

Hydro Power

Diesel Power

Combined Cycle Power

Nuclear Power

Power Transmission

Power Distribution

Rural Electrification

Water Supply

**Engineering**

a better tomorrow

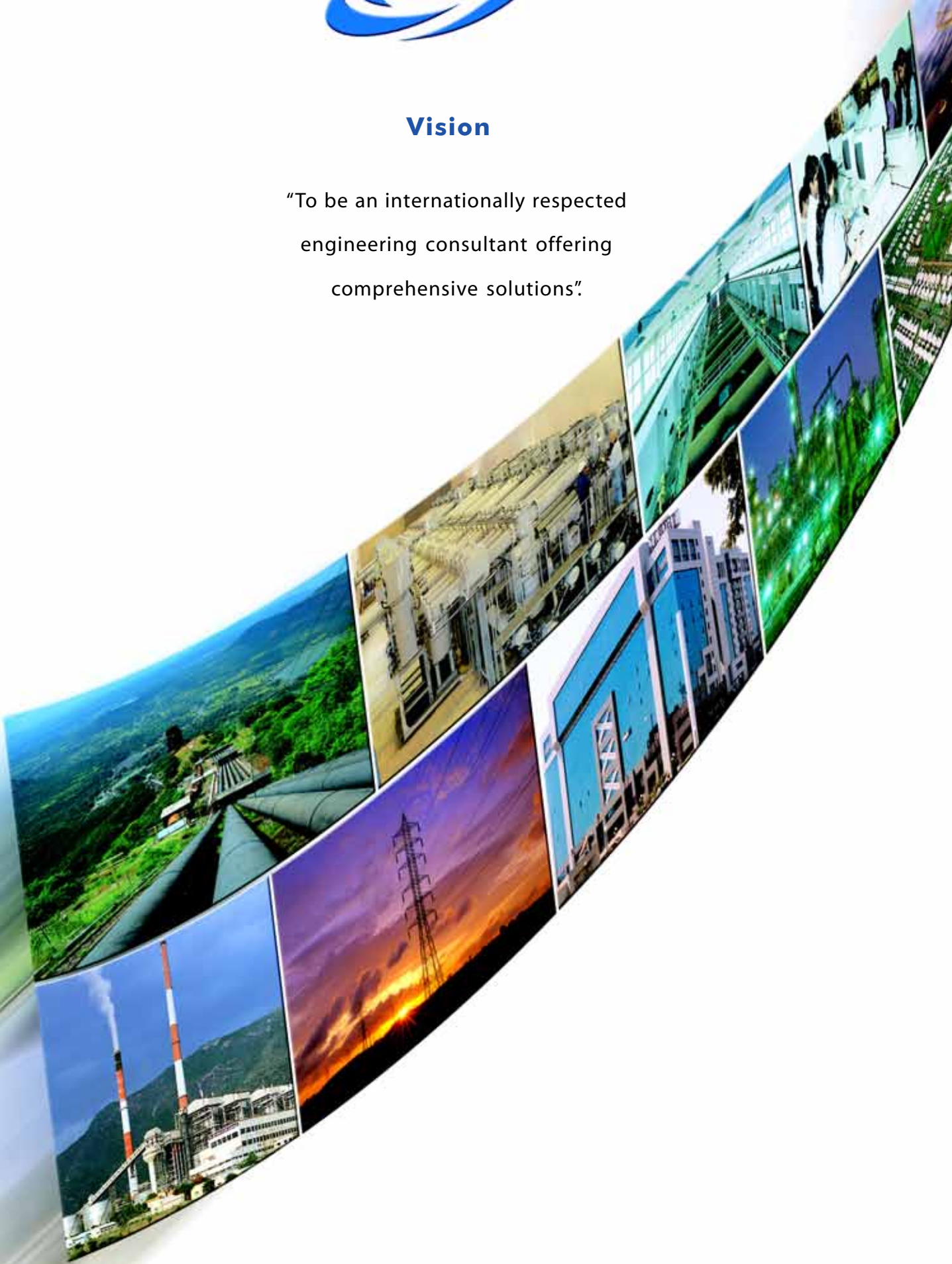
Wastewater Treatment





## Vision

"To be an internationally respected engineering consultant offering comprehensive solutions".



