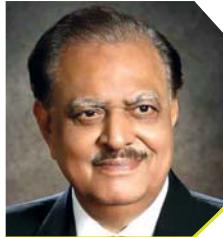




Byco Unveils Pakistan's Largest Oil Refinery

Imagined. Realized.

M E S S A G E S



Mamnoon Hussain
President of Pakistan



Nawaz Sharif
Prime Minister of Pakistan



Shahid Khaqan Abbasi
Federal Minister, Petroleum & Natural Resources



Jam Kamal Khan
Minister of State, Petroleum & Natural Resources



Arshad Mirza
Federal Secretary,
Ministry of Petroleum & Natural Resources

It is a matter of great pleasure for me on the inauguration of its new refinery in Balochistan. I am pleased to note that Byco is playing a leading role in the development of the country by setting up projects of national importance. The development of such capital intensive infrastructure projects in the province of Balochistan is a contribution for the masses of Balochistan in particular and the nation in general.

Any nation's progress in this era and age is dependent on its ability to harness its resources, both natural and man-made to drive the engine of growth. Pakistan is blessed with remarkable coastal areas which present viable opportunities for the investors in the energy infrastructure projects to tap into the market potential of the Eastern and Central Asian energy markets.

On the inauguration of the new refinery, I wish Byco greater progress in the forthcoming years and I look forward to Byco contributing towards the socio-economic development of the country.

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I earnestly welcome the inauguration of Byco Refinery which will be a valuable addition to the oil and gas sector, enhancing provision of petroleum related products. This appreciable move will go a long way in achieving sustainable growth and increasing profitability levels of oil and gas sector. The inbuilt mechanisms of this facility will also help address the environmental, health and safety requirements.

I am pleased to observe that Byco is committed to ensure the national economic growth and has accordingly invested \$750 million in putting up this huge refinery that will be the largest refinery in Pakistan. This new refinery will be able to increase the crude oil refining capacity by 120000 barrels per day. It is also heartening to know that Byco has also installed a Single Point Mooring unit that is the first and one of its kind in the country.

I wish to reiterate the avowed commitment of my government to achieve a sustained economic growth and ensuring that the fruits

Pakistan's Oil and Gas sector is playing a pivotal role in meeting country's energy requirements. The security of sustainable supply of oil and gas and enhanced self-reliance in this sector is essential for economic development and strategic requirements of the country.

The addition of a new refinery by Byco Group is an important step towards our goal of achieving self-sufficiency in oil refining and reducing the dependence on import of finished petroleum products.

This achievement by Byco Group is a matter of great satisfaction for me, and on my behalf and my Ministry I congratulate Byco Group.

The inauguration of Byco Refinery is a landmark event for the province of Balochistan. I wish all the success to Byco and hope that it will continue to contribute towards the development and prosperity of the country.

It is very heartening to see such a large scale project coming into life in such a short span of time. I congratulate the team at Byco Group for their hard work and their goal of bringing the largest crude oil refinery in the country, no matter what the circumstances are. It also shows Byco's resilience to cope up with any difficult situation such as law and order, economic turmoils etc., and to respond adequately in the circumstances.

I am pleased to know that with the operations of the 120,000 barrels per day refinery, Byco will also operate an Isomerization plant which will increase the production of petro in the country thereby reducing the imports.

The employment opportunities Byco has created are tremendous and it should be presented as a role model for other businesses. Once again, I would like to wish Byco all the success.

On behalf of the Ministry of Petroleum & Natural Resources, I congratulate Byco Group for the inauguration of the second refinery in the country. The refinery will add a refining capacity of 5.45 million tons per annum in the country's total refining base, which is a commendable achievement by Byco Group.

A nation is aware of the importance of development of energy infrastructure and its positive impact on the overall economic development of the country. The new refinery is a welcome addition in the country's energy sector and will help in reducing the country's reliance over import of refined products, bringing in new employment opportunities and improving the infrastructure condition in the Balochistan province.

I admire Byco on its efforts and pray for their success.



**PAKISTAN NATIONAL SHIPPING CORPORATION
CONGRATULATES BYCO ON INAUGURATING
PAKISTAN'S LARGEST OIL REFINERY**



Leading with Pakistan's first Isomerization Unit

Byco has pledged yet another commitment for rapid growth hallmark expansion across all the dimensions of downstream oil and gas sector for providing more value added and environmental friendly products to its indigenous Oil country. Inauguration of Isomerization Unit in Byco family is another milestone towards achievement of our vision "to be a leading energy company through delivering the core business, achieving sustainable productivity and profitably delivering a superior shareholder return".

