

TERMS OF REFERENCE

ESTABLISHMENT AND OPERATION OF A FUEL MARKING AND FIELD TESTING SYSTEM

I. PROJECT OVERVIEW

The key sources of tax revenue collection from petroleum products are excise taxes and value added taxes (VAT). In 2016, total collection from excise taxes and VAT on petroleum products (both at the importation and manufacturing stages) amounted to PHP 52.56 billion. Table 1 below gives the breakdown.

Table 1: VAT and Excise Tax Collection, 2016 (in billion PHP)

Government Agency ¹	Excise	VAT	Total
Bureau of Internal Revenue (BIR)	13.22	2.11	15.33
Bureau of Customs (BOC)	10.92	26.30	37.23
Total	24.14	28.42	52.56

In the same period, however, the revenue loss from excise taxes and VAT from smuggled or misdeclared fuel oil is estimated by the Government at around PHP 26.87 billion (USD 565.68 million).² Similar findings of substantial revenue loss are also made by the private sector. Asian Development Bank (ADB) estimates a PHP 37.5 billion loss in tax revenue annually due to fuel smuggling. In a study commissioned by the Philippine oil industry, foregone revenue is estimated at PHP 43.8 billion per year³. The Institute for Development and Econometric Analysis (IDEA) estimates that between the years 2000 to 2006, twenty three percent (23%) of gasoline and six percent (6%) of diesel consumed in the Philippines are smuggled.⁴

The Philippines Government (or the "Government") has recognized this problem and will introduce a mandatory fuel marking and field-testing program. Republic Act No. 10963, otherwise known as the *Tax Reform for Acceleration and Inclusion (TRAIN) law*, was signed into law on 19 December 2017 and took effect on 1 January 2018. In Section 148-A of the National Internal Revenue Code (NIRC), as amended by TRAIN Law, the marking of petroleum products was made mandatory within five (5) years from the effectivity of the law.

The Philippines aims to implement an effective and internationally accepted fuel-marking program with the following objectives:

- i. To minimize smuggling / misdeclaration and increase the revenue collection of the BOC and BIR from taxable imported and locally refined fuel products;
- ii. To establish a national monitoring and field testing system that will enable the BOC and BIR to minimize the illegal entry, manufacturing, refining, and distribution of taxable fuel products in the country;
- iii. To adopt a transparent Standard Operating Procedure for fuel marking and field

¹ The BOC is responsible for collecting excise and VAT from all imported finished oil products while the BIR is responsible for collecting the same taxes for locally refined finished products.

² DOF estimates based on 2016 BIR/BOC volume of removals (tax paid fuels) vs. 2016 DOE fuel consumption.

³ Fuel Smuggling in the Philippines (May 2015). [Unpublished work]

⁴ This appears to be at the lower end of rough industry approximations of around 20% - 30% of all petroleum products, although it is likely for the estimate to rise once other types of petroleum, such as crude oil and kerosene, are also considered. (*How Extensive is Petroleum Smuggling in the Philippines? A Study on Diesel & Gasoline Smuggling*, Institute for Development and Econometric Analysis, Inc. 2007)

- testing in the country; and
- iv. To develop a capacity building program for BOC and BIR on fuel marking and testing with the view of independent implementation of the program in the future.

The Procurement Service under the Department of Budget and Management (DBM-PS) will issue these Terms of Reference (TOR) on behalf of the BOC pursuant to the Memorandum of Agreement (MOA) dated 28 December 2017. Under this MOA, DBM-PS agrees to undertake the competitive selection of a firm who will assist the Government in the establishment and implementation of the fuel marking program.

The BOC and BIR are the accountable government agencies to implement the fuel marking program. Under the NIRC, as amended, the BIR is mandated to collect all internal revenue taxes such as excise and VAT on finished petroleum products. Under Republic Act No. 10863, otherwise known as the "Customs Modernization and Tariff Act of 2016" (CMTA), BOC is mandated to collect excise tax and VAT from all imported oil products, and prevent smuggling and all forms of illegal importation.⁵

II. OBJECTIVES OF THE ENGAGEMENT

A firm (the "Firm") shall be engaged to assist the Government in setting up and operating a fuel marking and field testing system (the "Fuel Marking Program") for a term of five (5) years, subject to annual performance review.

III. BID PARAMETERS

Project cost is estimated at PHP 0.08 per liter of fuel marked.

