

LIST OF ACRONYMS

ADO	Automotive Diesel Oil
API	American Petroleum Institute
ASME	American Society of Mechanical Engineers
ANSI	American National Standard Institute
CAA	Clean Air Act
CEMS	Continuous Emission Monitoring System
CENRO	City Environment and Natural Resources Office
CFB	Circulating Fluidized Boiler
DAO	DENR Administrative Order
DENR	Department of Environment and Natural Resources
DIA	Direct Impact Area
DOE	Department of Energy
ECC	Environmental Compliance Certificate
EMB	Environmental Management Bureau
EPC	Engineering, Procurement and Construction
IEC	Information, Education and Communication
IEC	International Electrotechnical Commission
IFO	Industrial Fuel Oil
IHS	Initial Household Survey
IIA	Indirect Impact Area
ISO	International Organization for Standardization
LGU	Local Government Unit
LPG	Liquefied Petroleum Gas
MB	thousand barrels
MBSD	thousand barrels per stream day
MW	Megawatt
NEC	National Electric Code
NEMA	National Electrical Manufacturer's Association
NFPA	National Fire Protection Association
NLEX	North Luzon Expressway
IMS	Integrated Management System
PBR	Petron Bataan Refinery
RMP	Refinery Master Plan
RPM	Revised Procedural Manual
RSFFB	Refinery Solid Fuel Fired Boiler
SLHBTC	SL Harbor Bulk Terminal Corporation
SMC	San Miguel Corporation
TG	Turbo Generator
TPH	Total petroleum hydrocarbons

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1.0 BASIC PROJECT INFORMATION

1.1 Project Information

Project Name	Petron Refinery Special Projects			
Project Location	Barangay Alangan, Limay, Bataan			
Project Area	7.4 hectares with 2 km of transfer lines			
Project Type	Processing Industry – Petroleum and Petrochemical			
Project Nature	Installation of Auxiliary / Support Facility but will not result to increase in production capacity			
Processing Capacity	180,000 barrels of crude oil per day			
s	Existing		Proposed	
	ECC Amendment 2012 Ref. Code 1002-0007 (Proposed Facilities)	Post RMP-2 Status (Built Facilities)	Refinery Solid Fuel Fired Boiler (RSFFB) Phase 3	Support Facilities
	2x200 tph Circulating Fluidized Boiler and 2x35MW Turbine Generator	2x200 tph Circulating Fluidized Boiler and 2x35MW Turbine Generator	Circulating Fluidized Bed (CFB) Boilers (2 units x 200 TPH)	Coal and Petcoke Preparation and Conveying System
	1x1,100 Sm ³ /hr Nitrogen Plant	1x1,100 Sm ³ /hr Nitrogen Plant No. 2		Cooling Water System, Compressed Air System
	1x100MB FCC Intermediate Tank / Heavy Vacuum Gas Oil (HVGO) Tank	1x100MB FCC Intermediate Tank / Heavy Vacuum Gas Oil (HVGO) Tank		Steam and Electrical Distribution Facilities
	Additional Deep Wells	5x150 m ³ /hr Water Wells		Sorbent System
	Treated Water System - Desalination Plant at 800m ³ /hr - EDI Unit at 148 m ³ /hr	- Desalination Plant at 780m ³ /hr - EDI Unit at 148 m ³ /hr		Excess Limestone Powder Handling System
	-	-		Fuel Gas Stack (1 per boiler)
	-	-	One New 500m Fuel Transfer Line to SL Harbor Bulk Terminal Corporation (SLHBTC)	-

1.2 Proponent Profile

Proponent Name	Petron Bataan Refinery
Proponent Address	Limay, Bataan, 2103
Proponent Contact Details	Manila Line: (02) 8884 – 9100 Bataan Line: (47) 244 – 3300
Proponent Authorized Representative	Allister J. Go

2.0 PROJECT DESCRIPTION

2.1 Project Location and Area

The Project will be located at Brgy. Alangan, Limay, Bataan. The facilities will be separately located in areas within the boundaries of Petron Bataan Refinery, Panasia and SLHBTC. **Table PDS-1** shows the geographic coordinates of the proposed facilities while **Figure PDS-1** shows the location map of the proposed project.

Table PDS-1
Geographic Coordinates of the Project Site

	Northing	Easting
RSFFB-3 (New CFBs)	14°31'26.09"	120°35'48.93"
	14°31'26.09"	120°35'45.99"
	14°31'21.70"	120°35'45.99"
	14°31'21.70"	120°35'47.98"
	14°31'19.55"	120°35'47.98"
	14°31'19.55"	120°35'43.92"
	14°31'17.92"	120°35'43.92"
	14°31'17.92"	120°35'45.03"
	14°31'18.68"	120°35'45.03"
	14°31'18.68"	120°35'50.29"
	14°31'23.24"	120°35'50.29"
	14°31'23.24"	120°35'48.93"
Transfer Line to SL Gas	14°32'06.77"	120°35'56.93"
	14°32'26.88"	120°35'56.84"

2.2 Project Impact Area

According to DAO 2003-30 guidelines, the DIA generally refers to areas where the project facilities or infrastructures are proposed to be constructed/located or traversed such as buildings or structures, irrigation, drainage and other utility areas, quarry sites, access roads and others to be set up during the construction and operation phases.¹

The IIA generally refers to the influence area of the project that could be indirectly affected by the proposed development. This could include areas in the vicinity of the DIA. Examples of these may include communities or settlements outside of the DIA which can also be benefited by the employment opportunities created by the project; sub-tributaries of the river system which can be indirectly affected by project induced.

