



Petronet LNG Limited

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Commitment Statement by CMD:

Petronet LNG, with an aspiration to be a responsible Corporate Citizen, undertakes its responsibility devotedly across all levels within the Company. As a member, we firmly believe in committing to and aligning our business practices with the ten principles of Global Compact.

Our board fully supports our actions in working towards sustainability goals – particularly those contained in the UN Global Compact – and endorses the future priorities and specific targets we set out in our report. Through our support of the United Nations Global Compact, we also aim to move the agenda forward on performance related to human rights, labour rights, the environment and the fight against bribery and corruption.

*Being a member of Global Compact we strongly believe in the ten principles and this year we have primarily focussed on the **principles of Labour and Environment (Principle 3,4,5,6,7,8 & 9)** and the various steps taken to put into practice these principles and the progress made have been summarised here.*

We are determined to follow these principles thoroughly and further improve on our processes to achieve excellence. We intend to report the progress made every year pertaining to all the ten principles every year.



(Dr A K Balyan)
MD & CEO

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Dahej LNG Terminal:

GIDC Industrial Estate, Plot No. 7/A, Dahej
Taluka Vagra, Distt. Bharuch - 392130 (Gujarat)
Tel.: 02641-257249 Fax: 02641-257252

Kochi Site:

Survey No. 347, Puthuvypu
P.O. 682508, Kochi
Tel.: 0484-2502268

The Ten Principles

The UN Global Compact's ten principles in the areas of human rights, labour, the environment and anti-corruption enjoy universal consensus and are derived from the following four core issues.

- **HUMAN RIGHTS**

- Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights.
- Principle 2: Business should make sure that they are not complicit in human rights abuses.

- **LABOUR STANDARD**

- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
- Principle 4: The elimination of all forms of forced and compulsory labour.
- Principle 5: The effective abolition of child labour.
- Principle 6: The elimination of discrimination in respect of employment and occupation.

- **ENVIRONMENT**

- Principle 7: Business should support a precautionary approach to environmental challenges
- Principle 8: Undertake initiatives to promote greater environmental responsibility.
- Principle 9: Encourage the development and diffusion of environmentally friendly technologies.

- **ANTI CORRUPTION:**

- Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery



Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Commitment/ Policies:

Ours is a young organisation. We started operating our 1st LNG terminal at Dahej in the year 2004 and due to the proactive approach of the senior management, the HR framework and policies implemented are best in the industry.

Our HR policies have been evolving and have been changed from time to time keeping in mind the employees' aspirations and the company's growth objective.

Due to the effective HR Policies, no trade union has ever formed and to attend to any grievance/ injustice faced by the employee, we have an effective Grievance Redressal System in place.

Action Taken:

A well organised and effective Grievance Redressal System is designed to provide prompt and orderly resolution of complaints or disputes arising in the course of employment.

Any employee has the right to present to his immediate supervisor any personal grievance regarding employment within 30 days of an occurrence and/or within 30 days of the employee having reasonable knowledge of the occurrence and have it considered on its merits.

Outcomes:

1. No strike or demonstration by the employees
2. Zero Man days lost due to agitation/ strike by the employees.

Plans for the Upcoming Year

1. Continuous evolution of policies with changing times.
2. Employees are free to form any kind of social, cultural group in the company. In fact, we encourage such socio-cultural inter mingling of various groups as it promotes a positive working environment.

Principle 4: The elimination of all forms of forced and compulsory labour

Commitment/ Policies: We firmly believe that not only is forced labour a serious violation of a fundamental human right, it also is one of the biggest obstacles to economic development.



Action Taken Being a highly specialized and niche industry, we require skilled personnel at all levels to carry out the processes at our terminals as well as corporate office. Even the unskilled jobs require people who have obtained some level of education. All the unskilled workers employed in the company have at least attended high school.

In case of hiring unskilled labour through contractors such as housekeeping, transportation of goods inside or outside of the plant, etc. we ensure payment of the minimum wages as applicable at the various working locations. As the principal employer we oblige and fulfil the statutory requirements of Social Security deductions and get them deposited.

As far as exit policy is concerned, we have a clearly defined policy and any employee can resign from the company if he wishes to, with no compulsion to continue working or to employ any of his children/relatives to fill the gap.

Outcomes:

1. Petronet LNG has never been involved in Forced labour and neither does it encourage the same. There have been no incidents of forced labour neither has the company's policies been challenged in the history of the company.

Plans for the Upcoming Year:

We plan to continue with our commitment and belief of not getting involved into compulsory labour

Principle 5: The effective abolition of child labour

Commitment/ Policies: Similar to our stance on forced labour, we very sincerely believe that every child has a right to his childhood and child labour has a negative impact not only on the child involved but also on the society's economic development on a whole.

