



**K&A**

**ENGINEERING CONSULTING, P.C.**

## **STATEMENT OF QUALIFICATIONS**

**K&A Engineering Consulting, P.C.**  
Substation – Transmission – Distribution – Generation  
PMO – Engineering Services

## TO THE READER

This document presents a general overview of the qualifications and experience of K&A Engineering Consulting, P.C. K&A is a nationally certified Minority Business Enterprise (MBE) that offers a full complement of engineering, project management, and consulting services. Our staff consists of professional engineers and project management professionals with extensive experience in Substation, Transmission, Distribution, and Generation projects. We would welcome the opportunity to discuss your plans.

Included in this document is an abbreviated listing of the project types, specific capabilities, and services provided by the firm. We also maintain a working relationship with several additional consultants to offer a broader scope of services and allow our clients to enjoy the benefits of one (1) primary consultant.

If we could be of assistance in your project plans, please contact any of the persons listed below.

**Purna Kharel, PE**

*- President & CEO*

purna.kharel@kapower.us

**David Klein**

*- VP, Mid-Atlantic Region Project Support Services*

david.klein@kapower.us

**Robert Russ**

*- VP, Northeast Region*

robert.russ@kapower.us

**John Opsatnic**

*- VP, Business Development*

john.opsatnic@kapower.us

**Jim Codling**

*- VP, Southwest Region*

Jim.Codling@kapower.us

**Hussain Biyawerwala**

*- Director of Distribution Engineering*

hussain.biyawerwala@kapower.us

**Gregg Paulson, PE**

*- Director of Substation & Transmission Engineering*

gregg.paulson@kapower.us

**Anna Hanley**

*- Director of Marketing*

anna.hanley@kapower.us

**Headquarters**

K&A Consulting Engineering, P.C.  
445 Hamilton Ave, Suite 406  
White Plains, NY 10601

P: (914) 607-7115

**Northeast Regional Office**

K&A Consulting P.C.  
45 Connair Road  
Orange, CT 06477

www.kapower.us



**NMSDC**

National Minority Supplier  
Development Council

Advancing Business  
Connections that Count

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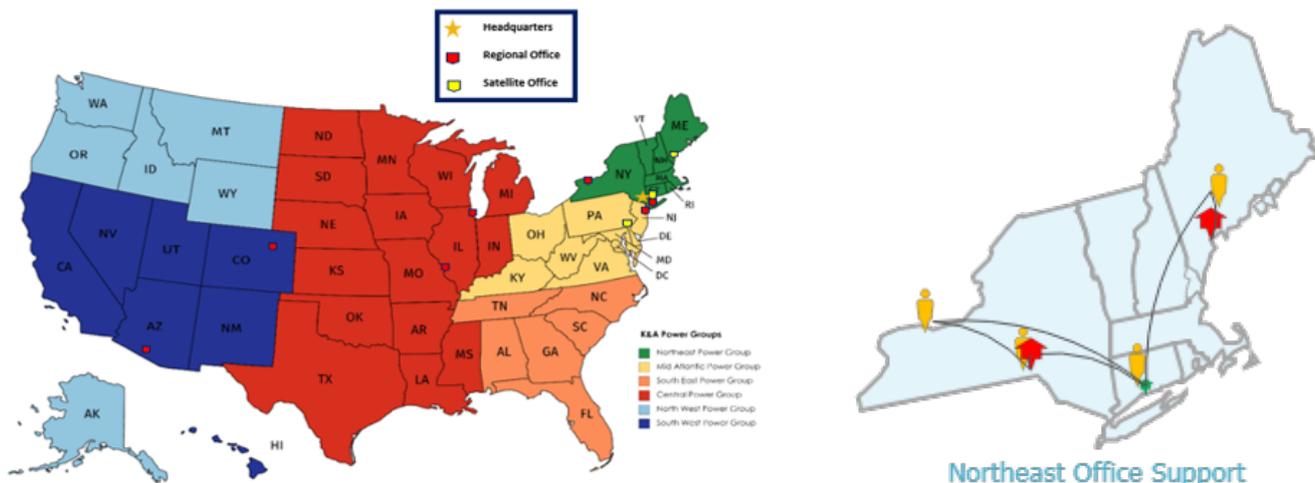
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## Introduction

K&A is a privately-owned, nationally certified Minority Business Enterprise (MBE) providing comprehensive consulting, engineering planning & design, program/project management, construction management, and support services to Electric Utility and Industrial clients. We are certified by the National Minority Supplier Development Council and the South-Central Texas Regional Certification Agency. Established in October 2016, K&A is now approaching 200 engineering and project professionals with the necessary experience and skills to complete jobs with certainty. Our size is our strength, allowing us to be more flexible, cost-effective, and efficient than large corporations without sacrificing quality.

