PAKISTAN OIL REFINING POLICY FOR NEW/ GREENFIELD REFINERIES, 2023

Directorate General (Oil), Petroleum Division, Ministry of Energy, Government of Pakistan

Message from the Minister of Energy and Secretary Petroleum

The refining sector is the backbone of the country as it is critical for energy security and economic growth. The demand for petroleum products and petrochemicals has been increasing in Pakistan and is expected to increase substantially in the coming years. As per the forecast, there is a need to double the country's refining capacity and add at least one new world scale deep conversion refinery and petrochemical complex to meet near future requirements.

Being a highly capital-intensive business, the refining sector requires consistent support from the Government to meet country's objective of self-sufficiency and reliability.

Globally, governments support their local refining industry through incentives and tariff protection to ensure their health and sustainability. The Government of Pakistan has also provided incentives and tariff protection to other important local industries, leading to employment generation, technology transfer and contribution to economic growth.

The Government of Pakistan, through this Policy, intends to provide necessary incentives and tariff protection to attract investment in this sector, being strategic assets of the country.

CONTENTS

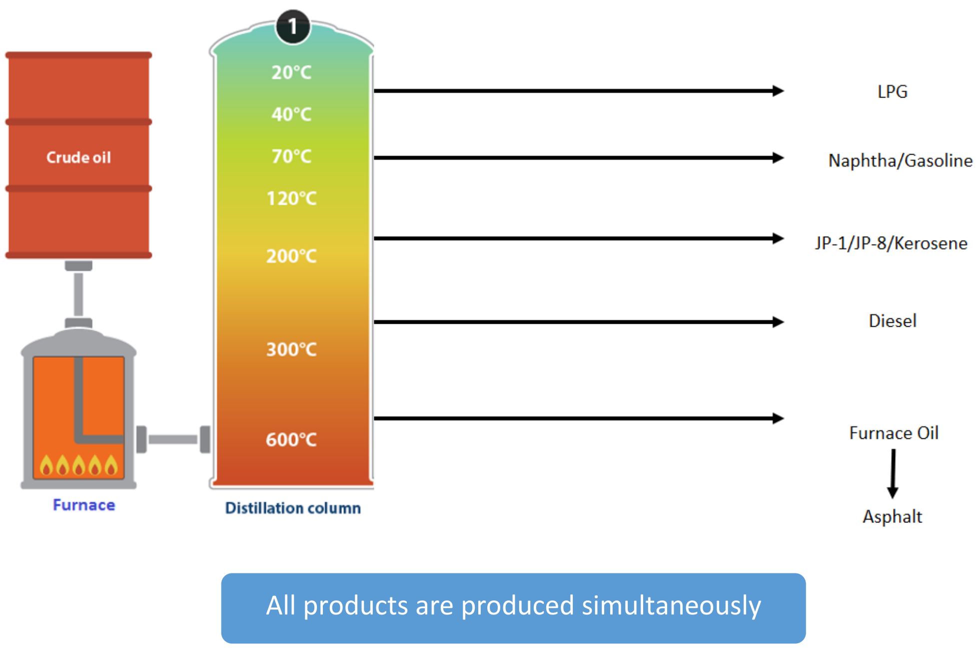
SECTION 1

INTRODUCTION TO REFINERIES

1. INTRODUCTION TO REFINERIES

The first element of the petroleum value chain is the extraction of crude oil. An oil refinery is an industrial plant that processes the crude oil to produce diesel, gasoline and other energy and non-energy products. A simplified depiction of the refining process is depicted below.

