

**First Foundation Lecture of
Petronet LNG Limited
New Delhi
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Energy powers the nation

Work with integrity and succeed with integrity

I am delighted to deliver the First Petronet Foundation Day lecture organized by Petronet LNG Limited (PLL), New Delhi. On this occasion, I extend my greetings to all the members of Petronet LNG Limited and the promoters of this organization ONGC, IOCL, BPCL and GAIL. I congratulate the PLL team for its notable achievements during the last seven years. Friends, I would like to share few thoughts today on the topic “**Energy powers the nation**”.

Vision of PLL

I was going through the document of PLL on the new vision, mission and strategic goals: PLL envisions to be a key energy provider to the nation by leveraging the company's unique position in the LNG value chain along with international presence. Particularly I was impressed with the two mission statements of PLL.

(1) Continuously working for excellence in LNG business.

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(2) Maintaining the highest standard of business ethics and values.

I will be discussing these two impressive aspects of PLL missions and also additional thoughts on going for energy independence in gas and oil sector.

Culture of excellence

Friends, You all belong to a nascent organization which stands for a culture of excellence. And excellence is not by accident. It is a process, where an individual, (or organization or nation,) continuously strives to better oneself. The performance standards are set by themselves, they work on their dreams with focus and are prepared to take calculated risks and do not get deterred by failures as they move towards their dreams. Then they step up their dreams as they tend to reach the original targets. They strive to work to their potential, in the process, they increase their performance thereby multiplying further their potential and this is an unending life cycle phenomenon. They are not in competition with anyone else, but themselves. That is the culture of excellence. The culture of excellence needs an organization more youth with creativity. Creativity is born out of "UNIQUE YOU". What is unique you?

Unique You

Dear friends, Look up, what do you see, the light, the electric bulbs. Immediately, our thoughts go to the inventor Thomas Alva Edison, for his unique contribution towards the invention of electric bulb and his electrical lighting system. When you hear the sound of aeroplane going over your house, whom do you think of? Wright Brothers who proved that “objects *heavier than air can be flown.*” Whom does the telephone remind you of? Of course, Alexander Graham Bell. When everybody considered a sea travel as an experience or a voyage, a unique person questioned the phenomena he saw, during his sea travel from United Kingdom to India. He was pondering on why the horizon where the sky and sea meet looks blue? His research resulted in the phenomena of scattering of light. Of course, Sir CV Raman was awarded Nobel Prize.

When no body in the country believed, India has got reserve of oil and gas: one soul political, one soul technical believed India has oil and gas. Who are they? They are the then Natural Resource Minister Shri KD Malaviya and Col (Dr) SP Wahi. I am sure, many of the young assembled here, would like to be unique personalities like your predecessors and the present leaders in the oil and gas sector. .

For the last two days the entire nation is proudly celebrating the unique position India has achieved in world cricket. It is the result of years of nurturing talent and hard

work. The country has achieved top most position in the world in all three major dimensions of cricket - test, one day and the 20:20 cricket matches. Whom should we attribute this greatest achievement, which has inspired the country specially youth of India. The entire team needs appreciation including, the past teams of cricket young and experienced, the coaches and the supporting staff. Over the years many veterans have contributed to this prominent position in cricket. Of course, captain Dhoni comes out clearly with the leadership quality that “when problem occurs you become the captain of the problem, defeat the problem and succeed”. I am sure that the experience of cricket will be useful to other sports and other areas of development of country.

Inventions, discoveries and achievements have emanated from creative minds that have been constantly working and imaging the outcome in the mind. With imaging and constant effort, all the forces of the universe work for that inspired mind, thereby leading to inventions and discoveries. The question is: are you willing to become a unique personality. Let me share an experience.

I have, so far, met 11 million youth in India and abroad, in a decade's time. I learnt, **“every youth wants to be unique, that is, YOU! But the world all around you, is doing its best, day and night, to make you just “everybody else”.**

The challenge, my young friends, is that you have to fight the hardest battle, which any human being can ever imagine

to fight; and never stop fighting until you arrive at your destined place, that is, a UNIQUE YOU! I am sure the PLL and its promoters oil and gas industries will facilitate in preserving the **“Unique You”** in the young team of the organization. And they have to be unique too. Do you want to be a Unique You or Everybody else? If you have to be Unique You, you have to do, what Alexander Graham Bell suggested in 1915:

“Don’t keep forever on the public road, going only where others have gone. Leave the beaten track occasionally and dive into the woods. You will be certain to find something you have never seen before. It will be a little thing, but do not ignore it. Follow it up, explore all around it; one discovery will lead to another, and before you know it, you will have something worth thinking about.”

