



LIYU GAS POWER PRESENTATION

EXCELLENT PERFORMANCE

STABLE AND RELIABLE

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PART 01

ABOUT LIYU

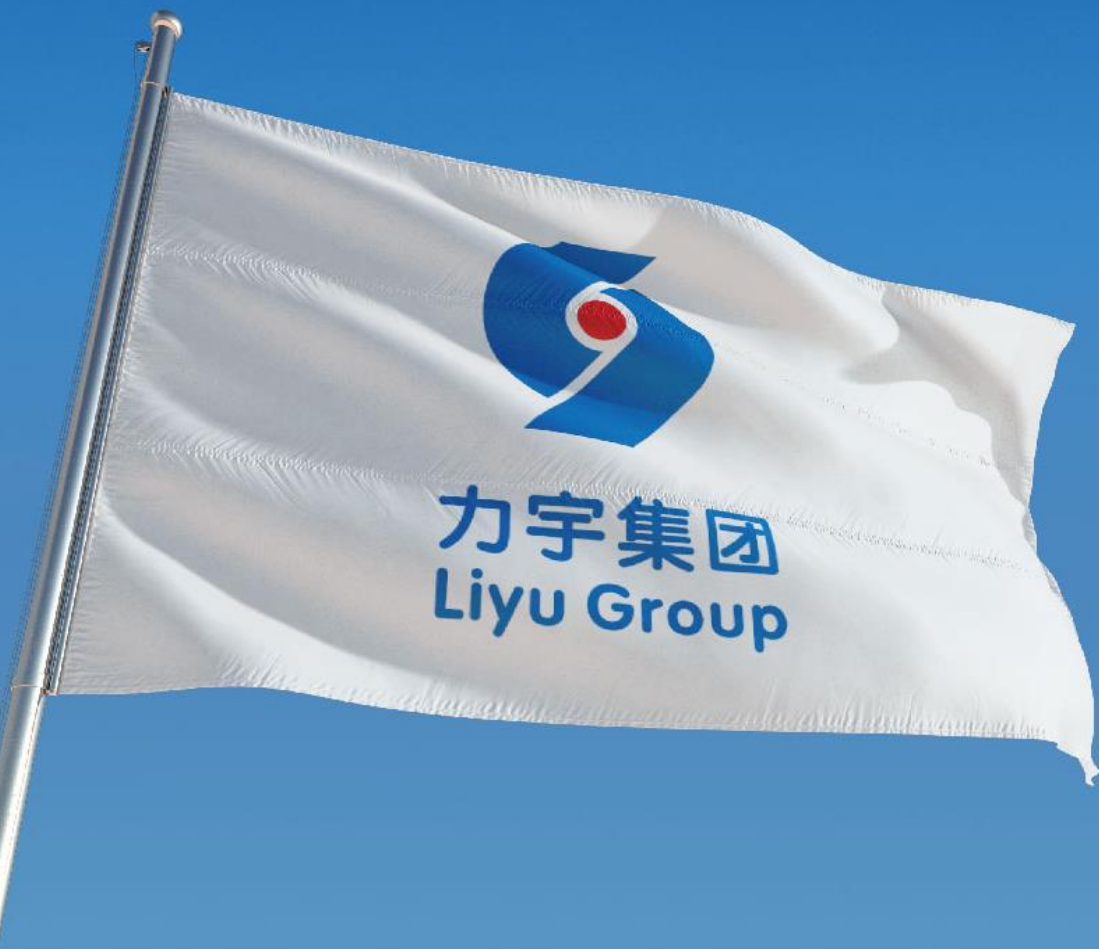


ABOUT LIYU – BASIC INFO

GROUP HEADQUARTERS:
CHANGSHA, HUNAN PROVINCE, CHINA

FOUNDED IN 1994, IT HAS ACCUMULATED **29** YEARS
OF EXPERIENCE IN ENERGY UTILIZATION

WE HAVE **5** MAJOR INDUSTRIAL BASES IN **BEIJING,**
HUNAN, SHANXI, GUANGDONG, AND INNER
MONGOLIA. WE HAVE A SOUND INDUSTRIAL SUPPLY
CHAIN, A SERVICE NETWORK COVERING THE WHOLE
COUNTRY, AND SERVICE GUARANTEES THROUGHOUT
THE LIFE CYCLE.



