MAYNILAD PROCUREMENT PROCESS

By Yolanda C. Lucas

Outline of Presentation

- What we procure
- Project Classification
- Modes of Procurement
- Life Cycle Cost
- Challenges
- Learning process & benefits

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What we procure?

GOODS

- Pipes
- Fittings
- Office Supplies

SERVICES

- Janitorial
- Security
- Consultancy

INFRASTRUCTURE

- Pipe Laying
- Plants, Reservoirs, PS
- Buildings

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How do we classify projects?

www.mayniladwater.com.ph/contractor-main.php

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Company | Customers | Opportunities | News Center | Contact

Project Classification | Modes of Bidding | Projects for Bidding | Accreditation Process | Bidding Process | Downloads

- Project Contractors
- Careers
- Suppliers

Since our re-privatization in 2007, we have been investing in infrastructure projects that will improve and expand water and wastewater services in the West Zone.

We are committed to sustaining our investments until the end of our contract with the Philippine government in 2037. Below are some of our infrastructure projects.

Primary Water Lines
· Laying of pipes with diameters above 300mm

Secondary and Tertiary Water Lines
· Laying of pipes with diameters of 300mm and below

Civil Works and other Above-Ground Projects
· Non-pipe laying projects
· Facilities, electromechanical works, valve insertions, among others

Bank-Financed Projects
· Projects to be funded by lending institutions

Consultancy Services
· Feasibility studies, procurement and design services

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How do we procure?

Competitive Bidding

- Open Invitation
- Direct Invitation

Open — Where all interested contractors may participate in the bidding

Direct — Where only accredited contractors may participate in the bidding

Alternative Bidding

- Raffle
- Negotiation

Raffle — For typical secondary / tertiary pipe laying projects

Nego — Under exceptional circumstances like threat to life, property, and after 2 failed biddings

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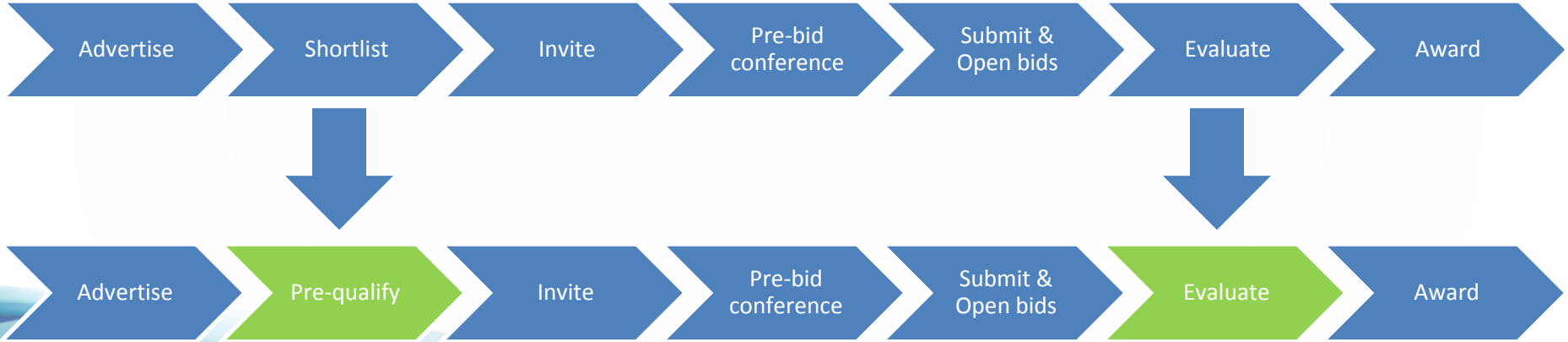
Thru open invitation

For **bank-funded projects**, the procurement procedures of the bank is used.

