



ESTABLISHED 1997 : EVOLVING CONTINUOUSLY

EARLY PHASE (1997 – 2000)

MICRO AND SMALL WIND MILL

SOLAR THERMAL FOR STEAM & POWER GENERATION

COMBUSTORS SPACE / MISSILE STATIONS

MATURE YEARS (2000 – 2006)

ORGANIC RANKINE CYCLE TURBINE

STEAM RANKING CYCLE TURBINE

HYDROGEN GAS GENERATORS

HYDROGEN & OXYGEN GAS GENNERATOR-HYDROXY

THE COMPANY (2006 ONWARDS)

ORC AND STEAM RANKINE CYCLE TURBINE

GASIFICATION TECHNOLOGY FOR CLEAN ENERGY

CRUDE OIL FROM ALGAE

STEAM GENERATOR USING PLASMA TECHNOLOGY

HYDROGEN AND BROWN GAS GENERATOR





◆ CURRENT COMPANY ACTIVITIES

GASIFICATION TECHNOLOGY

WASTE HEAT RECOVERY SYSTEM

HYDROXY – HYDROGEN AND OXYGEN GENERATOR

ORGANIC RANKINE CYCLE (ORC) TURBINE

STEAM RANKINE CYCLE TURBINE

COMBUSTORS

◆ MAJOR ACHIEVEMENTS

LEADER IN COMBUSTORS

ENJOY HIGHEST CREDIT RATINGS

ORC , HYDROXY AND GASIFICATIONS ARE PATENTED

EMPLOYEE PARTICIPATION IN VISION & MISSION

SPECIALIST IN WASTE HEAT RECOVERY SYSTEM

LEADER IN WIND MILL AND HYDROGEN FUEL





CURRENT GROUP COMPANIES

MODERN BAKERY LLC, DUBAI, ABU DHABI

SHROOQ AL SHAMS TRADING LLC., AJMAN

AL SHROOQ GREEN ENERGY, RAS AL KHAIMAH

VAIGUNTH ENERTEK PVT. LTD., INDIA

SHROOQ AL ENERGY PVT. LTD., INDIA

EICS INTERNATIONAL LLC, DUBAI

SPLENDOR BLDG CONSTRUCTION, SHARAJH

DESERT DEW, SHARAJH

AL OWAIS TRADING, SHARAJH

SAHARA FILTERS & PURIFICATION, SHARAJH

HELIO ENGINEERING PVT. LTD., INDIA

TRANSPERANT ENERGY SYSTEM PVT. LTD., INDIA

GREEN VALLEY HOLIDAY RESORT, SRILANKA



DIVERSIFIED BUSINESS PORTFOLIO

SERVICES

ENERGY, SAFETY AND WATER AUDITS

FEASIBILITY & DETAILED PROJECT REPORTS

ENGINEERING CONSULTANCY

TURNKEY CONSULTANCY

BOOT / BOO/ EPC / TURNKEY PROJECTS

OPERATION AND MAINTENANCE

ENGINEERING MANPOWER SERVICES

CONTRACTING SERVICES

MANUFACTURING

ORGANIC RANKINE CYCLE TURBINE

HYDROXY / HYDROGEN GENERATOR

WASTE HEAT RECOVERY SYSTEM

VAPOURISER / REACTOR

COMBUSTORS FOR SPACE APPLICATION

ALGAE –OIL PROCESSING EQUIPMENT

GASIFICATION SYSTEM

VESSELS AND EXCHANGER



THE VISION

TO BE THE PREFERRED ENERGY SOLUTION PROVIDER FROM WASTE AND RENEWABLE SOURCES IN ASIA AND AFRICA CONTINENT, WITH FOCUS ON IMPROVEMENTS IN QUALITY, PRODUCTIVITY, ENVIRONMENT AND SAFETY.



