

TERMS OF REFERENCE

Consulting Services for the Conduct of Value Engineering /Value Analysis (VE/VA) Study for Water Security in Metro Manila

1. RATIONALE

- 1.1 The National Government (NG) is continuously pursuing the most cost-efficient and cost-effective measures in supporting broad-based economic / inclusive growth in the country by maximizing the utilization of NG's limited financial resources without compromising the attainment of the country's development goals and thrusts under the 2011-2016 Philippine Development Plan (PDP).
- 1.2 Considering the major contribution of infrastructure development in achieving inclusive growth, NG has introduced, as one of its strategic measures, *VE/VA*¹ as a way of optimizing investments in major public infrastructure projects/programs to: (a) ensure that these projects/programs are not overdesigned or over-specified; (b) minimize cost overruns, project implementation delays and changes in scopes of works; and (c) ensure that the projects' full functionalities are achieved at the most appropriate designs and least costs.

2. BACKGROUND

3.1 State of Water Supply Availability in Metro Manila

In 2011, the University of the Philippines – National Engineering Center (UP-NEC) conducted a water demand study for the Metro Manila areas served by the Concessionaires of the Metropolitan Waterworks and Sewerage System (MWSS)². Comparing the anticipated water demand with the current production capacity of the Concessionaires, it was projected that Metro Manila will experience water supply deficit around 2020 if no buffer capacity for

¹ VE/VA, as defined by the Society of American Value Engineers International (SAVE International), is the systematic application of recognized techniques by a multi-disciplined team that identifies the functions of a product or service; establishes a worth for that function; generates alternatives through the use of creative thinking; and provides the needed functions, reliably at the lowest cost.

² Republic Act (RA) No. 6234 (1971) created MWSS “to ensure an uninterrupted and adequate supply and distribution of potable water for domestic and other purposes at just and equitable rates.”

The Concessionaires of MWSS are **Manila Water Co., Inc. (MWCI) for the East Zone** (covering parts of Quezon City and Manila; Marikina; Mandaluyong; Makati; Pasig; Pateros; San Juan; Taguig; Rizal Province – Angono, Antipolo, Baras, Binangonan, Cainta, Cardona, Jala-Jala, Morong, Pililia, Rodriguez, San Mateo, Tanay, Taytay, Teresa) and **Maynilad Water Services, Inc. (MWSI) for the West Zone** (covering parts of Quezon City, Manila and Makati; Malabon; Navotas; Muntinlupa; Caloocan; Pasay; Parañaque; Las Piñas; Valenzuela; Cavite Province – Imus, Bacoor, Kawit, Noveleta, Cavite City, Rosario).

demand is assumed, or around 2017 if a 15% buffer capacity for demand is provided³.

In addition to the looming water supply deficit, it is noted that approximately 95% of the water supply for Metro Manila is currently provided by the Angat Reservoir System. Given that the country is prone to various natural disasters such as earthquakes and drought (especially during El Niño events), damage to the Angat Dam and its downstream waterworks as well as prolonged drought may severely affect water supply service provision in Metro Manila.

3.2 Water Security Legacy Plan of MWSS

In 2012, MWSS, in its *Water Security Legacy Plan*, has laid out its water resources development, management, and protection strategies to address the looming water supply deficit in Metro Manila, including, but not limited to the following:

- a. Securing and maximizing Angat Dam and all its appurtenant structures and assets through the Angat Dam and Dyke Strengthening Project (ADDSP), Angat Water Utilization and Aqueduct Improvement Project (AWUAIP), and Angat Water Transmission Improvement Project (AWTIP), among others (*full implementation of AWUAIP and AWTIP will be able to recover the water lost due to leaks in the aqueducts, and thereby conveying nearly 100% of the 4,100 million liters per day [MLD] capacity of the Angat River*);
- b. Development of a long-term, redundant water source to Angat Dam, i.e., the proposed Laiban - Kaliwa Dam System under the New Centennial Water Source Project (NCWSP), which is expected to provide an additional 2,400 MLD of raw water for Metro Manila⁴;
- c. Development of other short-term water sources as well as utilization of new water technologies for back-up, short-term water sources, e.g., desalination of Laguna de Bay, new public-private partnership (PPP) projects, and potential management of floodwaters (in coordination with the Department of Public Works and Highways [DPWH] at flood mitigation in Marikina and Laguna de Bay);
- d. Management and protection of Umiray, Angat, Ipo, La Mesa, and Marikina watersheds; and
- e. Implementation of demand management strategies and non-revenue water (NRW) reduction programs by the Concessionaires.