Since the proposed project is within the vicinity of PBR, primary impact area will be the area where the various components will be sited, including areas that will be affected by dust emissions and safety during the construction phase. The secondary impact area includes the nearby Lamao/ Alangan communities, and Alangan River. **Figure PDS-2** presents the impact area map of the Project.

¹ EMB Website: <http://www.emb.gov.ph/portal/Portals/8/Documents/Planning%20files/DAO%2096-37%20chapter%201-3.pdf>

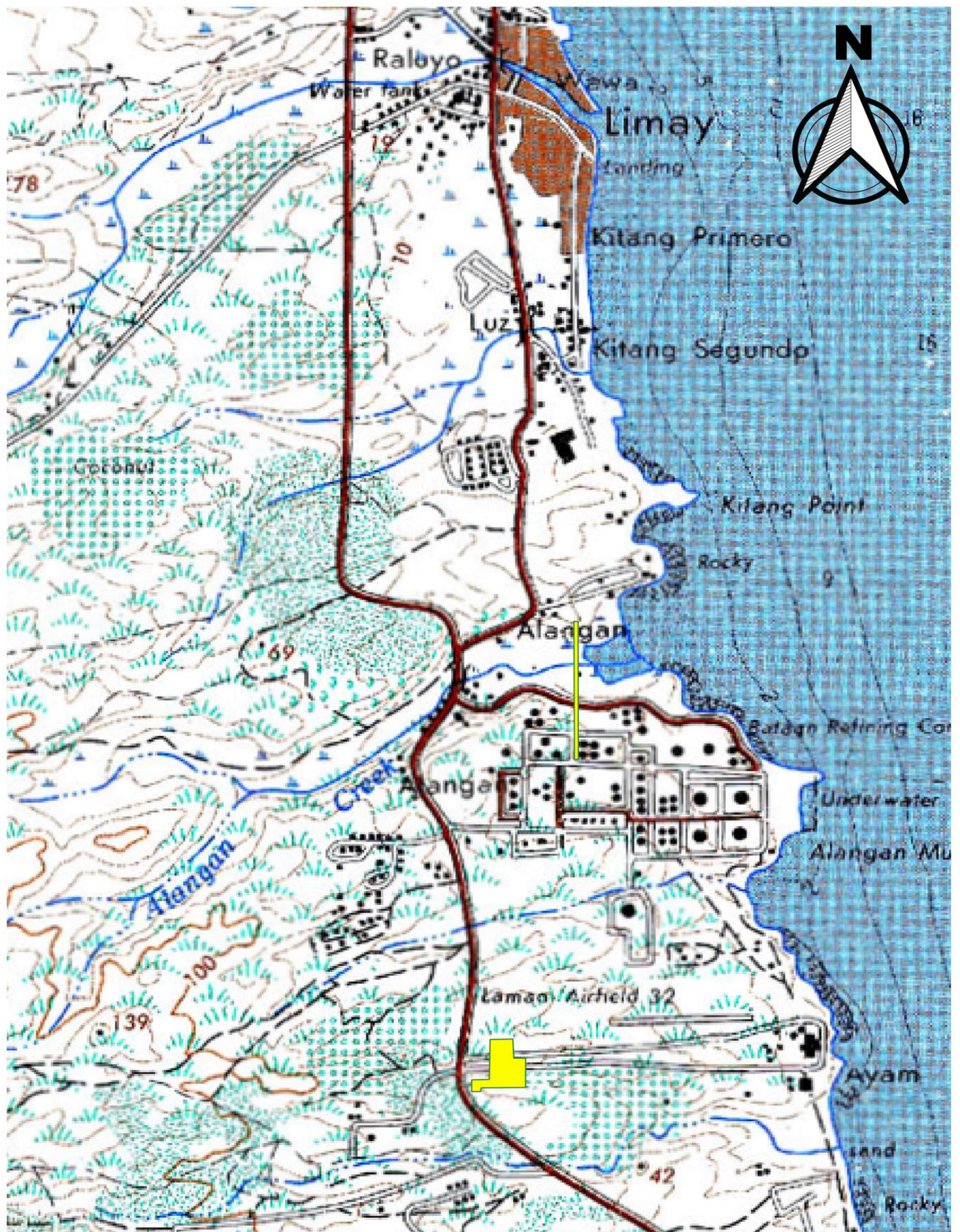


Figure PDS-1. Topographic Map of the Project Site

LEGEND:

- RSSFB Phase 3
- Transfer line to SLHBTC

SCALE: 1: 50,000

DATA INFORMATION/SOURCE: PETRON
 Basemap: NAMRIA
 Created by: APERCU CONSULTANTS, INC
 (2020)