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**Board of Directors**

Chairman Syamal Gupta

Directors F N Subedar  
R R Shastri

Executive Director & CEO P K Sarathy

**Senior Executives**

Group General Managers A Kumar  
M S Krishnaswamy  
R Srinivasan

General Managers V L Nagarkar  
S R Chawda

Vice President & Company Secretary C K Ghasvala

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**Registered Office**

Matulya Centre A  
249 Senapati Bapat Marg  
Lower Parel (West)  
Mumbai - 400 013

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**Bankers**

Bank of Baroda  
Citibank N A

**Auditors**

A F Ferguson & Co  
Chartered Accountants

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## Chairman's message

I am happy to report that 2000 - 01 was a good year for TCE. In spite of sluggish market conditions, profit before tax has increased significantly over the last year. TCE also secured new business worth Rs 750 million during the year.



The thrust to secure overseas business continued. Nearly 22% of the business secured during the year 2000 - 01 constituted overseas jobs and TCE has set itself a target to increase overseas business substantially in the coming years. A branch office was opened in the United States of America and strategic alliance agreements were signed with Arcadis of Netherlands, Logos Engenharia of Brazil and AJEC of Saudi Arabia during the year.

TCE received the Consultancy Development Centre's first prize for excellence in consultancy services for the services rendered for the country's first 800 kV transmission line project. TCE was also selected for award of Engineering Export Promotion Council's Regional Certificate of Export Excellence for 1998 - 99 and Export Award for the year 1998 - 99 by Govt of Maharashtra in recognition of its export performance.

In fulfillment of its commitment to quality, TCE continues to actively participate in the Tata Business Excellence Model for Tata Companies. In December 2000, TCE was also recertified by Lloyds Register of Quality Assurance for another three years under ISO : 9001 - 1994.

In sum, 2000 - 01 was a rewarding year for TCE. We believe the expertise of our employees, combined with the opportunity to offer our services on an international scale, will result in further growth and prosperity of TCE in the coming years.

  
Syamal Gupta



## Project Highlights

### Power Generation

One unit of the 2 x 120 MW thermal power plant of Tata Power at Jojobera, the 81.3 MW DG power plant of Tata Power at Belgaum and the 210 MW thermal power plant of Haryana Power Generation Corporation at Panipat, all of which were engineered by TCE, were successfully commissioned during the year.

TCE made a successful breakthrough into the South American market by bagging a consultancy assignment in Brazil. Duke Fluor Daniel of USA have requisitioned the services of TCE commissioning engineers for their 2 x 250 MW thermal power plant in Puerto Rico. As a prerequisite, the commissioning documents were prepared to the client's satisfaction.

For Tanir Bavi Power Company's 220 MW barge mounted, combined cycle power plant near Mangalore, TCE provided project management services and deputed planning and document control engineers to site.



2 x 120 MW Thermal Power Plant, Jojobera



220 MW Barge Mounted CCPP, Tanir Bavi



800 kV Anpara-Unnao  
Transmission Line

### Power Transmission & Distribution

India's first 800 kV Transmission Line Project for Uttar Pradesh State Electricity Board from Anpara to Unnao was commissioned in July 2001. TCE provided the engineering and construction and commissioning supervision services for this project, in association with Tokyo Electric Power Services Company.

TCE was awarded two Asian Development Bank funded projects in Bhutan - project for implementation of Sustainable Rural Electrification and the 220 kV and 66 kV Transmission Line and Sub-Station project. The Royal Government of Bhutan is the client for both the projects

TCE engineers successfully completed the review consultancy services for the 380 kV Al-Jamia sub-station in the Kingdom of Saudi Arabia. The sub-station is scheduled for commissioning in May 2001.

### Water Supply & Waste Water Treatment

The significant achievements in this sector were the commissioning of the Inflatable balloon system for raising the height of the Pise Weir by 2 m, completion of Worli reservoir, commencement of the 3 m diameter tunnel for supplying water to Mumbai's western suburbs, and the commissioning of the Kotarpur Water Treatment Plant in Ahmedabad, after water from Raska weir was made available.

Work is in progress for the Bangalore Water Supply and Sewerage Project Stage-IV Phase-I; a report is also being prepared for Phase-II.

Engineering activities are complete for the West Rifa'a Blending Station for Bahrain Water Supply and the station is ready for commissioning.

TCE was awarded the Northern Iraq Water Supply Projects for Irfaz and Dokan-Suleimaniyah by UNICEF against international competition.



Pise Weir in raised position, Mumbai



Influent Pumping Station, Mumbai



West Rifa'a Blending Station, Bahrain



## Hydro Power

The units at Tata Power's Khopoli station are under rehabilitation programme and the first 24 MW unit at Khopoli was commissioned. The Kundli pumping scheme involving construction of a 35 m high, 200 m long dam was also completed.