DBM-PS shall apply the sum of One Billion Nine Hundred Sixty Million Pesos (P 1,960,000,000), coming from the 2017 General Appropriations Act, to implement the 1st year of the Contract.

Fuel marking and field testing operations for the 2nd to 5th years shall be sourced from the Fuel Marking Program Trust Funds, to be established pursuant to Sec. 148-A of the NIRC, as amended by the TRAIN law.

IV. SCOPE OF WORK

A. OVERVIEW OF TASKS

The Firm shall perform the following main tasks:

1. Establish and operate a fuel marking system that shall supply and inject fuel marker in taxable fuel products except Jet A-1, Avgas, Crude Oil and LPG;
2. Implement and manage a nationwide fuel testing program, including fuel analysis and data management; and

⁵ Under Section 202, Chapter 1, Title II of the Custom Modernization and Tariff Act of 2016, which provides for the functions of the Bureau of Customs, the BOC is mandated accomplish the following:

- (i) Assess and collect customs revenues from imported goods;
- (ii) Harmonize customs procedures to facilitate movement of goods in international trade;
- (iii) Conduct border control to prevent smuggling;
- (iv) Prevent and suppress smuggling and other forms of customs fraud;
- (v) Facilitate and secure international trade and commerce through an informed compliance program;
- (vi) Exercise exclusive original jurisdiction over forfeiture cases under the said Act; and
- (vii) Enforce all provisions of the CMTA and all other laws, rules and regulations related to customs administration.

3. Train and ensure transfer of technology to BOC and BIR personnel.

B. DESCRIPTION OF TASKS AND DELIVERABLES

TASK 1: ESTABLISH AND OPERATE A FUEL MARKING SYSTEM

The Government requires a fuel marking system with capacity to mark and monitor imported and locally-refined finished oil products for purposes of ensuring correct payment of corresponding excise taxes and VAT.

The system should be established and operated in all local refineries and accredited ports where importation of finished oil products can only enter the country, as stated in Annex A. At present, 96.8% of imported oil products enter through the ports and sub-ports of entry listed in Annex A-1. For locally refined products, refining is undertaken in two locations: Petron Bataan Refinery and Shell Tabangao Batangas Refinery.

The Firm must be able to fully establish and operate a fuel marking system in all the ports and sub-ports of entry listed in Annex A-1 and the two (2) refineries within one year (the "First Tranche").

The rest of the accredited ports of entry and refineries should have a fully functioning fuel marking system in accord with the schedule provided in the Master Plan (the "Second Tranche").

All services provided by the Firm as regards fuel marking should meet international standards of management, competency in laboratory testing, and auditing procedures and processes, with International Organization of Standardization (ISO) 17025 and 17021 accreditation.

Task 1.1: Prepare a Master Plan

The Firm shall conduct an assessment of the volume of importation and production by port of entry and by refinery, the risk to smuggling, misdeclaration, and environment, and based on the results of this assessment, propose a Master Plan for Fuel Marking that:

- (i) addresses environmental and other risks identified during the assessment;
- (ii) describes the technology and recommends the list of chemical additives and corresponding quantitative ratio to be used as fuel markers per finished product proposed to be included for marking;
- (iii) proposes the proper mix of automatic or manual injection in the different ports of entry and refineries, with cost-efficiency and implementation effectiveness in mind;
- (iv) identifies and describes the kind of fuel marking information technology system, equipment and personnel to be deployed, both automatic and manual;
- (v) proposes schedule of delivery, deployment and implementation for the Second Tranche; and
- (vi) other related tasks relevant to achieving the objectives.

The Firm shall conduct a preliminary assessment and submit a draft Comprehensive Assessment Report and Master Plan as part of its proposed Approach and Methodology during the procurement stage. These documents can serve as basis for

the full assessment and development of the Master Plan to be undertaken upon award of contract. **Final Comprehensive Assessment Report and Master Plan shall be due one (1) month after issuance of Notice to Proceed (NTP).**

Deliverable 1.1: Final Comprehensive Assessment Report and Master Plan

Task 1.2: Deliver Equipment and Set up System

The Firm shall completely deliver and install the required systems and equipment for the First Tranche within three (3) months after approval of the Master Plan. Equipment to be delivered shall include the capacity to test fuel after injection of marker to clearly identify and measure the presence of specified markers in fuel samples and ensure compliance with required levels and standards.