ABOUT LIYU - MILESTONES



1994

ESTABLISHED LIYU ELECTROMECHANICAL, SPECIALIZING IN THE SALES AND SUPPORTING SERVICES OF IMPORTED BRAND HEAVY OIL UNITS

2004

INVESTED IN THE CONSTRUCTION OF A 40,000-SQUARE-METER GENERATOR INDUSTRIAL BASE TO ENTER THE FIELD OF GAS-FIRED POWER GENERATION.

2009

INVESTED IN THE CONSTRUCTION OF A 130,000-SQUARE-METER PRODUCTION BASE FOR THE ENTIRE INDUSTRIAL CHAIN OF GAS-FIRED INTERNAL COMBUSTION ENGINES IN CHANGSHA

2012

FORM A BUSINESS LAYOUT OF THE WHOLE INDUSTRIAL CHAIN BASED ON GAS ENGINE R&D, MANUFACTURING, SYSTEM INTEGRATION AND POWER STATION OPERATION

2015

THE 1MW ENGINE WAS SUCCESSFULLY ROLLED OFF THE PRODUCTION LINE AND PUT INTO MASS PRODUCTION.

NOW

THE TOTAL INSTALLED CAPACITY OF PROJECTS IN OPERATION AND UNDER CONSTRUCTION WILL EXCEED 1,000MW.



ABOUT LIYU

GROUP INDUSTRIAL CHAIN LAYOUT



POWER STATION
INVESTMENT AND
MANAGEMENT



PROJECT DESIGN
R&D &
MANUFACTURING
SYSTEM INTEGRATION
TECHNICAL SUPPORT
AND TRAINING



— PROJECT
EXECUTION AND
OPERATIONS
MANAGEMENT



— CBM OPERATION
BASE



— INDUSTRIAL GAS
OPERATION BASE

HEADQUARTERED IN DONGGUAN CITY, GUANGDONG PROVINCE, IT HAS ESTABLISHED FIVE MAJOR INDUSTRIAL BASES IN GUANGDONG, HUNAN, SHANXI, INNER MONGOLIA AND BEIJING BASED ON THIS, COVERING A TOTAL AREA OF MORE THAN 350,000 SQUARE METERS, AND HAS DESIGN FEASIBILITY PLANNING, EQUIPMENT MANUFACTURING AND SUPPLY, PROJECT IMPLEMENTATION, AN INTEGRATED SYSTEM ENERGY SOLUTION PROVIDER FOR POWER STATION OPERATION MANAGEMENT AND AFTER-SALES SERVICE CAPABILITIES.