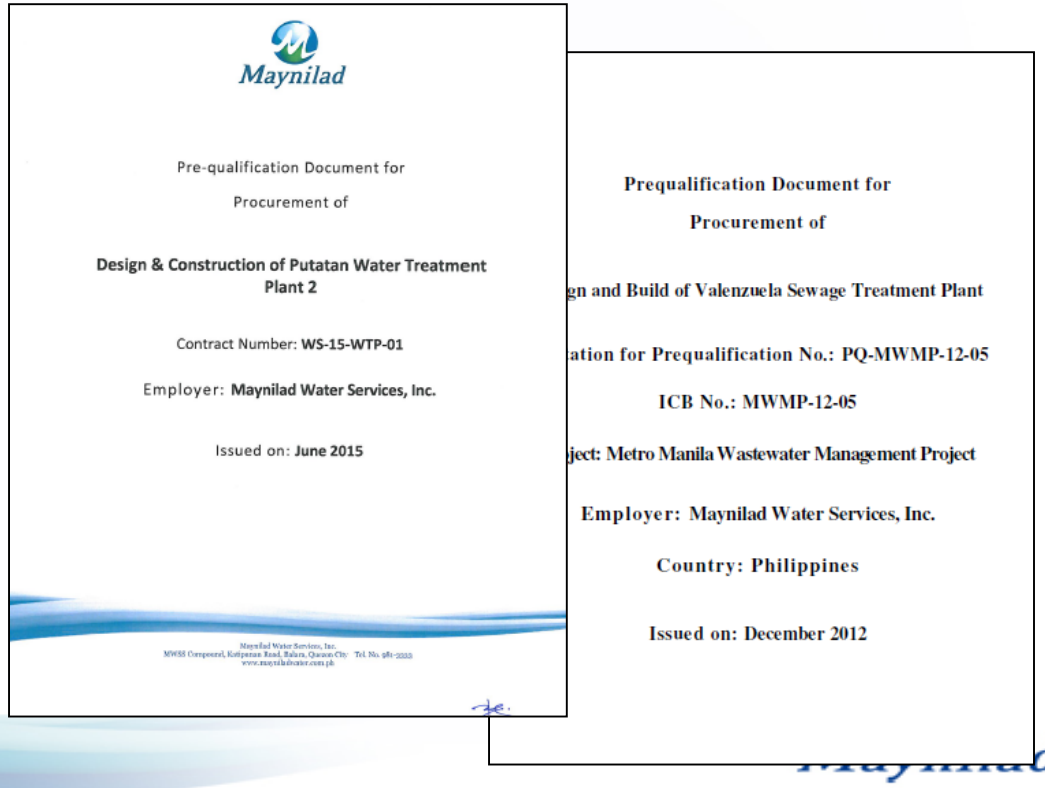
For large and complex projects such as treatment plants, Maynilad uses the **international competitive bidding** process, patterned with World Bank procedures



Advertise | Pre-qualify | Invite | Pre-bid conference | Submit & Open bids | Evaluate | Award

Projects will have their own set of pre-qualification requirements, which is usually based on the scope and magnitude of the proposed works.

Only prequalified applicants will be allowed to submit their technical and financial proposals



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Pre-qualification Document for

Procurement of

Design & Construction of Putatan Water Treatment Plant 2

Contract Number: **WS-15-WTP-01**

Employer: **Maynilad Water Services, Inc.**

Issued on: **June 2015**

Maynilad Water Services, Inc.
MWSS Compound, Katipunan Road, Balara, Quezon City Tel. No. 981-2333
www.maynilad.com.ph

Prequalification Document for

Procurement of

gn and Build of Valenzuela Sewage Treatment Plant

ation for Prequalification No.: PQ-MWMP-12-05

ICB No.: MWMP-12-05

ject: Metro Manila Wastewater Management Project

Employer: Maynilad Water Services, Inc.