PAGE: 3

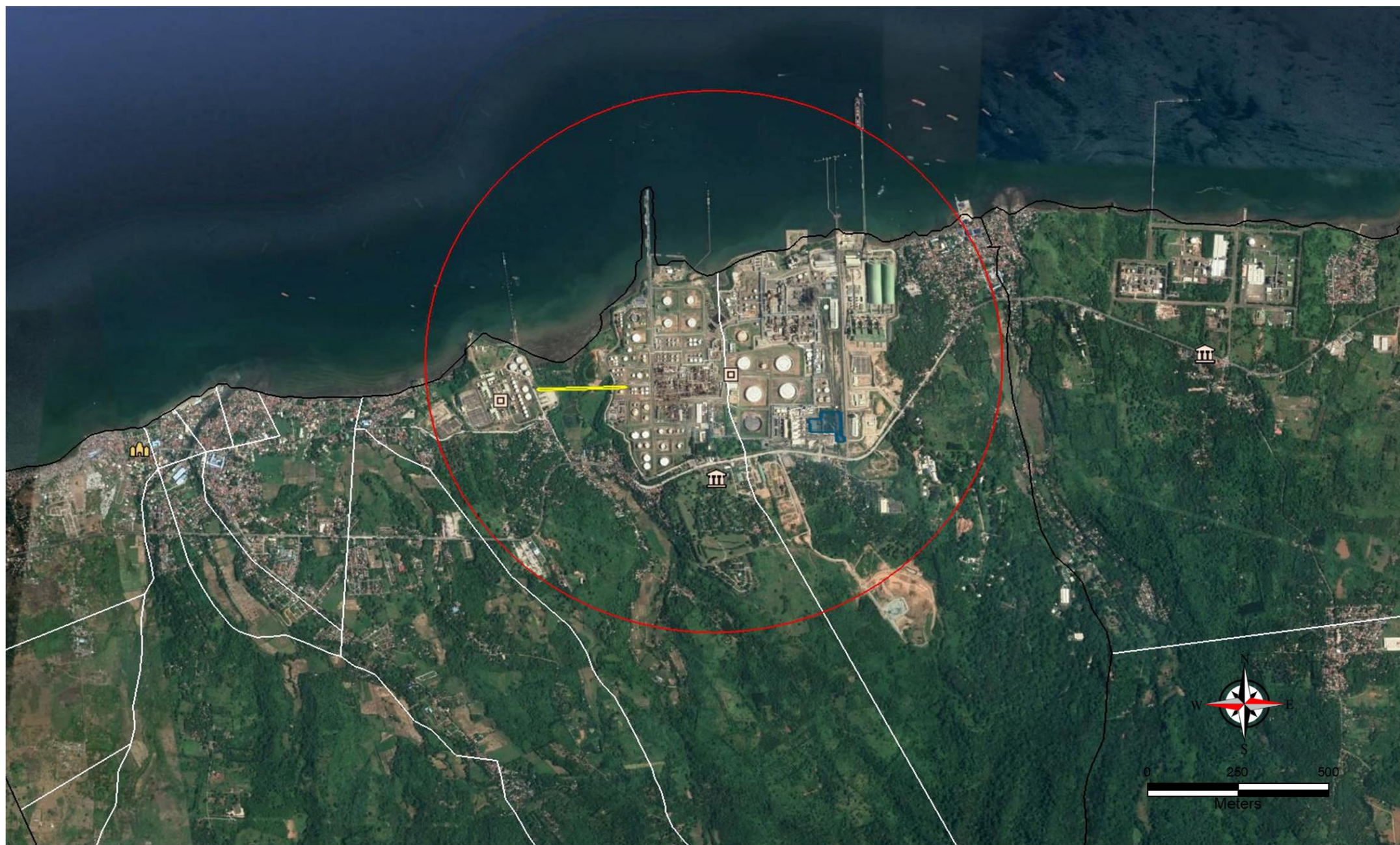


Figure PDS-2. Impact Area Map

**PROJECT DESCRIPTION FOR SCOPING
PETRON REFINERY SPECIAL PROJECTS**

LEGEND:



Impact Areas



RSSFB Phase 3



Transfer line to SLHBT



Municipal Boundaries



Barangay Boundaries

SCALE: 1: 80,000

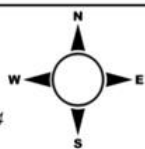
Basemap: Google Earth
Created by: APERCU CONSULTANTS, INC (2019)

PAGE: 4



500 0 500 m

Map Projection: Pseudo-Mercator
Horizontal Datum: World Geodetic System 1984
Source: Basemap - Google Maps, 2016



