

Project Administration Manual

Project Number: 46265
Grant Number: {GXXXX}
September 2013

Socialist Republic of Viet Nam: Energy Efficiency for
Ho Chi Minh City Water Supply Project

Contents

ABBREVIATIONS

I.	PROJECT DESCRIPTION	1
II.	IMPLEMENTATION PLANS	5
	A. Project Readiness Activities	5
	B. Overall Project Implementation Plan	6
III.	PROJECT MANAGEMENT ARRANGEMENTS	7
	A. Project Stakeholders – Roles and Responsibilities	7
	B. Key Persons Involved in Implementation	7
	C. Project Organization Structure	8
IV.	COSTS AND FINANCING	9
	A. Detailed Cost Estimates by Expenditure Category	10
	B. Allocation and Withdrawal of Grant Proceeds	11
	C. Detailed Cost Estimates by Financier	12
	D. Detailed Cost Estimates by Outputs/Components	13
	E. Detailed Cost Estimates by Year	14
	F. Contract and Disbursement S-curve	15
	G. Fund Flow Diagram	16
V.	FINANCIAL MANAGEMENT	17
	A. Financial Management Assessment	17
	B. Disbursement	17
	C. Accounting, Auditing, and Reporting	18
	D. Procurement of Goods, Works and Consulting Services	19
	E. Procurement Plan	19
	F. Consultant's Terms of Reference	20
VI.	SAFEGUARDS	20
VII.	PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION	21
	A. Design and Monitoring Framework	21
	B. Monitoring	22
	C. Evaluation	22
	D. Reporting	22
	E. Stakeholder Communication Strategy	23
VIII.	ANTICORRUPTION POLICY	23
IX.	ACCOUNTABILITY MECHANISM	24
X.	RECORD OF PAM CHANGES	24
APPENDIXES		
	1. PROCUREMENT PLAN	25
	2. OUTLINE TERMS OF REFERENCE FOR CONSULTANTS	33

Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The executing agency is wholly responsible for the implementation of ADB financed projects, as agreed jointly between the grantee and ADB, and in accordance with Government of Viet Nam (GOV) and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by Saigon Water Corporation of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At Grant Negotiations, the grantee and ADB shall agree to the PAM and ensure consistency with the Grant agreement. Such agreement shall be reflected in the minutes of the Grant Negotiations. In the event of any discrepancy or contradiction between the PAM and the Grant Agreement, the provisions of the Grant Agreement shall prevail.

After ADB Board approval of the project's Report and Recommendations of the President (RRP) changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

Abbreviations

ACEF	–	Asian Clean Energy Fund
ADB	–	Asian Development Bank
CDM	–	Clean Development Mechanism
CEFPF	–	Clean Energy Financing Partnership Facility
CQS	–	consultant qualification selection
HCMC	–	Ho Chi Minh City
IEC	–	information, education and communication
M&E	–	monitoring and evaluation
MFF	–	multitranches financing facility
NCB	–	National competitive bidding
PAM	–	project administration manual
PC	–	People's Committee
PCP	–	Public Communication's Policy
PCR	–	Project Completion Report
PIA	–	project imprest account
PMU	–	Project Management Unit
PPTA	–	project preparatory technical assistance
RRP	–	Report and recommendation of the President to the Board
SAWACO	–	Saigon Water Corporation
SOE	–	statement of expenditure

MAP: PROJECT LOCATION IN HO CHI MINH CITY



CHỮ THÍCH

- Tuyến ống nước thô các cấp khác nhau
- Tuyến ống nước thô các cấp cùng trục
- Tuyến ống chuyển tải các cấp cùng trục
- Tuyến ống chuyển tải các cấp khác trục
- HỒ CHI MINH
- ▲ CÔNG TRÌNH VÀ TRẠM BƠM NƯỚC THÔ
- ▲ TẦNG BÀ

Thu Duc Water Production Plant

Hoa Phu raw water pumping station

CÔNG TRÌNH THỦ VÀ TRẠM BƠM NƯỚC THÔ HÒA PHÚ CS-600.000M³/NG

TUYẾN ỐNG CHUYỂN TẢI NƯỚC THÔ TỪ HÒA PHÚ ĐI TÂN HIỆP GIẢI ĐOẠN 1.2 DN1500

NHÀ MÁY NƯỚC TÂN HIỆP CS-600.000M³/NG

TUYẾN ỐNG CHUYỂN TẢI NƯỚC SẠCH TỪ TÂN HIỆP TỚI BÀ QUỐC QUÊ 1-DN1500; QDN 2-DN1800

CHỦ ĐẦU TƯ CÔNG TY CẤP NƯỚC BAN QUAĐHTCNSGCI	ĐƠN VỊ TƯ VẤN CÔNG TY MEINHARDT INTERNATIONAL	BỘ XÂY DỰNG TỔNG CÔNG TY XÂY DỰNG SỐ 1		ĐỊA ANH HỆ THỐNG CẤP NƯỚC SẠCH SÀI GÒN GỐ 1 CÔNG SUẤT: 300.000M ³ /NG
		TỔNG CÔNG TY	C.TY TƯ VẤN ĐẦU TƯ & THIẾT KẾ	
nhật liên	nhật liên	nhật liên	nhật liên	CÔNG TRÌNH: TRẠM BƠM NƯỚC THÔ HÒA PHÚ
				HẠNG MỤC: TRẠM BƠM NƯỚC THÔ
TÊN DỰ ÁN	tự vấn nước	ban quản lý	cs. nhà máy nước	TÊN SẢN PHẨM: PHẦN CÔNG NGHỆ MẶT BẰNG VỊ TRÍ
QUẢN ĐỐC BAN QUẢN	QUẢN ĐỐC TƯ VẤN	TỔNG QUẢN ĐỐC	QUẢN ĐỐC CÔNG TY	BẢN VẼ THI CÔNG
				NGÀY HOÀN THÀNH: 20/03/2010
				ĐỊA CHỈ: 10/000/000/000
				ĐƠN VỊ: /

I. PROJECT DESCRIPTION

Project's Rationale

1. Since year 2000, the Socialist Republic of Viet Nam has experienced economic growth averaging nearly 8%, which is evident in the rapid growth of its urban areas such as Ho Chi Minh City (HCMC), with a population of 7.1 million in 2010. This growth led to inadequate capacity to manage and finance the expansion of infrastructure facilities and put pressure on the environment. The Government of Viet Nam set comprehensive and ambitious policies, which, among other goals, aims to promote efficiency and conservation while expanding access to reliable water supply. The sector program of Asian Development Bank (ADB) in the Viet Nam Country Strategy and Program, 2007–2010 and the Viet Nam Country Partnership Strategy, 2012–2015 are consistent with government policies for energy efficiency and infrastructure provision, especially in water and sanitation. The Water and Sanitation Sector Assessment Strategy and Roadmap for Viet Nam recognizes the need for better protection and efficient use of water.¹ In 2007, the government enacted (and supplemented in 2011) a strong legal framework for the water supply, shifting water from a social good to a business commodity.² The water sector is expected to operate on full cost recovery. The introduction of a service contract (i.e., a business plan) , as required under the current legislation (footnote 4), but mostly not enforced, would improve efficiency in the water subsector. ADB's capacity development technical assistance³ is assisting water companies to develop business plans and service contracts to justify water tariff increase matching the documented improvement in the level of service.

2. ADB financed a project preparatory technical assistance (PPTA) of \$1.5 million in 2008, with supplementary financing of \$0.3 million in 2010, for HCMC Water Supply.⁴ A loan of \$138 million for HCMC Water Supply was approved under the Water Sector Investment Program Tranche 1⁵ of a \$1 billion multitranche financing facility for the Water Sector Investment Program (MFF).⁶ The framework financing agreement (FFA) of the MFF (footnote 6) was signed on 5 May 2011. The loan and project agreements were signed on 8 June 2011, and the Tranche 1 (footnote 5) became effective on 24 May 2012.

3. Tranche 1 (footnote 5) will benefit 2.5 million persons with improved service and 20,000 poor households with their own piped water connection for the first time. The loan closing was extended by two years because of long project start-up from delays in signing the subsidiary loan agreement. In June 2013, four contracts were awarded to individual consultants: Two for climate change thematic studies on water conservancy and disaster management and two to prepare bidding documents for (i) information technology (\$28 million); and, (ii) 10 km

¹ ADB. 2010. *Southeast Asia Department Working Paper: Viet Nam Water and Sanitation Sector Assessment, Strategy and Roadmap*. Manila.

² Decree 117/2007/ND-CP *Production, Supply and Consumption of Clean Water* and Decree 124/2011/ND-CP on *amendments and supplements ... to Decree 117/2007/ND-CP*.

³ ADB. 2013. *Capacity Development Technical Assistance to the Socialist Republic of Viet Nam for Improving the Performance of the Water Supply Project Sector*. Manila (TA 8357-VIE).

⁴ ADB. 2010. *Technical Assistance to the Socialist Republic of Viet Nam for Preparing HCMC Water Supply Project*. Manila (TA 7091-VIE).

⁵ ADB. 2011. *Water Sector Investment Program Tranche 1*. Manila (L2754-VIE).

⁶ ADB. 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to the Socialist Republic of Viet Nam for the Water Sector Investment Program*. Manila (MFF0054-VIE).

transmission pipe (\$78 million) under engineering procurement construction (EPC) using ADB's pilot bidding document for EPC contract.

4. Tranche 1 (footnote 5) complies with the Framework Financing Agreement, including safeguards, undertakings and financial ratios. In addition, SAWACO has established a project management unit (PMU) with a full time PMU director and deputy director. Fifty percent of the PMU staff are women, well above the required 30% in the Gender Action Plan. Since 2011, selected PMU staff participated in ADB training workshops in Viet Nam on safeguards, disbursement and procurement.

5. During the PPTA, SAWACO, conducted an energy audit of their operations. The energy audit report showed that about \$5 million investment would result in energy savings of 25,000 megawatt hour per annum (MWh/y), translating to about \$1.3 million per annum, and an annual carbon dioxide (CO₂) reduction of about 18,889 tons. The grant financing of \$2 million towards energy savings investment would directly result in about 10,000 MWh, or \$500,000 per annum, of energy savings and about 7,500 tons of annual CO₂ reduction.

