General Guidelines

ELECTRONIC PROCUREMENT

Prepared by: The Office of Procurement Regulation

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Developed in accordance with the Trinidad and Tobago Public Procurement and Disposal of Public Property Act Number 1 of 2015 (as amended) and the attendant Public Procurement and Disposal of Public Property Regulations 2021

REVISIONS

Revisions of 2023

To be in alignment with the fully proclaimed *Public Procurement and Disposal of Public Property Act, 2015*, as amended, and the ten *Public Procurement and Disposal of Public Property Regulations* of 2021, revisions were made within these guidelines with respect to:

Revision	Page No.
Section 1.3: How should these guidelines be used	1
Section 1.4: Informing public bodies of the need to comply with these guidelines	1
Section 1.5: Informing public bodies where applicable, to highlight any exemptions or amendments in the format specified by the OPR.	1
Section 2.0: Insertion of paragraph with reference to the Act	2
Deletion of Glossary of Terms; replaced by link to OPR's website for Glossary of Terms	13
Deletion of Acronyms; replaced by link to OPR's website for Acronyms	13
The general terminology used throughout these guidelines	
Minor editorial changes throughout these guidelines	

*Note: In the event that there is a discrepancy between the Handbooks & Guidelines and the Act and Regulations, the provisions of the Act and the Regulations shall prevail.

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1.0 Preamble

1.1 Purpose of these guidelines

The purpose of these general guidelines is to provide guidance to all public bodies on the use of electronic procurement (eProcurement) systems within the operating model of the Public Procurement and Disposal of Public Property Act, 2015, as amended ("the Act").

This guide seeks to describe how eProcurement may be used in public procurement projects undertaken by public bodies in keeping with the objects of the Act.

1.2 Who should use these guidelines?

These general guidelines are intended for all public bodies who require an understanding of the key decision areas for eProcurement usage and the inputs required for decision making.

1.3 How should these guidelines be used?

These general guidelines should be read in conjunction with the Act, the Public Procurement and Disposal of Public Property Regulations, the Comprehensive Handbook on Procurement, Retention and Disposal of Public Property, and the attendant Guidelines.

1.4 Compliance with these general guidelines

In accordance with Section 30(1)(a) and 54(1)(a) of the Act, public bodies 'shall comply with' these general guidelines issued by the Office of Procurement Regulation ("the OPR").

1.5 Exemptions or amendments to these general guidelines

As may be applicable, pursuant to Sections 13(1)(c), 30(1)(b) and (c), 30(2), 30(3), 54(1)(b) and (c), 54(2) and 54(3) of the Act, public bodies shall prepare handbooks and special guidelines highlighting exemptions or amendments to these general guidelines, in the format specified by the OPR, for its approval.

2.0 Introduction

The Act, at Section 38, provides for the undertaking of public procurement using electronic means, and authorises the OPR to promote electronic transactions (Section 13(1) (g)).

Electronic procurement occurs when the activities of the purchasing process are conducted electronically, typically over the internet, to shorten the cycle time and lower the transaction costs of the acquisition process. In its broadest sense, eProcurement involves electronic data transfers to support operational, tactical and strategic procurement.

eProcurement is often supported by internet technologies and is becoming more prevalent. The historic context of eProcurement is demonstrated in the Figure 1 below:

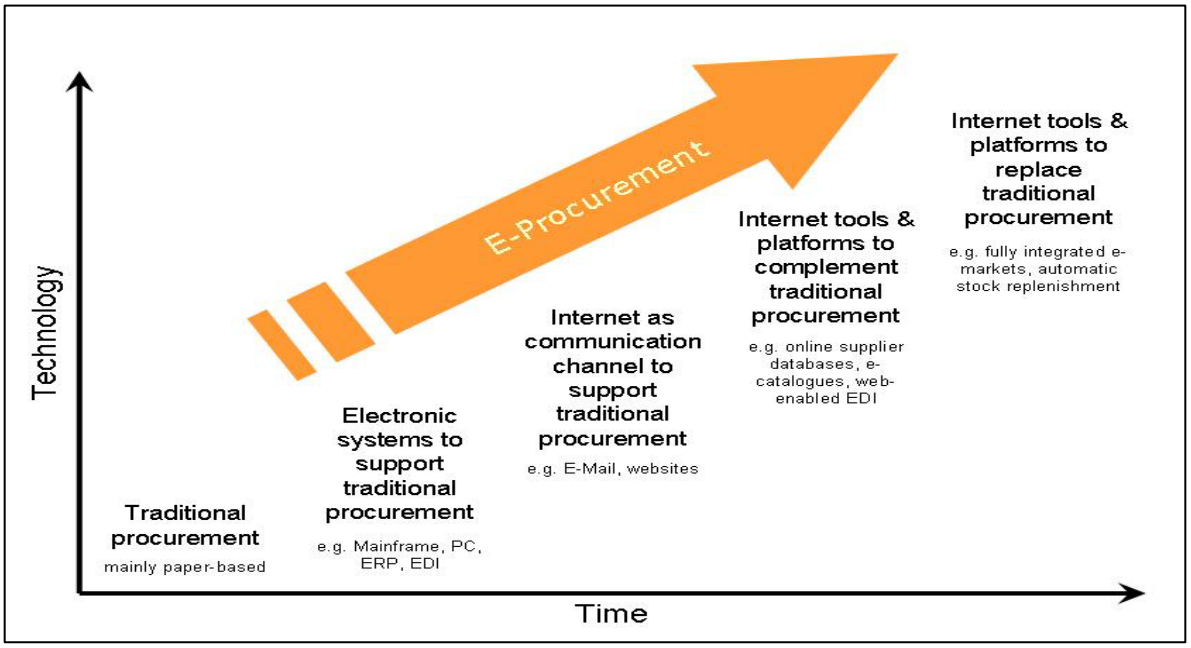

Figure 1[1] - Source: UN Procurement Practitioner's Handbook 2006

3.0 eProcurement Tools and Applications[2]

Those involved in the procurement function need to understand the eProcurement concepts and tools to provide input into their development, use, evaluation and refinement as a means of improving procurement efficiency and effectiveness.

Within the very wide spectrum of what eProcurement can entail and represent, which is continuously developing and evolving, the main examples of tools and applications to conduct or electronically support the procurement process are as follows:

[1] UN Procurement Practitioner's Handbook Nov 2006 https://www.ungm.org/Areas/Public/pph/channels/PPH.pdf

[2] UN Procurement Practitioner's Handbook Nov 2006 https://www.ungm.org/Areas/Public/pph/channels/PPH.pdf

3.1 Traditional eProcurement Tools and Applications[3]

3.1.1 Electronic systems to support traditional procurement

These include mainframes and personal computers (PC), Electronic Data Interchange (EDI) and Enterprise Resource Planning (ERP).

3.1.2 EDI (Electronic Data Interchange)

EDI is an application whereby electronic messages can be exchanged between computer programs of two separate organisations. Some features of EDI include:

- Messages are exchanged in groups, known as batches.
- Messages can be automatically sent, transmitted and stored between computers without retyping or keying data.
- EDI has to be implemented by each pair of organisations (sender and receiver) who wish to use it. This means that the implementation costs of EDI are relatively high.
- EDI is mostly used where the messages exchanged concern such matters as orders, confirmations, transport information and invoicing.
- EDI traditionally runs on so-called, "Value Added Networks", which are closed networks (unlike open networks like the Internet).

3.1.3 Extensible Markup Language (XML)

XML is used to allow for the easy interchange of documents on the World Wide Web.

3.1.4 World Wide Web (WWW)

The WWW is a major service on the Internet. The World Wide Web is made up of "Web servers" that store and disseminate "Web pages," which are "rich" documents that contain text, graphics, animations and videos to anyone with an Internet connection.

3.1.5 Enterprise Resource Planning Systems (ERP), hosted or cloud-based

ERP systems are management information systems that integrate and automate many of the business practices, processes and workflows associated with the operations of a company or organisation.

ERP systems typically handle the manufacturing, logistics, and distribution, inventory, shipping, invoicing, and accounting for a company or organisation. ERPs aid in the control of many business activities, such as sales, delivery, billing, production, procurement, inventory management, and human resources management.

[3] UN Procurement Practitioner's Handbook Nov 2006 https://www.ungm.org/Areas/Public/pph/channels/PPH.pdf

Typically, within a procurement environment, ERP systems include the procure-to-pay process which usually covers the workflow and approval process from requisition to approved purchase order and ends with the payment of the invoice, i.e., the entire life cycle of a transaction.

