



RAJA RAFA SAMUDRA I RAJA GAS SAMUDRA I RAJA GAS KHARISMA I GREEN-TRANS INDONESIA



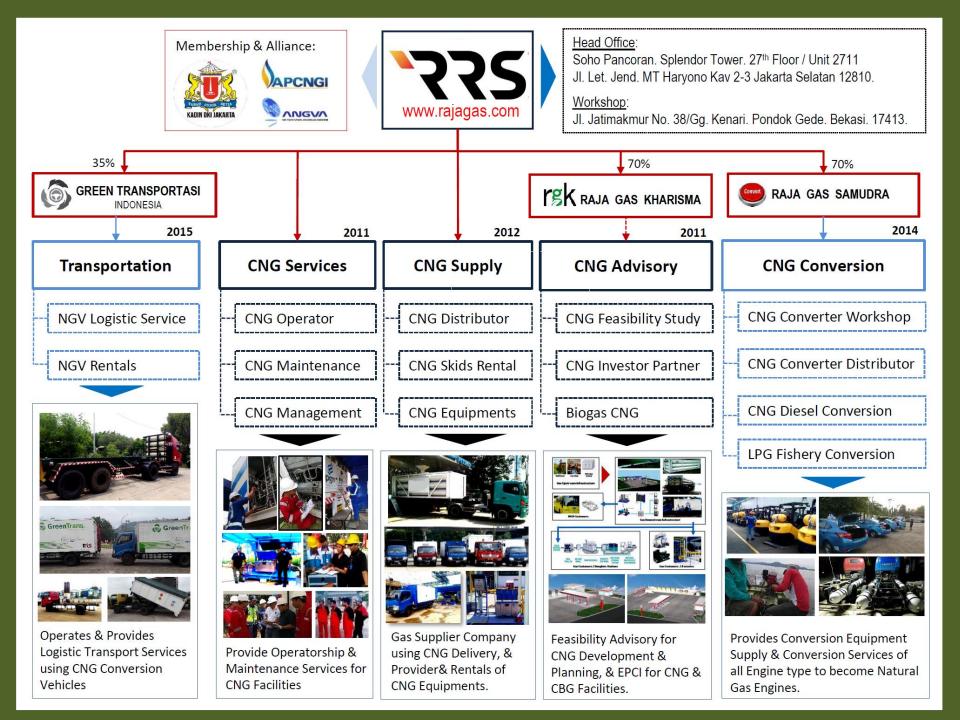
RRS GROUP BUSINESS PROFILE IN PROVIDING & UTILIZING NATURAL GAS FOR THE INDUSTRIAL & TRANSPORTATION NEEDS THROUGH OUT INDONESIA



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OUR OVERALL BUSINESS UNITS



PT. RAJA RAFA SAMUDRA

RRS GROUP BUSINESS OPERATION



PT. RRS BUSINESS UNIT FOR OPERATION & MAINTAINANCE (OM) SERVICES

CNG FACILITY OPERATORSHIP & SERVICES UNIT

Our early start of the CNG business was initially started as a company providing professionally trained manpower to operate and maintain CNG Infrastructures like CNG Stations, Mobile Refueling Units, Daughter Stations, and CNG transporting.

CNG Services

CNG Operator

CNG Maintenance

CNG Transporter

- CNG Development, Manpower Services & Maintenance, CNG Sales Marketing for PT.
 Indogas Kriya Dwiguna CNG MS Kalidawir, Sidoarjo, Jawa Timur (2009 2011),
- Manpower Services Contract untuk PT. T Energi SPBBG Pinang Ranti (2011 2015), and distribution CNG agent for PT. Petross Gas – CNG Station Perintis Kemerdekaan & Rawa Buaya (2011-2015),
- Manpower Services & Maintenance Contract untuk PT. Gagas Energi Indonesia for 4 CNG Station, 2 MRU, & 2 PRS in Jabodetabek (2014 – 2016),
- Manpower Services Contract untuk PT. Pertagas Niaga for 7 MRU in Jaboetabek
 (2015 Today)
- CNG Transporter for PT. Pertagas Niaga & PT. Gagas Energi Indonesia (2016 Today)























PT. RRS BUSINESS UNIT ON SUPPLYING GAS USING CNG TECHNOLOGY (VIRTUAL PIPELINE)

SUPPLYING GAS USING CNG

Compressed Natural Gas or popularly known as "CNG" is made from compressing natural gas which is a clean energy fuel consisting primary of methane (CH4) that can <u>substitute</u> other energy fuel like gasoline (petrol), diesel fuel, and even petroleum gas (LPG).

