



# Rahimafrooz Energy Solutions in Bangladesh

## Rahimafrooz Energy Solutions in Bangladesh

### Table of Contents

- Bangladesh's Energy Crisis
- RESL's Power Solutions
- Renewable-Diesel Hybrid Models
- Hospital Energy Security

### Bangladesh's Energy Crossroads

Can a nation achieve economic growth while 12% of its population still lacks grid access? Bangladesh's energy paradox intensifies as urbanization accelerates. The country's peak electricity demand reached 15,304 MW in 2023, yet 68% of power still comes from fossil fuels. Frequent load-shedding costs businesses \$1.2 billion annually according to Dhaka Chamber of Commerce data.

### The Generator Dependency Trap

Over 85% of Bangladeshi factories rely on backup diesel generators - a necessity that's becoming an environmental liability. Rahimafrooz Energy Services Ltd (RESL) installed 6,400 generators nationwide, witnessing firsthand this double-edged solution. "Our clients want reliability without choking Dhaka's air," explains RESL engineer Fatima Begum.

### Powering Progress Through Innovation

Since 2000, RESL has evolved from diesel specialist to integrated energy solutions provider. Their Mitsubishi 18,750 KVA generators now complement solar-diesel hybrids in 23% of new installations. The shift mirrors Bangladesh's updated National Solar Energy Roadmap aiming for 4,100 MW solar capacity by 2027.

### Microgrid Success in Cox's Bazar

In 2024, RESL implemented a 450KW solar-diesel system for Rohingya refugee camps. The setup reduces diesel consumption by 40% while maintaining 24/7 power for medical facilities. "It's not just about kilowatts," project lead Arif Khan notes, "We're preventing 18 tons of CO2 monthly - equivalent to 4,500 tree seedlings grown for 10 years."

### The Hybrid Energy Revolution

Why choose between reliability and sustainability? RESL's Smart Power Controllers automatically switch between solar, grid, and generator sources. A textile factory in Narayanganj achieved 73% operational cost reduction using this system with battery storage.

### Marine Energy Breakthroughs



# Rahimafrooz Energy Solutions in Bangladesh

RESL's new marine engine division addresses Bangladesh's growing shipbuilding industry. Their turbocharged engines improve fuel efficiency by 15% compared to conventional models - crucial as inland water transport moves 35% of national cargo.

## Saving Lives Through Power Resilience

When Cyclone Remal knocked out Chittagong Medical College Hospital's grid in May 2024, RESL's 2MW hybrid system maintained ICU operations for 72 hours. The installation combines solar canopies, lithium batteries, and automated generator startup - a model now being replicated in 12 tertiary hospitals.

As Bangladesh eyes middle-income status, companies like RESL prove that energy innovation isn't just about technology. It's about keeping factories humming, hospitals healing, and communities thriving - one sustainable watt at a time.

Rahimafrooz Energy Services Ltd

Web: <https://www.solarsolutions4everyone.co.za>