



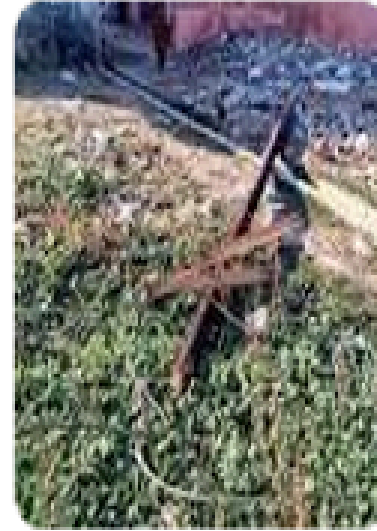
# FRP Fencing



NewsClick

## Over 3,000 People Died from Electrocution Accidents in Northern Telangana in the Last Six Years

The Telangana State Electricity Regulatory Commission (TSERC) mandates ... lakh to each of the victims' families in cases of fatal accidents of non-departmental persons on account of electrocution in the distribution sector.



# UN-FENCED DISTRIBUTION BOXES HAS LED TO TRIVIAL ISSUES

Telangana Today

## Three electrocuted in separate incidents in Telangana

Three electrocuted in separate incidents in Telangana ... Ayyub (22), a contract worker with Northern Power Distribution Company limited (NPDCL), ... Based on a complaint filed by Nammu, his brother, a case was registered.

The Hindu

## TSNPDCL told to pay ₹15.5 lakh compensation

... to electrocution in three separate cases were in for a relief after a consumer forum directed the Telangana State Northern Power Distribution



## Blame game on over electrocution deaths

TNN | Sep 17, 2014, 01:38 IST



HYDERABAD: A day after four men were electrocuted near a bus stop in Nampally, Haj House and discom officials were caught up in a blame game over the illegally tapped power lines allegedly from the transformer located on the Haj House premises and drawn by vendors who had set up temporary stalls outside in view of the ongoing Haj

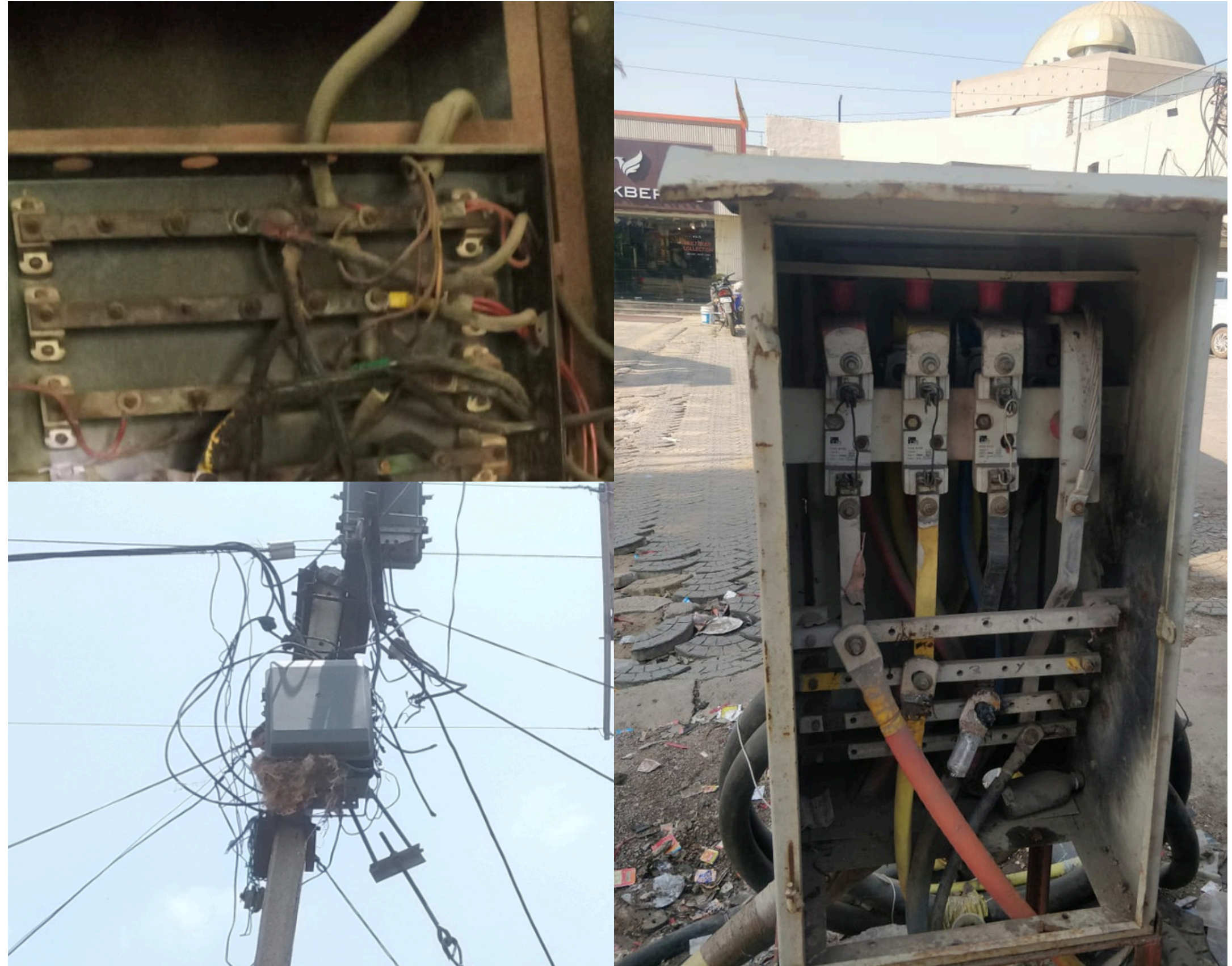
season.