Our experience includes all aspects of power generation, transmission, substations, distribution, energy efficiency, and distributed energy resource (DER) projects, from planning, environmental and regulatory analyses through engineering & design, construction, program management, project controls, and commissioning. K&A has deep roots in the Power Delivery and Power Generation markets, with an average employee having 20 years or more of experience. Because of these deep roots, K&A has been able to continue to attract top tier talent and quickly evolve into a multi-discipline full-service Engineering and Project Management Office (PMO) company, offering professional services throughout the U.S. and internationally.

K&A's Headquarters is in White Plains, New York. We have four (3) Regional Offices that are our business centers for specific regions of the United States. These offices are in Orange, Connecticut; Glen Mills, Pennsylvania; and Portland, Maine. In addition to our Headquarters and Regional Offices, we have nine (7) smaller Satellite Offices strategically located in the proximity of our clients and their projects. These offices are in Phoenix, Arizona; Denver, Colorado; Chicago, Illinois; Saint Louis, Missouri; Newark, New Jersey; Huntington, New York; and Rochester, New York. In addition to our office locations in the United States, K&A holds an international office in Lalitpur, Nepal.



The multi-discipline activities of K&A provide a significant advantage in program development, from inception through completion. An integrated approach of planning, engineering, system studies, program/project/construction management, and project controls services enhances successful and cost-effective program development.

## Profile of Professional Services



### A. Strategic Planning

K&A provides services to plan & facilitate our client's organizational management activities. These management activities are used by clients to set priorities, focus energy and resources, strengthen operations, ensure that employees and other stakeholders are working toward common goals, establish agreement around intended outcomes/results, and assess and adjust the organization's direction in response to a changing environment.

Specific strategic planning services provided by K&A include the following:

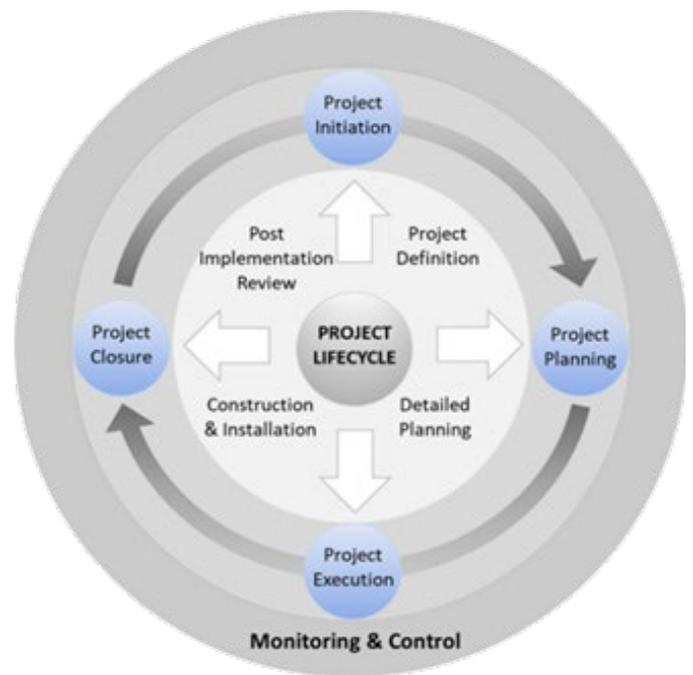
- ✓ Develop resource requirements to meet projected service demand
- ✓ Staff training and initiative development
- ✓ Integration of tools and systems to enhance efficiency and productivity
- ✓ Organizational Financial planning for the organization
- ✓ Program development to meet corporate initiatives
- ✓ Design & implementation functions that support the strategic planning process, enterprise risk process and strategic decision making

### B. Project Management Office (PMO)

K&A Engineering Consulting, P.C. has adopted the standards provided by the Project Management Institute (PMI) as our foundation for organizational, portfolio, program, and project management. Our team will support, develop, and implement PMO capabilities, including enterprise-wide governance, portfolio/program/project management best practices, mentoring, tools and standardized processes, drive value management, and benefit realization.