Isomerization Unit will convert and upgrade Light Naphtha into environmentally friendly Benzene, Toluene and Xylenes with reduced sulphur and aromatic contents. At present, refineries in Pakistan export Naphtha. This can be upgraded into gasoline by processing it through the Isomerization Unit. The gasoline obtained from Isomerization, besides rendering value addition to export Naphtha, it will serve as a substitution for imports, and greatly offset the necessity of unnecessarily expensive imported Motor Gasoline.



Byco unveils Pakistan's largest refinery

Byco has completed Pakistan's largest oil refinery in Balochistan with a capacity of 120,000 barrels per day, which is expected to meet the growing needs of oil products. The new refinery has been successfully pre-commissioned and tested. With addition to this Refinery, in Byco Group, it has become the Largest Refining Complex in the country. The current share of petroleum production in Pakistan by Byco will increase from 11% to approximately 39% after its new Refinery is commissioned and brought into commercial operation.

The new Refinery is the largest single Refinery of the country, with a rated refining capacity of 120,000 barrel per day, which according to UOP the refining license and technical providers, can be easily expanded in two stages up to 180,000 bpd.

The new Refinery will enhance overall crude oil refining capacity in the country from an existing



12.25 to 18 million tons per year, and it is expected to produce about 1.6 million tons of Fuel Oil, 2.4 million tons of Diesel, 1.1 million tons of Gasoline and 0.8 million tons of LPG on an annual basis.

These volumes are required for Pakistan's constantly rising energy needs, which will significantly assist the Ministry of Petroleum and Natural Resources to keep indigenous supplies at pace with the Government's ambitious growth forecasts.

To set up the efforts for this 120,000 bpd Refinery, one of the initial steps taken by Technical Team was selecting the philosophy

of fast tracking the Project. This entailed taking initiatives to perform many critical design activities in house. This helped in providing scope for early start of the Project execution, albeit with a risk of rework. By the grace of Almighty Allah, the whole project phase ended up having minimal rework, which is very uncommon in projects of such magnitude and complexity. A more systematic and meticulous construction management approach was formulated by employing Critical Chain Project Management (CPM / PER) on level 3 schedules, while acknowledging more than 25,000 interconnected activities to achieve the completion target.

This is one of the largest Mechanical Complex on the Coastal area of Balochistan which involves huge engineering activities ranging from Civil to Electrical & Mechanical.

A) For Civil works, the project required the following:

1. 140,000 m³ of excavation

2. 6,000 m³ of PCC
3. 35,000 m³ of RCC
4. 150 metric tons of embedded Steel
5. 6,000 metric tons of anchor Bolts
6. 4,000 metric tons of Reinforcement Steel, which gives an idea of the magnitude of the project

B) The Electrical area required

- 360,000 meters of power cable

C) The Mechanical side of the project involved the following:

1. 20,000 metric tons of static & rotary equipment
2. 117,000 metric tons of piping
3. 1,600 metric tons of steel structure

D) Finally, on Instrumental side, 150,000 meters of cable was used for the project

Commissioning an Oil Refinery is the act of simultaneously taking a host of critical plants and preparing them for start-up and then turning

them into a functioning Oil Refinery. Once the Refinery is up and running, it will operate twenty four hours a day, seven days a week, to convert Crude Oil into valuable energy and non-energy products. All of the utilities for the new Refinery are already in operation. Water is being extracted from Sea Water using a new Reverse Osmosis plant imported from the USA, which is the largest such Plant in the Country. Steam is being generated in one of the three new sixty five ton per hour Boilers. Power is provided by ten of the new 1000 KW Generators. The Cool Water system is complete and Cooling Water is circulating through a new cooling tower.

The extra refined products from new Byco refinery will have two major impacts on the Country's economy. It will reduce the import of finished petroleum products, which will invariably result in saving foreign exchange and secondly, it will provide job opportunities and will help in reducing the



Congratulating Byco on the
Inauguration of its Oil Refinery

The completion of the oil refinery is a remarkable achievement of Byco Oil Pakistan Limited. We hope that the new facility will go a long way in the development of the company's supply chain and enhance oil industry's capacity to meet the growing needs of petroleum products in the country.



