Powering Worldclass Results

Supporting Communication Infrastructure
Your infrastructure solutions start with us.

The information revolution’s insatiable requirements for greater speeds and larger capacities brings new challenges to service providers and building owners every day. At PWR we help facility based wireline, ISP and wireless telecom clients with locating, engineering and consulting for network deployment. We are partners working side by side with engineering departments in evaluating new construction or renovation of existing facilities. By employing the latest project management techniques at PWR our customers are assured timely and cost efficient completion of highly technical projects. We handle any and all aspects of a site’s mechanical, electrical engineering requirements including AC electrical, air handling, DC power, super structure, generator and fire protection. We are also capable of installing communications systems including transport, router and local area networks. Following project completion, PWR supports your communication and network systems with quick response times and equipment related service. Our list of clients include Global Crossing, MCI Worldcom, Nextel Partners, Paetec, RCN, Sphera and Williams, to name a few. Contact us directly or visit us on the web at pwrllc.com. At PWR we are committed to solving network infrastructure requirements for an increasingly complex electronic world.
Site and Infrastructure Planning
When building or upgrading a telecommunications facility, proper planning and execution is key to a successful installation and a reliable site. Our highly competent team manages each project as required by our customers. From concept to service-ready, we work with your company’s team to produce a site that meets both your present and future needs. Our engineers utilize AutoCAD and Visio software to develop complete detailed specifications, material list, build schedule and complete as-built package. PWR adheres to the industry’s most stringent specifications during design and quality control inspections.

Site Build Services
PWR offers years of expertise in consulting, project management, field project management, installation, test and turn up. PWR provides build services for new site builds and upgrades to existing sites. PWR dedicates to each project a technical design person, project manager and lead installer. Our installation specifications are held to the highest level in the industry.

Project Management
PWR provides a full range of project management and construction services to ensure our customers specific projects are completed on time and within budget. The project manager assembles a cohesive team to define a plan and coordinate every phase of each project. Our experienced project managers provide:
- Define scope of work
- Develop budgets
- Timetable and Schedule Coordination
- Vendor Selection and Management
- Hiring and Management of Contractors and Subcontractors (union, non-union)
- Monitoring standards, state/city codes, permits and safety
- Accounting and Invoice Management
- Material Selection and Procurement
- Quality Control Assurance

PWR manages each project using state-of-the-art software that scripts scope of work, schedules projects, and tracks progress through completion.

Engineering, Equipment and Installation

Ongoing Service
1. 24 X 7 site support via data network/Emergency phone dial out.
2. Power Management

Warehousing
- Stock inventory of power equipment from multiple manufacturers
- FIFO Inventory
- General Receiving
- Inventory Control
- Delivery
- Rack and Stack for Forecasted Deployment
- Pre-wiring and Integration for Quality Control
- Network Warehousing at 63 Warehouse locations Nationwide (25,000-100,000 Sq./Ft.).

Cabinet Integration
- Environmental
- Monitoring and Alarms
- AC Power Protection and Back up
- Multiple Distribution configurations
- DSX Panels
- Telecom electronics (ATM Switch, Routers, DACCs etc.)
- Internal Power Management
- Fiber Management and Fiber
Services Offered for:
Central Office/Collocate Space

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<th>Site Design</th>
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<td>Nationwide, Puerto Rico &amp; Dominican Republic</td>
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<td>Union and non-union locations</td>
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<td>Project management &amp; field management</td>
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<td>Warehouse, pre-stage &amp; equipment delivery</td>
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<td>Power AC/DC</td>
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<td>As Per Built Documentations</td>
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Product Offerings:

**Batteries:**
- Flooded Lead Acid
- Sealed AGM 10 Year
- Sealed AGM 20 Year

**Battery Disconnects:**
- Breaker
- Electronic Contact Fuse
- Motorized shunt trip EPO capability

**Breakers:**
- 1-600 Amp
- Bolt-in Style
- Plug-in Style

**Bus Bar:**
- Busduct
- Fabricated Bus

**Ground Bars- "PANI"**

**Cabinets:**
- with Power Integration
- Indoor
- Outdoor

**Cable:**
- Alarm Cable
- Power Cable

**Converters**

**Distribution:**
- 100-10000 AMP
- Auxiliary/Supplemental Bays
- BDFB’s
- Mini BDFB
- Breaker Panels
- DSX Panels
- Fuse Panels
- GMT Panels