³ It is estimated that the water demand projections for the concession areas by 2037 will be around 6,000 MLD more than the existing total water supply system of 4,100 MLD. (Source: *In Pursuit of Legacy: 2012 MWSS Annual Report*)

⁴ Kaliwa Dam alone will only be able to provide an additional 600 MLD of water. With Laiban Dam, an additional 1,800 MLD of raw water will be provided.

Meanwhile, the joint initiative of MWSS' Concessionaires through the Common Purpose Facilities (CPF)⁵ includes the following projects:

- a. Umiray-Angat Trans basin Rehabilitation Project (UATP), which aims to upgrade the damaged facilities in Umiray to ensure water supply availability; and
- b. Sumag River Diversion Project (SRDP), which will have an estimated additional yield of 200 MLD.

To date, only the AWUAIP has reached project completion⁶, while SRDP and ADDSP are currently in the implementation phase⁷, and UATP is being prepared for rebidding⁸. Meanwhile, with the various outstanding issues in the possible implementation of the Laiban Dam⁹, it was decided by MWSS to implement first the Kaliwa Dam component of NCWSP, and was subsequently approved by the NEDA Board-ICC¹⁰. It should be noted that the implementation of Kaliwa Dam alone will yield only an additional 600 MLD, and with a much reduced structure life span due to heavy siltation along Kaliwa River.

Considering full implementation, the above projects will only be able to satisfy future water demand up to 2022¹¹, as shown in the *figure below*. This is without considering extreme weather events such as the El Niño phenomenon, which would affect water supply further.

Consequently, the 2011-2016 PDP called for the identification and development of new water sources for Metro Manila to eliminate the risks arising from being dependent on a single water source for present and future consumption needs of the population.

⁵ CPF is a Joint Venture (JV)/Joint Undertaking of the two (2) Concessionaires of MWSS, i.e., Maynilad Water Services, Inc. (MWSI) and Manila Water Company, Inc. (MWCI) *"for the operation, maintenance, renewal, and as appropriate, the decommissioning of the Common Purpose Facilities and the performance of such other functions relating to the Concessions pursuant to and in accordance with the provisions of the Concession Agreements."* Under the JV/Joint Undertaking, which was executed between the parties on 31 July 1997, with the approval of MWSS, the Concessionaires jointly and equally share management and operating responsibilities for the Common Purpose Facilities.

⁶ AWUAIP Phase 2 was completed on March 2013. (Source: http://mwss.gov.ph/?page_id=6)

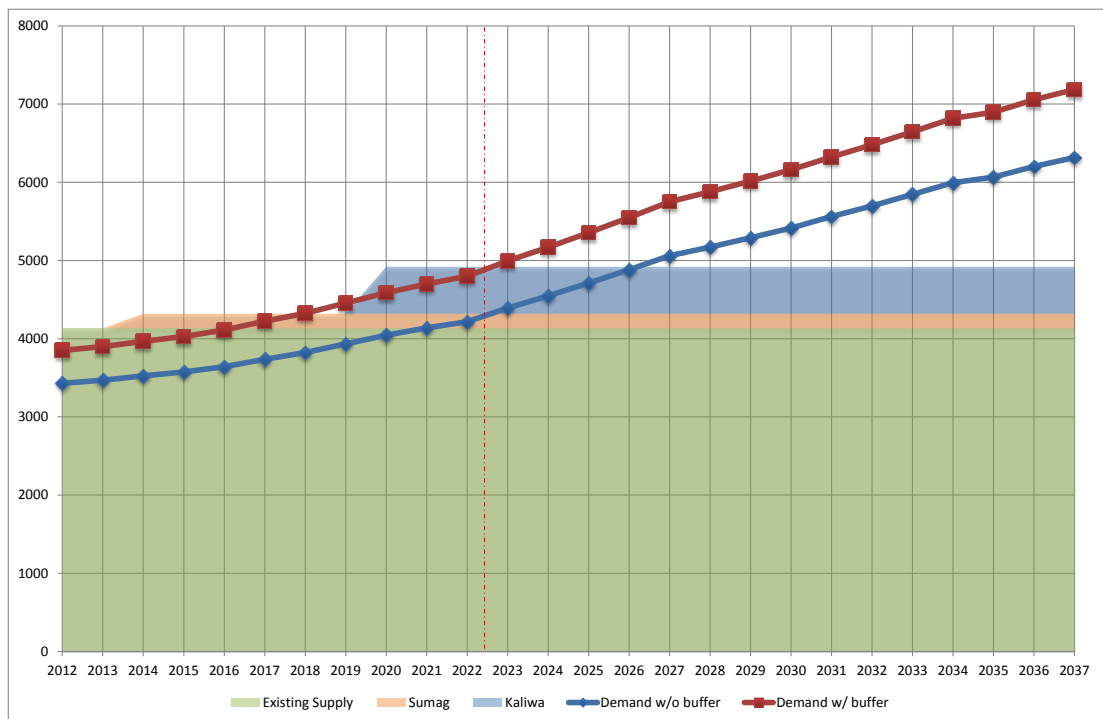
⁷ Notice to Proceed for SRDP was issued to the contractors on 15 April 2014, while the conduct of detailed engineering design for ADDSP started on 01 October 2014. (Sources: <http://mwss.gov.ph/?p=1584> and <http://mwss.gov.ph/?p=1569>, accessed on 19 March 2015)

