BARINGS

Investing in the Next Generation of Energy Infrastructure

INSIGHTS

Scalable energy and power platforms are emerging as highly attractive opportunities. These assets combine the core characteristics institutional investors value with speed, flexibility and resilience needed to meet the demands of a rapidly evolving energy landscape.

Mina Pacheco Nazemi
Head of Diversified Alternative Equity

Addie Sparks
Director, Diversified Alternative Equity

Rethinking Scale in Energy Infrastructure

The energy and power landscape is increasingly shaped by localized demand, operational complexity and infrastructure constraints. Yet much of today's investment remains focused on large-scale generation and transmission projects—assets that often face long permitting timelines, high capital intensity and exposure to grid and regulatory bottlenecks.

In contrast, distributed and modular energy platforms—such as battery storage systems and district heating networks—offer a differentiated opportunity, particularly at the platform level, i.e., in a scalable network of distributed assets. These behind the meter assets retain core infrastructure qualities like **physical assets, inflation-linked revenue and essential service delivery**, but also add **unique small scale advantages like speed, modularity and the ability to respond to local demand with precision.**

WHAT SETS LOCALIZED ENERGY SOLUTIONS APART

Localized energy solutions distinguish themselves through quick and flexible service delivery. Unlike traditional large-scale projects, **these assets are built to adapt, scale and respond to the evolving needs of local markets**, which is increasingly valuable as the sector transitions toward decentralization, decarbonization and greater customer focus.

Figure 1: Potential Advantages of Modular Energy Platforms

Potential Advantage	Why it Matters
Faster Permitting & Deployment	Site-level assets can often bypass lengthy permitting and interconnection queues, enabling rapid response to local demand and regulatory changes.
Grid Flexibility & Local Resilience	These behind the meter assets can be sited closer to load centers, supporting microgrids and critical facilities, and providing backup power during disruptions or peak demand.
Modular, Scalable Growth	Modular design allows incremental capital deployment, aligning investment with milestones and reducing capital risk from any typical delays.
Tolling Agreements & Merchant Mix	Tolling agreements provide predictable revenues while merchant exposure captures upside—together helping developers manage risk and optimize cash flows.
Customer-Centric Solutions	They deliver flexible, utility-like services and meet tailored, localized needs within a small coverage area.
Lower Capital Intensity	Targeted projects require less upfront capital, reducing financial risk.
Attractive Exit Options	Growing demand from utilities, infrastructure funds and strategic buyers for distributed energy assets creates multiple exit pathways and liquidity options.

Source: Barings. As of February 2026.

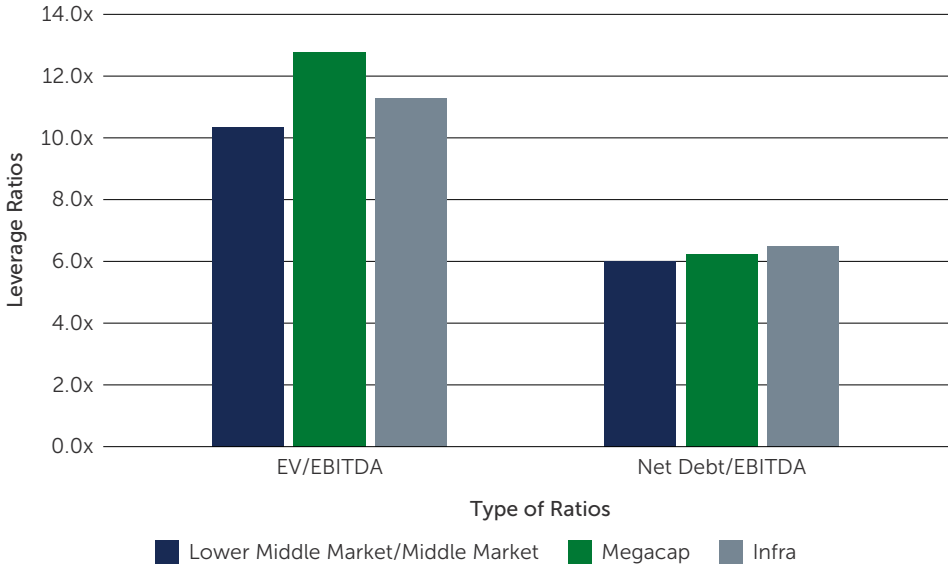
Unlocking Value Through Capital Discipline

The modular nature of battery storage systems and district heating networks makes it possible for investors to deploy capital incrementally at lower entry multiples, in alignment with market demand and regulatory milestones. Unlike large-scale assets that often require significant capital upfront at premium valuations and higher leverage levels, these platforms allow investors to build value through **measured growth**—reducing financial risk and enhancing flexibility, directing capital toward expansion rather than debt service.

