BARAK & BRAZOS
BREAKING BARRIERS

ENGINEERING WHAT RUNS THE WORLD

DATA CENTERS INFRASTRUCTURE • POWER DISTRIBUTION EQUIPMENT • INDUSTRIAL AUTOMATION & EMBEDDED ENGINEERING

We Engineer everything that powers a Data Center - from Power Generation to the Distribution Equipment inside it, Including custom machines and embedded products powered by AI-Augmented Engineering.

200+ ENGINEERS • 90% US MARKET FOCUS • DELIVERED FROM INDIA • TRUSTED GLOBALLY

Data Center Ecosystem

Power Plants, Substations, Switchgear Systems, Water Treatment, HVAC, BESS & eHouses, Power Systems Studies. Multidisciplinary Capabilities across Mechanical, Civil & Structural, Electrical, Instrumentation & Controls.

Power Distribution Equipment Design

Complete Product R&D and Design for LV/MV Switchgear, PDUs , Switchboards as per UL/NEMA/IEC Codes, including Engineering Documentation for Product Validation and Testing Support.

Industrial Automation & Embedded Engineering

Special Purpose Machines, Conveyor Systems & Factory Automation. Embedded Products including Hardware, Firmware & Enclosure Design from a Single Engineering Partner.

AI

AI-Augmented Engineering - Proprietary AI tools for design reuse, quality automation, and productivity enhancement run across all three verticals. Process-layer only. Your IP stays yours.

OEM PARTNER | EPC READY | HYPERSCALE DEVELOPER | ANNUAL RETAINERS

LET'S ENGINEER YOUR NEXT PROJECT

Whether you are an OEM, EPC, hyperscaler developer, or utility package supplier, we would like to talk. Reach out for a no-obligation conversation about how a dedicated Barak & Brazos retainer team could integrate with your engineering programme.

sales@barakandbrazos.com
www.barakandbrazos.com
+1-386-289-2060

VISIT OUR PAGE

BARAK & BRAZOS
BREAKING BARRIERS

POWERING THE DATA CENTER ERA

THE COMPLETE ECOSYSTEM

We engineer every system that makes a data center function.
Power plants. Substations. Switchgear. BESS. HVAC. Water treatment. Civil and structural. BIM.
Every discipline under one roof. One quality standard. One call. No coordination gaps. No interface failures.

70%
OF OUR CAPACITY

Power Generation
Comprehensive Engineering Services across Gas, Nuclear & Solar Generation - Optimized for Performance, Safety and Constructability.

HVAC & Process Cooling
Rigorous Detailed Engineering for Mission-Critical Thermal and Process Cooling Systems, Designed for Efficiency and Operational Resilience.

Grid, Substation & Switchyards
Efficient, Execution-Ready Engineering for High-Voltage Substation and Switchyard Infrastructure.