6. Following the results of the audit, SAWACO already invested in some energy efficient components, identified in the energy audit with a short payback period, especially to equip the treated water pumps with variable frequency drives. SAWACO requested ADB assistance for additional investments for the overall improvement of the water-pumping scheme, including the reduction of technical water losses and grid electricity consumption, through a \$2 million grant from the (Asian Clean Energy Fund) ACEF under Clean Energy Financing Partnership Facility (CEFPPF).⁷ Under the project, SAWACO will also apply for additional funding to the Clean Development Mechanism,⁸ following the baseline methodology for water pumping efficiency improvements.

7. ADB's sector program Viet Nam's CPS, 2012–2015 is consistent with government policies for energy efficiency and infrastructure provision. There is a need for better protection and efficient use of water, as recognized in the ADB Water Operational Plan.⁹ The grant, used as seed money, to leverage additional capital expenditures for energy efficiency, will be recovered through savings in operating expenses. This type of investment will be streamlined and up-scaled with other water companies that seek financing under subsequent tranches of the MFF (footnote 6).

8. The ACEF is processed as a grant investment component, in parallel to the MFF (footnote 6). The project is referred to in the Technical Assistance Section (para. 22) of the report and recommendation of the President (RRP) for the MFF.

Location

9. HCMC is Viet Nam's largest city and its most important commercial and industrial center. With a current population growth of about 1.1% per annum, HCMC would have about 10 million people by 2020. While Viet Nam's gross domestic product (GDP) is growing at more than 8% per annum, HCMC is growing substantially faster, at around 11% per annum. This growth rate is seriously straining the city's infrastructure, including the water supply system. In addition, HCMC

⁷ The grant was approved on 11 July 2013 by the Government of Japan with validity until 15 November 2013.

⁸ Defined in article 12 of the Kyoto Protocol under the United Nations Framework Convention on Climate Change.

⁹ ADB. 2011. *Water Operational Plan 2011–2020*. Manila.

is one of the 10 cities in the world likely to experience the early impacts of climate change, in particular a projected sea level rise of 33 centimeters by 2050.

10. SAWACO, set up in 1874, is Viet Nam's oldest water company and responsible for water supply in HCMC. It has operated since 2004 as a state-owned one-member company limited under the Commercial Law, 2005. Six distribution companies, incorporated as joint stock companies and 51% owned by SAWACO, and two other companies under SAWACO are in charge of distribution in HCMC.

11. The water supply system in HCMC has five major production plants with a total capacity of 1.34 million cubic meters per day (m³/day) and 3,800 kilometers (km) of distribution network with 734,000 connections, divided into six zones. The fundamental constraint on the water supply system is a shortfall in transmission capacity. Actual coverage is estimated at 82%, but large areas of HCMC, especially in the south, still suffer intermittent water supply because of low service pressure. SAWACO has a \$2.8 billion investment plan, whose objectives are to achieve universal coverage, continuous water supply, and drinking water quality by 2025.

12. Several facilities have been identified during PPTA (footnote 3) as having a high energy-saving potential. The sites of the project are as follows:

- **Thu Duc** water treatment plant for the replacement of its large, old air-conditioning unit, the implementation of a mobile monitoring laboratory, as well as the installation of frequency converters for the pumps that are under SAWACO financing.
- **Hoa Phu** raw water pumping station, part of the Tan Hiep water treatment plant, for the installation of frequency converters.

Beneficiaries

13. The project would result in the sustainable provision of safe water in Viet Nam by improving service delivery to 480,000 households in the HCMC. The 3,000 staff of SAWACO will particularly benefit from this project, by cutting in the operation costs of SAWACO and by providing them an information, education and communication (IEC) campaign on energy savings, which could also affect and be extended in their neighborhood.

Climate Change and Energy Saving policies

14. The project is in line with the Viet Nam National Energy Efficiency Program (2006–2015), which promotes energy efficiency and conservation while contributing to environmental protection of resources and social economic sustainable development.

15. As for the reduction of energy use and greenhouse gas (GHG) emission related to energy consumption, the project is directly linked to the following:

- The National Target Program for Respond to Climate Change (NTP-RCC)
- The Law on Energy Efficiency and Conservation, 2011
- The National Strategy on Climate Change, 2011

Impact and Outcome

16. The impact of the project is the improved operational performance of SAWACO. The outcome is the improved energy efficiency in SAWACO operations.

Outputs

17. The outputs are as follows:

- (i) **Output 1: Capacity building of SAWACO in energy efficiency.** Capacity development through consulting services will include a monitoring and evaluation of the investment. It will also support an Information, Communication, and Education for capacity building and an awareness campaign in energy savings for both SAWACO's 3,000 staff and its management.
- (ii) **Output 2: Investment in energy savings.** Physical investment for energy efficiency that includes (a) frequency converters for the three raw water pumps at Tan Hiep Production Plant, including control for the pumps to maintain a target pressure; (b) a mobile monitoring equipment based on water pressure; and (c) quality calibration technology and central air conditioning systems that use new technology to reduce water and carbon footprints and greenhouse gas emissions at the Thu Duc Water Production Plant.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Indicative Activities	1	2	3	4	5	6	7	8	9	10		11	12	13	Who responsible
	(Sept) 2011	(Oct) 2011	(Nov) 2011	(Dec) 2011	(Jan) 2012	(Feb) 2012	(Mar) 2012	(Apr) 2012	(May) 2012	(Jun) 2012	...	(Jul) 2013	...	(Oct) 2013	
Issue letter of approval of grant funding															ADB
Issue PDO to MPI															GOV/SAWACO
Concept Clearance															ADB
PDO approved by PM															GOV/SAWACO
Grant Pre-Fact Finding Mission															ADB - GOV/SAWACO
Staff Review Meeting															ADB
Grant negotiations															ADB - GOV/SAWACO
Grant Approval															ADB - GOV/SAWACO

ADB = Asian Development Bank, GOV = Government of Viet Nam, MPI = Ministry of Planning and Investment, PDO = project detailed outline, PM = Prime Minister, SAWACO = Saigon Water Corporation.

Source: Asian Development Bank.

B. Overall Project Implementation Plan

General Description	Contract Value	Recruitment Method ¹	Advertisement Date (quarter/year)	International or National Assignment	2014												2015											
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					CS1 (Information Communication and Education)	0.190	CQS	Q1-2014	International	[Gantt bar from Q1 2014 to Q4 2014]																		
CS2 (Knowledge management and project management)	0.130	IC	Q2-2014	International	[Gantt bar from Q2 2014 to Q3 2015]																							
Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000																												
General	Value of Contracts (cumulative) – M\$	Number of Contracts	Procurement / Recruitment Method¹	Comments																								
Description																												
GD1 (new air conditioners)	0.50	1	NCB	Q2-2015	[Gantt bar from Q2 2015 to Q4 2015]																							
GD2 (mobile monitoring laboratory)	0.30	1	NCB	Q2-2015	[Gantt bar from Q2 2015 to Q4 2015]																							
GD3 (frequency converters)	0.70	1	ICB	Q1-2015	[Gantt bar from Q1 2015 to Q3 2015]																							
CS3 (Design and supervision for A/C and frequency converters)	0.05	1	ICS national	Q1-2014	[Gantt bar from Q1 2014 to Q3 2014]																							
CS4 (Design and supervision for mobile laboratory)	0.02	1	ICS national	Q3-2014	[Gantt bar from Q3 2014 to Q4 2014]																							
CS5 (CDM specialist)	0.04	1	ICS International	Q4-2014	[Gantt bar from Q4 2014 to Q2 2015]																							
CS6 (CDM specialist)	0.02	1	ICS national	Q4-2014	[Gantt bar from Q4 2014 to Q2 2015]																							

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Stakeholders – Roles and Responsibilities

Project Stakeholders	Management Roles and Responsibilities
<ul style="list-style-type: none"> Ho Chi Minh City People's Committee 	Executing Agency
<ul style="list-style-type: none"> SAWACO 	Project Owner <ul style="list-style-type: none"> ➤ Primarily responsible for implementation of the project, including finance and administration, technical and procurement matters, monitoring and evaluation, and safeguards compliance ➤ Responsible for arranging the necessary counterpart financing
<ul style="list-style-type: none"> L2754-VIE Project Management Unit 	<ul style="list-style-type: none"> ➤ Primarily responsible for submission of the withdrawal application to ADB, retention of supporting documents, and disbursement of grant/counterpart funds ➤ Submission of any reporting requirements including the annual report and financial statements as well ➤ Establishing and maintaining the imprest account
<ul style="list-style-type: none"> ADB 	<ul style="list-style-type: none"> ➤ Primarily responsible for financing and monitoring of ADB-funded components of the Project

18. The PMU of Loan 2754-VIE will administer the grant and implement the project. Thus, no incremental administration expenses for the project would be requested, since the PMU is already funded under Tranche 1 (footnote 5).

