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A Community Guide to Regulatory Barriers Affecting Microgrids

Report No. 3: Multi-Property Microgrids

Jason Ball and Peter A. Cappers

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Acronyms and Abbreviations

AHJs	Authorities Having Jurisdiction
BCM	Bronzeville Community Microgrid
BESS	Battery Energy Storage Systems
CHP	Combined Heat and Power
ComEd	Commonwealth Edison
DER	Distributed Energy Resources
DOT	Department of Transportation
DPU	Department of Public Utilities
EDECA	Electric Discount and Energy Competition Act
MATEP	Medical Area Total Energy Plant
NYU	New York University
P3	Public-Private Partnerships
PILOT	Payment in Lieu of Taxes
PUC	State Public Utility Commission
PURPA	Public Utility Regulatory Policies Act of 1978
RIRRC	Rhode Island Resource Recovery Corporation
ROW	Right-of-Way
SJC	Massachusetts Supreme Judicial Court
TCDER	New Jersey Town Center Distributed Energy Resource
ZREC	Zero Emission Renewable Energy Credit

Executive Summary

In response to growing risks of power outages from extreme weather and aging infrastructure, communities are increasingly exploring the potential for microgrids to enhance the reliability of access to energy. Microgrids, a type of localized energy system capable of operating independently from the main power grid, offer promising solutions to meet this challenge but face a complex landscape of non-technical barriers, particularly regulations concerning the provision and distribution of energy. Most existing legal and regulatory frameworks were designed for a centralized, one-way power system, and are often poorly suited to handle systems that independently balance distributed energy resources with local load, like microgrids.

To support community leaders and decision-makers, DOE is publishing this report series to provide a strategic analysis of the existing regulatory and legal factors affecting microgrid deployments. This report, the third in the series, focuses on a complex configuration: the multi-property microgrid. This model is defined as a system serving multiple buildings located on distinct properties all with the same owner, where the private energy infrastructure connecting these facilities must traverse public land, such as streets, sidewalks, or other public easements. This physical act of crossing a public right-of-way introduces multiple legal, technical, and institutional complexities that are the central subject of this analysis.

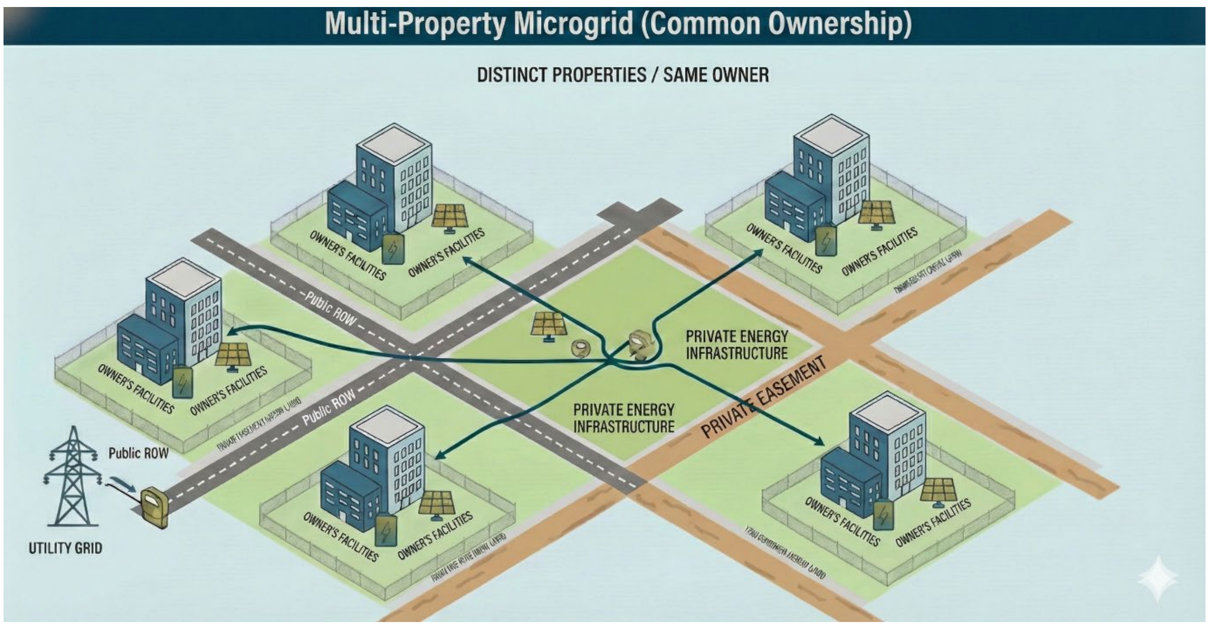
The multi-property model confronts a fundamental institutional barrier: utility franchise rights. In most jurisdictions, a single utility holds the exclusive legal right to build, own, and operate electrical distribution infrastructure within a specific territory. A multi-property microgrid may be viewed as competing with a private utility, in violation of the grant of exclusive territory, which is frequently illegal. This report analyzes the key challenge to multi-property microgrid development inherent in this model, navigating the physical realities of property rights alongside the commercial regulations of public utilities.

The primary implication for community leaders is that developing a multi-property microgrid is less a technical challenge and more a strategic negotiation of public infrastructure, institutional relationships, and local governance. This report reviews these key challenges and provides a phased framework for navigating the legal, municipal, and utility engagement required to move a project forward.

1. Foundational Concepts for Multi-Property Microgrids

For community leaders and decision-makers, developing a multi-property microgrid introduces a significant leap in complexity compared to simpler, single-property projects. This report focuses on microgrids serving multiple buildings located on distinct properties with the same owner (such as a municipality or a private campus), where the private energy infrastructure connecting these facilities must traverse public land, such as streets, sidewalks, or other public easements, as illustrated in Figure 1 Below.

Figure 1 - Illustration of Multi-Property Microgrid Characteristics[1]



The core issue is one of legal property interest: the multi-property microgrid's infrastructure must cross land it does not own to connect the electrical systems that form the microgrid. This physical constraint results in legal and regulatory issues which may affect multi-property microgrids' feasibility, especially the type of ownership and operation structures that may be considered viable.

1.1 Fundamentals of Property Rights

The specific type of land being crossed, a public street, a sidewalk, or a private easement, dictates which legal, regulatory, and institutional barriers community leaders and decision-makers may face. In the United States, property rights are treated as a collection of distinct, separable legal privileges from which two legal mechanisms that are applicable to multi-property microgrids emerge: easements and rights of way (N.J. Bd. of Pub. Utils. 2016; Pappas 2014; Lifshitz 2019).

