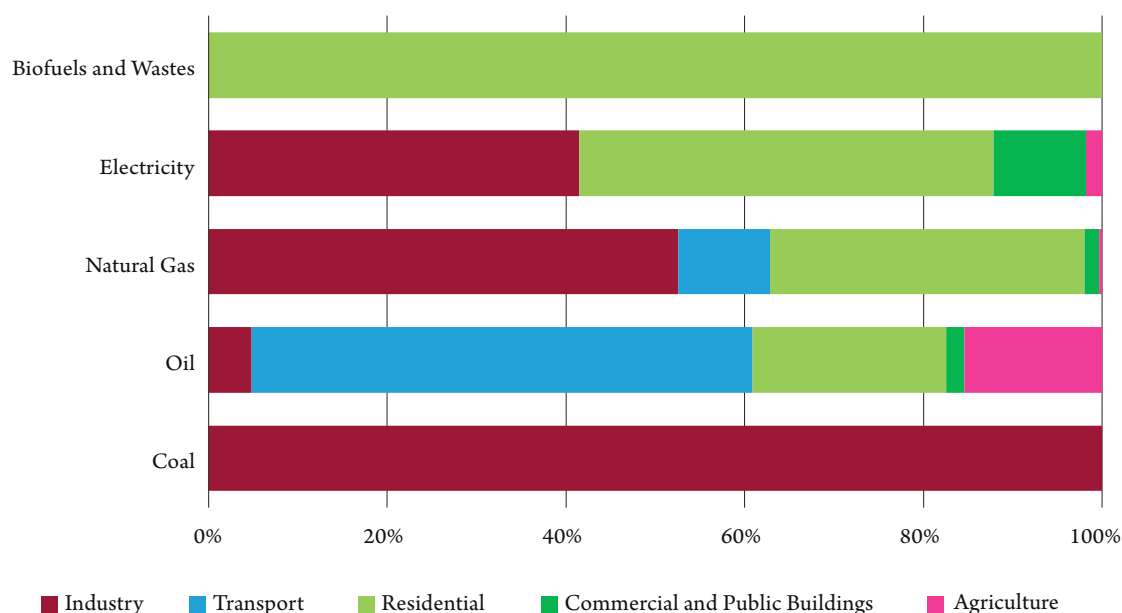


Source: Authors' Illustration.

5.2 Energy-wise procurement

In Bangladesh, the Ministry of Power, Energy & Mineral Resources (MoPEMR) is the sole purchaser of energy. The private sector is not allowed to procure energy. The MoPEMR is responsible for procuring and supplying energy which is executed by its subsidiary bodies such as Petrobangla, RPGCL, BPDB, and other. Therefore, it is necessary to look into different mechanisms that are applicable to purchase of different energies.

Figure 4: Sectoral breakdown of energy composition by type in Bangladesh



Source: Authors' Illustration using data from SREDA's National Energy Balance Report 2021-22.

Figure 4 shows how different sectors in Bangladesh use different types of energy which include coal, oil, natural gas, electricity and Biofuels. The industry sector uses all types of energy except biofuels. The industry sector is the highest consumer of natural gas, coal and second higher consumer of electricity. The transport sector mainly depends on oil, whilst the residential sector uses many biofuels along with gas and electricity. Commercial and public buildings mostly use electricity, and agriculture relies mainly on oil and some electricity.

After the cancellation of the special provision act, although the Public Procurement Act (PPA) 2006 and the Public Procurement Rules (PPR) 2008 provide the main framework, many energy-related procurements occur through special agreements, government-to-government (G2G) deals. This section outlines the key methods by energy source. Table 4 summarises the procurement approaches for different nature of energy.

Table 4: Energy procurement approaches in Bangladesh

Energy Type	Key Procuring Entity	Procurement Method	Contractual Nature
Natural Gas / LNG	Petrobangla, RPGCL	PSCs, G2G, ICB, IRQ	Long-term supply and exploration contracts
Oil and Petroleum	BPC, ERL	G2G, ICB, IRQ	Annual import contracts
Coal	CPGCBL, BPDB	ICB, G2G	Bulk commodity supply
Renewables(Solar/ Wind)	BPDB	One-Step-Two-Envelope Method	Long Term Power Purchase Agreements (PPA)

Source: Authors' findings.

5.2.1 Tender process for procuring natural gas and LNG

Natural gas is essential to Bangladesh's energy mix. Petrobangla and its subsidiaries manage its procurement and supply under the Energy and Mineral Resources Division. There are two main ways this is done. First, exploration and production happen through Production Sharing Contracts (PSCs) with international oil companies. Petrobangla usually awards these contracts through competitive bidding rounds. However, some contracts have been negotiated directly because of strategic needs or offshore challenges.

Second, LNG imports are handled by Rupantarita Prakritik Gas Company Limited. This company buys LNG through long-term G2G agreements or spot market purchases. Whilst spot purchases usually follow international competitive bidding (ICB) and international request for quotation (IRQ) procedures, long-term contracts often involve negotiations between governments for ensuring energy security. The Interim Government has recently approved two cargoes of LNG from the spot market following International Request for Quotation method ('Govt to procure 2 cargoes LNG', 2025).

5.2.2 Tender process for procuring oil and petroleum products

Procurement in the oil sector is managed by the Bangladesh Petroleum Corporation (BPC). BPC imports crude oil and refined petroleum products for use in the country. It enters into government-to-government contracts with national oil companies along with seeking international bids for refined products. The refining process is done by Eastern Refinery Limited (ERL), a subsidiary of BPC. Distribution is managed by Padma, Meghna, and Jamuna Oil Companies.

5.2.3 Tender process for procuring coal

Coal procurement in Bangladesh mainly supports power generation and is overseen by public entities like the Coal Power Generation Company Bangladesh Limited (CPGCBL) and the Bangladesh Power Development Board (BPDB). Imported coal is usually obtained through International Competitive Bidding (ICB), which helps keep costs low and meets technical standards. However, large projects that involve joint ventures or foreign financing, such as the Payra or Matarbari power plants, have sometimes used G2G arrangements, especially when connected to tied loans or strategic development partnerships.

Tender process for procuring renewable energy

Procurement for renewable energy projects, especially solar and wind, has followed two main approaches. Under the Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act, 2010, many projects were approved through unsolicited proposals. This process avoided competitive tendering and allowed direct negotiation between investors and the Power Division. It often led to high tariffs and limited transparency. After the repeal of the Special Act in 2024, procurement in renewables returned to the PPA and PPR framework, which focuses on open competitive bidding. The Bangladesh Power Development Board (BPDB) has since issued tenders for several solar IPP projects using the ‘one-stage, two-envelope’ (OSTEM) method. This allows for separate evaluations of technical and financial proposals. The return to competition has increased transparency and encouraged more cost-effective tariff structures.

6.1 Unsolicited tender process under the special act (2010)

As per the Special Act (2010) which ignored competitive bidding, the private sector used to independently propose solar power project to the government without responding to a public tender or invitation (also known as unsolicited process). The unsolicited process had the following steps:

Selecting the Area: The investor gives a proposal to the Bangladesh Power Development Board (BPDB) to set up a solar power plant in a specific area, which should be non-agricultural or single-cropped land.

Land Committee Formation: BPDB makes a land committee with officials from the Ministry of Land, Ministry of Agriculture, Ministry of Power, and local government (DC Office) and other officials. The committee visits the land, checks out any problems, and sees how far the grid is. Then, they send a report to BPDB. The clearance process takes at least 3-4 months.

Submitting and Reviewing Technical Documents: The investor submits technical documents to show they can do the project. A technical committee is made to check these documents, and this takes about 4-6 months.

PGCB Clearance: The investor needs clearance from the Power Grid Company of Bangladesh (PGCB). This takes about 1-1.5 months.

BPDB Purchase Committee Review: The proposal is sent to the BPDB Purchase Committee for checking, which takes 1-2 months.

MoPEMR Clearance: If BPDB approves, the proposal goes to the Ministry of Power, Energy & Mineral Resources (MoPEMR) for clearance. This takes 1-2 weeks.

Prime Minister's Office (PMO) Clearance: The proposal is sent to the Prime Minister's Office (PMO) for final approval. The time for this is not fixed.

Tariff Negotiation Meeting: A meeting is held between the investor and government officers, including the Director General (DG) of PMO, Senior Secretary of MoPEMR, and other officials to decide the tariff.

Cabinet Committee on Government Purchase (CCGP) Approval: After the tariff is decided, the Cabinet Committee on Government Purchase (CCGP) gives approval. The time for this step is uncertain.

Letter of Intent (LOI) Issuance: After CCGP approval, the MoPEMR gives a Letter of Intent (LOI) with project conditions. This takes 1-2 months. At the same time, the investor needs Bangladesh Investment Development Authority (BIDA) approval.

The Interim Government of Bangladesh repealed the Special Provision Act on 28 November 2024 (Government of People's Republic of Bangladesh, 2025). With the cancellation of the special act (2010), the public procurement in the power sector has been brought under the Public Procurement Act (2006).

The cancellation of the *Special Provision Act (2010)* marks a seismic change in the policy landscape in Bangladesh's power sector. With its cancellation, the *Public Procurement Act (PPA) 2006* and the *Public Procurement Rule (PPR) 2008* have been reinstated for procurement in the power sector. Since the special provision act has been in place for over a decade, it is important to assess the impact of its abrupt cancellation on the sector. In addition, it is essential to investigate the PPA and PPR from the perspective of transparency, accountability and efficiency as the special provision act was accused of extreme transparency and accountability issues.

6.2 Transition from the special act to PPA & PPR

The *Quick Enhancement of Electricity and Energy Supply (Special Provision) Act, 2010* was designed to accelerate power sector development in Bangladesh to address acute power shortages. The act enabled the government and the authorities to bypass standard procurement procedures such as competitive bidding (section 3 of the Special Provision Act) and directly negotiating contracts, enabling swift implementation of power projects. The implementation agreements signed under the act included capacity payments and sovereign guarantees to attract investment by sharing risk. Besides, section 7.2 of the act states that if the proposal is approved, the administrative Ministry or Division shall take appropriate measures to implement the project and section 8 allows the proposal processing committee, if necessary, to seek assistance from any person or any government, non-government or autonomous body for implementing any project. Therefore, in just 14 years, around 91 rental and quick rental power plants have been approved under this Act (Moazzem et al., 2024).

However, the immunity provision in Section 9 of the act says '*no question shall be raised before any court as to the validity of any act, or any act deemed to have been done, any action taken, any order or direction given, under this act*'. This clause later opened a window for rent-seeking and corruption as it prevented accountability. Over time, the high cost of capacity payments strained public finances, whilst questions over accountability and judicial oversight fueled criticism, ultimately leading to the Act being declared unconstitutional and repealed in November 2024.

Whilst the cancellation of special act ensured long-sought competitive bidding under the PPA and PPR, it also created a void and confusion in the policy horizon in the power sector. The cancellation was abrupt, with no transitional framework or sector-specific guidelines to replace the Special Act. As a result, along with the act, 31 renewable energy power plants of capacity 2,942MW (combined) that got letter of intent (LoI) under this act were suspended, despite many developers already advancing in land acquisition and financing arrangements. The suspension of the LoIs disrupted investors' confidence and what made the situation even worse is the absence of power sector specific procurement guidelines.

Although the PPA 2006 and PPR 2008 reintroduced transparency and accountability through competitive bidding, these frameworks are general public procurement laws designed primarily for goods and services procurement (Rahman, 2018). They lack mechanisms to address the unique characteristics of power sector projects, such as long gestation periods, complex risk-sharing arrangements, capacity charges, and sovereign guarantees. In particular, the PPA and PPR cover till awarding contracts to the winner of the bid and there exists no structure to follow for the next range of activities such as land acquisition, grid connection, obtaining clearances, etc. until the completion of the power plant. Therefore, it is important to assess the transparency accountability and efficiency of the new framework of procurement of renewable energy in power sector.

6.3 Transparency, accountability, and efficiency of PPA and PPR

In public procurement, it is essential to ensure transparency and accountability whilst also maintaining efficiency. This section of the study assesses the transparency and accountability and efficiency of the PPA and PPR.

6.3.1 Transparency

Transparency in public procurement can be defined as ‘the access to clear, precise and accurate information that is understandable to all.’¹⁶ Ensuring transparency of the procurement using public funds is one of the goals of the PPA and PPR.¹⁷ The Special Provision Act 2010 allowed direct negotiations and unsolicited offers which conceal the information on how the bidder is selected. Besides, since the act overrode the PPA, many contracts were awarded without public notice. That is, the special act was opaque about the entire procurement process along with deterring the competition. Table 5 provides comparison between the Special Provision Act 2010 and the PPA, PPR on transparency areas. The PPA and PPR provides a better framework for ensuring transparency in public procurement compared to the cancelled Special Act.

Table 5: Transparency areas: Special act vs PPA, PPR

Transparency Areas	Special Provision Act	PPA and PPR
Advertisement of Tenders	Not mandatory	Advertisement in newspapers, CPTU/e-GP portal (Rule 90 ¹⁸ , Section 40)
Procurement Method	Direct negotiation, unsolicited offers allowed (opaque)	Open Tendering Method (OTM) is the Preferred (transparent, competitive)
Tender Documents Access	Often restricted, shared selectively with chosen firms	Standard Tender Documents (STDs) available to all bidders under equal terms
Bid Opening	Not required to be public; decisions taken behind closed doors	Bids opened in public, in presence of bidders (Rule 97)
Publication of Awards	Awards rarely published on CPTU	Contract award notices published on CPTU and available to public (Section 21)
Information to Unsuccessful Bidders	No obligation to explain reasons for rejection	The procuring entity must communicate reasons if requested (Section 21.2)
Record Keeping	Negotiations and evaluation records not publicly accessible	Mandatory records of each step and accessible for audit and review (Section 23, 24)

Source: Authors' findings.

It is also important to assess the legal requirements and actual practice of revealing key procurement information. Table 6 shows which transparency areas are legally required and which are actually followed in practice in Bangladesh, China, Pakistan, and Australia (Bosio et al., 2020). In Bangladesh, as per PPA and PPR, it is mandatory for the procuring entity to make procurement plan, standard tender documents, and notice of award/ bid award publicly available. However, it is not mandatory to reveal tender documents and technical specifications, it is accessible subject to a fee (section 41 of PPA). But in Pakistan and China, it is mandatory to reveal the tender documents and technical specifications to public. Besides, by law, it is also not obligatory to disclose the contract in any country listed in the table. When it comes to practice, the PPA and PPR is consistently followed in Bangladesh. As for Australia, whilst it is mandatory to reveal only the notice of award/ bid results. By practice, it reveals standard tender documents and materials, tender notices, and tender documents and technical specification without the obligation to do so.