It shall then undertake the necessary calibration, testing and commissioning, and ensure that the **system, equipment and required personnel** for the First Tranche are **fully deployed and operational within five (5) months from approval of the Master Plan**. It shall submit a **Mobilization Report, which includes an inventory of equipment delivered and deployment schedule, within a month from operation of the fuel marking system.**

Equipment delivery, manpower deployment, and full operation of the Second Tranche shall be undertaken in accord with the schedule stated in the Master Plan.

All equipment shall be newly purchased, unused and full ownership and management transferred to the Government of the Philippines after the term of the contract. The Firm shall prepare and develop a Maintenance Plan that describes how it intends to service and keep the equipment in good condition throughout the term of the contract. **The Firm shall submit the Maintenance Plan within a month from operation of the fuel marking system.**

Deliverable 1.2:

- ***Mobilization Report, including inventory of equipment delivered, as certified by BOC or BIR, and deployment schedule***
- ***Maintenance Plan***

Task 1.3: Produce and Develop Fuel Markers

The Firm shall produce fuel markers that meet the following minimum specifications:

- They should be distinct and unique to the Philippines; to the greatest degree possible, the markers must be impossible to imitate or replicate.
- Their chemical composition and prescribed quantitative ratio must persist for at least three (3) years from application or administration.
- They should be capable of being embedded at the molecular level, invisible, colorless, odorless, and impossible to imitate, remove or alter.
- They should be able to mix homogeneously with the fuel product marked regardless of the volume of the product to be marked (i.e., without mandatory use of equipment/mechanical agitation.)
- They should be highly soluble only in organic solutions.

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- They should be capable of being applied across a range of fuels, such as but not limited to diesel, gasoline, kerosene, naphtha, ethanol and bunker fuel. Aviation Fuel (Jet A-1 & Avgas), Crude Oil, and LPG shall not be covered.
- They should be capable of being detected at low levels of dilution and provide certainty for prosecution purposes at a minimum of five (5) percent dilution.
- They should not alter the characteristics of the marked fuel (e.g., color, viscosity, flash point, density, and other chemical qualities and characteristics) or its performance when used in vehicles or in other industrial uses (e.g., kerosene as a solvent in paint).
- They should be extremely stable in the fuel for a long period of time, resistant to light, extreme temperature fluctuations, and have a shelf life of a minimum of three (3) years.
- They should be compliant with Philippine motor engines emissions and environmental/health regulations currently implemented and expected to be implemented.
- They should not affect the performance of engines and muffler systems nor cause any damage.
- They should be non-reactive to fuel and other fuel additives so as not to affect the performance of other additives/markers of the oil companies.
- They should be registered for testing with the Department of Energy (DOE) for safety and suitability to be added to petroleum products in the country and with the Environment Management Bureau of the Department of Environment and Natural Resources (DENR-EMB) to ensure that it meets Philippine National Standards.

The Firm shall be fully responsible for keeping the fuel marker secure and its chemical composition strictly confidential.

Samples of the proposed markers shall be delivered to BOC within one (1) month from approval of the Master Plan together with copies of relevant reports, certifications or test results in support of compliance with the requirements enumerated above.

A committee composed of the Department of Finance, BIR, BOC, DOE, and DENR-EMB shall assess, test, and approve the markers within two (2) months from submission.

Once markers have been approved, the Firm shall produce, supply, deliver, and store the required volume to ensure the successful and continuous operation of the relevant ports of entry and refineries identified for the First Tranche, and every port of entry or refinery identified thereafter.

The Firm shall sign an agreement to keep the composition and properties of the fuel markers produced or to be produced for the Government of the Philippines in strict confidentiality throughout the contract term and ten (10) years thereafter.

If due to technological changes/advancements or other events, there is reasonable ground to believe that a breach of security has occurred or is imminent, then the Firm shall upgrade or change the marker or markers within one (1) month from final notice by the Government through BOC. Prior to issuing the final notice, however, BOC should fully disclose to the Firm the circumstances and reasons why it believes a breach of security has occurred or is imminent, and give the Firm an opportunity to comment on or dispute said grounds.

Deliverable 1.3:

- *Approved fuel marker; and*
- *Signed confidentiality and non-disclosure agreement.*

Task 1.4: Supply, deliver and inject fuel markers

The Firm shall supply, deliver, and inject fuel markers in taxable fuel products proposed for marking as detailed in the approved Master Plan. The taxable fuel in the Philippines are listed in Annex B.

Injection process should be simple, efficient and quick, using either automatic or manual methods. In general, automatic fuel injection is given preference, especially in the major ports of entry and all refineries; however, manual injection may be proposed where automatic injection is not cost-and-implementation-effective.