⁸ Re-bidding due to an initial failure of bid. Status as of 30 November 2014. (Source: <http://mwss.gov.ph/?p=2913>, accessed on 20 March 2015)

⁹ As of 2012, approximately 3,000 families already live within the potential reservoir/inundation area of Laiban Dam.

¹⁰ NCWSP was approved by the ICC and confirmed by the NEDA Board on 20 January 2014 and 29 May 2014, respectively.

¹¹ Including a 15% buffer capacity for demand.



Projected annual water demand-supply projections for Metro Manila

3. OBJECTIVE

The objective of this VE/VA Study is to utilize the NCWSP study, and all other studies, to identify and quantify all the existing and possible new sources of water supply for Metro Manila such as those mentioned in Section 2.2 of this TOR and to develop and recommend optimal solutions and/or combinations thereof which address the looming threats to water security in Metro Manila.

5. SCOPE OF CONSULTANT'S SERVICES

The consulting services shall involve, but not necessarily be limited to, the following activities:

- 5.1 Preparation of the general and detailed work plan for the conduct of the VE/VA study. The work plan shall include the timetable/schedule for each of the activities (such as Gantt Chart).
- 5.2 Conduct secondary data and information gathering, and review the various relevant documents and other pertinent data needed in the conduct of VE/VA. Review of pre-feasibility studies (pre-F/S) and/or feasibility studies (F/S) undertaken on the project and other pertinent data needed in the conduct of the VE/VA Study including, but not limited to: validation of estimated project costs and preparation of a cost, life-cycle cost and/or other appropriate models.
- 5.3 Undertake primary data gathering such as interviews, focus group discussions (FGD), and/or brainstorming workshops with relevant individuals, agencies, institutions, etc.

- 5.4** Preparation of a comprehensive briefing document on the VE/VA study goals, work plan, schedule, project description, study team roster, and essential plans of the general layout and other critical project features.
- 5.5** Conduct the VE/VA study using the six-phase job plan (refer to **Annex A**) as illustrated in the *Value Analysis (VA) Handbook of NEDA (2009)*¹², which has developed guidelines and analytical tools on value analysis.

As previously mentioned, the VE/VA study shall cover other possible options/activities in addition to those activities that are already described in the MWSS' Water Security Legacy Plan. The value options must consider the following policies and principles of the Government on water resources development, among others:

- a. IWRM¹³. *IWRM has been identified in the PDP as the overall strategy for: (a) the effective protection and regulation of water for security and ecosystem health; (b) the provision of responsive services for present and future needs; (c) the improved effectiveness, accountability and synergy among water-related institutions and stakeholders; and (d) adaptive and proactive responses to emerging as well as future challenges, such as climate change adaptation (CCA) and disaster risk reduction and management (DRRM).*
- b. Eco-efficiency¹⁴. *As an overarching strategy in the pursuit of water security, the PDP calls for eco-efficient approaches/interventions in the development of water infrastructure.*
- c. NG policies on new water source development. *The PDP calls for surface water development over groundwater source development particularly in areas where groundwater over-extraction and depletion, land subsidence, and saltwater intrusion is of highest concern including in Metro Manila. Further, the policy of the National Water Resources Board (NWRB), through its Board Resolution No. 001-0904 issued on September 2004 on suspension of new groundwater source development in areas served by MWSS should be taken into consideration in the course of the study.*

¹² For reference, the *Value Analysis Handbook for NEDA (2009)* may be downloaded from: <http://www.neda.gov.ph/wp-content/uploads/2014/01/Value-Analysis-Handbook.pdf>

¹³ IWRM is a framework which promotes the coordinated development and management of water, land, and related resources in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.

