



POWER ENGINEERING **CAPABILITIES**



Panoche Energy Center
Firebaugh, CA



JOBS DONE WELL

In addition to our long history of construction, Kiewit has provided engineering services to the power industry for more than 35 years. Our background as a contractor gives us a unique perspective to recognize the impacts of design decisions on operations and construction.

As an integrated construction and engineering firm, our engineering processes — combined with a constructability and operations focus — are unique to the engineering industry.

1.5 Million
engineering & design
manhours annually
and growing

No. 7
power design firm,
according to *ENR*

More than
55%
of contracts are
\$5 Million
or less

Designed more than
24,000 MW
of gas-fired generation
facilities since 2000



La Cygne Generating Station
La Cygne, KS

DESIGN BUSINESS

LOCAL CONTRACTOR, NATIONAL SUPPORT

With access to a vast network of resources, powerful relationships with original equipment manufacturers (OEMs) and a focus on partnering with our clients, Kiewit can quickly support work anywhere. From the small jobs to multibillion dollar projects, our resources and experience assure clients will receive the quality, hands-on services they deserve.

PROJECT DELIVERY METHODS

We understand that each project is unique, and we work with our clients to determine the project delivery method that meets their power needs. Our experienced team helps clients assess project risks to determine the best management structure to economically secure their investments. Our most common power project delivery methods include:

- Engineer only
- Engineer and procure (EP)
- Engineer, procure and construct (EPC)
- Engineer, procure and construction manage (EPCM)

Every project, regardless of size, is treated with the same quality, care and resources. Our processes and tools are customized to fit the size, scope and schedule of any project.



THE KIEWIT DIFFERENCE

OUR PEOPLE

Kiewit is one of the largest and most respected construction and engineering employee-owned organizations in North America. All of our projects are led by employee-owners, which promotes accountability, an entrepreneurial spirit and a greater drive for success in all aspects of our work.

Through experience, we know that training our people leads to greater productivity and highly skilled employees. That's why, on average, our employees receive 240 hours of training per year — six times the industry average. Through high-quality training, our employees strengthen their skills to further the success of our projects.

INTEGRATED ENGINEERING

Because of our relationship with our clients, OEMs and construction partners, we design solutions with safety, operability and constructability in the earliest phases of projects. We deliver superior performance in those critical areas such as plant performance, schedule and total installed cost.

RISK ASSESSMENT

Through our extensive history we have entered into almost every possible type of client-consultant contract. We assist clients in assessing the financial, contractual and management structure necessary to economically secure their investment and strategic goals. Communication and alignment on risk-sharing are integral to a project's success.

DESIGN FOR SAFETY

During engineering and design, our focus is on designing facilities that are safer for construction, plant operation, maintenance personnel and the public. We are committed at all levels of our operations to ensure we focus on what matters most: Nobody Gets Hurt.



MARKETS

Our engineering teams have been involved in bringing power and water/wastewater projects to life across North America.

POWER

- Simple & combined cycle facilities
- Environmental retrofits
- Coal-fired facilities
- Renewables
- Power delivery

WATER/WASTEWATER

- Desalination
- Industrial water treatment
- Wastewater treatment
- Zero liquid discharge

85%
of our design
business in the
energy market is
a result of repeat
clients



OWNER'S ENGINEERING SERVICES

Trusted partner, advocating for clients from contract to completion

- Navigate regulatory agencies and identify opportunities to reduce costs
- Review deliverables for accuracy, quality and compliance
- Support project management and project controls
- Provide construction and commissioning oversight and support

PROJECT DEVELOPMENT

Guiding your project from the beginning

- Evaluate best-value technology selection, lifecycle cost, potential project sites and permitting requirements
- Support projects through the financing process
- Prepare initial EPC contract and RFP documents
- Develop a conceptual design, including schedule, general arrangement, one-lines, P&IDs and thermal performance

DETAILED ENGINEERING AND DESIGN

Providing solutions for the full range of project scopes and sizes

- Self-perform all major engineering disciplines including process, water, civil, structural, mechanical, thermal performance, electrical, geotechnical and building systems
- Consider impacts to operability, safety and constructability
- Use historical Lessons Learned database to apply best practices
- Encourage client involvement and feedback

CONSTRUCTION MANAGEMENT

Applying our significant EPC experience

- Provide preconstruction design reviews and scheduling support
- Develop and manage the master schedule to meet clients' commercial operation date or outage requirements
- Prequalify, review and manage subcontractors while ensuring they meet our safety and quality standards
- Track and communicate cost, quantities, safety and more

PLANT SERVICES

Supporting our clients through their assets' entire lifecycle

- Provide operations, efficiency and capacity improvements
- Troubleshoot equipment and performance problems onsite
- Execute wide variety of engineering studies, including arc flash analysis, relay settings, thermal performance and pipe stress analysis
- Serve as "Engineer of Choice" for clients' entire fleet

PROCUREMENT

Leveraging our purchasing power, relationships and supplier database

- Provide analysis and purchasing for long-lead items
- Mitigate risk of scarcity using documented Lessons Learned database
- Prequalify and evaluate suppliers
- Provide expediting, logistics, shop surveillance, quality control and contract management

*Marsh Landing Generating Station
Contra Costa County, CA*