Byco introduces Single Point Mooring facility in Pakistan

Being a major positive development, Pakistan has successfully joined the club of countries with Single Point Mooring (SPM) facilities in the deep sea to transport crude oil through a pipeline to refineries set up along the coast. Byco has achieved yet another historic milestone by establishing the country's first and only deep sea single point mooring (SPM) facility.

Byco Terminals Pakistan Limited (BTPL) is a wholly owned subsidiary of Byco Petroleum Pakistan Limited. BTPL has been set up as an infrastructure company with a vision to facilitate the logistics of petroleum products in the country. BTPL has set up its terminal in Keamari, Karachi, and has acquired land at Shikarpur and Machkai for terminal installations. Byco Group has the largest refining capacity of 16,000 bpd per day and to further Pakistan's large refining complex, the company initiated development of country's first Single Point Mooring (SPM) Buoy facility for offloading Crude oil and petrochemical products. With the help of a world renowned port facility development company China Harbour Engineering Company Ltd (CHEC). The SPM has been set up in the North Sea, located at Hub, Balochistan and is approximately 10 kilometers inside the 25 meters depth. The SPM is connected to the storage tanks through a 28 inch diameter offshore and onshore pipeline. The SPM can handle crude oil tankers over 200,000 tons deadweight, which has resulted in freight economics and contributed to enhance Byco refineries operation and reduced delivery time. The pumping capacity through SPM is significantly in excess of 2,000 tons per hour.



The Single Point Mooring SPM is a floating buoy anchored offshore that serves as a 'mooring point and interconnect' for tankers loading or offloading liquid products. Byco's SPM is designed on Caterbury™ Anchor Leg Mooring (CALM) system, the type of mooring that is most commonly used around the globe. These are secured to the seabed by anchor chains, or catenary anchor legs. The anchor leg's permit the Buoy to move freely within defined limits, while providing the restoring

forces which tend to return the Buoy to its original center position, thereby giving the system requisite elasticity for maximum energy absorption. CALM type of mooring has proven performance record especially in rough seas.

SMP is an all-weather facility, it can be operated day and night, and is the cheapest entry point for liquid cargo into Pakistan. The SPM will be connected to feed the two Byco refineries at Hub apart from acting as an alternate strate-

gic port. The design of the SPM caters for an additional pipeline for import/export of petroleum products.

It is important to understand that SPM is a new and untested technology, as many other countries have successfully installed and used it. However, this is the first such facility in Pakistan and is the only solution which has no draft limitation or it does not have large sized tanker jetties or it has a narrow water channel, etc. Byco SPM is used for import of crude oil and petrochemical products which will be used for export of petroleum products in the future. Capacity utilization of SPM will ensure adequate availability of oil berth at the port, reducing waiting time and consequential damage.

Presently, the petroleum products are being imported through Karachi Port and both these ports have draft limitation and as such cannot accommodate larger ships. The SPM facility with a draft of 25 meters will allow loading of larger crude carriers. Not only will it not result in lower administrative cost but will also bring in substantial savings on account of difference in freight charges, thus giving Byco a strategic advantage over the other two ports and savings to the national exchequer. ■

Group CEO, Byco Industries Incorporated Message

Alhamdulillah, with the blessing of H. ALMIGHTY, and the relentless efforts of our team, the largest oil refinery of the country has now become a reality.

In year 2008 when the country's biggest refinery project was just on paper, it seemed difficult, if not near impossible, to build a refinery complex of 120,000 barrels per day to be supported by country's first and only Single Point Mooring facility, building largest capacity crude oil tankages and rolling out the retail outlets, all at the same time. Now, looking back at the time when these projects were started, it is difficult to believe that all of this has happened in just six years.

The refinery complex has invested in enjoys a very substantial position in the value addition chain of hydrocarbon from wellhead to the customer. Furthermore, specialized management of such a magnitude, developed in-house, had ensured our trained staff have a tremendous market value locally as well as internally throughout the value chain cycle. Creating jobs for the engineering fraternity during multi-year construction period and thereafter in continuous operations has been a priority. We have sought after employers of high quality talent in the industry. Byco has provided over 900 direct and numerous indirect employment opportunities mostly

to the younger generation of the country and will continue to do so in future. Inshallah.