¹⁶<https://www.crowncommercial.gov.uk/news/how-to-achieve-transparency-in-your-procurement-procurement-essentials>

¹⁷<https://cptu.gov.bd/upload/policyandprocedure/2017-07-31-16-00-37-Public-Procurement-Act-2006-Bangla.pdf>

¹⁸<https://cptu.gov.bd/upload/policyandprocedure/2017-07-31-16-11-03-Public-Procurement-Rules-2008-Bangla.pdf>

Table 6: Legal requirements versus actual practice of procurement information disclosure

Areas	Law				Practice			
	Bangladesh	China	Pakistan	Australia	Bangladesh	China	Pakistan	Australia
Procurement Plan	Yes	No	Yes	No	Yes	No	Yes	No
Standard Tender Documents and Materials	Yes	No	Yes	No	Yes	No	Yes	Yes
Tender Notices	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Tender Documents and Technical Specification	No	Yes	Yes	No	No	No	No	Yes
Notice of Award / bid result	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Contract	No	No	No	No	No	No	No	No

Source: Authors' findings from the dataset¹⁹ of Bosio et al. (2020).

In addition to the dataset of Bosio et al. (2020), we looked into data on the procurement performance indicators from the National e-Government Procurement Portal²⁰ from 2019 to 2022. Table 7 illustrates the transparency related indicators. Whilst the invitation of tender or proposal (IFT) has been advertised for hundred percent of the time on CPTU, percentage of the advertisement on the national newspaper remains under 40 percent. Similarly, nearly all tenders adhered to GoB procurement rules, and contract awards were almost always published on the CPTU website, demonstrating adherence to disclosure requirements. Even though the percentage of fraud and corruption shows very insignificant, this indicator, in particular, cannot be generalised as it is calculated on a fraction of the packages.

Table 7: Transparency indicators of overall public procurement

Indicators	2019	2020	2021	2022
Percentage of Invitation for Tender/Proposal (IFT) Published in Newspaper	39.84	37.3	38.4	38.31
Percentage of Invitation for Tender/ Proposal Advertised in CPTU's Website	100	100	100	100
Percentage of Tenders/Proposals Following GoB Procurement Rules	100	100	100	99.9
Percentage of Contract Award Notice Published in CPTU's Website	99.9		100	100
Percentage of Fraud and Corruption	0.013	0.07	0.04	0.11

Source: Authors' findings from the CPTU data.

The PPA 2006 and PPR 2008 provide a 'strong framework for transparency in public procurement, unlike the opaque Special Provision Act 2010. Bangladesh largely follows these rules in practice, especially via the CPTU e-GP portal, though gaps remain in newspaper advertisement, full disclosure of tender documents and assessment of fraud and corruption. Overall, the PPA and PPR have significantly improved visibility and access for all bidders.

6.3.2 Accountability

Accountability in public procurement means that 'the officials are responsible for the actions and decisions that they take in relation to procurement and for the resulting outcome.'²¹ Ensuring the accountability of the officials who are associated with the facilitation, tender opening, evaluation and decision making for selection of the bid winner are essential to establish fairness of the public procurement process.

¹⁹<https://www.openicpsr.org/openicpsr/project/153181/version/V1/view;jsessionid=D8DD76249BFC3100A08FB1616A465727>

²⁰<https://www.eprocure.gov.bd/ReportDownload.jsp>

²¹<https://www.finance.gov.au/government/procurement/commonwealth-procurement-rules/accountability-and-transparency>

The special provision act (2010) entirely ignored accountability. Section 9 of the act says, ‘no question shall be raised before any court as to the validity of any act, or any act deemed to have been done, any action taken, any order or direction given, under this act’. This section provides ironclad protection to government officials and decision-makers from any legal or administrative liability for actions taken under the Act. This clause directly undermined accountability by shielding procurement-related decisions from judicial review, parliamentary scrutiny, or administrative challenge. As a result, even if contracts were awarded without competition and unfairly, at inflated prices, or with conflicts of interest, no individual or institution could be held responsible.

Table 8: Accountability areas: Special act vs PPA and PPR

Accountability issues	The Special Provision Act	PPA and PPR
Indemnity Clause	Section 9 of the special act provides protection to officials for any action taken under the	No indemnity. The officials remain accountable for their actions and if they violate the law, they will be punished accordingly (Section 64 of PPA and Rule 127)
Complaint & Appeal Mechanism	No provision for complaint handling or appealing by bidders	The bidders can submit complaints and appeals as per section 29 of the PPA and Rule 56 of PPR
Audit	Not explicitly required; indemnity shielded officials from audit-based accountability.	The officials are required to properly maintain the documentation in the procurement process and provide it during audit (Section 23, 24 of PPA)
Debarment of Bidders/Contractors	No provision for debarment.	Blacklisting and debarment procedures clearly laid out (Rule 127 of PPR)

Source: Authors’ findings.

Table 8 illustrates accountability issues of the special act that has been taken care of in the PPA and PPR. The officials associated with the public procurement subject punishment if they violate the rules. They will be punished according to rule 3(b) and 3(d) of the Government Servant (Discipline and Appeal) (section 64.3 of PPA). In addition, they can be litigated under the Prevention of Corruption Act, 1947 and Penal Code, 1860 (section 64.4 of PPA). Moreover, the PPR also mentions blacklisting of the firms found associated with corruption or fraud in the procurement process. In addition, the PPA and PPR has complain and appeal mechanism which is missing in the special act.

Table 9 illustrates accountability indicators of the public procurement collected from the CPTU website. On surface, compliance with procedural requirements appears strong, as evidenced by the consistent inclusion of Tender Opening Committees (TOC) and formation of Tender Evaluation Committees (TEC). However, the data highlight serious weaknesses in ensuring external oversight and independent review. For instance, despite legal provisions under PPR Rule 8(2), not a single TEC included external members across the observed years, undermining the very spirit of transparency and accountability. Similarly, the extraordinarily high percentage of tenders approved by authorities above the designated financial delegation (reaching 98.65 percent in 2021) suggests a culture of centralisation and bypassing of delegated decision-making powers, which diminishes institutional accountability.

Table 9: Accountability indicators of overall public procurement

Indicators	2019	2020	2021	2022
Percentage of Cases TOC Included At Least One Member From PEC/TEC	100	100	100	100
Percentage of cases TEC Formed by Approving Authority	8.1	8.9	8.6	7.6
Percentage cases TEC Included Two External Members outside the Procuring Entity	0	0	0	0
Average Number of Tenders/Proposals Approved by Proper Financial Delegated Authority	31.2		31.2	58.6
Percentage of Tenders/Proposals Approved by Higher Tier than the Contract Approving Authority	40.5		98.7	90.1

(Table 9 contd.)

(Table 9 contd.)

Indicators	2019	2020	2021	2022
Percentage of Tender / Proposal Procedure Complaints	0.53	0.8	0.45	0.3
Percentage of Complaints Resulting in Modification of Awards	0	0	0	0
Percentage of Cases Complaints have been Resolved	8.1	4.5	1.3	6.2
Percentage of Cases Review Panel's Decisions Upheld	0	0	0	0

Source: Authors' findings from the CPTU data.

The complaint-handling system seems largely ineffective, with very few complaints filed and almost none resulting in changes to awards or being upheld by the review panel. This suggests that bidders either do not trust the process or that it does not work properly in practice. The consistently low-resolution rates highlight weak institutional oversight.

Therefore, The PPA 2006 and PPR 2008 provide clear accountability mechanisms, such as audits, complaint handling, debarment, and sanctions for officials. However, in practice, the enforcement of these measures faces serious challenges. There is close to no external scrutiny, TECs seldom have independent members, and complaint handling is mostly ineffective, with very few awards being changed or review board decisions being enforced. It shows that whilst the procedures are followed on paper, real accountability is not achieved, and the people who make decisions remain unaccountable. Also, there is not much the bidders can do to challenge decisions.

6.2.3 Efficiency

Efficiency of the public procurement can be defined as 'optimal use of resources including time, money and personnel'.²² The special provision act 2010 was notable for really quick implementation of the power plant projects at the cost of sacrificing transparency and accountability. By bypassing the competitive bidding and providing support for project implementation, the special act achieved efficiency. Since the PPA and PPR has to follow a proper and rigid process to select the competitive winner, it takes considerable time.

Table 10: Efficiency indicators of overall public procurement

Indicators	2019	2020	2021	2022
Average Number of Days Between Publishing of Advertisement and Tender/Proposal Submission Deadline	18.4	18.4	18.2	18.6
Average Number of Days Between Tender/Proposal Opening and Completion of Evaluation	13.9	16.9	14.6	13.7
Percentage of Cases Tender/Proposal Evaluation has been Completed within Timeline	57.1	53.3	57.1	60.1
Average Number of Days Between Final Approval and Notification of Award (NOA)	2.2	-	2.6	2.6
Average Number of Days Between Tender/Proposal Opening and Notification of Award (NOA)	25.6	-	26.6	29.2
Average Number of Days Between Invitation for Tender/Proposal (IFT) and Notification of Award (NOA)	42.2	-	44.7	48.6
Percentage of Contract Awarded within Initial Tender/Proposal Validity Period	100	-	99.7	99.5
Percent of Contracts Completed/Delivered within the Original Schedule as Mentioned in Contract	100	-	88.2	92.6

Source: Authors' findings from the CPTU data.

Table 10 presents key indicators of procurement efficiency from 2019 to 2022. On average, the time between publishing the advertisement and the submission deadline is around 18 days, indicating a relatively short window

²²<https://www.procurementclassroom.com/effectiveness-and-efficiency-in-public-procurement/>

for bid preparation. The evaluation phase, from tender opening to completion, averages about 14–17 days, but only around 53–60 per cent of evaluations are completed within the prescribed timeline, suggesting frequent delays. The period between final approval and issuing the Notice of Award (NOA) is very short, averaging about 2–3 days, whilst the total time from tender opening to NOA ranges between 26 and 29 days, and from invitation to NOA between 42 and 49 days. Nearly all contracts are awarded within the initial validity period of the tender (close to 100 per cent), but the share of contracts completed within the originally scheduled timeline is lower, ranging from 88 per cent to 93 per cent.

However, when it comes to complex and difficult procurement, the time it takes for the procurement increased significantly. For public procurement of complex projects such as power plants One-Stage-Two-Envelop Tender Method (OSTEM) is the appropriate procurement mentioned in the PPA and PPR. Table 11 provides average time taken for each stage of the OSTEM method. The procurement takes considerable amount of time. Over the 2017-2019 period, total lead time from invitation to contract signing was 100-114 days, with the evaluation and approval process taking the bulk of that time. Although there have been some improvements in lead times for stages like invitation-to-opening and NOA-to-signing, the overall timescale of the OSTEM process is longer than that of other simpler methods of procurement. While the OSTEM process allows for transparency and competitiveness, it comes in the form of that speed, which delays project delivery.

Table 11: Average procurement timeline under one-stage-two-envelop tender method

Indicators	2017	2018	2019
Lead time (Invitation to contract signing)	114	104	100
Lead time (Invitation to Award)	108	82	86
Invitation to Opening (days)	39	32	31
Evaluation Time (opening to completion of evaluation)	76	31	39
Approval of the Issuance of NOA (days)	46	21	37
NOA to signing (days)	21	23	17

Source: Authors' findings from World Bank (2020).

6.3.4 Competitive efficiency

Competitive environment significantly enhances efficiency of government procurement (Onur & Tas, 2017). Competitive efficiency in public procurement is an environment that encourages broader participation and competition by ensuring minimal barriers to entrant participation and fairness. It also reduces the risks of collusion, single bidding, and re-tendering, ultimately contributing to the optimal allocation of public resources and improved overall procurement performance. Thus, it is important to look into PPA and PPR, and the OSTEM method from the aspects of competitive efficiency.

Table 12 shows some of the basic rules in Bangladesh's Public Procurement Act (PPA) and Rules (PPR) that impact open and fair competition. Some of these rules promote fairness. For example, they prevent splitting contracts to avoid open tenders, ensure bidders have enough time to prepare, and require bids to be opened immediately after the deadline.

However, there are also parts that can limit competition. The open tender method is not always used by default; this means some tenders can be restricted to chosen firms. There is also no 'pause' period before signing a contract. As a result, losing bidders cannot easily file complaints if they believe the award was unfair. Whilst prequalification of bidders helps ensure qualified firms participate, it can also decrease participation if the requirements are too strict.

Table 12: Legal and procedural provisions affecting competition in public procurement

Question/ Rule of Competition	Yes/No
Is the open tender method Default tendering method?	No
Can the Procuring Entity require bidders to participate in a prequalification process before submitting an economic offer?	Yes
Does the legal framework prohibit dividing contracts to circumvent thresholds for open tendering?	Yes
Is there a minimum time limit between the advertisement of the tender notice and the submission deadline for an open tendering procedure?	Yes
Does the legal framework require the Procuring Entity to proceed to bid opening immediately after the deadline for bid submission has been reached?	Yes
Is there a standstill (or pause) period between public notice of award and contract signing to allow unsuccessful bidders to challenge the award decision that suspends the procurement process?	No

Source: Authors' findings from the dataset²³ of Bosio et al. (2020).

Since technically complex public procurement such as solar power plant tenders uses the OSTEM method, it is important to look at the competitive efficiency associated with the OSTEM method. As shown in table 13, during 2017-2019, the average number of participants per tender fell from 4 to 2, indicating the decline in competition. At the same time, the share of single-bid tenders increased sharply from 12 percent to 31 per cent and cases of retendering rose from 4 per cent to 15 percent. Therefore, despite the OSTEM method's design to ensure transparency and merit-based selection, the empirical evidence points to weakening competitive efficiency over time.

Table 13: Competitive efficiency of OSTEM method

Indicators	2017	2018	2019
Average number of participants (overall)	4	2	2
% of single bid (all)	12%	29%	31%
% of re-bid (retender/all evaluation completed)	4%	12%	15%

Source: Authors' findings from World Bank (2020).