The marking should be done at the point of taxation, upon importation or upon lifting of the finished products, when taxes have been paid, and in full transparency.

The Firm shall be responsible for the custody, security, and quality assurance of the fuel markers from their storage facilities to distribution sites until application or dosing.

The Firm shall establish a system that will accurately and regularly record the quantity of fuel marker injected and volume of each fuel product marked in real time. At the minimum, the system must be capable of generating (i) weekly reports to BOC and BIR summarizing total quantity of each fuel marker injected and volume of each fuel product marked, and (ii) other on demand and *ad hoc* reports upon request of either BOC or BIR. It shall also regularly report to BOC and BIR any incidents or irregularities encountered during the marking and any action undertaken. The report should be accompanied by supporting documentation.

During the term of the contract, any intellectual property rights relating to the production of the markers, the fuel marking system for injecting, recording and reporting, and any of their respective components shall, to the extent permitted by law, be owned by the Firm. Any and all trade and taxation information gathered from the implementation of the fuel marking program continues to be owned by the Republic of the Philippines and cannot be used or disclosed by the Firm without prior approval.

Upon expiration or termination of the contract, all intellectual property rights on the designs, patents, copyrights, business know-how, practices, database systems and software application source codes, if applicable, relating to the markers, the fuel marking system for injecting, recording and reporting, and any of their respective components shall be transferred to the Government.

Deliverable 1.4: Monthly Reports (which can be a summary of the previous weekly reports) summarizing total quantity of each fuel marker injected and

volume of each fuel product marked.

TASK 2: IMPLEMENT AND MANAGE A FIELD TESTING PROGRAM

The Firm, in coordination with the BOC and BIR, shall conduct and manage a nationwide program of field testing that addresses all identified risk areas to ensure that the objectives of the fuel marking program are met.

A total of 20,000 tests shall be conducted per year. Each month shall cover at least 1,700 tests with a wide geographic and sectoral distribution based on BOC and BIR's risk assessment and monthly operational plan. Testing should include both targeted and random tests based on a statistical sampling framework. Field testing shall include, but not limited to, roadside testing of vehicles and tankers, retail and wholesale gas stations, private fuel storage tanks, sea fishing vessels, commercial vessels, barges, and tankers.

For the First Tranche of the Program, the Firm is expected to undertake the sub-tasks enumerated below for an estimated period of one (1) year. It should be able to support BOC and BIR in the full-scale implementation and management of a nationwide field testing for around two (2) months or for a total of 1,600 tests.

Task 2.1. Prepare Master Plan for Field Testing

The Firm shall prepare a Master Plan for Field Testing. This Master Plan shall be based on the results of the assessment described in Task 1.1, and contain the Firm's proposed strategy and action plan for a period of five (5) years. It shall be renewed annually by BIR and BOC in consultation with the Firm.

The Firm shall submit a draft Master Plan for Field Testing as part of its proposed Approach and Methodology during the procurement stage. This plan can serve as basis for the full assessment and development of the Master Plan to be undertaken upon award of contract. **Final Master Plan on Field Testing shall be due one (1) month after issuance of NTP.**

Task 2.2. Prepare and Develop Standard Operating Procedures

The Firm shall prepare and develop Standard Operating Procedures (SOP) for field testing. SOP shall describe the general operation and methodology of field testing, outline the step-by-step procedure, and explain other tasks or activities for field testing.

First draft of the Standard Operating Procedures for field testing shall be submitted by the Firm within five (5) months from the approval of the Master Plan.

Task 2.3. Supply Equipment and Personnel

The BOC and BIR shall together set up a minimum of twenty (20) Field Testing Units that shall be deployed nationwide to conduct field testing two (2) months after full operation of fuel marking for the First Tranche.

2.3.1 Field Testing Units and Mobile Fuel Analyzers

The Firm shall equip each field testing unit with at least one (1) mobile fuel analyzer. Each Field Testing Unit, at a minimum, must be accompanied by two (2) high

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resolution cameras which can properly document and record visual and audible components of the actual testing of fuel.

Each Field Testing Unit shall be equipped with one (1) vehicle to transport the mobile fuel analyzer which at minimum should be an automatic transmission AUV/CUV/SUV with at least 1800 cc motor cylinder displacement.