Specific PMO services provided by K&A include the following:

- ✓ Business case development
- ✓ Project-related services as temporary staff to support a specific project or program
- ✓ Processes to continuously support the management of an organization's projects, programs or portfolios
- ✓ Projects and programs alignment to corporate strategy
- ✓ Develop PMO center of excellence and supports project work by equipping the organization with standards and tools to deliver projects better
- ✓ Develop a thorough understanding of all the overall Program objectives and identify the objectives of each project
- ✓ Establish communications with stakeholders to ensure a coordinated design approach
- ✓ Develop in-depth knowledge of the overall Program objectives and identify the goals of each project
- ✓ Define the sequence of work required to achieve the program/project objectives
- ✓ Determine interdependencies between each project to identify the program's critical path
- ✓ Establish a Program AND Project organization that can complete the work in the most effective manner.



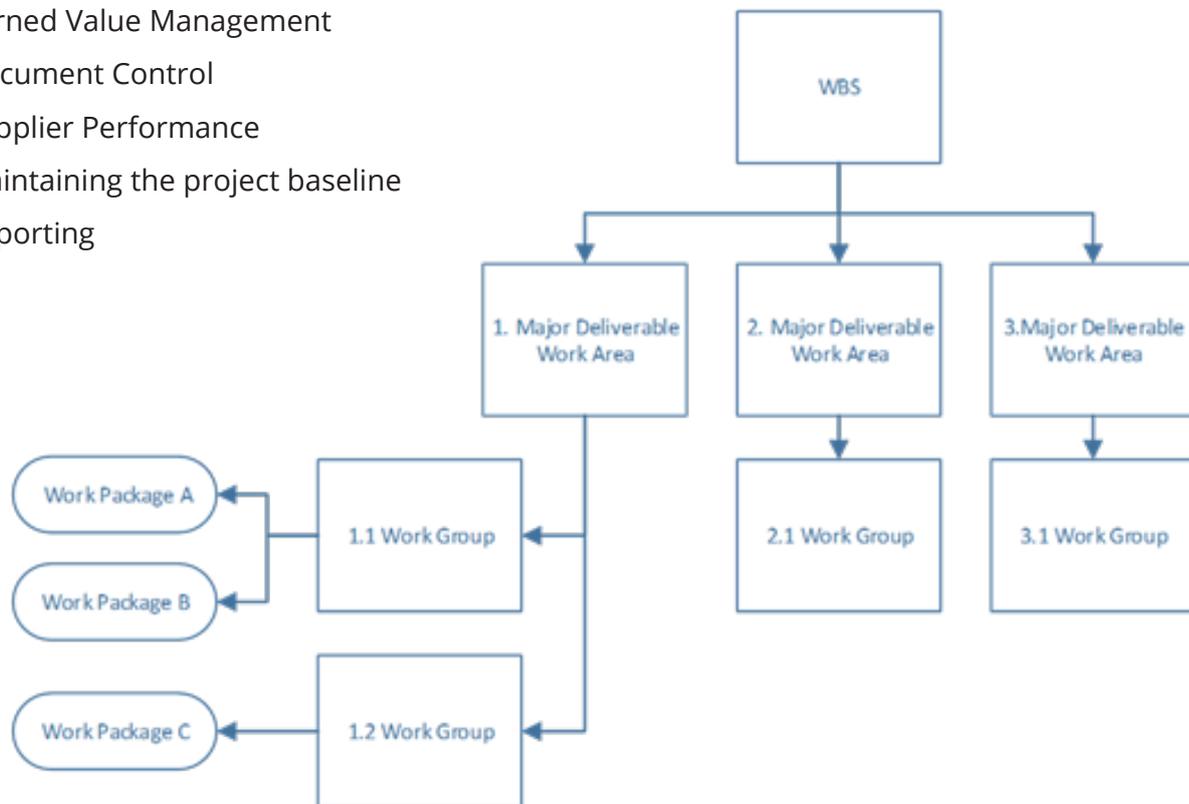
## B.1. Project Controls, Planning & Scheduling

K&A provides Project Controls services to cover all stages of the project lifecycle, from initiation to closure. Project Controls are the data gathering, data management, and analytical processes used to predict, understand and constructively influence the time and cost outcomes of a project or program; through the communication of information in formats that assist effective management and decision making.

