

21° IJBG Meeting

Working Group
Energy! Challenges for the XXI Century

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New Units

EPC



Turn-Key Power Plants

Equipment



Gas Turbines
Generators
Steam Turbines

Service

OEM and non-OEM (OSPTM)



Long Term Service Agr'nts
Upgrades/Revampings
Spare Parts
Repairs
Field Service
Training

Nuclear



New Power Plants
Services
Waste Mgmt
Decommissioning

Renewables



Fuel Cells
Microturbines
Photovoltaic
Geothermal
Hydrogenerators

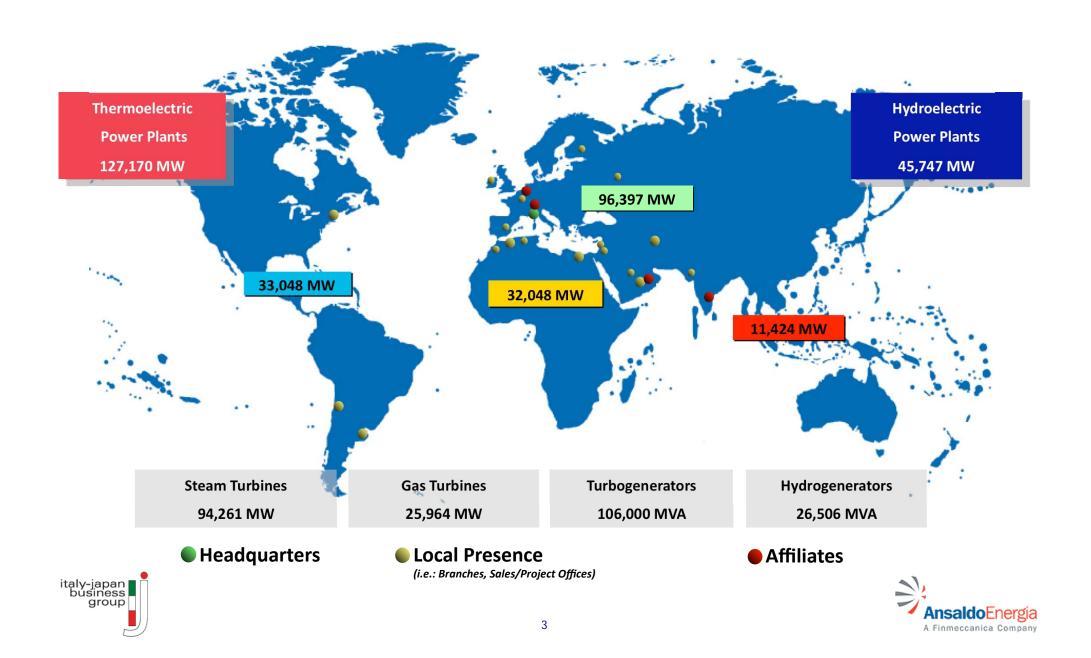
- A worldwide recognized brand in Power Generation with an installed capacity of more than 170,000 MW over 1,700 projects completed, in over 90 countries
- Headquartered in Genoa (Italy) with major regional offices in USA, Africa, Gulf, India and about 3,000 employees
- Key Financials 2008 (rounded): Orders 2B€, Revenues 1.3B€, EBIT 9%, Headcount 3,300

Achieve a **Sustainable Growth** by providing a Flexible and Innovative **Portfolio of Solutions** to match future Global **Energy Needs**





Worldwide Presence and Installed Fleet





Renewable Energy





Pilot Project #1.3: Feasibility study for applications of syngas in power generation and distributed generation

- Objective: to develop a feasibility study for applications of syngas in power generation and distributed generation (e.g. gas turbines, gas microturbines, fuel cells etc):
 - Refinery by-products
 - Steelmaking by-products
 - Gasification of wastes and biomass
 - Etc.
- <u>Expected output</u>: development of specific rotating equipment and burners technology
- <u>Potential partners</u>: Mitsubishi Heavy Industries; Marubeni; Toshiba; Hitachi-GE; Sharp





1.4 Pilot Project #1.4: Solar Power & Desalination

- Objective: feasibility study of innovative power+desalination plants, applying a combination of renewables (photovoltaic/thermodynamic) and conventional technologies
- <u>Expected output</u>: development of small solar-power-based desalination plants
- <u>Potential partners</u>: ERG RENEW; Sharp; Mitsubishi Heavy Industries; Marubeni; Toshiba; Hitachi-GE





1.5 Pilot Project #1.5: "Direct Drive" Generators for Wind Power

- Objective: development of a Direct Drive generator for 300kW-1MW class applications
- <u>Expected output</u>: set-up a 300kW-1MW class for distributed applications (household, industrial)
- <u>Potential partners</u>: Mitsubishi Heavy Industries; Marubeni; Toshiba; Hitachi-GE; Sharp





1.6 Pilot Project #1.6: Waste-To-Energy (WTE) Applications

- Objective: development of oxy-fuel combustor for WTE applications
- <u>Expected output</u>: extend the application of oxy-fuel combustion systems currently used for coal to WTE applications
- <u>Potential partners</u>: Mitsubishi Heavy Industries; Marubeni; Toshiba; Hitachi-GE; Sharp







Nuclear Energy





Nuclear Energy: Pilot Project proposed by Ansaldo Energia # 3.1

Pilot Project # 3.1: Development of Steam Turbine-Generators for Nuclear Power Plants

- Objective: joint-development design of 1.0-1.6 GW class steam turbine and generator equipment for nuclear power plants
- <u>Expected output</u>: ranging from basic-design development to setting joint manufacturing facilities for all major equipment
- Potential partners: Mitsubishi Heavy Industries, Toshiba, Hitachi-GE