¹⁴ Eco-efficiency promotes innovation and a paradigm shift from market-based efficiency to eco-efficiency, "eco" meaning both economic and ecological, resulting in resource-saving and efficient use in order to achieve decoupling economic well-being with natural resource use. Eco-efficient infrastructure means physical infrastructure that adopt the sustainable processes of design, construction, and operation and maintenance with less environmental impacts.

For more concrete examples, please refer to NEDA's audio-visual presentation on EEWIN found in: <https://www.youtube.com/watch?v=1k4mmyl0J1M>

- 5.6** Preparation of the VE/VA Report for the proposed options. *The VE/VA Report should be in accordance with the standards/formats provided by NEDA, and with the NEDA VA Handbook (2009).*

The Report shall also include the associated costs, benefits, and risks involved vis-à-vis the proposed options, highlighting the best options for delivering the intended outputs, which would yield the highest value for money (VfM), e.g., lowest lifecycle/whole-of-life costs based on secondary data or estimates.

The Report shall also include an analysis of possible financing schemes, e.g., whether National Government (NG) funding, Official Development Assistance (ODA), Public-Private Partnership (PPP), or hybrid arrangement, including an analysis of financing risks.

- 5.7** Conduct of coordination meetings with concerned agencies/institutions, as needed.
- 5.8** Conduct of meetings/presentations to NEDA or to NEDA's identified committees such as the NEDA Board-Committee on Infrastructure (INFRACOM) and the Sub-Committee on Water Resources (SCWR).
- 5.9** Conduct of other activities, as needed, prior to the formulation of the draft final VE/VA report.

In addition to the specified scope of works mentioned above, the Consulting Firm may propose additional works/services to enhance the Study, provided it shall bear no additional cost to Government. The scope of any additional proposed works by the Consulting Firm shall be established within the submission of its Work Plan of the Study, which is seven (7) days upon the Consulting Firm's receipt of the Notice to Proceed (NTP), subject to the approval of NEDA.

NEDA may assign personnel to the Consultant as may be agreed upon for the purpose of capacity-building and technology transfer, and participate in the conduct of VE/VA study. The same shall not bear additional cost to Government.

6. TIMELINES AND DELIVERABLES

- 6.1** The Consultant is expected to submit a VE/VA Report with options recommendations and combinations thereof on how to address the threats to water security in Metro Manila including possible structural measures (e.g., development of new water sources and alternative locations for new sources of water, new and cost-effective technologies, etc.) and non-structural interventions (e.g., water demand management programs, water conservation advocacy measures, etc.), as well as justifying the potential alternatives through either improved quantity of water supply (in MLD), improved cost, and/or increased implementability of the proposed alternatives.

The recommended options shall aim to enhance the 2012 Water Security Legacy Plan of MWSS by considering options that use the principles of

IWRM, river basin (RB) approach, eco-efficient water infrastructure, etc. Moreover, the recommended options should be shown to be feasible or potentially viable for further development.

6.2 Commencement Date and Period of Implementation

The study shall be completed within a period of ***four (4) months***, inclusive of the presentations to the SCWR and INFRACOM, commencing from the date of the NTP. Refer to **Annex B** for an illustration of the indicative implementation timelines for the study.

