

# COMPANY PROFILE



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**Italian Technical Consultants Ltd**

## Our Company History

### Italian Technical Consultants Ltd

is a full service consultancy company offering a range of turnkey and specialist contracting work both nationally and internationally.

Senior management founded 'ITC Ltd' in the year 2000 to offer consultancy services to its continually growing client base.

In the year 2005, after a period of organic growth, the company expanded his interests in different sectors of international market to offer consultancy and specialist work general contracting in:

- Infrastructure: aqueducts, sewers, roads;
- Wood building construction (public, civil, industrial);
- Trade drilling machines and accessories for maintenance ;

Over this time the company has also expanded internationally and positioned itself in new market segments by specialising in technologies such as :

#### Renewable Energy and Energy Efficiency:

- Waste Plasma Gasification Plants ;
- Photovoltaic Parks;
- Wind Farms ;
- Hydroponic Greenhouse ;
- LED Lighting ;



## Our Work

ITC 's experienced team specialises in different segments of international markets.

We recognise that the key to running a successful business is understanding our clients needs and meeting their expectations.

This can only be achieved through effective communication between our staff and our clients.

ITC have developed a robust yet simple methodology for quality control and consistent project delivery.

We appoint a dedicated project manager for each job who ensures that there is clear communication of the needs and requirements across the team;

Provides oversight of the delivery of the project to the client's specifications and oversees the design throughout the project.

ITC 's head office is in Middlesex - Edgware (UK) ; this position is perfectly to meet the needs of our national clients.

ITC also operates internationally, servicing the Africa, Saudi Arabia, United Arab Emirates, Asia-Pacific regions and all European countries.

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## WASTE MANAGEMENT

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Environmental  
Emergency !!!!  
Help Us to Clean  
the World from Waste

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These following introductory pictures require no comment, but should make us reflect on the necessity to change **URGENTLY** the **waste management** if we want to save the World in which we live and safeguard our future.

The problem of waste affects all countries in the World. With the increase of population, the problem of waste increases exponentially.

Each country chooses different solutions to solve problem of waste management: **from separate collection, to management with landfills or incinerators**, but any of these solutions gave results expected.

For example, the separate collection of waste, proved that the costs for this activity is higher respect the value of the materials recovered.

**In many Countries Waste materials are abandoned on the streets, or burned outdoors, or dumped in the sea !**

The most developed Countries are managing the waste disposal with Landfills.

But Landfills are not the best way to dispose Waste, because wastes are only allocated in a specific area called landfill and covered. We cannot consider this system as a final disposal of waste.

**All mentioned waste managements are the principal cause of serious Enviromental Problems:**

- Air Pollution ; - Groundwater Pollution;
- Soil Pollution; (fly ash from incinerators and gas from landfills);
- Food contamination for farm animals;
- Contamination food produced from farm animals ( milk, meat, eggs..);
- Contamination of the soil and the agricultural products that arrive on our tables;
- Serious health problems for people;
- Big costs for Health Care in each Country;
- High maintenance costs to manage landfills for many years , even after closing for exhaustion.

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All mentioned  
waste managements  
cause serious  
Enviromental Problems

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## WASTE PLASMA GASIFICATION

The Best Solution  
to produce  
Energy From Waste

Faced with the costly problem of waste disposal and the need for more energy, a growing number of countries are turning to **Gasification Systems**, to convert the Waste into useful products such as electricity, fertilizers, transportation fuels and chemicals.

On average, conventional gasification plants that use incineration can convert one ton of MSW to about 400-500 kilowatt-hours of electricity.

**The Waste Plasma Gasification Technology** is much more efficient and cleaner ; energy production depends from quantity and type of waste introduced in the treatment chamber.

The Plasma Gasification Technology can help the world to manage its wastes and produce the energy and other sub products recovered from wastes.

## WASTE PLASMA GASIFICATION Technology

The Best Solution to clean the World from Wastes is the **Plasma Gasification Plant with Molecular Dissociation Technology** .