Refurbishment and improvement study was carried out for the Bassi hydro electric project in Himachal Pradesh.

Engineering of three dams for 2 x 125 MW Ghatghar Pumped Storage is in progress in association with EPDC International Limited, Tokyo. The project is scheduled for commissioning in March 2003.

Remnant life assessment studies were also carried out for the turbine shaft of the 15 MW plant of Bassi Hydro and for the winch and trolley system for Bhivpuri and Bhira hydro power stations of Tata Power.



*Kundli Pumping Scheme, Phase II*

## Irrigation

Field investigations and design engineering are being done for 50 km of canal for the Mulwad Lift Irrigation Project and for 39 km of canal for the Almatti Right Bank Canal under the Upper Krishna Project for the Krishna Bhagya Jala Nigam Limited, Karnataka.



*TIDEL Park, Chennai*

## IT Park

TIDEL's state-of-the-art software technology park at Chennai was completed and inaugurated by the Prime Minister in February 2001. TCE was the Owner's Engineer for this project. A notable feature was the implementation of the thermal energy storage system equivalent to 3000 TR peak capacity, which reduced considerably the cost of air conditioning system in the park. This feature is the first of its kind in India.



*TCS software development and production centre, Noida*

TCE is providing engineering services for Tata Consultancy Services' Software Development and Production Centre at Noida. The conceptual design of the centre is by Swiss architect Mario Botta; the main building, which has a built-up area of 16,000 sq. m., will house 1000 workstations.

## Flyover

TCE is providing project management services for the 825 m long flyover at Karmaveer Vitthalrao Yadav Chowk on the congested Senapati Bapat Marg in Mumbai. Due to the numerous criss-crossing underground services, design and construction of each foundation had to be customised.



*825m long flyover, Mumbai*

## Hotel

ITC's Grand Maratha Sheraton Hotel located near Mumbai's international airport started part functioning of its public areas and guestrooms in September 2000. TCE engineered the mechanical, electrical and plumbing works for this hotel.



*ITC's Grand Maratha Sheraton, Mumbai*



## Telecommunication

Instrumentation, SCADA and telecommunication systems are under implementation for the Mumbai Water Supply System for Municipal Corporation of Greater Mumbai which is scheduled to be completed by end June 2001.

Consultancy services are also being provided for the Broad Band Fibre Optic Project of Tata Power.

## Urban Planning

In the newly emerging area of urban planning, a Master plan for Davengere city in Karnataka was successfully completed. A study was also carried out for 13 towns in Karnataka for assessment of their existing water supply and sewerage systems.



*Davengere master plan*

## Industrial

TCE provided engineering, construction supervision and project management services for the Carburetor Manufacturing Plant of Keihin-Fie at Chakan near Pune. The plant was commissioned in August 2000.

TCE's association with Maruti Udyog Ltd continued to grow, with the latter entrusting further engineering work for setting up augmentation facilities at their automotive plant at Gurgaon, Haryana.



*Carburetor Manufacturing Plant, Pune*

## Chemical

A contract was secured for providing design and construction supervision services for India's first deinking plant, being set up by Hindustan Newsprint Ltd at Kottayam in Kerala. TCE joined hands with Tessag-KSH of Canada on this assignment; Tessag-KSH is providing technological inputs for the deinking process.

TCE is engineering the terminal automation system for despatching products into road tankers and integration of all safety systems for Chemical Terminal Trombay Ltd in Mumbai.

## Nuclear

The most important development during the year was the signing of a contract for the design of nuclear island facilities for a 500 MW fast breeder type of nuclear power plant. The contract was signed between the Indira Gandhi Centre for Atomic Research, Kalpakkam, Chennai, which is a division of the Atomic Energy Commission, and TCE. The contract calls for providing basic and detailed engineering of various facilities comprised in the nuclear island of the power plant. This is the first such plant to be designed and set up in the country.



*Signing of IGCAR contract*

TCE also secured two major contracts from the Bhabha Atomic Research Centre for providing engineering and construction supervision services for the installation of auxiliary facilities at Tarapur, Trombay and Kalpakkam sites.





TCE CONSULTING ENGINEERS LIMITED

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Pulp & Paper

Food & Allied Products

Pesticides

Pharmaceuticals

Roads & Bridges

Industrial Projects

Petrochemicals

Fertilisers



Refineries

IT Parks, Hotels

Townships & Housing

Rural & Urban Development

Manmade Fibres

Special Projects

Ports, Harbours & Offshore Structures