[1] Image generated by Nanao Banna Pro, Google, February 20, 2026. Edited by Author.

1.1.1 Easements

An easement is an assignment of legal rights but not ownership. It grants a specific person or entity the legal right to use another person's private land for a specific, limited purpose. Private easements are negotiated between two parties, such as allowing one landlocked property owner to use a driveway on a neighbor's land to access their home. In this case the land is still privately held by the owner, but the right of passage is legally protected for the user (Pappas 2014). A utility easement is a specific legal right held by a utility (e.g., the incumbent electric, gas, or water company) to install its infrastructure on a strip of private property (N.J. Bd. of Pub. Utils. 2016; Pappas 2014).

The act of granting any type of easement is not a minor administrative step; it is the legal transference of an essential element of property rights. This transfer can occur via a previously negotiated consent (an express easement), because of frequent historical use of property (a prescriptive easement), or by virtue of property division when access to another property becomes encumbered (an easement by necessity/implication).[2]

Why it Matters: The owner of the property where the multi-property microgrid is located may not be aware that an easement exists. Several legal frameworks create rights of use (i.e., easements) automatically. For example, statutes in Wyoming and New Mexico protect installed solar energy collectors by imposing an easement in the airspace above neighboring properties.[3] If the infrastructure is sited on an existing easement, or in a way that interferes with the neighboring rights-of-use, community leaders and decision-makers could face project delays via challenges to their permits or be legally forced to tear down and relocate expensive equipment, which is especially risky when the property consists of relatively small parcels (Rule 2013; Pappas 2014).

1.1.2 Public Right-of-Ways

In the context of multi-property microgrid development, the term "Right-of-Way" (ROW) is utilized to describe two distinctly different legal concepts:

- **Public Thoroughfares (Municipal/DOT ROW):** These are public streets, highways, and sidewalks owned or held in trust by a municipality or state government and dedicated to public use. Crucially for energy projects, these municipal ROWs extend above and below the surface, providing the physical space required to route overhead

[2] *See* New Jersey Board of Public Utilities, Microgrid Report (2016) (defining the creation of an easement as the extraction and transfer of specific rights from a private landowner's "bundle of sticks"); *see* also Michael Pappas, Energy Versus Property, 41 Fla. St. U. L. Rev. 435, 468-469 (2014) (discussing the judicial recognition of implied easements to ensure necessary access for energy operations, and contrasting these with express provisions in negotiated leases).

[3] N.M. STAT. ANN. § 47-3-4(B)(1); WYO. STAT. ANN. § 34-22-103(b)(i). In these states, the process uses a 'prior appropriation' mechanism, wherein the right is established only by being the first to make beneficial use of the sunlight for a solar-energy system and can be superseded by local government permitting.

utility wires, underground power cables, and pipelines (May, Johnston, and Telecom Law Firm 2019; K. B. Jones et al. 2014).

- **Utility-Owned ROWs:** These are private property rights or easements held specifically by an incumbent utility to install its own poles, wires, or pipelines across public or private land (*Oklahoma Gas & Elec. Co. v Total Energy, Inc* 1972; N.J. Bd. of Pub. Utils. 2016).

Why it Matters: Crossing a public ROW is likely the single biggest trigger for the regulatory challenges discussed in this report, but it is critical to separate the physical placement of infrastructure from the commercial transaction of electricity as each are governed by entirely different statutes and regulatory bodies:

- **Municipal/DOT Jurisdiction (Physical):** Local governments and DOTs regulate the physical occupation of public thoroughfares to ensure safety and structural integrity of the infrastructure (K. B. Jones et al. 2014). To physically cross a street with a wire, a private entity must obtain municipal consent (e.g., a street cut permit or revocable consent) (Hirsch, Parag, and Guerrero 2018).
- **PUC Jurisdiction (Commercial):** The state Public Utility Commission (PUC) regulates the commercial entity responsible for the provision of energy, as well any local retail transaction involving energy. The PUC determines whether the commercial topology (i.e., who owns the power, who it is sold to, and the rate structure) meets the statutory definition of an "electric corporation" or "public utility" (Hirsch, Parag, and Guerrero 2018; DuVivier 2023).[4]

[4] State regulatory jurisdiction is strictly conferred by statute. If a microgrid's operations meet the statutory definition of a public utility, it is automatically subject to regulation. This is not a discretionary application process but an objective, fact-based legal condition (Affiliated Constr. Trades 2002; N.C. Waste Awareness 2015). See Section 1.1.1(B), "Some States Use Function-Based Public Utility Definitions," for a discussion of this fact-intensive inquiry.

2. Utility Franchise Rights

Utility franchise rights are established via formal contracts, frequently codified as municipal ordinances, granted by local government entities (such as city councils or county boards) exercising the specific authority delegated to them by state statute to manage public ROWs ((K. B. Jones et al. 2014; NYSERDA et al. 2014; Okla. Gas & Elec. 1972). Rooted in natural monopoly theory, franchise rights are designed to prevent the "wasteful duplication" of infrastructure by granting a single entity the privilege of using the public ROWs for a specific type of infrastructure. In exchange for this grant, the utility pays a franchise fee (Gerard and Singh 2024).

The central power that the state grants to the utility by this agreement is exclusivity. The franchise rights convey to the utility the sole right to build, own, and operate infrastructure for its specific commodity (e.g., electricity or natural gas) within the public ROW. It is this exclusivity that creates the central conflict for multi-property microgrids (Villarreal, Erickson, and Zafar 2014; Gerard and Singh 2024).

A physical wire crossing a street does not inherently transform the owner of that facility into a regulated "public utility" entity. However, because state statutes were drafted during the 20th-century consolidation of natural monopolies, regulators frequently use the physical act of crossing a public ROW as a proxy test to determine if an entity is providing a commercial utility service to the public (Ajaz and Bernell 2021; Oueid 2019; NYSERDA et al. 2014).[5] Any attempt by a multi-property microgrid project, regardless of who owns the property, to run its own electrical conduit across, under, or over a public thoroughfare may trigger the PUC's proxy test and be treated as a direct challenge to the utility’s vested rights (Oueid 2019; Fanyo 1996; Flores-Espino, Giraldez Miner, and Pratt 2020). Depending on the rules and interpretations of the Authority Having Jurisdiction (AHJ) overseeing the franchise, different remedies may be available, as discussed below.