Action Taken:

To eliminate any instance of child labour, we ensure adherence to minimum age provisions of national labour laws and regulations. Being a part of hydrocarbon industry, we have strict rules for hiring an adult. At no instance have we indulged in the practice of child labour. Being a highly specialized and niche industry, we require employees with a particular set of skills and educational qualifications to carry out the processes at our terminals as well as Corporate Office. For a person to be employable in our company, s/he has to primarily complete her/his high school and then acquire Diploma/ITI along with 2-3 years of experience. In case of hiring of freshers, we hire graduates and post graduates through campus recruitment. Thus, while acquiring the required educational qualifications along with certain years of experience, the person attains minimum 19-20 years of age, ruling out any probability of child labour



Even while hiring unskilled labour through contractors such as housekeeping, transportation of goods inside or outside of the plant, we mandatorily fill up the "Character and Antecedents Verification Format" for each contract personnel before considering for work. Date of Birth/ Age is one of the major criteria in the said format through which we are restricting the Child Labour Entry for Contract Personnel in our Terminal. We also attach the proof for verification for this date viz. voter ID card/ driving license/ passport copy/ pan card/ ration card etc. to ensure there is no falsification or manipulation on the Age declaration front.

To curb the practice we also enable vocational training for children around our work centres and provide scholarships to those who, otherwise, would be unable to continue with their education.

Also, as a part of our CSR activity, to provide better learning facilities to students, we have so far:

- Assisted renovation of Govt. U.P. School, Puthuvypu at Kochi.
- Set Up of Laboratory for Science Students at Higher Secondary School, Village Dahej
- Distributed uniforms, notebooks and laptops/Computers to various schools.
- Donated school buses to different schools around our work centres

Outcomes

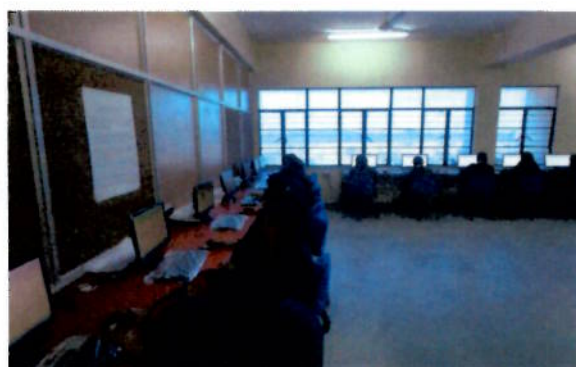
No past records of child labour.

Plans for the Upcoming Year:

Not only are we determined to not get involved in the practice, we also plan to actively collaborate with various NGOs that believe in the cause as passionately and work sincerely towards the abolition of child labour.



Govt. U.P. School renovated by Petronet LNG Ltd.



Students of Maharani Kishori Devi Girls College, Bikaner, working on computers donated by Petronet LNG Ltd.





**Distribution of laptops to Govt. U.P. School,
Puthuvypu**



Distribution of school uniforms at Kochi



**Distribution of school uniforms to visually
impaired students of J.P.M Secondary School,
New Delhi**



**Sponsor purchase of school bus for Kerala
Blind School**

Principle 6: The elimination of discrimination in respect of employment and occupation

Commitment/ Policies: We consider protecting our employees from receiving unequal treatment on the basis of race, gender, age, citizenship, national origin, religion, marital status, disability, or labour union activity as one of the important HR practice.

Action Taken:

We have a very transparent recruitment process. We publish the vacancies not only on our website but also in the leading national dailies to ensure that they reach everyone.

Once the applications are received, a documented process is carried out while assessing candidates for any position. Those fulfilling the criteria are called for interview and are selected based in their performance. During any of the above mentioned activities, Petronet LNG limited does not engage in



unequal treatment on the basis of race, gender, age, citizenship, national origin, religion, marital status, disability, or labour union etc.

Outcomes

Petronet LNG is an exceptional example of cultural diversity as we have employees from all over the country, belonging to various religions with a balance of gender equality.

Plans for the Upcoming Year

We will continue to carry out recruitments in a transparent manner, following a documented process and commit to not involving into employment discrimination of any kind.

Principle 7: Businesses should support a precautionary approach to environmental challenges;

Commitment/ Policies

- Comply with all applicable legal and other requirements related to Health, Safety, Environment and product quality.