6.3 Table of Deliverables

The following deliverables/outputs (in 5 hard and soft copies) will be expected from the Consulting Firm to be submitted to NEDA on the day/date specified below and based on the agreed general Work Plan:

| Deliverables | Timelines |
|---|---|
| <p><u>VE/VA Work Plan</u></p> <p>Work Plan for the conduct of VE/VA on the project, which will include the following:</p> <ul style="list-style-type: none"> • Description of the Work Plan, which includes the methodology and mechanics/approach in conducting the VE/VA study, and work timetable. The methodology to be used should be consistent with the six (6)-phase job plan or similar methodology/principle. The NEDA VE/VA Handbook shall be used as reference; and • List of main activities and tasks to be undertaken by the Consulting Firm to develop the VE/VA Report, which shall also indicate the sequence and relationships between tasks and provide a realistic estimate of start and duration of each task. | <p>Within seven working (7) days upon the Consulting Firm's receipt of the notice to proceed (NTP) from NEDA to commence the VE/VA study.</p> |
| <p><u>Preliminary VE/VA Report</u></p> <p>Report on initial findings of the VE/VA study</p> | <p>Within two (2) months after the NEDA approval of the Work Plan</p> |

| Deliverables | Timelines |
|--|---|
| <p><u>Presentations to the SCWR and INFRACOM</u></p> <p>Presentations to the INFRACOM-SCWR of the Preliminary VE/VA Report, Draft Final Report, and Final Report Presentation to the INFRACOM of the Draft Final Report</p> | <p>The earliest available schedule of the SCWR meeting upon receipt by NEDA of the Report</p> <p>The earliest available schedule of the INFRACOM meeting upon receipt by NEDA of the Report</p> |
| <p><u>Final VE/VA Report</u></p> <p>Report incorporating comments/recommendations from the SCWR and INFRACOM, as applicable, after the submission of the draft VE/VA Report and presentation to the INFRACOM.</p> | <p>Ten (10) working days after INFRACOM final comments.</p> |

Note: The VE/VA report should contain the required format/information as indicated in the standards/formats to be provided by NEDA and should be in accordance with the format provided for in the NEDA Value Analysis (VA) Handbook (2009).

7. EXPERTISE REQUIREMENTS AND QUALIFICATIONS

The proposed Study shall be undertaken by a Consulting Firm¹⁵ composed of the following key experts and their corresponding qualifications:

7.1 Team Leader

- At least a bachelor's degree in the field of engineering or natural sciences, with a minimum of ten (10) years of experience in public infrastructure planning, design and/or construction;
- At least seven (7) years of relevant work experience in the conduct of VE/VA at various stages in the development of major infrastructure projects (e.g., options analysis during pre-F/S or F/S preparation);
- Premium shall be given to bidders whose proposed team leaders are Certified Value Specialists (CVS)¹⁶ under SAVE International or similar certification bodies;

¹⁵ The engagement of local consultants will be prioritized as long as the six (6)-phase job plan or similar methodology illustrated in the VA Handbook is followed.

¹⁶ CVS is the highest level of certification attainable through SAVE International. Designation is reserved for Value Methodology (VM) practitioners, VM Program Managers, and VM Academia, who have demonstrated expert level experience and knowledge in the practice of the VM.

7.2 Water Resources Engineer/Planner

- At least a bachelor's degree in the field of engineering or natural sciences, with specialization in water resources engineering and/or planning;
- At least ten (10) years of relevant work experience inclusive of local and international work/training in water resources engineering and/or planning (e.g., water resources master planning, F/S preparation for projects within the water resources sector, preferably in the water supply sector);

7.3 Hydrologist

- At least a bachelor's degree in the field of engineering or natural sciences with specialization in water resources engineering and/or planning;
- At least ten (10) years of relevant work experience in the field of water resources engineering/hydrology/hydraulics (e.g., water resources master planning, F/S preparation for projects within the water resources sector, preferably in the water supply sector);

7.4 Economist

- At least a bachelor's degree in the field of economics, finance and/or related fields; and
- At least ten (10) years of relevant work experience in analyzing funding/financing aspects of projects and financial/economic impact of major public infrastructure, preferably in economic/financial analyses of water resources projects.

The Consulting Firm may propose additional experts other than those listed herein, as it deems necessary, as long as such proposal is consistent with its proposed approach and methodology and without additional cost to Government. Moreover, the Consulting Firm may propose an expert to undertake more than one (1) activity/expertise, provided that: (i) all the necessary expertise required in delivering the desired output/s are present in the Team; (ii) the activities proposed to be undertaken by each expert should be consistent with the proposed approach and methodology; and (iii) the merging of expertise shall not prejudice the outputs.

8. APPROVED BUDGET FOR THE CONTRACT (ABC)

8.1 The ABC for the proposed study **SIX MILLION AND 00/100 PESOS (PhP6,000,000.00)**, inclusive of all applicable Government taxes and charges, professional fees, and other incidental and administrative costs (i.e., transportation expenses, printing and reproduction of reports, cost of conduct of workshops and meetings including, food, venue, and equipment rental, and other expenses deemed necessary for the project).