Specific Project Controls services provided by K&A include the following:

- ✓ Planning and Scheduling
- ✓ Risk Management (includes identification & assessment)
- ✓ Cost estimating and management
- ✓ Scope and Change Management

- ✓ Earned Value Management
- ✓ Document Control
- ✓ Supplier Performance
- ✓ Maintaining the project baseline
- ✓ Reporting



## B.2. Construction Management

K&A provides Construction Management services for a multitude of projects such as power plants, substations, and transmission line construction in support both of our EPC projects and client projects.



Specific Construction Management services provided by K&A include the following:

- ✓ Represents the owner's interest and provide oversight over the entire project
- ✓ Work with all parties to deliver the project on time, at or under budget, and to the owner's expected standard of quality, scope, and function.
- ✓ Pre-construction planning
- ✓ Constructability reviews
- ✓ Environmental Health and Safety (EHS) management
- ✓ Material management
- ✓ Point of contact for contractors

## C. Distributed Energy Resources (DER)

K&A provides Utility and Developer clients with complete Program Management of DER Interconnections. DER refers to a variety of small, modular electricity-generating or storage technologies that are located close to the load they serve. DER systems typically use renewable energy sources, including small-scale hydro, biomass, biogas, solar power, wind power, and geothermal power. These generation systems play an increasingly important role in electric power distribution.

Specific DER services provided by K&A include the following:

- ✓ Tailor services to meet regulatory requirements
- ✓ Develop interconnection application procedures and management
- ✓ Technical screens for DER interconnect.
- ✓ Standardized DER System Impact Studies (SIS)
  - Load flow
  - Voltage flicker
  - Voltage regulation curve
  - Short current
  - Protection coordination
  - Effective grounding
  - Harmonics evaluation
  - Upgrade cost estimation