FUEL TYPE	UNITS	HEATING VALUE	
		BTU / UNIT	KCAL / UNIT
KEROSENE	Liter	35,079	8,840
GASOLINE	Liter	33,000	8,316
HSD	Liter	35,964	9,063
MFO	Liter	36,786	9,270
HFO	Liter	38,754	9,766
LPG	Kg	44,524	11,220
NG / CNG	m3	37,073	8,986

Although Indonesia is known for its abundant supply of

natural gas, the sources are not located nearby the area where the demand is needed. Hence, natural gas are to be delivered to the end users through 3 (three) medium forms of distribution, which are through pipeline gas (NG), and using a "virtual pipeline" way through Liquefied Natural Gas (LNG), and Compressed Natural Gas (CNG).

The premise of the virtual pipeline is that natural gas can be economically handled and transported effectively to any locations where a heavy duty vehicle can go. Such virtual pipeline technologies commonly used are CNG and LNG (see picture 3). While CNG is most effective being used for transporting Natural Gas in a smaller volume production below 5 mmscfd, LNG, on the other hand, being better effective for longer distance travel transport and a greater scale of volume production exceeding 10 mmscfd.

CNG itself is made by compressing the natural gas in a gas compressing facility called CNG Filling Station, which consist of several machinery equipments and piping installation, and then filled in to a hard specialized containers called cylinders tank at an average pressure of 200 - 250 kg/m2 (bar). The CNG filled to cylinder tank can either be filled directly for automotive fuel consumption or can be filled as storage to be then delivered through trucking fleets.

The supply of natural gas using CNG basically is categorized as the <u>Down-Stream</u> business of the overall Natural Gas industry.

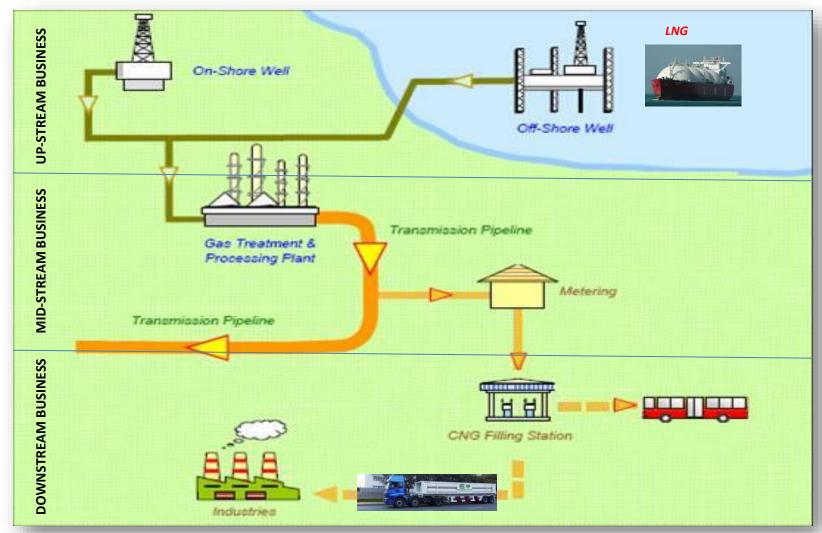
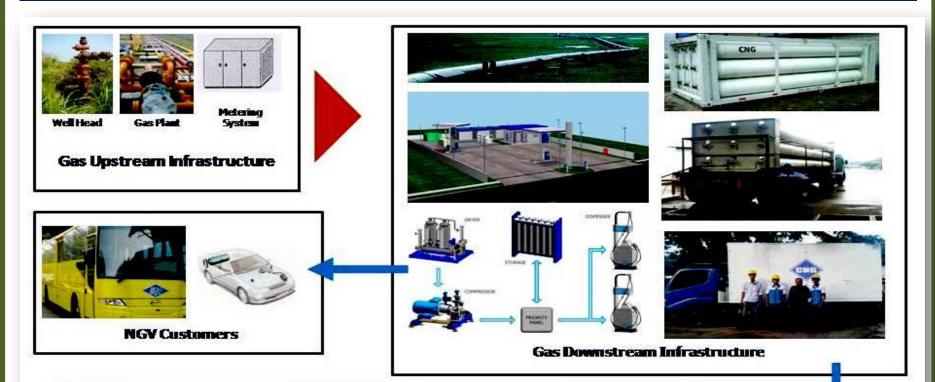
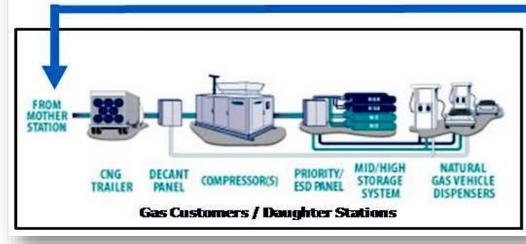


