



ingenev
power

THE RACE to BRING BEHIND-the-METER POWER to STATES

1 BACKGROUND

We believe that given the state of the US electric grid, data centers **must shift** from Centralized Utility dependence *to* Behind-the-Meter Microgrids as a **competitive necessity**.

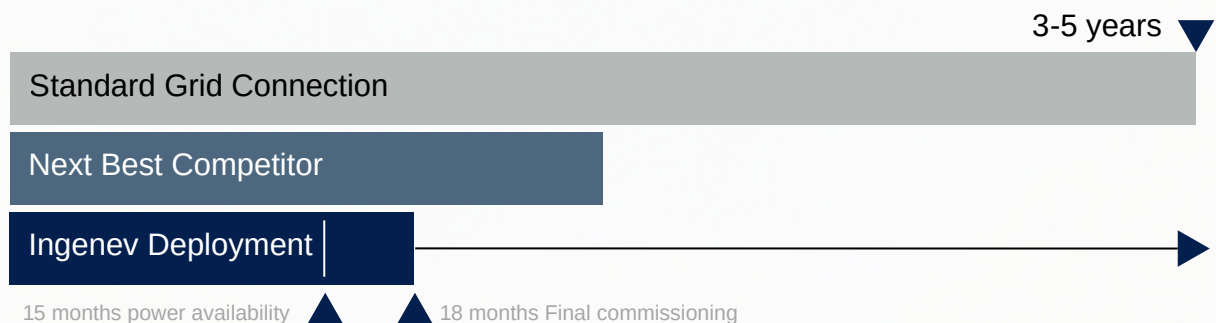
The speed of compute doubles every few months, so **waiting** up to 72 months for a grid connection is effectively a **business death sentence**.

About Me: I am Chief Engineer for a **HYBRID Energy** startup called INGENEV. We provide flexible, highly efficient power solutions for data center infrastructure.

2 TIME to MARKET ADVANTAGE

The primary driver here isn't cost, **IT'S OPPORTUNITY COST.**

- **Grid Reality:** 3–6 years of political & legal maneuvering alongside environmental studies, & physical substation upgrades for interconnection is not realistic.
- **BTM Reality:** 15–18 months for modular power generation (e.g. hybrid, gas turbines or reciprocating engines).
- **The Delta:** 2–4 years of additional revenue in the AI race. That 24+ months of extra "compute" can be the difference between market leadership & obsolescence.



3 PREDICTABLE, CONTROLLED COSTS

By using the right BTM solution, data centers avoid the political fallout of driving up local electricity rates.

- **Social License:** Large loads can trigger "Locational Marginal Pricing" (LMP) spikes, which upsets residential constituents.
- **Cost Certainty:** By using on-site gas/renewables, operators swap a volatile utility "all-in" rate for a lower cost & more predictable fuel/O&M cost structure.



4 FUTURE PROOFED ENERGY MIX

The most viable BTM model uses a hybrid approach to balance reliability with sustainability:

Natural Gas

**Baseload (Primary)*
Installed turbines can be transitioned to Hydrogen as fuel supply accelerates.



Solar/Wind

**Cost Offset*
Reduces fuel consumption

BESS

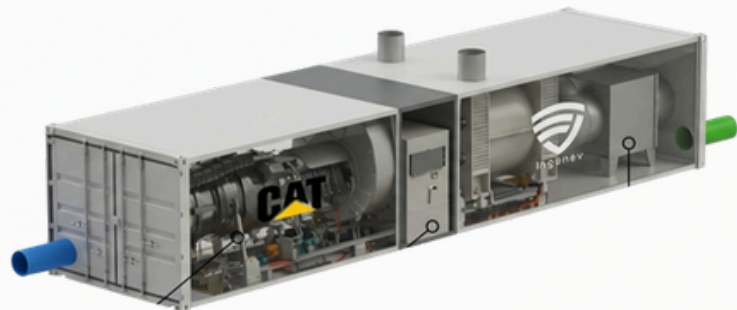
**(Battery) Stability*
Managed "bridging" during load steps or intermittent drops.

Waste-to-Energy

**Niche/Local*
Provides a circular economy narrative and consistent baseload.

INGENEV

**Hybrid: (Gas + BESS)*
Flexible, Fast, Modular & Efficient with optional net zero module.



5 NAVIGATING the CHALLENGES

While "Islanded" power solves speed issues, it introduces new operational responsibilities:

- **Fuel Logistics:** If gas is the primary driver, the site needs a gas pipeline or LNG/CNG trucking capabilities.
- **Emissions Permitting:** While you may bypass the utility queue, you do need environmental permitting (EPA/State level). Possibly faster if a net zero module is included.
- **Redundancy:** Without the grid as a backup, your on-site generation must be extremely robust to hit the "four nines" (99.99%) of uptime required for data centers



REV. 12 SERIAL



6 Where to NEXT?

We can help operations commence sooner than waiting for a grid connection.

This allows for technology infrastructure to generate revenues much earlier.

Control your own power generation, control (within reason) future price escalation, and where desired, control emissions.

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