Action Taken

- Petronet started operating the 1st LNG terminal with the highest level of safety standards in the year 2004. SoPs are being reviewed on regular intervals and safety audit conducted to validate the changes made in those manuals with support from our strategic partner GdF Suez
- In a step forward to further improve the safety practices, we have acquired ISO Certification under the Integrated Management System where the following standards are effectively adhered to in each and every process of the company from housekeeping to the operation of the terminal.
 - 9001:2008: Quality Management
 - 18001:2007: OHSAS Management
 - 14001:2004: Environmental Management
- As a precautionary approach towards the various environmental challenges, during our pre project activities for setting up terminals at various locations we carry out studies to validate baseline three season data as recommended by MOEF. Appropriate measures and systems to suppress NOx emissions, dust suppression by watering to restrict dust emission etc. are put In place.
- Green belts have been developed at all the locations to reduce the fugitive emissions and absorption of CO2 and the design of control equipment is carried out to meet the standards stipulated by CREP;



- **WATER & WASTE WATER MANAGEMENT:** It is pertinent to mention here that while carrying out the processes, there is no waste water generation and neither is any extraction of ground water required. The water used is brought in through the existing water sources available. The only effluent generated is the domestic effluent of the order of 8 KL/day that is treated in the sewage treatment plant (STP) installed at all the locations. This treated domestic waste water is used internally for toilet flushing, greenbelt development, dust suppression etc.
- **NOISE LEVEL ASSESSMENT:** The equipments are designed to conform to noise levels prescribed by regulatory authorities and provisions are available for acoustic barriers or shelters in noisy workplaces and hoods for noise generating equipments like pumps. Further, implementation of greenbelt, landscaping with horticulture at power block (CPP) areas aids in attenuating the noise levels.
- **SOLID WASTE MANAGEMENT:** There is no hazardous or inert solid waste generated from any of our plant locations. A small quantity i.e. about 0.5 KL/year of used oily waste is generated during periodic maintenance of various equipments. However, this hazardous waste is collected and stored at specific identified area at site and authorized agencies have been hired dispose off the collected Hazardous waste.

Outcomes

- No water or chemicals are discharged into the sea - zero discharge concept- and thus there is no impact on the aquatic ecology.
- No impact on ground water tables.
- The cumulative incremental impact of all noise sources at boundary will range in between 45-50 dB (A) against the standard of 50 -55 dB(A)
- Since there is no solid waste that is generated and the small quantity of oily waste generated is disposed off through authorized agencies, no contamination of soil/ surface water/ sea water takes place and has no impact on fisheries.

Plans for the Upcoming Year

The process of continuous change towards betterment would continue.

Principle 8: Undertake initiatives to promote greater environmental responsibility;

Commitment/ Policies

- Inculcate Safety, Health, Environment and Quality Awareness among all employees, contractual workers and stakeholders through participative culture for Cleaner, Greener, Safer and better organization.



Action Taken

- Our key energy sources are diesel and natural gas, with natural gas being the major energy source (around 95%). Natural gas being a clean fuel reduces the carbon footprint/ GHG emissions making ours a cleaner process.

Fuel Consumption Categories And Their Contribution To Total Energy Consumed		
Fuel Types	Energy Consumed (GJ)	Percentage Contribution
Diesel	34230	1.39%
Natural Gas	2350624	95.41%
Electricity imported from grid	78893	3.20%
Total Energy consumed	2463747	100%

- The Following Mangrove plantation has been undertaken along the Gujarat Coast in consultation with Gujarat Institute of Desert Ecology, Gujarat Ecology Commission and the Forest Department as a measure towards protecting the marine ecology in the area of our operations.
 - February 09 - 6 Ha
 - March 10 - 50 Ha
 - April 11 - 100 Ha
 - April 12 - 200 Ha
- Monthly Tree plantation Program- Every month Petronet LNG sees an active participation of its employees in the Tree Plantation Program in green belt at Dahej LNG Terminal, planned to facilitate clean Environment & beautify the surroundings.
- **Waste and Spill Management:** We at Petronet LNG Limited have in place robust waste management systems. All hazardous waste generated in our facility is responsibly disposed through authorized waste recyclers. The organic waste generated in our canteen is treated in vermin- composting units.
- For e-waste, we have a contract with an authorized e-waste recycler. No e-waste has been disposed in the reporting year.
- We have well defined procedures to prevent incidences of spillage within our facility. Our strong commitment towards safe environmental practices has borne fruit and we have had no incidents of significant spillages.

Category Of Waste Disposed	Types Of Waste	Method Of Disposal	Quantity (Kg)
Used Oil	Hazardous	Recycling	2020
Oil Barrels	Hazardous	Recycling	10
Lead Acid Batteries	Hazardous	Recycling	83
Biomedical Waste	Hazardous	Incineration	11.54
OTHERS			
Food Waste	Non- Hazardous	Recycling	2386
Paper Waste	Non- Hazardous	Recycling	5500

Outcomes

- Greenbelt allocation within premises- 160000 sq. mtrs.
- 34.5% of total area covered under Green Belt as against the norm of 25%.