THE MISSION

TO BE A KNOWLEDGE DRIVEN, INNOVATIVE AND ETHICAL BUSINESS UNIT, STRIVING TO PROVIDE 'THE STATE OF THE ART' TURNKEY PROJECT ENGINEERING SOLUTIONS AND ENHANCEMENT IN INDUSTRIAL TECHNOLOGIES WITH PROVEN TRACK RECORD IN GASIFICATION, ENERGY EFFICIENCY, RENEWABLE AND OTHER RELATED PROJECTS.



CURRENT BUSINESS SECTORS

SERVICING RENEWABLES AND ENERGY EFFICIENCIES

- WASTE HEAT RECOVERY FOR SPONGE IRON, COKE OVEN & STEEL PLANT
- WHR IN OIL / COAL / GAS BASED POWER PLANTS , GLASS & EAF FURNACE
- BIO-MASS, WIND AND SOLAR POWER PLANTS

EXPANDED SCOPE TO INCLUDES OTHER PROJECTS

- GAS TURBINE COMBINED CYCLE POWER PLANTS
- WASTE HEAT RECOVERY POWER GENERATION (WHRPG) FOR CEMENT PLANT
- WHRPG PROJECTS FOR PETRO-CHEMICAL, NON-FERROUS AND REFINERY ETC
- WHRPG PROJECTS FOR GLASS FURNACE, INCINERATOR ETC



CURRENT BUSINESS SECTORS (CONTD.)

- **VALUE ADDED SERVICES FOR ENERGY PROJECTS**
 - PREPARATION OF PROJECT PROPOSAL & FIELD STUDY
 - PROJECT FEASIBILITY STUDY (DPR)
 - SUPPORT SERVICES FOR PROJECT FINANCING (ON NEED BASIS)
 - WHRPG PLANT IN RELATED TECHNOLOGIES

- **PROJECTS EXPORTED TO**
 - MAJOR COUNTRIES : THAILAND, MALAYSIA, UK, USA, ITALY ETC
 - MIDDLE EAST : UAE, EGYPT, LEBONAN
 - AFRICAN COUNTRIES : KENYA AND TANZANIA



CURRENT FOCUSSED SECTORS

REDUCE * REUSE * RECYCLE

- **REDUCE THE ENERGY CONSUMPTION**
 - *Energy audit and use of energy saving products*
- **REUSE THE ENERGY**
 - *Energy conversion, Low heat recovery systems etc*
- **RECYCLE THE ENERGY**
 - *Recycle – Gasification of MSW, Sewerage Sludge etc*