6.3.5 Overall state of transparency, accountability, and efficiency in public procurement

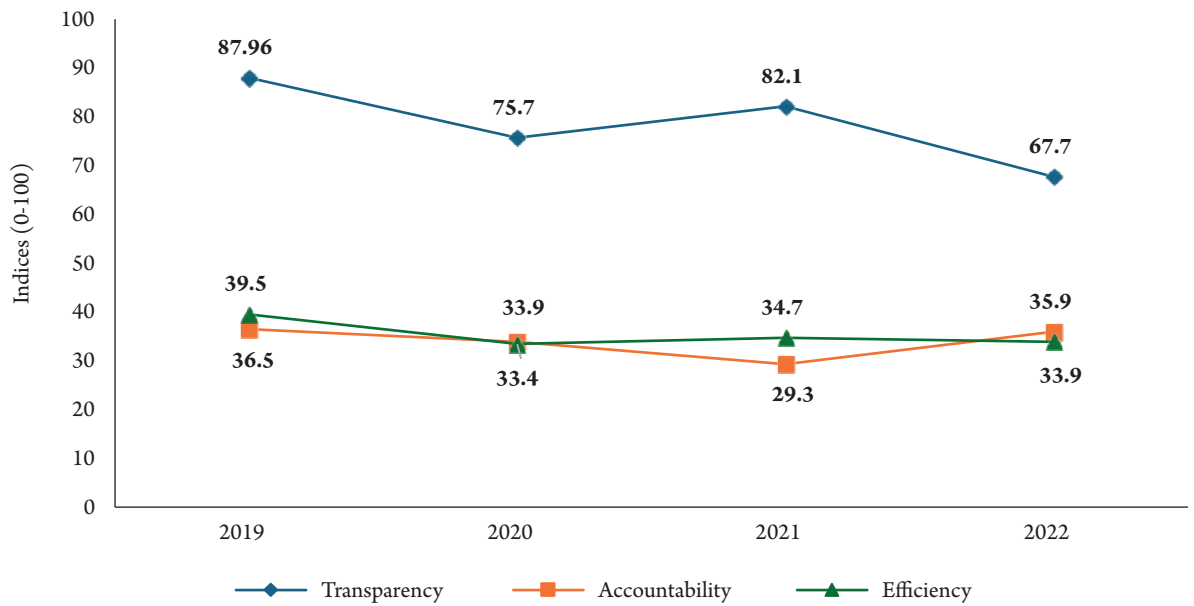
Utilising the indicators from table 7, 9 and 10, transparency, accountability, and efficiency indices have been made from 2019 to 2022 to understand overall trends in these three areas. The indices range from 0 to 100. The higher the value, the higher is the transparency, accountability, and efficiency. Figure 5 depicts the trend of the indices.

The Transparency index shows a falling trend over 2019-2022. The transparency index was 87.96, 75.71, 82.10, and 67.66 in 2019, 2020, 2021 and 2022, respectively. The decrease in the percentage of invitation of tender in the newspaper and the increase in the percentage of fraud and corruption was responsible for the fall in the transparency index in 2022.

The Accountability index has a maximum value of just 36.49 out of 100 in 2019. In the subsequent years, the index continued to fall. The increase in higher authorities' intervention in proposals, no inclusion of external members in TEC and very low reflection of the complaints can be ascribed to the dismal performance of the accountability index.

²³<https://www.openicpsr.org/openicpsr/project/153181/version/V1/view;jsessionid=D8DD76249BFC3100A08FB1616A465727>

Figure 5: Governance indices in public procurement (2019–2022)



Source: Prepared by authors based on available data.

The efficiency index has the highest value of just 39.52 out of 100 in 2019. The values fell and fluctuated in the later years. The efficiency index was 33.37, 34.74 and 33.88 in 2020, 2021 and 2022 respectively. The drop in the Efficiency Index in 2020 and 2021 is mostly due to longer procurement processing times. This includes delays between the invitation, evaluation, and notification of award. Additionally, there was a significant decrease in the percentage of contracts completed on time.

Recent tenders of renewable energy projects under PPA and PPR: A critical review

After the Interim Government of Bangladesh repealed the Quick Energy Supply (Special Provision) Act 2010, it cancelled 31 renewable power projects that Letters of Intent under this law.²⁴ Of the 31 projects that received Letters of Intent, 2,942MW are solar plants, 320MW are wind-based power plants, and the remaining 25MW are waste-to-energy projects (Karim, 2025). Following the cancellation of LOIs, the MoPEMR has invited tenders of total 55 solar power plants in several lots. These tenders were invited under the Public Procurement Act (2006) and the Public Procurement Rule (2008), with the expectation of establishing a competitive process for procurement in the power sector. Therefore, the overall process of this procurement needs to be analysed. This section investigates various aspects of the tenders including size, location selection of the solar plants, eligibility terms of the bidders, key contract terms and the outcomes of the tenders.

7.1. Overview of solar tenders

7.1.1 Tender advertisement

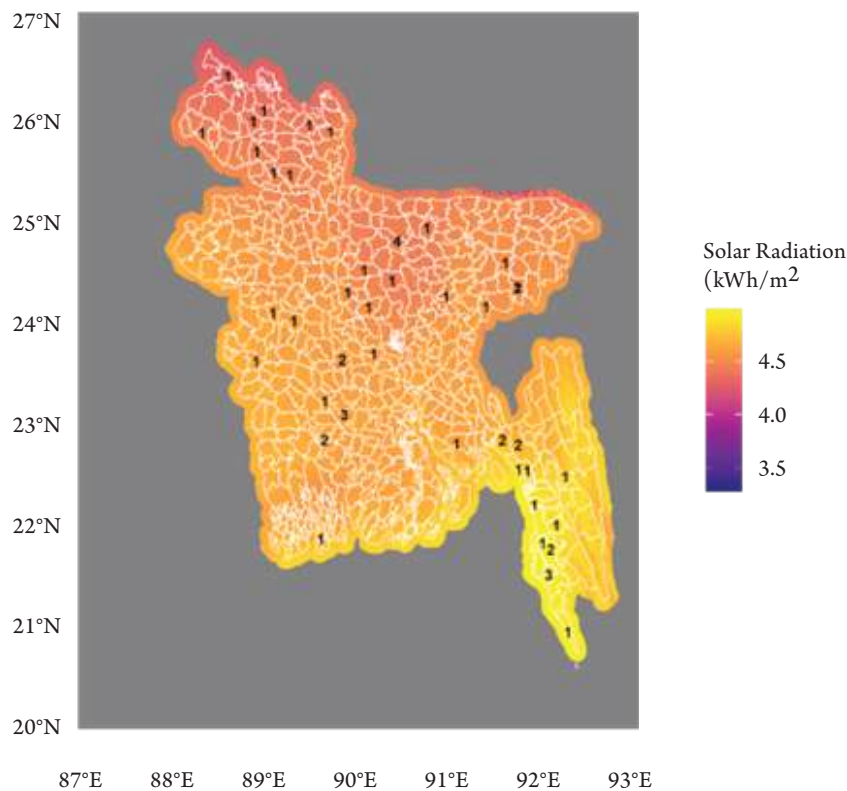
The first tender was advertised on 5th December 2024. It consists of 12 solar power plants ranging from 10-45 MW capacity. The tender security amount for each package was USD 250,000. The second advertisement was published on 8th January 2025. This lot consists of 10 solar power plants with capacity of 50 MW each. Tender security amount mentioned in this advertisement was USD 5000 per MW. On 27th January 2025, tender advertisement of 19 solar power plants with capacity varying from 70-100 MW were published. The final tender advertisement consisting of 14 solar power plants with capacity ranging from 105-250 MW was published on 19 March 2025. The security amount was also USD 5,000 for each megawatt the last two advertisements.

7.1.2 Location of the power plants

For the location of the solar power plants, the tender documents mentioned, for each package, specific substations near which the plant has to be established. Considering the upazilas in which the substation falls, figure 6 portrays the number of solar power plants in each upazila along with the solar irradiation intensity of Bangladesh in the background. In the South Eastern region where the solar irradiation level is highest, a number of power plants were proposed there. Despite the level of solar irradiation is low in Rangpur, the tenders propose several solar plants there. The reason for this is that Rangpur lags behind in terms of conventional electricity infrastructure and so the solar plant would be helpful for meeting electricity demand of this region. Since land is scarce, the Bangladesh Power Development Board (BPDB) has allowed either non agriculture, or one crop land will be eligible for establishment of solar plants.

²⁴<https://www.tbsnews.net/bangladesh/energy/govt-cancellation-31-renewable-power-projects-ignored-hc-verdict-1056976>

Figure 6: Solar power plant numbers and solar irradiation by upazila



Source: Authors' Illustration.

Note: Labes indicates the number of power plants, and the background shows solar radiation intensity.

Solar irradiation became an important factor for firms when choosing project packages. According to the primary survey, 50 per cent of the bidders said that project location influenced their choice, whilst 33.7 per cent specifically pointed to solar irradiation as a key factor in their bidding decision.

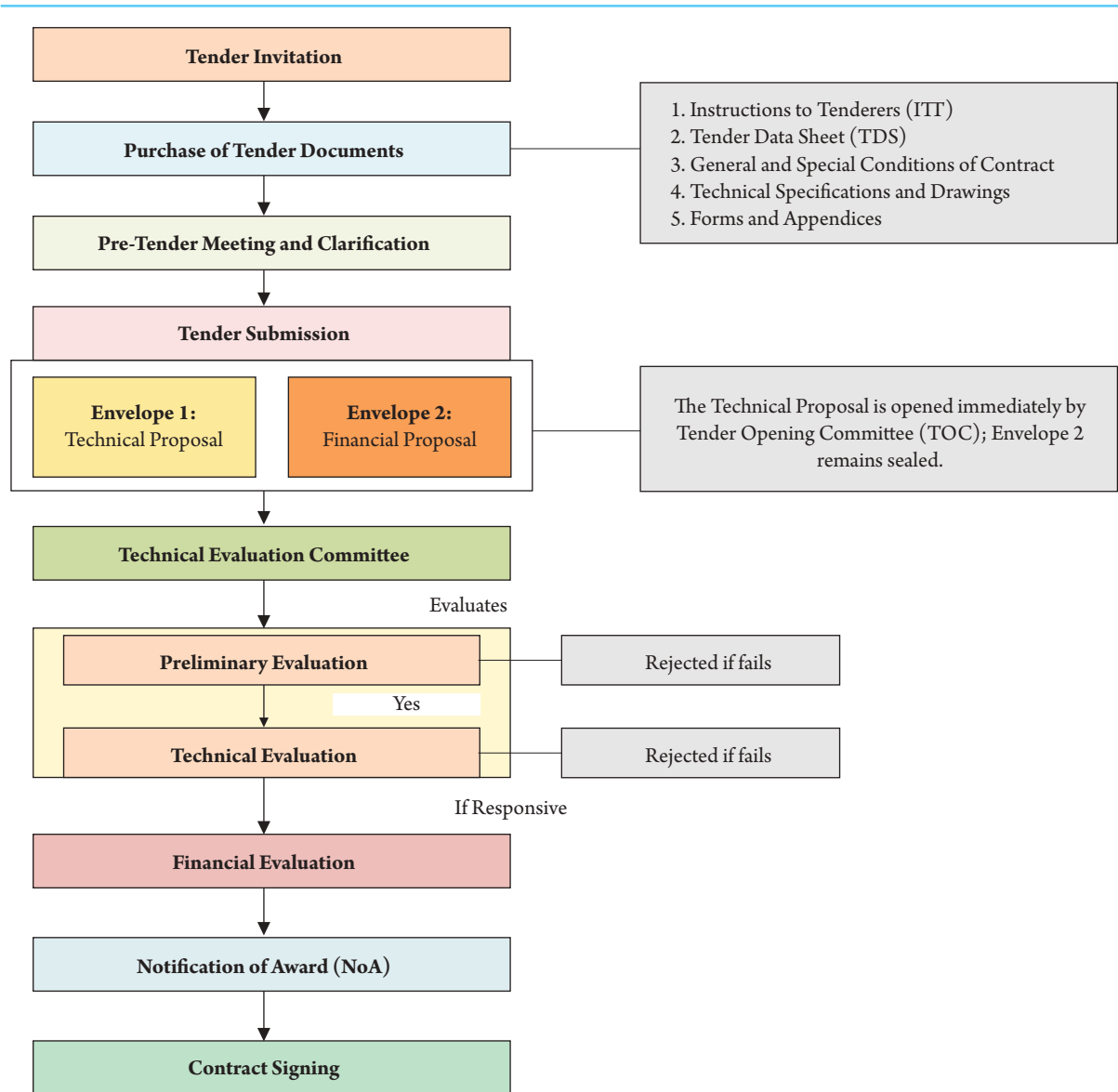
7.1.3 Tender method

According to the tender documents, for the procurement of solar power plants, one-stage-two-envelope method (OSTEM) has been used. Figure 7 illustrates the stages involved in the OSTEM method. The process starts with the Tender Invitation, followed by the Purchase of Tender Documents. These documents give bidders all the needed information. This includes the Instructions to Tenderers (ITT), Tender Data Sheet (TDS), contractual conditions, and technical specifications. A Pre-Tender Meeting and Clarification session takes place to answer bidder questions and ensure everyone understands the requirements.

Bidders then proceed to Tender Submission, where two separate envelopes, Technical Proposal and Financial Proposal, are submitted. The Tender Opening Committee (TOC) opens the Technical Proposal immediately in presence of the participants, whilst the Financial Proposal stays sealed.

The Technical Evaluation Committee (TEC) conducts a two-step evaluation. First, they do a preliminary screening to confirm eligibility and completeness. Then, they carry out a detailed technical assessment. Tenders that do not meet the criteria at any stage are rejected. Only the tenders that pass the technical evaluation go on to Financial Evaluation, where tariff offers are compared to find the lowest evaluated bidder.

Figure 7: One-Stage-Two Envelope method



Source: Authors' Illustration.

After evaluation, the Notification of Award (NoA) goes to the successful bidder. According to the tender documents, a contract must be signed within 28 days of the NoA and the entire construction of the facility must be completed within two years of the day contract has been signed.

7.2. Qualification criteria of tenderers

The study team has evaluated the tender document of the solar power plants. The invitation of tender document outlines both technical and financial qualification criteria for the tenderers. Firstly, a maximum of three arbitration cases against the tenderer within the last five years is permitted. This criterion ensures firms with less dispute history to participate in the tender. Secondly, a tenderer must have at least 5 years of experience in electrical, mechanical, or civil work, whether as a contractor, subcontractor, management contractor, or project developer. Besides, the tenderer has to show experience as a contractor or subcontractor or management contractor or project owner for 'operation & maintenance' and 'development' of at least one (1) facility of similar nature, complexity, and

methods/ construction technology successfully completed within the last 10 years. For operation and maintenance experience, the tenderer must demonstrate a minimum of two years of successful O&M of a grid-connected power plant of at least 10 MW (AC) capacity. For development experience, the tenderer must have successfully developed at least one grid-connected power plant of 10 MW (AC) or more in the respective country.

As for financial criteria, the tenderers are required to have an average annual turnover exceeding more than USD 0.165 million per MW over the last 3 years. Besides, they need to show access to liquid assets, working capital, or credit facilities of at least USD 1.14 million per MW. Regarding joint ventures, the venture agreements would be signed on a non-judicial stamp of BDT 300. The tender documents also specifies that the maximum numbers of partners in joint ventures has to be four. It also mentions the qualifications of the lead and other partners. Table 14 summarises the eligibility requirements mentioned in the tender.