B. Key Persons Involved in Implementation

SAWACO PMU

Mr. Vo Quang Hien
 Position: Director
 Telephone: 3823 5642
 Email address: adbpmu@sawaco.com.vn
 Office Address: No 1 Cong Truong Quoc Te, Ward 6,
 District 3
 Ho Chi Minh City

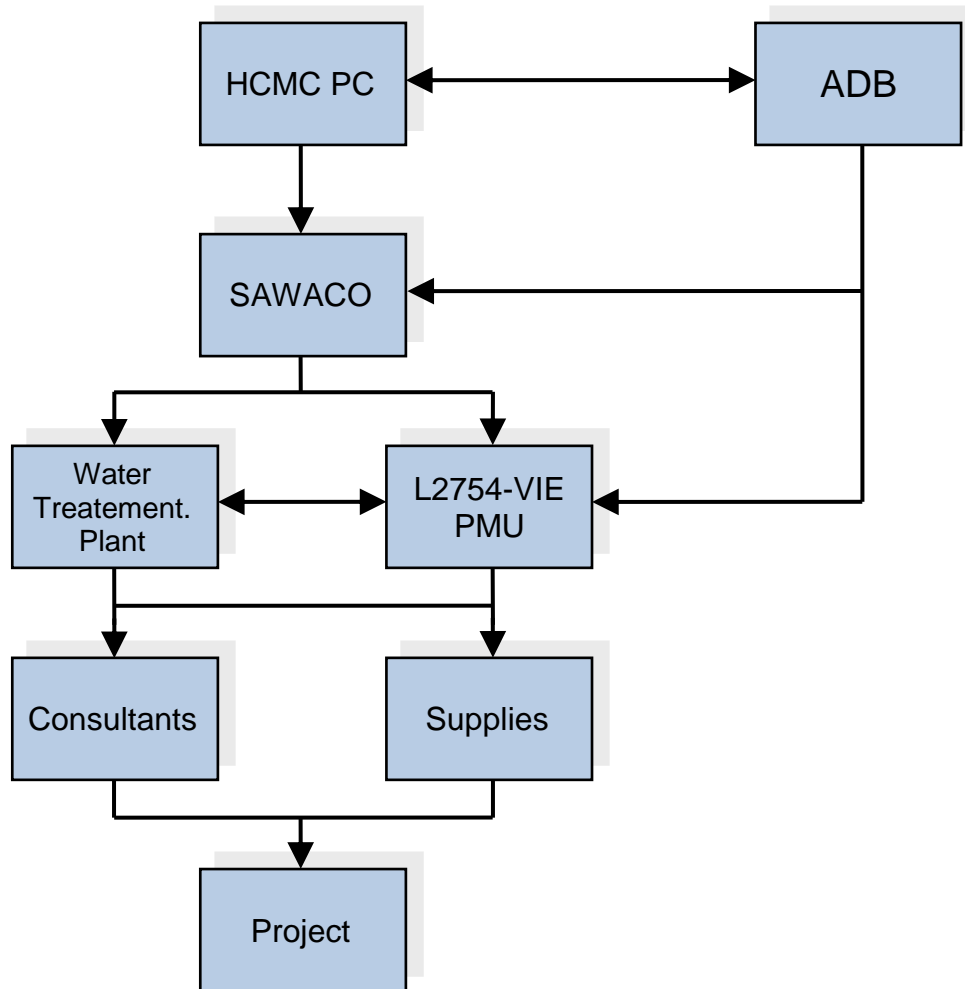
ADB

Amy Leung
 Position: Director, Urban and Water Division, Southeast
 Asia Department
 Telephone: (632) 632-6198
 Email address: aleung@adb.org

Mission Leader

Hubert Jenny
 Position: Principal Urban Development Specialist
 Telephone: 84 4 3933 1374 - Ext. 140
 Email address: hjenny@adb.org

C. Project Organization Structure



HCMC: Ho Chi Minh City

PC: People's Committee

SAWACO: Saigon Water Corporation

L2754-VIE PMU: Project Management Unit for 2754-VIE Loan (Tranche 1)

IV. COSTS AND FINANCING

19. On behalf of SAWACO, ADB has requested a \$2 million grant from ACEF, under the CEFPP, financed by the Government of Japan. The ACEF grant will help to finance capacity development at SAWACO and additional investments in clean energy.

Project Investment Plan (\$ million)

Item	Amount
A. Asian Clean Energy Fund^a under the Clean Energy Financing Partnership Facility	
1. Consultants	450.0
2. Equipment for energy savings	1,500.0
3. Surveys	20.0
4. Workshops, training, seminars, conferences	30.0
Subtotal (A)	2,000.0
B. Government Financing (SAWACO)	
1. Office accommodation	50.0
2. Remuneration and per diem of counterpart staff	50.0
3. Equipment for energy savings (treated water pumps)	1,500.0
4. Taxes and duties	200.0
Subtotal (B)	1,800.0
Total (A+B)	3,800.0

SAWACO = Saigon Water Corporation.

^a Established by the Government of Japan and administered by the Asian Development Bank.

Note: In mid-2012 prices. Contingencies are included into each line item and computed at 5%.

Source: Asian Development Bank estimates.

A. Detailed Cost Estimates by Expenditure Category

Detailed Cost Estimates by Expenditure Category		VND billion			US\$ million			%Base Cost	%Total Cost
		Foreign	Local	Total	Foreign	Local	Total		
A.	Investment Costs ^a								
1	Equipment								
	a. Frequency converters for raw water pumps	13.97	0.74	14.70	0.67	0.04	0.70	20.0%	18.4%
	b. Mobile monitoring laboratory	5.67	0.63	6.30	0.27	0.03	0.30	8.6%	7.9%
	c. New air conditioners	8.82	1.68	10.50	0.42	0.08	0.50	14.3%	13.2%
	d. Frequency converters for treated water pumps ^b	29.93	1.58	31.50	1.43	0.08	1.50	42.9%	39.5%
2	Consultants								
	a. Information Communication and Education	2.50	1.49	3.99	0.12	0.07	0.19	5.4%	5.0%
	b. Monitoring and Evaluation	3.48	1.98	5.46	0.17	0.09	0.26	7.4%	6.8%
	c. Surveys	0.00	0.42	0.42	0.00	0.02	0.02	0.6%	0.5%
	d. Workshops, training, seminars, conferences	0.00	0.63	0.63	0.00	0.03	0.03	0.9%	0.8%
	Subtotal (A)	64.35	9.15 ▲	73.50	3.06 ▲	0.44	3.50	100.0%	92.1%
B.	Recurrent Costs								
1	Salaries (in-kind contribution)	0.00	1.05	1.05	0.00	0.05	0.05	1.4%	1.3%
2	Accommodation (in-kind contribution)	0.00	1.05	1.05	0.00	0.05	0.05	1.4%	1.3%
3	Taxes and duties	0.00	4.20	4.20	0.00	0.20	0.20	5.7%	5.3%
	Subtotal (B)	0.00	6.30 ▲	6.30	0.00	0.30	0.30	8.6%	7.9%
	Total Base Cost	64.35	15.45 ▲	79.80	3.06	0.74	3.80	108.6%	100.0%
C.	Contingencies	0.00	0.00	0.00	0.00	0.00	0.00	0.0%	0.0%
	Subtotal (C)	0.00	0.00 ▲	0.00 ▲	0.00 ▲	0.00	0.00	0.0%	0.0%
Total Project Cost (A+B+C) ^c		64.35	15.45	79.80	3.06	0.74	3.80	108.6%	100.0%
% Total Project Cost		81%	19%	100%	81%	19%	100%		

Notes:

In April 2012 prices with taxes and duty inclusive, with an exchange rate of VND 21,000 to US\$1.0

^a Amount are exclusive of local taxes and duties

^b Which will be solely financed by GoV (SAWACO)

^c Numbers may not sum precisely due to rounding

**B. Allocation and Withdrawal of Grant Proceeds
(Energy Efficiency for Ho Chi Minh City Water Supply Project)**

Item	Total Amount Allocated for ACEF Financing Category	Percentage and Basis for Withdrawal from the Grant Account
1. Consultants	500,000	100% of total expenditure claimed*
2. Equipment for energy Savings	1,500,000	100% of total expenditure claimed*
Total	2,000.000	

* Exclusive of taxes and duties imposed within the territory of the Recipient.

C. Detailed Cost Estimates by Financier

						(\$ million)
Item	Asian Clean Energy Fund		Government Financing		Total Cost (\$ million)	
	Amount (\$ million)	% of Cost Category	Amount (\$ million)	% of Cost Category		
A. Investment Costs ^a						
1 Equipment						
a. Frequency converters for raw water pumps	0.70	100.0%	0.00	0.0%	0.70	
b. Mobile monitoring laboratory	0.30	100.0%	0.00	0.0%	0.30	
c. New air conditioners	0.50	100.0%	0.00	0.0%	0.50	
d. Frequency convertes for treated water pumps ^b	0.00	0.0%	1.50	100.0%	1.50	
2 Consultants						
a. Information Communication and Education	0.19	100.0%	0.00	0.0%	0.19	
b. Monitoring and Evaluation	0.26	100.0%	0.00	0.0%	0.26	
c. Surveys	0.02	100.0%	0.00	0.0%	0.02	
d. Workshops, training, seminars, conferences	0.03	100.0%	0.00	0.0%	0.03	
Subtotal (A)	2.00	57.1%	1.50	42.9%	3.50	
B. Recurrent Costs						
1 Salaries (in-kind contribution)	0.00	0.0%	0.05	100.0%	0.05	
2 Accommodation (in-kind contribution)	0.00	0.0%	0.05	100.0%	0.05	
3 Taxes and duties	0.00	0.0%	0.20	100.0%	0.20	
Subtotal (B)	0.00	0.0%	0.30	100.0%	0.30	
Total Base Cost	2.00	52.6%	1.80	47.4%	3.80	
C. Contingencies	0.00	0.0%	0.00	0.0%	0.00	
Total Project Cost (A+B+C) ^c	2.00	52.6%	1.80	47.4%	3.80	
% Total Project Cost		52.6%		47.4%	100%	

Notes:

^a Amount are exclusive of local taxes and duties

^b Which will be solely financed by GoV (SAWACO)