ABOUT LIYU - HONORS





PART 02

PRODUCTS



NEWLY UPGRADED GENSET

THE ELECTRICAL EFFICIENCY HAS BEEN FULLY IMPROVED TO **41.6%**

LY1200 SERIES

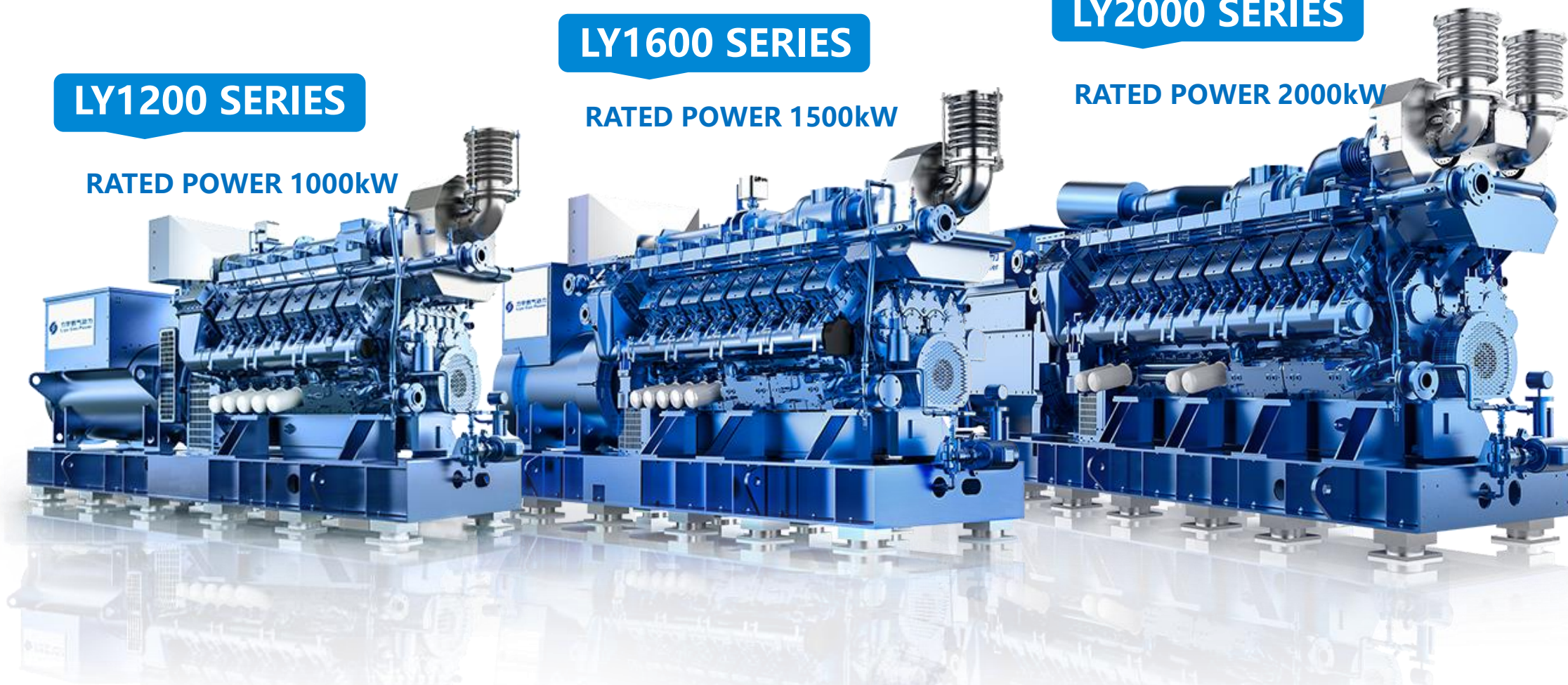
RATED POWER 1000kW

LY1600 SERIES

RATED POWER 1500kW

LY2000 SERIES

RATED POWER 2000kW



CORE FEATURES (COVERAGE 900KW-2000KW)



HIGH EFFICIENCY

ELECTRICAL EFFICIENCY IS ABOVE 41.6%,
TOTAL EFFICIENCY IS ABOVE 87%



LOW EMISSION

$\text{NOX} \leq 500 \text{MG/NM}^3$ (2G/KWH)