Table 14: Summary of eligibility and qualification requirements for tender participation

Requirement Area	Description
Arbitration History	Maximum of 3 arbitration cases against the tenderer over the last 5 years (Clause 13.1).
General Experience	Minimum 5 years of experience in electrical, mechanical, or civil work as contractor, subcontractor, management contractor, or project developer (ITT 14.1(a)).
Specific Technical Experience	Must have completed at least one similar project (in terms of nature, complexity, and technology) in the last 10 years (ITT 14.1(b)).
O&M Experience	Minimum of 2 years of successful operation & maintenance of a grid-connected power plant with a capacity ≥ 10 MW(AC).
Development Experience	Must have successfully developed at least one grid-connected power plant of ≥ 10 MW(AC).
Financial Turnover	Average annual turnover of more than USD 0.165 million per MW over the last 3 years. <ul style="list-style-type: none"> • USD 8.20 million for 50 MW solar power plant (ITT 15.1(a)) • USD 16.40 million for 100 MW solar power plant (ITT 15.1(a)) The amount increases proportionally with power plant size.
Financial Capacity	Access to liquid assets, working capital, or credit facilities of at least USD 1.14 million per MW. <ul style="list-style-type: none"> • USD 57.20 million for 50 MW solar power plant (ITT 15.1(b)) • USD 114.4 million for 100 MW solar power plant (ITT 15.1(b)) The amount increases proportionally with power plant size.
Personnel Requirement	No specific requirement for key staff such as project managers or engineers (ITT 16.1(a)).
Equipment Ownership/Access	No requirement to own or lease major equipment (ITT 17.1).
Joint Venture Structure	A maximum of 4 partners allowed in a joint venture. A JV must meet the requirements collectively.
JV Experience Criteria	At least one partner must meet the specific experience criteria for both operation & development (ITT 14.1(b)).
JV Financial Distribution	For turnover and financial capacity: JV total must meet 100%; lead partner must meet 51%, and each partner at least 5% (ITT 15.1(a), 15.1(b)).

Source: Prepared by authors.

7.3 Weaknesses in the tender process

7.3.1. Restrictiveness of qualification criteria

Among the 105 surveyed, total 92 firms purchased tender documents. Out of these, the following table 15 shows the distribution of the number of firms fulfilling the qualifications criteria. The technical qualifications remain same regardless of the solar power plant size. Among the 92 firms, 52 firms had met all technical qualification criteria (Technical Experience, O&M Experience, Development Experience).

Table 15: Distribution of eligible firms by qualification criteria and project size

Types of eligible firms based on eligibility criteria	Eligibility criteria (No. of firms)				
	Technical Experience (1)	O&M Experience (2)	Development Experience (3)	Financial Turnover (4)	Financial Capacity (5)
Fulfilling only criteria 1	62				
Fulfilling only criteria 2		65			
Fulfilling only criteria 3			62		
Fulfilling only criteria 4				65	
Fulfilling only criteria 5					56
Fulfilling criteria 1+2+3		52			
For 50MW Eligible Firms (1+2+3+4+5)			35		
For 100MW Eligible Firms (1+2+3+4+5)			30		
For 200MW Eligible Firms (1+2+3+4+5)			19		
For 250MW Eligible Firms (1+2+3+4+5)			17		

Source: Prepared by authors based on CPD Solar Power Plant Procurement Survey 2025.

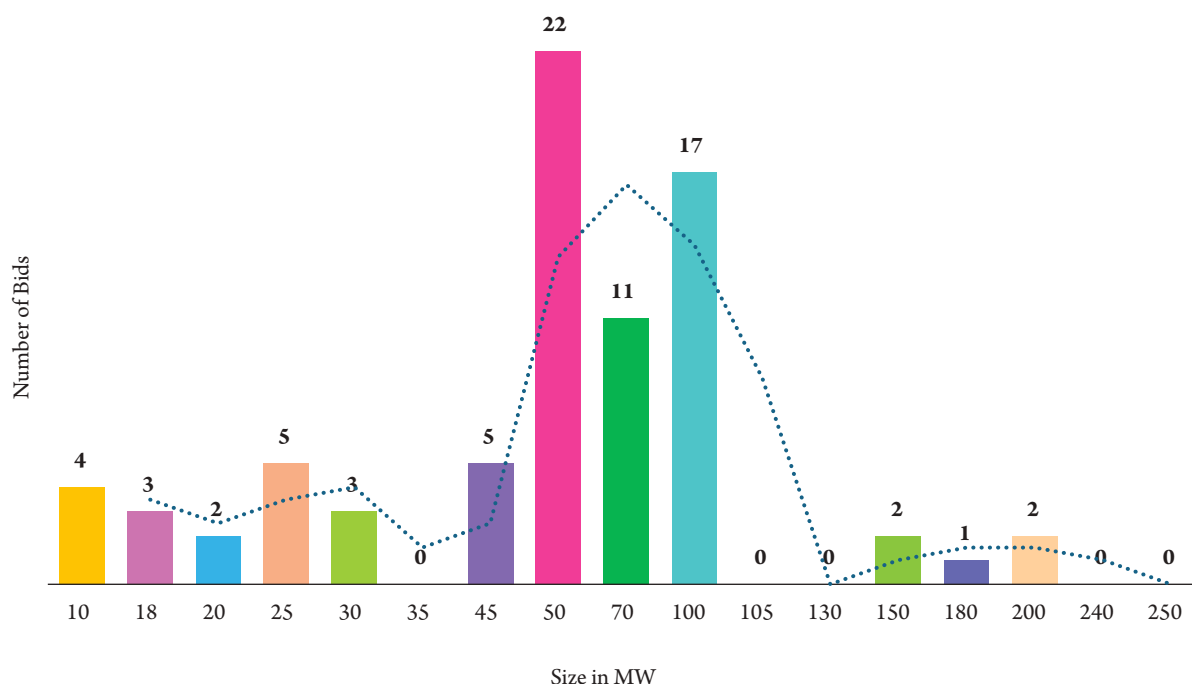
Note: (1): In the past 10 years, the firm successfully completed at least 1 similar project (type, technology, complexity)
 (2): For at least 2 years, the firm operated and maintained a grid-connected power plant
 (3): Built or set up at least one grid-connected power plant of 5MW or larger
 (4): Firm's average annual turnover over the last 3 years must be USD 0.165 million per MW
 (5): Access to liquid assets, working capital, or credit facilities of at least USD 1.14 million per MW

However, the financial qualification criteria vary with the power plant size. For each MW, a firm's average financial turnover over the last 3 years must be USD 0.165 million. The average annual turnover must for USD 8.20 million (Approximately BDT 100 crore), 16.40 million (Approximately BDT 200 crore) for 50 MW and 100 MW, respectively. From the cross-country experience, the financial turnover requirement is very similar to solar power plant tenders in other South Asian countries like India.

However, for the financial capacity which includes access to liquid assets, working capital or credit facilities, a firm must show at least USD 1.14 million per MW. The amount becomes USD 57.20 million (Approximately BDT 700 crore), USD 114.40 million (around BDT 1,400 crore) for 50 MW and 100 MW, respectively. This criterion is very stringent. In India, the requirement for the working capital is around USD 10 million for 100 MW²⁵ (USD

²⁵<https://www.mercomindia.com/nhpc-epc-tender-solar>

Figure 8: Number of bids for each package size



Source: Authors' findings from tender submission data.

0.1 million per MW) and around USD 6 million for 50 MW²⁶ (USD 0.12 million per MW) grid connected solar power plant. Thus, per MW working capital requirement is approximately 10 times higher than the recent solar tenders issued by BPDB. This stringent financial capacity criteria negatively affect the number of qualified firms. Whilst 52 firms are technically qualified, only 35 firms are eligible for participation in packages of 50MW or less. The number falls quickly as the plant size goes up. There are only 17 eligible firms for 250 MW packages. Therefore, the financial eligibility criteria, especially the USD 1.14 million per MW requirement, are excessively stringent compared to regional practices. This has sharply reduced the number of eligible firms, limiting competition in solar power procurement.

If we look at the distribution of bid submission (Figure 8), there is a clear concentration of bids in smaller project sizes, particularly around 50 MW and below. Out of all tenders, the 50 MW packages attracted the highest number of bids (22), followed by 100 MW (17) and 70 MW (11). In contrast, larger projects above 100 MW received very few or no bids, for example, no bids were submitted for 105 MW, 130 MW, 240 MW, or 250 MW packages.

Table 16: Perceived difficulty in meeting financial requirements by firm type and size

Perceived Difficulty	Fully Foreign	Fully Local	Small	Medium	Large
Average Annual Turnover	• 66.7% Easy	• 86% Difficult to Very Difficult	• 75% Difficult to Very Difficult	• 74.2% Difficult to Very Difficult	• 75.52% Difficult to Very Difficult
Current Asset / Working Capital / Line of Credit	• 61.1% Easy	• 83.6% Difficult to Very Difficult	• 83.34% Difficult to Very Difficult	• 74.1% Difficult to Very Difficult	• 73.74% Difficult to Very Difficult

Source: Authors' findings from CPD Solar Power Plant Procurement Survey 2025.

²⁶<https://www.seci.co.in/Upload/Tender/SECI000042-8166135-TenderDoc.pdf>

The primary survey reveals that 86 per cent of local firms (Table 16) found the average annual turnover requirement difficult to meet, whereas 66.67 per cent of foreign firms considered it easy. Similarly, 83.6 per cent of local firms found it difficult to show USD 1.14 million working capital per MW, whereas 61.11 per cent of firms found it easier. Moreover, regardless of the firm's size, to meet the financial criteria was difficult for the firms to very difficult.

The analysis shows that many firms meet technical qualifications, but the financial criteria, specifically the USD 1.14 million per MW working capital requirement, are too strict. Local firms face more challenges, as most find it hard to meet both the turnover and working capital thresholds. In contrast, foreign firms find these requirements easier to handle. Consequently, most participation focuses on smaller projects (50 MW or below), leaving larger projects with few or no bids. This strictness limits competition and creates unevenness between the foreign and local firms.

7.3.2 Structural constraints in tender design

There are several terms in the tender which are discouraging to the investors. First, the recent tenders do not provide sovereign guarantee or escrow account which has created distrust among the investors considering the country's poor Moody's rating. Around 68.4 per cent of firms reported that the absence of sovereign guarantee has negatively affected their participation decision. The burden of land acquisition, placed entirely on bidders despite well-known land scarcity and administrative hurdles, further reduced interest, that is, about 31.5 per cent reported being *strongly discouraged and another 27.1 per cent moderately discouraged*. Firms also raised concerns over the termination clause, which allows contracts to be ended with only 28 days' notice; this short termination window was perceived as very problematic by 37.1 per cent, and problematic by 27.1 per cent, given the long-term, capital-intensive nature of power projects. Finally, the tender's strict fixed generation requirements such as mandating 109.5 million kWh annually for a 50 MW plant over 20 years was viewed as highly unrealistic under variable solar resource conditions, with 76 per cent of respondents rating the requirement as unrealistic to very unrealistic. Table 17 summarises the discouraging terms and the firms' response.

Table 17: Terms in the tender discouraging to investors

Issue	Description	Firms Response
Lack of Sovereign Guarantee	The recent tenders do not include a sovereign guarantee or provision for an escrow account	<ul style="list-style-type: none"> 72.4% of firms reported that the absence of sovereign guarantee was an important issue It negatively affected participation decisions for 68.4% of firms
Land Acquisition Responsibility	The entire responsibility for land acquisition and development rests on the firm, which is discouraging given land scarcity and bureaucratic hurdles.	<ul style="list-style-type: none"> 31.5% reported it strongly discouraged 27.1% moderately discouraged participation
Short Termination Window	Clause 67 of the TDS permits termination of the contract with only 28 days' notice, which is too short for large-scale infrastructure or power projects.	<ul style="list-style-type: none"> 37.1% found it very problematic 27.1% reported it as problematic
Strict Fixed Generation Requirement	Fixed Generation of 109,500,000 kWh for 50MW project each year for 20 years, for Instance.	<ul style="list-style-type: none"> 76% found it unrealistic to very unrealistic

Source: Prepared by authors.

Assessment of transparency, accountability, and efficiency of recent procurement: findings from enterprise survey

The tender documents for the 55 solar power plants comply with the standard tender documents (STD) prepared by the CPTU. The tender documents state basic procedural transparency through public bid openings and disclosure of key financial details, incorporates standard anti-corruption and confidentiality provisions, and provides a formal right to complain or request debriefing under the PPR. However, there are several areas of improvement regarding transparency and accountability of the tender documents. Besides, it is also crucial to investigate experience of the firms regarding transparency and accountability. This section will evaluate transparency and accountability as well as the efficiency of the RE tender documents and firms' experience in these aspects.

8.1 Transparency in procurement: findings from enterprise survey

8.1.1 Transparency issues in the tender documents

When it comes to procedural transparency, the technical and fanatical offer is opened and read aloud in presence of tenderers who are present at that time. However, the meeting minutes or the bid prices are not published online which limits broader public visibility and transparency. Besides, the notification of awards (NoAs) for contracts less than BDT 10 million are not mandatory to public on CPTU/ BPPA websites, it is alright if the NoAs are published on the noticeboard or websites of the purchasers. It is, however, best practice to publish all the NoAs to the website of central procurement unit as it ensures visibility of all NoAs at the same place and improves transparency. The major transparency issue observed is that the evaluation reports prepared by the tender evaluation committee (TEC) are not disclosed publicly, keeping opacity among the bidders as to how and why a certain firm or company wins the bid. In Pakistan, for the solar power plant tenders, it is mandatory to publish such evaluation report which includes details explanation of selection of firms at each stage and the tariff rates proposed by each firm per kWh. In addition, clause 11 of General Conditions of Contract (GCC) states, '*The Employer and the Contractor shall keep confidential... and not divulge to any third party any documents, data, or other information furnished... The provisions shall survive completion or termination*'. This clause can pose a great hurdle to transparency as it can be used to withhold any data related to tenders and the power plants. The clause needs to be amended to specify for which data this clause will be applicable and the reasons as to why those data cannot be revealed. The major transparency issued is summarised in Table 18.