HYDROXY - ENERGY FROM WATER

RELATIVELY NEW COMBUSTION TECHNOLOGY

WATER IS ELECTOLYSED AND MIXTURE OF HYDROGEN & OXYGEN ARE PRODUCED

THIS MIXTURE OF HYDROGEN AND OXYGEN IS HIGHLY EFFICIENT ENERGY

THIS MIXTURE CAN RAISE TEMPERATURE OF FLAME UPTO 1800⁰ C QUICKLY

THIS MIXTURE DOES NOT POLLUTE WITH CO₂, DIAXIN,SO_x WHILE COMBUSTING ITSELF

THIS MIXTURE IS A CLEAN ENERGY



HYDROXY - ENERGY FROM WATER

RELATIVELY NEW COMBUSTION TECHNOLOGY

THE FLAME SPEED OF THIS MIXTURE IS SEVEN (7) TIMES FASTER THAN OTHER FOSSIL FUEL

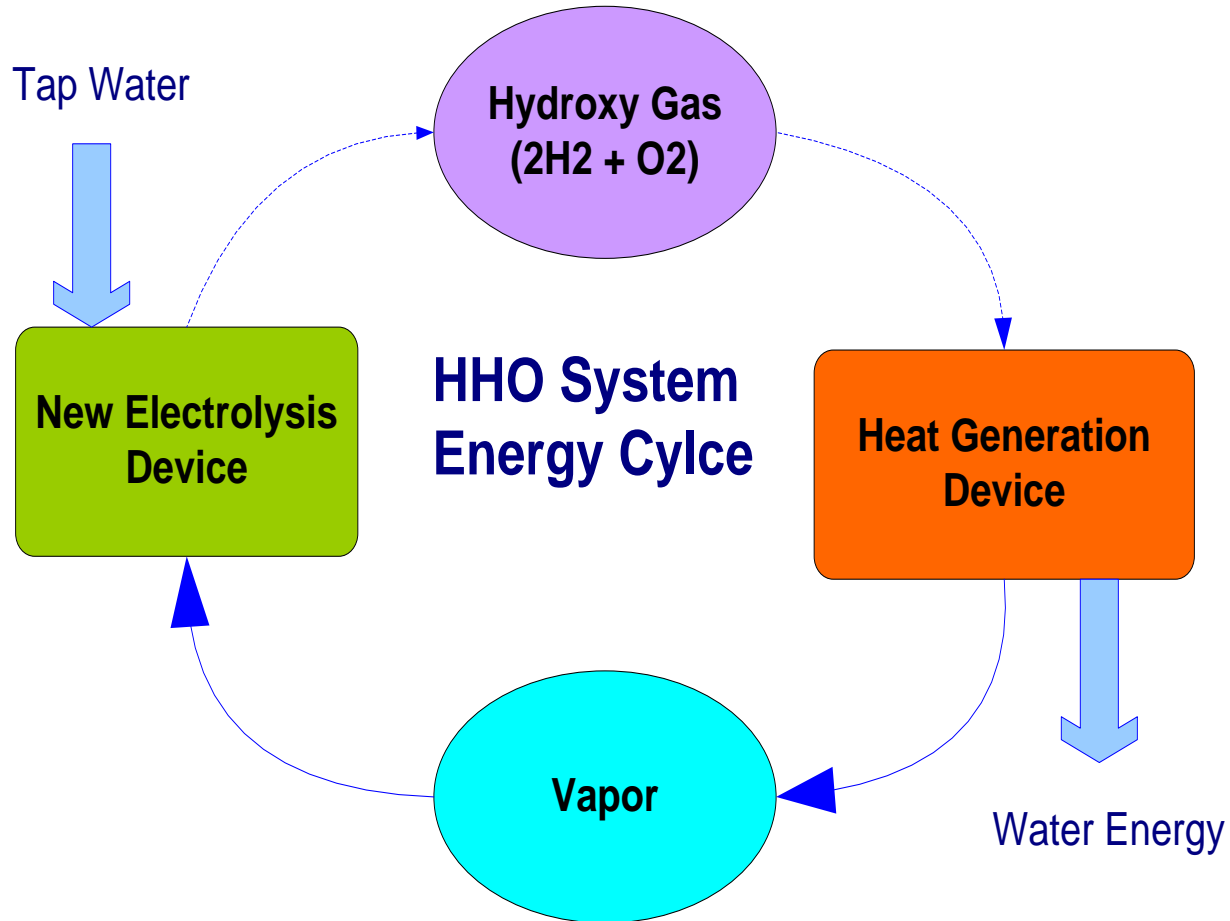
HYDROXY IS BEING OPERATED ON-DEMAND AT 1.0 BAR HENCE IT IS VERY SAFE

THIS MIXTURE SAVES FOSSIL FUEL (10% TO 25%) WHEN MIXED AND BURNED

**THIS MIXTURE ACCELERATE THE COMBUSTION TO SAVE THE FUEL
THE MIXTURE OF 500 LPH CONSUMES 2 KWH, 360 ml OF WATER**



HYDROXY – RECYCLE





APPLICATION OF HYDROXY

FOSSIL FUEL SAVING / SWITCH - POTENTIAL

INDUSTRIAL BOILER / THERMIC FLUID HEATER

INDUSTRIAL MELTING / HEATING FURNACE

MIXED COMBUSTION SYSTEM

JEWELARY WORKING

GLASS ITEMS MAKING

GAS CUTTING / WELDING

WASTE MELTING INCINERATORS

HEAT ENERGY INTENSIVE PROCESS INDUSTRIES

AUTOMOBILE ENGINE CLEANING.





