BUSINESS OPPORTUNITIES IN THE WATER AND SEWERAGE AUTHORITY

TTCIC, Westmoorings
August 10th 2012
Agenda

• Procurement Process:
  – Traditional & E-Auction - Mr. Doodnath Bhola, Director - Corporate Services
  – Analytic Hierarchy Process -
    Ms. Sharmeela Joseph, Manager - Contracts & Procurement

• Payment Process: - Mr. Gerard Yorke, Director - Finance

• Business Opportunities: - Mr. Ramchand Ramcharan, Director - Programmes & Change Management

• Q & A Session
THE PROCUREMENT PROCESS
Aims:

1. Value for Money
2. Fair, Open and Transparent Process
3. Open to all Suppliers who Qualify
4. Widest participation by Vendors
Types of Procurement

1. Capital
   - Public - 94%
   - Sole Select/Emergency - 6%

2. Recurrent
   - Public - 28%
   - Selective - 62%
   - Sole Select/Emergency - 10%
Types of Procurement

P.Os generated for Goods and Services

Jan. - July:

JAN. 2012 - 440
FEB. 2012 - 303
MARCH 2012 - 457
APRIL 2012 - 504
MAY 2012 - 539
JUNE 2012 - 482
JULY 2012 - 478
Procurement Process

1. Registration
2. Invitation to Tender
3. Opening of Bids
4. Evaluation
5. Letter of Award
6. Information to Unsuccessful Bidders
Procurement Process  

7. Performance Security  
8. Contract  
9. Purchase Order  
10. Provision of Goods & Services  
11. Payment  
12. Vendor Assessment  
13. Release of Performance Security
Tender Notices

1. Newspapers
2. Website – www.wasa.gov.tt
3. Letters of Invitation
4. Embassies in T&T
5. Facsimile

- Bidding Period: 3-4 weeks
WATER AND SEWERAGE AUTHORITY
"Water Security in Every Sector"

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Manual

Hand Delivery of Bids in Cream Tender Box in the Lobby Area by 2:00 PM

Facsimile

Request for Quotation Sent and Received via fax machine by 2:00 PM.

Usually 1 week duration between request and Receipt of Quotation.

Fax Numbers: 662-1630, 662-6183, 645-3982, 645-6574.
E- Auction

1. Pre Bid – Usually by 11:00 PM on the day preceding the event.

2. Logging in on the day of the event.

3. Bid Submission – Usually from 10:00 AM.

4. Submission of Bids within 3 working days of the event, in conformance with E-Auction.
Opening of Bids

Bids are submitted, closed and re-opened soon after.

2 Envelope System:

- First envelope requirement (Conformance Envelope)
- Vat Registration Certificate
- Tax Registration Certificate
- Audited Financial Statement
- Incorporation Documents

Bids deemed Non-Conformant are defined as not meeting the requirements.
Letter of Award

• Issue and Acceptance

Performance Security

• Performance Bond
• Cash Deposit
• Retention Fee

Contract Agreement

• Over $TT1 Million
BUSINESS OPPORTUNITIES AT WASA

Purchase Order

• Provision of Goods and Services

Payment

• Next 30 days

Performance Appraisal

Release of Performance Security
Analytic Hierarchy Process
and
THE USE OF E-TENDERING FOR CAPITAL PROJECTS
Presentation Outline

• E-Tendering

• Contractor Selection
  – Compliant Bids
  – AHP Methodology

• Present Application of AHP at WASA

• Overall Benefits of AHP
E-Tendering: Use of Websites

• Online Registration for tender
• Google Sites

WTC 24/2011 Design, Supply and Installation of New Lime Dosing System at the Freeport Water Treatment Plant

The Government of Trinidad & Tobago is acting as guarantor for the financing of an investment programme to improve water service levels in the country. This comprises both the provision of new water supply assets, and the rehabilitation or replacement of existing infrastructure that no longer achieves the required service standards. The works subject of this tendering procedure will provide for the refurbishment of the Freeport Water Treatment Plant.

The Freeport Water Treatment Plant is one of the sources of water supply to the country with a daily production of 2.39 IMGD. The contractor is required to undertake all civil, mechanical, instrumentation and control and electrical works for the installation, testing and commissioning of the New Lime Dosing System at the Freeport Water Treatment Plant.
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E-Tendering: e-submission

- Google Docs
- wasaombudsman@gmail.com
- Secured access
- Snapshots
- Live openings
- Public openings
Contractor Selection

• Determine compliant bids
  ✓ VAT & Tax documents, Incorporation, Audited Financials
  ✓ Experience, references, etc.

