





www.cngvietnam.com

CONTENTS

MESSAGE FROM
THE CHAIRWOMAN
OF THE BOARD

DEVELOPMENT MILESTONES

WHY CHOOSE CNG VIETNAM?

CNG/LNG CONVERSION

GENERAL INFORMATION

OUTSTANDING AWARDS

CNG - NEW ERA OF CLEAN ENERGY

SAFETY - QUALITY
- ENVIRONMENT
MANAGEMENT SYSTEM

VISION - MISSION - CORE VALUES

KEY CUSTOMERS

LNG – GREEN ENERGY OF THE NEW ERA

COMMUNITY ACTIVITIES

- SUSTAINABLE
DEVELOPMENT



MESSAGE FROM THE CHAIRWOMAN OF THE BOARD

CLEAN ENERGY CONVERSION - FOR A GREEN FUTURE

Dear Valued Customers / Partners.

Established in 2007 with a pioneering vision in the cause of greening fuel sources in Vietnam, Clean Natural Gas Vietnam Joint Stock Company (CNG Vietnam) is a leading company in supplying compressed natural gas (CNG), liquefied natural gas (LNG). CNG Vietnam has a complete transportation and distribution infrastructure across the country, providing a full package of clean fuel solutions for husinesses

Climate change has become a global challenge, pushing countries around the world to switch strongly to using clean energy (natural gas), renewable energy through investment incentives, financial support such as green credit, green bonds... In that context, CNG Vietnam has contributed significantly to accompany nearly 200 leading domestic manufacturers to successfully convert to natural gas fuels (accounting for more than 70% market share), ensuring economic efficiency, environmental friendliness, for a green and clean future.

After more than 15 years of continuous development, CNG Vietnam has a national stature, proud to realize the mission of "popularizing clean energy, contributing to creating a green future, bringing sustainable values for the community - society" based on the following outstanding competitive advantages:

Nation-wide infrastructure system: The network of gas compressor plants with a total capacity of more than 300 million Sm3/ year in the South and 110 million Sm3/year in the North ensures a continuous and stable supply to the widespread PRUs. In addition, CNG Vietnam is gradually mastering LNG technology, building LNG supply stations in industrial parks to catch up with the trend, providing more clean gas solutions and products for customers.



Superior products: CNG, LNG are fuels with high efficiency, helping increase the life of machinery and equipment; environmentally friendly; economic efficient and more cost-saving compared to traditional fuels; and safer in production operations.





Comprehensive and professional services: CNG Vietnam provides complete clean fuel solutions, bringing added value in production and business activities for customers. We support customers in their successful transition with services from surveying, consulting to construction-installation, testing, commissioning and comprehensive support throughout the process of gas supply.

On behalf of the Board of Directors of CNG Vietnam, I would like to thank you for your trust and support in the past time and welcome opportunities to cooperate with you in the upcoming journey. CNG Vietnam is committed to always striving to bring added value to our Customers/Partners, together contributing to the development of the country and community.

Best regards,





6 I CNG Vietnam - Company Profile www.cngvietnam.com I 7

GENERAL INFORMATION

Transactionname

CÔNG TY CỔ PHẦN CNG VIỆT NAM

English name

CLEAN NATURAL GAS VIETNAM JOINT STOCK COMPANY

Abbreviation

CNG VIETNAM

Stock symbol

CNG

Stock exchange

HOSE

Logo



Slogan



Business Registration Certificate

No. 3500800828 issued by Department of Planning and Investment of Ba Ria -Vung Tau province for the first time on May 28, 2007 and last changed for the 14th time on June 27, 2022.

