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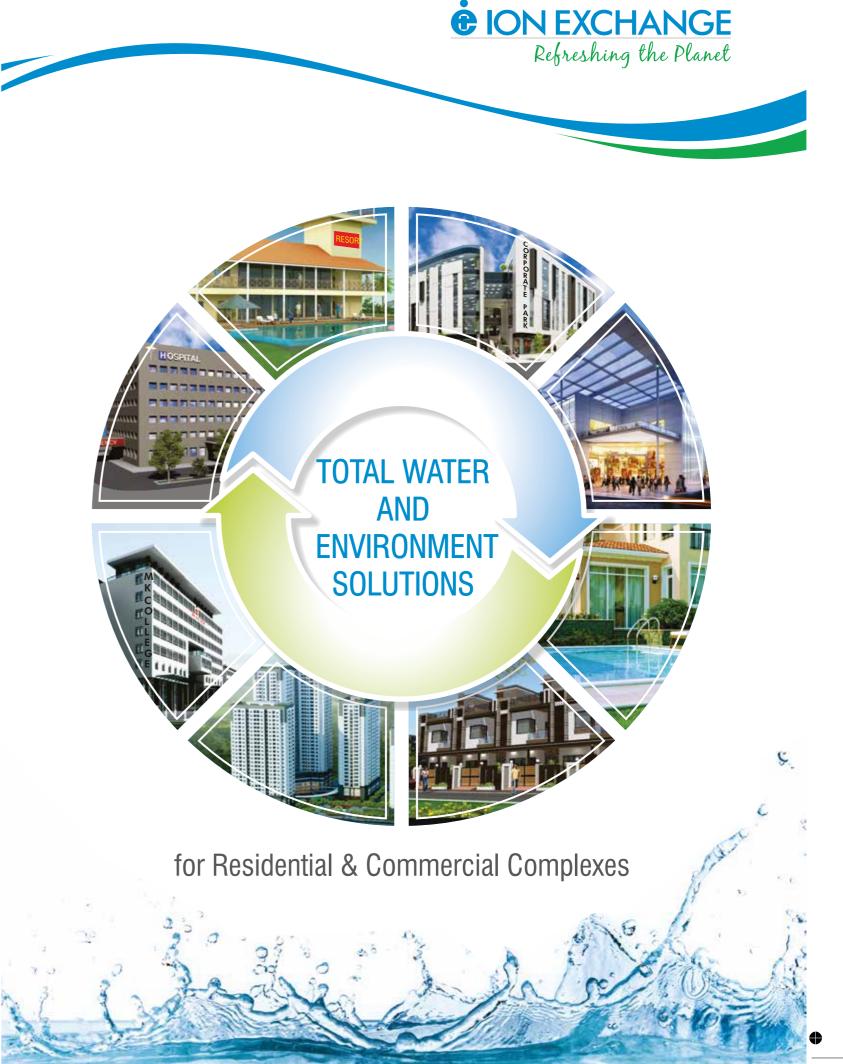
# **Services**

We offer round-the-clock service through our countrywide network of service offices with highly trained and experienced personnel. Besides annual maintenance contracts, our O&M services saves the hassle of operation, maintenance and supervision.

To the best of our knowledge, the information contained in this publication is accurate. Ion Exchange (India) Ltd. maintains a policy of continuous development and reserves the right to amend the information given herein without notice. Please contact our regional / branch offices for current product specifications.

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# Total Water & Environment Solutions for Residential and Commercial Complexes

Water management is a major challenge facing town planners, builders, architects, housing societies and commercial complexes. Increasing pollution of water supply sources, both surface and ground water, have made the quality of water, particularly for drinking, a critical concern. Moreover, many residential and commercial complexes suffer from inadequate water supply because of the growing water scarcity.

Indeed, availability and quality of water has become a key deciding factor in the purchase of any property.