• The Analytic Hierarchy Process
  ✓ AHP is a decision-making method for ranking alternatives when multiple criteria must be considered
  ✓ Facilitated by the Expert Choice Software
Contractor Selection

The Analytic Hierarchy Process (AHP) – Industry Best Practice

• **U.S. Government** – 30 Federal Agencies including NASA, Air Force, Army, Navy, Senate, FAA, Joint Chiefs

• **Business** – over 100 Fortune 500 companies in Banking, Insurance, Pharmaceuticals, Telecommunications, Manufacturing, IT, Energy and Utilities
  e.g. Merck, 3M, AOL, IBM, Lockheed, GM, Ford, Xerox, Intel, Sprint, BP, Alcoa, Washington Gas

• **Academic** – taught in 60 universities worldwide

• **Government and private enterprise throughout the world**. e.g. De Beers (South Africa), Public Works & Services (Canada), Ferrari SpA (Italy), Reuters Ltd (UK)
Present Application of AHP at WASA

• In use at WASA since 2009
• Being used for Contractor Selection for our present Capital Investment Programme
• Thirty (30) contracts awarded in the last fifteen (15) months e.g., Freeport WTP, Hollis WTP, Las Lomas WTP, Penal WTP
• Another thirty (30) projects at different stages of tendering using the AHP. This includes rehabilitation works at our largest production facility, the Caroni WTP
Present Application of AHP at WASA

<table>
<thead>
<tr>
<th>All Participants</th>
<th>Ideal mode</th>
<th>WRT Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience and Competence of the Firm</td>
<td>15.00%</td>
<td>15.00%</td>
</tr>
<tr>
<td>Qualifications, Experience, and Competence of Personnel</td>
<td>15.00%</td>
<td>15.00%</td>
</tr>
<tr>
<td>Proposed Work Plan, Approach, and Design</td>
<td>30.00%</td>
<td>30.00%</td>
</tr>
<tr>
<td>Price</td>
<td>40.00%</td>
<td>40.00%</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Vendor D 21.99%
Vendor C 21.73%
Vendor A 19.62%
Vendor E 19.46%
Vendor B 17.31%
Benefits of the AHP

• Multi-criteria Decision Making Tool

• Structure
  Aligned Process & Decision Criteria, Focus, Synthesis of intuition and data

• Buy-in
  Stakeholder involvement, including subject matter experts

• Transparency
  ✓ Collaborative
  ✓ Auditable - Fully documented decision-making process, from start to finish. Any part of the decision may be verified
  ✓ Justifiable - Clear and proven methodology that provides straightforward graphics and easy to understand results.
  ✓ Improves accountability
Summary

1. Process of issue of Letter of Award, Performance Bond, Contract Agreement, etc. continues after Contractor Selection is completed

2. E-Procurement is a process that is:
   - Simple - Assistance is available through our Purchasing Department
   - Transparent
   - Protest Proof
PAYMENT PROCESS
Presentation Outline

- Payment Cycle - Step by Step Approach (Slide #3 - 4)
- Payment Cycle - Graphical Representation & Timeline (Slide #5)
- Current Practices (Slide #6)
- New Initiatives for Reduced Payment Periods (Slide #7)
- Responsibilities of the Contractor (Slide #8)
- Summary – (5) Key Pointers for Prompt Payment (Slide #9)
BUSINESS OPPORTUNITIES AT WASA

Payment Cycle:
“Recurrent / Projects”

Step by Step Approach:

- Contractor is engaged {via various options}
- Letter of award & contract prepared and signed
- Purchase order prepared & sent to contractor
- Contractor performs service
- Delivers invoice to User department / Expediting Unit
- User department approves invoices and submits to Project Accounting (Project Jobs)
- Project Accounting / Expediting compares information on the invoice with existing purchase order / part delivery & completed job
Step by Step Approach (Cont’d):

- Project Accounting / Expediting Unit prepares Payment documents & submits to Purchasing Department for receipting. Invoices are simultaneously submitted to Accounts Payable.

- Purchasing Department receipts purchase order / part delivery.

- Accounts Payable compares receipted PO to Invoice and prepares cheque.

- Cheque is disbursed through our Head Office Paymaster within 20 - 30 days.