Charter capital

270,000,000,000 VND

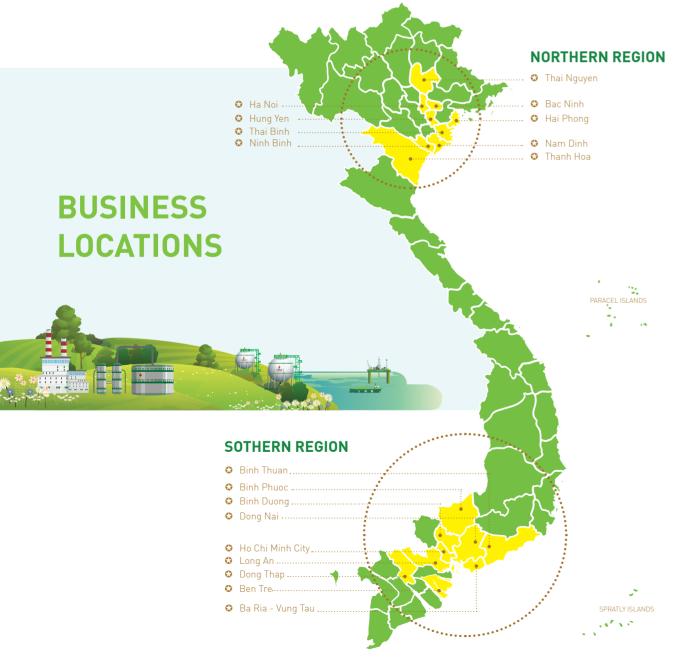
(Two hundred and seventy billion VND)



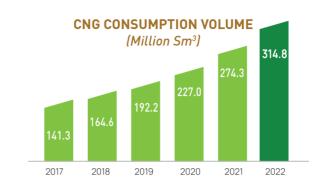
MAIN BUSINESS ACTIVITIES

Established in 2007, CNG Vietnam is a pioneer specializing in the production, transportation and distribution of compressed natural gas (CNG) to supply factories and industrial parks that use thermal energy in production, processing, and use as an alternative to petroleum in the transportation industry. CNG Vietnam continues its development journey towards providing CNG and LNG clean fuel package solutions to customers in the nationwide market

Need optimal energy solutions for production and transportation? Immediately contact CNG Vietnam for advice and assistance.



OUTSTANDING FIGURES







VISION - MISSION - CORE VALUES



Pioneer in transforming the clean fuel industry in Vietnam.



Popularizing clean energy, contributing to creating a green future, bringing sustainable values to the community and society.





WITH A HISTORY OF MORE THAN 15 YEARS OF OPERATION IN THE NATURAL GAS FIELD, WHICH REQUIRES STRICT TECHNICAL AND TECHNOLOGICAL REQUIREMENTS, CNG VIETNAM INSTILLS A SAFETY CULTURE THROUGHOUT ITS CHAIN OF OPERATIONS. THE SENIOR MANAGEMENT HAVE QUALIFICATIONS AND VISION FOR BUSINESS MANAGEMENT, EMPLOYEES ARE DYNAMIC, CREATIVE AND PROACTIVE, PROFESSIONAL IN THEIR WORK. THE COMPANY HAS ALSO CREATED A CORPORATE CULTURE TO GATHER THE COLLECTIVE STRENGTH OF SOLIDARITY TOWARDS A COMMON GOAL.

DEVELOPMENT MILESTONES

2007

ESTABLISHED WITH INITIAL CHARTER CAPITAL OF 19.2 billion VND

CNG Vietnam JSC (CNG VIETNAM) was established on 28/5/2007 under Investment Certificate No. 492032000040 issued by the IP Management Agency of in Ba Ria - Vung Tau Province with initial chartered capital of 19.2 billion VND.

2010

INCREASED CHARTERED CAPITAL TO

125 billion VND

CNG Vietnam increased chartered capital to 125 billion VND to improve financial strength.

Applied Safety - Quality - Environment management system which was certified by BSI.

2013

INCREASED CHARTERED CAPITAL TO

270 billion VND

CNG Vietnam increased the chartered capital to 270 billion VND and was honored to be awarded the Top 50 Fastest Growing Enterprises Award in Vietnam.

2015

Total consumption volume increased sharply to 94.3 million Sm³. The Company expanded and developed the market to the North. Central gas station in My Phuoc 3 IP officially operated.

