

# 4<sup>th</sup>

# ASIA LPG SUMMIT '17

International Convention City Bashundhara, (Hall-4), Dhaka, Bangladesh

26-27 February 2017

## LPG: an alternative to conventional fuels

Liquefied petroleum gas (LPG) can be a useful alternative to all sorts of fuels amid depleting gas reserves as it is cost-effective and friendly to the environment and the public health, said an expert.

"It is safe and easy to use. LPG is the next generation of fuel," said Tanzeem Chowdhury, assistant general manager of Omera LPG, one of the leading LPG distributors in the country.

He said because of its eco-friendly nature, LPG is being adopted all over the world.

Chowdhury said Bangladesh's need for energy is recognised all over the world and the country needs the right fuel to attain its development objective.

He said, in absence of an adequate supply of piped gas, people use kerosene or burn wood to meet their energy demand, which is harmful for the environment as well as the public health.

LPG can be an alternative fuel for vehicles, which have been running on compressed natural gas (CNG).

It is easy to find LPG as there are small retailers everywhere. There are different sizes of LPG cylinders to meet the needs of households and industries.

"The main thing is -- it is very convenient."

Chowdhury said a tank of a car can store four times more LPG compared to CNG as the pressure of LPG is low. The octane rating of LPG is 105 compared to 102 in CNG. As a result, LPG is better for engines than CNG. Carbon emission of LPG is much lower than diesel.

LPG is also cost-effective compared to diesel and octane: it costs for a car Tk 11.23 to run one kilometre if it uses



Tanzeem Chowdhury

octane. It is Tk 6.1 for a diesel-run car and Tk 4 for an LPG-run car, according to Chowdhury.

He said the government is also encouraging the use of LPG and has liberalised the sector so that more private sector players can come in. The rules governing the sector are also of international standards.

The government should ensure that all LPG cylinders are retested regularly to ensure safety of the users, he said. Chowdhury said the 15 percent value added tax on LPG should also be reduced to encourage more use of the fuel.

Omera has teamed up with a large LPG distributor from Japan and formed a joint venture to set up auto gas stations and supply auto gas kits.

Omera is also investing in ships so that it can directly buy from LPG producers and bring down the cost further. The company plans to let all LPG operators use its ships at the end of the year.

## Message of state minister

Natural gas is the preferred fuel of the world. It is cheap, clean and easy burning. In piped form this gas is being used by about 30 million people, mainly in urban areas in Bangladesh.

This piped gas, which goes to the households and the vehicle industry, amounts to roughly 12 percent of the total gas used in Bangladesh. If this gas could be rerouted to industries, it will have a resounding economic impact.

So, to keep up with the current government challenge to provide safe, easily accessible and affordable household energy for everyone, we are promoting the use of LPG through cylinders.

LPG is the choice as household energy in Brazil, India, Vietnam, Sri Lanka, Thailand and other populous and developing nations.

Other than supplying energy to the urban centre, the LPG cylinder is also facilitating the transformation from using unsustainable biomass to clean burning fuel in these countries. Especially in India, there are more than 200 million cylinders in circulation and in Brazil, 98 percent households use LPG.

LPG is a mixture of propane and butane, which are some of the most efficient hydrocarbons.

Since it is colourless and odourless, there are some trace amounts of other gases. The cylinders are easy to set up, refuel and use. It is safer than the piped gas in regards to our decades-old gas mains. The government has given licence to more than 50 LPG companies



Nasrul Hamid  
State minister for power and energy

in the last three years in a bid to create an open and competitive market.

Many of the companies have employed innovative solutions in accessibility and safety that makes LPG the household fuel of choice. We are also devising a market control mechanism in a way that cylinders will always be within the reach of families.

The other benefit of LPG is its portability and convenience. Large tankers of LPG can be set up around tour apartment or your neighbourhood and can be piped directly to your house.

Keeping in line with the government's vision of a developed Bangladesh by 2041, the Ministry of Power, Energy and Mineral Resources deems LPG can lead the way in domestic fuel.

## Awareness key to raising demand

A regulatory body has to be set up and awareness among users should be created to support the growth of Bangladesh's liquefied petroleum gas (LPG) industry, said a top official.

MM Jasim Uddin, head of marketing of Bashundhara LP Gas Ltd, a company of Bashundhara Group, said the government should regulate the sector properly through a regulatory body to ensure smooth transition from heavily carbon-emitting fuels to clean fuels within 15 to 20 years.