This Solution for waste management has many **advantages** respect to others solutions existing in the market.

### Technical Advantages

- In The Waste Plasma Gasification, wastes are not burned, so the Process does not produce fly ashes and pollution emission in the air, on the land and in the underground waters.
- The Plant is able to work with a low quantity of oxygen and at very high temperatures, up to 9000°F (approx. 4900°C).
- The **Plasma Technology** is able to transform 97% of the wastes organic substance into energy. The gas produced by the plant (SINGAS) can be used directly to produce energy, and other sub-products such as fuels, other gases.

### Economic Advantage

- **Maintenance cost are lower respect to other technologies;**
- **The Plasma Gasification is able to Recover 95% of waste into energy products;**
- **The Plasma Gasification is able to manage each kind of waste included ashes of incinerators;**

The Plasma Gasification Technology with molecular dissociation system allows to transform wastes into its original status and allows to recover:

- **Metals (such as gold and silver) in their original state, contained in the materials treated such as batteries, electronic components, etc...**
- **Inert materials: wastes which cannot be transformed into Singas are recovered as inert materials: these can be used as a compound for concrete aggregates, road beds, etc.**

### Environmental Advantages

- **The Plasma Gasification does not produce polluting emission.**
- **The plasma Gasification Plant is the complete solution to dispose final wastes .**
- **The Plasma Gasification Technology is the best Solution to produce clean energy from the complete destruction of waste.**

## WASTE-PLASMA Gasification



## WASTE MANAGEMENT

The Plasma Gasification Plant with molecular dissociation System is able to process any kind of waste, together, without pre-treatments:

- Municipal Solid Waste;
- Chemical waste and sludge from chemical treatments;
- Industrial oils and tank washing sludge residues;
- Pharmaceutical waste;
- Hospital waste;
- Industrial waste;
- Special electronic waste (computers, monitors, household appliances, etc);
- Batteries, acids;
- Explosive waste and waste containing phosphorus;
- Military Waste;
- Ashes produced from incinerators;
- Tyres waste;
- Asbestos Waste;

The Waste Process with Plasma Torch produces **Syngas**

The **Syngas** can be transformed into

- Electric Energy;
- Fuel or bio-Fuel;
- Fertilizer;
- Gas technicians;
- Hidrogen;

Subproducts which cannot be transformed into Syngas are recovered as aggregates and metals and transformed in other commercial materials;



## PHOTOVOLTAIC SYSTEMS

Sustainable development;  
Safeguard the Environment

ITC Ltd produces electricity from renewable energy sources at international level. We pursue major investment opportunities in a context of corporate responsibility and environmental sustainability.

We achieve our goals through interdisciplinary expertise: site identification, preliminary and final project management, environmental impact analysis, structuring of finance operations, construction and operation of plants.

The energy production from renewable sources is an important tool for ensuring energy supply, autonomy and competitiveness in different countries.

Our project actively contributes to sustainable development as well as the safeguard of the environment.

### Maximizing Energy Production

With experience and expertise across the entire energy renewable segment, we integrate our technologies and activities to maximize energy output and reduce the cost of electricity for our customers. Every project is different.

Project specific factors such as the local irradiance, weather, soil, wind, and topography must be taken into account for the design, layout, technology selection, and system configuration.

In a process called "design optimization," we go beyond standard plant engineering to configure PV plants that maximize project value.

By applying our experience and the best products offered from the market, we are able to configure PV plant parameters, to ensure maximum financial results.

### Protection Environment

Our main Business is the project and installation of big Photovoltaic Plants (over 50 MW).

Our engineers are expertise in development preliminary feasibility study, business plan, project of the plant, installation.

We make attention and respect for the environment.

For this reason we invest and we work as General Contractors in the areas where cultivations and other human activity are not possible.

### Project Development

Project development is essential to creating valuable power plant assets and includes activities prior to construction, such as securing a power purchase agreement, establishing site control, and project financing.