2019

CNG CONSUMPTION VOLUME AMOUNTED TO 192.16 million Sm³

CNG consumption volume amounted to 192.16 million Sm³ and up 117% over the previous year

2021

TOTAL CNG CONSUMPTION VOLUME OF

274.31 million Sm³

Overcoming the difficult and challenging period in 2021, CNG Vietnam has well fulfilled its production and business targets with a total CNG consumption volume of 274.31 million Sm³, reaching 113% of the plan, an increase 20.8% over the previous year

2008

FIRST CNG FACTORY WITH CAPACITY OF

30 millionSm³/year

CNG Vietnam increased
Chartered capital to
67,200,000,000 VND with the
contribution of shareholders
such as: PetroVietnam Gas
Joint Stock Corporation
(PVGas), PetroVietnam Low
Pressure Gas Distribution
JSC (PVGas-D). First factory
of CNG Vietnam was located
in Phu My 1 IP, Tan Thanh
District, Ba Ria - Vung Tau
Province with an initial
capacity of 30 million Sm³.

2011

CONTINUED TO INCREASE CHARTERED CAPITAL TO

203.1 billion VND

The Company increased the chartered capital to 203.1 billion VND and listed its shares on Ho Chi Minh City Stock Exchange (HOSE), marking a new stage for the Company's development.

2014

The Company was honored to be awarded the 3rd Class Labor Medal and Certificate of Merit from the Prime Minister.

2017

CNG CONSUMPTION VOLUME REACHED

141.3 million Sm³

Celebrating 10 years of establishment. The number of customers increased sharply, CNG consumption volume reached 141.3 million Sm³, both revenue and profit exceeded 35-40% of the plan.

2020

The Company invested in buying a compressor station in Tien Hai,
Thai Binh with a compression capacity of 100 million Sm³/year.
Total CNG supply output reached 226.5 million Sm³, accounting for nearly 70% of the country's

2022

CNG CONSUMPTION VOLUME REACHED

314.8 million Sm³

The Company started construction of the first LNG supply station in Thuan Dao Industrial Park, Long An with a capacity of 100 m³, aiming to pioneer in mastering LNG technology, providing a CNG-LNG-LPG clean energy package solution in the national market.

14 I CNG Vietnam - Company Profile www.cngvietnam.com I 15





MOST EFFECTIVE VIETNAM'S COMPANIES IN 2012



FASTEST GROWTH ENTERPRISES
OF VIETNAM IN 2013



BEST ANNUAL REPORT IN 2011, 2012, 2015, 2016



CERTIFICATE OF MERIT
FROM THE PRIME MINISTER



CERTIFICATE OF MERIT FOR EXCELLENT EMULATION UNIT AWARDED BY THE PRIME

MINISTER IN 2011



CERTIFICATE OF MERIT FROM THE MINISTRY OF INDUSTRY AND TRADE



BEST ANNUAL REPORT IN 2013



BEST ANNUAL REPORT IN 2014



SUSTAINABLE DEVELOPMENT ENTERPRISES IN 2016, 2017, 2018



CERTIFICATE OF MERIT FROM VIETNAM NATIONAL OIL AND GAS GROUP FROM 2010 TO 2015



3RD CLASS LABOR MEDAL AND CERTIFICATE OF MERIT FROM THE PRIME MINISTER IN 2014



VIETNAM NATIONAL BRAND AWARD VIETNAM VALUE IN 2022



BEST ANNUAL REPORT FOR MID CAP COMPANIES IN 2018, 2019, 2020



SMALL & MICRO CAP COMPANIES WITH BEST IR PRACTICES IN 2021 - IR AWARDS



TOP 5 BEST ANNUAL REPORT FOR SMALL CAP COMPANIES IN 2021, 2022





Mr. Nguyen Thanh Trung
Chairman of
Ton Dong A Corporation

"Ton Dong A always gives priority to investing in modern and environmentally friendly equipment, which is why we choose to use CNG products and cooperate with CNG Vietnam. During more than 11 years together, CNG Vietnam has always been a reliable partner and we overcome many difficult periods of the market, volatile fuel prices, unstable world politics and economy. Ton Dong A will always accompany CNG Vietnam on the journey of creating a green future, bringing sustainable values to the community and society."