"Awareness is also needed to change the consumption pattern of the people and boost the use of LPG in households, vehicles and commercial projects."

Bashundhara LP Gas Ltd set up the first private LPG plant in the country. It has a higher production rate than any other filling station in Bangladesh.

The company has a state-of-the-art LPG plant in Mongla which houses six gas storage tanks with a capacity of 500 metric tonnes each. Its 48 filling systems have daily refill capacity of 50,000 units of gas cylinders.

Jasim Uddin said the demand for LPG has risen significantly in Bangladesh with growth of over 42 percent to 45 percent.

Eleven private sector companies are working in the LPG sector in Bangladesh with Bashundhara being the oldest.

He said LPG prices have gone down by up to 40 percent in the global market in the last three years, and local companies have passed on the benefit to the retail customers.



MM Jasim Uddin

As a result, a 12.5kg cylinder that cost Tk 1,600 a few years ago now costs Tk 950, which has fuelled the growth in consumption.

But to move to the clean fuel in a massive way, awareness has to be built. "The private sector alone can't raise awareness. The government has to come forward."

Jasim Uddin said giving licences to companies in the LPG sector is not enough. So far the government has offered about 40 licences.

Of them, about eight large entrepreneurs will make a foray into the LPG market, he said.

"But if there is no hike in demand for LPG new investors will face troubles. The demand has to be created."

Jasim Uddin said there are 70,000-80,000 pickup vans, 150,000 CNG-run auto-rickshaws and 80,000-90,000 minibuses that are used for commercial purposes in Bangladesh. These can use LPG, he said.

## Bangladesh: a promising market for LPG

MUJIBUR RAHMAN,  
General Manager  
(Marketing & Sales),  
Totalgaz Bangladesh



Mujibur Rahman

Bangladesh is a very interesting and appealing market for LPG. First, the presence and affordability of piped natural gas in the domestic market has made LPG more of an alternative product in the past 15-20 years. Because of the use of natural gas, the LPG consumption per capita is very low compared to other South Asian countries. So, the future LPG market potential is very high here as the average income level per family has been growing constantly for years.

In addition to the LPG use in households, there are huge prospects of LPG in the automobile sector because it has a significant advantage over CNG. Also, Bangladesh government has already published the basic rules and regulations for auto LPG stations and auto LPG conversion centres in a bid to promote LPG use. I hope the auto LPG conversion workshop will start its operation soon to convert the CNG-driven vehicles into LPG-driven ones. If all the stakeholders work together, auto LPG will play a significant role in the future fuel-mix of Bangladesh.

The government has published all the rules and regulations for storage, import and distribution of LPG. I am confident that the new rules will ensure the safety and protection of the LPG industry and its users. On the other hand, it is also needed to focus on monitoring so that the rules are implemented properly. As the market will continue to grow and the needs of the industry will change, the rules can always be updated for convenience of all stakeholders.

Also, there are challenges for developing a sustainable LPG market in Bangladesh. Of which, affordability is the biggest challenge. If international LPG prices go up significantly, it can affect the growth of the market in the country.

Inadequate infrastructure is another challenge for the growth of the LPG industry in the country. The industry needs enough storage and bottling capacity at different places. Improvement in the existing road networks across the country will also help ensure that the LPG products reach consumers safely and promptly.

## Firms building up capacity

MOHAMMAD BELAYET HOSSAIN, Managing Director, Jamuna Spacetech Joint Venture Ltd

We are afraid that the stock of natural gas may be exhausted in near future if new gas fields are not discovered in the onshore or offshore. Keeping in mind the future gas demand and supply situation, Jamuna Spacetech Joint Venture Ltd (JSJVL) has already planned to set up 500 auto LPG stations and 50 LPG conversion stations by the side of the national highways in the country. To ensure steady supply of LPG to different bulk customers and filling stations, JSJVL has already bought 18 road tankers and another six will join the fleet within a few weeks.

Jamuna started LPG business in 2000 with the brand name "Jamuna Gas". JSJVL supplies LP gas to industrial, commercial and domestic customers all over Bangladesh. The purpose of the company is to buy, process, market,



Mohammad Belayet Hossain

sell, distribute, transport and store lubricants.

Besides, JSJVL is authorised to import and export tanks, cylinders, storage tanks, cookers, containers, tankers, stoves, heaters, domestic and industrial heating appliances, equip-

ment and machineries.