DIAGRAM FLOW OF NATURAL GAS TO CNG TO END USER







OUR CNG SUPPLY BUSINESS UNIT

CNG Supply

CNG Distributor

CNG Skids Rental

CNG Equipments

- Virtual Pipeline supply to manufacturing plant, shopping mall, apartment complex, and NGV clients.
- Provide rental for CNG Cascade Storage size of 10 ft, dan 5 ft (armroll type), and cradle storage.
- Provide Pressure Reduction System or PRS capacity 100 m3/jam 400 m3/jam.
- Had and are currently supplying more than 25 Customers from factories,
 Shopping Malls, and Hotels for CNG in Jabodetabek, Bandung, Balikpapan, and Pekanbaru.

















DIFFERENT CNG SKIDS SIZE & VOLUME





















CNG SKIDS WITH PRS FILLING AT CUSTOMER



















PT. RRS BUSINESS UNIT ON CONVERSION THROUGH COLLABORATION WITH ITS SISTER COMPANY PT. RAJA GAS SAMUDRA ("RGS")

CNG CONVERSION UNIT

CNG Conversion

CNG Converter Workshop

CNG Converter Distributor

CNG Dedicated System

ConversionSystem

Product CNG **System Certificate** Bigas, Tiger Automotive, RajaGas, Gas Italy, others

: CNG Gasoline Kit Approval from Directorate General of Leading Industry Based on High Technology, Department of Industry, Indonesia, LPG Kit is certified SNI EN 12806: 2018, Mono Conversion System the from Directorate Land Transport, Department of

Transportation.

CNG Workshop & Installer Certificate

Engineer Team

Standard Use

: Certified Workshop Installer of CNG Conversion from the Directorate General of Land Transportation, **Department of Transportation, Indonesia.**

: Tiger Automotive & Raja Gas Samudra

: ISO 15500, ISO 15501, ISO 14469, ECE R110, ECER67

















AUTHORIZED CNG CONVERSION CERTIFICATE





KEMENTERIAN PERHUBUNGAN DIREKTORAT JENDERAL PERHUBUNGAN DARAT

GEDUNG KARYA JL. MERDEKA BARAT NO. 8 JAKARTA 10110 TELP. (021) 3506138, 3506129, 3506145, 3506143, 3862220

email :

: (021) 3507202, 3506129, 3506145, 3506143, 3862179 hubdat@hubdat.web.id www.hubdat.web.id

SERTIFIKAT BENGKEL INSTALASI SISTEM PEMAKAIAN BAHAN BAKAR GAS PADA KENDARAAN BERMOTOR

NOMOR: SK.6406/AJ.601/DRJD/2015

Direktur Jenderal Perhubungan Darat dengan ini menetapkan :

Nama Perusahaan

: PT. RAJA RAFA SAMUDRA

Alamat Kantor

: Cassa Verde Building, Lantai 3. Jl. Mampang

Prapatan Raya No. 17 K, Mampang, Jakarta Selatan

- DKI Jakarta.