- Lawn covered within premises- 24,000 sq. mtrs.
- No significant spillages within terminals.
- No waste disposed off into the environment.

Plans for the Upcoming Year

- The Mangrove plantation along the Gujarat Coast is to be further expanded as per the following plan:
 - April 13 - 300 Ha (Under Progress)
 - April 14 - 100 Ha (Planned)
 - April 15 - 100 Ha (Planned)
 - April 16 - 100 Ha (Planned)
 - April 17 - 100 Ha (Planned)
- To continue with and further upgrade the practices that help us in preserving the environment and maintain a safe working place.



Mangrove Plantation



Landscaped Green Cover at Dahej LNG Terminal





In House Vermi-Culture Unit

Principle 9: Encourage the development and diffusion of environmentally friendly technologies.

Commitment/ Policies

- Upgrade on technology, Skills, processes & knowledge of our coworkers and strive continually for improvement in process effectiveness, customer satisfaction, preventing pollution and providing a safe healthy working environment.

Action Taken

➤ **Air Pollution :**

S.No.	Pollutants	Pollution Control Technology
1	SPM, SOx & NOx generated from Gas Turbine Generator (GTG)	Low NOx Burner
2	Natural Gas Emission from Process	Boil off Gas Recondenser and Flare system
3	Submerged Combustion Vaporizer (SCV)	Water Injection System for NOx suppression

➤ **Water Pollution**

- Domestic Water Consumption = 10.6 KL/Day.
- Domestic Effluent Generation = 8.6 KL/Day.
- The Domestic Effluent treated in soak pit & utilized for in house greenbelt development.

➤ **Liquid Nitrogen Plant Chiller Replacement**

- Conventional cooling systems demand Freon heat exchanger, thereby enhancing the Ozone Layer Depletion. This not only depletes ozone layer, but also adds to energy demand due to



operation of the compressor. At Petronet LNG, we have eliminated most of the refrigerant consumption by using chilled water for cooling purposes. This new system helps to conserve ozone layer as well as conserving electrical energy by eliminating the need for a compressor. This chilled water is obtained during LNG Regasification into Natural Gas, transported through a pipeline inside the plant and is used as cooling medium in heat exchanger connected to Liquid Nitrogen plant thus eliminating Freon heat exchanger from the system.

- Conventional System – Freon Heat Exchanger – Ozone Layer Depletion.
- New System – Chilled Water Heat Exchanger – Ozone Layer Augmentation

➤ **Chilled water air conditioning system in the buildings**

- Conventional System – Freon Heat Exchanger – Ozone Layer Depletion.
- New System – Chilled Water Heat Exchanger – Ozone Layer Augmentation

➤ **Ambient Air Heater- Water Consumption Reduction**

- Vaporization of LNG to R-LNG is done through Shell & Tube Vaporizers (STVs). LNG gets vaporized due to exchange of heat between Glycol Water (GW) and LNG in STV. The cold GW at the outlet of STV is sent to Air Heated Heat Exchangers (Air- heaters) where GW is heated by ambient air and circulated back to STV, thereby acting as a heat carrying liquid. When this air transfers its heat to GW in air heaters, its temperature drops resulting in condensation of moisture present in the air. This condensate is collected through drainages into a condensate recovery pond. The process is further aided by humid climatic conditions that generally prevail at Dahej.
- Water Consumption reduced from 0.126 KL/Ton of production capacity to 0.09 KL/Ton of production capacity after Cleaner Production implementation.

Outcomes:

➤ **Air Pollution**

S.No	Pollutants Prescribed	Standards	Year 2008	Year 2009	Year 2010	Year 2011
1	SPM	Less than 150 mg/Nm ³	29 mg/Nm ³	22 mg/Nm ³	28mg/Nm ³	30mg/Nm ³
2	SO _x	Less than 50 PPM	Nil	Nil	Nil	Nil
3	NO _x	Less than 50 PPM	5.5 PPM	4.62 PPM	7.71 PPM	7.73 PPM

➤ **Water Pollution**

- There is no use of ground water & Municipal water.
- There is no use of industrial water & industrial effluent generation.

➤ **Liquid Nitrogen Plant Chiller Replacement**

- Elimination of Freon in the current system
- Conservation of Electrical Energy

➤ **Chilled water air conditioning system in the buildings**

- Tonnage of Refrigeration (TR) saving.
- Elimination of Freon in the current system
- Conservation of Electrical Energy.



➤ **Ambient Air Heater- Water Consumption Reduction**

- Water generation 150 KL per hour thus reducing fresh water consumption for greenbelt / horticulture.

Plans for the Upcoming Year

We would continue to work towards the betterment of our processes for further improvement.



Ambient Air Heater at Dahej LNG Terminal



Liquid Nitrogen Plant