^c Numbers may not sum precisely due to rounding

D. Detailed Cost Estimates by Outputs/Components

Item	Total Cost	Procurement of frequency converters (raw water pumps)		Procurement of frequency converters (treated water pumps) ^b		Procurement of mobile monitoring laboratory		Procurement of new air conditioners		Information Communication and Education		Monitoring and Evaluation	
		Amount	% Cost	Amount	% Cost	Amount	% Cost	Amount	% Cost	Amount	% Cost	Amount	% Cost
		(\$ million)	Category	(\$ million)	Category	(\$ million)	Category	(\$ million)	Category	(\$ million)	Category	(\$ million)	Category
A. Investment Costs^a													
1 Equipment													
a. Frequency converters for raw water pumps	0.70	0.70	100.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
b. Mobile monitoring laboratory	0.30	0.00	0.0%	0.00	0.0%	0.30	100.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
c. New air conditioners	0.50	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.50	100.0%	0.00	0.0%	0.00	0.0%
d. Frequency converters for treated water pump	1.50	0.00	0.0%	1.50	100.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
2 Consultants													
a. Information Communication and Education	0.19	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.19	100.0%	0.00	0.0%
b. Monitoring and Evaluation	0.26	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.26	100.0%
c. Surveys	0.02	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.02	100.0%
d. Workshops, training, seminars, conferences	0.03	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.03	100.0%	0.00	0.0%
Subtotal (A)	3.50	0.70	20.0%	1.50	42.9%	0.30	8.6%	0.50	14.3%	0.22	6.3%	0.28	8.0%
B. Recurrent Costs													
1 Salaries (in-kind contribution)	0.05	0.01	20.0%	0.00	0.0%	0.01	20.0%	0.01	20.0%	0.01	20.0%	0.01	20.0%
2 Accommodation (in-kind contribution)	0.05	0.01	20.0%	0.00	0.0%	0.01	20.0%	0.01	20.0%	0.01	20.0%	0.01	20.0%
3 Taxes and duties	0.20	0.05	25.0%	0.00	0.0%	0.06	30.0%	0.05	25.0%	0.02	10.0%	0.02	10.0%
Subtotal (B)	0.30	0.07	23.3%	0.00	0.0%	0.08	26.7%	0.07	23.3%	0.04	13.3%	0.04	13.3%
Total Base Cost	3.80	0.77	20.3%	1.50	39.5%	0.38	10.0%	0.57	15.0%	0.26	6.8%	0.32	8.4%
C. Contingencies	0.00	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Subtotal (C)	0.00	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Total Project Cost (A+B+C)^b	3.80	0.77	20%	1.50	39.5%	0.38	10%	0.57	15%	0.26	7%	0.32	8%



Notes:

^a Amount are exclusive of local taxes and duties

^b Which will be solely financed by GoV (SAWACO)

^c Numbers may not sum precisely due to rounding

E. Detailed Cost Estimates by Year

Item	Total Cost (\$ million)	(\$ million)		
		2012 (\$ million)	2014 (\$ million)	2015 (\$ million)
A. Investment Costs ^a				
1 Equipment				
a. Frequency converters for raw water pumps	0.70	0.00	0.28	0.42
b. Mobile monitoring laboratory	0.30	0.00	0.15	0.15
c. New air conditioners	0.50	0.00	0.25	0.25
d. Frequency converters for treated water pumps ^b	1.50	1.50	0.00	0.00
2 Consultants				
a. Information Communication and Education	0.19	0.00	0.10	0.10
b. Monitoring and Evaluation	0.26	0.00	0.13	0.13
c. Surveys	0.02	0.00	0.02	0.00
d. Workshops, training, seminars, conferences	0.03	0.00	0.01	0.02
Subtotal (A)	3.50	1.50	0.94	1.06
B. Recurrent Costs				
1 Salaries (in-kind contribution)	0.05	0.00	0.025	0.025
2 Accommodation (in-kind contribution)	0.05	0.00	0.025	0.03
3 Taxes and duties	0.20	0.00	0.09	0.11
Subtotal (B)	0.10 	0.00	0.05	0.05
Total Base Cost	3.80	1.50	0.99	1.11
C. Contingencies	0.00	0.00	0.00	0.00
Total Project Cost (A+B+C) ^c	3.80 	1.50	1.08	1.22
% Total Project Cost	100%	39.5%	28.4%	32.2%

Notes:

^a Amount are exclusive of local taxes and duties.

^b Which will be solely financed by GoV (SAWACO).

^c Numbers may not sum precisely due to rounding.

F. Contract and Disbursement S-curve

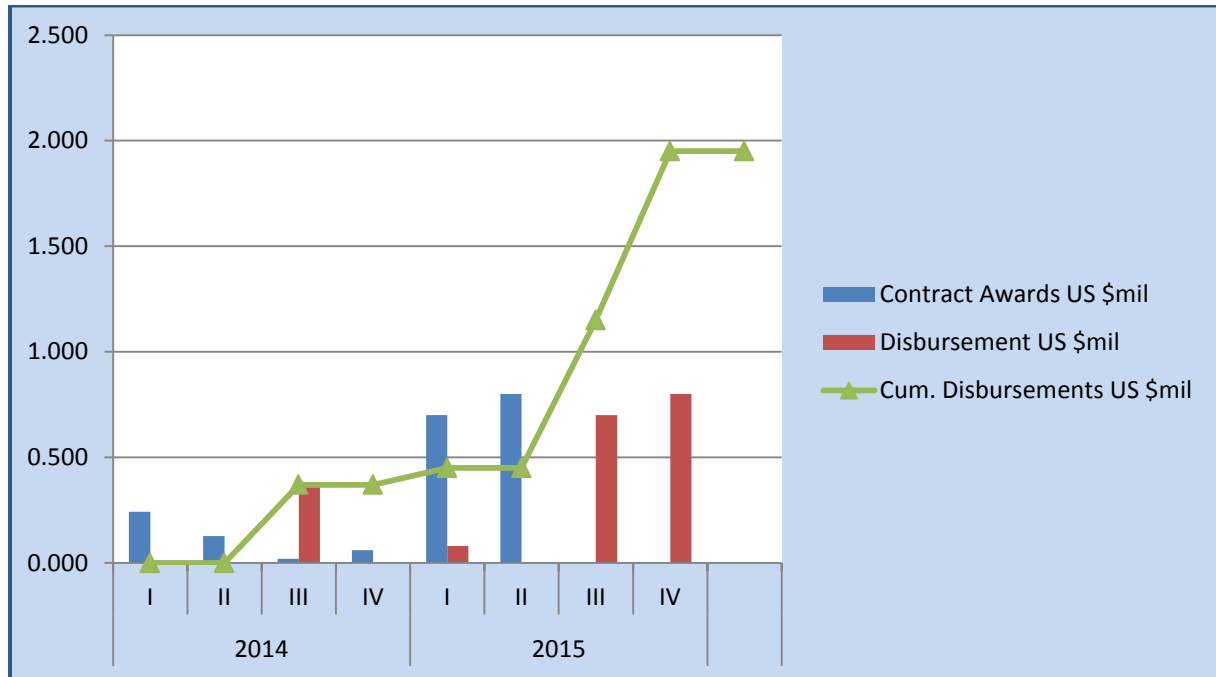
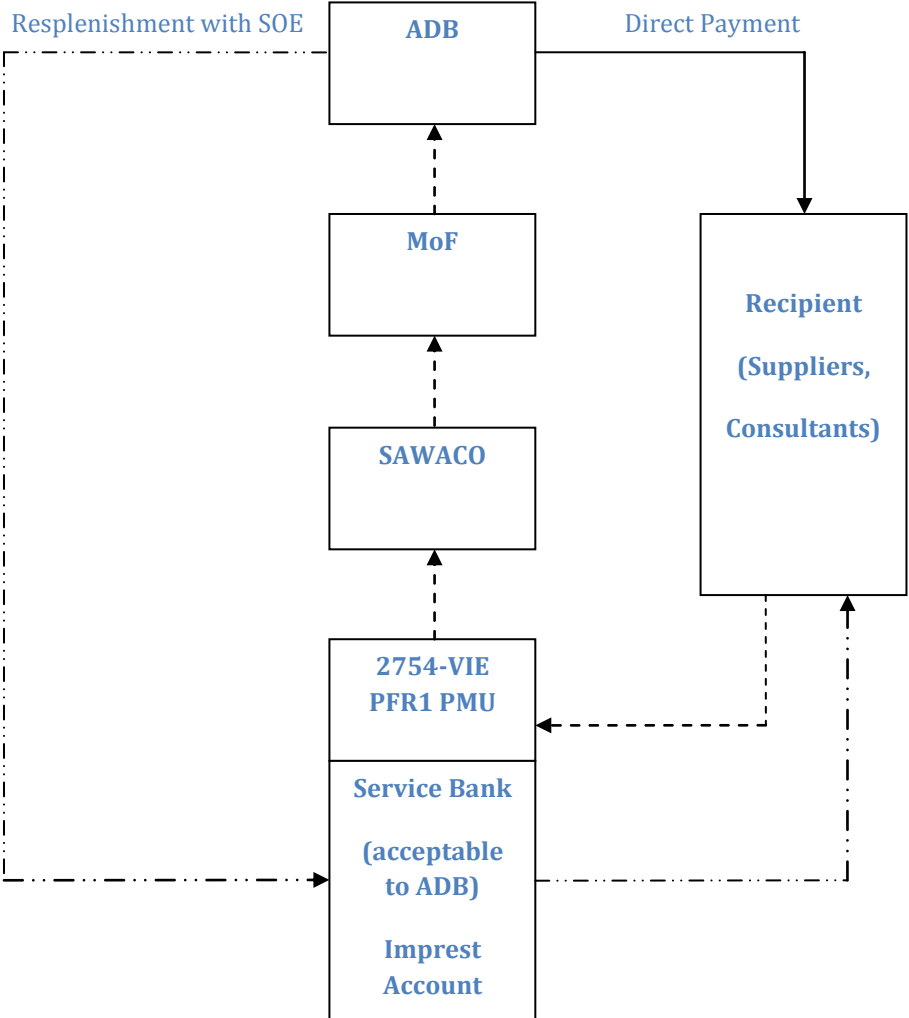


Table 1: Contract Awards and Cumulative Disbursement (\$ million)

	2014				2015				1.950
	I	II	III	IV	I	II	III	IV	
Contract Awards US \$mil	0.242	0.128	0.020	0.060	0.700	0.800	0.000	0.000	
Disbursement US \$mil	0.000	0.000	0.370	0.000	0.080	0.000	0.700	0.800	
Cum. Disbursements US \$mil	0.000	0.000	0.370	0.370	0.450	0.450	1.150	1.950	

G. Fund Flow Diagram



ADB = Asian Development Bank

MoF = Ministry of Finance

PMU = Project Management Unit under Water Supply Company (WSC) – Sub-Executing Agency (EA)

-----> Payment Request Flow (either Withdrawal Application (W/A) or Statement of Expenditure (SOE))

————> Cash Flow (Direct Payment)

- · · · -> Cash Flow (Resplenishment with SOE thru Imprest Account)

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

20. Financial management assessment (FMA) was carried out following ADB's Guidelines for the *Financial Management and Analysis (2005) of Projects* to assess the financial management capacity of SAWACO, including funds-flow arrangements, staffing, accounting policies and procedures, internal and external auditing arrangements, reporting and monitoring, and financial information systems. The assessment concluded that SAWACO is experienced in managing ADB and World Bank projects and are prepared for the tasks required to implement the Energy Efficiency Grant for HCMC Water Supply Project.