Here I would like to record some of Byco's achievements:

1. Investment of US\$ 750 million in developing country's infrastructural and industrial development
2. Bringing valuable foreign investment through partnership with Middle East's premier equity fund namely Abraaj Capital Limited
3. Reducing the country's reliance over import of petroleum products by over 50%
4. Investing in a refining base accounting for over 38% of the country's refining capacity in 12 years, while also investing in and making 257 Retail outlets throughout the country.
5. Investing in the country's first Single Point Mooring facility and thus creating the third and deepest draft entry point for importing as well as exporting oil and petroleum products in the country.

Construction of country's largest capacity crude tanks.

7. Constructing the country's first Isomerization Plant producing high value Motor Gasoline.

8. Bringing socio-economic development in country's developed area.

9. Continuous foreign exchange savings through low value addition and consumption of local crude.

With the commencement of operations of the country's largest refinery by the grace of Allah, we forward our backward integration. Byco is progressing towards its strategic target of becoming an industry leader.

I attribute all this success to our dedicated executives, shareholders and customers and above all, the Government of Pakistan for their continued support and commitment. ■

PM's Message

Continued from Page 1

of this economic resurgence are adequately transferred to people at large. I am sure that people will soon see the results of our consistent efforts.

In this context I congratulate Byco for taking a well planned initiative that will prove very helpful in realizing the economic goal my govern-

ment has been steadfastly pursuing. I am confident that oil and gas sector will emulate this initiative and start investing in similar projects for increased production, productivity and efficiency.

While offering my felicitations to the management of Byco, I wish the organization all success in the future.

The Byco Group – Business Segments

REFINING

- Two refineries being operated by Byco Group
- First refinery with a capacity of 35,000 bpd
- Second refinery with a capacity of 120,000 bpd

MARKETING

- Only refinery in the country operating with a marketing license
- 257 retail outlets all over Pakistan
- Selling about 50% of BPPL's volume

PETRO CHEMICAL

- Plans to set up the first petro-chemical complex in Pakistan
- Significant will cater significant portion of local Paraxylene and other aromatics demand
- All the base chemicals are currently imported

PORT

- Only port in Pakistan that can receive crude oil tanker of 100,000 M. Tons
- 3rd point of entry for crude oil imports in Pakistan
- Now can handle both crude as well as petrochemical products

STORAGE/ TERMINALS

- Country's largest sized crude oil tanks
- Operational terminal at Keaman for Naphtha and Jet Fuel
- Completed terminal at Mahmoodkot

Congratulations to Byco Oil Pakistan Limited on the inauguration of Pakistan's largest oil refinery



Admore Gas (Pvt) Limited would like to
CONGRATULATE

Byco Group on commencement of Byco Oil Pakistan Ltd,
the largest Oil Refining Complex in Pakistan

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Byco launches its range of Industrial and Automotive lubricants

The Pakistan Downstream Oil Sector (Refining, Marketing & Distribution) plays a very significant role in the country's economic development by ensuring uninterrupted supply of petroleum products and keeping the wheel of the economy moving.

This sector's contribution to the National GDP is substantial with direct employment of over 100,000 people and indirect engagement (transport sector) of another 24,000 persons, generating approximately Rs. 200 Billion in taxes alone.

Byco Petroleum Limited plays a significant role in the downstream oil and gas sector and apart from refining and transportation of petroleum products, Byco is also involved in marketing and distribution of petroleum products.

As a step towards integrating the marketing arm of Byco, the Petroleum Marketing Business commenced its operations in 2007. Being a relatively new entrant in the field of oil marketing, Byco has, through the years, successfully established its presence in the market.

Our steadily and substantially growing market share and customer confidence are a testimony to our efficacious policies, proactive endeavors and visionary outlook.

Today, Byco is one of the fastest growing OMCs with over 257 retail outlets providing quality products and excellent service to more valued customers in 80 cities and all the major highways of Pakistan.

Through an ambitious and focused corporate policy, executed by a dedicated team of professionals Byco is progressively growing and a reflection of the confidence the customer has on our brand is ably reflected in the last month with Byco becoming the 5th Largest Oil Marketing Company of the country.

Byco's rise is attributed to the



Congratulations to
BYCO on the opening of
their new refinery.
BP wishes them every
success for the new venture.