Table 18: Identified clauses limiting transparency and suggested best practices for improvement

Tender Causes/ Gaps	Transparency Issues	Best Practices/Areas of Improvement
<p>‘Only the Technical Offer (Envelope-01) shall be opened immediately after the deadline... Financial Offer will be opened only for responsive bidders. The Financial Offer Opening shall be conducted publicly, and names of Tenderers, bid prices, discounts, and corrections shall be read aloud’. (ITT 45 & 53)</p>	<p>The opening is public only for those who are present physically (especially the tenderers). No obligation to publish opening minutes or bid prices online, limiting the broader public visibility and transparency.</p>	<p>In India, as reverse auction method is conducted on an online platform, the bidding prices are transparent to all (especially the tenderers). In case the process is offline, the meeting minutes are recorded and published online (for instance Philippines)²⁷</p>
<p>‘Notification of Award (NOA) for contracts ≥ Tk 10 million must be published online through CPTU... Awards below Tk 10 million must be posted on the Purchaser’s notice board or website’. (ITT Clause 70)</p>	<p>This two-tier disclosure system limits transparency and public oversight, as many awards (the ones with less than BDT 10 million) remain inaccessible to the wider public and monitoring bodies.</p>	<p>Regardless of value, all contract awards should be published both on the CPTU/BPPA central e-procurement portal and on the purchaser’s own noticeboard or website.</p>
<p>‘Information relating to evaluation of tenders shall not be disclosed to Tenderers or other persons not officially concerned’. (ITT Clause 51)</p>	<p>As per the tender and the PPR, there is no obligation to publish the evaluation report prepared by the Tender Evaluation Committee (TEC). Not revealing the evaluation report hurts transparency because people can’t see how or why one company was chosen over others, which makes the process seem secretive and hard to trust.</p>	<p>For competitive solar tenders, India²⁸ publishes the list of companies who have been eligible for reverse auction. Pakistan, on the other hand, publishes full evaluation report explain each evaluation stages and it also includes tariff proposed by each firm.²⁹</p>
<p>‘The Employer and the Contractor shall keep confidential... and not divulge to any third party any documents, data, or other information furnished... The provisions shall survive completion or termination’. (GCC Clause 11)</p>	<p>This term is broad and can be utilised to block disclosure of tariff terms, payments, or performance data that should be public under procurement transparency.</p>	<p>The clause should be amended to clearly define what information is confidential and why, so that only sensitive data is protected while all other project-related information is shared openly for transparency.</p>

Source: Authors’ findings.

8.1.2 Firms’ experience with transparency

The firms that purchased or submitted (the bidders) solar power plant tenders were asked several questions related to their experience with transparency in the tender process. Table 19 summarises the firms experience with transparency.

About 40 per cent of the firms responded that the tender document was clear and complete. However, to 34.3 per cent and 19.1 per cent of the firms reported that the document was ‘Slightly’ and ‘Moderately’ incomplete. When asked, the firms pointed out that the tender document lacks detailed or complete technical specifications.

The firms were asked how easy it was for them to access the necessary information regarding the tender process. About 44.8 per cent of the firm’s reported information was ‘Moderately’ easy to access. To about one-third of the firms, access to information was neither easy nor difficult. However, 13.3 per cent found it difficult to get the necessary information regarding the tender. Issues such as the late publication of tender documents or their unavailability on official websites were among the challenges reported by firms.

²⁷ <https://ps-philgeps.gov.ph/home/index.php/bid-opportunities>

²⁸ https://www.recpdcl.in/assets/data/pdf/RFS_500MW_Qualified_Bidders_List.pdf

²⁹ <https://www.nepra.org.pk/Admission%20Notices/2025/04%20Apr/Auction%20Evaluation%20Report%20150%20MW%20Deh%20Metha%20Gar.pdf>

Regarding the extent of procedures publicly availability, majority (64.67 per cent) of the firms reported 'Mostly' or 'Moderately' available. However, it has been observed that sensitive or confidential information was divulged very often. About 41 per cent of firms that submitted tender reported occasional or frequent divulgence of the financial information of the bidders. To 29.6 per cent of the firms the evaluation process was 'Moderately' transparent. However, 27.3 per cent of the bidders reported that the evaluation process was 'Slightly' transparent to them.

Table 19: Summary table of transparency variables

Variable	Response Summary
Tender Document Clarity	<ul style="list-style-type: none"> - 40% said Clear/Complete - 34.3% Slightly Incomplete - 19.1% Moderately Incomplete
Ease of Access to Necessary Information	<ul style="list-style-type: none"> • 44.8% Moderately Easy • 31.4% Neither Easy nor Difficult • 13.3% Difficult
Extent of Procedures publicly available	<ul style="list-style-type: none"> - 64.76% Mostly and Moderately Available - 20% Slightly Available
Sensitive Information leakage (bidders only)	<ul style="list-style-type: none"> • 41% Occasionally and Frequently • 34.1% Rarely
Evaluation transparency (bidders only)	<ul style="list-style-type: none"> - 29.6% Moderately Transparent - 27.3% Slightly Transparent - 25% Mostly Transparent
Discrimination faced (bidders only)	<ul style="list-style-type: none"> • 45.5% Yes
Overall transparency (bidders only)	<ul style="list-style-type: none"> - 59.1% Neither Good nor Poor - 20.5% Poor

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

When asked if they faced any discrimination, 45.5 per cent replied affirmatively. Appendix Table 7 indicates 66.7 per cent of the local firms reported no instances of discrimination. However, 50 per cent of joint ventures and 100 per cent of the foreign firms that submitted the tender reported that they faced discrimination. Firms cited various nature of discriminations which include 'Political discrimination,' 'Officials ... favoring favor politically connected investors,' 'Foreign investors face unfair treatment compared to local firms'. Besides, according to those firms, the bidders with previous land ownership seems received favourable treatment.

About 59.1 per cent of firms reported the overall transparency as Moderate (Neither Good nor Bad). Almost all foreign firms reported overall transparency as moderate, whilst 62.5 per cent of the joint ventures found it Poor (Appendix Table 13).

8.2 Accountability in procurement: findings from enterprise survey

8.2.1 Accountability issues in the tender documents

When accountability in the tender document is examined more closely, a few issues are observed. Firstly, whilst clause 72 of ITT of the tender provides a formal mechanism for complaints, the process is handled internally by the BPDB, the same authority that issues the tender. This dual role creates a conflict of interest and reduces the impartiality of complaint resolution. Best practice from other countries, such as Kenya, suggests the establishment of an independent appeal review board, like the Public Procurement Administrative Review Board (PPARB)³⁰, to handle complaints and allegations objectively. Besides, there is no involvement of an independent authority to oversee the entire tender process to ensure no fraudulent and collusive practices involved. In India, the Central

³⁰<https://ppra.go.ke/pparb/>

Vigilance Commission (CVC) oversees the procurement and tender process of the solar power plants. In case of tender in Bangladesh’s power sector, the Anti-corruption Commission (ACC) can play the same role. Moreover, no IEC (the International Electrotechnical Commission) or ISO (International Organization for Standardization) standards for PV (Photovoltaic) modules, inverters, transformers, or cables are mentioned in the tender documents. Due to the lack of an objective quality standard, it is challenging to hold contractors responsible for subpar work. Furthermore, it may incite bidders to use inferior equipment and offer unreasonably low tariffs, jeopardising the long-term performance of the plant. Clearly defining quality standards in the tender and conducting technical evaluations based on adherence to these standards is the best international practice to maintain accountability. The key accountability issues observed are summarised in Table 20.

Table 20: Identified clauses limiting accountability and suggested best practices for improvement

Tender Causes / Gaps	Accountability Issues	Best Practices/Areas of Improvement
'Any Tenderer who claims to have suffered or that it may suffer loss or damage... shall have the right to complain in accordance with Rule 56 & 57 of the PPR 2008'. (ITT Clause 72)	However, the complaint process is handled internally by the BPDB, the same authority that issued the tender, creating conflict of interest and reducing impartiality.	The standard is to have an independent appeal review board to resolve the complaints and allegations during the tender process. Kenya has such independent review board called PPRARB (Public Procurement Administrative Review Board)
'The Employer and the Contractor shall observe the highest standard of ethics during the procurement and execution of the contract'. (ITT Clause 4)	Although the clause prohibits corrupt, fraudulent, and collusive practices, the tender does not designate any authority to monitor, verify, or enforce these ethical obligations. In the absence of a vigilance or oversight body, potential corruption may go undetected.	Establish a dedicated integrity or vigilance unit, independent of the procuring entity, to check compliance with anti-corruption requirements, conduct random audit, and report to BPPA or CPTU and take action. The role can be assigned to anti-corruption commission (ACC).
No reference to IEC or ISO standards for PV modules, inverters, transformers, or cables.	No objective quality benchmark which makes it difficult to prove non-compliance or hold the contractor accountable for poor performance. Also, it lets bidders quote unrealistically low tariffs using poor-quality equipment, reducing long-term plant performance and accountability	To guarantee fair comparison and dependable project performance, it is the best international practice to clearly define quality standards (IEC or ISO) in the tender and perform technical evaluation based on compliance with those standards.

Source: Authors' findings.

8.2.2 Firms' experience with accountability

Table 21 summarises the accountability variables for the firms that submitted the tender. Around 95.45 per cent of firms reported that there was a clear person assigned to answer their queries. Besides, 77.27 per cent of the bidders responded that their complaints and concerns were addressed properly. However, about 50 per cent of respondents said that officials never or rarely asked for bribes during complaint resolution, but 22.7 per cent experienced such requests *sometimes*, and 27.3 per cent reported them *frequently*.

Whilst 63.64 per cent of respondents indicated that the procurement process followed official rules completely or to a large extent, a significant share expressed doubt about the clarity and fairness of evaluation. Specifically, 47.5 per cent found the evaluation criteria *very or somewhat unclear*, and 36.4 per cent rated the evaluation process as *moderately unfair*, with an additional 9.1 per cent describing it as very unfair. Moreover, transparency in the evaluation outcome is also limited. About 81.8 per cent of respondents reported no access to the tender evaluation report.

Table 21: Summary table of accountability variables

Variable	Response Summary
Clear Contract Person / Responsible Authority	– 95.45 % said Yes
Complaints or concerns addressed Properly	• 77.27 % reported Yes
Bribe or extra benefit asked by official during complaint resolution	– 50% Never/Rarely – 27.3% Frequently – 22.7% Sometimes
Procurement process followed official rules	• 63.64% Complete or To a Large Extent followed
Clarity in Evaluation Criteria	– 47.5% Very or Somewhat Unclear – 37.5% Neither unclear nor clear
Evaluation Fairness	• 9.1% Very Unfair • 36.4% Moderately Unfair • 34.1% Neutral
Access to Tender Evaluation Report	– 81.8% No
Overall Accountability	• 59.1% Medium • 18.1% Low

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Overall, bidders' experience regarding accountability remains moderate. The majority (59.1 per cent) rated overall accountability as medium, whilst 18.1 per cent assessed it as low. There is significant scope for improvement of accountability by enhancing transparency in the evaluation process.

8.3 Efficiency in procurement: findings from enterprise survey

8.3.1 Efficiency in the solar power plant tender

Competitive Efficiency/ Participation in the Tender

After the Ministry of Power, Energy & Mineral Resources (MoPEMR) advertised the tenders, the deadline for tender submission has been extended several times. Even though there was an expectation that competitive bidding will be able to encourage substantial participation in the bidding process, the figures of participation paint the opposite picture.

The MoPEMR had to extend the tender submission deadline for all the lots. The 1st underwent six separate extensions. The 2nd lot faced five times extension of the deadline. The 3rd and 4th lot has seen three deadline extensions.

Table 22: Participation information of the solar plant's tender

Serial of Lot	Number of packages	TDS sold	Total participants	Single Bids	No Bids
1st	12	98	22	5	1
2nd	10	42	21	3	0
3rd	19	45	29	9	3
4th	14	8	5	5	9

Source: Authors' calculation from Secondary Data.

Table 22 shows the tender submission information for solar power plants. Total 22 tenders have been submitted in the 1st lot. Of 12 packages, 5 packages received single bids and 1 package received no bids. Total 21 tenders have been submitted in the 10-package 2nd lot. Whilst all the packages received bids, 3 packages received single bids.

The 3rd lot received single bid for 9 packages and 3 of the packages received no bids. For the last lot of 14 packages, only 5 of the packages received tenders (single bids) and 9 of them received no bids at all.

Table 22 also shows that the total number of tender submissions is very low compared to the number of tender documents sold. Out of a total of 55 procurement packages, 23 packages received only a single bid, and 13 power plant packages did not receive any bids. Thus, competitive efficiency or participation for each package is very low.

Impact of competition on tariff outcomes

Even though the competition per package is very low, just 1.4 bids on average, it had a positive effect on the reduction of the tariff rate. The average tariff per kWh of the LoI cancelled firms was USD 0.10725. However, the average tariff rate fell to USD0.08082 per kWh under the competitive bidding. This represents a 24.63 per cent decline (Table: 23).

Table 23: Tariff comparison between solicited and unsolicited process

	Average Tariff (per kWh)	Fall in Tariff (per kWh)
The Special Provision Act (the LoI cancelled firms)	\$ 0.10725	24.63% fall
PPA and PPR (Competitive Bidding)	\$ 0.08082	

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025 and Secondary Data.

8.3.2 Firms experience regarding efficiency

The firms had mixed perception and experience regarding efficiency. Whilst to 48.91 per cent of the firms it was easy, to 51.09 per cent firms bid submission was difficult. Majority (91.30 per cent) of the firms reported that they received tender related information in timely manner and 66.3 per cent of firms said that their pre-bid queries were addressed promptly. However, after the submission of the bid, 50 per cent of firms expect that the decision procedure will be slow and 20.65 per cent of the firms reported it very slowly.

Table 24: Perceived overall efficiency of tender process by firm type

Ownership Nature of Firms	Response Summary
Fully Local	<ul style="list-style-type: none"> • 23.3% Very Inefficient • 30 % Inefficient
Fully Foreign	<ul style="list-style-type: none"> • 16.7% Very Inefficient • 83.3% Inefficient
Joint Venture	<ul style="list-style-type: none"> • 50% Inefficient • 50% Moderately Efficient

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Overall, to 44.57 per cent of the firms reported the whole procedure as Inefficient and 18.48 per cent as Very Inefficient. However, when looked at transparency perception by firm nature it is found that many firms view the process as inefficient. Among Fully Local firms, 23.3 per cent rated the tender process as Very Inefficient and 30 per cent as Inefficient. Fully Foreign firms reported even greater inefficiency, with 16.7 per cent calling it Very Inefficient and 83.3 per cent labeling it as Inefficient. Joint Ventures were evenly divided, with 50 per cent rating the process as Inefficient and 50 per cent as Moderately Efficient (Table:24).

8.4 Perceived transparency, accountability, and efficiency: special act vs PPA and PPR

The firms were asked to compare transparency, accountability, and efficiency of the cancelled special provision act and the reinstated PPA and PPR. Table 25 summarises firms' responses. It is observed that transparency and accountability is much higher in the PPA, PPR compared to the special provision act. However, when it comes to

perceived efficiency, 55.24 per cent of firms reported that PPA and PPR are worse than the Special Provision Act. This is due to the slow evaluation process and not having a structure for the post-award activities still the completion of the project. The post-award challenges have been discussed in detail in section 9.