Ion Exchange (India) Ltd. is the pioneer of water treatment in India with more than five decades of experience in total water management for industry, homes and communities. Our complete range of technologies, products and services enables us to provide total water solutions. For residential and commercial complexes, this translates into assured quality of water for every use – drinking, cooking, bathing, laundry, air conditioning, swimming pools, car washing and gardening.

To treat solid waste sustainably, we offer waste-to-energy solutions that convert solid waste (organic kitchen waste and sewage sludge) into energy, hot water and rich organic fertiliser.

All this, backed by comprehensive operation & maintenance services, will ensure any property becomes water and energy neutral.

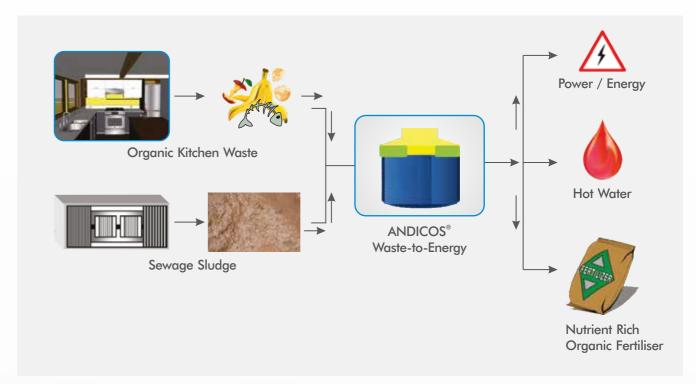
# **Total Waste-to-Energy Management**

### ANDICOS – Waste-to-Energy System

In most parts of the world, domestic sewage and solid waste are collected and treated separately.

The cost of treating sewage and sullage is substantial due to energy cost for aeration. Additionally, sewage treatment produces sewage sludge that requires extensive treatment before discharge. Organic waste usually ends in secured/unsecured landfills.

ANDICOS Waste-to-Energy system uses a novel process to convert sewage sludge together with organic kitchen waste into electrical power, rich organic fertiliser and hot water that can be reused after treatment for various high-end and low-end applications. The electrical power can be used to supplement energy needs for water utilities and sewage treatment plant to reduce the operating cost significantly. The excess heat from the process can be used to dry organic fertiliser generated in the ANDICOS process and also meet the required hygiene standards for its use in agriculture and landscaping.





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# Sewage and Sullage Treatment Plants – An Assurance against Water Shortage

Recycle of sullage and sewage provides an effective and dependable solution in helping resolve the perennial water shortages in cities – where the domestic sector consumes 80 per cent of water. It is, in fact, ideal for housing/commercial complexes which do not have guaranteed water supply.

Sullage (grey water from bathrooms and kitchens) and sewage can be treated and recycled for toilet flushing, gardening, vehicle washing and other such low-end uses, reducing the requirement of fresh water by 60 per cent. This makes more fresh water available for drinking, cooking, bathing and laundry while reducing dependence on unreliable/insufficient water supplies.

Recycle of sewage and sullage is also significant from the hygiene and sanitation point of view, to help create a cleaner and healthier environment.

#### **Features**

- All in one packaged treatment systems
- Modular designs
  - $-5 \,\mathrm{m}^3/\mathrm{d} 6000 \,\mathrm{m}^3/\mathrm{d}$
- High quality effluent
  - BOD < 10, TSS < 15, TN < 5 ppm
- Compact with minimal civil work
  - 1/3 space of conventional STPs
- No chemicals & minimal power
  - 1 kw/h 3 kw/h maximum



INDION New Generation Packaged Sewage Treatment Plant (NGPSTP)



INDION Sequential Batch Reactor (SBR)

- Material of construction
  - Mild steel epoxy (MSEP)
  - Bolted tank
  - Civil
- Automatic with option of remote monitoring and 24 x 7 operating systems from India's largest service network



INDION Fluidised Media Reactor (FMR)/
INDION Moving Bed Bio-reactor (MBBR)