The mobile fuel analyzer shall have the following minimum features:

- It must be able to clearly identify and measure the presence of specified fuel markers in fuel samples, providing final forensic results in situation and the software to interpret the results.
- It should allow testing to be conducted in a single action, providing the field qualitative and quantitative results within three (3) to fifteen (15) minutes and indicating if and by how much the fuel has been adulterated.
- The mobile fuel analyzer must provide a testing process which is robust, environmentally-friendly and cost-effective for the analysis of fuel samples in the field.
- The test results achieved by the mobile field analyzer should be accurate within a precision factor of +/- 2 percent and repeatability of 99 percent. The mobile fuel analyzer must be able to identify the various fuel markers in hydrocarbon oil samples with the minimum of sampling preparation and calibration.
- The mobile fuel analyzers can be accommodated in (i) automatic transmission AUV/CUV/SUV with at least 1800 cc motor cylinder displacement (ii) 35 to 40-footer speedboats, and (iii) 72-footer patrol boats.
- The mobile fuel analyzer should be easy to use and, with simple instructions, capable of being used by non-technical BOC and BIR personnel, when necessary.
- The mobile fuel analyzer must be supported by a monitoring methodology capable of transmitting the test results in real time or near real time, including GPS location, to multiple designated recipients including a central database through online telecommunication links. This capability should be coupled with access to video footage of actual field testing in real time or near real time.
- The mobile fuel analyzers should have ISO 17025 accreditation.

It is envisaged that due to the nature of the markers deployed, some form of Gas-Chromatography system or a similar system with the same technology or sensitivity will be required as a mobile analyzer and this specification has been prepared on that basis. However, other techniques/systems are not excluded from consideration provided that they can demonstrate that they can meet the testing requirements (e.g., minimal false positive results).

The Firm must ensure the timely replacement of the defective field testing units to ensure continuity in the implementation of the fuel marking program. The Firm should provide readily available replacement mobile fuel analyzer(s) and/or parts equivalent

to five (5%) percent of the working units deployed to address cases of breakdown or failure to operate.

The deployment schedule of the Field Testing Unit and the mobile fuel analyzer should be included in the Master Plan for Field Testing. The Firm shall deliver, as a minimum, seven (7) Field Testing Units and mobile fuel analyzer to the BOC and BIR within **two months after approval of the Master Plan. It shall ensure complete delivery of all field testing equipment within a month after full operation of fuel marking system for the First Tranche.**

The Firm may make available to fuel importer, manufacturer or refiner, at their own cost, a simple hand-portable field testing kit for independent self-testing subject to the condition that it should be able to provide reliable result consistent with the mobile fuel analyzer and without disclosing chemical makeup of the fuel markers. Any result from the hand-portable field testing kit are, however, not binding to the Government and are deemed independent testing.

All mobile fuel analyzers shall be newly purchased and full ownership and management transferred to the Government after the term of the contract. These should be upgraded or changed as the need arises such as due to technological change/advancement, breach of security or other unexpected issues. The Firm shall prepare and develop a Maintenance Plan that describes how it intends to upgrade, service and keep the fuel analyzers in good condition throughout the term of the contract. **The Firm shall submit the Maintenance Plan within a month from start of field testing.**

2.3.2 Field Testing Specialists

The Firm shall engage and assign at least one (1) field testing specialist to support each road fuel testing unit. These specialists shall accompany BOC or BIR personnel and form part of the road fuel testing units. They shall conduct tests only in the presence of a BOC or BIR official.

Each field testing specialist must have at least a college degree related to chemistry, chemical engineering, biochemistry or other relevant field, be fully trained as certified by the Firm, does not have any criminal record, and must sign an integrity pledge. The Firm shall submit the CV of each field testing specialist to BOC and BIR for their approval before deployment.

2.3.3 Satellite Offices

The Firm shall set up one (1) satellite office near each of the following ports and sub-ports of entry listed in Annex A-1 and the two refineries, namely, Petron Bataan, and Shell Batangas. When the location of ports, sub-ports, and refinery are within 70 kilometers driving distance of each other (i.e., can be driven within one hour from each other), a consolidated satellite office may be set-up to service such ports and sub-ports.

In addition, the Firm may likewise be required to set-up at least (2) strategically located field offices to provide support service to the field testing activities around the country.

All expenses for each satellite office will be at the expense of the Firm.

The Firm shall set up field testing satellite offices and deploy all personnel

ready to accompany BOC and BIR during field testing within two (2) months after full operation of fuel marking for the First Tranche. It shall submit a **Mobilization Report**, which includes an inventory of equipment delivered and deployment schedule, within a month from start of field testing.