Alamat Bengkel

: Jl. Jatimakmur gg. Kenari No. 38 RT 002/005

Kelurahan Jatimakmur Kec. Pondokgede Kota

Bekasi - Jawa Barat.

Penanggung Jawab

: Robby Renaldi Sukardi

Sebagai Bengkel Instalasi Sistem Pemakaian Bahan Bakar Gas Pada Kendaraan

Bermotor.

Masa Berlaku

: 2 (dua) tahun sejak tanggal ditetapkan.

akarta,21 Oktober 2015

DIREKTUR JENDERAL PERHUBUNGAN DARAT

D. II DJOKO SASONO, M.Sc Pembina Utama Madya (IV /d) NIP 19630925 199003 1 003

CNG CONVERSION BUSINESS PARTNERSHIP

TIGER AUTOMOTIVE



RAJA GAS SAMUDRA

- The Company that provide diesel to CNG installation conversion, automotive engineering design for CNG application, CNG Truck maintenance and CNG services.
- With 11 years of experience the company had converted more than 4.000 units diesel trucks in both Thailand and Indonesia,
- Holds partnership with B Quality Co. Ltd, as a company that provides Bi-Fuel systems equipments.
- Holds an exclusive distributor from Cavagna Group, which is a world leading Company from Italy that manufacturers equipment and components for controlling compressed gases (energy gases, alternative fuel gases, medical gases, industrial gases, and specialty and cryogenic gases), for the South East Asia market.
- Became the consultant of two Taxi group, Toyota dealer and Nissan dealer since 2013.
- On 2014, we establish the logistic department and operating with CNG 100%.

- Sister Company of PT. Raja Rafa Shakira, which is on of the prominent One-Stop CNG Provider & Services Company in Indonesia.
- The Company provides CNG conversion services for Bi-Fuel, Diesel Dual Fuel, and Mono or Dedicated CNG conversion.
- The Company also provides LPG conversion services for the Fishery & Agricultural engines.
- The Company holds an exclusive distributor alliance from a CNG Automotive Manufacturing Company head quartered in Italy.
- The Company holds an exclusive partnership with PT. Green Transportasi Indonesia (Green-Trans), which is the first logistic company using all CNG fuel trucks.
- Since its establishment, it has converted 3150 Medium Size Gasoline Vehicles to NGV, 65 units Diesel Fueled Medium-Size & Heavy-Duty Trucks to NGV, and 288 small Gasoline Fisherman Boats to LPG Fuel in Indonesia

TIGER AUTOMOTIVE – RAJA GAS SAMUDRA





















































TIGER AUTOMOTIVE – RAJA GAS SAMUDRA



PEMASANGAN TAKSI BLUE BIRD - SUTOYO



PEMASANGAN KEND, DINAS PEMDA DKI



PEMASANGAN KEND, DINAS LEMIGAS



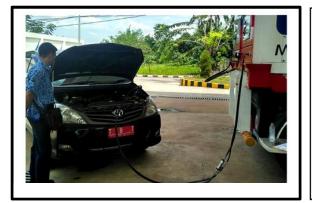
PEMASANGAN TAKSI BLUE BIRD - SPBBG CILILTAN



PEMASANGAN KEND, DINAS BALIKPAPAN



PEMASANGAN TAKSI PUTRA - SPBBG CILILTAN







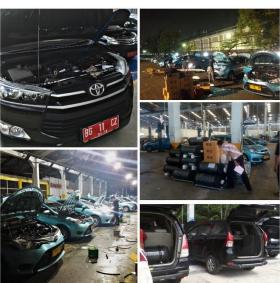
CNG BIFUEL SYSTEM CONVERSION













DIESEL GENSET TO GAS CONVERSION













This Foto picture is the property of PSI & RGS

RRS LPG CONVERSION SYSTEM

Aside that PT. RRS conversion activities involve in CNG, our Company also owns an exclusive Distributorship on LPG Conversion Kit from Autogas Italy. Our LPG Conversion kit is very suitable to be use on small scale petrol engine with capacity under 25 HP, as such used in many fishery boats and agricultural equipments in Indonesia to be converted from petrol to LPG fuel.