VIGLACERA FLOATING GLASS COMPANY CONVERTS TO USING 100% CLEAN FUEL (CNG)

To realize the Green industry goal of Viglacera Corporation - JSC, Viglacera Floating Glass Company (VIFG) has converted the fuel for burning glass furnaces from using 100% FO oil to using 100% CNG clean gas. This is a new step in the application of modern technology, continuing to realize Viglacera's goal of pioneering Green - Clean - Environmentally friendly technology in the field of building glass. CNG is a "green and clean" fuel that is preferred by advanced countries in the world and is widely used as an industrial fuel by the UK, Germany, France, USA, Russia and other countries around the world to ensure a green environment associated with sustainable development.

WHY CHOOSE CNG VIETNAM?

AFTER MORE THAN 15 YEARS
OF CONTINUOUS DEVELOPMENT,
CNG VIETNAM HAS A NATIONAL
STATURE, PROUD TO REALIZE
THE MISSION OF "POPULARIZING
CLEAN ENERGY, CONTRIBUTING
TO CREATING A GREEN FUTURE,
BRINGING SUSTAINABLE VALUES
FOR THE COMMUNITY – SOCIETY".

TOP EXPERTS TEAM

PROFESSIONAL PROCESS

ONE-STOP SERVICES

SUPERIOR PRODUCT

ABSOLUTE SAFETY

NATIONWIDE NETWORK

ONE-STOP SERVICES



Production - Distribution Producing filling and

Producing, filling and distributing CNG, LNG and LPG products.



Construction of gas works

Providing construction, installation, maintenance and repair services for gas works.



Equipment trading - leasing

Buying, selling and leasing of equipment for gas works.



Transportation services

Transportation services CNG, LNG and LPG transportation services.



Installation - Maintenance of equipment

Services of renovation, maintenance, repair and installation of conversion equipment for vehicles, machinery and equipment using CNG, LNG and LPG.



20 I CNG Vietnam - Company Profile www.cngvietnam.com I 21

CNG - NEW ERA OF CLEAN ENERGY

CNG AND ITS COMPOSITION

CNG (Compressed Natural Gas) is a natural gas with the main composition of CH4 - Methane (88%), colorless, odorless, non-toxic, extracted from natural gas fields or associated gas in the oil exploitation process, going through the treatment to remove impurities and heavy components, and then transported by pipeline to the compressor plant. At the compressor plant, the natural gas is compressed to a pressure of 200 - 250 barg to increase storage capacity, reduce transportation costs. At the consumption place, CNG is reduced to the required pressure (usually below 3 barg) by the PRU (Pressure Reducing Unit).

CNG when burned reduces emissions by up to 80% to the environment compared to other materials, almost no dust is generated, less greenhouse effect, safer in case of leakage.



- Methane (CH,) > 88%
- Ethane $(C_2H_6) > 4.5\%$
- Propane (C₃H₈) ~ 2%
 - Other substances < 5%



MAXIMUM PRESSURE

250 Barg



CALORIFIC VALUE

10,080 kcal/Sm³



DENSITY

0.78 kg/m³

(lighter than air 1.23 kg/m³)



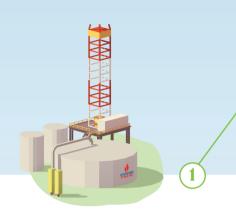
ODORLESS



NON - TOXIC



CNG PRODUCTION AND DISTRIBUTION PROCESS



GAS INLET

Natural gas is taken from the gas supply system of PetroVietnam Gas Corporation (PVGas) or the gas pipeline system of PVGas D, goes to the compressor station (Phu My compression station - Southeastern region; Tien Hai, Thai Binh compression station - Northern region) with the pressure of 22 barg. Gas flow is controlled by the inlet metering system.