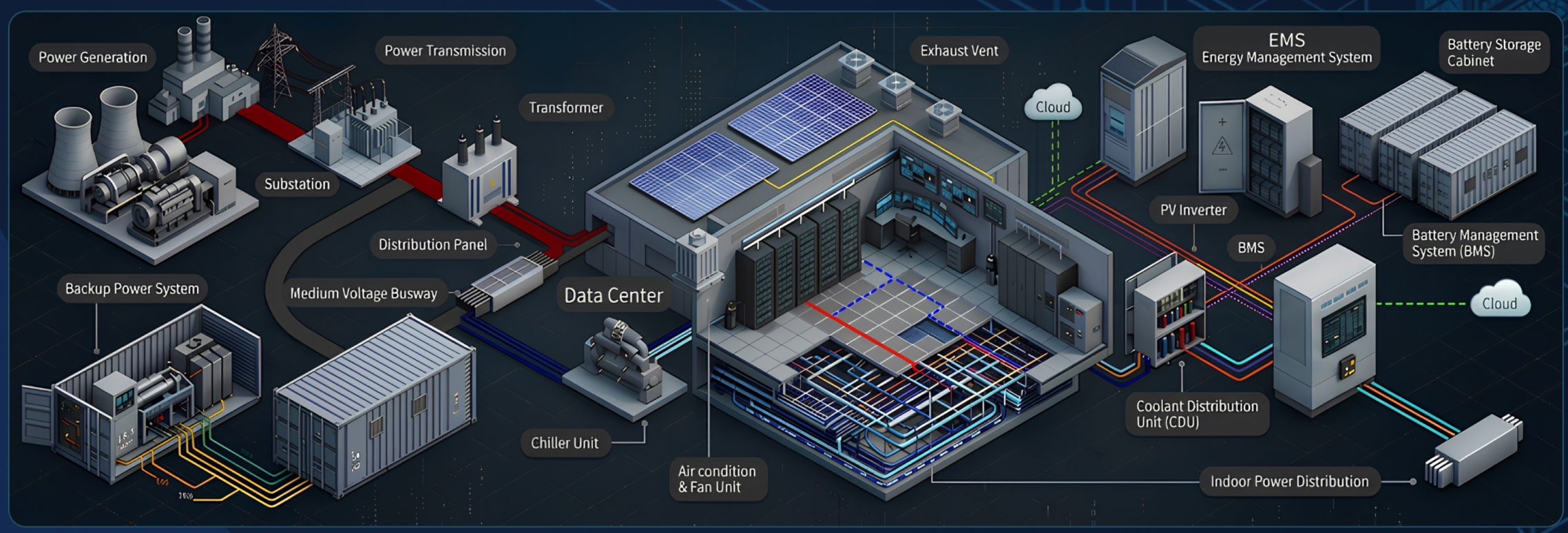
Power Distribution Equipment Design
MV/LV Switchgear - Design & Manufacturing, Support-Testing & Certification

Water Treatment Plant Engineering
End-to-End from Process Adoption through Detailed Design - Delivering Reliable, Optimized Water Treatment, Cooling and ZLD systems.

BIM & Structural
Structural Engineering Design and Integrated BIM - Driving Coordination, Accuracy and Delivery Confidence

DISCIPLINES DEPLOYED

- MECHANICAL
- ELECTRICAL
- INSTRUMENTATION & CONTROLS
- CIVIL & STRUCTURAL
- PROCESS ADAPTATION



BARAK & BRAZOS
BREAKING BARRIERS

POWER DISTRIBUTION EQUIPMENT DESIGN

Specialist product engineering for MV/LV Switchgear, Power Distribution Equipment, Modular Distribution Skids, BESS and eHouses. Full scope from Electrical and Mechanical Design through UL/NEMA/NEC/NFPA Compliance Documentation and Type Testing Support, serving OEMs and Developers across the complete Product Lifecycle. Backed by active R&D in next-generation Power Distribution and Energy Storage Product Architectures.

MV/LV Switchgear, PDU, UPS & Distribution Board Engineering

Full Product and System Engineering for LV/MV Switchgear, Power Distribution Units, UPS Systems and Distribution Boards. Scope covers Electrical Design, Mechanical Enclosure, Busbar sizing, Wiring Diagrams and Production-Ready Documentation Packages.

Product Validation & Testing Support

Engineering Documentation Support for Type Testing, Factory Acceptance Testing (FAT) and Site Acceptance Testing (SAT). Includes Test Plans, Test Procedures, Test Reports and Technical Documentation required for Product Certification and Regulatory Approval.

BESS & Containerised E-House Design

Electrical, Mechanical and Structural Engineering for Battery Energy Storage Systems and Containerised eHouses. Covers Internal Layout, Power Distribution Architecture, Cooling Coordination, Protection Schemes and Construction-Ready Drawing Packages.

UL / NEMA / IEEE Compliance

Compliance Engineering for US and International Standards, UL, NEMA, NEC, NFPA and IEC. Covers BOM review, Compliance Gap Analysis, SF6-free Re-engineering, Standards Documentation Packages and Certification Support for OEM Product Lines.

INDUSTRIAL AUTOMATION & EMBEDDED ENGINEERING

Special purpose machines, factory automation and material handling systems, mechanical structure, drive systems, PLC schematics, safety circuits and HMI specifications. Engineered from concept to production-ready package. Hardware and firmware design for Industrial Embedded Products - PCB Design, Control Electronics, Firmware, Enclosure Design and DFM. One partner from specification to a certified, manufacturable product.

