

# PRODUCTION LIFECYCLE: ELECTRICAL, INSTRUMENTATION & CONTROL SERVICES

PROJECT LIFECYCLE (CapEx \$)

TRANSITION

ASSET LIFECYCLE (OpEx \$)

EPC OR GC

MECHANICAL COMPLETE

PRODUCT SUPPORT

OPERATIONAL EXCELLENCE

TECHNOLOGY ASSURANCE

CONCEPT

MAJOR EQUIPMENT

SKIDS & VENDOR PACKAGES

CONTROL & SIS SYSTEMS

E & IC INSTALLATION

OPPORTUNITY ZONE

- Maintain System Health
- Operational Preference and Improvements
- Vacation and Project Support
- On-site / On-call Programs

- Advanced Controls and Optimization
- Asset Utilization
- Energy Improvements
- Alarm Management
- Knowledge and Workflow Management

- Site Audits
- System Upgrades and Network Patches
- Platform Migration
- End of Life Assessment
- Combined Service Agreements

FEED

EPC DESIGN

FEL

DESIGN

PROCURE

INSTALL

COMMISSION

START-UP

OPERATE

MAINTAIN

OPTIMIZE

JMP ROLES:

CONSULTANT

MAIN AUTOMATION CONTRACTOR

OWNER'S REPRESENTATIVE

EMBEDDED ENGINEERING

PRODUCTION SUPPORT