The lower leverage levels characteristic of these strategies helps build further resilience. Without the pressure of aggressive debt service requirements, investors **can respond more dynamically to changing market conditions, demand, regulatory shifts or technological conditions**. As many of these assets enter their growth phase, reinvestment can drive meaningful EBITDA growth and multiple expansion.

The modular nature also supports disciplined, milestone-based capital deployment. Investors can scale in phases, aligning investment with project performance and market signals, potentially avoiding the premium valuations and limiting execution risk.

Figure 2: Lower Entry and Leverage Multiples Across Small Scale Energy and Power

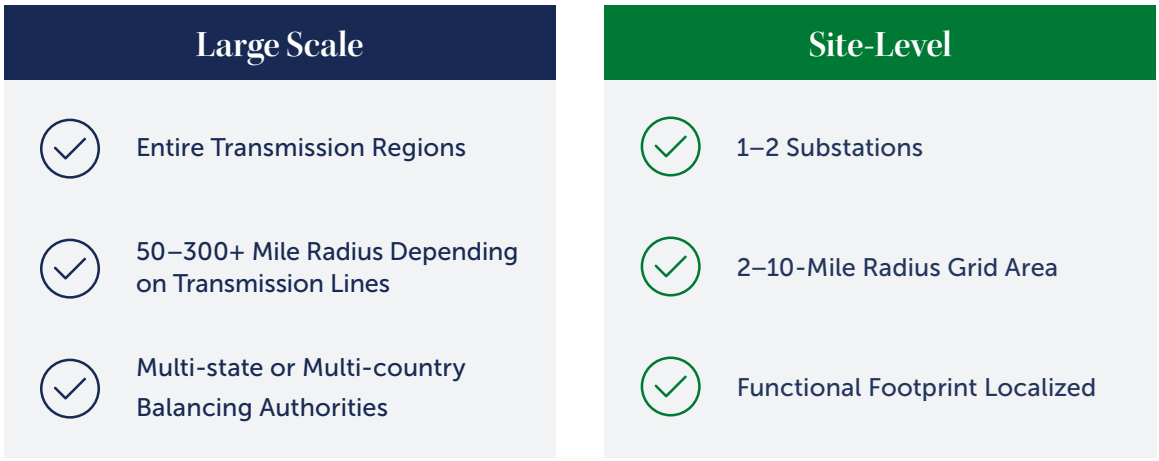


Source: DealEdge . Metrics represent medians for realized, partially realized and unrealized deals classified as Infrastructure Strategies from 2007 to 2026 in the District Heating and Electric Utilities industries by Invested Capital. "LMM/MM" reflects deals with enterprise values and invested capital less than $750M. "Mega Cap" reflects deals with enterprise values and invested capital greater than $1B.

Battery Storage: Enabling Localized Grid Flexibility

Battery storage is moving from a niche use case to a cornerstone of energy strategy. Sub-50MW scalable systems have become vital for managing peak demand, reducing energy costs and providing backup power. These systems are strategically located close to load centers, helping to balance local supply and demand, facilitate renewable integration and enhance grid resilience.

Figure 3: Large Scale vs. Site-Level



Source Barings. As of February 2026.

Battery storage projects offer practical advantages as well, benefitting from **simpler permitting processes, faster grid interconnection and more flexible siting requirements**. When paired with intelligent software, these assets become energy management tools, responding in real time to grid signals and pricing.

A key dynamic shaping this opportunity is the **"duck curve", a pattern observed in power markets with high renewable penetration**. During midday, solar generation can exceed demand, resulting in a dip in net demand. As the sun sets and demand rises, the grid must rapidly ramp up other sources of generation to meet evening peaks. Battery storage helps address these imbalances by absorbing excess energy during periods of oversupply and releasing it when demand spikes, reducing reliance on peaking plants and supporting a more efficient, reliable grid.

KEY DEMAND DRIVERS

Grid Modernization: Battery storage can help transform an inflexible, aging grid into a dynamic system. By addressing local bottlenecks without requiring costly transmission upgrades, batteries relieve congestion and provide targeted support where it's most needed. Their shorter construction timelines—typically 2–3 times faster than substation or transmission upgrades—also improve capital efficiency and reduce development risk.

Cost and Efficiency Benefits: Batteries systems enable users—particularly commercial and industrial sites—to shift consumption away from expensive peak periods. This reduces demand charges and limits exposure to volatile pricing, which can have a meaningful impact on the bottom line.

Decentralization and Localized Resilience: As energy systems become more distributed, battery storage projects can be located closer to end users, enhancing reliability and renewable integration. These projects can also provide backup capacity for critical facilities such as energy shelters, water treatment facilities and hospitals.