Table 25: Transparency, accountability and efficiency of PPA, PPR compared to special act

Indicator	Much Better	Better	About the same	Worse
Transparency	22.86 %	33.33 %	27.62 %	16.19 %
Accountability	25.71 %	44.76 %	18.10 %	11.43 %
Efficiency	8.57 %	21.90 %	14.29 %	55.24 %

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

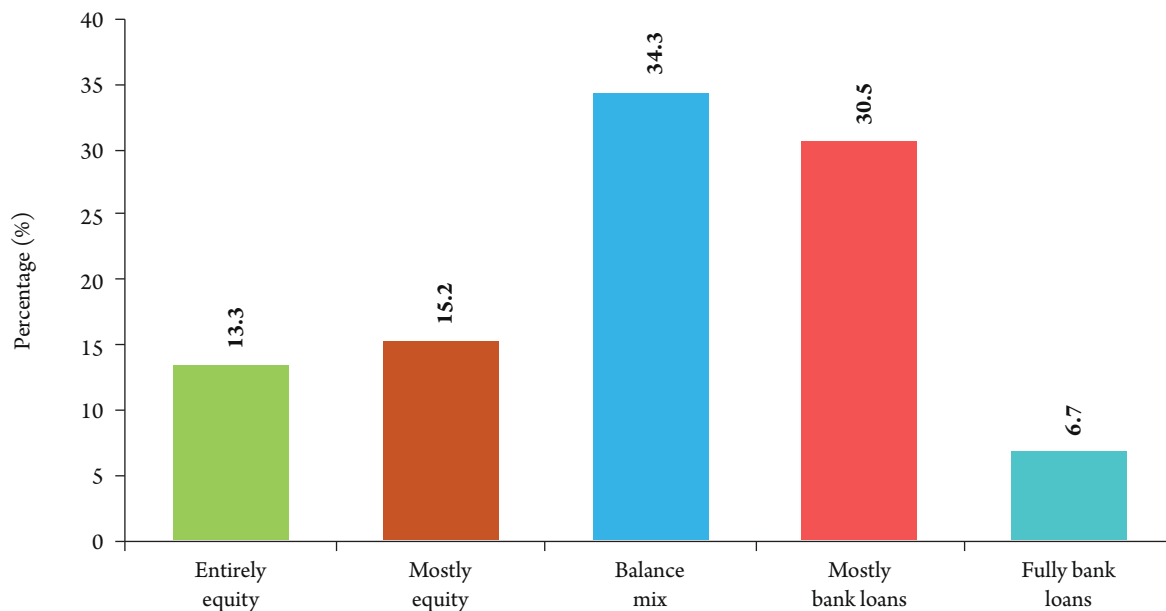
Post-award challenges in recent procurement: findings from enterprise survey

According to the tender document, the contract must be signed within 28 days of the Notification of Award (NoA), and the entire facility must be completed within 24 months of the day contract has been signed. Whilst the PPA and PPR guide only to the selection of the lowest bidder or to NoA, the Tender Document just outlines the responsibility of the developers or the winning bidder. In effect, the selection of the winning bidder represents only a fraction of the overall procurement cycle. There exist several challenges post-award or post NoA which the developer or the winning bidder is going to face during the implementation of the solar power plant development. This section sheds light on several such post award challenges.

9.1 Securing finance in the post-award period: findings from enterprise survey

The survey finding indicates that most firms plan to source financing from the combination of equity and commercial bank debt (Figure 9). Specifically, 34.3 per cent reported using a balanced mix of both, whilst 30.5 per

Figure 9: Distribution of firms by primary financing method for solar power plant project



Source: Authors' Illustration from CPD Solar Power Plant Procurement Survey 2025.

cent primarily depend on commercial bank loans with some equity participation. Only 13.3 per cent of firms plan to finance entirely with equity, whilst 6.7 per cent rely solely on bank loans. Thus, external debt plays a crucial role for the development of the solar power plant.

However, about 18.1 per cent, 29.5 per cent, 24.8 per cent, and 20.9 per cent of the surveyed firms ranked securing project financing as the first, second, third, and fourth most significant post-award challenge, respectively. The data also indicates that accessing finance is a major challenge for all types of firms (Table 26). Among Fully Local firms, 26.2 per cent said it was Very Difficult, whilst 50.8 per cent found it Moderately Difficult. Fully Foreign firms faced similar issues, with 27.8 per cent reporting it as Very Difficult and 44.4 per cent as Moderately Difficult. Joint Ventures reported the highest level of difficulty, with 38.5 per cent rating it as Difficult and 61.6 per cent indicating it was Moderately to Very Difficult.

Table 26: Firms experience for getting bank loans for solar power plant

Ownership nature of firms	Response summary
Fully Local	<ul style="list-style-type: none"> • 26.20% Very Difficult • 50.8% Moderately Difficult
Fully Foreign	<ul style="list-style-type: none"> • 27.8% Very Difficult • 44.4% Moderately Difficult
Joint Venture	<ul style="list-style-type: none"> • 38.5% Difficult • 61.6% Moderately Difficult to Very difficult

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

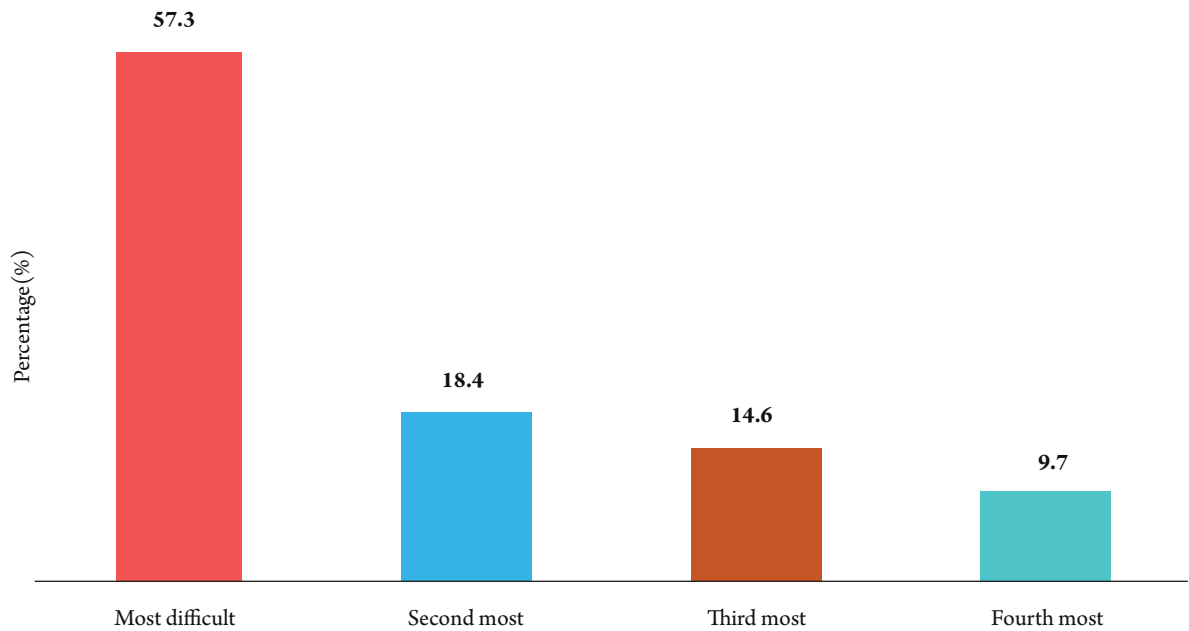
Not having the Implementation Agreement (IA) for the solar power plant is the major hurdle for achieving finance. The IA provides sovereign guarantees and ensures the bankability of the Power Purchase Agreements (PPA). About 72.4 per cent of the firms reported that the absence of sovereign guarantee was important issued that they considered and the absence negatively affected 68.4 per cent of the firm's decision to participate. Long gestation periods, lack of familiarity with technology, slow recovery, cumbersome verification of the land documents, unwillingness to accept solar component as collateral, and policy instability are the other reasons that firms cited as hurdles for receiving finance from banks.

9.2 Land acquisition in the post award procurement: findings from enterprise survey

According to the tender documents (IIT 24.2) of the solar power plants, the entire responsibility related to the acquisition and land development is on the winning firms. During bid submission, the firms must submit No Objection Certificates (NOCs) from the AC Land and Upazila Agricultural offices, ownership records, commitment deeds (in case the owner of the land is not the tenderer), and Mouza sketch maps as evidence of clear land ownership or control over land and non-agricultural land status. If the tenderers plan to acquire land later, they need to submit the deeds of commitment that the real owner will provide land after NoA. These documents are checked in the preliminary evaluation of what occurs before the technical evaluation. First, obtaining the documentation or commitment deeds in a short period of time (the time between advertisement and bid submission) poses a significant challenge. Then, the actual acquisition following the NoA again comes back as real challenges.

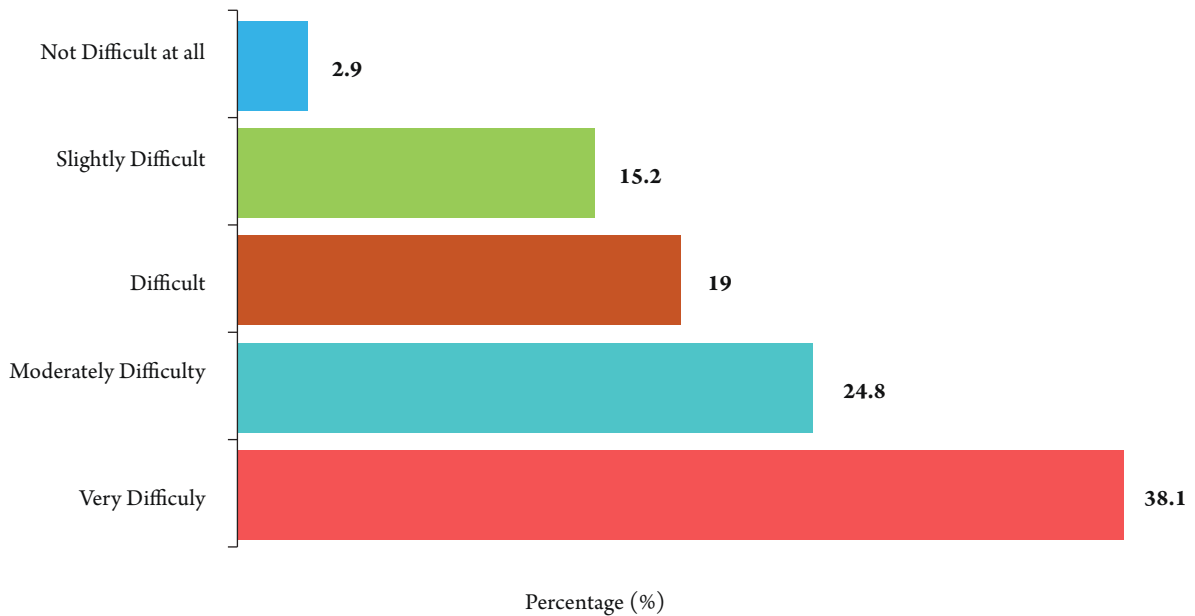
To 38.1 per cent, and 24.8 per cent firms, procurement of necessary amount of land is very difficult and moderately difficult, respectively (Figure 11). About 57.3 per cent of the firms reported acquisition of land as the most difficult task post-award (Figure 10). The majority of solar power plants are sized at 50, 75, or 100 MW, with a significant number also reaching 150 and 250 MW. The approximate amount of land required for a 50 MW solar power plant is 125 acres and 625 acres for a 200 MW solar power plant. In a country like Bangladesh, where landholdings are extremely fragmented and often less than an acre per owner, assembling such a large contiguous land is exceptionally difficult. A bidder may need to negotiate with hundreds of small landowners. Developers face a bureaucratic maze of land record disputes, and local political resistance, all of which add delays and costs.

Figure 10: Difficulty level of land acquisition



Source: Authors' Illustration from CPD Solar Power Plant Procurement Survey 2025.

Figure 11: Percentage of ranking land procurement difficulty post NoA



Source: Authors' Illustration from CPD Solar Power Plant Procurement Survey 2025.

Table 27: Difficulty getting NOC from AC land office

Ownership Nature of Firms	Response Summary
Fully Local	<ul style="list-style-type: none"> • 41% Difficult • 36.1% Extremely Difficult
Fully Foreign	<ul style="list-style-type: none"> • 27.8% Difficult • 33.3% Extremely Difficult
Joint Venture	<ul style="list-style-type: none"> • 53.8% Extremely Difficult • 38.5% Difficult

Source: Authors’ calculation from CPD Solar Power Plant Procurement Survey 2025.

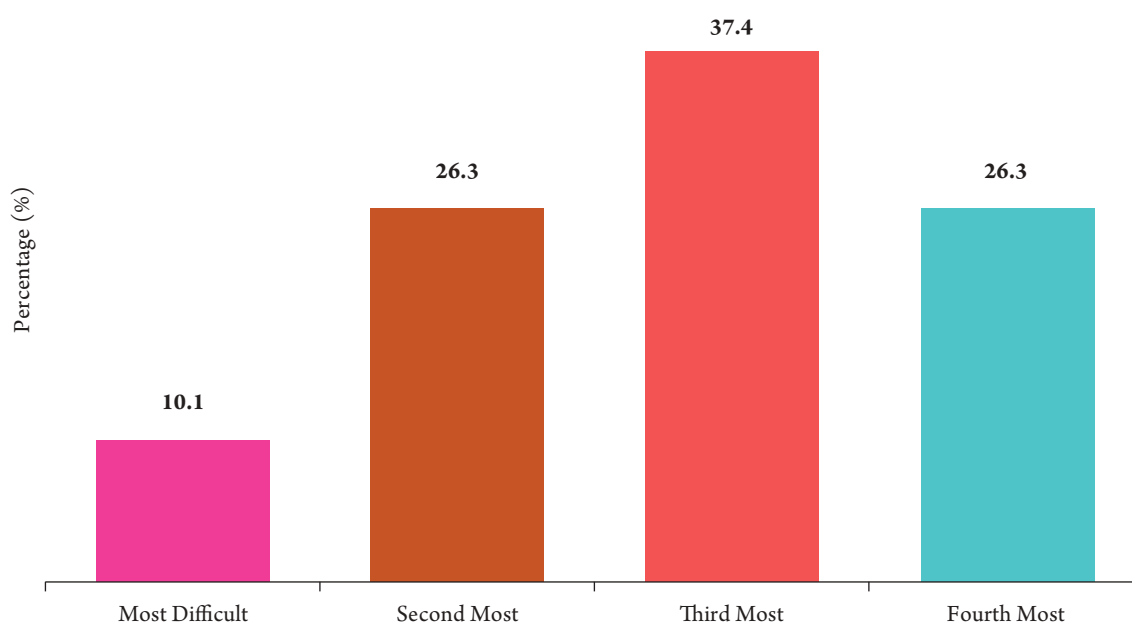
Table 27 shows how hard it is to get a No Objection Certificate (NOC) from the Assistant Commissioner (AC) Land Office. The results reveal that 41 per cent of Fully Local firms found it *Difficult*, whilst 36.1 per cent found it *Extremely Difficult*. Fully Foreign firms reported 27.8 per cent as *Difficult* and 33.3 per cent as *Extremely Difficult*. Joint Ventures faced the toughest challenges, with 53.8 per cent marking it as *Extremely Difficult* and 38.5 per cent as *Difficult*.

