



TECHNICAL DOWNLOAD

Rapid Site Integration Guide

The practical project checklist for turning a mobile turbine package into energized behind-the-meter capacity.

The fast-track integration path

Workstream	Key project inputs
Load and dispatch	Required MW / MVA, load steps, power factor, harmonics, redundancy, ramp profile, island or grid-parallel operation
Fuel	Gas composition, pressure, temperature, flow, filtration, dew point, compression, shutoff boundary, vent routing
Electrical	2.6 kV collection architecture, transformation, breaker duties, protection coordination, grounding, synchronization, utility or load interface
Starting power	480 V source for the VFD-controlled 175 hp / 130 kW starter; original concept used a separate 250 kW / 312 kVA diesel generator
Civil / layout	Trailer access, turning radius, bearing surface, leveling, clearances, inlet and exhaust separation, crane / service access
Controls	Plant master controls, communications, dispatch interface, remote monitoring, alarms, trip matrix, load sharing
Environmental	Site permitting, emissions basis, noise boundary, stormwater, fire code, fuel-system requirements
Commissioning	Mechanical completion, electrical checks, controls checkout, purge sequence, start, synchronization, load test, operator handoff

Trailer package interfaces

Interface	Package basis
Generator output	2,600 V, 3-phase, 60 Hz through Siemens NXPLUS C medium-voltage switchgear
Auxiliary power	Onboard 2.6 kV to 460 V transformer; downstream 240/120 V services
Natural gas	Site gas connects to the package fuel-train boundary after project conditioning / compression as needed
Starting system	480 V starting-power source feeds the VFD-controlled electric starter system
Controls / communications	Field interface to package controls and the project supervisory layer
Exhaust / noise	Packaged exhaust with project selection of any loose far-field silencer extensions

Capacity planning rule

Start with the exact ambient and elevation table, then apply the installed electrical ceiling, auxiliary demand, project power factor, system losses, and operating reserve. That gives a usable net project number instead of a brochure-only rating.

Behind-the-meter use cases

- Data-center bridge and phased campus power
- Industrial self-generation and expansion power
- Microgrids and critical-infrastructure resilience
- Interim capacity while permanent utility service or generation is built
- Remote or constrained-grid operations with a suitable fuel supply

ARC Power Systems can coordinate the equipment package and organize the technical handoff needed for the site engineering team to move quickly.

Source notes

Exact-package source: OnPower mobile power unit technical proposal.

OEM application context: Siemens Energy SGT-A05 brochure and data-center power material. [Open source](#)