General Refining Process

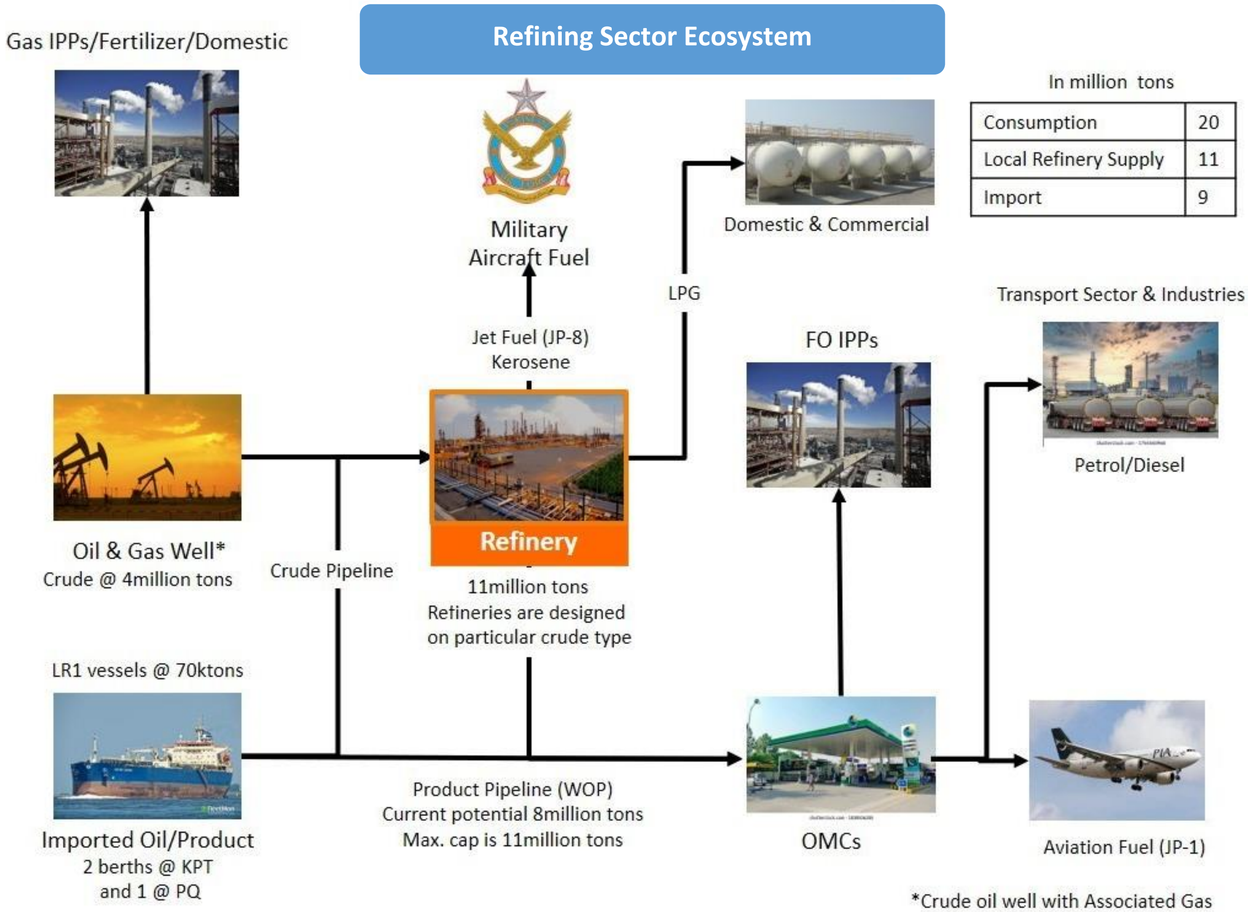


1.1. Economic and Strategic Importance of Refineries

Refineries are strategic assets for a country and their sustainability and continuity is essential for its prosperity and economic development. By providing indigenous supply of essential transportation and energy products, refineries deliver the following strategic and economic benefits:

- Provide fuel security in case import supply chain is disrupted
- Contribute significantly to the GDP as multiple economic sectors are dependent on its output
- Save foreign exchange through import substitution
- Generate significant direct and indirect employment and grown in ancillary
- Utilize local crude oil production if available, which otherwise would have to be exported
- Reduce burden on port infrastructure by reducing import requirements

Similarly, Pakistan's local Refineries are the backbone of industrial development and are intrinsically connected to Defense and energy security needs of the country. They have a pivotal role in the energy supply chain and economic development of Pakistan. A brief pictorial depiction of the contribution of refineries is exhibited below:



Despite being integral to the growth of the economy, no new refinery project has materialized in Pakistan since more than a decade and only two refineries have been added in the last 40 years.

SECTION 2

PETROLEUM AND PETROCHEMICAL MARKET IN PAKISTAN

2. PETROLEUM AND PETROCHEMICAL MARKET IN PAKISTAN

2.1. Oil Refineries in Pakistan

Currently, there are five organizations operating in the oil refining sector in Pakistan: Pak-Arab Refinery Limited (PARCO), Attock Refinery Limited (ARL), National Refinery Limited (NRL), Pakistan Refinery Limited (PRL) and Cnergyico Pk Limited (CPL). All of the refineries except PARCO are based on old, hydroskimming, technology. PARCO is a mild-conversion refinery and even that is now more than 20 years old. The product slate of all the existing local refineries typically comprises of Naphtha, Motor Gasoline (MS), High Speed Diesel (HSD), Furnace Oil (FO), Kerosene, Jet fuel (JP-1 & JP-8), High-Octane Blending Component (HOBC), Liquefied Petroleum Gas (LPG) and Light Diesel Oil (LDO).