Whilst the project must be completed within 24 months of contract signing, it takes on average 15 months for firms just to acquire the land. Although the acquisition time varies according to the size of the land and location, it took 3 years for a Key Informant Interviewee to acquire a piece of land of 180 acre. As a result, land acquisition emerges as most challenging feat to achieve for the firms post-NoA.

9.3 Transmission line/grid connection in the post award procurement: findings from enterprise survey

According to the tender documents (Appendix 8: Electrical Interconnection Facilities), *‘The Contractor shall install all equipment... construct an Interconnection Transmission Line... at its own cost and responsibility as per the standard*

Figure 12: Percentage of ranking grid connection difficulty post NoA



Source: Authors’ Illustration from CPD Solar Power Plant Procurement Survey 2025.

and requirement of Power Grid'. In addition, the contractor must obtain all necessary approvals from PGCB and other relevant authorities for such interconnection facilities.

To 73.7 per cent bidders or developers, establishing transmission line or grid connection is among the top three post award challenges, with 10.1 per cent describing it as the single hardest issue faced during project implementation (figure 12). If the substations are not ready, developers will be penalised for delays that are partly caused by the off-taker or transmission authority. Thus, it poses a great post-award bottleneck because the tender document does not assign any binding responsibility to PGCB and the timeline within which to finish the transmission line connection, testing and synchronisation. In addition, the coordination gap between BPDP and the PGCB can temporise the progress.

9.4 Security burden in the post award procurement: findings from enterprise survey

The tender (Clause ITT 65.2) requires developers to maintain performance security of 10 per cent of the total contract price until the Commercial Operation Date (COD). After that, they must keep another 10 per cent of the yearly contract value for each year of supply. The first annual security must be submitted just before COD, and this process continues every year for 20 years. This continues until the developer properly disposes of or recycles the solar panels and other equipment at the project's end.

Table 28: Difficulty in meeting bid and performance security requirements

Level of Difficulty	Percentage (%)
Very Difficult	21.15
Moderately Difficult	19.85
Difficult	16.19
Slightly Difficult	22.86
Not Difficult at all	19.05

Source: Prepared by authors from CPD Solar Power Plant Procurement Survey 2025.

In other words, this means developers must keep a large portion of their money locked in bank guarantees for two decades. As shown in table 28, for 21.15 per cent and 19.85 per cent of firms reported that maintaining the bid and performance security is 'very difficult' and 'moderately difficult'. To the 27.87 per cent firms who purchased but did not submit tender, the requirement of performance security appeared as the 'very difficult'. Thus, maintaining the performance security poses one of the major challenges for the firms.

9.5 Tariff indexation in the post award procurement: findings from enterprise survey

As mentioned in the tender document, 'The prices (Tariff Charges) quoted by the Tenderer for corresponding Supply Years shall be fixed for the duration of the Term of Supply. No indexation will be applicable in the process of Tariff Payment determination' (ITT 26.7). Besides, ITT 60 does not allow scope of any negotiation with the tariff rate. This means the tariff is fixed for the full contract period, with no clause for inflation or foreign exchange adjustments.

However, there has been concern among the firms surveyed regarding the fixed tariff. Out of 105 firms, over half (52 per cent) said the fixed-price requirement was 'not feasible' or only 'slightly feasible', whilst just 15 per cent found it 'very' or 'completely feasible'. The fixed tariff model posed a significant long-term risk to developers as the cost could go up due to increase in raw material costs and local currency depreciation.

9.6 Multiplicity of approvals and institutional delays in the post award procurement: findings from enterprise survey

Between the inception of construction and the Commercial Operation Date (COD), the firms are required to collect at least 29 *approvals or clearance* form multiple organisations (Appendix Table 1). These include permissions and no-objection certificates (NOCs) from at least 15 different agencies, ranging from local Union Parishads and Upazila offices to national authorities such as PGCB, DOE, DPHE, BEREC, and NBR.

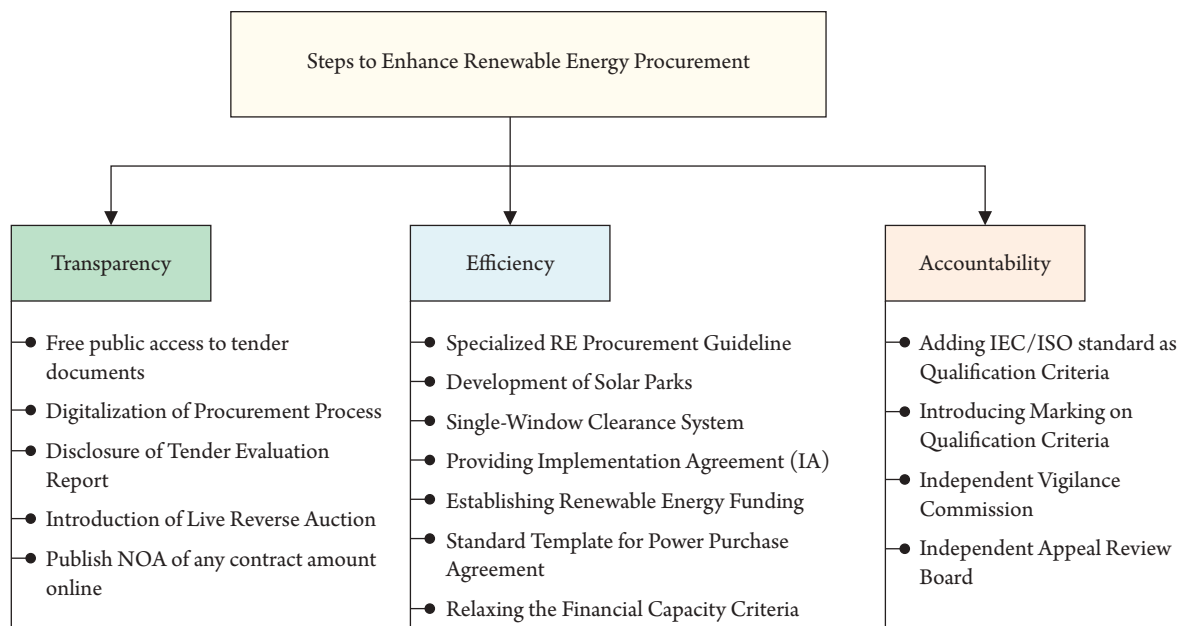
To 15 per cent and 22 per cent firms that participated in the survey, obtaining the approvals is the '*most difficult*' and '*second most difficult*' challenges post-award. Unfortunately, there is no single-window approval system or a dedicated renewable energy facilitation cell under BPDB or SREDA for these approvals. Thus, projects often experience significant post-award delays just because of bureaucratic maze associated with getting numerous approvals from different organisations.

Recommendations

Interim government's decision to shift to competitive bidding process in case of procurement in the power and energy sector though a move towards positive directions, however, the study reveals that the Ministry of Power Energy and Mineral Resources (MoPEMR) especially public entities involve in the procurement process for renewable energy-based power generation has yet to be ready to ensure a transparent, accountable and efficient procurement process which will be acceptable to the parties concerned. The tender processes which have been initiated have yet to get the confidence from the private sector who have taken part in the bidding process. In comparison with the unsolicited procurement process prevailed earlier, the recent procurement process has been found more or less good from transparency and accountability point of view but were found worse from efficiency point of view. In other words, the procurement process in the power and energy sector has been struggling with structural bottlenecks as well as transitional challenges.

The shift from the Special Provision Act, unsolicited process, to the Public Procurement Act and Rule marks a movement from an opaque and unaccountable system to one that is translucent and semi-accountable. This change has already helped reduce tariffs through competitive bidding. However, participation in the latest solar tenders has

Figure 13: Framework for improving the current renewable energy procurement



Source: Authors' Illustration from CPD Solar Power Plant Procurement Survey 2025.

been low. This reflects the structural weaknesses and procedural uncertainties in the renewable energy procurement under the new system.

Based on the review of recent solar power plant tenders and the views of participating firms, this study identifies several priority actions that can make the renewable energy procurement system clearer, more efficient, and responsible. These actions tackle important weaknesses seen at various stages of procurement, including tender design, qualification criteria, institutional oversight, and post-award implementation. Figure 13 shows the key measures that need to be taken to make the current renewable energy procurement more transparency, efficient and accountable. Following are the detailed recommendations:

A. Recommendations on the tender process under the PPA and PPR

1. Adopting a Phased Approach to Re-tendering

Immediately after the cancellation of Special Provision Act and the withdrawal of 34 Letters of Intent (LoIs) issued under it, the MoPEMR solicited 55 solar power plant tenders. Of these, 23 packages received only a single bid, whilst 13 packages received no bids at all. For the packages that received multiple submissions, the BPDB should quickly declare the bid winners. However, the post-award challenges need to be addressed which have been discussed later in this section.

For the 36 packages that received single or no bids, the MoPEMR should go for re-tendering after only after addressing the key factors that previously constrained participation. These include the absence of a clear implementation agreement, unrealistic land acquisition timelines, financing difficulties, and uncertainty over long-term policy stability.

2. Reducing Project Size to Encourage Wider Participation

Participation in the solar tender of the packages that are larger than 100MW was notably lower. The packages of size around 50MW received higher engagement as these involve land of manageable size and comparatively lower financial requirement.

Therefore, the MoPEMR should consider reducing project size thresholds in future utility-scale solar power plant tenders to attract a broader range of bidders, including medium-sized and domestic firms with limited financial capacity.

3. Relaxing Financial Capacity Criteria

The analysis of the 2025 solar power plant tenders shows that many firms meet the technical qualifications. However, the financial eligibility requirements, especially the USD 1.14 million per MW working capital threshold, are too strict. This puts local firms at a disadvantage, leading to lower participation and so less competition.

The financial capacity criteria for solar power projects should be changed to make them easier for firms, especially local ones, to meet. The working capital or liquid assets requirement should be set at USD 0.1 to 0.15 million per MW. These thresholds can be adjusted based on project sizes and fit better with regional practices. This will ensure more participation whilst maintaining the financial credibility of bidders.

4. Renewable Energy Procurement Guideline as a Specialised Supplement to PPA/PPR

The Public Procurement Act and Rule are more appropriate for procuring goods and services. For the procurement of renewable energy, their role stretches as far as ensuring the bid winner. To 36.96 per cent and 13 per cent firms, the PPA and PPR appeared as *moderately inadequate* and *very inadequate*. The absence of a dedicated guideline for renewable energy procurement led to *severe difficulties* for 40.22 per cent firms and *significant difficulties* for 39.13 per cent firms.

To address these gaps, it is essential to develop a comprehensive Renewable Energy Procurement Guideline, aligned with the principles of the PPA and PPR. Such a guideline should specify appropriate procurement methods, define technical and qualification requirements, clarify institutional roles and responsibilities, and provide clear directions for managing the post-award phase of renewable energy projects.

5. Adding Specific IEC or ISO Standard Component for Qualification Criteria

The current tender documents in Bangladesh do not specify the minimum technical standard for key components such as panels, inverters, and supporting infrastructure. The cross-country analysis shows that ISO and IEC standards are not merely referenced in tender documents but are also enforced as part of the bidder's qualification criteria. Bidders who fail to comply with the standards become nonresponsive.

Therefore, adopting a similar approach would help ensure the use of high-quality equipment and technologies. Including IEC and ISO compliance within the qualification criteria would also simplify technical evaluation, reduce post-award disputes, and ensure overall accountability in project implementation.

6. Introducing Marking on Qualification Criteria

In OSTEM method under the PPA and PPR, the qualification or the technical evaluation is assessed on a binary pass–fail basis. If the qualifications are met the bidder is responsive, nonresponsive otherwise. There is no system of scoring or weight marking based on the qualifications. According to Asian Development Bank (2021), such scoring is called *Merit Point Criteria*.

The introduction of such marking or scoring would enhance objectivity and transparency by reducing discretion in evaluation. In addition, setting a minimum score threshold would ensure that only capable and responsive firms qualify for financial evaluation. The price competition would then take place among technically qualified firms, improving both quality and value for money.

B. Recommendations on pre-procurement process and digitalisation

7. Digitalisation of the Procurement/ Auction Process

The procurement of the recent solar power plants has been completely offline and manual. Most of the issues related to transparency and accountability and efficiency that emerged as a consequence can be mitigated if the procurement process is fully digitalized. A significant 70.09 per cent of respondents stated that completing the tender process is *much easier* under the Electronic Government Procurement (e-GP) platform. Furthermore, 84.44 per cent of firms found the e-GP system to be *more efficient*, whilst 53.26 per cent and 50 per cent identified it as *more transparent* and *more accountable*, respectively, compared to manual procedures.

Therefore, transitioning to a fully digital, e-GP-based or hybrid procurement platform for renewable energy projects will greatly enhance procedural integrity and operational efficiency. The Public Procurement Rule (2025) made the use of e-GP mandatory for all public procurement. However, the existing e-GP system is only partially digital, that is, whilst bid submission is conducted online, most other stages of the procurement process are still carried out manually. Therefore, in addition to allowing for online bid submission, real-time updates, and document archiving, such a platform needs to be capable of selecting the winning bidder digitally without human intervention.

8. Introduction of Live Reverse Auction

The Public Procurement Rule (2025), the recently amended version of PPR 2008, introduced reverse auction. Compared to OSTEM where the bidder can submit just single tariff rate, the live dynamic reverse action allows a bidder to submit subsequently lower bids. Such auctions enhance competition, lower tariffs, and improve transparency by allowing real-time bidding among pre-qualified developers. However, the procuring entity, BPPD, should set the lower bound of the tariff and the round.

9. Publishing the Tender Evaluation Report

As per the PPA and PPR, it is not mandatory to publish the Tender Evaluation Report prepared by the Tender Evaluation Committee. By practice, the report is not published. About 81.8 per cent of respondents reported no access to the tender evaluation report.

However, to ensure transparency, accountability and bidders trust in fair evaluation, the disclosure of tender evaluation report is essential. The report will detail each step of the evaluation process including the justification for the award decisions. Therefore, revealing the tender evaluation report must be made mandatory.

C. Recommendations on procurement period's institutional oversight and coordination

10. Establishing a Single-Window Clearance System

As discussed in section 10, a firm is required to collect at least 29 *approvals or clearance* from multiple organisations at various stages of project development. The cumbersome and winding approval process leads to projects delay and increase in costs. Therefore, a single-window mechanism within the MoPEMR for all project-related approvals must be introduced. This would reduce redundancy, coordination delays, and administrative burden on investors.