21. SAWACO is required by the Government of Viet Nam to comply with the Vietnamese Accounting Standards (VAS). As SAWACO is a holding company, the Ministry of Finance issued Decision No 119/QD-BTC dated 18 January 2008 on financial management regulation of SAWACO in the form of parent-subsidiary. This decision provides detailed guidelines for SAWACO on the basis of other relevant documents such as the Law on Enterprise, Decree 199/2004, Decree 132/2005, Decree 111/2007, Decision 224/2006 and Circular 33/2005 and Circular 87/2006. In principle, SAWACO financial management and accounting policies are not different from that of state-owned corporations.

22. The General Director of SAWACO has full authorization to execute all transactions under the project. SAWACO's accounting department has manuals relating to the control of their work, although there are no quality control procedures under ISO9000. The Board of Directors decides on the annual plan of the company and reports to HCMPC.

B. Disbursement

23. Grant disbursement will follow ADB's Loan Disbursement Handbook (2012, as amended from time to time). The detailed arrangements for disbursement have been discussed and agreed between the government and ADB. The PMU will prioritize the disbursement to the suppliers and consultants, using direct payment procedures.

24. To facilitate project implementation and funds flow, a project imprest account (PIA) will be set up in US dollar in a commercial bank selected by SBV and acceptable to ADB upon grant effectiveness and will be exclusively used to finance ADB's share of eligible expenditures. It will be established and administered by SAWACO.

25. The initial advance to be deposited to the PIA will not exceed either 6 months of estimated expenditures to be financed from the PIA, or 10% of the grant amount, whichever is lower. To expedite funds flow and simplify documentation process, the statement of expenditures (SOE) will be used for liquidation and replenishment of the PIA and reimbursement of eligible expenditures not exceeding \$200,000 per individual payments. For those exceeding the SOE limits, reimbursement, liquidation and/or replenishment will require submission of full documentation. Expenditures not utilizing the PIA, may utilize other disbursement procedures such as direct payment (to the contractor or supplier), and reimbursement.

26. SAWACO staff will be responsible for all disbursement arrangements, including (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds,

(iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to ADB.

27. The request for initial advance to the imprest account should be accompanied by an Estimate of Expenditure Sheet,¹⁰ setting out the estimated expenditures for the first six months of project implementation and evidence satisfactory to ADB that the imprest account has been duly opened. For every liquidation and replenishment request of the imprest account, the grantee will furnish to ADB (a) Statement of Account (Bank Statement) where the imprest account is maintained, and (b) the Imprest Account Reconciliation Statement (IARS) reconciling the above mentioned bank statement against the EA's records.¹¹

28. The SOE records should be maintained and made readily available for review by ADB's disbursement and review mission or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.¹²

29. Before the submission of the first withdrawal application, SBV should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the grantee, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is \$100,000, unless otherwise approved by ADB. SAWACO is to consolidate claims to meet this limit for reimbursement and imprest account claims. Withdrawal applications and supporting documents will demonstrate, among other things that the goods, and/or services were produced in or from ADB members, and are eligible for ADB financing.

30. Disbursement Arrangements for Government Funds: SAWACO is a state-owned agency, composed of staff with qualifications and experience in financial management related to ADB projects. The treasury department will coordinate with HCMC PC on disbursement and liquidation. SAWACO will also prepare its consolidated financial statements and project financial statements and submit the audited copies to ADB. Accounting procedures will be carried out pursuant to Viet Nam's accounting standards.

C. Accounting, Auditing, and Reporting

31. The grant project will be implemented parallel to Tranche 1 (footnote 5). All the fiduciary requirements from Tranche 1 (footnote 5) will also apply to the Project.

32. The PMU will maintain separate records and accounts adequate to identify the goods and services financed from the proceeds of the grant, financing resources received, expenditures incurred for the grant, and use of local funds. Within 6 months of the close of the each year, the PMU will submit audited annual grant accounts, which provide a detailed description of the source of funds and expenditures made, and submit SAWACO's audited annual consolidated financial statements to ADB. Annual project accounts and SAWACO's consolidated financial statements will be audited by an auditor acceptable to ADB (should be

¹⁰ Available in Appendix 29 of the *Loan Disbursement Handbook*.

¹¹ Follow the format provided in Appendix 30 of the *Loan Disbursement Handbook*.

¹² Checklist for SOE procedures and formats are available at:

http://www.adb.org/documents/handbooks/loan_disbursement/chap-09.pdf

http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-100-Below.xls

http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-Over-100.xls

http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Operating-Costs.xls

http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Free-Format.xls

affiliated with an international auditing firm), and the auditor's terms of reference will be approved by ADB before commencement of work. The annual audit, financed under Tranche 1 (footnote 5) will include an audit opinion on the imprest account and SOE procedures. Procurement and Consulting Services.

D. Procurement of Goods, Works and Consulting Services

33. All procurement of goods will be undertaken in accordance with ADB's Procurement Guidelines (March 2013, as amended from time to time). One goods contract for frequency converters for the raw water pumps will be procured through international competitive bidding procedures and two good contracts for mobile laboratory and the air conditioner under national competitive bidding procedures. All consultants will be recruited according to ADB's Guidelines on the Use of Consultants (March 2013, as amended from time to time).¹³ An estimated 63 person-months (13 international, 50 national) of consulting services are required. Individual consultants will be selected for the detailed design and the preparation of the bidding documents for the three good contracts. The tentative procurement plan is shown in Appendix 1.

34. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Appendix 1.

35. All consultants will be recruited according to ADB's Guidelines on the Use of Consultants¹⁴ (March 2013, as amended from time to time). The outline terms of reference for all consulting services is shown in Appendix 2.

36. An estimated 63 person-months (13 international, 50 national) of consulting services are required for:

- (i) **Monitoring and Evaluation (M&E):** The monitoring and evaluation (M&E) consultant will be recruited as individual consultants to assist with the implementation of the energy efficiency measures financed under the Project. The Consultant will also ensure the dissemination of SAWACO's energy efficiency experience throughout the water sector in the region in general and to the water companies financed under subsequent tranche of the MFF (footnote 6), in particular.
- (ii) **Information Education Communication (IEC):** The IEC consultant will be recruited as a firm, using Consultant Qualification Selection (CQS), since the contract is small (below \$200,000) and implement within a short period of 12 months. Few firms have the dedicated expertise to assist SAWACO in promoting its energy efficiency policy, building awareness and capacity for SAWACO staff and management.

E. Procurement Plan

37. The procurement plan is included in Appendix 1.

¹³ Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>.

¹⁴ Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>.

F. Consultant's Terms of Reference

38. The consultant's terms of reference is in Appendix 2.

VI. SAFEGUARDS

39. The Grant is classified Category C for environment, C for involuntary resettlement and C for indigenous peoples. The project will operate under the umbrella of the safeguard framework documents for the MFF (footnote 6) and Tranche 1 (footnote 5).

40. Due diligence confirms that the project will not entail any Land Acquisition and Resettlement impacts and that there are no Indigenous Peoples living in the project area of HCMC.

41. **Social Issues:** The PMU will ensure that all Goods contracts under the Grant incorporate provision (and sufficient budget) to: (i) comply with all applicable labor laws and related international treaty obligations and do not employ child labor; (ii) do not provide differential wages or benefits to men and women for work of equal value; (iii) provide basic water and sanitation facilities for men and women at construction sites; and (iv) provide safe working conditions for male and female workers.

42. **Environment:** Viet Nam is a signatory to the Montreal Protocol, therefore, not only will the executing agency make sure to follow the government's laws and regulations on environmental impact assessments and ADB's Safeguard Policy Statement (2009), it will also abide by laws that implement the government's obligations under international law.¹⁵ This includes the Prohibited Investment Activity List (PIAL), as item (ii) of the PIAL highlights the ban on the use of ozone-depleting substances being phased out under the Montreal Protocol. If there is any discrepancy between the government's laws and regulations and those of ADB, the ADB policy will apply. As such the initial environmental examination and the environmental management plan for Tranche 1 (footnote 5) and the Environmental Assessment and Review Framework for the MFF (footnote 6) applies to the grant project.

43. **Gender:** The executing agency will ensure that the Gender Strategy and Action Plan for Tranche 1 (footnote 5) also applies to the grant project and that measures undertaken maximize project benefits to women, especially for the IEC component. The ICE component is targeting to train over 50% of women among SAWACO's employees. The project is classified effective gender mainstreaming.

¹⁵ Specifically, on the Project's proposed investment for air conditioning systems, and as provided for in para. 33 of Safeguard Requirements 1 of the Safeguard Policy Statement, such systems to be installed should not use chemicals classified as ozone depleting substances and which are scheduled for phase-out under the Montreal Protocol on Substances that Deplete the Ozone Layer, such as: chlorofluorocarbons (CFCs); halons; 1,1,1-trichloroethane (methyl chloroform); carbon tetrachloride; hydrochlorofluorocarbons (HCFCs); hydrobromofluorocarbons; and methyl bromide.