# WIND FARM

## Maximizing Energy Output

With experience and expertise across the entire energy renewable segment, we integrate our technologies and activities to maximize energy output and reduce the cost of electricity for our customers.

We apply our experience and expertise to meticulously configure plant parameters, to ensure our customers the maximum financial results.

## Wind Farm Construction

With new **wind turbine technologies** and construction methods, wind energy is quickly becoming an affordable alternative to oil, coal, nuclear, and gas-fired energy.

Our crews provide services to the wind farm industry including power collection systems, substations, interconnection services as well as complete solutions for private developers, electric utilities and government organizations.

We are wind farm construction contractors and we help our clients meet both short- and long-term power demands.

Our experience has given us the competences to complete wind energy projects with a maximum return on investment, saving both time and expenses without sacrificing quality of work.

We keep abreast of current equipment, methods, and systems developments, ensuring that we deploy the latest solutions and most comprehensive safety practices.

We also maintain attention on **environmental** stewardship; we work to minimize our environmental impact at wind energy construction sites, as well as in the solutions we deliver.

## Services

### Pre-Construction

- Permitting
- Environmental Consultation

### Construction for Wind Farms

- Design and Engineering of Wind Farms
- Civil Construction Site and Roads
- Foundation Design and Construction
- Collection Systems
- Tower and Wind Turbine Erection
- Tower Wiring

### Operations and Maintenance of Wind Farms

- Gear Box Repair / Replacement
- Blade Repair and Replacemen







## EPC Contractor Wind Farm Construction

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ITC Ltd is specialized in  
EPC Contracting  
in onshore  
Wind Farm Projects

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ITC Ltd is a leading company specialized in EPC Contracting in the sector of onshore Wind Farm Projects.

ITC offers you a complete Engineering, Procurement and Construction contract (EPC Contract) .

Project Permitting is the main procedure in order to issue all required permits and licences that are necessary for new projects construction.

**The permitting stage** is quite demanding because it involves interaction with the authorities and their specific requirements.

We are able to prepare all documents and projects necessary to receive all Authorization before start the realization of the project

ITC is in a position to cover all of the permitting requirements, as well as permits and licensing submission, approval and issuance in all the countries it is activated.

ITC also offers assistance and support to its customers for the signing of grid connection contracts and Power Purchase agreements.

**Project Engineering** is the interdisciplinary approach to the study, design and implementation of services in which specific arrangements of our specialists and state of the art technologies take actions to provide the highest value for the project.

The company is planning its projects according to the specifications of the equipment providers per case.

First the equipment type is selected with regard to the needs of the customer, then the energy yield study and the site management plan are performed, as well as the interface table between the equipment supplier, the project owner and the contractor.

### **Project Detailed Design:**

is the activity of detailed designs execution necessary for a successful project implementation and construction.

### **Project Financial Close Support:**

ITC as an experienced and bankable EPC Contractor supports the Owners on Project Financial Close.

The Contractor should be able to provide all necessary services for the support of the project's Owner during the Financial Close processes with the Financial Scheme.

### **Project Commissioning:**

is the process of assuring that all systems and components of a wind project are designed, installed, tested, operated and maintained according to the operational requirements of the initial design and meet owner's needs.

### **Project Operation:**

describes the action of running a wind farm through an established and usually routine set of procedures or steps.





**Protect Your Crops**

**Protect Your Work**

**Protect Your Money**

## HYDROPONIC GREENHOUSE

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Crops Protection  
Hydroponic Technology  
Save water, energy  
and money

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### Food production in the World

Food production in the World is widely discussed in recent time.

The damage done to crops due to climate change and pollution, are valid reasons to employ system crops protection, to save money and work of employees in the agricultural sector.

The protected crops systems are increasing in the recent years, as per demand of consumers, who want the guarantee to eat a good product, and because there is the necessity to reduce waste and save resources (water, land, energy).

Others important reasons are the climate change and unusual weather events that each year cause many damages to crops outdoors.