3.1.6 Electronic mail (e-mail) - Electronic receipt of offers

Email is an Internet based application through which electronic messages are exchanged.

Receipt of offers by email may be a good first step in an electronically managed procurement process which would cover interaction with the supplier community. Feasibility depends on the actual area of operations and access to a robust and secure internet connection, meaning that for some organisations that still rely on receipt of paper originals of offers by mail, courier or fax, it may be possible to give suppliers or contractors the opportunity to submit their offers by email. This can help improve efficiency and effectiveness of the procurement process as well as improve the environmental impact of the bidding process.

For electronic submissions via email, a dedicated email address must be set up, and it must be clearly stipulated in the solicitation documents that offers sent to any other email address will be rejected. This email address must be protected to ensure that emails are kept unopened until the opening of submissions. Ideally, individuals not directly involved in the procurement process, and duly authorised, must have sole access to the secure email.

It is important to note that the deadline stated in the solicitation document applies equally to hard copy and electronic tender submission. In the case of submissions by email, the receipt time stamp should be the date and time when the submission has been received in the dedicated email inbox. It is the sole responsibility of suppliers or contractors to ensure that their submission is received in the dedicated inbox on or before the prescribed bidding or tender deadline.

Also, the distribution of solicitation documents may be performed electronically. Here, one guiding principle applies: the fair treatment of all suppliers and contractors, i.e., invitees must receive the same information at the same time.

If the solicitation documents do not allow electronic submissions, any submission received by electronic means may be rejected. Any requirement for documentation of the solicitation process shall not be interpreted to restrict the use of any electronic means of data interchange, provided the electronic medium upholds the procurement principles and allows for adequate audit trail of the procurement process.

3.2 Internet Tools and Platforms that Replace Traditional Procurement[4]

Some internet tools and platforms that replace traditional procurement include:

[4] UN Procurement Practitioner's Handbook Nov 2006 https://www.ungm.org/Areas/Public/pph/channels/PPH.pdf

3.2.1 E-sourcing

E-sourcing supports the specification phase; it can be used to pre-qualify suppliers and also identifies suppliers that can be used in the selection phase. For suppliers, the benefit is "marketing" and for the buying organisations, the benefit is facilitating the sourcing of suppliers.

3.2.2 E-tendering

E-tendering supports the selection stage and acts as a communication platform between the procuring organisation and suppliers. It covers the complete tendering process from Request for Expression of Interest (REOI) via ITB/RFP to contracting, usually including support for the analysis and assessment activities. It does not include closing the deal with a supplier but facilitates a large part of the tactical procurement process. It results in equal treatment of suppliers, transparent selection process, reduction in (legal) errors, clear audit trail, more efficiency in the tactical procurement process and improved time management of tendering procedures.

3.2.3 E-auctioning

E-auctioning supports the contract stage. It enables the closing of a deal with a supplier if parties agree on price. They operate with an upward or downward price mechanism e.g. e-auctioning with upward price mechanism for the selling organisation and e-reverse auctioning with a downward price mechanism for the buying organisation. They can be made in accordance with a traditional ITB/RFP and are internet based using open or closed systems.

3.2.4 E-ordering and web-based ERP

E-ordering and web-based ERP is the process of creating and approving procurement requisitions, placing purchase orders, as well as receiving goods and services ordered, by using software systems based on the Internet.

3.2.5 E-informing

E-informing is not directly associated with a stage in the procurement process; it is the process of gathering and distributing procurement information both from and to internal and external parties using Internet technology.

Figure 2 below helps to provide a clear understanding of where the above-mentioned internet tools and platforms are positioned within the procurement cycle:

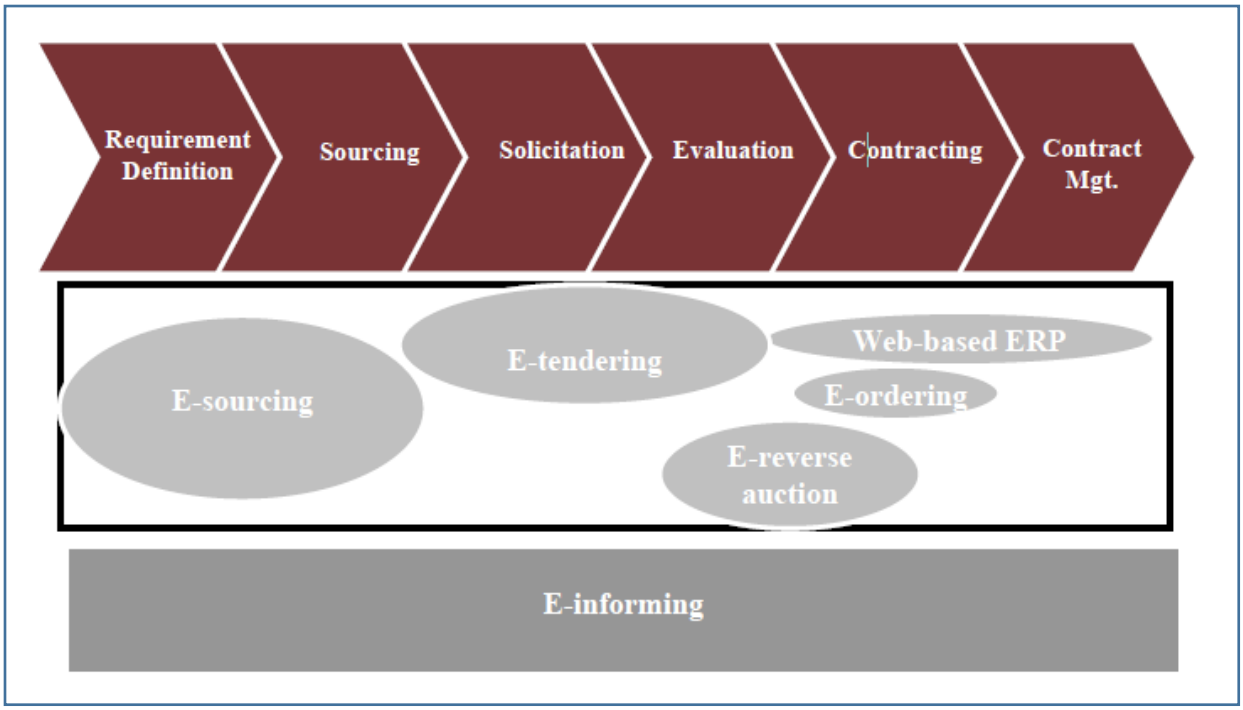

Figure 2 - Source: UN Procurement Practitioner's Handbook 2006

3.3 Approaches to eTendering and more Advanced Tools[5]

There are different approaches in the selection of an eTendering tool or system. Various commercial solutions are available in the market and there is also the option to build your own eTendering tool using in-house expertise, capacity and resources.

Additional electronic tools, such as eCatalogue, eReverse Auction and Dynamic Purchasing Systems (DPS), may be selected as stand-alone options or to supplement and expand an eTendering tool. Therefore, an organisation should make their choice in line with their procurement profile, based on a needs analysis and in accordance with their existing technological level and capacity. Moreover, they will consider the relevant system(s) already in place and the related integration requirements. The additional tools available may automate and integrate one or various additional phases of the procurement process.

3.3.1 eReverse Auction

An electronic reverse auction (eRA) may also be a stand-alone procurement tool and encourages competition among suppliers or contractors through an online and real-time trading system. During a specific (usually short) period of time, a supplier or contractor can present electronic offers in this electronic system, automatically competing with other suppliers' or contractors'

[5] UN Procurement Practitioner's Handbook 2020 https://www.ungm.org/Shared/KnowledgeCenter/Pages/PPH2

offers. An eRA makes offers for goods where prices and values submitted by the suppliers or contractors are presented electronically and visible to all suppliers or contractors participating.
To avoid collusion, sometimes the final part of the bidding process in eRA may be kept non-visible, meaning that the bidders will submit their best and final offer (BAFO) without knowing their own ranking in the bidding or that of the other bidders in the process.

3.3.2 eCatalogue

eCatalogue is an electronic tool for presentation of tenders to the organisation after pre-qualification of suppliers has been concluded successfully. It is used in order to display products/services/works to the procuring organisations, with clear details of the anticipated purchases. Usually, technical specifications and the format of the eCatalogue are determined by the procuring organisation in a standardised template in order to facilitate the evaluation of different products.