VII. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Design and Monitoring Framework

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Improved operational performance of SAWACO	Improved service delivery by increasing the service pressure and reducing NRW for existing 480,000 households in HCMC by 2020	PCR for Water Sector Investment Program Tranche 1	Assumption Project implemented as designed Risk Government's policies not enforced
Outcome Energy efficiency in SAWACO operations improved	Improve energy efficiency by savings on electricity of \$1.3 million per year (or 25,000 megawatt) and CO ₂ reduction of 18,889 tons per year by 2015 Target NRW of 32% by 2015 (40%: 2010)	PCR Asian Clean Energy Fund grant Energy audit PCR for Water Sector Investment Program Tranche 1	Assumption Counterpart financing available Risk Political interference prevents successful implementation and financial sustainability
Outputs 1. Capacity building of SAWACO in energy efficiency 2. Investment in energy savings	Implement energy efficiency policy within SAWACO by 2015 At least 50% of those trained should be SAWACO women staff Implement IEC in SAWACO Frequency converters, mobile monitoring equipment, and central air-conditioning procured and installed	Annual project report for Water Sector Investment Program Tranche 1 PCR Asian Clean Energy Fund grant PCR Asian Clean Energy Fund grant	Assumption Management empowered to change and accountable to implement energy efficiency policies in SAWACO Risk Timely completion of works and maintenance of quality standards
Activities with Milestones			Inputs
1. Consulting services (2014) 1.1. IEC for capacity building and awareness campaign in energy savings for the 3,000 staff of the water company and its management 1.2. Monitoring and evaluation under the Asian Clean Energy Fund grant 2. Investment in energy efficiency (2015) 2.1. Procure and install frequency converters for the three raw water pumps at Tan Hiep production plant 2.2. Procure and install mobile monitoring equipment based on water pressure and quality calibration technology 2.3 Procure and replace central air-conditioning at Thu Duc Water production plant			Asian Clean Energy Fund under the Clean Energy Financing Partnership Facility: \$2.0 million Government: \$1.8 million

ADB = Asian Development Bank; CO₂ = carbon dioxide; HCMC = Ho Chi Minh City; ICE = Information Communication Education; NRW = nonrevenue water; PCR = Project Completion Report; PM = person-months; SAWACO = Saigon Water corporation.

Source: ADB estimates.

B. Monitoring

(i) Project performance monitoring

44. The PMU will establish systematic project performance monitoring and evaluation throughout the life of the project and integrate it with management information systems of ADB / Tranche 1 (footnote 5).

45. The monitoring of the project will be conducted by PMU with assistance from the M&E consultants.

(ii) Safeguards monitoring

46. The grant is classified Category C for environment, C for involuntary resettlement and C for indigenous peoples:

- Since the proposed investments are on existing facilities the project will not trigger involuntary resettlement, and there are no Land Acquisition and Resettlement impacts.
- There are no indigenous people living in the project area in HCMC.

47. The only impacts of the project on the environment will occur during the works (construction of premises for the drivers and used refrigerant to be recycled). The project manager will ensure that these aspects are correctly handled, and will report accordingly. PMU will regularly report on observations of air and water quality, worker injuries, construction – related traffic accidents, and all complaints from public.

C. Evaluation

49. After grant signing, a project inception mission will be fielded to initiate the project implementation process. The main function of the inception mission is to establish a working relationship between the ADB and PMU staff directly involved in implementing the Project.

50. ADB, the government, SAWACO, and the PMU will review project implementation jointly every 6 months and will undertake a comprehensive midterm review 9 months after the start of project implementation. This review will include detailed evaluation of the scope, implementation arrangements, achievement of scheduled targets, and progress on the agenda for policy reform and capacity development measures. Within six months of physical completion of the project SAWACO will submit a project completion report to ADB.¹⁶

D. Reporting

51. The PMU will (i) collect and consolidate all grant progress reports, site reports, and technical and financial reports, and submit them to ADB; (ii) review and submit biannual progress reports, a midterm grant evaluation report and an overall grant completion report prepared by the consultants; and (iii) other reports, as may be reasonably requested by ADB. Bi-annual reports will include updated implementation, financial and procurement-related information. Biannual reports will be submitted to ADB within 30 days of the end of each semester (half year). To ensure projects continue to be both viable and sustainable, project

¹⁶ Project completion report format available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>.

accounts and the executing agency, together with the associated auditor's report, should be adequately reviewed.

E. Stakeholder Communication Strategy

52. In compliance with ADB's Public Communications Policy (PCP, 2011), all project information will be disclosed unless specific information meets the PCP's criteria for exceptions to presumed disclosure. The scope of the PCP covers all project documentation, including Project Implementation Manual; legal agreements; RRP's; progress reports; and project completion reports.

53. However, if the executing agency advises that a document contains information that meets the requirement of the PCP's exceptions then, is that information may be withheld from the document before it is disclosed. The PCP is available for download on the ADB web site.¹⁷

VIII. ANTICORRUPTION POLICY

54. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.¹⁸

55. All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all Project contractors, suppliers, consultants and other service providers. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the Project.¹⁹

56. To support these efforts, relevant provisions are included in the grant agreement and the bidding documents for the Project.

57. In particular, all contracts financed by ADB in connection with the Project shall include provisions specifying the right of ADB to audit and examine the records and accounts of SAWACO, and all contractors, suppliers, consultants, and other service providers as they relate to the Project. For the Project, SAWACO has indicated its commitment to promote good governance and establish a corruption-free environment under the Project.

58. To ensure transparency and good governance, the PMU will publicly disclose on SAWACO website information on how grant proceeds are being used. For each procurement contract the PMU will disclose (i) the list of participating bidders, (ii) name of the winning bidder, (iii) basic details on bidding procedures adopted, (iv) amount of the contract awarded, (v) list of goods and/or services purchased, and (vi) intended and actual utilization of grant proceeds under each contract. The website will be updated within one month of each contract being awarded. Moreover, the EA will ensure that all of the PMU's project staff are fully aware of and comply with ADB's procedures, including, but not limited to, procedures for (i) implementation, (ii) procurement, (iii) use of consultants, (iv) disbursement, (v) reporting, (vi) monitoring, and (vii) prevention of fraud and corruption.

¹⁷ 2011 Public Communications Policy of the Asian Development Bank: Disclosure and Exchange of Information, available at <http://www.adb.org/documents/pcp-2011>.

¹⁸ Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>.

¹⁹ ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>.

IX. ACCOUNTABILITY MECHANISM

59. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.²⁰

X. RECORD OF PAM CHANGES

{All revisions/updates during course of implementation should retained in this Section to provide a chronological history of changes to implemented arrangements recorded in the PAM.}

²⁰ For further information see: <http://compliance.adb.org/>.

PROCUREMENT PLAN

Basic Data

Project Name: Energy Efficiency for HCMC Water Supply	
Country: Viet Nam	Executing Agency: SAWACO
Grant Amount: \$2,000,000	Loan (Grant) Number:
Date of First Procurement Plan: 30 July 2013	Date of this Procurement Plan: 30 July 2013

A. Process Thresholds, Review and 18-Month Procurement Plan

1. Project Procurement Thresholds

1. Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works	
Method	Threshold
International Competitive Bidding for Goods ¹	Above \$500,000
National Competitive Bidding for Goods ¹	Up to \$500,000

2. ADB Prior or Post Review

2. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project.

Procurement Method	Prior or Post	Comments
Procurement of Goods and Works		
ICB Goods	Prior	Domestic preference will apply
NCB Goods	Post	ADB shall only carry out prior review for the first package
Recruitment of Consulting Firms		
Consultants Qualifications (CQS)	Prior	
Recruitment of Individual Consultants		
Individual Consultants	Prior	

3. Consulting Services Contracts Estimated to Cost More Than \$100,000

3. The following table lists consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

General Description	Contract Value \$M	Recruitment Method ¹	Advertisement Date (quarter/year)	International or National Assignment	Comments
CS1 (Information Communication and Education)	190,000	CQS	Q1-2014	International	

CS2 (Knowledge management and project management)	130,000	IC	Q2-2014	International
--	---------	----	---------	---------------

4. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000

4. The following table groups smaller-value goods and consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

General Description	Value of Contracts (cumulative) – M\$	Number of Contracts	Procurement / Recruitment Method ¹	Comments
GD1 (new air conditioners)	0.500	1	NCB	Q2-2015
GD2 (mobile monitoring laboratory)	0.300	1	NCB	Q2-2015
GD3 (frequency converters)	0.700	1	ICB	Q1-2015
CS3 (Design and supervision for A/C and frequency converters)	0.050	1	ICS national	Q1-2014
CS4 (Design and supervision for mobile laboratory)	0.020	1	ICS national	Q3-2014
CS5 (CDM specialist)	0.040	1	ICS International	Q4-2014
CS6 (CDM specialist)	0.020	1	ICS national	Q4-2014

B. Indicative List of Packages Required Under the Project

5. The following table provides an indicative list of all procurement (goods and consulting services) over the life of the project. Contracts financed by the Grantee and others should also be indicated, with an appropriate notation in the comments section.

General Description	Estimated Value (cumulative) (\$ million)	Estimated Number of Contracts	Procurement Method	Domestic Preference Applicable ¹	Comments
Goods	1.500	3	2*ICB - 1*NCB	Applicable to ICB Goods only.	

General Description	Estimated Value (cumulative) (\$ million)	Estimated Number of Contracts	Recruitment Method	Type of Proposal	Comments
Consulting Services (Consulting Firms)	0.190	1	CQS	STP for CQS	
Consulting Services (Individual Consultants)	0.260	5	ICS		

C. National Competitive Bidding

1. General

6. The laws to be followed for national competitive bidding are set forth in (i) the Law on Procurement No. 61/2005/QH11 of 29 November 2005, (ii) the Construction Law no. 16/2003/QH11 of 26 November 2003, (iii) the Amendment Law No. 38/2009/QH12 of 19 June 2009 amending and supplementing key articles of the above-mentioned two laws, and (iv) the processes described in Decree No. 85/2009/ND-CP of 15 October 2009 on “Guiding Implementation of Procurement Law and Selection of Construction Contractors under the Construction Law”. Whenever any procedure in the national procurement laws is inconsistent with the ADB Procurement Guidelines (2013, and as amended from time to time), the ADB Guidelines shall prevail, amongst others on the following.