Special Purpose Machines

Concept Design, Detailed Engineering and Manufacturing Drawings for Custom Special Purpose Machines. Full scope from Mechanical Structure and Drive Systems through to Custom Part Manufacturing.

Factory Automation

PLC Schematics, Safety Circuit Design, HMI Specifications and Control System Engineering for Factory Automation Applications. Fully Coordinated Mechanical and Electrical Automation Packages from Concept to Commissioning.

Conveyor & Material Handling Systems

Engineering for Conveyor and Material Handling Systems, Mechanical Design, Drive Selection, Structural Analysis and Controls Integration. Delivered as a complete, Production-Ready Engineering Package.

Embedded Product Design

Hardware and Firmware Design for Industrial Embedded Products, PCB Design, Component Selection, Control Electronics and Firmware Development. Mechanical Enclosure Design with FEA/CFD Analysis, Thermal Management and DFM through to Prototype Build Support.

AI-AUGMENTED ENGINEERING — WHAT POWERS ALL THREE VERTICALS

Design Reuse Engine

AI identifies reusable layouts, calculations and document patterns across our project history, compressing delivery timelines across all three pillars

Automated Quality Checking

Rules-based and AI-assisted checking against codes, client standards and drawing conventions, errors caught at the desk before delivery, every time

Client Workflow Tools

AI tools deployable on your own infrastructure, product configurators, monitoring apps, workflow automation. Process-layer only. Your IP stays yours.

BARAK & BRAZOS
BREAKING BARRIERS

WHY BARAK & BRAZOS

01 Engineering Depth From System to Product

We Engineer from Infrastructure System level all the way to Product level, Mechanical, Electrical, Embedded Hardware and Firmware. Most firms stop at system. We don't.

02 US Code Fluency - All Disciplines

From NFPA, IEEE and NEC for electrical, to ASME, AISC and IBC for Mechanical and Structural, to ISA and ANSI for Instrumentation, our teams work to US codes across every discipline we deliver.

03 AI That Powers All Three Verticals

Our proprietary AI tools run across every pillar, Design reuse, Quality Checking, Productivity. Process-layer only. Your IP never leaves your control.

04 For This Decade. Powered by Intellectual Capital

We grew up in data center engineering. The difference is not just capability, it's the calibre of thinking behind it. Engineered with intent. Delivered with precision.

HOW WE PARTNER WITH YOU

Dedicated teams embedded into your engineering workflow on annual MSA contracts. We work in US time-zone overlap, use your preferred tools and standards, and grow with you over the years. The result is consistent, improving quality, not inconsistent project-by-project staffing. We offer a 2-week trial on any new discipline with no obligation to convert.

95% CLIENTS
ANNUAL RETAINER

4-6 HOURS
TIMEZONE OVERLAP

4+ YEARS
ACTIVE CLIENT TENURE

WHAT OUR CLIENTS SAY ABOUT US

"I wanted to thank everyone for the hard work we've put in this year. We're at the very tail end of this project now, and while there have been more downs than ups at times, I believe we've succeeded as a team. I sincerely want to acknowledge B&B and the effort they've brought, the late nights, the steep learning curve on both sides as we found our rhythm working together. None of that went unnoticed. We're at the finish line, and in my opinion, this has been a great success. Thank you to everyone who's been a part of it."

- Engineering Manager, Leading EPC in Power Generation - NJ, USA

"Thanks for the effort, we truly appreciate it! The files look really good and meet our expectations. A special thanks to the Project Manager and the entire team for continuing to be so flexible and supportive as we work on establishing our standards. Your collaboration and responsiveness make a big difference, and we value the partnership we are building together."

- VP of Engineering, Leading Water Treatment Company - MO, USA

CONTACT US

Mr. Mehbub Barbhuiya
Head of Business Development
+1-386-289-2060
mehbub.b@barakandbrazos.com

Mr. George Nath
Business Development Manager
+1-689-336-0041
george.n@barakandbrazos.com