Legend

- ◆ Establishments
- Roads
- National Highway

- Barangay Boundaries
- Municipal Boundaries
- Petron Bataan Refinery

Figure PDS-3.
Project Site Vicinity
Map



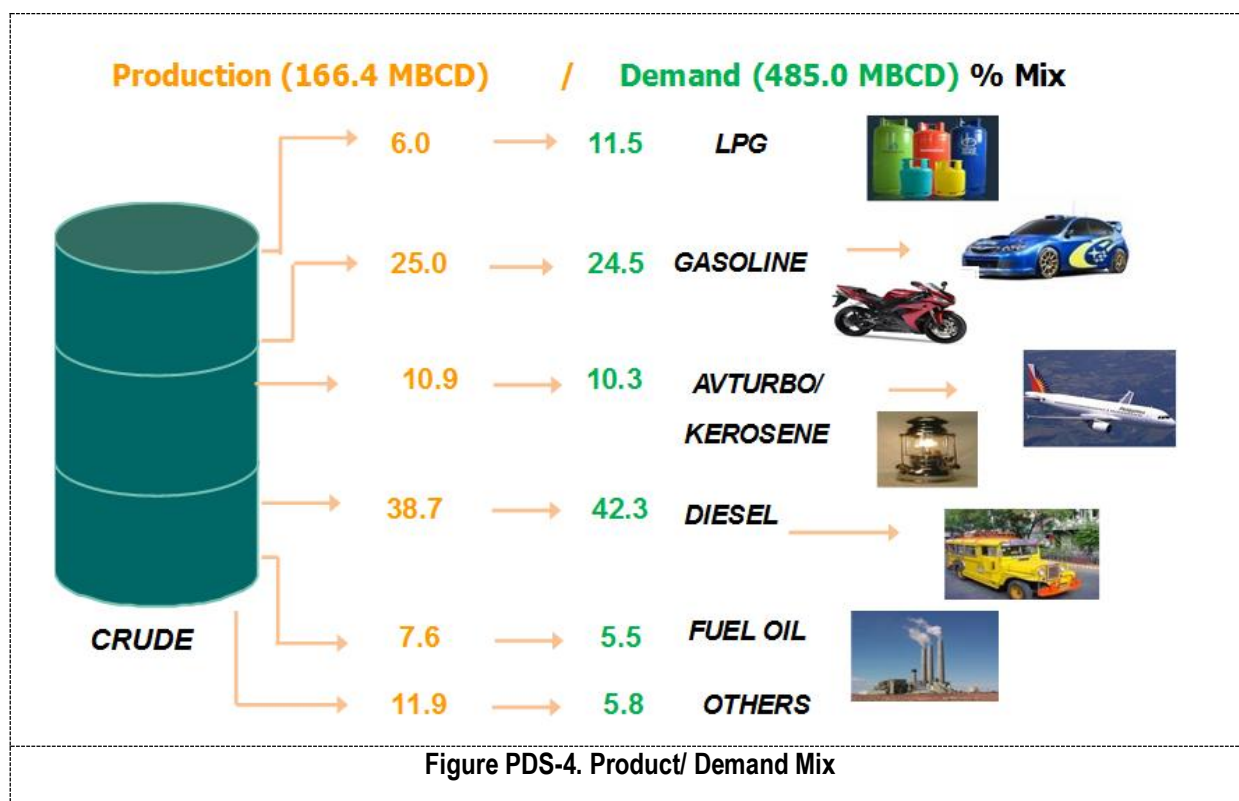
2.3 Project Site Accessibility

To get to the area from Manila, one takes the NLEX-SCTEX until the Dinalupihan Exit which connects to Roman Superhighway. The project area can be easily accessed by taking the highway until PBR or if commuting, dismount at Petron Bataan Refinery Corporation. The Project vicinity map is presented in **Figure PDS-3**.

3.0 PROJECT RATIONALE

The demand of petroleum products in the Philippines last June 2019 totaled 87,790MB, an increase of 4.5 percent from 83,977MB of same level the previous year. This can be translated to an average daily requirement of 485.0MB compared with the 2018 level of 464.0MB. Compared with first half 2018 figures, gasoline and diesel oil demand increased by 9.5 and 5.2 percent, respectively. Similarly, demand for LPG and kerosene/avturbo grew by 2.8 and 1.8 percent, respectively. However, fuel oil demand dropped by 2.0 percent.

Product demand mix comprised mostly of diesel oil at 42.3 percent, gasoline at 24.5 percent, LPG at 11.5 percent, kerosene/ avturbo at 10.3 percent, fuel oil at 5.5 percent and other products at 5.8 percent share in the total product mix (Figure PDS-4).



Source: Oil Supply/ Demand Report 1H 2019 vs 1H 2018, DOE

The refinery is capable of processing 180,000 barrels-per-day by converting all negative margin fuel oil into high-margin products such as gasoline, diesel, and petrochemicals. At this capacity, Petron has enhanced the country's supply security and lessened the country's dependence on higher costing imported fuel products.

The components of the Petron Refinery Special Projects, currently applied for, aim to provide the following:

- Shift to cleaner technology in production of its steam and power requirements via replacing some of its old fuel oil fired boilers.
- Alleviate the PBR product pier utilization and traffic through the construction of new transfer facilities.

4.0 PROJECT COMPONENTS

Table PDS-2 lists the components being applied for, relative to those already included in the previous ECC application, and entirely new components.

Table PDS-2
Project Components and Corresponding ECC Application

ECC Amendment 2012 (Ref. Code 1002-0007)	Post RMP-2 Status	2020 Petron Special Projects	
2x200 tph Circulating Fluidized Boiler and 2x35MW Turbine Generator	2x200 tph Circulating Fluidized Boiler and 2x35MW Turbine Generator	RSFFB Phase 3	Support Facilities
		2x200 tph Circulating Fluidized Boiler and	Coal and Petcoke Preparation and Conveying System
			Sorbent System
		2x22MW Backpressure Turbine Generator	Cooling Water System, Compressed Air System
			Steam and Electrical Distribution Facilities
			Fuel Gas Stack (1 per boiler)
			Excess Limestone Powder Handling System
		Transfer Line to SLHBTC	

4.1 Refinery Solid Fuel Fired Power Plant Appurtenant Facilities

The main facilities of the project will be two 200 tph CFBs and two 22MW Back Pressure Turbo Generators. The new CFBs capacity and design are mainly based on the four existing CFBs PBR is currently operating. The new Back Pressure Turbo Generator however, is designed to produce more steam in lieu of power production. The new CFBs will require the following support facilities (**Table PDS-3**).