Our LPG Conversion kit has been tested and approved by PT. Honda Power Products Indonesia, as the sole distributor company appointed by the Japanese automaker Honda Motor Co., Ltd.; thus, have led PT. RRS also to be officially granted to market and distribute the Honda LPG Converted equipments, as well as the after sale services.

PT. RRS in 2018 had collaboration sales & distribution agreement with PT. TANIKAYA MULTI SARANA as one of the leading supply company for the agricultural products in Indonesia.

Our Conversion kit are not only international certified by the ECE UN R67e, but also has an SNI EN 12806:2015 approved.







SOLE DISTRIBUTORSHIP & SNI CERTIFICATION











PT. RRS BUSINESS UNIT ON LOGISTIC TRANPORT COLLOBORATION WITH PT. GREEN TRANS INDONESIA ("GREEN-TRANS")

THE FIRST LOGISTIC COMPANY USING CNG FUEL

Delivering Goods in an Environmentally Cleaner Way

















OUR NGV LOGISTIC FLEETS











PT. RRS BUSINESS UNIT ON ADVISORY, EPC, AND BIOMETHANE DEVELOPMENT IN COLLOBORATION WITH PT. RAJA GAS KHARISMA

CNG DEVELOPMENT ADVISORY & DEVELOPMENT

CNG Advisory

CNG Feasibility Study

CNG EPC & PM

CNG Investor Partner

- EPC & PM for PT. Indogas Kriya Dwiguna (*CNG MS Kalidawir, Sidoarjo , 2009-2011*), CNG Market Development Advisory for PT. Petross Gas (2013-2014),
- CNG Infrastructure (Mother Daughter Concept) Technical Economical Feasibility Stutdy work & Front End Engineering Design for PT. Golden Energy Mines, Tbk (2013),
- Advisory for Sinarmas Mining Group on the CNG Conversion work for the Company hauling truck in Sumatra (2013 - 2014).
- EPCI Biogas Gas, Upgrading, CBG, CBG Delivery, and Conversion of 51 Genset 7 Unit Trucks for PT. Dharma Satya Nusantara, Tbk in 2019.

