8.2 Note that this consulting contract shall be a fixed price contract. Any extension of contract time shall not involve any additional cost to NEDA.

9. PAYMENT SCHEDULE

9.1 The schedule of payment is as follows:

| Description | Payment |
|--|------------|
| Upon NEDA Approval of the Work Plan | 10% of ABC |
| Upon NEDA Approval of the Preliminary VA Report | 25% of ABC |
| Upon NEDA Approval of the Draft Final VA Report | 40% of ABC |
| Upon NEDA Approval of the Final VA Report and Documentation of the VE/VA Study | 25% of ABC |

9.2 An advance payment shall be made to cover mobilization costs, but shall not exceed 15% of the contract amount, subject to the posting of an irrevocable standby letter of credit issued by an entity acceptable to NEDA and of an amount equal to the advance payment. The advance payment shall be repaid by the Consulting Firm by deducting from his subsequent billings/payments such sum as agreed upon during contract negotiations until fully liquidated within the duration of the contract.

10. IMPLEMENTATION ARRANGEMENT / RESPONSIBILITIES

10.1 Responsibilities of NEDA

- 10.1.1 Shall evaluate all request for payments/billings and determine the acceptability/correctness of the same;
- 10.1.2 Shall have the option to have up to five (5) Government personnel participate in the critical stages of the Study for the purpose of on-the-job capacity building/technology transfer;
- 10.1.3 Shall provide, upon the request of the Consulting Firm, available information/data and also, if available, copies of previous related studies subject to the execution of a Non-Disclosure Agreement, if necessary;
- 10.1.4 Shall supervise and provide the over-all guidance to the Consulting Firm on the general direction of the Study based on the project/Study objectives as well as on relevant country policies and development plans, and will direct the engaged Consulting Firm and/or the VE/VA Team on the succeeding or next steps to be undertaken during the course of the Study;
- 10.1.5 Shall facilitate and coordinate with other Government agencies and private utility operators in the request for necessary interview meetings and document collection in advance of the VE/VA study; and
- 10.1.6 Extend assistance in the coordination, preparation, and arrangement of venue, equipment, materials and other logistics for the various meetings.

10.2 Responsibilities of the Consulting Firm

- 10.2.1 Shall be responsible for the conduct of the Study and the timely delivery of results/outputs as indicated under Section 6.3 of this TOR;
- 10.2.2 Shall shoulder all expenses required in the conduct of the Study, including travel costs and lodging of Government personnel during field visits, except for their salaries;
- 10.2.3 Shall: (a) carry out the services with sound engineering theories and practices to ensure that the final works will provide the most economical and feasible development for the Study; (b) accept full responsibility for the consulting services to be performed under this TOR for which the Consulting Firm is liable to NEDA; and (c) comply with, and strictly observe any laws regarding workmen's health and safety, workmen's welfare, compensation for injuries, minimum wage, hours of labor and other labor laws;
- 10.2.4 Shall: (a) keep accurate and systematic records and accounts in respect of the services in such form and detail as is customary and sufficient to establish accurately that the costs and expenditures under this TOR have been duly incurred; and (b) permit the duly authorized representatives of the Government from time to time to inspect its records and accounts as well as to audit the same;
- 10.2.5 Shall not assign nor sub-contract any part of the professional engineering services under this TOR to any person or firm, except with prior written consent of NEDA. The approval by the Government to the assignment of any part of said services or to the engagement by the Consulting Firm of sub-contractors to perform any part of the same shall not relieve the Consulting Firm of any obligations under this TOR;
- 10.2.6 Shall, during or after the conclusion or termination of the Study, limit its role to the provision of the services and hereby disqualifies itself and any other contractor, consulting engineer or manufacturer with which it is associated or affiliated, from the provision of goods and services other than the services herein, except as NEDA may otherwise agree;
- 10.2.7 Shall prohibit full-time foreign staff during his assignment under this TOR to engage, directly or indirectly, either in his name, or through the Consulting Firm, in any business or professional activities in the Philippines other than the performance of his duties or assignment under this TOR;
- 10.2.8 Shall not at any time communicate to any person or entity any information disclosed to them for the purpose of this services, nor shall the Consulting Firm make public any information as to the

recommendations formulated in the course of or as a result of the services, except with prior consent of NEDA;