Task 2.4 Provide IT Support and Analytical Service

The Firm shall be responsible for the proper management of fuel samples tested including storage and security thereof. It shall use an information management system that properly and uniquely labels, tracks and processes all fuel samples in a consistent procedure. It shall ensure the integrity of the evidentiary chain of custody of the sampled fuels are observed and documented in a manner sufficient to satisfy judicial evidentiary standard.

It shall also provide a laboratory based analytical service in a controlled environment capable of verifying the veracity and validity of the field test results using Gas-Chromatography Mass Spectrometer, or similar technology.

The Firm shall ensure that its fuel testing specialist shall be available anytime to testify either in criminal or administrative proceedings in the course of prosecuting offenders or forfeiting seized fuel.

The foregoing services are critical to BIR and BOC in their enforcement activities. The integrity of the evidential chain of custody is essential in subsequent legal proceedings — criminal or civil — that may be undertaken by BOC or BIR.

All services provided by the Firm as regards field testing should be at international standards of management and competency in laboratory testing and auditing procedures and processes, with ISO 17025 and 17021 accreditation.

Deliverable 2:

- ***Master Plan for Field Testing***
- ***Standard and Operating Procedures for Field Testing;***
- ***Maintenance Plan;***
- ***Mobilization Report, including inventory of Field Testing Kit Units delivered, as certified by BOC or BIR, and deployment schedule; and***
- ***Monthly Report on services rendered, including but not limited to number of field tests conducted and results thereof.***

TASK 3: TRAINING AND TECHNOLOGY TRANSFER TO BOC AND BIR

The Firm shall provide training to BOC and BIR personnel on how to (i) introduce the marker to the fuel products, (ii) sample and test the fuel, and (iii) operate the information technology system that supports the Fuel Marking Program with the objective of building the capacity of BOC and BIR to manage and sustain the implementation of the program beginning the third year of the contract.

Training on marker introduction should cover both the manual and automatic injection process and procedures, including handling of equipment, and simple maintenance. Training on sampling and testing should cover the normal use and operation of the mobile fuel analyzer, including use and supply of consumables and other agents necessary, simple maintenance and repair, and analysis and interpretation of the results.

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The Firm is also expected to assist and train BOC and BIR in conducting information awareness campaign to external stakeholders, primarily, oil companies.

The Firm shall submit a draft Training Program as part of its proposed Approach and Methodology during the procurement stage. The Training Program shall have the following specific objectives: (i) increase core competencies of BOC and BIR personnel in administering the markers and analyzers as well as interpreting the results of the field tests conducted; and (ii) ensure that BOC and BIR personnel are capable of addressing minor issues or be able to trouble-shoot difficulties that may be encountered during fuel marking and use of the analyzers and testing kits. **This draft can serve as basis for the Training Program to be submitted within one (1) month from issuance of Notice to Proceed (NTP) after consultation with BOC and BIR.**

The Training Program shall propose a schedule of regular trainings to be held during the Initial Phase and the succeeding periods, which should start no later than one (1) month from approval of the Training Program. The audience shall include at least 100 officials of BIR and BOC tasked to implement the Fuel Marking Program. Cost of training facilities or venue and transportation expense of participants shall be for the account of BIR and BOC. After the training, participants shall be formally assessed and shall undergo at least three (3) months of on-the-job training.

It is envisioned that the BIR and BOC, through the training and technology transfer, can independently operate the injection and testing aspects of the project beginning the third year and can fully perform the function of the Firm, except development of the marker, beginning the fifth year of the project. The Training Program should also explain how the Firm intends to turn over the functions and manage the transition in the last two (2) years.

Deliverable 3:

- **Training Program; and**
- **Quarterly Training Report, including course materials and assessment scores.**

V. DURATION OF THE ASSIGNMENT

The contract between the Government through the DBM-PS and/or BOC and the fuel marking service provider shall be for a period of five (5) years, subject to annual review of performance. Extension is at the sole discretion of the Government.

VI. QUALIFICATION OF KEY PERSONNEL AND EVALUATION CRITERIA

The Firm has full discretion over the composition and structure of its key personnel and is responsible to provide all necessary expertise and qualifications to deliver the required output of this engagement. However, as a minimum requirement, the Firm must assign a full-time project management specialist/team leader with the following minimum qualifications:

- At least 10 years of experience managing projects of similar scope and complexity.
- At least 5 years of experience as a project manager in a fuel marking program.
- At least two country experience in implementing or managing a fuel marking program, with preference for developing countries.