2.1 Local Level Franchise Infringement (Municipal/DOT Jurisdiction)

The local franchise directly governs the utility's exclusive rights to use public ROWs and easements. For community leaders and decision-makers, any plan to place new microgrid infrastructure in or across these public spaces may create a direct conflict with the utility's local contractual rights.

The most immediate challenge is both geographical and physical (i.e., Municipal/DOT Jurisdiction). A multi-property microgrid connecting multiple buildings separated by a public street must physically cross that ROW. The local AHJ (e.g., the municipality) retains authority over its public streets, exercising this control through its dual "proprietary" (landlord) and regulator functions to ensure safety and structural integrity of infrastructure (May, Johnston,

[5] *See also* Cal. Pub. Util. Code § 218(b) (codifying the "Over-the-Fence" rule, which classifies non-utility projects crossing public streets as regulated energy corporations).

and Telecom Law Firm 2019; NYSERDA et al. 2014).[6] This means that a multi-property microgrid project generally needs to secure a specific authorization (such as a street cut permit or revocable consent) or license from the local municipal authority.

The New York City metropolitan area provides a clear example of this geographical barrier. New York University (NYU) successfully secured a revocable grant (a form of proprietary consent) for underground conduits to connect its campus buildings, which are interspersed with public streets (NYSERDA et al. 2014). However, this success was contingent on the incumbent utility, Con Edison, not objecting to the application. This case highlights a critical risk for community leaders and decision-makers: the incumbent utility can effectively act as a gatekeeper by challenging the grant of a municipal consent. As one source put it, "the mere threat of tying up a potentially small … enterprise such as a microgrid, in litigation over franchise rights[,] could stop a project" regardless of its technical or financial merits (Hyams et al. 2010). For this reason, leaders may find it necessary to partner with the utility or limit a project's scope to a single parcel to avoid such procedural delays.

A second example, the conflict faced by the Rhode Island Resource Recovery Corporation (RIRRC), illustrates the physical challenges posed by local franchise rights. RIRRC proposed constructing, owning, and maintaining infrastructure to deliver electricity to end-users (tenants) within an industrial park. The incumbent utility, Narragansett Electric, argued that RIRRC's plan to own and maintain distribution lines passing through the park's common areas (i.e., the local ROWs) would constitute RIRRC acting as a utility. The disagreement could not be resolved locally and ultimately required the involvement of the state PUC, which agreed with the utility and determined that if RIRRC built, owned, and maintained the distribution infrastructure, it would become a utility and be subject to the strict limits on competition, demonstrating the influence of the local utility over the siting of physical infrastructure (R.I. Res. Recovery Corp. 2008).

For a community leader or decision-maker, the NYU and RIRRC cases show that operating a system that functions like a local distribution network is legally complex and may be prohibited, even if it is limited to serving private properties. Absent a legislative exemption or specific statutory interpretation to rely upon, multi-property microgrids risk being prohibited as an unauthorized infringement on the local utilities franchise rights. This reinforces the utility's role as a gatekeeper and underscores the importance of assessing these legal and procedural risks, and their potential high-cost resolutions, such as being forced to sell the assets, early in the planning process.

2.2 State Level Franchise Infringement (PUC Jurisdiction)

State level AHJs, typically a PUC, are the primary enforcers of state franchise laws which establish the utility's operating monopoly (i.e., its commercial rights). A state AHJ is responsible for interpreting what constitutes a public utility and, crucially, for granting the incumbent utility its legal right to operate. The nature of this right, and how it is defined in state law, creates two

[6] *See also Okla. Gas & Elec. Co. v. Total Energy, Inc.*, 499 P.2d 917 (Okla. 1972) (holding that control over city streets is a governmental process exercising police powers).

distinct regulatory challenges for multi-property microgrids.

2.2.1 Many States Have Explicit, Geographically-Defined Service Territories

In many states, the PUC grants the incumbent utility an exclusive, geographically-defined service territory (Twaite 2012). These territories are generally, but not always, memorialized in formal service territory maps filed with and approved by the PUC. Under this model, the utility's right is a "geographical monopoly" (Fanyo 1996). The law effectively states that the incumbent utility is the only entity authorized to provide electric distribution and retail service within a specific, mapped boundary.

A multi-property microgrid that distributes power within that territory, even between its own buildings, may be seen as a *per se* infringement on the utility's exclusive geographical grant, regardless of the microgrid's function or customer (Fanyo 1996; Twaite 2012; Oueid 2019) . The utility's legal claim is as simple as "you are providing electric service inside our state-sanctioned, exclusive territory."

Community leaders and decision-makers should be aware of two potential pitfalls that can arise from the state laws which grant these franchise rights:

1. **Rigid Statutory Language** – In jurisdictions with rigid statutory definitions, transferring the microgrid's distribution backbone to the incumbent utility may be the only legally viable pathway to deploy a multi-property microgrid. For example, in the District of Columbia, statutory exemptions from being classified as a regulated electric company (which would inherently violate incumbent franchise rights) are available but strictly limited to entities managing an internal distribution system *within a single building (*i.e., a specific geographic footprint). When the redevelopment of the Walter Reed campus proposed distributing electricity across multiple buildings, the incumbent utility, Pepco, challenged the applications of the private developer. To neutralize the franchise infringement claim and avoid the prohibitive burdens of full utility regulation, the project architecture had to be legally bifurcated; the developer turned ownership and operational control of the distribution assets over to Pepco (in re Microgrids in D.C. 2022).
2. **Statutory Ambiguity** – State statutes may not be explicitly clear on how they would apply to a multi-property microgrid. For example, prior to the enactment of the Electric Discount and Energy Competition Act (EDECA), New Jersey’s regulatory framework was heavily predicated on legacy monopoly concepts; there were no explicit technical definitions for distributed energy resources (DERs) or localized microgrid architectures. The statutory silence generated structural ambiguity; the broad, catch-all definition of a "public utility" meant that any private generation facility attempting to route electrical conduits or thermal piping across a public ROW to serve neighboring buildings risked being legally interpreted as providing energy "to or for the public". By servicing adjacent off-site loads, these private networks were vulnerable to regulatory scrutiny and accusations of "cream-skimming" highly profitable commercial customers away from the local utility. Consequently, without a clear statutory safe harbor, the mere physical act of

crossing a municipal street or utility easement could inadvertently subject a multi-property microgrid to plenary rate-setting jurisdiction by the NJ Board of Public Utilities as well as trigger legal challenges for infringing upon the local utilities franchise rights (N.J. B.P.U. 2016).