However, we are currently pursuing ‘Direct Payments’ via Bank Transfers as an option.
Payment Cycle (FLOWCHART): “Recurrent / Projects”

START

1. Invoice sent to AP
2. Payment document sent to Purchasing

PO received by contractor

Contractor performs service

Contractor deliver invoice to Expediting / User

1 - 5 days

Invoice is verified with PDN / PO & work completed

Expediting / Project Accounting prepares payment documents

2 days

Receipting of PO

1 day

Cheque is generated by AP

2 days

Contractor called to collect cheque at Paymaster

2 days

END

N.B.
Timeline to pay - Within 20 - 30 days of receipt of invoice
Current Practices

- Currently, the Expediting Unit is centralized at St. Joseph, Head Office. This results in a longer cycle time to address individual contractors’ invoices, queries etc.

- In its current form, the receipting function is capable of addressing only a limited number of purchase orders / part delivery notes at any given time, causing payment delays.
New Initiatives:

- Decentralization of Expediting Unit:
  a) Dedicated staff to match invoice to purchase order / part delivery note at each Regional Office (throughout Trinidad & Tobago)
  b) Dedicated staff to communicate with contractors

- Optimization of resources to the receipting function to reduce receipting time
## Responsibilities of Contractor

<table>
<thead>
<tr>
<th>#</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>✓ Perform specified service within a timely manner / contractual agreement</td>
</tr>
<tr>
<td>2</td>
<td>✓ Submission of Invoice no later than 5 working days after completion of service</td>
</tr>
<tr>
<td>3</td>
<td>✓ Ensure that each invoice is accurately tabulated</td>
</tr>
<tr>
<td></td>
<td>✓ Ensure each invoice has all relevant detail/information:</td>
</tr>
<tr>
<td></td>
<td>- PO #</td>
</tr>
<tr>
<td></td>
<td>- Job details</td>
</tr>
<tr>
<td></td>
<td>- Invoice # / date</td>
</tr>
<tr>
<td></td>
<td>- Vat # (once qualified)</td>
</tr>
<tr>
<td></td>
<td>✓ Ensure the appropriateness of each Invoice</td>
</tr>
<tr>
<td></td>
<td>- Original or certified copied invoices</td>
</tr>
<tr>
<td></td>
<td>- Non-duplicated Invoice number</td>
</tr>
<tr>
<td></td>
<td>- Untampered Invoices (no liquid paper, scratches)</td>
</tr>
<tr>
<td></td>
<td>- Contractor Approved invoices (all relevant stamp / signature(s))</td>
</tr>
</tbody>
</table>
Summary

(5) Key Pointers for Prompt Payment

1. Do not start job/services without a Purchase Order

2. Deliver Invoice(s) to the user Department within 5 days upon completion of job/services

3. Ensure Invoices are properly computed and include the PO reference numbers

4. Ensure Invoices are stamped and appropriately authorised by your organisation

5. Collect cheque when notified
PERFORMANCE

• Replacement of 29km Navet Trunk Main: 250,000 beneficiaries

• Portable Water Treatment Plants: Penal, Talparo and Matura with capacity of 1.6mgd

• 100 pipeline projects and commissioning of South Oropouche Booster Station (10mgd)
PERFORMANCE cont’d

• Increase 24/7 coverage from 16% to 26% and 97% of customers receive a minimum of 2 days supply per week

• Increase in revenue/collection by 37% comparative to June 2011

• Re-organization to improve customer service levels and staff productivity

• Currently planning and implementing 364 projects
PERFORMANCE cont’d

• MORI poll May-June 2011:
  – 67% Customer Satisfaction Rating; this is a 30 percentage point increase over the comparative period.
  – 56% reduction in negative reporting on WASA and an overall 33% drop in media reports/mention
COLLABORATION

- Aquagest Solutions, Spain
- Public Utilities Board (PUB), Singapore
- National Water and Sewerage Corporation (NWSC), Uganda
- Inter-American Development Bank
  — USD50M acquired
  — Pursuing USD600M
  — Develop corporatization model
- IBM: Smart solution (IS/IT)
PROJECT ALIGNMENT

• Infrastructure renewal and business process re-engineering required to improve service delivery

• Project Planning & Implementation requires using Internal and External resources
PROJECT PROFILES