Table PDS-3
Support Facilities for RSFFB Phase 3

	Equipment
New Petcoke and Coal Preparation and Conveying system	Two new Conveyors and Crusher system, Truck Unloading Stations and New Silos
Cooling Water facilities	Cooling Tower Cells with new cooling water pumps
Sorbent System	Additional Limestone powder silo and feeder system
Compressed Air	New Air Compressors, dryer and piping
Steam Distribution Network	Network of steam pipelines connecting the new CFBs to Process Area
Flue Gas Stack	Two new Flue Gas stacks
Electrical System	New Transformers and electrical cables
Excess Limestone Handling System	New Screw coolers

4.2 Transfer Line to SLHBTC

The proposed transfer line to SLHBTC will allow Petron to alleviate the pier and tank utilization within PBR. A new 8" transfer line for gasoline will be constructed, while the existing 14" Industrial Fuel Oil (IFO) and 6" Automotive Diesel Oil (ADO) transfer lines from PBR to Panasia will be reserviced and extended to SLHBTC. PBR will transfer

ADO to SLHBTC tanks through the reserviced 14" line, from which the product will be loaded to marine vessels through the reserviced 6" and new 8" lines, respectively.

5.0 PROJECT ALTERNATIVES

5.1 RSFFB-3

The RSFFB-3 is an expansion that will possess the same component characteristics of the four existing CFBs in the refinery. It will be using the same technology as the existing boiler units. This CFB technology is a highly efficient process for steam production, while also being versatile enough to handle various solid fuel properties. CFB is a full contained state-of-the-art technology where the fuel is "suspended" in a mixture of superheated air and limestone collectively called the "fluidized bed". This setup allows the fuel combustion to occur at lower temperature compared to other solid fuel power plants.

The proposed expansion will be located south of the existing CFBs, found at the southwest portion of the refinery. These were specifically allocated by PBR for future plant expansions as they are large areas that are far from regular plant activity and require minor site preparation. The area is proximal to preexisting process facilities and is the most accessible to the delivery of resources such as fuel, limestone, and ash trucks.

5.2 Transfer Line

A new 8" transfer line for gasoline will be constructed for the proposed transfer line to SLHBTC, while the existing 14" Industrial Fuel Oil (IFO) and 6" Automotive Diesel Oil (ADO) transfer line from PBR to Panasia will be reserviced and extended to SLHBTC. The transfer line will allow Petron to alleviate the pier and tank utilization within PBR. The transfer line/piping design will be in accordance with ExxonMobil Design Practice and Global Practice.

The additional Transfer Line is to be added to the already existing pipeline transfer facilities at the north of the refinery to SLHBTC. Pumps will be located at Panasia and new transfer lines will run straight through the undeveloped land area. This site was selected with respect to the location of the piers and storage facilities.

5.3 Resources

The sources of the necessary energy, water, and raw materials is summarized in **Table PDS-4**. No alternative resources were considered from the already existing sources.

Table PDS-4
Resource Utilization

Material	Source
Coal and Petcoke	Coal to be consumed by the CFB units will be imported from Indonesia. The petcoke which produces more energy per unit volume than coal is sourced from the refinery's Delayed Coker from the RMP-2.
Limestone	The limestone is sourced locally and will be supplied at proper size so no additional preparation is necessary for its utilization.
Water	The water comes from the existing deepwells within the refinery

6.0 PROCESS/TECHNOLOGY

5.1 Circulating Fluidized Bed Boiler

The RSFFB Phase 3 project will use Circulating Fluidized Bed Boiler (CFB) Technology, a highly efficient process for steam production, while also being versatile enough to handle various solid fuel properties. CFB is a full contained state-of-the-art technology where the fuel is “suspended” in a mixture of superheated air and limestone collectively called the “fluidized bed”. This setup allows the fuel combustion to occur at lower temperature compared to other solid fuel power plants.

Because CFBs operate at low temperature, it can use a “dry scrubbing” system to effectively reduce its emissions to Clean Air Act standards (**Table PDS-5**). Another benefit from this is that there is low NO_x formation at the furnace, thus also lowering NO_x emission. Listed below are the emission levels of the existing Refinery Solid Fuel Fired Boilers (RSFFB) compared to the Clean Air Act Standards.

Table PDS-5
Emission Levels of Existing RSFFB (mg/Nm³)

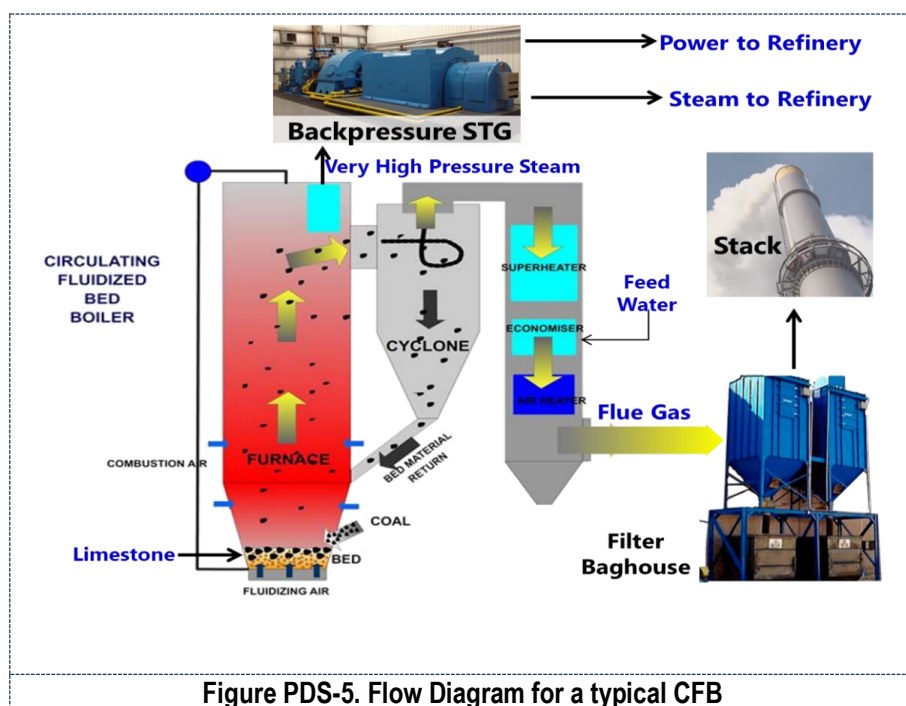
	Existing RSFFB	Clean Air Act
SO _x	<305	700
NO _x	<308	1000
Particulates	<50	150
CO	<100	500