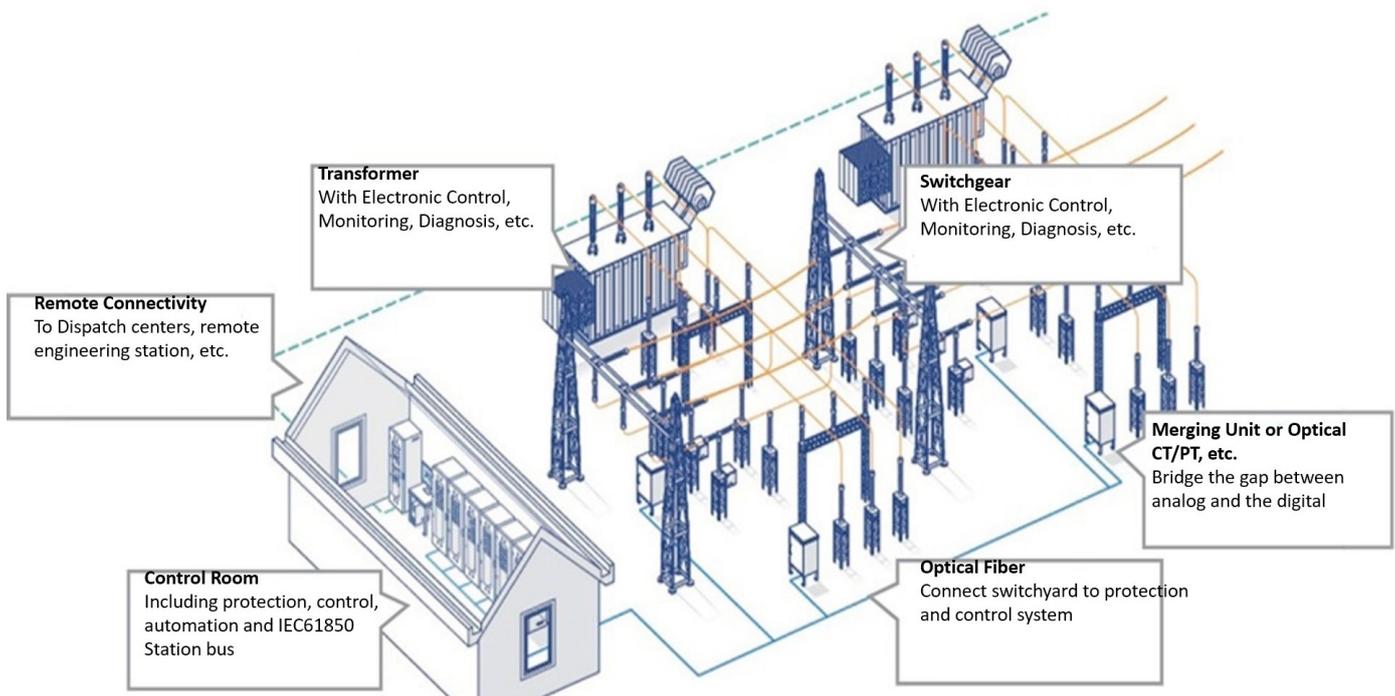
## D. Engineering Services

We offer extensive engineering support, from design and drafting to calculations to professional engineer stamping (Engineer of Record). Our internal quality control process ensures our designs and other work products are precise, reducing the risk of errors in the field.

Specific Engineering Services provided by K&A include the following:

### ✓ Substation engineering

- New Substations
- Upgrades & modifications and repairs
- Digital Substation/IEC 61850
- Protective relaying
- SCADA Systems



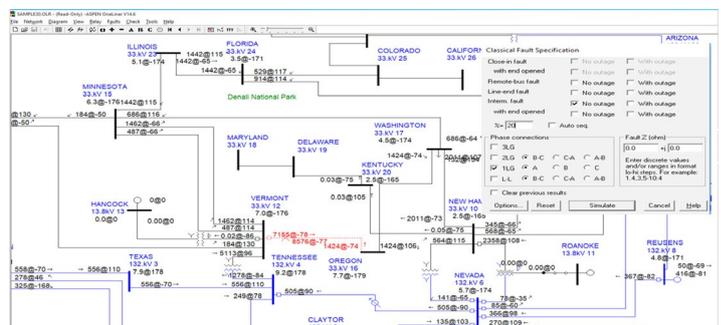
## ✓ Transmission line engineering

- ➔ PLS-CADD, PLS-POLE and SAG 10
- ➔ L-Pile, CAISSON and FAD Foundation Design
- ➔ AutoCAD layout design
- ➔ PLS-Tower
- ➔ RISA 3D



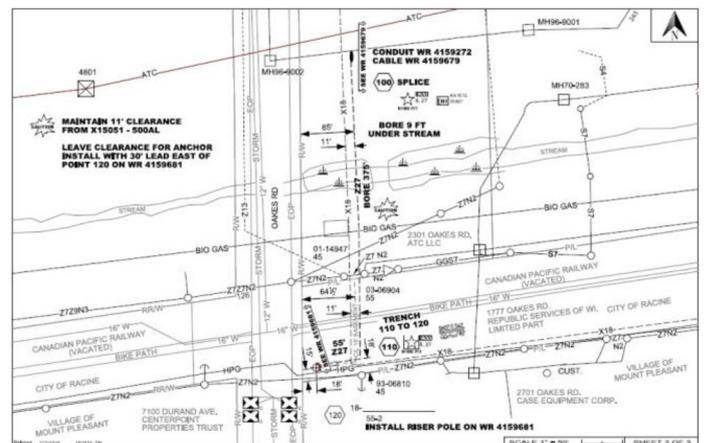
## ✓ System Studies

- ➔ Arc-Flash hazard analysis
- ➔ System impact studies – load flow
- ➔ Protection coordination and relay settings
- ➔ Distribution planning
- ➔ Transmission system planning
- ➔ Real Time Digital Simulation (RTDS)



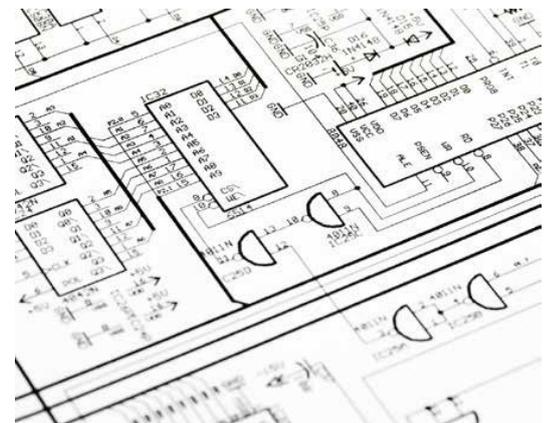
## ✓ Distribution design & engineering

- ➔ Overhead distribution design services
- ➔ Underground (URD) DDS
- ➔ System load forecasting
- ➔ Pole loading analysis
- ➔ System impact studies
- ➔ Root cause investigation analysis
- ➔ Automation