Participation in Evolving Energy Markets: Battery storage assets increasingly participate in local capacity markets, demand response programs and ancillary services. Intelligent software optimizes dispatch across these markets, improving both operational and financial performance.

"Battery storage projects offer practical advantages as well, benefitting from simpler permitting processes, faster grid interconnection and more flexible siting requirements."

ATTRACTIVE CHARACTERISTICS FOR INVESTORS

Stable, Contracted Revenues: Many battery storage assets operate under tolling agreements with built-in inflation escalators, offering predictable, inflation-protected revenue. This structure shifts price risk to the off-taker while positioning the asset owner to achieve more predictable returns.

Faster Path to Cash Flow: Streamlined permitting and short construction timelines—typically 9–20 months versus 3–5 years for large-scale systems—allow investors to capture demand and generate returns sooner, with less execution risk. By contrast, grid-scale projects with multi-year timelines often face delays tied to transmission upgrades and complex grid operator approvals, which can add development expenses and materially erode ROI.

Scalable and Capital Efficient Growth: Modular battery systems allow for disciplined, incremental capital deployment. Investors can scale exposure in line with demand milestones, avoiding the premium valuations and higher risk associated with large, one-off projects.

Multiple Value Streams and Exit Options: Revenue can be generated through arbitrage, ancillary services and backup power. Growing interest from utilities, infrastructure funds and strategic buyers, expands exit optionality.

District Heating: Unlocking Value in Urban Energy Systems

Just as modular battery platforms are reshaping localized power markets, a parallel evolution is underway in thermal systems—most notably in district heating. District heating systems generate thermal energy—steam or hot water—at a central facility and distribute it through insulated pipes to surrounding buildings. By replacing individual boilers and furnaces, district heating delivers consistent, efficient heating and hot water to hospitals, universities, residential towers and commercial districts. Energy sources like natural gas, biomass, geothermal or even waste heat used in these systems make them a **powerful tool for improving efficiency and reducing emissions at scale**.

Many district heating systems are decades old but remain essential to urban infrastructure. Today, operators are modernizing these networks, replacing aging equipment, integrating cleaner energy sources and upgrading emission controls. Concurrently, new greenfield systems—particularly in Europe—are being built to maximize efficiency, flexibility and decarbonization. These trends make district heating increasingly essential in city-level decarbonization strategies.

District heating provides independence from traditional utility models, allowing greater control over energy sourcing and emission levels. **Embedded customer bases, long-term contracts, and essential service delivery create stable cash flows, while flexible sourcing aids decarbonization.**

KEY DEMAND DRIVERS

Aging Modern Infrastructure: Modernization of existing systems creates opportunities for capital investment, operational improvement and emission reduction.

Grid Efficiency and Reliability: District heating networks reduce strain on local grids by aggregating heating demand and improving overall energy efficiency, which is important as electrification accelerates.

Affordability: While costs may increase over time, district heatings helps ensure energy pricing remains stable and predictable, providing greater resilience against market volatility and protecting against unexpected cost swings.

Flexible Energy Sourcing: The ability to shift between biomass, geothermal, waste heat and traditional fuels enables operators to respond to market changes, fuel price volatility and evolving regulatory landscapes.

Urban Decarbonization and Policy Support: Municipalities and university systems increasingly rely on district heating to meet emissions targets because these systems can integrate renewable and low carbon sources.

ATTRACTIVE CHARACTERISTICS FOR INVESTORS

Embedded Customer Base and Long-Term Contracts: District heating platforms serve an embedded customer base, backed by 15 to 20-year take-or-pay service agreements with inflation-linked escalators that support stable, predictable cash flows.

Stable, Regulated Revenues: Regulated frameworks or municipal partnerships offer visibility into earnings and downside protection through fixed revenue streams and strong cancellation provisions.

Capital Efficient, Incremental Growth: Investors can deploy capital incrementally by upgrading systems, expanding networks, or integrating new energy sources.

Multiple Value Streams and Exit Options: Revenue is generated through heat sales, capacity payments and ancillary services. Increased interest from utilities, infrastructure funds and strategic buyers supports multiple exit pathways.

Key Takeaways

Site-level energy and power platforms offer a compelling investment profile that aligns with the evolving priorities of institutional investors: **asset-backed security, predictable income and capital-efficient growth.** These assets combine the **stability** of traditional infrastructure with the **agility** to respond to local market needs, regulatory changes and accelerating transition toward decarbonization.

KEY ADVANTAGES INCLUDE:

- **The inherent value of tangible, essential assets**
- **Stable, inflation protected revenue streams**
- **A faster route to cash flow**
- **Capital efficient, milestone based deployment**
- **Lower leverage and reduced financing risk**
- **Multiple revenue pathways and attractive exit options**

Together, these attributes position site level energy platforms as resilient, scalable solutions well suited to the next phase of energy infrastructure investing.

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