2.2. Refining Industry and the Petroleum Products' Production and Consumption in Pakistan

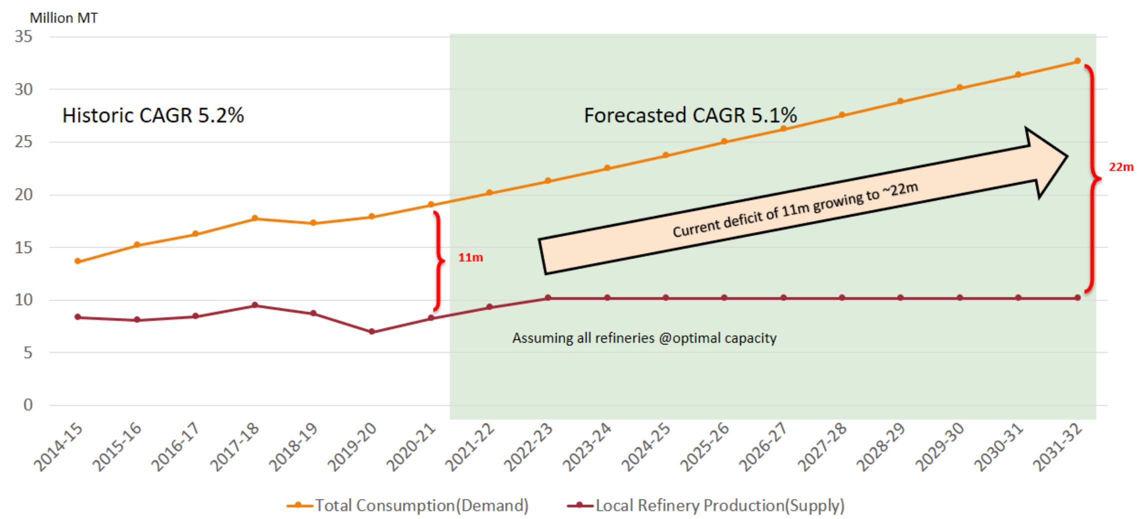
Pakistan's oil refining capacity is about 450,000 barrels per day (bpd), equivalent to 20 million tons per annum. The pertinent details of the refineries are as under:

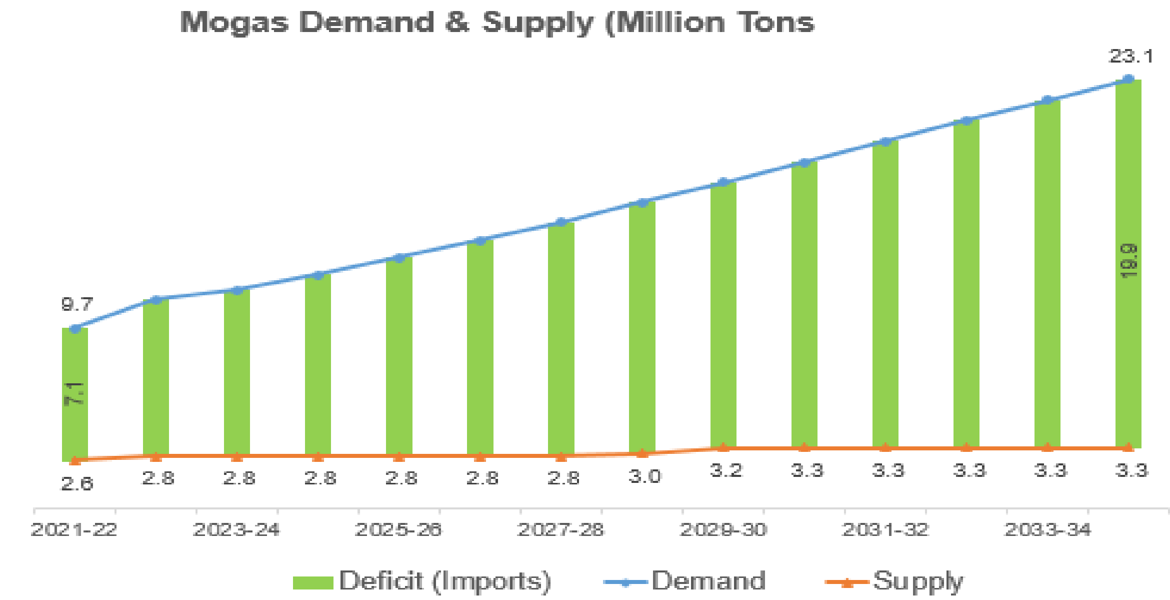
Refinery	Year	Technology	Capacity (bpd)	Capacity (MT)
PARCO	2000 2010 (Euro II) 2011 (AABU) 2020 (upgrade)	Mild Conversion	120,000	5.5
ARL	1922(original) 1981(new) 1999(upgrade) 2016(upgrade)	Hydroskimming	53,400	2.4
NRL	1966(lube) 1977 (fuel) 2017 & 2018 (upgrade & revamp) 2021 (capacity enhanced)	Lube Refinery + Hydroskimming	70,000	3.2
PRL	1962 2015(upgrade)	Hydroskimming	50,000	2.3
CPL I	2004 (commissioned) 2008 (revamp/capacity enhanced)	Hydroskimming	36,000	1.6
CPL II	2015 (commissioned) 2017 (Upgrade Isomerization)	Hydroskimming	120,000	5.5
Total Capacity			**450,000**	**20.5**