2. Registration

- (i) Bidding shall not be restricted to pre-registered firms and such registration shall not be a condition for participation in the bidding process.
- (ii) Where registration is required prior to award of contract, bidders: (i) shall be allowed a reasonable time to complete the registration process; and (ii) shall not be denied registration for reasons unrelated to their capability and resources to successfully perform the contract, which shall be verified through post-qualification.
- (iii) Foreign bidders shall not be required to register as a condition for submitting bids.

- (iv) Bidder's qualification shall be verified through pre- or post-qualification process.

3. Eligibility

- (i) National sanction lists may only be applied with approval of ADB.¹
- (ii) A firm declared ineligible by ADB cannot participate in bidding for an ADB financed contract during the period of time determined by ADB.
- (iii) A firm which has been engaged by the Grantee to provide consulting services for the preparation or implementation of a project, and any of its affiliates, shall be disqualified from subsequently providing goods, works, or services, resulting from or directly related to the firm's consulting services for such preparation or implementation.

4. Prequalification and Post qualification

- (i) Post qualification shall be used unless prequalification is explicitly provided for in the grant agreement/procurement plan. Irrespective of whether post qualification or prequalification is used, eligible bidders (both national and foreign) shall be allowed to participate.
- (ii) In the event where pre-qualification is used, interested firms shall be given no less than 42 days to prepare their pre-qualification submission.
- (iii) When pre-qualification is required, the evaluation methodology shall be based on pass/ fail criteria relating to the firm's experience, technical and financial capacities.
- (iv) Qualification criteria shall be clearly specified in the bidding documents, and all criteria so specified, and only criteria so specified, shall be used to determine whether a bidder is qualified. The evaluation of the bidder's qualifications should be conducted separately from the technical and commercial evaluation of the bid.
- (v) In carrying out the post-qualification assessment, the Employer/ Purchaser shall exercise reasonable judgment in requesting, in writing, from a bidder missing factual or historical supporting information related to the bidder's qualifications and shall provide reasonable time period (a minimum of 7 days) to the bidder to provide response.

5. Preferences

- (i) No preference of any kind shall be given to domestic bidders or for domestically manufactured goods.

¹ Section 52 of the Integrity Principles and Guidelines allows ADB to sanction parties who fail to meet ADB's high ethical standards based on the decisions of third parties, such a decision can only be made by the Integrity Oversight Committee on the basis of ADB's own independent examination of the evidence. As such, the process should follow the normal assessment and investigative processes prescribed by the Integrity Principles and Guidelines. <http://www.adb.org/Documents/Guidelines/Integrity-Guidelines-Procedures/integrity-guidelines-procedures-2006.pdf>

- (ii) Regulations issued by a sectoral ministry, provincial regulations and local regulations which restrict national competitive bidding procedures to a class of contractors or a class of suppliers shall not be applicable.
- (iii) Foreign bidders shall be eligible to participate in bidding under the same conditions as local bidders, and local bidders shall be given no preference (either in bidding process or in bid evaluation) over foreign bidders, nor shall bidders located in the same province or city as the procuring entity be given any such preference over bidders located outside that city or province.

6. Advertising

- (i) Invitations to bid (or prequalify, where prequalification is used) shall be advertised in Government Public Procurement Bulletin. In addition, the procuring agency should publish the advertisement in at least one widely circulated national daily newspaper or freely accessible, nationally-known website allowing a minimum of twenty-eight (28) days for the preparation and submission of bids and allowing potential bidders to purchase bidding documents up to at least twenty-four (24) hours prior the deadline for the submission of bids. Bidding of NCB contracts estimated at \$500,000 or more for goods and related services or \$1,000,000 or more for civil works shall be advertised on ADB's website via the posting of the Procurement Plan.
- (ii) Bidding documents shall be made available by mail, or in person, to all who are willing to pay the required fee, if any.
- (iii) The fee for the bidding documents should be reasonable and consist only of the cost of printing (or photocopying) the documents and their delivery to the bidder. (Currently set at 1 million VND, increase subject to approval of ADB)

7. Standard bidding documents

- (i) The Grantee's standard bidding documents, acceptable to ADB, shall be used. The bidding documents shall provide clear instructions on how bids should be submitted, how prices should be offered, and the place and time for submission and opening of bids.
- (ii) Bidders shall be allowed to submit bids by hand or by mail/ courier.

8. Bid Opening

- (i) All bids received after the deadline for submission indicated in the bidding documents will be rejected.
- (ii) All bids received before the bid submission deadline shall be opened except those with proper notice of withdrawal.
- (iii) A copy of the bid opening record shall be promptly provided to all bidders who submitted bids.

9. Bid Evaluation

- (i) Merit points shall not be used in bid evaluation.
- (ii) Bidders shall not be eliminated from detailed evaluation on the basis of minor, non-substantial deviations.²
- (iii) Except with the prior approval of ADB, no negotiations shall take place with any bidder prior to the award, even when all bids exceed the cost estimates.
- (iv) A bidder shall not be required, as a condition for award of contract, to undertake obligations not specified in the bidding documents or otherwise to modify the bid as originally submitted.
- (v) Bids shall not be rejected on account of arithmetic corrections of any amount. However, if the Bidder that submitted the lowest evaluated bid does not accept the arithmetical corrections made by the evaluating committee during the evaluation stage, its bid shall be disqualified and its bid security shall be forfeited.

10. Rejection of All Bids and Rebidding

- (i) No bid shall be rejected on the basis of a comparison with the owner's estimate or budget ceiling without the ADB's prior concurrence.
- (ii) Bids shall not be rejected and new bids solicited without the ADB's prior concurrence.

11. Participation by Government-owned enterprises

7. Government-owned enterprises shall be eligible to participate as bidders only if they can establish that they are legally and financially autonomous, operate under Enterprise law and are not a dependent agency the contracting entity. Furthermore, they will be subject to the same bid and performance security requirements as other bidders.

12. Non-eligibility of military or security units

8. Military or security units, or enterprises which belong to the Ministry of Defense or the Ministry of Public Security shall not be permitted to bid.

13. Participation by Foreign contractors and suppliers. Joint Ventures and Associations

- (i) Foreign suppliers and contractors from eligible countries shall, if they are interested, be allowed to participate without being required to associate or form

² Minor, non-substantial deviation is one that, if accepted, would not affect in any substantial way the scope, quality, or performance specified in the contract; or limit in any substantial way, the Contracting entity rights or the Bidder's obligations under the proposed contract or if rectified, would not unfairly affect the competitive position of other bidders presenting substantially responsive bids.

joint ventures with local suppliers or contractors, or to subcontract part of their contract to a local bidder.

- (ii) A bidder declared the lowest evaluated responsive bidder shall not be required to form a joint venture or to sub-contract part of the supply of goods as a condition of award of the contract.
- (iii) License for foreign contractors operation in Viet Nam would be provided in a timely manner and will not be arbitrarily withheld.

14. Publication of the Award of Contract.

- (i) For contracts subject to prior review, within 2 weeks of receiving ADB's "No-objection" to the recommendation of contract award, the grantee shall publish in the Government Public Procurement Bulletin, or well-known and freely-accessible website the results of the bid evaluation, identifying the bid and lot numbers, and providing information on: i) name of each bidder who submitted a bid; ii) bid prices as read out at bid opening; iii) name and evaluated prices of each bid that was evaluated; iv) name of bidders whose bids were rejected and the reasons for their rejection; and v) name of the winning bidder, and the price it offered, as well as the duration and summary scope of the contract awarded.
- (ii) For contracts subject to post review, the procuring entity shall publish the bid evaluation results no later than the date of contract award.
- (iii) In the publication of the bid evaluation results, the grantee shall specify that any bidder who wishes to ascertain the grounds on which its bid was not selected, should request an explanation from the procuring entity. The procuring entity shall promptly provide an explanation of why such bid was not selected, either in writing and / or in a debriefing meeting, at the option of the grantee. The requesting bidder shall bear all the costs of attending such as debriefing. In this discussion, only the bidder's bid can be discussed and not the bids of competitors.

15. Handling of Complaints

9. The national competitive bidding documents shall contain provisions acceptable to ADB describing the handling of complaints in accordance with Chapter X of Decree No. 85/2009/ND-CP, read with Articles 72 and 73 of the Law on Procurement No. 61/2005/QH11.

16. ADB Member Country Restrictions

10. Bidders must be nationals of member countries of ADB, and offered goods, works, and services must be produced in and supplied from member countries of ADB.

17. Fraud and Corruption

11. ADB will sanction a party or its successor, including declaring ineligible, either indefinitely or for a stated period of time, to participate in ADB-financed activities if it at any time determines that the firm has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing, an ADB-financed contract.

18. Right to Inspect/ Audit

12. Each bidding document and contract financed from by ADB shall include a provision requiring bidders, suppliers, contractors to permit ADB or its representative to inspect their accounts and records relating to the bid submission and contract performance of the contract and to have them audited by auditors appointed by ADB.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. Background and Objective

1. Saigon Water Corporation (SAWACO) is Viet Nam's oldest water company, set-up in 1874, and is responsible for the provision of water supply in Ho Chi Minh City (HCMC). SAWACO is operating as a state wholly-owned one-member company limited under the Enterprise Law. The water supply system consists of five major production plants with a total capacity of 1.34 million cubic meters per day (m³), 3,800 kilometers (km) of distribution network, with 734,000 connections, divided into six zones. The fundamental constraint to the water supply system is a shortfall in the transmission capacity. Actual coverage is estimated at 82%, but large areas of HCMC, especially in the southern part of the city still receive intermittent water supply, due to low service pressure. The proposed project is in line with HCMC's draft Master Plan to be approved in 2010, with key objectives to achieve universal coverage, continuous water supply and drinking water quality in HCMC by 2025.

2. ADB financed a project preparatory technical assistance (PPTA) of \$1.5 million for HCMC Water Supply Project for the Water Sector Investment Program Tranche 1¹ (\$138 million) of a \$1 billion multitranches financing facility for the Water Sector Investment Program (MFF).² As part of the PPTA, an energy audit of the operation of SAWACO was completed. The energy audit highlighted about \$5.1 million investment, resulting in 25,000 megawatt hour per annum (MWh/year) for about \$1.3 million per annum in energy savings and an annual carbon dioxide (CO₂) reduction of about 18,889 tons. SAWACO is proceeding with investment with its own funding for the treated water pumps and is requesting ADB for additional grant funding to finance remaining investment on energy efficiency. ADB is requesting on behalf of SAWACO a \$2 million grant from the Asian Clean Energy Fund (ACEF) under the Clean Energy Financing Partnership Facility (CEFPF), financed by the Government of Japan.