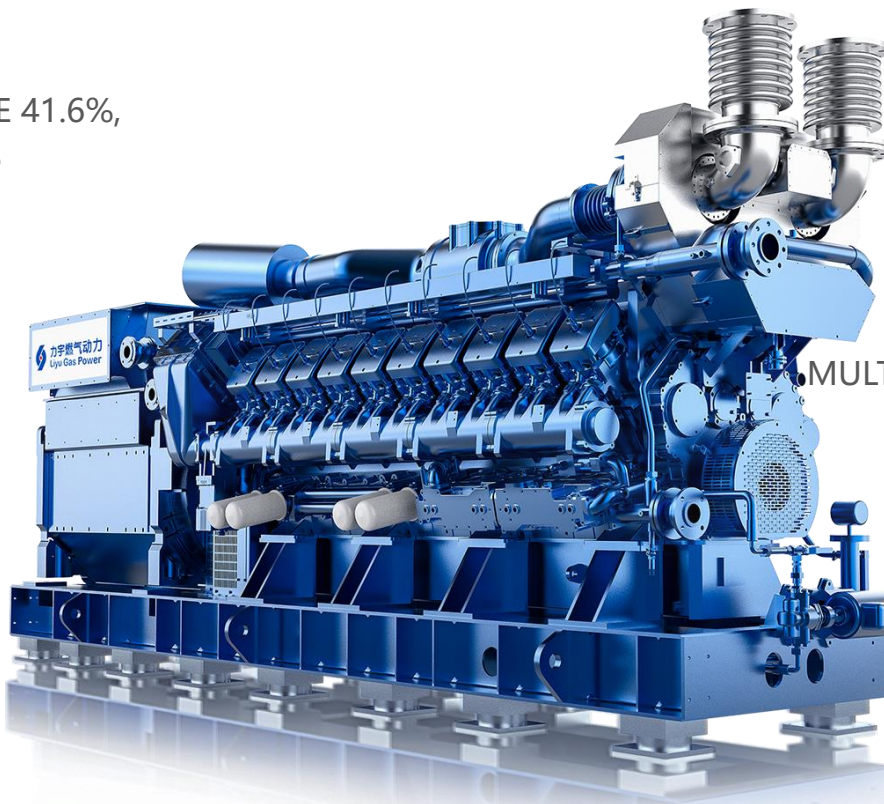
HIGH RELIABILITY

OVERHAUL 48000 Hr,
YEARLY RUNNING TIME 8000 Hr



LOW LUBE OIL CONSUMPTION

LUBE OIL CONSUMPTION $\leq 0.2 \text{g/Kwh}$



EASY MAINTENANCE

PROFESSIONAL MAINTENANCE
SUFFICIENT SPARE PARTS
COMPLETE SERVICE SYSTEM



HIGH SECURITY

MULTI-STAGE FIRE-PROOF AND EXPLOSION-
PROOF DESIGN ADVANCED KNOCK
CONTROL TECHNOLOGY



COMPACT STRUCTURE

SMALL SIZE AND LIGHT WEIGHT
THE LEADING POWER UNIT
OF THE SAME TYPE



WIDE RANGE OF APPLICATIONS

WIDELY USED IN NATURAL GAS
PETROLEUM ASSOCIATED GAS/BIOGAS
BIOMASS GAS/LANDFILL GAS
INDUSTRIAL EXHAUST GAS



CORE FEATURES (TOP CONFIGURATION)

MULTI-STAGE FIRE RETARDANT ANTI-KNOCK DEVICE AND INTERNATIONAL ADVANCED PRE-MIXING METHOD

THE CORE MOVING PARTS ARE IMPORTED
(MAIN BEARING BUSH, CONNECTING ROD BUSH, VALVE, VALVE SEAT RING, VALVE GUIDE AND OTHER MOVING PARTS)