11. Independent Appeal Review Board

While the bidders can submit complaints, the complaint process is handled internally by the procuring entity, the BPDB, the same authority that issued the tender which creates conflict of interest and reduces impartiality. An independent appeal review board under CPTU or BPPA to handle complaints from bidders must be established. The board should function with clear timelines and decision-making authority to ensure accountability and fairness.

12. An Independent Vigilance Commission

For integrity maintenance and irregularity prevention in the procurement of renewable energy, there must be an Independent Vigilance Commission that includes members from the Anti-Corruption Commission (ACC), Bangladesh Public Procurement Authority (BPPA), and independent technical and financial specialists. This commission should be made mandatory to oversee tendering exercises, scrutinise procurement choices, and investigate allegations of transparency, nepotism, or corruption. Incorporating the institutional collaboration between ACC and BPPA, the commission may enhance preventive monitoring, ensure ethical procurement, and enhance overall credibility and investor confidence in Bangladesh's renewable energy sector.

13. Introducing Power Sector Specific Procurement Performance Indicators

The National e-GP portal's performance indicators address general procurement but do not account for the complexities of power sector or renewable energy procurement. Along with the transparency, accountability and efficiency indicators discussed in this study, the MoPEMR, with support from BPPA, should create specific procurement performance indicators for renewable energy. These should also focus on participation rates, bid responsiveness, contract award timelines, and compliance after contracts are awarded.

D. Recommendations on post-award procurement process

14. Development of Solar Parks

Having the required amount of land leased or procured appeared as significant pre and post award challenges in the tender of the solar power plant. Besides, securing grid connections, and various approvals and clearances appeared as other major challenges post award. However, majority of these challenges can be solved if the MoPEMR develops solar parks of different size around the country. The bid winners will just install the solar power plant on the dedicated plots in the solar park. This will not only save investors from post-award challenges but also ensure quick project development and reduction in tariff rate.

15. Providing Implementation Agreement (IA)

Since Bangladesh is just commencing its ambitious journey of energy transition, it must ensure its support towards renewable energy. As per recent solar power plant tender, the government ceased providing the Implementation Agreements (IA). The IA serves as a critical risk-mitigation instrument, typically incorporating a sovereign guarantee that assures investors of government commitment and protection against political, regulatory, or payment-related uncertainties. Besides, the absence of the IA reduces the bankability of the power purchase agreements, making financing difficult. Reintroducing standardised Implementation Agreements for renewable energy projects would therefore enhance investors' confidence, reduce perceived country risk, lower financing costs and encourage participation.

16. Establish a Renewable Energy Financing

Securing loans or financing from the commercial banks in Bangladesh for solar power plants came as a major challenge for all types of firms. On one hand, the financial capacity criteria are excessively stringent; on the other, obtaining financing remains highly challenging. Consequently, participation in recent solar power plant tenders has become both unattractive and difficult for many technically capable firms. Therefore, the Government should develop a Renewable Energy Financing Fund. This fund would be developed by domestic sources and relate to international climate funds like the Green Climate Fund, ADB, and IFC. It could offer concessional loans, guarantees, and bridge financing for the renewable energy projects and enhance participation by easing the financing.

17. Preparing Standard Power Purchase Agreements

A power purchase agreement (PPA) details the terms, conditions, and responsibilities of the power producer and the off takers. Since renewable energy projects are capital-intensive and long-term, investors and lenders look for certainty before they are committing funds. Having a standardized PPA template provides them with the tariff structure, payment security, termination, dispute resolution and other clauses upfront. Thus, by letting the rules of the game known, a standard provides predictability and ensures confidence among investors. Bangladesh does not have such standardised power purchase agreements. Therefore, the BPDP must publish standard power purchase agreements for renewable energy, especially the solar power plants.

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Appendix

Appendix table 1: List of approvals recured during construction till COD

Sl. No.	Approvals required during construction till cod	Approving authority
1	NOC from Union Parishad to initiate construction work	Union Parishad
2	NOC from Upozila Parishad to initiate construction work	Upazila Parishad
3	Government Authorisation for the installation, construction and operation of a deep tube well at the Site from DPHE.	Department of Public Health Engineering (DPHE)
4	NOC from Local Government Engineering Department (LGED)	LGED
5	Local Police Station approval	Police Station
6	Location Clearance Certificate/ Environmental Clearance Certificate/ Environmental Management Plan/ Environmental Clearance Certificate	DOE
7	Permission from Local Agriculture department regarding the nature/use of the land	Agriculture Dept.
8	Permission/NOC from Fire Service & civil defense regarding project safety, structural issues	Civil Defense
9	Permission/NOC from Rural electricity supply authority	RPCL
10	DC office notification/permission	DC office
11	Local Civil surgeon permission due to various health hazards	Civil Surgeon
12	Relevant approval for construction of electrical interconnection facility from PGCB	PGCB
13	Approval of bund and embankment construction	BIWTA
14	Approval of ground water intake	WARPO
15	Work permits for Project personnel including residence visas (Expatriates)	BIDA
16	All import permits, certificates, licenses and other required consents allowing the Company and the Contractors to import into Bangladesh all plant, machinery, equipment, spare parts, materials and supplies required for the Project	BIDA/Chief Controller of Import and Export (CCIE)
17	No objection certificate to obtain export permit to export the imported equipment not forming the permanent part of the Facility from Bangladesh Bank	BIDA/CCIE
18	Exempting the Company and the Contractors from payment of fees on import into Bangladesh all plant, machinery, equipment, spare parts, materials and supplies required for the Project	MOC/CCIE

(Appendix table 1 contd.)

(Appendix table 1 contd.)

Sl. No.	Approvals required during construction till cod	Approving authority
19	Statutory notifications granting exemption from Customs Duties and VAT on the importation of plants and equipment (including spare parts) for incorporation into the Facility and the temporary importation of erection materials, machinery and equipment from NBR	MOC/CCIE
20	Approval of the construction of shoreline work, jetty, intake and outfall structures of once through cooling system, use of river water and dredging of river.	BWDB
21	Approval for shoreline work such as sheet piling at Site along the canal	Upazila/union parishad
22	Bay Extension Approval	PGCB
23	Grid Study approval	PGCB
24	Electricity Generation License	BERC
25	Transmission Line route approval	PGCB
26	Technical design, drawings and other approvals related to Transmission Line	PGCB
27	Technical design, drawings and other approvals related to Grid Substation/ Pooling Substation	PGCB
28	Testing and Commissioning of Equipment and Plant	PGCB, BPDB
29	Establishment License	Department of Inspection of Factories & Establishment (DIFE)

Source: Prepared by authors.

Appendix table 2: If payment in no indexation is feasible

Ownership nature	Very infeasible	Infeasible	Moderately feasible	Very feasible	Completely feasible	Total
Full Local	9.8%	42.6%	29.5%	13.1%	4.9%	100%
Full Foreign	16.7%	33.3%	38.9%	11.1%		100%
Joint Venture	23.1%	53.8%	7.7%	15.4%		100%
Total	13%	42.4%	28.30%	13.00%	3.30%	100%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 3: How local tariff payment in local currency affected the participation decision

Ownership nature	Very negatively	Negatively	Neutral	Very positive	Extremely positive	Total
Full Local	18%	47.5%	19.7%	14.8%		100%
Full Foreign	16.7%	16.7%	27.8%	27.8%	11.1%	100%
Joint Venture	23.1%	15.4%	38.5%	23.1%		100%
Total	18.5%	37%	23.9%	18.5%	2.20%	100%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 4: Evaluation of fairness by firm size

Firm size	Very unfair	Moderately unfair	Neutral	Moderately fair	Very fair	Total (%)
Small	20%	60%	20%			100%
Medium	6.7%	20%	53.3%	6.7%	13.3%	100%
Large	8.3%	41.7%	25%	16.7%	8.3%	100%
Total	9.1%	36.4%	34.1%	11.4%	9.1%	100.00%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 5: Evaluation of fairness by nature of ownership

Ownership nature	Very unfair	Moderately unfair	Neutral	Moderately fair	Very fair	Total (%)
Fully Local	10%	30%	36.7%	13.3%	10%	100%
Fully Foreign	16.7%	50%	33%			100%
Joint Venture		50%	25%	12.5%	12.5%	100%
Total	9.1%	36.4%	34.1%	11.4%	9.1%	100.00%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 6: Difficulty getting NOC for AC land office

Ownership nature	Extremely difficult	Difficult	Manageable	Smooth, moderate	Very smooth	Total
Full Local	36.1%	41%	11.5%	4.9%	6.6%	100%
Full Foreign	33.3%	27.8%	33.3%		5.6%	100%
Joint Venture	53.8%	38.5%	7.7%			100%
Total	38%	38%	15.2%	3.3%	5.40%	100%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 7: If the government officials asked Bribe to provide information or resolve complaints

Ownership nature	Always	Often	Sometimes	Rarely	Never	Total
Full Local	13.3%	16.70%	23.3%	23.3%	23.3%	100%
Full Foreign		33.3%	33.3%	16.7%	16.7%	100%
Joint Venture	0%	12.5%	12.5%	12.5%	62.5%	100%
Total	9.1%	18.2%	22.7%	20.5%	29.5%	100%

Source: Authors' CALCULATION from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 8: If discrimination is faced in the tender process

Business type	No	Yes	Total
Full Local	66.7%	33.30%	100%
Full Foreign		100%	100%
Joint Venture	50%	50%	100%
Total	54.5%	45.5%	100%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 9: If the firms had access to tender evaluation report

Business type	No	Yes	Total
Full Local	80%	20%	100%
Full Foreign	83.3%	16.7%	100%
Joint Venture	87.5%	12.5%	100%
Total	81.8%	18.2%	100%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 10: Land procurement difficulty to firms by ownership nature

Business type	Very difficult	Difficult	Moderately difficult	Easy, only minor issues	Very easy	Total
Full Local	34.4%	24.6%	21.3%	14.80%	4%	100%
Full Foreign	50%	11.1%	22.2%	16.7%		100%
Joint Venture	30.8%	23.10%	15.4%	30.8%		100%
Total	37%	21.7%	20.%	17.40%	3.3%	100%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 11: Bank loan difficulty to firms by ownership nature

Business type	Very difficult	Difficult	Moderate	Easy	Very easy	Total
Full Local	26.2%	50.8%	9.8%	11.5%	1.6%	100%
Full Foreign	27.8%	44.4%	11.1%	16.7%		100%
Joint Venture	30.8%	30.8%	38.5%			100%
Total	27.2%	46.7%	14.1%	10.9%	1.1%	100%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 12: Evaluation of transparency to firms by ownership nature

Business type	Not at all	Slightly	Moderately	Mostly	Fully	Total (%)
Fully local	6.7%	26.7%	33.3%	26.7%	6.7%	100%
Fully foreign	16.7%	33.0%	33.3%	16.7%		100%
Joint Vventure		25%	12.5%	25%	37.5%	100%
Total	6.8%	27.3%	29.5%	25%	11.4%	100%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 13: Overall transparency by ownership nature

Business type	Very poor	Poor	Fair/moderate	Good	Very good	Total (%)
Fully Local	3.3%	13.3%	60.0%	13.3%	10%	100%
Fully Foreign			100%			100%
Joint Venture		62.5%	25.0%	12.5%		100%
Total	2.3%	20.5%	59.1%	11.4%	6.8%	100%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 14: Overall accountability by ownership nature

Ownership nature	Very poor	Poor	Moderate	Good	Total (%)
Fully Local	6.7%	16.7%	63.3%	13.3%	100%
Fully Foreign	16.7%	16.7%	33.3%	33.3%	100%
Joint Venture	12.5%	25.0%	62.5%		100%
Total	9.1%	18.2%	59.1%	13.6%	100%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 15: Overall accountability by ownership nature

Firm size	Very poor	Poor	Moderate	Good	Total (%)
Small		40%	60.0%		100%
Medium	6.7%	13.3%	66.7%	13.3%	100%
Large	12.5%	16.7%	54.2%	16.7%	100%
Total	9.1%	18.2%	59.1%	13.6%	100%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 16: Overall efficiency by ownership nature

Ownership nature	Very Inefficient	Inefficient	Moderately efficient	Efficient	Total (%)
Fully Local	23.3%	30%	40%	6.7%	100%
Fully Foreign	16.7%	83.3%			100%
Joint Venture		50%	50%		100%
Total	18.2%	40.9%	36.4%	4.5%	100%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 17: Overall efficiency by firm size

Firm size	Very inefficient	Inefficient	Moderately efficient	Efficient	Total (%)
Small		40.0%	60%		100%
Medium	6.7%	53.3%	40%		100%
Large	29.2%	33.3%	29.2%	8.3%	100%
Total	18.2%	40.9%	36.4%	4.5%	100%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 18: Average annual turnover requirement difficulties by firm size

Firm size	Very difficult	Moderately difficult	Difficult	Easy	Very easy	Total (%)
Small	33.3%	25.0%	16.7%	8.3%	16.7%	100%
Medium	19.4%	48.4%	6.5%	19.4%	6.5%	100%
Large	20.4%	38.8%	16.3%	18.4%	6.1%	100%
Total	21.7%	40.2%	13.04%	17.4%	7.61%	100%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

Appendix table 19: Working capital requirement difficulty by firm size

Firm size	Very difficult	Moderately difficult	Difficult	Easy	Very easy	Total (%)
Small	16.7%	50%	16.7%	8.3%	8.3%	100%
Medium	12.9%	51.6%	9.7%	19.4%	6.5%	100%
Large	14.3%	30.6%	28.6%	24.5%	2.04%	100%
Total	14.13%	40.22%	20.7%	20.7%	4.3%	100%

Source: Authors' calculation from CPD Solar Power Plant Procurement Survey 2025.

This study provides the first comprehensive assessment of Bangladesh's renewable energy procurement following the repeal of the Quick Enhancement of Electricity and Energy Supply (Special Provision) Act, 2010. Drawing on legal analysis, international best practices, procurement data, and a large enterprise survey, the report examines how the reinstated Public Procurement Act (2006) and Public Procurement Rule (2008) are shaping transparency, accountability, and efficiency in the country's transition toward competitive renewable energy auctions. Focusing on 55 newly issued solar power plant tenders, the study identifies systemic gaps in tender design, qualification requirements, institutional processes, and post-award implementation, especially in land acquisition, financing, grid connectivity, and obtaining approvals. By comparing Bangladesh's procurement practices with global leaders, the study proposes measures to make renewable energy procurement more transparent, accountable, efficient, and investor-friendly. It offers critical insights for policymakers, development partners, and private sector stakeholders navigating the evolving landscape of Bangladesh's energy transition



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