HYDROXY - ENERGY FROM WATER

THE MAIN REASONS IN ACHIEVING THE SAVING

THE FLAME SPEED MIXTURE IS FASTER AND HENCE IT BURNS ALL UN-BURNT HYDRO-CARBON WHICH NORMALLY ESCAPES FROM BURNING ZONE

THE HEAT TRANSFER CO-EFFICIENT IS HIGHER FOR STEAM (HYDROGEN & OXYGEN) AS AGAINST FLAME

ONLY 0.35% OF GCV OF THIS HYDROXY MIXURE IS USED FOR TOTAL GVC USED IN THE SYSTEM TO ENSURE THE SAVINGS...

THE MIXTURE FROM 300 LPH CAPACITY HYDROXY UNIT SAVES 14% OF HEAVY FUEL OIL (HFO) FROM 23 LPH BURNER



HYDROXY - ENERGY FROM WATER

REFERENCES

CLIENT	CRP INDIA LTD, CHENNAI, INDIA
APPLICATION	ALUMINIUM DI-CAST FURNACE
FUEL CONSUMPTION	23 LPH FOR HFO
% OF FUEL SAVED	14%.
HYDROXY CAPACITY	300 LPH



HYDROXY - ENERGY FROM WATER

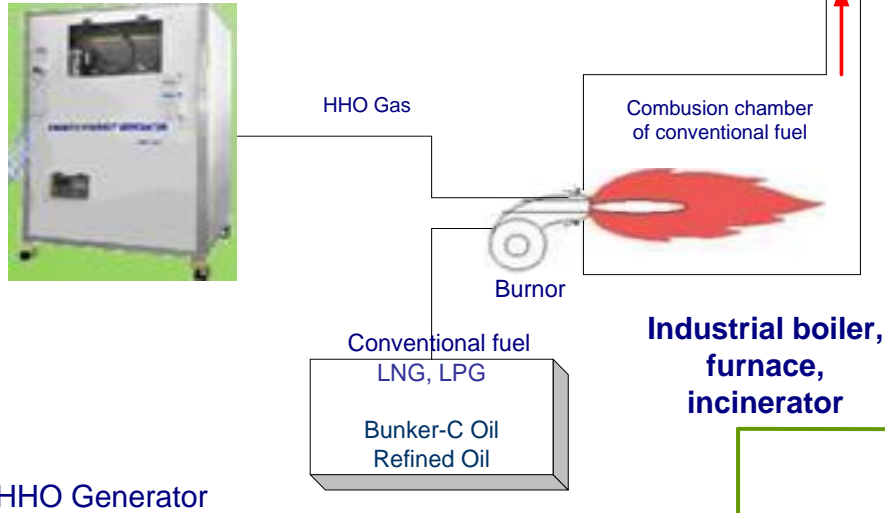
REFERENCES

CLIENT	RASHA PETROLEUM LLC
APPLICATION	RE-CYCLING PLANT
FUEL CONSUMPTION	23 LPH FOR HSD
% OF FUEL SAVED	16%.
HYDROXY CAPACITY	300 LPH



APPLICATION OF HYDROXY

HHO Gas Mixed Combustion System



HHO Water Energy Incinerator





BUSINESS ASSOCIATES / PARTNERS

- **VAIGUNTH GROUP, INDIA - TECHNOLOGY**
- **EICS GROUP, INDIA & UAE - EXECUTION**
- **INCICO, MILAN, ITALY - ENGINEERING**
- **TESPL, PUNE, INDIA – WHR BOILERS**
- **AE & E, NANJING, CHINE - HRSG**
- **HELIO ENGINEERING, INDIA - SAFETY**



EXPERIENCE COUNTS

**MORE NO OF PLANT EXPERIENCE IN
WHR, MSW GASIFICATION AND
RENEWABLES**

12 COUNTRIES SERVED

**MORE THAN 16 YEARS EXPERIENCE
OVER 250 REFERENCES WORLDWIDE**



THANK YOU

**AL OWAIS GROUP OF COMPANIES
&
ASSOCIATES**