# CONSEQUENCES OF UN-FENCED DISTRIBUTION BOXES

Loss to mankind

Loss to animals

Loss to utility



## LOSS TO MANKIND

Approximately **1,000** people die every year as a result of electrical accidents, and **30,000** are injured.

## LOSS TO ANIMALS

Over **1,300** animals are killed by electrocution in India over a decade. Between 2014 and 2019, **312** animals have died and between 2009 and 2014, the number was **233**.

## LOSS TO UTILITY

Electrocution is not always a mistake of the utility but only utility has to take the blame and financial burden. In various cases, utilities have to pay compensation to the victims of electrocution

**For death, injury and electrocution due to unfenced distribution boxes.**

**RMC has a cure**

# FRP FENCING



- **RMC is a leading manufacturer of high quality FRP Fence.**
- **Our FRP Fences are easy to install, use & maintain as well.**
- **Our FRP Fence is available in variety of Colors and sizes as per Client's requirements.**
- **Our FRP is fully equipped to provide you with your own designed fencing system.**

# FRP FENCING-A BOON

- **Good Corrosion and Weather Resistance**
- **High Physical and Mechanical Strength**
- **High Strength to weight ratio**
- **Highly Durable**
- **Lower electrical & thermal conductivity**
- **Good adaptability & dimensional stability**
- **Aesthetically appealing**
- **Flexibility in design**
- **Ease of Maintenance with Zero Downtime**
- **Sturdy and Structurally Stable**
- **Economical & cost effective**



A close-up photograph of a hand in a fist, holding a small, light-colored ball. The hand is positioned on the right side of the image, with the thumb pointing downwards. The background is a solid, light beige color.

# FRP

**v/s**

A close-up photograph of a hand in a fist, holding a small, light-colored ball. The hand is positioned on the left side of the image, with the thumb pointing downwards. The background is a solid, light beige color.

# Traditional Material

# WHY FRP FENCING OVER METALLIC FENCING ?

	FRP Fencing	Metallic Fencing
Corrosion Resistant	✓	✗
Light Weight	✓	✗
Fire Retardant	✓	✗
Costly	✗	✓
Risk of Cable Damage	✗	✓
High Insulation	✓	✗
U.V. Resistance	✓	✗
Antistatic	✓	✗

## FRP Composites

## Steel

## Aluminium

## Wood

### CORROSION, ROT AND INSECT RESISTANCE

Resists a broad range of chemicals and is unaffected by moisture or immersion in water. Resists insect damage. Painting is only suggested when exposed to UV rays/direct sunlight

Subject to oxidation and corrosion. Requires painting or galvanizing for many applications.

Can cause galvanic corrosion. (Anodizing and other coatings increase corrosion resistance.)

Can warp, rot and decay when exposed to moisture, water and chemicals. Susceptible to attack by insects such as termites and marine borers.

### STRENGTH

Has greater flexural strength than timber and pound-for-pound is often stronger than steel and aluminum in the lengthwise direction  
Fu: LW = 30,000 psi (30 ksi)  
CW = 10,000 psi (10 ksi)

Homogeneous material.  
Yield strength (Fy) = 36 ksi

Homogeneous material.  
Flexural strength (Fu) = 35 ksi

Modulus of rupture is 12,000 psi

### WEIGHT

Weighs 75% less than steel and 30% less than aluminum

Could require lifting equipment to move and place. 1/2-in. thick plate = 20.4 lbs/sq ft

Lightweight — about a third of the weight of copper or steel.

Specific gravity 0.48

**FRP Composites**

**Steel**

**Aluminium**

**Wood**

**ELECTRICAL CONDUCTIVITY**

Nonconductive. High dielectric capability.

Conducts electricity. Grounding potential.

Conducts electricity. Grounding potential.

Can be conductive when wet.