## ✓ Design & Drafting

- ➔ Physical Design
- ➔ Civil/Structural Design
- ➔ Protection & Control Design
- ➔ Bill of Materials (BOM)
- ➔ Field verification
- ➔ As-built/Closeout drawings



## ✓ Distribution Planning

- Cyme
- Synergi

## D.1. Analysis Tools

### → Positive Sequence

- PSS/E
- GE-PSLF
- DigSilent
- Powerworld

### → Short-Circuit

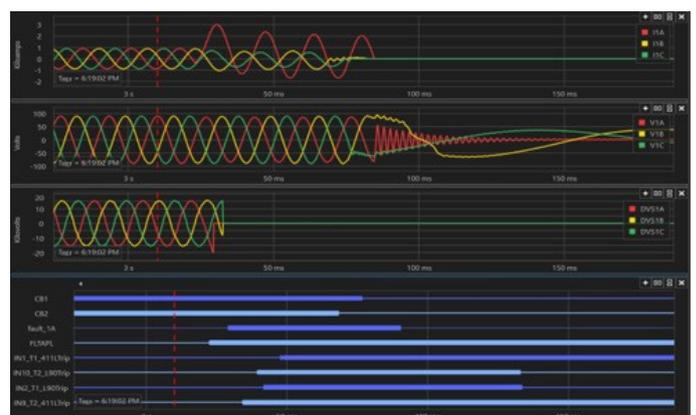
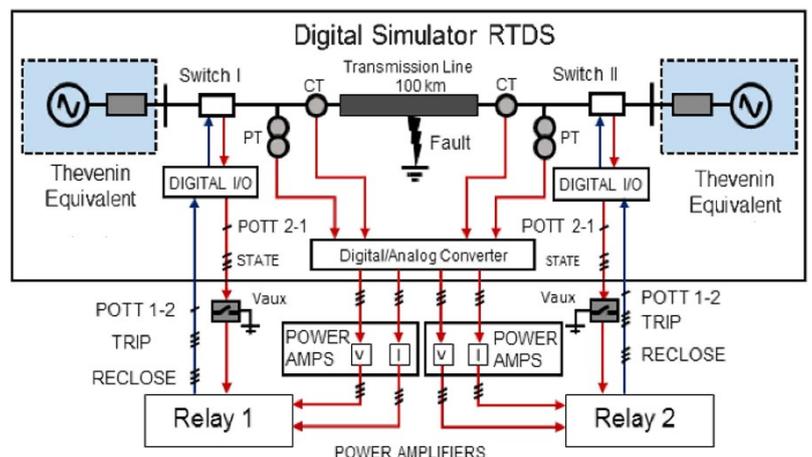
- ASPEN
- EasyPower
- ETAP
- SKM
- CAPE
- Transients
- EMTP/ATP
- PSCAD