Under the eCatalogue tool, the procuring organisation can have access to a list of items offered by the supplier or contractor, with supporting information. The procurement can be processed through direct order or request for quotation. The electronic purchasing process can also involve more steps, such as placing and checking orders, designating transportation specifications, issuing invoices, requests for payment and monitoring approval. The acquisition of furniture, reprographic equipment, training and education services and office cleaning services are the most common examples of procurement under eCatalogue.

3.3.3 Dynamic Purchasing System

As an eProcurement tool, the Dynamic Purchasing System (DPS) is a process that facilitates the procuring organisation purchasing goods, services and works electronically within a longer timeframe. DPS extends beyond the limitations of Long Term Agreements (LTAs) or framework contracts and more or less rigid sourcing processes. It is meant for faster-moving markets, where suppliers come and go, and prices may fluctuate.

In this system, procuring organisations will publish a tender notice, specifying the type and an estimated quantity for purchase, the technical and administrative requirements, the expected technology, the social and sustainable prerequisites for eligibility and other specifications regarding the purchase. After procuring organisations have set their requirements, prospective contractors/suppliers can participate at any time in an e-competition for tenders. The time frame is longer and can correspond to timing set for an LTA. This electronic process remains open throughout the above-mentioned defined period of validity for prospective suppliers or contractors who meet the requirements to compete. Procuring organisations may also demand that offers are presented in an eCatalogue format. Successful stories of procuring through a DPS can be found in the health sector concerning the procurement of pharmaceuticals.

3.3.4 Business to business (B2B)

With the advancement of technologies and the change in buying behaviours, as appropriate, eProcurement development strategies could also aim to look ahead and connect with the

adoption of consumer driven platforms. Two such examples are business to business (B2B) and business to consumer (B2C) platforms (e.g. Amazon and Alibaba), and the leverage of social media. On the B2B platforms, eProcurement integration with buying portals such as Amazon and Alibaba can accelerate the implementation of a full supply chain solution for many organisations, including not only the requisitioning, order processing and delivery modules, but also the upstream supplier selection, contracting and cataloguing efforts and lead times. Traditional eProcurement portals can be integrated with these B2B providers and thus improve usability in terms of speed and choice (mobile device click to buy process), whilst maintaining the controls (approvals, reporting, audits).

In terms of social media opportunities, consumer behaviour is now proven to be the power of instant buyer feedback (online reviews). For public organisations, the ability to accelerate market research for new suppliers and vendors, benchmark and reference checking their credibility, and for ongoing performance monitoring and feedback collection, social media has now made it possible to provide far more accurate real time assessments for decision making. One fundamental ingredient is the broad base data from a diverse user base.

4.0 Benefits and Risks of Implementing an eProcurement System[6]

In order to implement the most successful eProcurement system, it is important to identify and assess the benefits and risks of eProcurement tools and how existing tools may be enhanced.

4.1 Benefits

Particular benefits of eProcurement in the public sector are thought to include greater transparency in procurement through electronic publishing of procurement notices and contract awards. This in turn is likely to enhance accountability and reduce the instances of corruption.

When developing a business case for adopting or enhancing an e-procurement tool, it is important to assess the baseline benefits and costs associated with the process or processes to be automated in order to understand the probable outcomes of e-procurement adoption or enhancement. In essence, it is important to understand what will change and how it will change when an e-procurement tool is implemented.

4.2 Risks

The implementation of eProcurement tools carries certain risks. One of the primary risks is missing opportunities to implement strategies that improve procurement management without the need for investment in eProcurement. This is because many of the benefits ascribed to eProcurement may be achieved simply by improving procurement practice. For example, it is often said that eProcurement reduces “maverick buying”. However, other measures, including the

[6] UN Procurement Practitioner’s Handbook Nov 2006 https://www.ungm.org/Areas/Public/pph/channels/PPH.pdf

implementation of corporate buying strategies that offer value for money, do not require electronic tools.

Another risk is over-investment in eProcurement tools that do not deliver the expected benefits. This risk arises when there has been inadequate evaluation of the implications of the adoption or enhancement of eProcurement tools. The risk that users will not accept an eProcurement tool is another common risk. This risk often arises where users have not been adequately consulted about the adoption or enhancement of the particular tool.

On the supply side, there is a risk that suppliers will not cooperate with the use of eProcurement tools. For example, some suppliers are sufficiently powerful to insist on the use of paper-based systems. Others may not have access to affordable internet based technology with which to access to the eProcurement tools of purchasers. In markets that are already competitive with low profit margins, suppliers may choose not to participate in e-reverse auctions.

