

CASE STUDY

▶ Vineland Data Center AI Campus

Designing and Building Critical Infrastructure for Data Centers

Kiely Family of Companies, a leader in design-build, engineering, and construction projects for the utility and energy sectors, was selected to deliver critical natural gas infrastructure for the Vineland DataOne site in New Jersey. This case study highlights KIELY's integrated approach to designing and constructing both temporary and permanent gas supply systems, ensuring reliable fuel delivery to mission-critical generators while supporting the long-term buildout of a 400 MW, 2.5 million square foot data center campus.

The project scope required our team to design and construct a temporary natural gas supply system to fuel a 100 MW fleet of rental generators, while simultaneously designing and constructing the permanent infrastructure for long-term operations. KIELY's engineering team developed layouts, performed system modeling, and specified regulation equipment to ensure reliable delivery across the site. Our construction crews installed approximately 4,500 LF of 12" steel natural gas pipeline, distributed fuel to each generator, integrated a temporary regulation skid, and pressure-tested all systems to verify performance. In parallel, KIELY advanced the permanent high-capacity gas supply, including construction of the permanent regulation skid serving 36 Bergen turbines, providing a seamless transition from temporary operations to the long-term utility connection.

Challenges

- ▶ Phased Energization Requirements: Initial operations required power prior to the permanent Bergen Power Plant coming online
- ▶ Parallel Infrastructure Execution: Designed and constructed temporary and permanent gas systems simultaneously to support both immediate and long-term needs
- ▶ Large-Scale System Integration: Coordinated fuel delivery across temporary generation, permanent infrastructure, and future buildout requirements
- ▶ Schedule & Coordination: Maintained alignment between engineering, construction, and multiple stakeholders across a fast-moving, multi-phase campus



Aerial view of Vineland DataOne site during construction, showing site development and infrastructure installation

Solutions

KIELY's integrated engineering and construction teams delivered a coordinated, design-build solution:

- ▶ Gas Supply Infrastructure: Installed approximately 4,500 LF of 12" steel natural gas pipeline supporting both temporary generation and permanent fuel supply
- ▶ Generator Fuel Distribution: Installed distribution piping to 16 rental generators supporting 100 MW phased startup
- ▶ Temporary Regulation & Transition: Designed and installed a temporary regulation skid with seamless transition to permanent systems
- ▶ Permanent Infrastructure Development: Constructed permanent regulation systems supporting 36 x 11.2 MW Bergen gas turbines and long-term operations

Project Outcomes

- ▶ On-Schedule Energization: Enabled timely startup through reliable temporary fuel delivery
- ▶ Seamless Transition to Permanent Power: Positioned site for long-term infrastructure integration
- ▶ Integrated Delivery: Combined engineering and construction for efficient execution
- ▶ Operational Continuity: Maintained uninterrupted support for mission-critical systems



12" steel natural gas pipeline station supporting permanent infrastructure



Temporary generator fleet supporting 100 MW phased energization

KIELY delivers integrated engineering and construction solutions for complex energy and utility infrastructure. Our design-build approach provides a single point of accountability, aligning design, permitting, and construction to support efficient, scalable project delivery.

Trust Kiely Family of Companies with your next project.

To learn more about this project or discuss your next data center development, please contact us.

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