Shown in **Figure PDS-5** is a flow diagram for a typical CFB. Combustion in the CFB takes place in a vertical chamber called the furnace, where fuel (coal or petcoke) and limestone are burned at 850°C to 900°C. The limestone will then react with the sulfur dioxide produced from burning of the fuel to gypsum (calcium sulfate). The gypsum produced, as well as the mineral content of the fuel, unburnt fuel and excess limestone, will make up the bed material in the furnace. The bed material will be fluidized with air (added at different parts of the furnace) and the hot combustion gases produced. The heat inside the furnace will be absorbed by boiler tubes installed along its walls, which will then convert the water inside the tubes to steam.

The part of the fluidized bed material will then be carried over to the cyclone, where the entrained solids are separated from the gases. Solids recovered in the bottom of the cyclone will be returned to the furnace by a recycle loop while the gas part (mostly flue gas) exiting the top of the cyclone will be sent to the superheater panel and economiser. At these sections, heat from the flue gas will be recovered to pre-heat the boiler feed water, thus reducing the required heat load of the furnace, while cooling the flue gas to the required temperature prior being released to the atmosphere.

After going to air heater, the cooled flue gas will enter the Fabric Filter Baghouse, which will remove any entrained solids prior releasing it to the atmosphere via sack. Entrained solids mostly consist of excess limestone but can still have traces of combustion products and unburnt fuel.

At the bottom of the Filter Baghouse and Furnace, excess limestone powder as cooled and collected. Majority of these materials will be sold to cement plants as filler materials while the remaining amount will be put in the existing Limestone powder pond of SMC Global.



5.2 RSFFB Phase 3 Support Facilities

Listed below are the support facilities for the new RSFFB:

Table PDS-6
Description of Support Facilities for RSFFB Phase 3

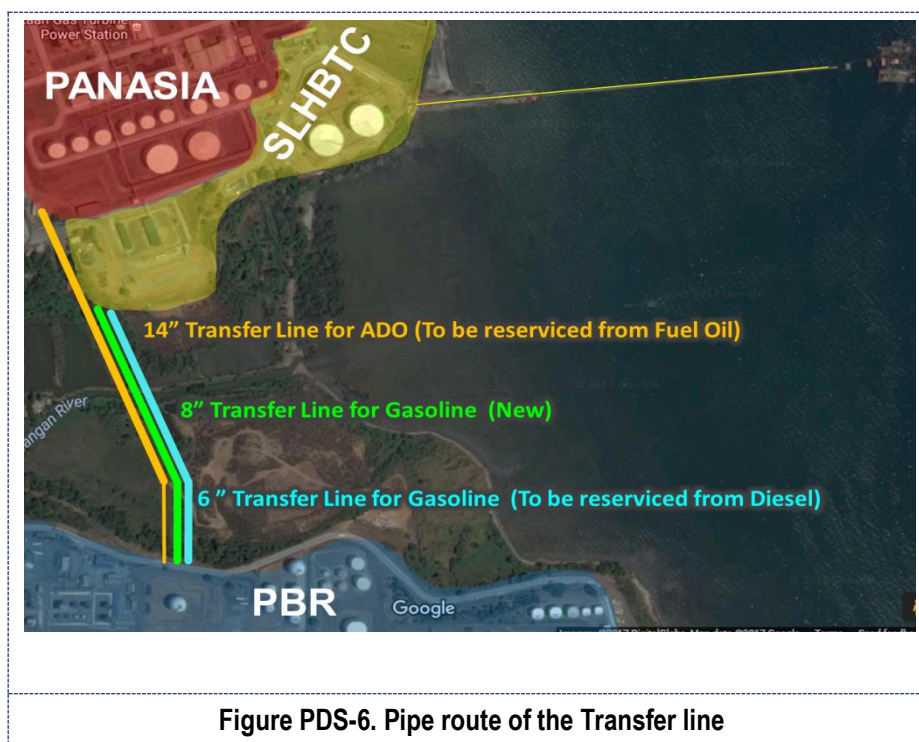
Facility	Description
New Petcoke and Coal Preparation and Conveying system	Crusher to ensure on specification coal / petcoke particle size and conveying system to deliver coal / petcoke from their respective storage areas to feed silos
Cooling Water facilities	Facilities to cool down and distribute cooling water to different areas in the RSFFBs such as generator air cooler, primary / secondary / induced fans, etc.
Sorbent System	Limestone injection and storage system for sulfur reduction in the furnace
Compressed Air System	Facilities to compress air from atmosphere and distribute it to various users within the RSFFB such as the furnace (combustion), instrumentation and feeder systems (i.e. limestone, sand).
Steam Distribution Network	Pipeline network to distribute steam from the New RSFFBs to process area
Flue Gas Stack	Vertical pipe / channel in which flue gases are exhausted in the atmosphere
Electrical System	Electrical network to connect the electrical facilities of the new RSFFB to existing system
Excess Limestone Powder Handling System	Excess limestone powder cooling and collection system from the furnace

5.3 Transfer to SLHBTC Pipeline

The proposed transfer line to SLHBTC will allow Petron to alleviate the pier and tank utilization within PBR. Instead of extending PBR's current pier, which would be expensive, it was opted to lease product (ADO and Gasoline) storage and loading facilities of SLHBTC. To transfer product from PBR to SLHBTC, modifications will be made on the existing transfer line from PBR to Panasia as well as putting up a new transfer line.