- 10.2.9 Shall agree that nothing contained herein shall be construed as establishing or creating between the Government and the Consulting Firm, the relationship of employer and employee or principal and agent, it being understood that the position of the Consulting Firm and anyone else performing the services is that of an independent contractor;
- 10.2.10 Shall hold the Government free from any and all liabilities, suits, actions, demands, or damages arising from death or injuries to persons or properties, or any loss resulting from or caused solely by the Consultant's personnel incident to or in connection with the services under this TOR. The Consulting Firm shall agree to indemnify, protect and defend at its own expense the Government and its agents from and against all actions, claims and liabilities arising out of acts done solely by the Consulting Firm or its staff in the performance of the services, including the use of, or violation of any copyrighted materials, patented invention, article or appliance; and
- 10.2.11 Shall provide on-the-job capacity building/technology transfer to the Government's personnel detailed to the Project.

11. OWNERSHIP OF THE OUTPUTS/REPORTS/DOCUMENTS

All submitted outputs/reports/documents under this contract, including but not limited to tracings, as-built drawings, estimates, digital information, computer model and data, specifications, investigations and studies completed or partially completed, inspection logs, and photographs, shall be the property of NEDA upon completion of the work / full payment of the contract or termination of the Agreement.

12. CONFORMANCE WITH EXISTING LAWS

The procurement process for this undertaking shall be executed in accordance with Republic Act (RA) No. 9184, otherwise known as the Government Procurement Reform Act (GPRA) and its Revised Implementing Rules and Regulations (IRR).

13. SELECTION CRITERIA FOR SHORTLISTING

Prospective Consultancy Firms must have at least 10 years of similar and/or relevant experience related to this TOR and will be rated based on the criteria shown in **Annex C** ("Criteria for Shortlisting"). Prospective bidders are required to submit the following:

- a. Copies of *Certificate of Project Completion and Acceptance* or equivalent Certification from their previous related studies/projects within the past 10 years;
- b. Company profile; and

- c. Curriculum Vitae (CV) of Key Experts highlighting their relevant work experience.

Note the following:

Similar experience/studies refer to contracts with scope of works covering the conduct of pre-F/S preparation, full-blown F/S preparation, and detailed engineering design, which demonstrate the utilization of VE/VA principles such as the conduct of options analysis, in the water supply subsector¹⁷. Similar experience/studies shall also include the conduct of water resource assessments and water balance studies for the preparation of river basin master plans and/or watershed management plans.

Relevant experience/studies include conduct of pre-F/S preparation, full-blown F/S preparation, and detailed engineering for projects in the water resources sector (other than those under the water supply subsector which are considered as similar experience/studies), which demonstrate the utilization of VE/VA principles such as the conduct of options analysis. Relevant experience/studies shall also include VE/VA studies for projects belonging in other infrastructure sectors (e.g., transport sector, power sector, etc.).

The Team Leader and other Key Experts are requested to indicate: (1) their role in a specific project; (2) the exact duration (in man-months) that they have worked on the project; and (3) a brief description of the tasks that they have carried out (such as experience in the conduct of VE/VA or options analysis).

The Consulting Firms will be evaluated using the Quality-Cost Based Evaluation/Selection QCBE/QCBS) procedure under RA No. 9184/GPRA and its IRR at 80% for the Technical Proposal and 20% for the Financial Proposal. The prospective Consulting Firms shall follow the guidelines in the preparation of eligibility requirements pursuant to Section 24.1 and Section 24.2 of the Revised IRR of the GPRA.

14. RETENTION PAYMENT¹⁸

14.1 A retention payment of ten percent (10%) shall be withheld. It shall be based on the total amount due to the Consulting Firm prior to any deduction and shall be retained from every progress payment until 50% of the value of Study, as determined by NEDA, is completed. If, after 50% completion, the Study is satisfactorily done and on schedule, no additional retention shall be made; otherwise, the 10% retention shall be imposed.

14.2 The total "retention money" shall be due for release upon approval of the Final Report. The Consulting Firm may, however, request the substitution of the

¹⁷ The *water supply subsector* is one of the subsectors of the *water resources sector*. The other subsectors under the *water resources sector* are the following: (a) sanitation and sewerage; (b) irrigation; and (c) flood management.