**THERMAL PROPERTIES**

Good insulator with low thermal conductivity. Thermal conductivity=4 (BTU in. / (hr ft<sup>2</sup> °F) Low thermal coefficient of expansion=7- 8(in./in./°F) 10-6

Conducts heat. Thermal conductivity = 260-460 (BTU/sf/ hr/°F/in.) Thermal coefficient of expansion. = 6 - 8 (in./in./°F) 10-6

Conducts heat. Thermal conductivity = 150 (BTU/sf/hr/°F/in.) Thermal coefficient of expansion. = 13 (in./in./ °F) 10-6

Low thermal conductivity. Thermal conductivity = .8 (BTU/sf/hr/°F/in.) Thermal coefficient of expansion. = 1.7 - 2.5 (in./in./°F) 10-6

**STIFFNESS**

Up to 3.3 times as rigid as timber. Will not permanently deform under working load. Modulus of elasticity: 2.8 x 10<sup>6</sup> psi

Modulus of elasticity: 29 x 10<sup>6</sup> psi

Modulus of elasticity: 10 x 10<sup>6</sup> psi

Modulus of elasticity: up to 1.6-1.8 x 10<sup>6</sup> psi\*

## FRP Composites

## Steel

## Aluminium

## Wood

### IMPACT RESISTANCE

Will not permanently deform under impact. Glass mat in pultruded parts distributes impact load to prevent surface damage, even in subzero temperatures.

Can permanently deform under impact.

Easily deforms under impact.

Can permanently deform or break under impact.

### ENVIRONMENTAL IMPACT

Not hazardous to the environment.

Not hazardous.

Not hazardous.

May be treated with hazardous preservatives or coatings to increase corrosion/rot/insect resistance. Contributes to depletion of forest systems

### COLOUR

Color is molded through; no painting required. Variety of colors available.

Must be painted for color, and may require repainting over time.

Colors require prefinishes, anodic coatings and paints. Mechanical, chemical and electroplated finishes can be applied.

Must be primed and painted for color, and may require repainting over time.

**FRP Composites**

**Steel**

**Aluminium**

**Wood**

**COST**

Lower installation costs, less maintenance and longer product life allow for a lower lifecycle cost.

Lower initial material cost.

Part price comparable to FRP

Has a lower initial cost, but usually requires more maintenance and replacement.

**EMI/RFI TRANSPARENCY**

Transparent to radio waves and EMI/RFI transmissions. Used for radar and antennae enclosures and supports.

Can interfere with EMI/RFI transmissions.

Highly reflective to EMI/RFI transmissions.

Transparent.

**FABRICATION**

Can be field-fabricated using simple carpenter's tools with carbon or diamond tip blades — no torches or welding required. Light weight allows easier transport and installation.

Often requires welding and cutting torches. Heavier material requires special equipment to erect and install.

Good machinability (welding, brazing, soldering or mechanical joining).

Can be field-fabricated using simple carpenter's tools.

**Traditional building materials have their place. But for harsh, corrosive environments,**

**FRP is a smart choice.**

# COMPARING THE NUMBERS

Property	FRP Composites		Steel	Aluminium	Wood
Density (lb/ft)	107-120		490	169	30
Tensile Strength (psi)	30,000 (LW)	7,000 (CW)	65,000	45,000	-
Tensile modulus (x10psi)	2.8 (LW)	1 (CW)	30	10	-
Flexural Strength (psi)	30,000 (LW)	10,000 (CW)	65,000	45,000	12,000
Flexural Modulus (x10psi)	1.8 (LW)	0.8 (CW)	30	10	1.6-1.8
Thermal conductivity (BTU in/(hr ft))	4		323	1160	0.8
Thermal Expansion (x10in)	7 - 8		6 - 8	13	1.7 - 2.5



# OUR LINE OF FRP PRODUCTS

We offer a wide variety of structural products made of fiberglass-reinforced plastic, including cable tray, fencing, ladder and grating. Our staff of skilled design, engineering and manufacturing professionals is dedicated to helping our customers maximize the benefits of FRP.

## PRODUCTS

- FRP Cable tray
- FRP fencing
- FRP Ladder
- FRP Grating

## SERVICES

- Design and Drafting
- Engineering
- Fabrication
- CNC Machining
- Secondary coating
- Painting
- Assembly and Kitting
- In house testing

# WHY US ?

- **Leaders in the electro-technical industry of India.**
- **Providing our esteemed customers with the best possible products, services and solutions since its incorporation in 1994.**
- **Offer modernized production facilities, improved technical and quality standards, technical superiority, balanced teamwork and professional services.**
- **Established long term relationships with all our stakeholders and intend to work jointly for maximizing the benefits from the modern technologies.**
- **Constantly working towards improving the product portfolio and quality standards.**
- **Constantly innovating our products to ensure revenue protection and revenue maximizations for Indian Utilities.**

# WHY US OVER OTHERS?

- **We are RMC: Reliable, Meticulous, Consistent.**
- **We have excellent products, process and people.**
- **We provide quality at its peak.**
- **We have our sheer focus on Customer satisfaction.**
- **We meet for needs for longevity, safety & cost.**
- **We have professional engineering and drafting team.**
- **We have a large customer base of with the customers repeating their orders.**
- **We have advanced manufacturing, testing and process control systems.**
- **We have accreditations and certifications by independent international organizations for safety, quality and environmental protection**



*THANK YOU!*