Figure PDS-6 shows the pipe route of the transfer line in which a new 8" transfer line for gasoline will be constructed, while the existing 14" Industrial Fuel Oil (IFO) and 6" Automotive Diesel Oil (ADO) transfer line from PBR to Panasia will be reserviced and extended to SLHBTC.

Petron will transfer ADO to SLHBTC tanks through the reserviced 14" line, from which the product will be loaded to marine vessels through the SL Gas pier facilities.



5.4 Resource Utilization

5.4.1 Coal and Petcoke

Each RSFFB train is designed to consume coal or petcoke, with capacities of 27 tph (petcoke) and 18.5 tph (coal). The coal currently used by existing RSFFBs is imported from Indonesia, while petcoke used is a by-product of the refinery. At typical refinery run and all RSFFBs running (4 existing and 2 new), coal consumption will increase (versus current of only 4 existing RSFFBs operating) by 18.5 tph. Petcoke consumption will also increase by 27 tph, and this will be sourced from excess petcoke, currently being exported, from the refinery.

5.4.2 Limestone

Limestone powder will also be used for sulphur removal, with usage of 1.3 tph (Coal Firing) up to 7 tph (Petcoke Firing). It is currently sourced locally. At typical refinery run and all RSFFBs running (4 existing and 2 new), limestone powder consumption will increase (versus current of only 4 existing RSFFBs operating) by 8.3 tph.

5.4.3 Water

Water consumption for the refinery will not change, as the new RSFFBs will just replace existing fuel oil fired boilers.

7.0 PROJECT PHASES, KEY ENVIRONMENTAL ASPECTS, WASTES, ISSUES, BUILT-IN MEASURES

6.1 Development Plan and Description of Project Phases

The following activities expected for each phase of the project is described in **Table PDS-7**.

Table PDS-7
Description of Project Phases

Project Phase	Description
Pre-Construction	Basic and detailed engineering design will be prepared for all facilities. Procurement of these facilities and other materials will be done and EPC contracting will be commenced.
Construction	Majority of the components to be installed will be fabricated outside of the plant, the remaining activities during construction will include the erection and set-up of the components. For the SL pipeline, small scale excavation and site preparation will take place. Vegetation will be cleared around the vicinity of these components.
Operation	Commissioning of the components will take place. Utilities such as electricity, steam and water will be sourced initially from the refinery until the new RSFFBs is fully commissioned.
Abandonment	Decommissioning of the components will take place. The site may be assessed to determine corrective actions as suitable. As mandated by DAO 2003-30, an abandonment plan will be submitted to EMB for approval one (1) year prior to abandonment.

6.2 Major Environmental Impacts and Management Measures

Table PDS-8 provides a preliminary list of the potential impacts and the respective mitigating measures identified.

Table PDS-8
Preliminary List of Potential Impacts and Mitigating Measures for the Refinery Special Projects

Key Environmental and Social Aspects	Potential Impacts	Planned Mitigation
Construction Phase		
Dust Generation from Site Clearing and Excavation	Air Pollution	Spraying of water to minimize dust emissions
Hiring of Workers	In-migration of workers	Prioritize hiring of qualified residents in the municipality
Noise from Construction	Noise Pollution	Limited work at nighttime
Operation Phase		
Emission of particulate matter and other air pollutants	Air Pollution	Installation of Air Pollution Control Devices such as bag filter and dry scrubber
Generation of Wastewater	Water Pollution	Installation of wastewater treatment facility to treat wastewater prior to discharge to Manila Bay
Noise from Commissioning Activities	Noise Pollution	Limited work during night and installation of silencers
Generation of spent limestone powder from dry scrubber	Air Pollution/ Soil Contamination	Construction of containment pond as disposal site for the spent limestone powder
Increase in water consumption	Depletion of natural resources (groundwater)	Implement water minimization, recycling and reuse

Information, Education and Communication (IEC) activity have been conducted in the host municipality and barangays to gather issues and concerns from major stakeholders affected by the Refinery Special Projects which will be considered for the project planning and implementation. A detailed report of the IEC is presented in **Annex B**. PBR is aware of concerns raised during the IEC from the communities and LGU on the impacts of the development of the Refinery Special Projects. PBR will work with the Local Government Unit, barangay councils and communities. **Table PDS-9** presents the summary of attendees of the IEC.

Table PDS-9
IEC Summary of Attendance

Date of IEC	Venue	No. of Participants	Participants Profile
13 December 2019 (Friday)	PBR Guesthouse	18	<ul style="list-style-type: none"> • Vice Mayor • CENRO • DENR Representative • Barangay chairperson • Other barangay officials • Senior citizens • Teachers • Fisher folk community

Initial Household Survey (IHS) was conducted to measure the effectivity of the IEC, and the extent of knowledge of the community regarding the Refinery Special Projects. A detailed report is provided as **Annex C**.