In both cases, there may be little recourse available to community leaders and decision makers outside of advocating for legislative changes. In New Jersey, for example, EDECA solved the ambiguity but only because it directly amended the statutes. EDECA created definitions for "on-site generation facility" and explicitly exempts such facilities from being classified as a public utility. To overcome the ROW barrier, the statute explicitly declares that properties remain legally "contiguous" even if they are physically separated by "an easement, public thoroughfare, transportation or utility-owned right-of-way." Therefore, New Jersey law resolved the confusion by stating that neither crossing a municipal street (public thoroughfare) nor crossing a utility's physical infrastructure (utility-owned ROW) transforms a private, on-site energy network into a regulated public utility (N.J. B.P.U. 2016).

However, the New Jersey statutory exemption is strictly limited: properties are only considered contiguous if separated by *no more than one* such ROW. Projects that exceed this limit are generally not permitted to self-interconnect (N.J. B.P.U. 2016). Consequently, community leaders and decision-makers in New Jersey will likely need to proactively structure larger multi-property microgrid projects to avoid violating the law’s geographical limits, pursue a case-by-case review for a PUC exemption (if permitted within the statutes), engineering the microgrid to use the local utility's existing system to transfer power, or considering alternative ownership models .[7] As with many franchise conflicts, if the project can be structured as a partnership where the incumbent utility owns or operates the connecting infrastructure, the franchise issue is rendered largely moot.

2.2.2 Some States Use Function-Based Public Utility Definitions

In other states, the utility's exclusive right is not tied to a map but instead to its legal status as the certified public utility. Such laws are primarily designed to regulate a specific function, generally the distribution and sale of electricity to the public.

Under these frameworks, jurisdictional oversight of a microgrid is strictly contingent upon whether its commercial and physical topology triggers the host state's statutory definition of a "public utility" (K. B. Jones et al. 2014). The PUC serves as the primary adjudicator of disputes involving this definition, but its jurisdiction is strictly circumscribed by legislative mandate.[8] For example, the D.C. Public Service Commission has explicitly noted it can only regulate

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[7] As administrative agencies, state PUCs possess no inherent authority to bypass, waive, or alter state law; their jurisdiction is strictly circumscribed by statutory delegation. Consequently, a PUC cannot unilaterally grant an "exemption" from public utility regulation or franchise laws unless the state legislature has explicitly codified such discretionary exemptive authority within the governing statutes. In practice, community leaders and decision-makers will need to consult with a local energy attorney to determine what pathways are viable options apply to the microgrid project based on its location.

[8] For instance, the West Virginia Supreme Court has emphasized that a utility commission "has no jurisdiction and no power or authority except as conferred on it by statute" (Affiliated Constr. Trades 2002).

microgrids after making a formal determination that the system is acting within the statutory definition of a public utility (in re Microgrids in D.C. 2022).

Because state utility codes were primarily drafted for traditional monopoly architectures, determining a microgrid's regulatory status generally involves a fact-intensive inquiry. The PUC's review the microgrid's physical infrastructure and transactional mechanisms against specific statutory criteria, such as the retail sale of electricity, the number of unaffiliated end-users served, and the traversal of public rights-of-way (Hyams et al. 2010; Oueid 2019; in re Microgrids in D.C. 2022). Crucially, regulators evaluate the objective reality of the project rather than the developer's labels; as established by judicial precedent, "the law looks at what is being done, not to what the utility or person says it is doing" (Affiliated Constr. Trades 2002). States apply these tests differently: Iowa, for example, employs a case-by-case approach to determine if a specific transaction is "clothed with a public interest," whereas California relies on precise physical boundaries and customer counts to define regulatory exemptions (SZ Enters. 2014; K. B. Jones et al. 2014).

The Medical Area Total Energy Plant (MATEP) in Boston illustrates this functional challenge. MATEP proposed a multi-user microgrid with non-utility-owned wires, serving a large campus of medical and educational institutions. This raised serious questions about whether it was infringing on the incumbent utility's exclusive franchise by effectively acting as a competing distribution utility. MATEP was only able to proceed because of a specific, highly-tailored legislative exclusion, passed before the state's electric restructuring, which explicitly exempted MATEP from being defined as a distribution company (Kema 2014).

For community leaders and decision-makers, this establishes a clear, actionable strategy: structure a multi-property microgrid to avoid third-party sales. By ensuring that a single legal entity maintains continuous ownership and control of electricity across the entire system (for example, by having a municipality or university act as the sole consumer without sub-metering or selling power to distinct tenants across the street) community leaders and decision-makers can effectively neutralize the issues that arise via a commercial franchise. The project's regulatory burden then narrows entirely to securing the local municipality's consent for the physical infrastructure.

2.2.3 How State Level Franchise Infringement Affects a Multi-Property Microgrid

State level franchises, whether based on explicit geographical boundaries or functional definitions, are a key determinant of project risk and source of significant uncertainty. This uncertainty is often the greatest barrier for project proponents seeking to secure financing, as it introduces a legal risk that community leaders and decision-makers may be unwilling to accept (Hirsch, Parag, and Guerrero 2018; K. B. Jones et al. 2014).

The Harvard University microgrid is a useful example of a successful single-owner campus system that relies on a specific legal doctrine to navigate this challenge. Developed by the Massachusetts Supreme Judicial Court (SJC) and the Department of Public Utilities (DPU), the legal interpretation strictly separates the physical crossing of a road from the commercial act of distributing electricity. The SJC has established a "control-focused" interpretation: a microgrid does not violate an incumbent utility's exclusive franchise merely by crossing a public street. the statutory "delivery" or "distribution" of electricity only occurs when both the ownership and control of the electricity are transferred to a distinct third party (Mass. Microgrids 2014).

Because Harvard generates (or purchases) electricity and distributes it exclusively to its own buildings for its own use, in the eyes of the law it maintains continuous ownership and control of the electrons from generation to consumption. Consequently, no statutory "distribution" occurs, and Harvard is shielded from the PUC's oversight. To physically cross the public streets intersecting its campus, Harvard does not need the local utility's permission; it only requires the consent of the local AHJ (e.g., the town aldermen or selectmen) (Mass. Microgrids 2014).