- Relevant educational degree in management, accounting, law, or related fields.

VII. IMPLEMENTATION SCHEDULE

The Firm is expected to undertake the tasks for the 1st year of the contract in accord with the implementation schedule stated in **Annex C**.

VIII. DELIVERABLES AND PAYMENT SCHEDULE

The Firm shall submit the deliverables within the time frame specified by the Deliverable Schedule table below. BOC will normally require ten (10) working days to review acceptability of deliverables. This is subject to adjustment depending on difficulty and volume of deliverables.

Payment shall be based on the reported and validated volume of petroleum marked on a monthly period. This is further conditioned on the timely submission of the Deliverables due. Payments will be made around 30 days after receipt of invoice.

Table 2: Deliverable and Payment Schedule

Year 1:

#	Deliverable	Due Date	Price
Task 1	Establish and Operate a Fuel Marking System		PHP xx/liter marked
1.1	Final Assessment Report and Master Plan for Fuel Marking	One (1) month after issuance of Notice to Proceed	
1.2	Mobilization Report, including inventory of equipment delivered and deployment schedule Maintenance Plan	Five (5) months from approval of Master Plan	
1.3	Approval of Fuel Marker and Signed Confidentiality and Non-Disclosure Agreement	One (1) month from approval of Master Plan	
1.4	Monthly Report on Fuel Marking	Within fifteen (15) days from end of the month of fuel marking operation	
Task 2	Implement and Manage a Field Testing Program		
2.1	Master Plan for Field Testing	One (1) month after issuance of Notice to Proceed	
2.2	Standard and Operating Procedures for Field Testing	Five (5) months from approval of Master Plan	

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2.3	Mobilization Report, including inventory of Field Testing Kit Units and deployment schedule	Within a month from start of field testing	
	Maintenance Plan		
	Monthly Report on Fuel Testing	Within fifteen (15) days from end of month of fuel testing operation	
Task 3	Implement and Manage a Field Testing Program		
	Training Program	One (1) month after issuance of NTP	
	Quarterly Training Report		

Years 2-5:

#	Deliverable	Due Date	Price
1.	Monthly Report on Fuel Marking and Field Testing	Within fifteen (15) days from end of the month of full operation	PHP xx/liter marked
2.	Quarterly Training Report	Within fifteen (15) days from end of the quarter	

IX. REPORTING AND WORKING ARRANGEMENTS

A. DBM-PS

The DBM-PS shall administer the contract for the First Tranche of the Program. DBM-PS shall monitor performance of the Firm and ensure that deliverables are submitted as scheduled and payments made in accordance with the terms and conditions of the contract.

B. BOC and BIR

BOC and BIR, on the other hand, shall manage the performance of, and coordinate with, the Firm in its day-to-day operations. Both BOC and BIR shall ensure that the tasks are accomplished in accord with the terms and conditions of the contract and are in line with the objectives of the Program. They shall be responsible for reviewing the deliverables and providing their inputs until fully satisfied on a technical level.

For the First Tranche, BOC shall be responsible for coordinating with BIR and ensuring that all technical comments are addressed before endorsing payment to DBM-PS. For the Second Tranche, BOC shall take over administration of the contract in addition to

jointly managing the contract with BIR. It shall be responsible for paying the Firm as scheduled and in accordance with the terms of the contract.

Each shall appoint a focal person or contract manager at the start of the contract, who shall preferably be a member of the Technical Working Group on Fuel Marking described below. A copy of each deliverable shall be submitted in writing to BOC, copy furnished BIR and PS-DBM.

C. DOF

BOC and BIR shall report to the DOF Technical Working Group on Fuel Marking (TWG), headed by the Undersecretary for Revenue Operations, Department of Finance, and co-headed by the Commissioners of the BIR and BOC.

The Firm's project manager shall endeavor to be available regularly to report to the TWG or its representative the status of the project.

The Department of Finance, through the Revenue Operations Group, continues to have supervision and control, over the Bureaus. Any controversy or issues which are within its mandated authorities shall continue to be resolved by the same.

X. SERVICES AND FACILITIES TO BE PROVIDED

BOC and BIR, shall make available to the Firm all relevant information, documents, statistics, and other related references, both in hard and electronic copies (where necessary). All documents so provided will remain the property of BOC or BIR. The Firm may not dispose of or otherwise make use of such documents without the prior written approval of BOC or BIR.