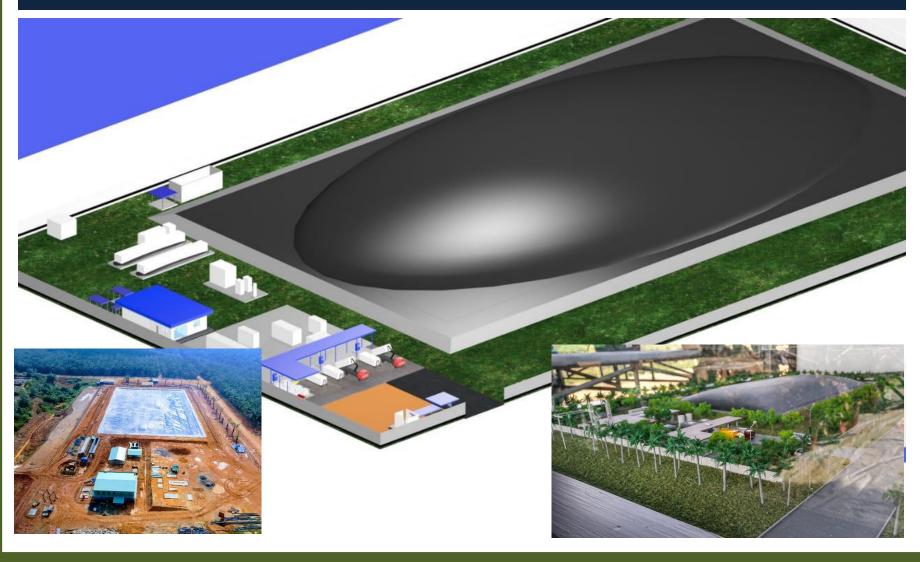




BIOGAS & COMPRESSED BIOMETHANE GAS UNIT

COMPRESSED BIOMETHANE BIOMETHANE PRODUCTION GAS SOURCE FROM **BIO GAS FACILITY** CNG FILLING STATION FACILITY **BIO GAS UPGRADING** CROPS / PLANTATION & STORAGE **FACILITY** STORAGE SYSTEMS CBG CBG COMPRESSOR COMPRESSOR FILL POST DISPENSERS **CBG TRANSPORT** Factories, Housing, Equipments **CNG Reduction System** Transport to External 2 h 36 mil

THE FIRST BIOGAS, POWER GENERATION, BIOGAS UPGRADING, COMPRESSED BIOMETHANE GAS (CBG), CBG DISTRIBUTION, & CONVERSION PROJECT IN INDONESIA



OTHER COPORATE INFORMATION

OUR GROUP WORK PROJECTS AND CLIENTS

- PT. Energi Trans Nusa (Consultant)
- PT. Duta Nugraha Pratama (CNG Trading)
- PT. Indogas Kriya Dwiguna (Consultant)
- PT. Mentari Fajar Gemilang (CNG Trading & Support)
- PT. Petross Gas (Business Consultant & Equipment Supply)
- PT. Aksara Andalan Prima (CNG Delivery)
- PT. T Energy (Operation & Business Consultant)
- PT. Sari Enesis Indah (CNG Supply)
- PT. Charoen Pokphand (CNG Supply)
- PT. Toyobo Knitting Indonesia (CNG Supply)
- PT. Astra Daihatsu Motor (CNG Supply)
- PT. Karawang Food Lestari (CNG Supply)
- PT. Golden Energy Mines, Tbk / Sinarmas Mining (CNG Advisory & FS)
- PT. Bumi Anugerah Semesta (CNG FEED & Tender Documents)
- PT. Citra Alam Jaya (Gas Advisory)
- PT. Gamma TVS Bajaj (CNG Delivery Support)
- Living World Mall Serpong (CNG Supply)
- PT. Gagas Energi Indonesia (CNG Station Operation & Maintenance)
- PT. Unilever Indonesia (Logistic Contract)
- PT. Kino Indonesia (Logistic Contract)

- Dadap City Mall Cengkareng (CNG Supply)
- PT. Green Transportasi Indonesia (CNG Conversion)
- PT. Pertagas Niaga (7 units of MRU Operations)
- PT. Kalbio Farma (CNG Supply)
- PT. Pertagas Niaga / RSPP (CNG Delivery)
- Hotel Amaris Harmoni (CNG Supply)
- Paskal Mall, Bandung (CNG Supply)
- Living World Pekanbaru (CNG Delivery)
- Living Plaza & Balikpapan Plaza (CNG Delivery)
- Swiss Bellin Hotel Balikpapan (CNG Delivery)
- Supermall Karawaci (CNG Delivery)
- PT. Pertamina cq. Ditjen Migas award winner for 1.000 units Conversion for Automotive Vehicle 2016 State Budget (CNG Conversion)
- Mall Belatera Kelapa Gading (CNG Supply)
- PT. Pertamina cq. Ditjen Migas award winner for 1.500 units Conversion for Automotive Vehicle 2017 State Budget (CNG Conversion)
- Awarded by PT. Dharma Satya Nusantara, Tbk on the Development of Infrastructure Facilities on Biogas Capturing, Upgrading Biogas, Power Supply, Compressed Biomethane, and the Distributing Compressed Biomethane, and conversion equipment Muara Wahau, Kalimantan Timur.
- PT. Loreal Indonesia (Logistic Contract)







PARTICIPATION IN NGV EVENTS



































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