2.2.4 Examples of State Level Franchise Impacts on Multi-Property Microgrids

When crossing a public ROW is unavoidable, the regulatory path forward may be a key driver of the technical and institutional structure of a multi-property microgrid, apart from the project's underlying cost or efficiency drivers. The feasibility of a multi-property microgrid is highly dependent on how state-level statutes and regulatory precedents authorize and define distribution service or a public utility (K. B. Jones et al. 2014). Local energy lawyers, local utilities, and the AHJs (e.g., PUCs) are all good starting points for determining how these rules may affect a multi-property microgrid. The table below provides a high-level comparison of the statutory and regulatory environments in a few states and how each is likely to affect multi-property microgrids.

Table 1 - Examples of Legal and Regulatory Environments that Affect Microgrids

State	Legal Stance on ROW Crossing	Key Statute(s) or Ruling(s)	Primary Implications for Community Projects
California[9]	Highly Restrictive	Public Utilities Code § 218	A utility partnership or utility-owned model is often the only viable pathway for multi-property projects. Non-utility models face significant legal barriers.
Connecticut[10]	Legislatively Permitted (Municipal)	Public Act 12-148; PA 13-298	Municipal-led projects serving critical facilities have a clear, sanctioned path to cross public rights-of-way, provided the exception is applied in a limited manner to governmental authorities.

[9] (K. Jones, McCurry, and Zitelman 2023)
[10] (K. B. Jones et al. 2014)

State	Legal Stance on ROW Crossing	Key Statute(s) or Ruling(s)	Primary Implications for Community Projects
Massachusetts[11]	Highly Restrictive (Via Franchise)	Utility Franchise Law (M.G.L. c. 164, § 1B(a)); Local Consent Statutes	The incumbent utility has exclusive franchise rights over public ways, making direct utility partnerships or collaborative efforts necessary to address the threat of franchise rights litigation. Obtaining consent for laying wires across public streets is likely required by local municipal authorities.
New Jersey[12]	Conditional Exemption (Single ROW/Municipal Focus)	N.J.S.A. 48:3-77.1	Microgrids must typically cross no more than one ROW to serve contiguous property and maintain exemption from public utility status. Legislative proposals and workarounds focus on enabling governmental entities or critical infrastructure projects to cross multiple ROWs to enhance resilience.
Oklahoma[13]	Permitted with Geographic Limits	Attorney General Opinion 2018-5	Creates opportunities for third-party owned systems, but the specific business model (lease vs. PPA) is dependent on whether the project is in an incorporated or unincorporated area.
Florida[14]	Highly Restrictive (Via Utility Definition)	*PW Ventures, Inc. v. Nichols* (1988); FLA. STAT. ANN. § 366.02(1)	Florida courts have broadly interpreted "supplying electricity... to or for the public" to include serving even a single major customer if it threatens the regulated utility's exclusive territory. There is no explicit numerical exception for electric suppliers, intensifying the regulatory risk associated with distribution over public ROWs.

11 (Kema 2014)
12 (N.J. B.P.U. 2016)
13 (Op. Att'y Gen. 2018)
14 (PW Ventures 1988)

2.3 Other Municipal Issues

Beyond the primary legal conflict over franchise rights, community leaders and decision-makers should be aware of a parallel set of local government requirements. These procedural, technical, and financial hurdles are entirely distinct from state-level utility regulation and fall under the municipality's direct authority over land use, public safety, and fiscal management.

2.3.1 Local Zoning and Permitting

While any energy project requires some level of permitting, these issues are uniquely amplified for a multi-property microgrid. Unlike a single-building system where all assets are located on one parcel, a multi-property microgrid that crosses multiple property lines and, crucially, public ROWs will face a different level of scrutiny and different set of local permitting ordinances. This carries procedural risk, as an unfavorable interpretation of local ordinances by the local AHJ can lead to heightened scrutiny and delays with the permitting timeline.

For multi-property microgrids in historic areas, local preservation plans add another layer of review, constraining where new infrastructure can be placed. This local process is further threatened by the risk of state preemption. Some state legislatures, aiming to accelerate development, have created "certified microgrid districts" that explicitly strip municipalities of their local zoning, permitting, and code enforcement authority.[15] This means that depending on the location of the properties, components of the microgrids may be subject to different AHJs overseeing individual parcels, but not the entire multi-property microgrid project.

2.3.2 Technical Viability and Standards

Municipalities may also be concerned with the physical and technical viability of the project. Public ROWs, especially in developed urban or campus areas, are often a congested network of existing public services. Co-locating new electrical conduits within crowded subterranean space requires extensive preliminary engineering studies to identify conflicts and design a viable route that meets the municipality's exacting specifications (Zinaman et al. 2022; Olgyay et al. 2020).

A technical review by the utility, however, does not waive local jurisdiction. The local building department and, crucially, the fire marshal retain non-waiverable authority over facility safety. This is especially critical for Battery Energy Storage Systems (BESS), which present unique fire risks (Twitchell, Powell, and Paiss 2023). Municipalities may not have adopted the latest fire safety standards that specifically address BESS, leaving little recourse outside of pursuing an exemption via a hearing with the local AHJ (Twitchell, Powell, and Paiss 2023). Alternatively, the design of the multi-property microgrid can be altered to remove the BESS but this may have impact on the project’s overall financial viability or reduce its contribution to the project’s goals (e.g., undermine the microgrids’ ability to improve energy resilience).

[15] *See* W. Va. Code § 5B-2-21B.

2.3.3 Public Liability and Insurance

Equally critical is public liability. Placing privately-owned critical infrastructure on public ROWs creates a significant liability profile, yet there is often a lack of statutory or regulatory language clarifying who assumes liability for a system failure (Stamp et al. 2014). This legal uncertainty can deter private investors who fear being held liable for utility-scale obligations. In addition, the community may impose financial and legal prerequisites on the multi-property microgrid owner.

These can include: carrying a high-limit general liability insurance policy naming the municipality as an additional insured party; posting a performance bond to ensure the ROW is properly restored; and signing an indemnification agreement that legally obligates the multi-property microgrid owner to "indemnify, defend and hold harmless" the municipality from any and all claims or damages arising from the microgrid's presence. On their own, these requirements may not be appear burdensome, but each takes time and expertise to examine and influences a project's financials, such as the risk profile the presented to lenders.