STAMFORD
LEROY
SOMER

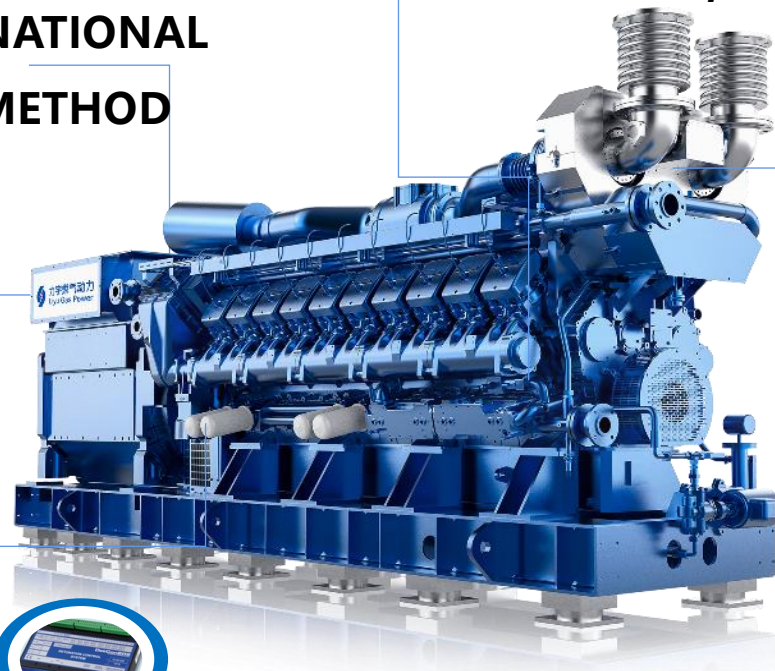
ABB

PROFESSIONAL GAS ENGINE BODY
(NOT DIESEL ENGINE)

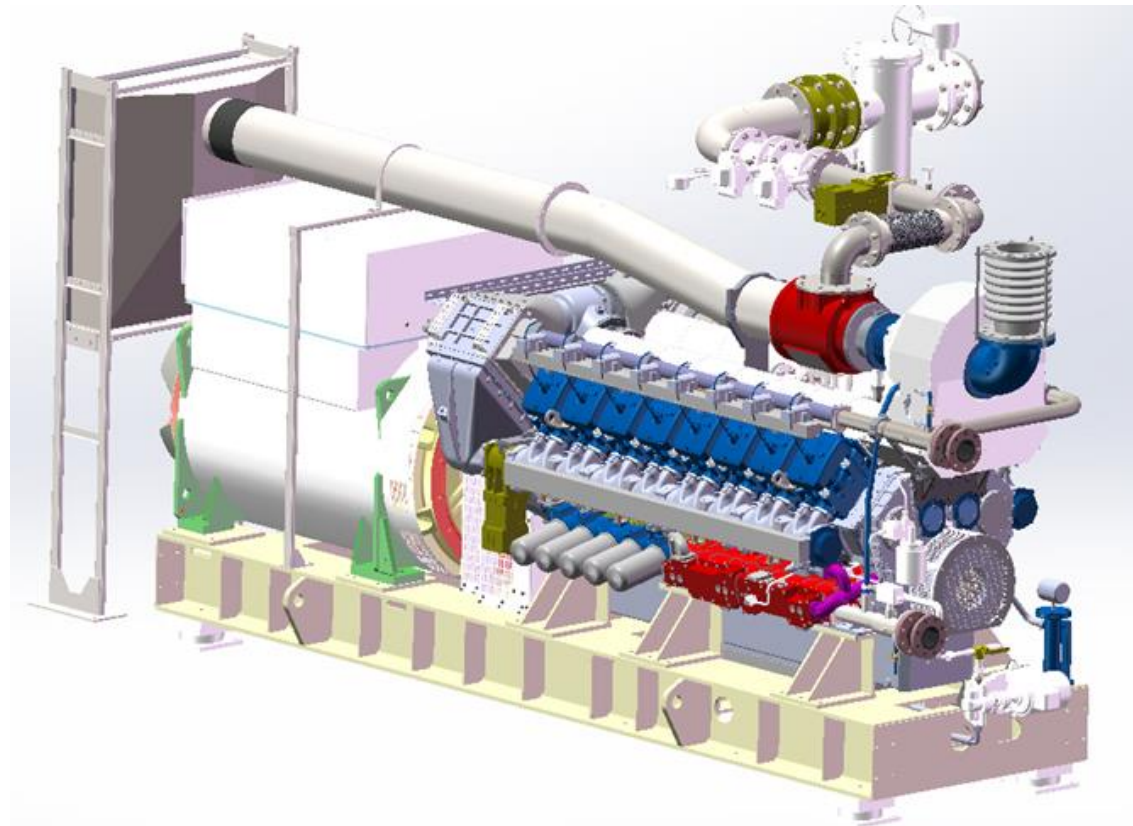
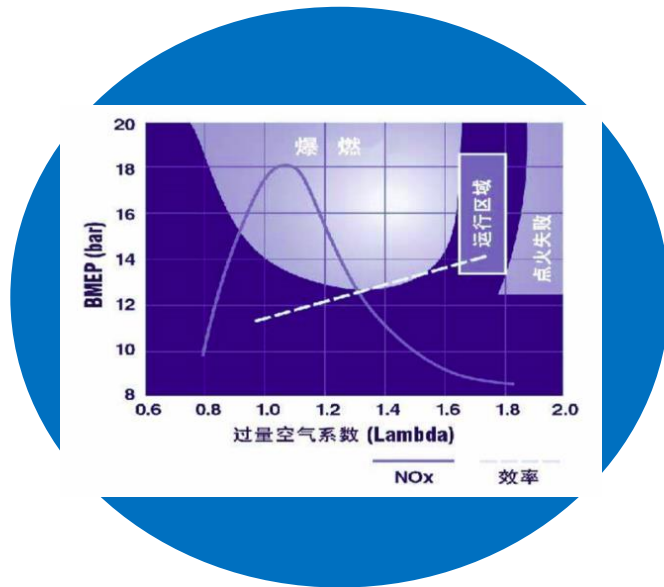
WOODWARD