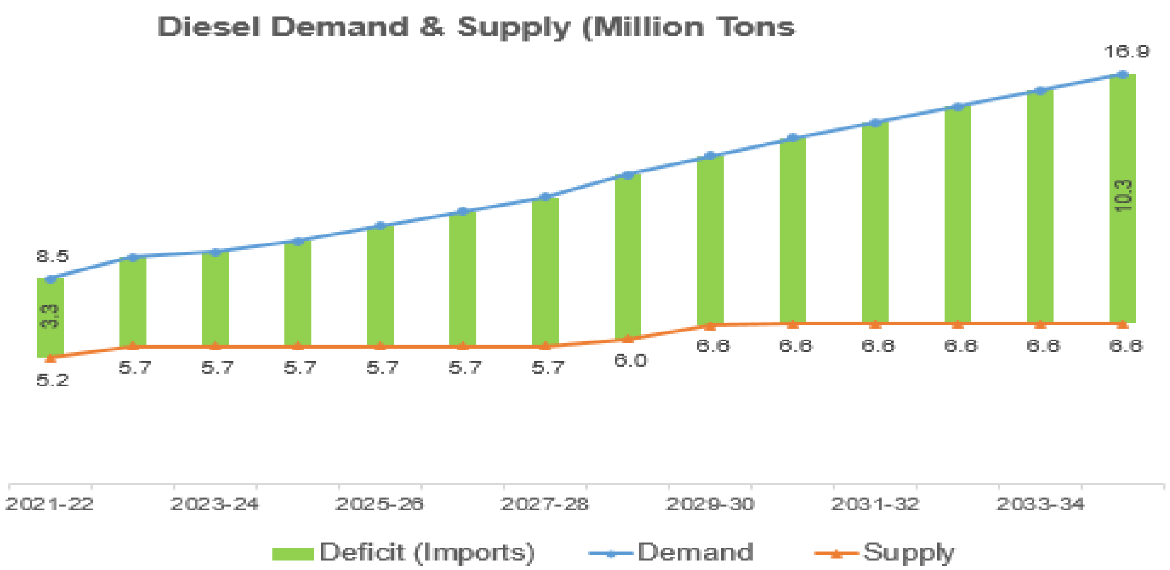
Compared to the 20 million ton of refining capacity, the actual capacity utilization is at around 11 million tons. This is mainly due to the decreasing FO demand in the country as a result of a change in the energy mix in the power sector. It may be noted that in essence the production slate for refineries is fixed. i.e., They cannot produce just MS or HSD, all products are produced simultaneously. Thus, as FO demand declines, refineries have to lower their overall production and struggle to maintain their throughput at optimal levels.

As per the forecast by an international consultant, Pakistan's demand for MS and HSD is expected to reach 33 million tons per annum (mtpa) by 2035.

Projected Demand & Supply of Motor Gasoline and Diesel




Mogas Demand & Supply (Million Tons
23.1
9.7
7.1
19.9
2.6
2.8
2.8
2.8
2.8
2.8
2.8
3.0
3.2
3.3
3.3
3.3
3.3
3.3
2021-22
2023-24
2025-26
2027-28
2029-30
2031-32
2033-34
Deficit (Imports)
Demand
Supply