2.3.4 Fiscal Stability and Revenue

Municipalities may also be concerned about the fiscal risk associated with multi-property microgrids. Depending on how the project is structured, a multi-property microgrid's assets may be classified as personal property, leading to unpredictable valuation and tax assessment volatility. This can be worsened by state-level revenue diversion, where legislation redirects property tax revenue from certified multi-property microgrid projects away from the host community and to a state-managed fund, leaving the municipality with the infrastructure burden but not the full financial benefit (Mass. Off. of the State Auditor 2020). To counteract this volatility and revenue diversion, some local AHJs use a Payment in Lieu of Taxes (PILOT) agreement. When used, PILOTS are long-term, contractual agreements that are a mandatory condition for local consent, which provides the municipality with a stable, predictable revenue stream that is immune from state-level tax formula changes and assessment appeals (Mass. Off. of the State Auditor 2020). Community leaders and decision-makers should consider contacting the local AHJ to determine whether such PILOT agreements are a part of the local permitting process.

2.3.5 Resolving Other Municipal Issues

To resolve these overlapping legal, technical, and liability conflicts, community leaders and decision makers may want to focus on asset ownership. As noted in the previous section, a utility can argue that a single owner distributing electricity across multiple buildings or to other users is technically acting as a utility. To neutralize this franchise infringement claim and resolve the municipality's long-term liability concerns, the primary solution will likely be to adopt an asset ownership model that transfers the assets to either the local AHJ (i.e., the municipality) or the local utility. This strategy was used in the Walter Reed project, where the developer sold the private distribution assets to the incumbent utility, Pepco. Conversely, in the RIRRC microgrid, the developer attempted to retain ownership of the distribution infrastructures; this resulted in litigation where the PUC ruled the developer was operating as a public utility. Such examples demonstrate that the path of least resistance is often ceding ownership of the assets to a utility or public entity.

3. Case Study: The Coventry Microgrid Project (Coventry, CT)

The Coventry Microgrid Project in Connecticut is a key example of a successful multi-property, single-owner microgrid.[16] What makes this project so instructive is that it directly confronted the two primary barriers discussed in this report: the franchise conflict (crossing a public ROW) and the other municipal issues (public assistance regulations). The project developers were ultimately successful, not by winning a legal fight, but by executing a precise strategy. They leveraged a specific, pre-existing legislative carve-out for municipalities, demonstrating that success in this space is often a function of aligning a project's legal and ownership structure with narrow, defined policy exceptions.

3.1 Overview of the Coventry Microgrid

The Town of Coventry, a single municipal entity, sought to bolster the resilience of its most critical public facilities, including schools, emergency services, and public housing, so that they all could remain operational during an extended blackout. To achieve this, the town pursued a microgrid design that included a mix of new DERs, such as solar and BESS, as well as natural gas-fired combined heat and power (CHP) units. The core challenge, however, was that these critical facilities were located on distinct properties, requiring new, privately-owned electrical infrastructure to cross public ROWs, which triggered a cascade of complex regulatory and financial challenges.

3.2 Overcoming the Franchise and Right-of-Way Hurdle

For the Coventry project, the primary interconnection hurdle was the legal and physical challenge of interconnecting the separate properties themselves. As detailed in the regulatory filings, Eversource and other parties asserted that the Coventry project's design to route its privately owned wires across the municipal ROW infringed upon the utility's exclusive distribution franchise.

The resolution was not technical, but legal and structural. The project's proponents leveraged a previously passed state legislative exemption that explicitly authorized municipalities to build, own, or operate microgrids connecting their critical facilities across public ROWs.[17] To fit within this legal carve-out, the project's design was revised so that the Town of Coventry itself, rather than a private developer, would assume direct ownership of the new distribution infrastructure that crossed the public streets. This strategic shift in asset ownership was the key to overcoming the franchise barrier.

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[16] Unless otherwise indicated, all information in this section regarding the Coventry Microgrid is drawn from *Application of the Town of Coventry and Coventry Housing Authority.* 2020. Docket No. 20-03-17. Proposed Final Decision CONN. PUC LEXIS 1300. This case technically involves two distinct government agencies, the Town of Coventry and the Coventry Housing Authority.

[17] *See* 2012 Conn. Pub. Acts 12-148, § 7 (establishing the state microgrid program to support critical facilities); 2013 Conn. Pub. Acts 13-298 (amending statutes to explicitly permit municipal microgrids to cross public rights-of-way).

3.3 The Master Metering and Rates Exemptions

While resolving the ROW issue dealt with the issue of the local utilities franchise, the microgrid's commercial and physical architecture introduced other regulatory hurdles. The Coventry project's design required treating multiple, independently metered municipal facilities as a single consolidated electrical entity. Implementing this architecture necessitated two major regulatory exemptions from the Connecticut Public Utilities Regulatory Authority (PURA): first, a waiver from the statewide prohibition on master metering to allow the consolidation of existing utility revenue meters; and second, authorization to reassign existing Zero Emission Renewable Energy Credit (ZREC) revenue meters to the new master meters, ensuring the preservation of critical financial subsidies

3.3.1 Master Metering and Public Assistance

The microgrid's design, which included crossing public ROWs to connect separate properties (the franchise challenge), required the Coventry project to consolidate the billing for the Coventry Housing Authority complex for senior citizens. The solution was to consolidate 71 individual residential meters into a single "master meter." However, this action was explicitly prohibited by law; the project required a waiver from the State of Connecticut PURA to bypass the state's prohibition on master metering, a rule designed to protect tenants.[18]

A second issue arose when the Office of Consumer Counsel observed that consolidating the individual residential meters into a single master meter would extinguish the tenants' ability to participate in Eversource's economic hardship programs. While PURA explicitly acknowledged the potential harm from losing access to these programs, the regulatory body opted to conditionally approve the master metering exemption to advance the microgrid's deployment. Rather than prescribing a regulatory mandate or protective tariff to preserve tenant benefits, PURA effectively gave the problem back to the project proponents and "strongly urged" the Town of Coventry and the Coventry Housing Authority to collaborate with stakeholders and local community action agencies to mitigate the financial impacts on tenants.

This placed the Coventry project in the position of negotiating a solution on behalf of the local residents – a problem that it had no way of planning for or mitigating prior to the beginning of the project.