Presently JSJVL has two LPG filling plants. One plant is located in Bogra and the other one is in Mongla port industrial area. More than 400 permanent and temporary employees are working in these two plants. Also, JSJVL has its own import terminal in Mongla port industrial area. At present, JSJVL has storage capacity of 3,300 tonnes and within a few months the capacity will be increased to 6,000 tonnes.

In the plants, JSJVL refills more than 25,000 cylinders per day.

JSJVL's sister concern JB Cylinder Ltd is an LPG cylinder manufacturing company. It manufactures around 1,800-2,000 LPG cylinders of different sizes per day in Bogra plant. This is a semi-automatic plant and we have started to modernise this factory soon for making it a fully automatic one to increase the production capacity.

## LPG industry growing rapidly

MOHAMMED NURUL ALAM, CEO, BM Energy (BD) Ltd

Liquefied petroleum gas (LPG) is a rapidly growing industry in Bangladesh and the upcoming 4th Asia LPG Summit 2017 will help the companies showcase recent technologies and its various applications. This platform will provide unique experience and exchange of knowledge among the exhibitor companies that are directly and indirectly involved in the LPG business in Asia.

Bangladesh is one of the few countries that provide natural gas connections to its residential areas at a fixed monthly charge without regard to actual consumption. Bangladesh has much potential in terms of LPG consumption as only 6 percent of the entire population has access to the natural gas, mostly in urban areas. The gap between demand and supply of natural gas is widening day by day because of the massive conversion of fuel-run automobile engines into CNG-run ones and increased pressure of the growing industries and households on



Mohammed Nurul Alam

energy supply. The government has realised this and has been taking measures to conserve gas. One of the initiatives is to encourage the use of LPG as an alternative to natural gas for household, commercial and industrial use.

As a potential sector, we have seven major companies including BM Energy (BD) Ltd. But we need more investments in the sector to serve more households and industries as the demand is rising day by day. We are

using foreign LPG technologies from different sources and will be exploring newer technologies through this regional LPG summit.

In 2016, total LPG market in Bangladesh was around 350,000 tonnes and the demand is estimated to be 500,000 tonnes this year. We also predict that the LPG market of Bangladesh will reach 1 million tonnes by 2020. Currently, the global LPG market is around 300 million tonnes, which is around 110 million tonnes in Asia Pacific region.

LPG has multiple uses. The gas is used as a fuel for many residential, commercial and agricultural heat applications, including cooking, hot water systems and heating. It is also employed as a propellant, refrigerant, vehicle fuel and petrochemical feedstock. LPG reticulation system for apartments, hotel and restaurants is now popular in urban areas as they have heavy demand for gas for cooking. Nowadays auto gas filling stations are being set up in different regions where CNG is not available. Auto gas is less expensive than CNG.

## Consumption of LPG rising fast

MOHAMMED RIYADH ALI,  
Managing Director,  
Intraco Group



Mohammed Riyadh Ali

The fourth Asia LPG Summit is an inspiring platform for us to introduce the sector with the relevant industry and other stakeholders.

Every issue and affair related to the latest LPG market, business allotment, statistics and the impact of LPG as alternative fuel source will be discussed at the summit.

It will increase the spread of LPG information and will make sense among people about the benefits and necessity of making LPG as leading energy resource in the upcoming days.

Global LPG production reached over 292 million tonnes in 2015, up 4 percent from 2014. The USA—the world's largest LPG producer—alone added over 20 million tonnes each year between 2010 and 2015.

With the decrease of primary energy in Bangladesh, LPG has already become an alternative source for energy and fuel. While LNG import is expected to compensate the industry's gas demands, LPG is ready to be an alternative to households and automotive uses.

The consumption of LPG was 150,000 tonnes in 2015, which got doubled to 300,000 tonnes in 2016.

Currently, more than 80 percent of the LPG demand is met by imports and the state-run Bangladesh Petroleum Corporation supplies the rest 20 percent.

Under the private sector, the gas is mainly imported from Singapore, Malaysia, Saudi Arabia, Abu Dhabi, Kuwait and some other countries.

The government of Bangladesh has finalised a policy for setting up import-based LPG bottling plant under the private sector to increase the usage of LPG in households, automobiles and small industries and as the raw materials for chemical and processing industries.

The average price of LPG around the world is \$0.57 per litre. However, there is substantial difference in these prices among the countries. As a general rule, richer countries have higher prices while poorer countries and the countries that produce and export natural gas have significantly lower prices.

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