

GREENNOTCH ENVIRONMENTAL ENGINEERING SOLUTIONS

Water & Wastewater Division of Real Growth Energy Co., Ltd.

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ENVIRONMENTAL ENGINEERING & WATER QUALITY STANDARDS OVERVIEW

1. DIVISIONAL PROFILE: Greennotch operates as the dedicated environmental engineering division of **Real Growth Energy (RGE)**. Greennotch specializes in turnkey engineering, procurement, construction (EPC), and long-term operations & maintenance (O&M) for advanced water treatment plants (WTP) and wastewater treatment plants (WWTP) across commercial, healthcare, municipal, and industrial sectors.

2. CORE TECHNICAL CAPABILITIES & PROCESS TECHNOLOGIES

- **Moving Bed Biofilm Reactor (MBBR):** High-efficiency biological wastewater treatment for high-BOD industrial and municipal effluents.
- **Membrane Bioreactor (MBR) Systems:** Advanced filtration delivering ultra-clean effluent suitable for water recycling and non-potable reuse.
- **Hospital & Healthcare Effluent Treatment:** Specialized multi-stage disinfection (chlorination, ozonation, UV) engineered to neutralize bio-hazardous pathogens and pharmaceutical residues.
- **Electrocoagulation & Industrial Chemical Treatment:** Heavy metal removal and chemical sludge dewatering for industrial processing facilities.

3. WATER QUALITY & DISCHARGE COMPLIANCE MATRIX

All Greennotch design engineering and equipment deployments guarantee full compliance with national environmental conservation guidelines and international discharge standards:

Effluent Parameter	Target Discharge Standard	Engineering Control Mechanism
Biological Oxygen Demand (BOD₅)	≤ 20 mg/L	Aerobic MBBR Biological Digestion & MBR Filtration
Chemical Oxygen Demand (COD)	≤ 50 mg/L	Advanced Chemical Oxidation & Biological Treatment
Total Suspended Solids (TSS)	≤ 30 mg/L	Secondary Sedimentation & Microfiltration / MBR
pH Range	6.0 – 9.0	Automated Dosing & pH Balancing Units
Pathogens / Coliforms (Medical)	Zero Detectable Pathogens	Multi-Barrier Ozone / Sodium Hypochlorite / UV Disinfection

4. QUALITY ASSURANCE & DLP GUARANTEE

Every Greennotch installation is backed by comprehensive Defect Liability Period (DLP) coverage, standardized ISO/API component procurement, and 24/7 technical field support to ensure uninterrupted environmental compliance for our commercial and state utility clients.