..... Alexander Graham Bell

Let me now discuss about energy independence and its need in the modern context.

Leading to Energy Independence

As you are aware, there is a continuous depletion of fossil-material-derived oil, gas and coal reserves as predicted by World Energy Forum. Also, there is a continuous rise of cost of crude. I have been studying the price pattern of standard crude oil over the last five years. From under \$25 per barrel in September 2003 and in 2008 it touched \$147 and now is above \$110 per barrel (March 2011). The world consumes more than 85 million barrels per day, one fourth of

which it's consumed by US. India too is a six largest consumer of crude oil. Every litre of petrol or diesel not only adds to the import cost to the nation's economy, but also, degrades the environment by adding 2.7 kgs of CO₂ for each litre of fuel burnt. Thus, we are not only paying for the cost of fuel, but also paying for the continuous environmental degradation because of fossil fuel. The solution to these problems is achieving energy independence which would also act as the bridge between energy and environment. Energy independence would mean, India going beyond just energy security and realizing the vision of clean power of solar, wind, nuclear, hydro and biofuel.

Let me first give you the current global energy scenario.

Global Energy Scenario

According to the Statistical Review of World Energy 2009, world is consuming about 277 billion units (in Kilo Watts - hour) of primary energy per year which is equivalent to continuous demand of 15 Tera-Watts of average power. Of this, 38% is met by Oil, 23% by gas and 26% by coal. Which means that about 87% of the total primary energy is supplied by fossil fuels? The remaining comes from Nuclear (6%), Hydropower (6%) and other renewable sources like solar, wind, tidal and geothermal contribute only 1%. Against this, the global emissions of GHG (Green House Gases) stand at over 36 Gigatons of CO₂. Out of which 66% is directly attributable to

energy generation requirements, either in electricity, households or transport sector. Thus, more than 20 Gigatons of GHG is a direct result of meeting our energy requirements through fossil fuels.

Let me now talk about the global energy independence vision by 2030, which is another 19 years from now.

Energy Independence Vision 2030

The Energy Vision 2030 has to be three dimensional. First, ensuring *affordability* in access to quality energy for all. Second, ensuring that the dependence on depleting fossil fuels is minimized thereby giving *stability* to the energy supply. Third, it has to be balanced against the environment aspect, by stressing on development of green thereby giving *cleanliness* in our energy. The Energy Independence Vision has to be global in its implementation and a priority of all nations in the world.

1. Improving energy efficiency in industrial, transport, residential and commercial sector to reduce the energy demand growth rate by 50%.
2. Dependence on fossil fuels as primary energy source to be brought under 50%.
3. Replacement of petroleum as a primary fuel source for transport by less carbon emitting or completely carbon neutral renewable fuels.

4. International collaboration on promoting green energy development methods with seamless flow of ideas and technologies.
5. Reducing the net emission per unit energy consumption to 25 percent of the current rate.

The entire Oil and Gas community has to work in a cohesive manner to realize these goals in a time bound manner which will be an essential feature of the 21st century global society.

A new paradigm for oil and gas industry

The world in the 21st century will be a knowledge based society with multiple opportunities and we have to become knowledge driven society. I was studying a book, "Empires of the Mind" by Denis Waitley. This book gives what type of the new world which we are facing now? What was yesterday and what is today. I have modified certain points of the author to suit the discussions of today. I have also added a third line which relates to action of organizations. The book specially says that "what worked yesterday, won't work today".

Profile of transforming into a knowledge organization

1. Yesterday - natural resources defined power.
Today - knowledge is power.
Organizations should empower knowledge.
2. Yesterday - Hierarchy was the model.
Today- synergy is the mandate.

Organizations will be enabler for intersection of multiple faculties towards mission goals.

3. Yesterday - leaders commanded and controlled.
Today - leaders empower and coach.
Organizations will empower Potential Leaders through exposure to the needs of sustainable development.
4. Yesterday - shareholders came first.
Today - customers come first.
Organizations should inculcate sensitivity to customer's needs.
5. Yesterday - employees took order.
Today - teams make decision.
Organizations will enable teams to make decisions.
6. Yesterday - seniority signified status.
Today - creativity drives status.
Organizations will be judged by innovation and results.
7. Yesterday - production determined availability.
Today - Competitiveness is the key.
Organizations has to create cooperative competitiveness.
8. Yesterday - value was extra.
Today - value is everything.
Organizations priority is to inculcate value addition at every level.
9. Yesterday - everyone was a competitor
Today - everyone is a customer
One vital tool of Organizations is, customer feedback and action based on that.