• Customer Service Focus – Water Delivery
  – Rehabilitation of Intakes and Water Treatment Plants
  – Installation of Transmission and Distribution Mains
  – Rehabilitation/Construction of Booster Pumping Stations
  – Rehabilitation/Construction of Service Reservoirs
PROJECT PROFILES      cont’d

• Customer Service Focus – Water Delivery
  – Drilling and Equipping of Wells
  – Installation of Meters
  – Development of Network and Pressure Management
  – Installation of Supervisory Control & Data Acquisition (SCADA)
  – Exploring Water Reuse for Industrial purposes
PROJECT PROFILES cont’d

Customer Service Focus – Wastewater

– Rehabilitation & Integration of Wastewater Facilities

– Expansion of Wastewater Collection, and Disposal Systems
PROGRAMMES

Water Treatment Plants – $171M

Key Projects

- Caroni Plant
- Navet
- Hillsborough, Tobago

Boosters Stations and Reservoirs - $46M

Key Projects

- Savonetta Booster
- Mayaro Reservoir
- Arena Reservoir
PROGRAMMES  cont’d

Pipelines – $588M

Key Projects

• Caroni Trunk Main Dualling
• Hollis Trunk Main Replacement North & South
• Bacolet to Signal Hill, Tobago

Wells - $37M

Key Projects

• North, South & Tobago
WASTEWATER AUTHORITY

"Water Security in Every Sector"

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PROGRAMMES cont’d

Wastewater - $467M

Key Projects

• Wastewater Systems (Maloney & Couva Catchments)
• Wastewater Study - Chaguanas Catchment
• Bridge at San Fernando WWTP
• Sewer along Scott Street, San Fernando
• Sewer in Port-of-Spain & Vistabella
• South West Tobago
SCADA, Pipe Network Management & Metering - $95M

Key Projects

- SCADA - North, South & Tobago
- Metering & Automatic Metering

Infrastructure – Domestic & Bulk

- District Metered Areas
PROGRAMMES cont’d

Institutional Strengthening Projects - $18M

Key Projects

• Governance & Risk Compliance
• South Regional Complex - Design & Construction
• Customer Information System
• Hydrological database
• Dam inspections
## PROJECT SUMMARY

<table>
<thead>
<tr>
<th>Asset</th>
<th>PSIP</th>
<th>Water Development Plan</th>
<th>NSDP</th>
<th>IDB</th>
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<td>9</td>
<td>6</td>
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<td>Pipelines</td>
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<td>36</td>
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<tr>
<td>Wastewater</td>
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<td>Wells</td>
<td>3</td>
<td>10</td>
<td>1</td>
<td></td>
<td>14</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>57</strong></td>
<td><strong>109</strong></td>
<td><strong>174</strong></td>
<td><strong>21</strong></td>
<td><strong>361</strong></td>
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<tr>
<td>Total Fund</td>
<td>$363M</td>
<td>$900M</td>
<td>$123M</td>
<td>$300M</td>
<td>$1686M</td>
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FORM OF CONTRACT

• FIDIC:
  – Consultant Services/Designs/Supervision
  – Construct
  – Design Construct

• Other Contracts
  – Design, Finance, Construct, Lease, Transfer
BUSINESS OPPORTUNITIES AT WASA

OPPORTUNITIES

Contract for Professional Services

– Engineering Design
– Quantity Surveying
– Project Management
– Engineering Surveying
– Land Surveying
– Land Management
– Risk Management
– Customer Cadastre
– Customer Information System
Contract for Goods & Services

• Supply of:
  – Excavation Equipment
  – Supply of Pumps
  – Pipes and fittings
  – Aggregate
  – Filter Media
  – Plant Equipment

• Repair of equipment

• Restoration of Roadways
OPPORTUNITIES cont’d

Contract for Works - Water

– rehabilitation of water treatment plants, booster stations and reservoirs
– installation of pipes
– installation of meters
– construction of buildings
– installation of SCADA
OPPORTUNITIES cont’d

Contract for Works - Wastewater

– rehabilitation or construction of wastewater treatment plants and lift stations
  – installation of sewers
  – rehabilitation of sewers
  – integration of collection systems
  – construction of bridge
OPPORTUNITIES cont’d

• Projects valued from $500,000 to $100 M, projected to be completed by end 2013

• Sole Traders, Local Firms, Joint Ventures & Alliances

• Build specialist capacity in the Water Sector
THANK YOU
QUESTIONS & ANSWER SESSION