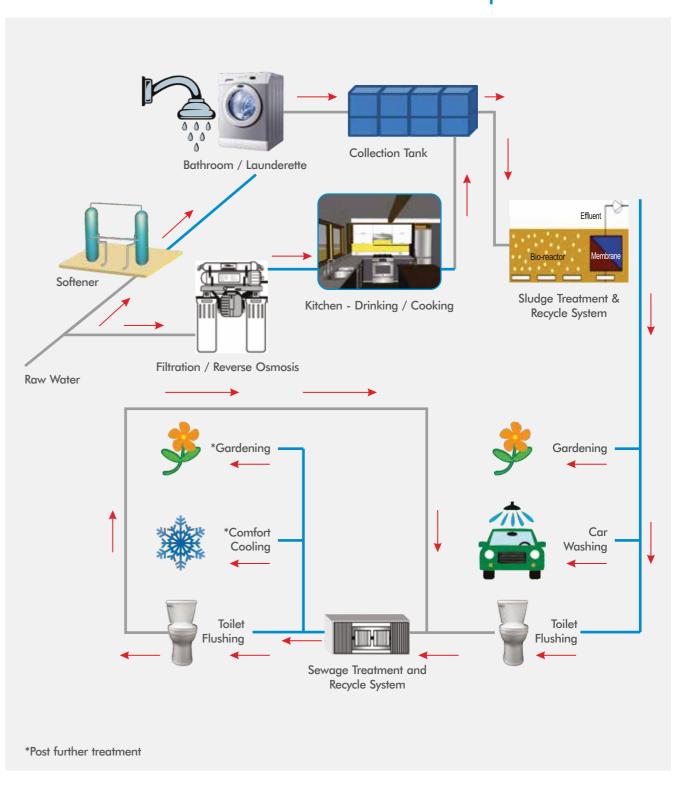


INDION Membrane
Bio-reactor (MBR)

Our water management solutions extend to residential complexes, hotels, spas, educational institutions, hospitals, malls, offices, etc. by providing the following solutions:

- Water for drinking and use in kitchens and canteens
- Softened water for bathing and laundry
- Swimming pool water filtration and disinfection
- Sewage treatment and recycle

# Total Water and Waste Water Management in Residential and Commercial Complexes



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Ion Exchange's water treatment solutions are very effective and provide safe and pure water. Our range includes centralised water treatment plants and point-of-use purifiers.

# **INDION®** Centralised Water Treatment Plants

Installed in the basement of any building, the system is simple and compact, yet effective and versatile enough to handle water from practically any source. It saves space, is modular and designed for minimal operator attention and maintenance.

The system typically consists of ultra filtration. In case the water is brackish, then it is treated through a reverse osmosis (RO) unit. A softening unit can be incorporated to remove hardness to provide soft water for bathing and laundry. Treatment units specifically for removal of iron, arsenic, nitrate or fluoride can be incorporated into the system in areas where these contaminants are present in ground water supplies.

#### **INDION®** Filtration/Reverse Osmosis

Our products reduce suspended solids, turbidity, dissolved solids, microbial contaminants, pesticides and heavy metals, generating water that conforms to drinking water standards.





#### **INDION®** Softener

It treats hardness and offers advantages like more lather for bathing/shaving and reduces problems of hair loss, dry skin, etc. The softener plant also ensures less detergent is used for washing clothes, avoids scum formation, deposits on bathroom fitting, geysers, pipes, bath tubs and tiles.



# Safe Drinking Water

80% of diseases are waterborne. So when it comes to protecting health, it is important that individuals get only the best quality drinking water. In many places where piped treated water is not available or is inadequate, residential and commercial complexes have to depend on bore well water which is usually hard and brackish with microbial and heavy metal contamination, or expensive tanker water of unknown quality. Even treated municipal supplies can get reinfected during storage or contaminated in old distribution lines.

### **ZERO** B Point-of-Use Home Water Purifiers

Our Zero B range of home water purifiers suits all budgets and needs.



# ZERO B° eco Chill

It is an advanced water purifier cum storage cooler providing safe and purified cold drinking water to a larger mass. It is ideal for commercial institutions and complexes.





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