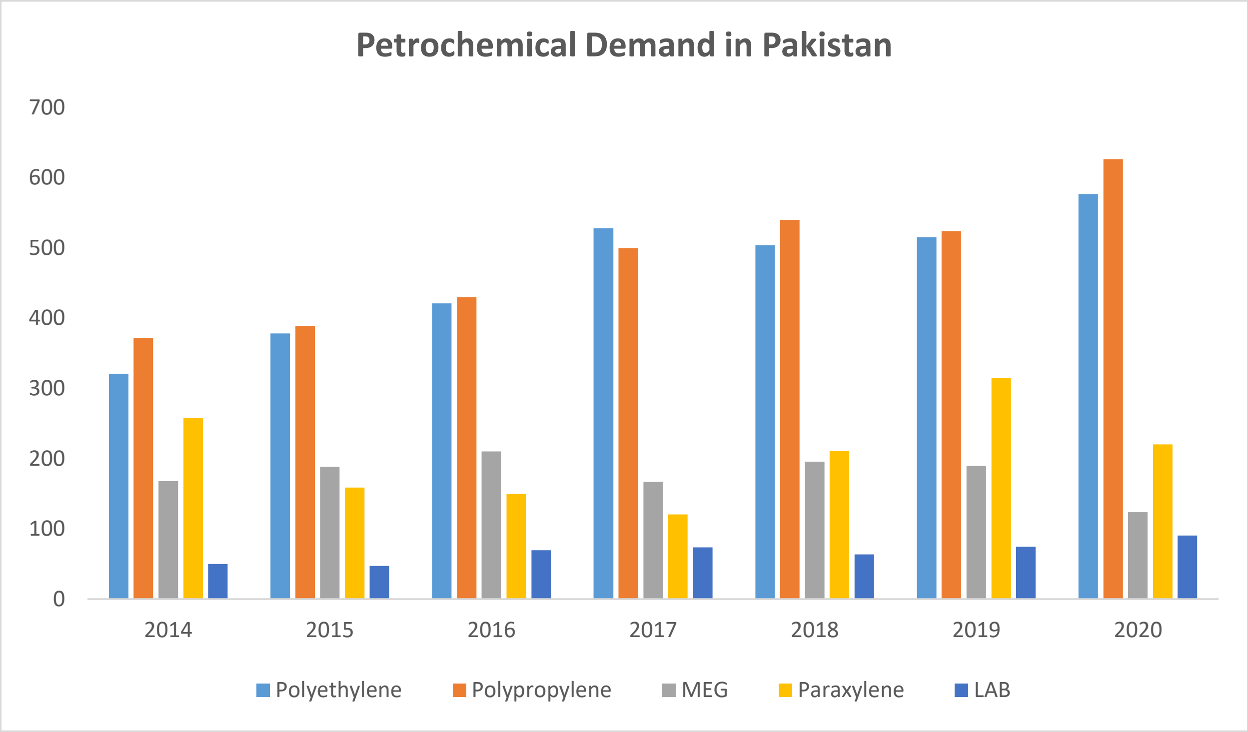

Diesel Demand & Supply (Million Tons
16.9
8.5
3.3
10.3
5.2
5.7
5.7
5.7
5.7
5.7
5.7
6.0
6.6
6.6
6.6
6.6
6.6
6.6
2021-22
2023-24
2025-26
2027-28
2029-30
2031-32
2033-34
Deficit (Imports)
Demand
Supply

2.3. Petrochemical[1] Consumption in Pakistan

Pakistan has been importing significant volumes of petrochemicals, worth more than USD 2 billion annually, as there is no primary petrochemical production facility in Pakistan.

Petrochemical consumption includes thermoplastics and thermosetting resins. Among the thermoplastics category, bulk consumption is of Polyethylene (PE) and Polypropylene (PP). At present, the petrochemical industry of Pakistan is limited to production of Polyvinyl Chloride (PVC), Polystyrene (PS), Synthetic Fibers, (i.e. polyester), and Purified Terephthalic Acid (PTA) and Polyethylene Terephthalate PET resins. There is no production of any basic petrochemicals i.e. ethylene, propylene etc. in the country.

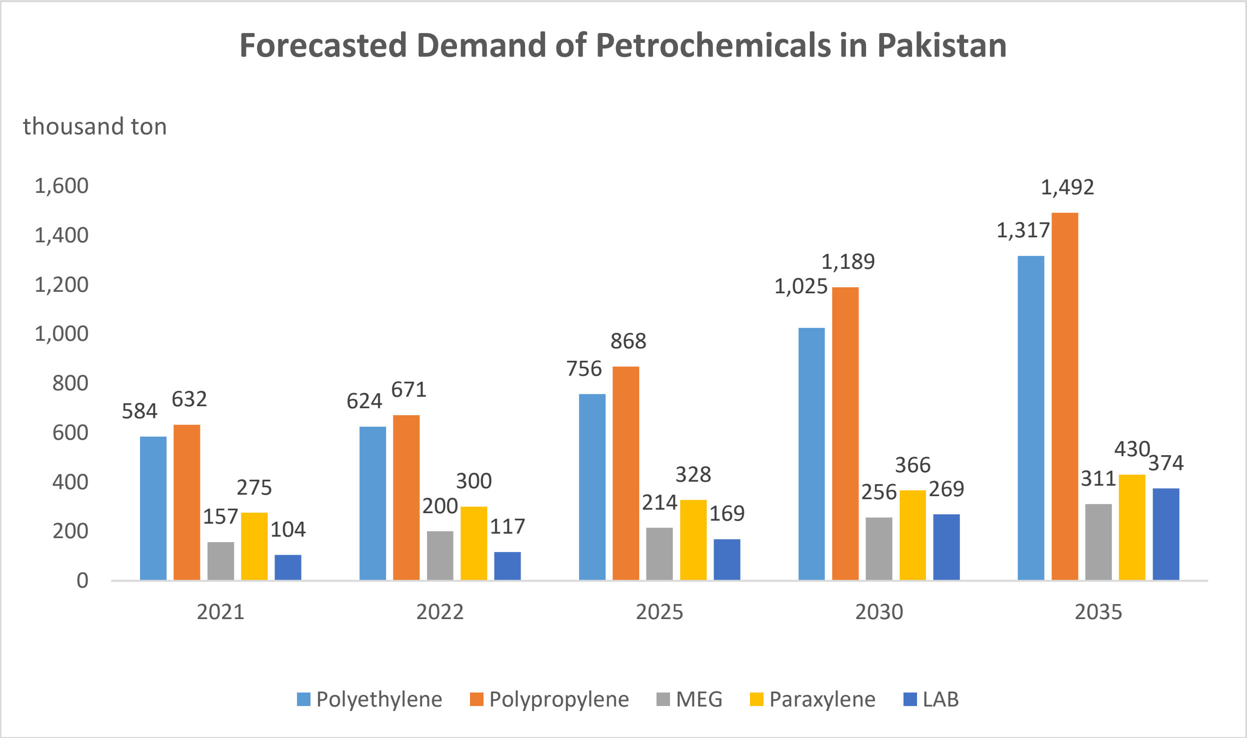
The historical consumption of the above petrochemicals (in thousand tons) is depicted below;