[7]There is a risk of the system "becoming" the process. This can stifle innovation and improvements because of system constraints and configuration. The system de facto "becomes" the policy in reality because the process is indivisible. This is particularly the case for bespoke systems, due to the sunk costs invested in them. In turn, this can be an impediment to further reform and innovation.

eProcurement does not automate all aspects of procurement. Procurement and project professionals will continue to manage procurement, design contracts and develop procurement plans, contracting strategies, and evaluation criteria and specifications.

An eProcurement system is not a panacea and is only as effective as the quality of its design and use. The automation of flawed and inefficient processes, and poor strategic choices, will simply make bad procurement faster.

5.0 Functionalities and Requirements of an eProcurement System

Table 1 below provide the standard Functionalities and Requirements for an eProcurement system by a public body:

Table 1 – Functionality & Requirements of an eProcurement System

eProcurement Functionality Category	Requirements
e-Procurement Plan	Ability to define the budgets of goods, works and services.
	The individual plans can be grouped, consolidated and ultimately published as the "national" procurement plan of the country.

[7] eProcurement Guidance Note on Procurement June 2018, Asian Development Bank https://www.adb.org/sites/default/files/eprocurement.pdf

eProcurement Functionality Category	Requirements
e-Procurement Plan	Grouping/consolidation to be performed at a hierarchical level.
	Be able to utilise plan information to establish framework agreements.
	Should be able to integrate the planning module with external publication/bulletin boards to assist in procurement plans' widespread publication.
	Ability to integrate with Financial Management Information System (FMIS) and/or Integrated Financial Management Information System (IFMIS) module such as the Budgetary Accounting Module.
Supplier Risk Evaluation	Evaluation of the procurement activities to determine supply risk. As an alternative to SUPREM.
E-Publishing/Notifications	Publishing of tenders.
	Ability to integrate with payment gateways to support online payments for any associated fees.
E-Tendering Module	Ability to support clarification messages between procuring entity and supplier/contractor.
	Ability of supplier/contractor to make submissions electronically.
	Facilitation of encrypted submissions.
	Ability to integrate with a time-stamping service, so as not to rely on internal system clocks for determining the exact date/time a submission is received.
E-Evaluation/Award	Ability to open, decrypt and evaluate the submissions on-line.
	Controlled access by Submission Opening Committee, Evaluation Committee and Tender Coordination Committee.
	Facilitates the online evaluation of submissions.
	Support process for standstill period/complaints.
	Facilitates the award of contract(s) to successful suppliers or contractors.
	Contract negotiations, amendments, renewals.
	Create and manage the details of the contract deliverables.

eProcurement Functionality Category	Requirements
Contract Management	Support business processes requiring certain actions.
	Reports on key performance indicators to monitor the progress of the contract.
	Support the financial aspect of the contract such as payment schedules, lodging invoices, management of payment. Integration with FMIS/IFMIS.
E-Purchasing	Support process for requisition, quotation, purchase orders, goods received, invoice and payment.
Vendor Management	Creation and management of e-attestation questionnaires.
	Management of the pre-qualification status of suppliers/contractors.
	Management of the performance of suppliers/contractors.
	Debarring the supplier/contractor from future tenders.
Auction	Provides a platform for reverse auctions.

Bibliography

Asian Development Bank. (2018). *E-Procurement Guidance Note on Procurement.* Phillippines. https://www.adb.org/sites/default/files/eprocurement.pdf

UN Procurement Practitioner's Handbook Nov 2006
https://www.ungm.org/Areas/Public/pph/channels/PPH.pdf

UN Procurement Practitioner's Handbook 2020
https://www.ungm.org/Shared/KnowledgeCenter/Pages/PPH2

Public Procurement and Disposal of Public Property Act 2015 of Trinidad and Tobago
https://www.finance.gov.tt/wp-content/uploads/2017/02/Public-Procurement-and-Disposal-of-Public-Property-Act-1-of-2015.pdf

Glossary Of Terms

The Glossary of Terms is available on the OPR's website at https://oprtt.org/handbooks-of-procurement-retention-disposal/

List of Acronyms

The list of Acronyms is available on the OPR's website at https://oprtt.org/handbooks-of-procurement-retention-disposal/