3.3.2 Consolidating Renewable Energy Credits (ZRECs)

As a result of the use of master meters, a new regulatory issue arose. The various town buildings in the microgrid already had existing solar panels with separate ZREC revenue meters. To make the new microgrid financially coherent, the project needed to consolidate all these separate ZREC accounts under the new proposed master meters. The incumbent utility, Eversource, raised concerns about this "after-the-fact combining of projects," arguing that these projects were awarded contracts at a specific price based on their small size and that combining them would have required them to bid in a different, more competitive category.
In both cases, PURA was ultimately persuaded to grant additional waivers to the Coventry

[18] In Connecticut this authority was specifically granted to PURA. *See* footnote 6.

project, despite the projects not meeting the standard criteria. The deciding factor was that state policy also explicitly encouraged the deployment of microgrids for resilience. These waivers were procedurally linked to the public ROW issue, since the project could not proceed until both the physical (public ROW) and financial (metering) hurdles were resolved.

3.4 Key Takeaways

The Coventry case reinforces several key principles for community leaders and decision-makers:

- The financial viability of a multi-property project may depend on solving complex rate and metering issues (like combining ZRECs or master metering) that arise from consolidating separate facilities.
- State legislation (e.g., municipal exemptions for microgrids) is a critical and powerful source of both barriers and pathways to implementation. Without specific ROW carve-outs, the project would not have been possible. However, if the master meter statutes included additional available exemptions, waivers would not have been needed.
- Asset ownership is a key regulatory strategy. The Town's willingness to own the distribution wires was the specific legal maneuver required to unlock the state-level exemption.
- Solving the franchise conflict is only one step. Projects must also navigate municipal issues (Section 1.1.2) that are often unique to the circumstances of their project, such as the complex tenant and public assistance impacts of master metering.

Ultimately, the Town of Coventry's decision to transfer ownership of the public ROW-crossing wires to the Town demonstrates that for multi-property microgrids, asset ownership is not just a financial decision, but a critical strategy that can enable a project to succeed.

4. Alternative Project Models for Multi-Property Microgrids: A Strategic Comparison

The institutional challenges detailed in Sections 1 and 2, particularly those concerning franchise rights and public ROW access, are not insurmountable. The Coventry case study (Section 3) provides one example of a successful navigational strategy. This section provides a comparative analysis of several distinct archetypes and strategic pathways community leaders and decision-makers may wish to consider, which often involve balancing fundamental design (e.g., asset ownership) with regulatory expediency.

4.1 The Utility-Centric Model: ComEd Bronzeville

The Bronzeville Community Microgrid (BCM) in Chicago, Illinois, illustrates a "path of least resistance" to the franchise barrier. The BCM is one of the nation's first neighborhood-scale community microgrids, serving over 1,000 customers, including a high concentration of critical infrastructure like the Chicago Police headquarters. The BCM is a "utility operated community microgrid" and serves as a "flagship project" of the incumbent utility, Commonwealth Edison (ComEd), developed in partnership with the U.S. Department of Energy (ComEd Petition 2018).

This ownership model resolves the foundational franchise conflict by default. The incumbent utility, ComEd, already held the exclusive franchise and all necessary municipal agreements to build, own, and operate distribution infrastructure in the public ROW. By having the utility own and operate the multi-property microgrid, the entire legal conflict over wasteful duplication or public utility classification was rendered moot. This provides maximum expediency and the lowest possible legal and regulatory risk to the multi-property microgrid project.

The trade-off for the community is a reduction in direct control over the project's design, operation, and cost. Community and consumer groups initially objected to the utility-operated model. They ultimately withdrew their objections after ComEd agreed to work with them to develop a pilot tariff for third-party (non-utility) microgrids in a future phase of the project. ComEd also agreed to supply generation via third-party DERs procured through a competitive bidding process, rather than owning the generation outright.

4.2 The Municipal-Led Model: Coventry and TCDER

An alternative pathway municipal model, enabled by state level exemptions the franchise barrier for specific types of projects.

The Coventry Microgrid Project (profiled in Section 3) is a prime example. This project was made possible by a Connecticut state program that created a specific legal exemption allowing municipal entities to own distribution lines that cross public ROWs to connect their critical facilities. The Town of Coventry used this carve-out by assuming direct ownership of the connecting wires, a legal maneuver that would not be available to a private developer (In re Town of Coventry 2020).

Similarly, the New Jersey Town Center Distributed Energy Resource (TCDER) program was launched after Superstorm Sandy to fund and support multi-property microgrids for community resilience. This program provides a programmatic pathway for a municipally-led project in New Jersey to cross public ROWs, de-risking the primary legal hurdle from the outset (N.J. B.P.U. 2016).

These models are typically structured as public-private partnerships (P3), where the municipality acts as the project lead, but may partner with a third-party developer to design, build, and operate the system.

4.3 Strategic Implications: The Community Trade-Off

These case studies present community leaders with two distinct, replicable archetypes of navigation:

1. **The Utility-Centric Model (Bronzeville):** This path offers high regulatory certainty and expediency, as the franchise barrier is non-existent. However, it results in the utility retaining full control over the asset, which may ultimately undermine the goals that drove the microgrids development in the first place.
2. **The Municipal-Led Model (Coventry & TCDER):** This path, made possible by proactive state legislation, offers high regulatory certainty and allows for community leadership. It enables P3 structures and local control but requires the project's goals to align with the state's specific programmatic requirements (e.g., municipal ownership, critical facility resilience).

For community leaders and decision-makers, the strategic choice is often dictated by their state's legislative landscape. If a programmatic pathway for municipalities exists (Path 2), it is likely the most flexible and therefore the most attractive. If not, the community faces a more fundamental strategic choice: (A) pursue the "Bronzeville path," ceding control to the utility for expediency or (B) advocate for new state-level legislation to create a programmatic pathway.

5. A Phased Framework for Project Development and Engagement

For community leaders and decision-makers, turning a multi-property microgrid concept into a reality requires a disciplined approach. Multi-property microgrid development is a complex, multi-year process that requires systematic planning, stakeholder collaboration, and disciplined financial management to mitigate regulatory, technical, and commercial risks. A phased approach ensures that key decisions regarding feasibility, regulatory compliance, and financial viability are addressed sequentially, minimizing uncertainty.

5.1 Phase 1: Foundational Planning & Legal Risk Assessment

This initial phase is designed to identify potential "fatal flaws" related to franchise and ROW issues before community leaders and decision-makers commit significant capital.