10. Yesterday - profits were earned through expediency.
Today - Work with integrity and succeed with integrity.
*Organizations will be judged by the extent of working
and succeeding with integrity.*

Let me further elaborate on how to make profits while working with integrity which is one of the mission of PLL and of course for oil and gas industry.

Profit with integrity

Profit with integrity leads to sustained growth. How is it possible? We need to have National ethics for sustained growth and peace. Where from it starts?

- * Nation has to have ethics in all its tasks, for sustained economic prosperity and peace.
- * If nation is to have ethics; society has to promote ethics and value system.
- * If society is to have ethics and value system, families should adhere to ethics and value system;
- * If families have to get evolved with ethics and value system, parenthood should have inbuilt ethics.
- * Parental ethics come from great learning, value based education and creation of clean environment that leads to righteousness in the heart.

Here I am reminded of a divine hymn which is normally recited in the some of the spiritual centers in our country.

Righteousness in the heart

Where there is righteousness in the heart
There is beauty in the character.
When there is beauty in the character,
There is harmony in the home.
When there is harmony in the home.
There is an order in the nation.
When there is order in the nation,
There is peace in the world.

The mission for promoting Indian oil and gas industry

Since, I find Petronet LNG Limited has been formed as JV company promoted by ONGC, IOCL, BPCL, and GAIL, I thought of sharing one experience, which I had in Malaysia that led me to think about the necessity of Children's Interactive Science Museum Centre in India.

Friends, I was in Kuala Lumpur on August 2008 for participating in the Khazana Global Lecture organized by Prime Minister of Malaysia. During that occasion, I visited PETRONAS Science Centre. PETRONAS Science Centre is established by Petroleum industry of Malaysia and its collaborators, to provide a simulating environment to learn and appreciate the science and technology behind the petroleum industry and also the underlying principle behind science, technology, engineering and mathematics. I spent about an hour at PETRONAS Discovery Centre and I was inspired by the mission of PETRONAS Science Centre to spark curiosity and creativity among viewers, particularly children,

to connect science and technology in everyday life with attractive exhibition and interactive activity. Particularly the youth spending three hours in PETRONAS Science Centre realize that science is everywhere and anywhere and it can be put to use to the societal need. The petroleum industry of Malaysia has also established a Petroleum University focusing research and technology of petroleum and petroleum products. I saw PETRONAS Science Centre being visited and interacted by not only young children, but many visitors of all age groups. Petroleum Industry of Malaysia has given to the Malaysian society and visiting nationals from many nation, the needed knowledge centre as a part of their corporate social responsibility and it is well remembered by Malaysian citizens.

When I see now, team members of two Maharatnas and two Navaratna companies from our country assembled here, I would suggest you to establish on behalf of petroleum industry of India, a dynamic interactive science museum which will always be cherished by children of India and also it will become part of corporate social responsibility. When the millions of Indian people visit Indian Petroleum Science and Discovery centre – a dynamic interactive museum, youth and grown up will always remember and cherish the contribution of petroleum industry in India. If any help is needed, I will facilitate.

Conclusion

In conclusion, I would like to suggest the vision for the Oil and Gas Sector in 2030.

1. Realizing self Reliance in the gas for power generation systems and for domestic applications. It can be in two phases:
 - a. Import minimization for LNG by maximization of India's indigenous production of Gas
 - b. It is essential to be independent of the dynamics of the geo-politics unrest in the world; India should aim at total self reliance in gas requirements because there is tremendous potential in the nation as reported by the private and public sector companies. Hence I suggest research and development for exploration must be at the focus
2. Gas and oil industry should realize that India has to go for clean energy which will need a diversification of the energy portfolio of ONGC and all other exploration companies. The clean energy sources are solar power, wind power, tidal power, bio fuel, hydro power and nuclear power with ensured safety.
3. The importance of Oil and Gas industry is known only by a limited audience. The public should be made well aware of the dynamics of this industry through the

establishment of a dynamic and interactive “Petroleum Museum” for the public and particularly for the youth.

4. PLL should work for creating LNG transport vehicles which will facilitate reaching distant villages in the absence of pipelines and gasify the local supply.
5. Can the Oil and Gas industry work on creating an efficient mechanism for bio-gas and bio-fuel generation, transportation, supply, marketing and sales

My best wishes to all the participants present here for success in their mission of meeting the nation’s energy demand in consistence with its growth and greetings particularly to Petronet LNG Limited community.

May God bless you.