### Hydroponic Growing Technique

For Hydroponic System we mean cultivation without soil.

This technology is applied to produce tomatoes, melons, peppers, eggplant, lettuce, strawberries, vines, herbs, medicinal plants, cut flowers, and others...

The plants are grown in a substrate that replaces the soil, as for example rock wool, clay, perlite, coconut fiber etc;

With Hydroponics System, water, and nutrients are given directly to the plants, (not on the soil where 90% of them is lost) , with faster results in terms of crops growth and quality products.

### Hydroponic Greenhouse Technology

The Hydroponic Greenhouse has been designed with a resistant **structure in steel, and stratified glass, with filters, to protect crops.**

This Structure is able to resist to every external climate conditions (wind, heavy rains and heavy snowfall). Integrated Technologic Plants , are able to create an internal microclimate suitable to crops, independent of external weather conditions.

The **Technologic Plants** enclosed are:

- Fertigation and irrigation systems;
- Climatization Systems;
- LED Lighting to support and speed up the growth of crops;
- Photovoltaic panels, wind turbines, etc.



## Sterile **HYDROPONIC** **GREENHOUSE**

### The Top of Technology for crops

The Sterile Hydroponic Greenhouse is a more advanced Technology than previous mentioned.

The Sterile Hydroponic Greenhouse is perfectly protected from every climate conditions, pathogens, insects, pollution etc.; the internal air conditioning is constantly checked.

Inside this Hydroponic Greenhouse the air is sterile, to ensure the total absence of contaminants from external environment and the absence of pathogens.

In the Steryl Hydroponic Greenhouse the access of staff is permitted only with special clothing to guarantee maximum hygiene and attention to prevent contamination of the products.

### Advantages Hydroponic Technology

This technology is the best solution for crop protection; you can have the guarantee of the result, because the product is not subject to attack by insect, parasites or bacteria, that could compromise the quality and the quantity of the crops.

The **Sterile Hydroponic Greenhouse** is equipped with air conditioning systems and fertigation fully automated;

- The management must be delegated to specialized staff, which is able to monitor in real time the internal climatization, the fertigation system and verify the quality of crops.
- The staff employee works in good conditions on support worktop.
- + 60 % production with Led Lighting Technology .
- Saving 90% of water compared that used for crops in the soil.
- Product growth in safety, protected from weather adverse conditions and parasite attacks.
- No use of antiparasitic products and pesticides.

No Risk of loss production  
Save 90 % of water  
Final product better  
than Biologic



## LED Light Revolution

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Save Energy up  
to 90% with  
LED Lighting  
Technology

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**Led lighting** has grown significantly in recent years, reaching great results in terms of technology.

Its large-scale diffusion and application in every field, confirms the advantages of this new way of "seeing the light".

It is not a coincidence that we remember the Nobel prize awarded in 2014 to the Japanese scientists Isami Akasaki and Hiroshi Amano and the American Shuji Nakamura, for inventing the Led lamps (light Emitting Diode);

These revolutionary electronic devices use some materials' optical properties to produce light which are more energy efficient, and more respectful to the environment.



With the introduction of the Led Technology, which is more and more widespread, today we have more efficient and durable alternatives compared to old lighting systems

Led lamps can use all the electrical energy they consume only to emanate light, without dispersing heat like other systems do, therefore they optimise energy, reducing waste to a minimum.