2 COMPRESSOR

Gas is led into CNG compressor station and compressed from the pressure of 14-22 barg to 200-250 barg and refill the specialized tanks.

The compressors and control systems are designed in compliance with international standards and Vietnam's standards and regulations ensuring the safe conditions of operation and tested annually.

The compressor station in Phu My (Ba Ria - Vung Tau) has a capacity of 300 million Sm³/year and the compressor station in Tien Hai (Thai Binh) has a capacity of 110 million Sm³/year. The capacity of the compressor stations can be expanded to continuously meet the growing demand of customers.



TRANSPORTATION

After being compressed and filled into the specialized tanks (composite, steel) with the tank's volume is 18÷40m³/tank, CNG is transported to customer's sites. The tanks and trailers are complied with the strict regulations of dangerous and flammable goods transport.



PRU AT CUSTOMER'S SITE

The tank trucks take CNG to the customer's sites (PRU), then gas is taken from tank trucks with pressure of 200-250 barg (on trailer) going through PRU system, pressure is reduced by 2 stages (stage 1: pressure reduced to 60 barg, stage 2: pressure reduced to 2-7 barg) to supply customers upon request.

PRU system is designed and installed in compliance with international standards and Vietnam's standards and regulations, ensuring absolute safety.



FURNACE CONNECTION AT CUSTOMER'S SITE

From the PRU's outlet, the gas is piped to the customer's furnace system.



24 | CNG Vietnam - Company Profile www.cngvietnam.com | 25

LNG - GREEN ENERGY OF THE NEW ERA

LNG AND ITS COMPOSITION

Liquefied Natural Gas (LNG) is a hydrocarbon product in liquid form, derived from natural gas with the main composition of Methane (CH4), at normal gaseous temperature and pressure and When cooled to a certain temperature, it turns into a liquid.

Natural gas is liquefied by deep cooling to minus 162°C after removing impurities. LNG is colorless, odorless, non-toxic and non-corrosive, has a flame temperature of about 2,340°C and is lighter than air. The main ingredients are Methane (about 95%), Ethane, and small amounts of other gases.



LNG
COMPOSITION

- Methane (CH₄) ~94.3%
- Ethane (C₂H₆) ~4.2%
- Propane (C₃H₈) ~1%
- Other substances ~0.5%



MAXIMUM PRESSURE

05Barg



CALORIFIC VALUE

55 MJ/Kg



DENSITY

436 kg/m



TEMPERATURE

-162°C





NON - TOXIC

CLEAN INDUSTRY HAS BEEN CHANGING THE ENERGY INDUSTRY'S STRUCTURE QUITE RAPIDLY. STUDIES SHOW THAT LNG IS THE GAS WITH THE LEAST AMOUNT OF WASTE AFTER COMBUSTION, MOST OF WHICH IS CLEAN WASTE. LNG IS CONSIDERED AS AN ALTERNATIVE ENERGY SOURCE FOR PRESENT AND FUTURE GLOBALLY.

LNG DISTRIBUTION PROCESS

LNG SOURCE

LNG (Liquefied Natural Gas) is imported from countries with large reserves in the world by specialized LNG carriers.



LNG RECEPTION AND STORAGE

LNG carriers are received and pumped into the storage through the jetty installed with a specialized receiving system.



3

TRANSPORTATION

A diversified liquid tank system with capacity of $15,000~\text{Sm}^3$, $20,000~\text{Sm}^3$, $25,000~\text{Sm}^3$ and $30,000~\text{Sm}^3$ is the means of transporting LNG to the customer's factory.

RE-GAS AT THE CUSTOMER'S FACTORY

Depending on the demand, customers can install a re-gas system including LNG tank and re-gas equipment with working pressure of about 8 barg to bring LNG to natural gas supplied to customer's factory.







FURNACE CONNECTION AT CUSTOMER'S SITE

From the re-gas system with an output pressure of approximately 8 barg, the gas is depressurized as required and piped into the gas combustion chambers.