6.3 Wastes and Built-In Management Measures

6.3.1 Waste Generation

Shown in **Table PDS-10** is the waste generated by the new RSFFBs.

Table PDS-10
Waste Generation of RSFFB phase 3

Waste	Classification	Source	Disposition
Excess Limestone Powder	Non Hazardous Industrial Waste	Normally produced during boiler operation	<ul style="list-style-type: none"> • Sold to cement plants • Existing Excess Limestone powder pond
Waste Water (Cooling Water and Boiler Water Blowdown)	Non Hazardous Industrial Waste	Normally produced during boiler operation	Existing wastewater treatment Pant
Used Fabric Filter	Non Hazardous Industrial Waste	Generated during quarterly replacement or as needed	Sanitary landfill
RO Cartridge Filter	Non Hazardous Industrial Waste	Generated during cartridge replacement on the basis of pressure drop and monthly visual inspection	Sanitary landfill

6.3.2 Built-In Management Measures

Engineering Control

The new RSFFBs are equipped with safety features such as the Master Fuel trip, which essentially prevent hazardous condition in the boiler from escalating by sending trip signal to several equipment to immediately stop

operation. High pressure systems (i.e., steam drum) are also protected thru pressure relieving valves, preventing rupture of line / vessels thru venting at a safe location. Various instrumentation and alarm systems are included to assist operators from monitoring the facilities as well as prompt them when any hazardous conditions are developing.

The RSFFB Phase 3 facilities and the SLHBTC pipeline will be designed in accordance with applicable international and local standards such as American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), American National Standard Institute (ANSI), National Fire Protection Association (NFPA), International Electrotechnical Commission (IEC), National Electric Code (NEC) and National Electrical Manufacturer's Association (NEMA).

Administrative Controls

A. Emergency Response Plan

The new facilities will be covered in PBR's Emergency Response Plan, which contains strategies on handling emergencies / untoward incidents should it occur. Also included in the plan are the hazards present, and the proper protective equipment for use per emergency scenario. All personnel that will be operating the new facilities will be trained to respond in such scenarios.

B. Integrated Management System (IMS)

Petron Bataan Refinery is an IMS certified facility, complying with ISO 9001 (Quality Management System), OHSAS 18001 (Occupational Safety and Health Management System) and ISO 14001 (Environmental Management System). This demonstrates PBR's commitment to its IMS Policy: "to be a center of refining operational excellence and a dependable producer of quality petroleum and petrochemical products and feedstock, without compromising the environment, safety and health."

8.0 PROJECT COST AND DURATION

7.1 Indicative Project Investment Cost

The estimated total capital cost of the Project is 11 Billion Php.

7.2 Project Timeline

Shown in **Figures PDS-7** and **PDS-8** are the project timeline for RSFFB Phase 3 and Transfer line to SLHBTC project.

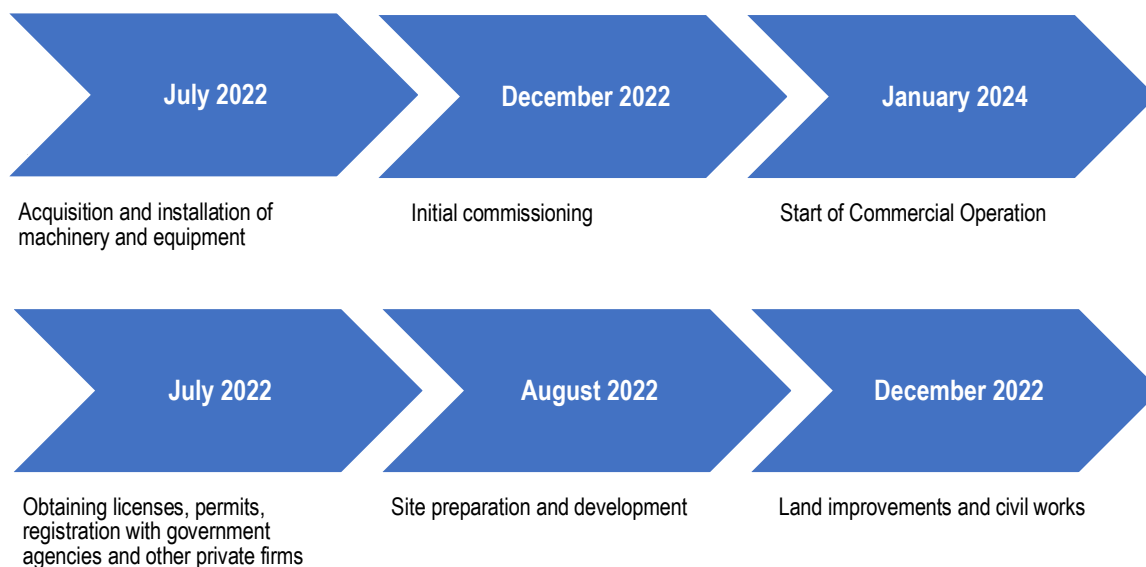


Figure PDS-7. Project Timeline for the RSFFB Phase 3



Figure PDS-8. Project Timeline for the Transfer line to SLHBTC Project

Bataan Gas Turbine
Power Station



Roman Superhighway

Transfer Line
to SL Gas

Petron Bataan Refinery

Roman Superhighway

New CFBs