Source: Pakistan Bureau of Statistics

[1] Petrochemicals are chemical products, derived from petroleum. Like petroleum products, Petrochemicals are the second-level products being derived from crude oil after several refining processes. While there are separate petrochemical plants to produce petrochemicals, however, the world is now moving towards deep conversion integrated petrochemical refinery complex which produces petrochemicals, among others, from crude oil in a single place.

The demand for petrochemicals is expected to increase in line with economic development. As per the forecast by an international consultant as part of a study carried out by local oil refineries, by 2035 there would be a need of two world scale petrochemical plants to meet the demand of Polypropylene and Polyethylene.



Source: Based on the study carried out by Local Oil Refineries

Keeping in view the demand-supply gap, it is imperative that investment is made in new deep conversion refineries, including petrochemical complexes, to meet the growing demand of petroleum products. However, without an incentive package, such high capital investment may not materialize.

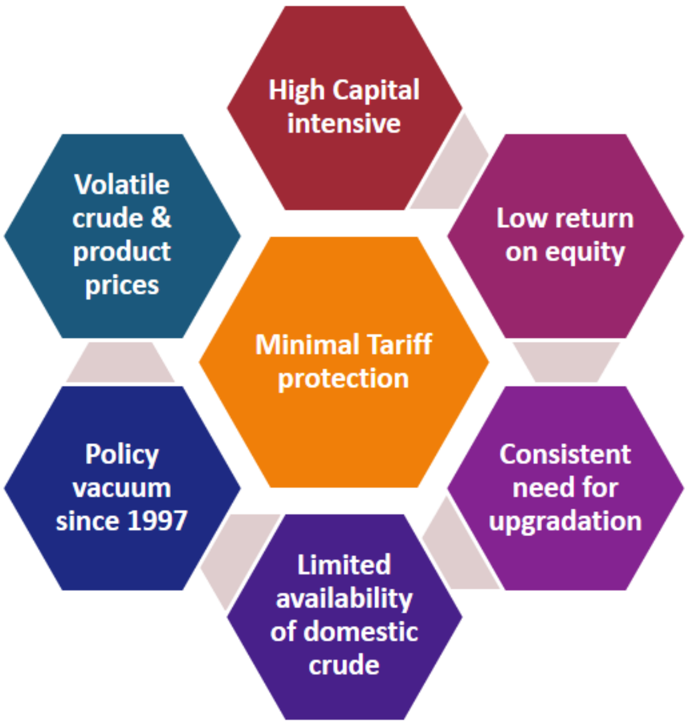
SECTION 3

CHALLENGES IN THE CURRENT REFINING SECTOR OF PAKISTAN

3. Challenges in the Current Refining Sector of Pakistan

3.1. Lack of Investment in Refining Sector

There are a multitude of reasons for lack of investment in Pakistan's refining sector, as summarized below:



Only two refineries have been set up in last 40 years

The lack of investment in the refinery sector not only puts additional burden on the foreign exchange reserves, but it also creates a significant dependency on imports.

3.2. Existing Policy is outdated

The importance of local refineries and their contribution to economic growth is clear. In October 1997, the Government of Pakistan (GOP) issued the Petroleum Policy 1997 which provided various policy incentives, including the refinery pricing formula. Later in 2007 and 2018, further incentives were also provided but they could not attract investment in the sector. Since then, the required attention to the sector remained lacking and no policy updates were made.

While global oil refining technology evolved, there was a policy vacuum in Pakistan which should have addressed the latest developments in the refining industry.

3.3. Importance of investment in Refining Industry

A modern refining sector will not only boost development of allied and downstream sectors of the economy, it will also lead to industrial development, which is critical for economic growth. Furthermore, the modernization also benefits the end consumer, along with all the stakeholders, as productivity is optimized and economic activity in nearby areas increases.

The refining sector needs multi-billion-dollar investments for development of new deep conversion refineries, petrochemical complexes, and upgradation of existing refineries. These developments and upgrades are needed to reduce the current heavy dependence on imported finished products, and consequently positively impact on the country's precious foreign exchange requirements. This, along with requisite development of pipelines and storages across the country, will provide the necessary energy security to the country.

The refining sector thus requires support from the Government for bring investment in the new refineries. Such a long-term Policy, and its effective implementation, is needed to attract the capital investment required for long-term sustainable development of the refining sector.

SECTION 4

CONTOURS OF POLICY COVER FOR FUTURE OF REFINING SECTOR IN PAKISTAN

4. CONTOURS OF POLICY COVER FOR FUTURE OF REFINING SECTOR IN PAKISTAN

In order to attract new investment in the sector, the Government of Pakistan has prepared this Policy as presented in subsequent sections. The objective is to provide optimal tariff protection to the refining sector, as is available to other local industries, to attract investment in new refineries and associated infrastructure projects.