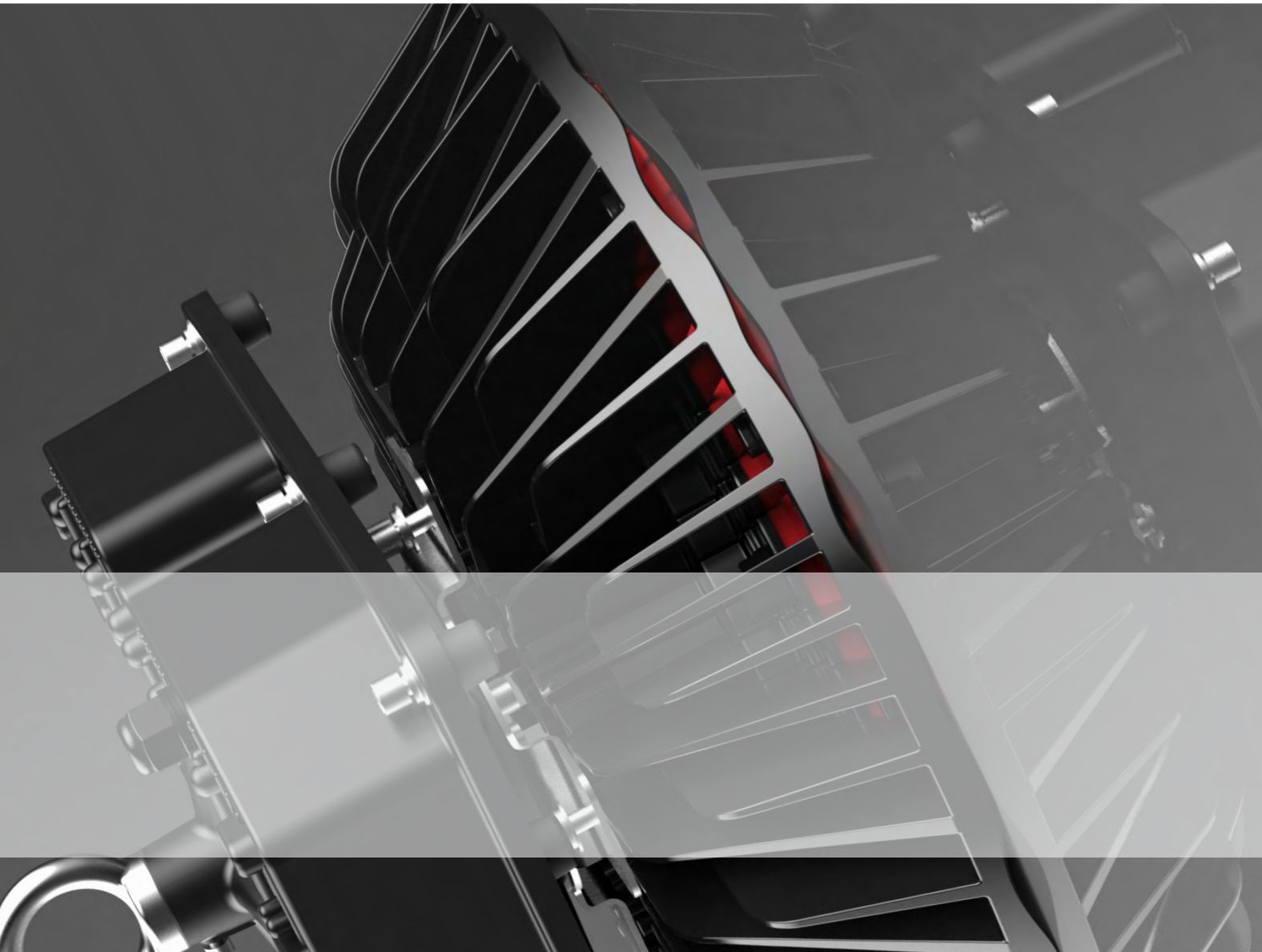
# LED

## Light Revolution

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### Our Specialization

- > LED Industrial
  - > LED Sport
  - > LED Street
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### Our Services

- > Consultancy
- > Project
- > Installation
- > Maintenance
- > Financing
- > Partnership

- New Installations
- Replacement



## Services

From Design to Construction

1. Feasibility Study
2. Report, Business Plan
3. Financial Offer
4. Design and planning
5. Installation
6. Construction
7. Maintenance

### Options:

1. Strategic Partnership
2. Financing investment
3. Management System



Italian  
Technical  
Consultants Ltd

Your Strategic Partner