B. Outline Tasks

3. The Grant Investment Component (GIC) of the ACEF/CEFPF will be disbursed in parallel to Tranche 1 (footnote 1), commencing in the first quarter of 2014 and requiring an estimated 13 person-months (PM) international consultants supported by 50 PM national consultants. The Consultants will be recruited in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).

4. The GIC includes two studies to strengthen the sustainability of the energy efficiency measures in order to streamline energy efficiency within SAWACO and to optimize the energy efficiency measures taken.

(i) **Monitoring and Evaluation (M&E):** The M&E Consultant will be recruited as international individual consultant for 6 person-months to assist with implementation of the energy efficiency measures financed under the Project. As part of the M&E, the Consultants will confirm the possibility to receive carbon credits as part of the Clean Development Mechanism. The Consultant will also ensure the dissemination of the energy efficiency experience in the water sector with SAWACO in Viet Nam and in the region.

¹ ADB. 2011. *Water Sector Investment Program Tranche 1*. Manila (L2754-VIE).

² ADB. 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranches Financing Facility to the Socialist Republic of Viet Nam for the Water Sector Investment Program*. Manila (MFF0054-VIE).

(ii) **Information Education Communication (IEC):** The Consultant will be recruited as a firm, using Consultant Qualification Selection (CQS) to assist SAWACO in promoting policy on Energy Efficiency, building awareness among the 3000 staff of SAWACO as well as to the water users. The IEC will continue to be applied in the future tranches of the MFF (footnote 2) for the water sector in Viet Nam. The IEC Consultants will liaise with the Tranche 1 (footnote 1) consultants in charge of setting-up ISO Certification, especially ISO14001, and the Water Conservancy Plan, so that the Communication Plan is streamlined into the operations of SAWACO.

5. Summary of Consultants Required (person-months)

INTERNATIONAL CONSULTANTS				TOTAL PERSON-MONTHS	
Project Implementation Specialist				4.00	
Clean Development Mechanisms Specialist				2.00	
Knowledge Management Specialist				2.00	
Social Development Specialist				2.00	
Energy Efficiency Specialist				2.00	
Communication Specialist				1.00	
Sub-total International Consultants				13.00	
NATIONAL CONSULTANTS					
Project Implementation Specialist				21.00	
Clean Development Mechanisms Specialist				7.00	
Social Development Specialist				8.00	
Energy Efficiency Specialist				7.00	
Communication Specialist				7.00	
Sub-total National Consultants				50.00	
				National Person-Months	International Person-Months
IEC	CS1	Information Education and Communication	Social Development Specialist	8	2
			Energy Efficiency Specialist	7	2
			Communication Specialist	7	1
M&E	CS2	Project Implementation Specialist and Knowledge Management	Project Implementation Specialist		4
			Knowledge Management Specialist		2
	CS3	Design and authorship supervision for A/C and drivers	Project Implementation Specialist	15	
	CS4	Design and authorship supervision for mobile laboratory	Project Implementation Specialist	6	
	CS5	CDM specialist (Int.)	Clean Development Mechanisms Specialist		2
CS6	CDM specialist (Nat.)	Clean Development Mechanisms Specialist	7		
Total				50	13

6. **Package 1 (CS1) Information, Education, Communication (IEC)** - (international, 5 person-months (PM), supported by national consultant, 22 PM)

Team Leader – **Social Development Specialist** (IEC) – (international, 2 PM, supported by national consultant 8 PM). The consultant must have a minimum of seven years experience in capacity building, building awareness campaign, including one reference in energy efficiency project:

- (i) Assume responsibility for the design and delivery of capacity building program, including raising awareness for the staff and the management of SAWACO. Liaise with the Communication Specialist to design and deliver the IEC Plan to the staff and management of SAWACO.
- (ii) Advise the ADB project team on up-scaling and streamlining issues related to raising awareness and capacity building for energy efficiency in the water sector,
- (iii) Prepare a 20 page Capacity Building and Awareness Completion Report.

Energy Efficiency Specialist (IEC) - (international, 2 PM, supported by national consultant 7 PM): The consultant must have a minimum of 7 years experience in design or implementation of energy efficiency projects, with at least one reference in energy efficiency in the water sector.

- (i) Provide advice to ADB Project Team and SAWACO Management on energy efficiency issues. The Consultant will liaise and advise the IEC Team Leader on the design of the capacity building program and assist with the delivery of the program.
- (ii) Review the conclusions of the energy audit completed during the project preparation and advise the ADB Project Team and SAWACO Management on follow-up actions with a 10-year energy efficiency strengthening program.
- (iii) Prepare a Final Completion report of 20 pages.

Communication Specialist (IEC) - (international, 1 PM, supported by national consultant 7 PM). The consultant must have minimum of 5 years experience in designing and delivering Information Communication and Education Plan, including a reference with an energy efficiency project:

- (i) Assume responsibility for the design and delivery of Information Education and Communication Plan for the staff and the management of SAWACO. Liaise with the Team Leader for the Capacity Building and Awareness Campaign.
- (ii) Advise the ADB project team on up-scaling and streamlining issues related to IEC issues for energy efficiency in the water sector, in particular with the water users and other stakeholders.
- (iii) Prepare an IEC Plan Completion Report of 20 pages.

7. **Package 2 (CS2) Project Implementation Specialist and Knowledge Management Specialist (M&E)** - (International, 6 PM)

The Project Implementation Specialist and Knowledge Management Specialist will demonstrate at least 10 years experience in project management and implementation with 5 years experience in the field of energy efficiency and in the water sector.

- (i) Manage the team of M&E consultants (packages CS3 and CS4).
- (ii) Assess operational issues related to the sustainability of the project.
- (iii) Formulate the outputs of the Energy Efficiency investment program, update workplan and coordinate with SAWACO and the suppliers.

- (iv) Advise the ADB project team on up-scaling and streamlining issues related to the sustainability of the investment.
- (v) Monitor the preparation of M&E deliverables, in particular the knowledge products produced for dissemination.
- (vi) Develop knowledge products associated with the project, including a major Knowledge Paper of 20 pages, a Knowledge Showcase of four pages and a powerpoint presentation of 20 slides.
- (vii) Advise the ADB Project Team and SAWACO Management on dissemination of project information. The Consultant will liaise with the PMU and the consultants working under the MFF (footnote 2)/Tranche 1 (footnote 1), as well as with the Communication Specialist in charge of IEC.

8. Package 3 (CS3) Design and supervision for new air-conditioning unit and frequency converters (M&E) - (national consultant, 15 PM)

- (i) Carry out a detailed design of the new air-conditioning unit for Thu Duc water production station.
- (ii) Carry out a detailed design of the frequency converters for Hoa Phu raw water pumping station.
- (iii) Prepare tender documents for new air-conditioning unit³ and raw water pumping station.
- (iv) Carry out supervision until commissioning and handover to SAWACO.

9. Package 4 (CS4) Design and supervision for mobile laboratory (M&E) - (national consultant, 6 PM)

- (i) Carry out a detailed design of the mobile laboratory for Thu Duc water production station.
- (ii) Prepare tender documents for the mobile laboratory.
- (iii) Carry out supervision until commissioning and handover to SAWACO.

10. Package 5 (CS5) Clean Development Mechanism Specialist (M&E) - (international, 2 PM, supported by a national consultant, 7 PM in Package CS6)

- (i) Assess the potential for CDM using existing methodology AM0020 – Baseline methodology for water pumping efficiency improvements.
- (ii) Review other options to maximize CDM, especially with possible linkages with climate change adaptation and mitigation measures.
- (iii) Advise the ADB project team and SAWACO on any issues related to CDM in water operations and the potential for upscaling CDM in the water sector in Viet Nam in general and with SAWACO in particular.
- (iv) Prepare Options report on CDM (20 pages) and Draft application for CDM.

11. Package 6 (CS6) Clean Development Mechanism Specialist (M&E) - (national, 7 PM)
- The National Clean Development Mechanism Specialist will assist the Package 5 (CS5) for the following tasks:

³ The chemical to be procured is not included in the list of ozone depleting substances that are scheduled for phase out under the Montreal Protocol on Substances that Deplete the Ozone Layer, and preferably, should have the lowest global warming potential among CFC/HCFC alternatives. Consideration maybe given to HCFC-123 which among CFC and HCFC alternatives has the lowest ozone-depleting potential (0.02) lowest global warming potential (120).

- (i) Assess the potential for CDM using existing methodology AM0020 – Baseline methodology for water pumping efficiency improvements.
- (ii) Review other options to maximize CDM, especially with possible linkages with climate change adaptation and mitigation measures.
- (iii) Advise the ADB project team and SAWACO on any issues related to CDM in water operations and the potential for up-scaling CDM in the water sector in Viet Nam in general and with SAWACO in particular.
- (iv) Prepare Options report on CDM (20 pages) and Draft application for CDM.

C. Reporting and Deliverables

12. Reports will be prepared in English and translated to Vietnamese with the survey and translation provisional sum. Reports will be submitted in both electronic and paper form. All data and analysis will be consolidated and provided to the government in electronic form. The following reports will be prepared:

- (i) CDM Option Report: 20 pages
- (ii) Knowledge Paper: 20 pages
- (iii) Knowledge Showcase: 4 pages and a powerpoint presentation: 20 slides
- (iv) Capacity Building and Awareness Completion Report: 20 pages
- (v) Energy Efficiency Final Completion report: 20 pages
- (vi) IEC Plan Completion Report: 20 pages.

13. Three copies of each report (in English) will be submitted to ADB and five copies (in both Vietnamese and English) to SAWACO. The reports should address all aspects of the term of references. The consultant will present key findings in three workshops in HCMC. Tripartite meetings will be organized during the review missions by ADB Project Team.