¹⁸ Per Annex "E" of the Revised IRR of RA No. 9184

retention money for each progress billing with irrevocable standby letters of credit from a commercial bank, bank guarantees, or surety bonds callable on demand, of amounts equivalent to the retention money substituted for and acceptable to NEDA, provided that the project is on schedule and is satisfactorily undertaken. Otherwise, the 10% retention shall be made. Said irrevocable standby letters of credit, bank guarantees and/or surety bonds, to be posted in favor of NEDA shall be valid for the duration of the contract.

15. LIQUIDATED DAMAGES¹⁹

- 15.1** Where the Consulting Firm refuses or fails to satisfactorily complete the work within the specified contract time, plus any time extension duly granted and is hereby in default under the contract, the Consulting Firm shall pay NEDA for liquidated damages, and not by way of penalty, an amount, as provided in the conditions of contract, equal to at least one tenth (1/10) of one (1) percent of the cost of the unperformed portion of the works for every day of delay. Should the amount of liquidated damages reaches 15 percent of the contract amount, NEDA shall at its own discretion terminate the contract without prejudice to any further action it may take to recover whatever losses incurred due to non-performance of the Consulting Firm.
- 15.2** To be entitled to such liquidated damages, NEDA does not have to prove that it has incurred actual damages. Such amount shall be deducted from any money due or which may become due the Consulting Firm under the contract and/or collect such liquidated damages from the retention money or other securities posted by the Consulting Firm whichever is convenient to NEDA.

¹⁹ Per Annex “E” of the Revised IRR of RA No. 9184

Annex A

The Six (6)-Phase Job Plan:

1. **Information Phase-** the Consultant will review existing and proposed projects design, objectives, and preliminary cost information. The team should understand the limitations of the projects as well as the expected benefits.
2. **Function Analysis Phase-** the Consultant should define the projects' functions and review and analyze these functions to determine which need improvement, elimination, or creation to meet the goals.
3. **Creativity Phase-** the Consultant will employ professional creative techniques to identify other ways to perform the function(s).
4. **Evaluation Phase-** the Consultant will follow a structured evaluation process to select those ideas that offer the potential for value improvement while delivering the function(s)/objectives and considering performance requirements and resource limits.
5. **Development Phase-** the Consultant will develop the selected ideas into alternatives (or proposals) with a sufficient level of documentation to allow decision-makers to determine which alternative should be implemented.
6. **Presentation Phase-** the Consultant will develop a workshop report and/or presentation that document and convey the adequacy of the alternative(s) developed by the Consultant to the NEDA-Project Steering Committee.

Annex B

| Activity | Month 1 | | | | | | | | | | | | Month 2 | | | | | | | | | | | | Month 3 | | | | | | | | | | | | Month 4 | | | | | | | | | | | | |
|--|---------|--|--|--|--|--|--|--|--|--|--|--|---------|--|--|--|--|--|--|--|--|--|--|--|---------|--|--|--|--|--|--|--|--|--|--|--|---------|--|--|--|--|--|--|--|--|--|--|--|--|
| Issuance of notice to proceed/commence | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Orientation/Leveling off | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preparation and Submission of work plan | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 st presentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NEDA approval of work plan | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VE/VA study | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preparation and Submission of Preliminary VE/VA report | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 nd Presentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NEDA review/approval of Preliminary VE/VA report | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preparation and Submission of Draft Final report | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 rd presentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NEDA review/approval of Draft Final report | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Incorporation of NEDA comments by Consultants and | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Finalization / incorporation of NEDA additional | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submission of Final VE/VA Report | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ANNEX C

CRITERIA FOR SHORTLISTING

| | RATING FACTOR | | POINTS/WEIGHT |
|------------|--|-----------------|----------------------|
| I | Experience and Capability of the Firm <ul style="list-style-type: none"> ▪ Completed consulting services of size, complexity and technical specialty comparable to job under consideration, including quality of performance ▪ Other completed consulting services related to the job under consideration ▪ Known cases of prior performance, including quality of work conforming to obligations and cost of services | Subtotal | 50 |
| II | Job Capacity <ul style="list-style-type: none"> ▪ Absorptive capacity to do additional works other than those currently being undertaken | Subtotal | 20 |
| III | Quality of Key Personnel Who May Be Assigned to the Project | Subtotal | 30 |
| | Total | | 100 |