Country: Philippines

Issued on: December 2012

	Base		Alternative	
Year	Total OPEX per year	Discounted OPEX per year	Total OPEX per year	Discounted OPEX per year
1	631,529,616.67	577,794,709	569,070,861.47	520,650,376.46
2	632,981,869.82	529,847,570	570,523,114.62	477,565,472.89
3	634,226,158.92	485,717,404	571,767,403.72	437,883,828.85
4	636,153,758.47	445,739,837	573,695,003.28	401,976,273.26
5	636,997,847.85	408,354,321	574,539,092.65	368,314,464.14
6	661,838,192.38	388,177,942	599,379,437.18	351,544,953.47
7	634,860,536.65	340,672,595	573,122,897.65	307,543,552.21
8	634,860,536.65	311,685,814	573,363,269.72	281,493,630.65
9	635,879,385.74	285,623,074	575,103,235.00	258,323,759.78
10	640,100,926.60	263,055,167	578,045,060.61	237,552,756.92
11	647,067,502.08	243,291,988	584,608,746.88	219,808,016.61
12	634,860,536.65	218,391,831	572,401,781.46	196,906,037.83
13	635,879,385.74	200,130,205	573,420,630.54	180,472,572.37
14	635,879,385.74	183,101,743	573,420,630.54	165,116,717.63
15	641,168,490.53	168,915,593	577,323,944.41	152,095,771.77
16	637,917,083.90	153,759,388	577,140,933.17	139,110,299.66
17	646,048,652.99	142,469,688	585,512,874.32	129,120,053.01
18	640,198,356.30	129,167,020	575,286,246.25	116,070,291.76
19	638,063,228.44	117,782,465	576,007,362.45	106,327,342.03
20	649,348,774.47	109,666,703	585,638,524.75	98,906,856.46
Total Discounted OPEX for 20 years		5,703,345,055		5,146,783,028.00
CAPEX (Sum of Schedule Nos. 1, 2, 3, 4)		3,714,924,453		3,932,490,413.00
Life Cycle Cost (Sum of CAPEX and Total Discounted OPEX for 20 years)		9,418,269,508		9,079,273,441.00

Table 6 Read Out Operational Cost for 20 years

Technical evaluation is performed to check compliance to the technical requirements.

Life Cycle Cost evaluation is used for design-build projects wherein operation and maintenance is a huge part of the cost.

The bidder that submitted the technically complying proposal and lowest life cycle cost wins the award

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Why use LCC approach?

- Recommended for major capital projects which involves high operational expenses
- Understand tradeoffs between the purchase price and operating costs.
- Minimize total cost of ownership
- Motivate contractors to optimize the design considering balance of purchase price and operating costs in the entire life of plant.
- Ensure sustainability of plant

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Advertise | Pre-qualify | Invite | Pre-bid conference | Submit & Open bids | **Evaluate** | Award

Life Cycle Cost evaluation is done in consideration of the following:

- Capex Cost
- Opex for 15-20 years

*Opex includes labor, chemical, power, maintenance, spare parts, even sludge disposal)

Life Cycle Cost (LCC) is computed using the formula below:

$$\text{Discounted OPEX for Year}_n = \frac{\text{Total OPEX for Year}_n}{(1+\text{discount rate})^{\text{year number}}}$$

$$\text{Life Cycle Cost} = \text{CAPEX} + \sum_{n=1}^{n} \frac{\text{Total OPEX for Year}_n}{(1+\text{discount rate})^{\text{year number}}}$$

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Advertise → Pre-qualify → Invite → Pre-bid conference → Submit & Open bids → Evaluate → Award

The bidder that submitted the technically complying proposal and lowest life cycle cost wins the award

YEAR	Description	Contract Amount
2012	Pasay Sewage Treatment Plant	Php1.03 B (approx USD20.6M)
2013	Valenzuela Sewage Treatment Plant	Php1.22 B (approx USD 24.4M)
2013	Cupang Sewage Treatment Plant	Php1.04 B (approx USD20.8M)
2013	Tunasan Sewage Treatment Plant	Php0.69 B (approx USD13.8M)
2014	Paranaque Water Reclamation Facility	Php1.40 B (approx USD28M)
2015	Cavite Water Reclamation Facility	Php0.64 B (approx USD12.8M)
2016	Putatan Water Treatment Plan	Php4.67 B (appox USD 93.4M)
2016	La Mesa Treatment Plant 1 Improvement	Php4.71 B (approx USD94.2M)

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Challenges of using LCC approach

- Pre-qualifications or selection of contractors capable of delivering high quality infrastructures
- Capacity building in terms of technical understanding on best available technology, managing implementation of high quality infrastructures and its effective operation and maintenance.
- More complex evaluation – more time required
- Verifying the forecasted operational and maintenance cost of bidders
- Process Proving is limited to one year and newly installed equipment are expected to perform well. How to guarantee the succeeding years?

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How to overcome?

- Pre-qualifications or selection of contractors capable of delivering high quality infrastructures

  - hiring of capable consultant

- Capacity building in terms of technical understanding on best available technology, managing implementation of high quality infrastructures and its effective operation and maintenance.