4.1. Investment in Greenfield Deep Conversion Integrated Refinery and Petrochemical Complex

In addition to the production from existing refineries, there is a need to add at least one new (greenfield) 300-400kbpd deep conversion refinery and petrochemical complex, along with related import terminal and pipelines infrastructure, to meet the forecasted demand.

4.2. Incentive package to facilitate investments including fiscal interventions

To alleviate the challenge of low margins in refining, an incentive package along with tariff protection is required to improve the viability and future refining facilities in Pakistan. This will reduce dependency on imported petroleum products.

SECTION 5

POLICY OBJECTIVES

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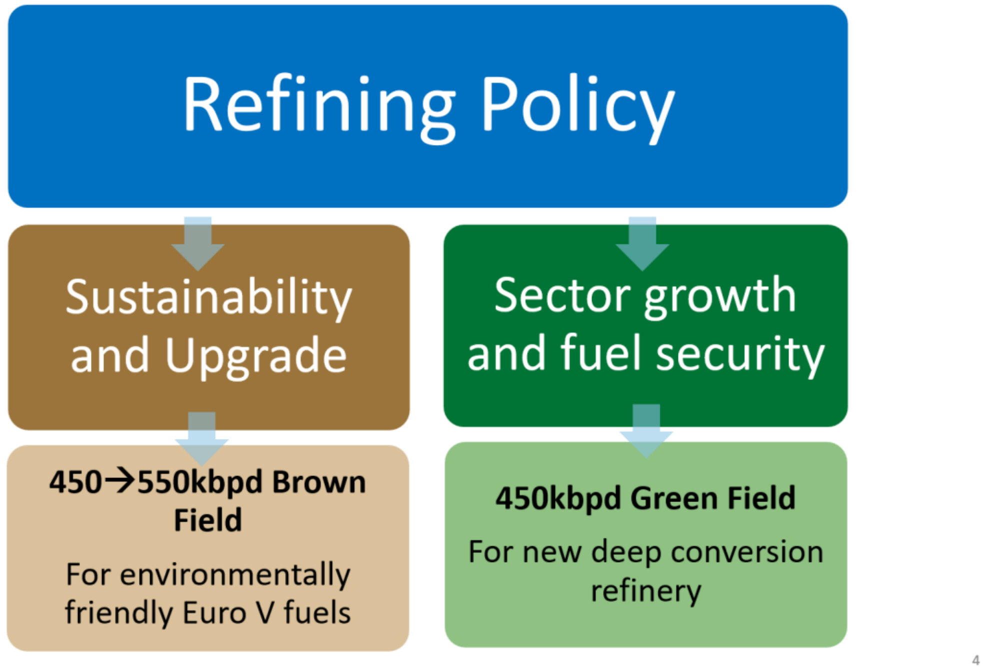

The objectives of Refining Policy are to provide the enabling environment for long-term sustainability of the existing refineries (a separate policy is being issued for existing refineries) and to attract foreign investment in new refinery projects. This policy has been drafted to attract foreign investment in new refinery projects with following objectives:

5.1. *Achieve energy security through a gradual increase in self-reliance in petroleum refining capacity of the country, and reduce dependence on imports of refined products by incentivizing investment;*

5.2. *Provide a framework of fiscal and regulatory regime, as well as future visibility of policy structure, to allow for investment in new deep conversion refineries, petrochemical and oil import terminals;*

5.3. *Provide an enabling environment for attracting significant investments in a highly capital-intensive industry;*

5.4. Enforce production & marketing of high quality and environmentally friendly fuels to end consumers at competitive prices;

5.5. Provide tariff protection to refineries for attracting fresh investment in new refinery, petrochemical and oil import terminal projects;

5.6. Provide oil refining and marketing infrastructure to support enhanced exploration & production (E&P) activities such that locally produced crude oil are not exported until the local demand is met;

5.7. Generate direct and indirect employment through industrialization and development of new infrastructure projects across the country;

SECTION 6

POLICY STRUCTURE

6. POLICY STRUCTURE

6.1. Policy Structure for New Deep Conversion Refineries

To attract the required investment for setting-up a deep conversion refinery (maximizes production of white products, Diesel & Motor Gasoline, and eliminates or minimizes Furnace Oil production) and petrochemical complex, potential investors seek incentives/commitments prior to investment decisions.

The Government, through this Policy, is providing necessary incentives/facilities to attract the investment in this sector. This section, including its sub-sections, outlines the incentives being made available for new deep conversion integrated refinery and petrochemical complex.

6.1.1. Regulation and General Licensing Conditions

6.1.1.1. In accordance with the Pakistan Oil (Refining, Blending, Transportation, Storage and Marketing) Rules 2016, a license from the Oil & Gas Regulatory Authority (OGRA) shall be required for construction and operation of a refinery.