- **State Legislative and Regulatory Survey:** A thorough examination of state energy statutes and PUC dockets is critical. This survey should identify any existing laws that explicitly permit or prohibit non-utility infrastructure in the public ROW (like in Connecticut) or any relevant precedents from past PUC rulings (like in New York).
- **Franchise Agreement and Municipal Code Review:** The first step is a detailed legal review of the exclusive franchise agreement between the local utility and the municipality. This review should identify the specific terms of exclusivity, any prohibitions on private distribution or retail aggregation in the utility tariff (which may be framed as a "sale for resale" prohibition), and the formal municipal process for petitioning for use of a public ROW (e.g., easement, license, consent permit).
- **Preliminary Engineering and ROW Feasibility Assessment:** This technical study focuses on the physical viability of the proposed infrastructure path. It involves mapping the route, identifying potential conflicts with existing subterranean utilities (water, gas, communications), and determining if other types of easements are present or likely to affect the multi-property microgrid's feasibility (e.g., creating siting issues or restricting the types of generation it is possible to use) to develop a high-level estimate of construction costs and timelines.

5.2 Phase 2: Strategic Engagement with AHJs

With a foundational understanding of the legal and physical landscape, the project can move into a phase of intensive stakeholder engagement with both the municipality and the utility.

- **Coordination with Municipal Departments:** This involves structured, formal engagement with the municipal departments of public works, engineering, and planning. The goal is to ensure the project's technical specifications for construction, safety, and long-term maintenance align with established municipal standards for any work conducted in the public ROW.
- **Technical and Commercial Engagement with the Local Utility:** Early and

transparent engagement with the local utility is a powerful strategy. This can include formal meetings with the utility's distribution planning and interconnection teams to present the project concept, review the preliminary engineering design, and begin a collaborative assessment of potential grid impacts. This is also a good opportunity to explore the utility's potential interest in various partnership models.

5.3 Phase 3: Financial and Technical Structuring

This phase focuses on synthesizing the legal, technical, and stakeholder feedback from the first two phases into a concrete and viable project model. This process involves an objective analysis of the primary ownership and operational models available for multi-property microgrids.

- **Analysis of the Utility-Centric Model:** This pathway involves the utility owning and operating the multi-property microgrid's distribution assets (the wires connecting the properties). The primary advantage is that the utility franchise issue is inherently resolved, providing the most expedient legal and regulatory path. The disadvantages include a potential reduction in direct community control and a potentially lengthy regulated cost-recovery process.
- **Analysis of the P3 Model:** This pathway involves the municipality and/or a community-based organization partnering with a third-party developer (as in the Coventry case). This model allows the community to retain a significant degree of control. However, this path requires the project to navigate the entire complex maze of franchise negotiations (or a PUC waiver), municipal consent procedures for ROW access, and the heightened liability and insurance requirements.

5.4 Using the Phased Framework

While presented sequentially above, community leaders and decision-makers may find their starting point varies. For instance, a community that has already completed foundational planning and is ready to assess the viability of different asset ownership models may enter the process at Phase 3. A recommended first step is to assess the viability of each pathway against specific regulatory contexts in their state and local area, such as PUC policy positions and precedent rulings, state energy laws, and local zoning codes.

In addition, navigating the complexities of multi-property microgrid development can be a daunting task. Community leaders and decision-makers are not alone in this endeavor. A growing ecosystem of support, including sophisticated planning tools, expert guidance, and direct technical assistance, is available from entities like DOE

Table 2 - Overview of DOE Resources for Supporting Microgrid Deployments

Resource	Primary Function	URL
Community Microgrid Assistance Partnership (CMAP)	Provides technical assistance and guidance to communities exploring microgrid options.	https://www.energy.gov/oe/community-microgrid-assistance-partnership
Renewable Energy Integration and Optimization (REopt)	A techno-economic decision support platform for optimizing energy systems, including microgrids.	https://reopt.nrel.gov/
Distributed Energy Resources Customer Adoption Model (DER-CAM)	A microgrid planning and optimization tool for finding the lowest-cost combination of DERs.	https://dercam.lbl.gov/
DOE Microgrid Program	The main DOE program page, providing research, funding opportunities, and publications.	https://www.energy.gov/oe/services/technology-development/grid-modernization-and-grid-scale-storage/microgrids
Interruption Cost Estimate (ICE) Calculator	Tool to estimate outage costs and the benefits (avoided costs) of reliability improvements.	https://icecalculator.com/

By leveraging these resources, community leaders and decision-makers can transform the development process from a series of obstacles into a manageable, strategic pathway. Success requires a realistic assessment of internal capacity and a commitment to building partnerships. Collaborating with State Energy Offices, local utilities, universities, or non-profit organizations working in this space can provide the necessary support to navigate the complex, multi-stage process toward enhanced local energy security.

Conclusion

The development of a multi-property microgrid, defined by the physical act of crossing a public ROW, remains a complex undertaking in the modern energy landscape. The primary challenges are not strictly technological but institutional, rooted in a legal and regulatory framework designed over a century ago to protect the exclusive utility franchise. The act of installing private wires in a public street is often interpreted as an illegal competitive threat, triggering a series of legal and financial barriers.

This report has shown that successful navigation of this landscape is possible, but it is not a one-size-fits-all endeavor. It requires a multi-pronged strategy that simultaneously and successfully addresses key barriers: the incumbent utility's franchise rights and, by extension, the municipality's control over its physical property.

Viable pathways are not necessarily forged by proposals to reform this system, but by pragmatic innovation within it. As the case studies analyzed in this report illustrate, success is being found through four primary strategies:

- **Relying on Legal Interpretation:** As demonstrated by the Harvard University microgrid, this involves leveraging existing legal precedent or specific statutory interpretations that differentiate the "private, internal use" of electricity from the "statutory distribution service" that defines a public utility (Ferrey 2002).
- **Negotiating Municipal Consent:** As shown in the New York University case, this involves securing a specific "revocable grant" or license from the local municipality to use the public ROW, a path that is often contingent on the incumbent utility not objecting (NYSERDA et al. 2014).
- **Proactive Policy Alignment:** This involves structuring a project to fit within the narrow, sanctioned boundaries of a state legislative exemption (as in the Coventry Project) or a state-sponsored programmatic pilot (as in New Jersey).
- **Collaborative Partnership:** As seen in the ComEd Bronzeville project, this involves adopting a utility-centric model. This path offers the most expediency by resolving the franchise issue by default, as the utility already holds the right to build in the ROW (ComEd Petition 2018).

For community leaders and decision-makers, the path forward may require a fundamental shift in perspective. A multi-property microgrid cannot be approached as a simple technology project. It should be developed as a strategic negotiation of public infrastructure, complex institutional relationships, and community governance.

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