ADVANTAGES OF CNG/LNG



		CALORIFIC VALUE	.	
Fuel	Unit	KCal	вти	mmBTU
LPG	Kg	11,823	46,917	0.046917
DO	Kg	10,835	42,997	0.042997
F0	Kg	9,800	38,890	0.038890
CNG	Sm³	10,080	40,001	0.040001
LNG	Kg	13,114	52,042	0.05204

FUEL CONVERSION								
Base fuel	Unit	CNG (Sm³)	LPG (Kg)	D0 (Kg)	FO (Kg)			
CNG	Sm³	1	0.85259	0.93032	1.02857			
LPG	Kg	1.1729	1	1.09117	1.2064			
DO	Kg	1.0749	0.91645	1	1.10561			
FO	Kg	0.97223	0.82891	0.90448	1			
LNG	Kg	1.30099	1.10919	1.21034	1.33816			

1.5,

Notes:

- ★ BTU (British Therm
 Unit): British calorific
 value unit
- Sm³ (Standard cubic metre):
 1 m³ CNG at standard conditions (temperature 15oC, pressure 1 at)
- k mmBTU: One million BTU
- ★ 1kcal = 3.968321 BTU

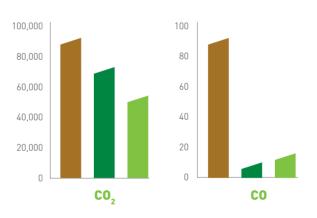


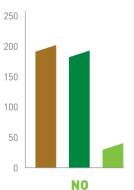
(Kg emission/Million BTU)

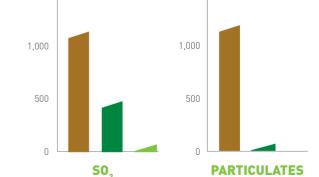
Coal

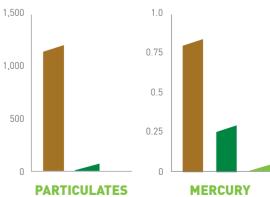
Oil

Natural gas









Source: U.S. Energy Information Administration

CONVERSION

CNG/LNG STATION INSTALLATION PROCESS





- ★ Locate the station site
- ★ Determine the scale and area of the site: equipment installation site (For CNG station including: PRU, Mixer, CNG tanks; For LNG station including: LNG tanks, re-gas, heating and pressurization)
- ★ Topographic and geological survey
- ★ Electrical and water, lightning protection system survey...

2 CONSTRUCTION DRAWING DESIGN



Provide cad file and discuss with customers on design records, coordinate with customers to set up the approved schedule related to the application for construction permit, approval of fire prevention and fighting system...

3

WORK SCHEDULE



Construction, installation, inspection and necessary legal procedures.

SITE CONSTRUCTION FOR CNG/LNG STATIONS



Construction of foundations (to withstand 50 tons of load); fence, roof, power and water system.

(5)

INSTALLATION OF EQUIPMENT FOR CNG/LNG STATIONS

Installation of PRU/LNG tank, gas pipeline; pressure test; gas supply equipment inspection records.

ACCEPTANCE AND HANDOVER TO PUT INTO OPERATION

CUSTOMERS NEED TO DO

Construct CNG/ LNG station site within the factory area



- ★ Determine the location of CNG/LNG station area as designed
- ★ Build the foundation suitable for CNG/LNG tank truck
- ★ Construct wall/fence/roof for CNG / LNG station area
- ★ Make grounding/lightning protection system

Connection from the station to combustion system



- ★ Construct the gas pipeline from the station to production area
- ★ Replace the burner to suit CNG/LNG

Other procedures



- ★ Apply for a fire prevention license
- ★ Coordinate to operate the system with the gas supplier



34 I CNG Vietnam - Company Profile www.cngvietnam.com I 35

SAFETY - QUALITY - ENVIRONMENT MANAGEMENT SYSTEM

SAFETY - QUALITY - ENVIRONMENT MANAGEMENT SYSTEM

ISO 45001:2018 (SAFETY)

Identify safety and health risks to workers and put in place control measures to ensure their safety and health, and minimize property damage while complying with occupational health and safety regulations.