6.1.1.2. No new hydro-skimming refinery shall be allowed to be installed in the country and only brand new deep conversion refinery will be allowed.

6.1.1.3. Refineries shall be allowed to sell their products, as per minimum Euro 5 specification notified by Petroleum Division from time to time, to any marketing company including their own affiliates in the marketing and distribution sector in the country. Refineries will be allowed to export surplus (with respect to domestic demand) petroleum products, subject to approval from OGRA, however refineries can export the products with specifications that do not have domestic demand under intimation to OGRA and MEPD.

6.1.2. Fiscal Regime

All new deep conversion oil refinery projects, to be set up anywhere in the country, that achieve financial close of the project within 5 years after the notification of the draft policy, shall be eligible for the following fiscal incentives:

6.1.2.1. For minimum 300,000 bpd refinery, there shall be a customs duty of 7.5% for a period of twenty-five (25) years on Motor Gasoline and Diesel of all grades produced by the refineries, effective from the date of commissioning of the refinery.

6.1.2.2. For minimum 300,000 bpd refinery, there shall be 20-year income tax/levies holiday of all taxes under the Income Tax Ordinance 2001, from the date of commencement of commercial production of the project.

6.1.2.3. For refinery having less than 300,000 bpd capacity, there shall be a customs duty of 7.5% for a period of ten (10) years on Motor Gasoline and Diesel of all grades produced by the refineries, effective from the date of commissioning of the refinery.

6.1.2.4. For refinery having less than 300,000 bpd capacity, there shall be 10-year income tax/levies holiday of all taxes under the Income Tax Ordinance 2001, from the date of commencement of commercial production of the project.

6.1.2.5. Exemption from levy of customs duties /levies, surcharges, withholding tax, general sales tax, any other ad valorem tax or any other levies/duties on import of any equipment to be installed, or material to be used in the refinery projects without any precondition for obtaining certification by the Engineering Development Board.

6.1.2.6. The aforesaid fiscal incentives, as well as incentives in addition to the aforesaid fiscal incentives, shall be recorded and protected pursuant to Agreement(s) between the project company, the key sponsors/investors and the concerned Government. Furthermore, the Government shall procure that all such fiscal incentives are legally effective and binding under applicable parent statutes and made applicable to the project and its investors, as the case may be. In this regard, the available frameworks or other special enactments including, inter alia, following may be utilized by way of:

a. declaration of the project as a ‘special economic zone’ under the Special Economic Zones Act, 2012 read with Rules and Regulations framed thereunder; and/or

b. notifying the project as a qualified investment under the Foreign Investment (Promotion and Protection) Act, 2022 and including the same in the First Schedule thereto.

6.1.2.7. The investor shall apply under the relevant framework(s) to the respective authority and Government will facilitate their application.

6.1.2.8. To the extent any of the fiscal incentives necessitate amendments to the parent statutes the same shall be procured within the aforesaid framework(s) in coordination with the concerned authorities.

7. APPROVAL & VALIDITY

7.1. To facilitate investment by local and foreign investors, and for ease of doing business, approvals from various authorities will be coordinated by OGRA and Ministry of Energy (Petroleum Division).

7.2. The Policy shall supersede all previous refining policies for new refineries. However, if a contractual commitment made by the Government of Pakistan to any refinery is already in place, then the same shall supersede any conflicting provision in this Policy until the validity of such contractual commitment.

7.3. The existing relevant laws and the regulatory framework shall be amended by the relevant government bodies and authorities to reflect and implement this Policy.

ACKNOWLEDGMENTS

The Ministry of Energy wishes to acknowledge the valuable inputs and contribution of various stakeholders in finalization of this Policy, including but not limited to the following:

- Ministry of Finance
- Federal Board of Revenue
- Ministry of Planning, Development and Special Initiatives
- Ministry of Maritime Affairs
- Ministry of Climate Change
- Board of Investment
- Ministry of Commerce
- Oil & Gas Regulatory Authority
- Ministry of Law & Justice Division
- Oil Refineries
- Oil Companies Advisory Council
- Industry experts and consultants (local/international)

DISCLAIMER

The data and information contained in the Policy has been obtained from various sources which have been identified in the Policy. The MEPD has not undertaken any independent verification as to the veracity of the data/information and gives no assurance for the validity, accuracy, correctness or its completeness. MEPD would urge every person intending to rely on the data/information to undertake independent due diligence.

List of abbreviations

AABU	Asphalt Air Blowing Unit
BPD	Barrels per day
FOB	Freight on Board
FO	Furnace Oil / Fuel Oil
FY	Fiscal Year
GDP	Gross Domestic Product
GOP	Government of Pakistan
LPG	Liquefied Petroleum Gas
MEPD	Ministry of Energy Petroleum Division
MT	Metric Tons
OGRA	Oil & Gas Regulatory Authority
OMC	Oil Marketing Company
SBP	State Bank of Pakistan

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