### → Production Cost Modeling (Power Economics)

- PROMOD
- GE-MAPS
- Plexos
- Gridview

### → T&D Conceptual Design – FERC Order 1000

- Energy Velocity Suite
- Google Earth



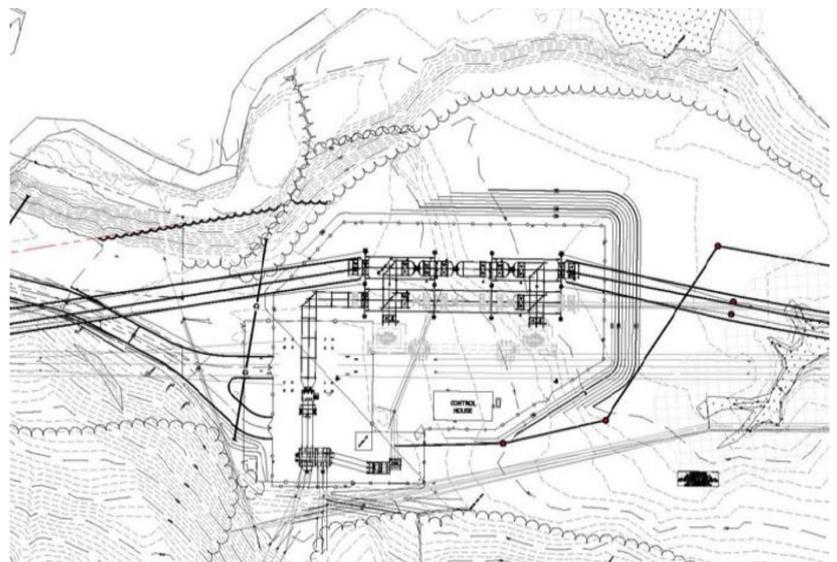
## D.1. Owner's Engineer



- ✓ Support the development of the budget and provide reasons and benefits
- ✓ Support the development of:
  - Real estate plan
  - Permitting plan
  - Environmental plan
  - Construction plan
  - Commissioning plan
  - Engineering plan and schedule
  - Quality plan
- ✓ Manage the progress of the detailed engineering development, tracking the schedule and cost to assure it meets the project plan
- ✓ Provide technical evaluation of change orders
- ✓ Serve as the primary technical interface between the company and detailed engineering firm
- ✓ Provide technical direction/input to design change requests
- ✓ Perform RFP technical evaluation of engineering, major equipment, and construction RFP's

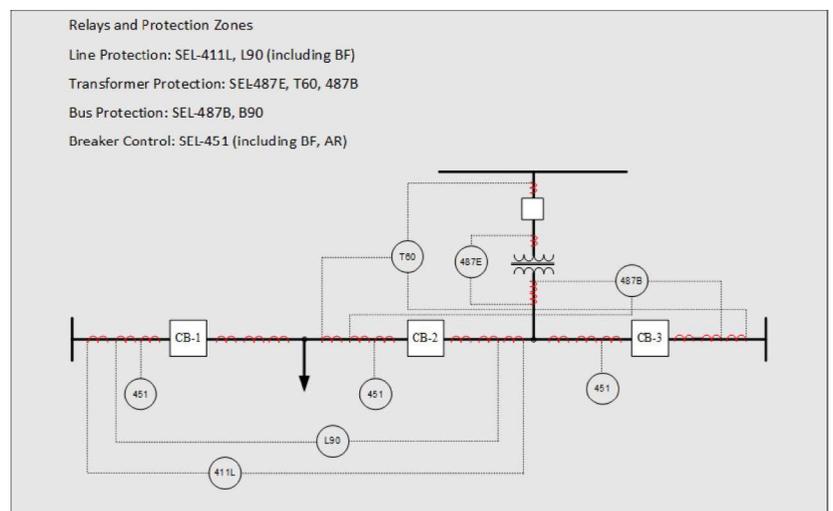
## D.2. Conceptual Engineering

- ✓ Project scoping with a focus on substation, transmission, generation, and system protection elements
- ✓ Review planning studies and load flow analysis
- ✓ Identify all required studies/engineering work needed to complete the engineering design
- ✓ Cost estimates
- ✓ Physical siting and design of substation, transmission, and generation elements with consideration to permitting and environmental concerns
- ✓ Develop preliminary drawings
  - ➔ Site plan
  - ➔ Plot plan
  - ➔ Substation one lines
  - ➔ Relay one lines
  - ➔ Integration one lines
  - ➔ SPCC Plans
  - ➔ Transmission line preliminary design
  - ➔ Major equipment specifications



## D.3. Detailed Engineering

- ✓ Develop technical specifications for material RFP's
- ✓ Substation below ground
- ✓ Substation above ground
- ✓ Transmission line design
- ✓ System Protection & Controls (SP&C)
- ✓ Construction Support
- ✓ Closeout engineering



## Professional and Technical Staff

K&A is staffed with industry veterans and highly sought after subject matter experts in the Power Delivery industry. These innovative thinkers go beyond the basic requirements, bringing future-minded thinking to our clients. Our experienced staff of project management professionals and registered professional engineers includes:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>➤ Program Managers</li> <li>➤ Project Managers</li> <li>➤ Project Controls Engineers</li> <li>➤ Schedulers</li> <li>➤ Construction Managers</li> <li>➤ Purchasing Specialists</li> <li>➤ SHEQ Specialists</li> <li>➤ Permitting Specialists</li> <li>➤ Public Outreach</li> <li>➤ Material / Logistics Coordinators</li> <li>➤ Expeditors</li> <li>➤ Document Control Specialists</li> <li>➤ Estimators</li> <li>➤ Administrative Assistants</li> <li>➤ Surveyors</li> <li>➤ Reality Specialists</li> </ul> | <ul style="list-style-type: none"> <li>➤ Civil Engineers</li> <li>➤ Electromechanical Engineers</li> <li>➤ Protection &amp; Control Engineers</li> <li>➤ Transmission Engineers</li> <li>➤ Designers &amp; Drafters</li> <li>➤ Architects</li> <li>➤ Communication Engineers</li> <li>➤ Distribution Engineers</li> <li>➤ Field Planners</li> <li>➤ Environmental Specialists</li> <li>➤ Fire Protection Engineers</li> <li>➤ Foundation Engineers</li> <li>➤ Structural Engineers</li> <li>➤ Mechanical Engineers</li> <li>➤ I&amp;C Engineers</li> <li>➤ Substation Engineers</li> </ul> |
|--|--|