OBJECTIVES

ISO 14001:2015 **(ENVIRONMENT)**

Identify environmental hazards in the production and business processes, and put in place control measures to minimize environmental impacts while complying with the laws on environmental protection.

ISO 9001:2015 (QUALITY)

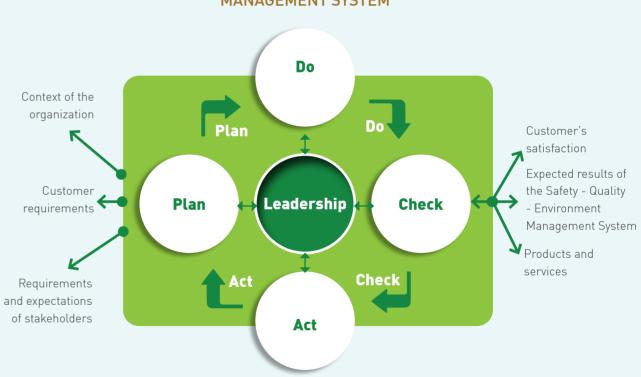
Establish CNG Vietnam's operating processes, and control operations through performance measurement indicators, implement continuous improvement to improve the quality of products and services for customers.

STRUCTURAL MODEL

ISO 45001:2018, ISO 9001:2015 and ISO 14001:2015 standards in CNG Vietnam's Safety - Quality - Environment Management System are built based on the PDCA (Plan-Do-Check-Act) general structural model.

PLAN - DO - CHECK - ACT MODEL

SAFETY - QUALITY - ENVIRONMENT MANAGEMENT SYSTEM





COMMUNITY ACTIVITIES – SUSTAINABLE DEVELOPMENT

With the main products are none other than clean energy, CNG Vietnam is a pioneer in the cause of greening fuel in Vietnam. More than anyone else, CNG Vietnam is aware of its strategy of integrating sustainable development goals in its production and business activities. In addition to promoting the transformation of clean energy, CNG Vietnam is constantly interested in sustainable development through many social and community welfare programs.









"SPRING LOVE", "BRINGING LOVE TO POOR CHILDREN IN THE HIGHLANDS"

The journey of spreading love continues to bring the human values of CNG Vietnam closer to those living in difficult circumstances across the country, in order to energize life and cultivate better changes.





COMMUNITY ACTIVITIES – SUSTAINABLE DEVELOPMENT

"STRENGTHEN TO SCHOOL"

This program has become a meaningful annual activity, bringing great and timely encouragement to students before each new school year. The program not only awards scholarships and gifts to students with difficult circumstances, CNG Vietnam wishes to contribute a small part to instill the spirit of curiosity and cultivate knowledge for the young generation.











In addition, CNG Vietnam also actively participates in many other philanthropic activities such as building houses of gratitude, supporting flood victims, war veterans, poor women... young generation, comradeship funds...

Through social and welfare activities, CNG Vietnam wishes to spread more and more love and fresh energy, contributing to better living values for the community.



CLEAN NATURAL GAS VIETNAM JOINT STOCK COMPANY

HEADQUARTERS

Address: No. 475 Nguyen An Ninh Street, Ward 9, Vung Tau City, Ba Ria - Vung Tau Province

Telephone: (84) 254 3574 635 / 0901 475 475

Fax: (84) 254 3574 619

PHU MY BRANCH

Address: Road No. 15, Phu My 1 Industrial Park, Phu My Ward, Phu My Town, Ba Ria - Vung Tau Province

Telephone: (84) 254 3923 928

Fax: (84) 254 3923 929

NORTHERN BRANCH

Address: 21st Floor, CEO Building, Lot HH2-1, Pham Hung Street, Me Tri Ward, Nam Tu Liem District, Hanoi

Telephone: (84) 246 2520 777

Fax: (84) 246 2560 777



Email: info@cngvietnam.com Website: www.cngvietnam.com