HOERBIGER



CORE FEATURES (LEAN-BURN TECHNOLOGY)



ELECTRONICALLY CONTROL
AIR FUEL RATIO ALGORITHM
FLUCTUATIONS IN CONCENTRATION
QUICK TRACKING RESPONSE
HIGH RELIABILITY

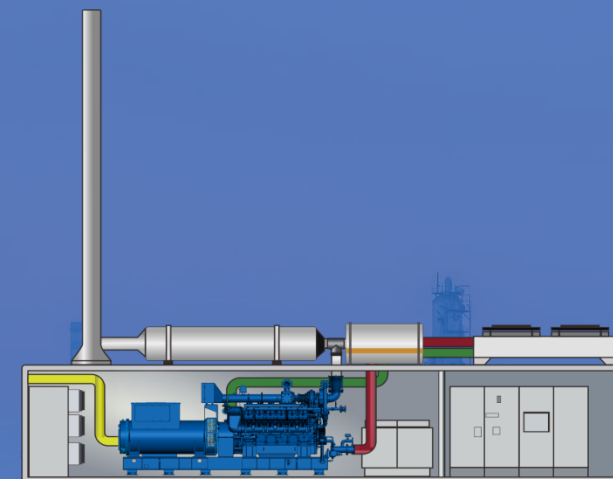
1. THE EXCESS AIR REDUCES THE TEMPERATURE OF THE COMBUSTION PROCESS, THEREBY GREATLY REDUCING THE EMISSION OF NITROGEN OXIDES
2. DUE TO THE EXCESS OXYGEN, THE COMBUSTION PROCESS IS MORE EFFICIENT AND THE ELECTRICAL EFFICIENCY IS HIGHER

CONTAINER STRUCTURE

OUTSIDE



INSIDE



COMPACT STRUCTURE, COST SAVING

THE SIZE IS ONLY 13.8M*3M*3M, SMALL FOOTPRINT CAN BE PLACED IN THE OPEN AIR, NO NEED TO BUILD A FACTORY BUILDING



HIGHLY INTEGRATED, EASY MAINTAIN

INTEGRATING THE UNIT, VENTILATION CAN GENERATE ELECTRICITY, AND ON-SITE MAINTENANCE



SHORT CONSTRUCTION PERIOD AND LONG LIFE

THE INSTALLATION PERIOD IS SHORT (1-2 MONTHS), AND THE SERVICE LIFE OF THE BOX AND THE UNIT IS THE SAME (25 YEARS)



FLEXIBLE COMBINATION, ZERO WASTE

ADJUST THE NUMBER OF UNITS ACCORDING TO THE SIZE OF THE GAS VOLUME, THE SCALE OF THE POWER PLANT CAN BE FLEXIBLY ADJUSTED, AND THERE IS NO WASTE OF GAS