ANNEX A

PORTS/ SUBPORTS	PERCENTAGE OF FUEL VOLUME	PROJECTED FUEL VOLUME, 2018 in liters
Port of Batangas	29.85%	6,560,419,445
Sub-port of Bauan (Batangas)	7.30%	1,604,579,379
Sub-Port of Puerto Princesa (Batangas)	0.02%	3,664,363
Port of Subic	16.75%	3,682,205,115
Port of Limay	11.28%	2,479,168,654
Sub-port of Mariveles (Limay)	12.23%	2,687,536,008
Port of Cagayan De Oro	0.89%	196,254,843
Mindanao Container Terminal (CDO)	6.61%	1,452,479,578
Port of Davao	6.59%	1,448,212,420
Sub-port of Dadiangas (Davao)	0.05%	11,767,908
Sub-Port of Parang (Davao)	0.00%	189,659
Port of Cebu	1.73%	380,856,146
Sub-port of Dumaguete (Cebu)	0.99%	217,095,531
Sub-Port of Mactan (Cebu)	0.00%	14,910
Port of Manila	1.70%	374,663,302
Manila International Container Port	1.40%	307,850,940
Harbour Center	0.50%	110,244,112
Port of Iloilo	0.68%	150,527,853
Sub-Port of Pulupandan (Iloilo)	1.36%	299,913,073
Port of Tacloban	0.05%	11,567,606
Port of Zamboanga	0.00%	215,521
Ninoy Aquino International Airport	0.00%	569,249
Port of Clark	0.00%	4,289
Sub-port of Sual	0.00%	95
Sub-port of Currimao (Aparri)	0.00%	6
TOTAL	100%	21,980,000,000

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PORTS/ SUBPORTS	PERCENTAGE OF FUEL VOLUME	PROJECTED FUEL VOLUME, IN LITERS				
		2018	2019	2020	2021	2022
Port of Batangas	29.85%	6,561,030,000	6,937,140,000	7,334,145,000	7,755,030,000	8,199,795,000
Sub-port of Bauan (Batangas)	7.30%	1,604,540,000	1,696,520,000	1,793,610,000	1,896,540,000	2,005,310,000
Port of Subic	16.75%	3,681,650,000	3,892,700,000	4,115,475,000	4,351,650,000	4,601,225,000
Port of Limay	11.28%	2,479,344,000	2,621,472,000	2,771,498,000	2,930,544,000	3,098,616,000
Sub-port of Mariveles (Limay)	12.23%	2,688,154,000	2,842,252,000	3,004,911,000	3,177,354,000	3,359,581,000
Mindanao Container Terminal (CDO)	6.61%	1,452,878,000	1,536,164,000	1,624,077,000	1,717,278,000	1,815,767,000
Port of Davao	6.59%	1,448,482,000	1,531,516,000	1,619,163,000	1,712,082,000	1,810,273,000
Port of Cebu	1.73%	380,254,000	402,052,000	425,061,000	449,454,000	475,231,000
Port of Manila	1.70%	373,660,000	395,080,000	417,690,000	441,660,000	466,990,000
Manila International Container Port	1.40%	307,720,000	325,360,000	343,980,000	363,720,000	384,580,000
Sub-Port of Pulupandan (Iloilo)	1.36%	298,928,000	316,064,000	334,152,000	353,328,000	373,592,000
TOTAL	96.80%	21,276,640,000	22,496,320,000	23,783,760,000	25,148,640,000	26,590,960,000

ANNEX B

Fuel product subject to excise (based on National Internal Revenue Code)	Common variants	Notes
Gasoline	Regular 91RON Premium 95RON Premium Plus 97RON	As product : E10 gasoline
Denatured alcohol to be used for motive power	at 96.9% purity with gasoline as denaturant. Initial purity is at 99.3% minimum (prior to denaturing)	Denatured bioethanol for blending to gasoline in the production of E10.
Kerosene	kerosene, used for domestic heating purposes or industrial blending component.	
Diesel fuel oil, and on similar fuel oils having more or less the same generating power	Automotive Diesel (referred to as B2) Industrial Diesel however if not meeting the B2 specification of the PNS, then said product may be considered as base diesel. base diesel shall be blended to BIODIESEL to become PNS-compliant Diesel (B2).	As finished product, must meet the PNS specifications for ADO or IDO

for
 APRIL 2018
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