**Facilities:**
- Heating & Air Conditioning
- Generators
- Lighting
- Fire/Alarm

**Fiber Duct and Cable Raceway**

**Inverters:**
- 24vdc, 48vdc
- Modular 1-90Kva
- Monolithic 1-10Kva

**Ladder Rack/Relay Racks**

**Lugs**

**Power Conditioning:**
- Plug Strip

**Power Plants:**
- 24volt, 48volt, 130volt, 240volt
- 5-200Amp
- 600-1200Amp
- 1800-10000Amp

**Surge Suppression**
- TVSS

**Rectifiers:**
- Ferro
- High Frequency
- Switch Mode

**UPS:**
- Single Phase
- 3 Phase
- 50VA - 1000KVA
<table>
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<th>Location in Network</th>
<th>Equipment to be Powered</th>
<th>Typical Amperage Required</th>
<th>PWR Solution and Power Components</th>
<th>Visual Photos</th>
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<tr>
<td>Central Office Host Switch</td>
<td>(Switch), Lucent, Nortel or Siemens, Digital Subscriber Line Equipment (xDSL), Router, Server, Multiplexers (MUXs), Digital Cross Connect (DCS), Sonet Equipment, Channel Bank, Channel Service Unit (CSU), Digital Loop Carrier (DLC)</td>
<td>For Switch Sites Power Plants range from 2400 to 10000 Amps</td>
<td>PWR Large Power System, Battery Distribution, Fuse Bay (BDFB), Inverter (48vdc to 120/240vac), Ringing &amp; Signaling, Converter (48vdc to 130vdc), Batteries</td>
<td><img src="image1.jpg" alt="Image" /></td>
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<tr>
<td>Remote Switching MTSO</td>
<td>Remote Switch, Router, Multiplexers (MUXs), Digital Loop Carrier (DLC), Digital Subscriber Line Equipment (xDSL), Digital Cross Connect (DCS), Sonet Equipment, Channel Bank, Channel Service Unit (CSU), Data Service Unit (DSU)</td>
<td>Site Loads from 100 to 2400 Amps</td>
<td>PWR Large Power System, Battery Distribution, Fuse Bay (BDFB), Fuse Panels, Inverter (48vdc to 120/240vac), Ringing &amp; Signaling, Converter (48vdc to 130vdc), Batteries</td>
<td><img src="image2.jpg" alt="Image" /></td>
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<tr>
<td>Remote Terminal (Located in Hut, CEV, CUE or MESA Cabinet)</td>
<td>Multiplexers (MUXs), Digital Loop Carrier (DLC), Digital Subscriber Line Equipment (xDSL), Digital Cross Connect (DCS), Sonet Equipment, Channel Bank, Channel Service Unit (CSU), Data Service Unit (DSU), Router</td>
<td>Site Loads up to 200 Amps</td>
<td>PWR Mini Power System, PWR Mid-range Power System</td>
<td><img src="image3.jpg" alt="Image" /></td>
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<tr>
<td>Customer Premise or Customer POP (OC-3 or OC-12)</td>
<td>Multiplexers (MUXs), Digital Loop Carrier (DLC), Digital Subscriber Line Equipment (xDSL), Digital Cross Connect (DCS), Sonet Equipment, Channel Bank, Channel Service Unit (CSU), Data Service Unit (DSU), Router, Switch, Servers, Private Branch Exchange (PBX), Remote Switch, Switch</td>
<td>Up to 75 Amps, Switch present up to 2400 Amps</td>
<td>PWR Mini Power System, PWR Mid-range Power System, PBX present or Remote Switch up to 600 Amps, Switch present up to 2400 Amps</td>
<td><img src="image4.jpg" alt="Image" /></td>
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<tr>
<td>Wireless Site (Hut or Cabinet Enclosure)</td>
<td>Analog/Digital Radios, Microwave Radios, Multiplexers (MUXs), Channel Bank</td>
<td>100-1200 Amps</td>
<td>PWR Power System, Battery</td>
<td><img src="image5.jpg" alt="Image" /></td>
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Worldclass
Super
Structure
and Cable
Installation