PART 03

OPERATION



OPERATION MODE

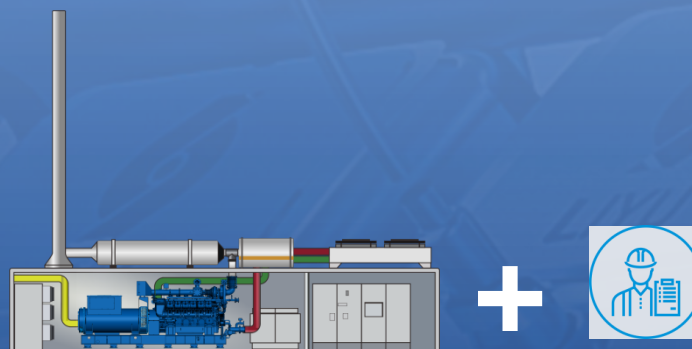
01 CONTRACT ENERGY MANAGEMENT

INVESTED BY LIYU



CAPITAL +
TECHNOLOGY +
OPERATION AND
MAINTENANCE

02 EQUIPMENT SALES



EQUIPMENT +
WARRANTY +
OPERATION
AND
MAINTENANCE

03 AGENT SALES



AGENT/DEALER

PART 04

CASES



PERFORMANCES

LIYU GAS POWER SERVICE CASES ARE ALL OVER THE COUNTRY, APPLIED IN **COAL-BED METHANE (GAS), BIOMASS GAS, NATURAL GAS, PETROLEUM ASSOCIATED GAS, BIOGAS, INDUSTRIAL GAS** AND OTHER GAS POWER GENERATION FIELDS.

THE TOTAL INSTALLED CAPACITY OF THE PROJECTS PUT INTO COMMERCIAL USE AND UNDER CONSTRUCTION EXCEEDS

1,000MW.

PROVIDE NEARLY **8 BILLION** KILOWATT-HOURS OF GREEN ELECTRICITY TO THE SOCIETY EVERY YEAR, SAVE MORE THAN

3 MILLION TONS OF STANDARD COAL EVERY YEAR,

AND REDUCE CARBON DIOXIDE EMISSIONS BY MORE THAN **10 MILLION TONS.**



TYPICAL CASES IN VARIOUS FIELDS

INDUSTRIAL GAS PROJECT



LOW-CONCENTRATION



HIGH CONCENTRATION



SEWAGE BIOGAS POWER GENERATION PROJECT



BIOMASS GAS POWER GENERATION PROJECT



DISTRIBUTED AT CHANGSHA AIRPORT



LANDFILL GAS POWER GENERATION PROJECT



BIOLOGICAL PYROLYSIS GAS POWER GENERATION PROJECT

CASE INTRODUCTION

66MW FERROALLOY PLANT INDUSTRIAL GAS POWER GENERATION PROJECT

TOTAL INSTALLED POWER: **66MW**

CONFIGURATION:

44 SETS LY2000GH-M

OPERATION TIME:

OCTOBER 2022

LOCATION:

FENGZHEN, INNER MONGOLIA



CASE INTRODUCTION

26.4MW FERROALLOY PLANT INDUSTRIAL GAS POWER GENERATION PROJECT

TOTAL INSTALLED POWER: **26.4MW**

CONFIGURATION:

22 SETS LY1600GH-M

OPERATION TIME:

APRIL 2022

LOCATION:

FENGZHEN, INNER MONGOLIA



CASE INTRODUCTION

14.4MW FERROALLOY PLANT INDUSTRIAL GAS POWER GENERATION PROJECT

TOTAL INSTALLED POWER: **14.4MW**

CONFIGURATION:

12 SETS LY1600GH-M

OPERATION TIME:

MAY 2022

LOCATION:

FENGZHEN, INNER MONGOLIA





THE END

THANKS FOR LISTENING