The services of K&A are divided into four (4) primary areas of Substation, Transmission, Distribution, and Generation Services; however, a significant overlap of duties and abilities occur, as we purposely tend to limit our internal hierarchy. We consider it essential to allocate personnel to fit project needs rather than our internal structures.

In addition to the several professional and technical registrations held by our staff, many additional hours of training have been completed in various areas including OSHA 40-hour training for potentially hazardous work sites.

Our staff is well versed in the use of computerized technology for project management, scheduling, project controls, studies, design and analysis, and use several conventional packages as well as in-house programs.

# Representative Projects

	<i>Substation</i>	<i>Transmission</i>	<i>Distribution</i>	<i>Generation</i>	<i>Strategic Planning</i>	<i>Program Management</i>	<i>Project Management</i>	<i>Project Controls</i>	<i>Construction Management</i>	<i>Staff Augmentation</i>	<i>DER Interconnection</i>	<i>Interconnection &amp; Planning</i>	<i>Protection &amp; Controls</i>	<i>System Studies</i>	<i>Design &amp; Drafting</i>	<i>Owners Engineer</i>	<i>Conceptual</i>	<i>Detailed</i>	<i>IEC 61850</i>	<i>Staff Augmentation</i>
<b>Project</b>	<b>System</b>				<b>PMO</b>						<b>Engineering</b>									
Transmission Life Extension & Modernization	x	x			x	x	x	x	x			x	x		x		x	x		
MA 1 MA2 Smart Path						x	x	x	x			x				x				
Sensor Deployment Program						x	x	x	x							x				
Engineering Standards for T&D and Generation	x	x		x								x	x	x						x
Advanced Power flow Control Project		x												x						
Digital Substation	x											x	x	x	x	x	x	x	x	
South Golden Substation Breaker Replacement	x											x	x	x			x	x		
DER Interconnection Studies (multiple)			x			x					x	x								
DER application management		x	x			x					x									
Transmission DER Screening and Studies		x				x					x	x								
Substation line relay & LTC replacement	x												x		x					x
Communication Backbone Program	x	x		x	x	x	x	x	x				x			x				
Smart Generation and Transmission Asset Management	x	x		x	x	x	x	x	x							x				
Distribution Operations labor plan & rate case			x			x														
Distribution Line Deficiency Mitigation Program			x			x	x	x	x	x										x
Transmission Line Deficiency Program		x				x	x	x	x								x			
Pole Replacement Program			x			x	x	x	x								x	x		
System Planning	x	x				x							x							
Generation Condition Assessments				x		x							x			x	x			
Earthquake Recovery	x	x		x	x	x	x	x	x				x			x				
System Hardening	x	x				x	x	x	x	x										
Outage Scheduling				x																
PMO & OE	x	x				x	x	x	x	x				x	x	x	x			x
Digital Transformation Office	x	x		x	x	x	x	x	x	x						x				x
Engineering Support	x	x									x	x	x	x	x	x	x	x	x	x
Small Clean Power Plant Bulk Head Repair				x			x		x											
Ammonia Tank Design				x											x					
Steam Plant Assessment / Budget / schedule				x				x						x						
GSU Pad Mount Containment				x											x					
HYDRO Assessment & Engineering				x										x	x		x	x		
Relay Assessment and Upgrades Multiple locations	x												x	x	x		x	x		
Preventative Maintenance Program				x										x	x	x		x	x	



445 Hamilton Ave., Suite 406  
White Plains, NY 10601

+1 914.607.7115

[info@kapower.us](mailto:info@kapower.us)