  - continuous trainings of in-house engineers

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How to overcome?

- More complex evaluation – more time
  - *Must have available actual data of performance of similar plants*
  - *Exert more effort in detailing major components of cost*
  - *Ensure competency of technical working group*

- Verifying the forecasted operational and maintenance cost
  - *Must have experience and expert people to evaluate reasonableness of forecasted O&M cost*
  - *Actual data from previous similar projects*
  - *Post Contract Monitoring*

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How to overcome?

- Process Proving is limited to one year and newly installed equipment are expected to perform well. How to guarantee the succeeding years?
  - *Thru Functional Guarantees*

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Learning Process (Functional Guarantees)

Before 2011

Guarantees were set only for the design flow.

Total amount OPEX is paid regardless of actual flow during process proving

2011-2013

Guarantees were set for ranges of flow @ 25%, 50%, 75%, and 100%.

2014 onwards

Guarantees were set on:
- unit costs of OPEX
- life cycle cost.

Contractor will be paid based on the guaranteed unit costs and actual flows.

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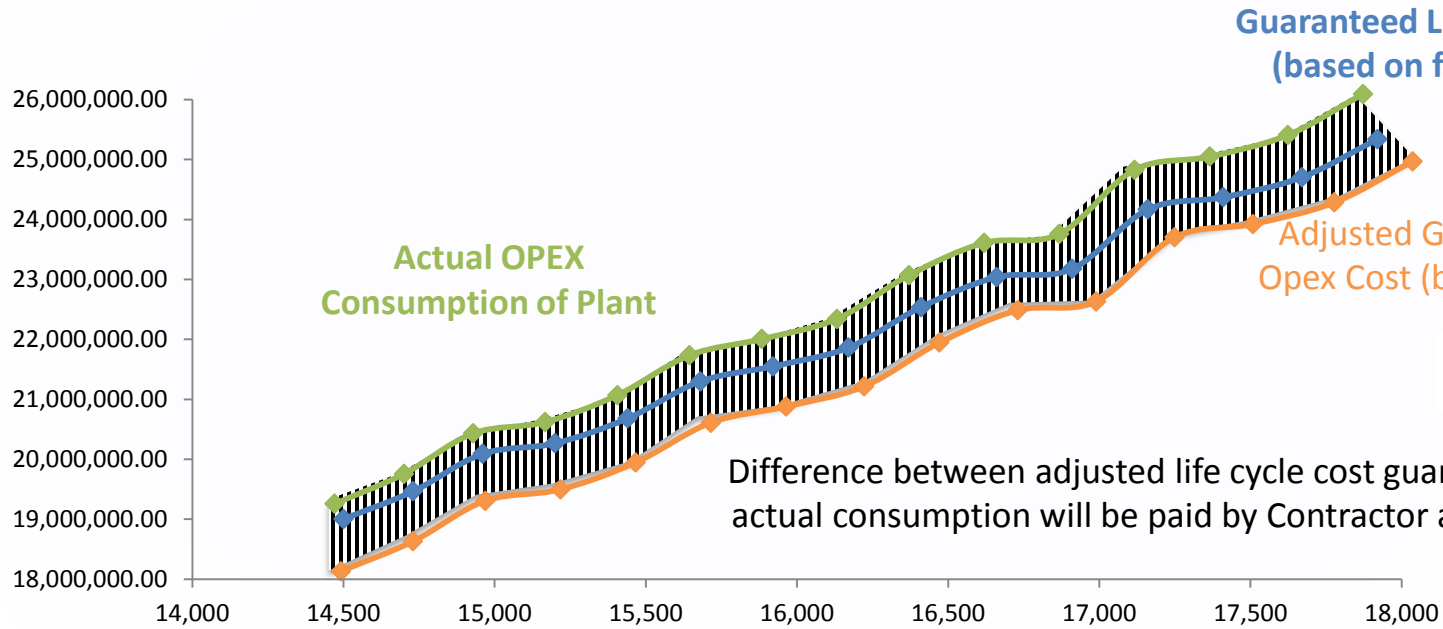
Guarantee of Life Cycle Cost

Advertise → Pre-qualify → Invite → Pre-bid conference → Submit & Open bids → Evaluate → Award → Construction



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Thank You

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