EFI FOUNDATION

Building Buy-In for Clean Energy Projects

The Developer's Playbook

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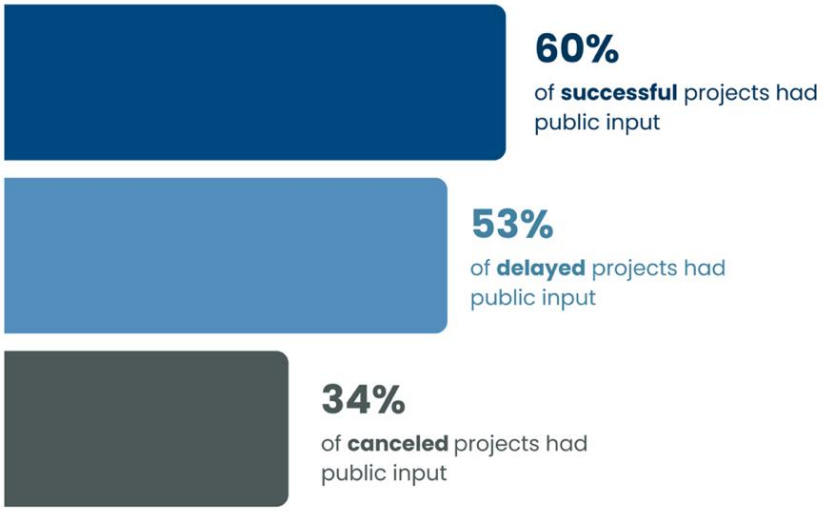
Introduction: Community Engagement and Coalition Building Expedite Project Launch Readiness

The difference between a successful project and multimillion-dollar losses often comes down to one factor: securing community support. Recent research shows that community opposition leads to significant business risks, with one-third of wind and solar projects failing to gain approval and half facing delays exceeding six months. Additionally, at least one-quarter of U.S. counties are blocking utility-scale wind, solar, or battery storage projects through moratoriums and bans.[1]

Developers cite local opposition as a leading cause of setbacks. In a recent survey of utility-scale wind and solar developers,[a] respondents reported that the public provided input in 60% of their most recent successful projects. For delayed projects, public input was slightly lower at 53% of cases, and for canceled projects, the public gave feedback in only 34% of cases.[2] While engagement alone does not guarantee success, these data suggest that higher levels of engagement may contribute to fewer delays and cancellations (Figure 1).[3] Simply put, early and effective community engagement is a smart investment.

Figure 1. Community engagement can help renewable projects reach success



Adapted from: Robi Nilson et al., "Halfway up the Ladder: Developer Practices and Perspectives on Community Engagement for Utility-Scale Renewable Energy in the United States," Energy Research & Social Science *117 (2024): 103706-. doi:10.1016/j.erss.2024.103706.*

[a] Respondents from 62 companies represent 51% of recent U.S. wind and 45% of solar deployment (2016–Q1 2023). The study states that the sample of respondents represents a subset of the large, utility-scale developer community that has a particular interest in and affinity for community engagement.

In fact, 75% of respondents report fewer project cancellations because of increased engagement, and 66% said they believed addressing local concerns proactively reduced opposition. Engaging communities early and often can ensure projects progress efficiently toward final investment decision (FID) by meeting legitimate community needs, mitigating opposition, expediting project approvals, safeguarding investments, and aligning on shared values and positive outcomes for both parties.

Certainly, project interruptions are also driven by other factors. Developers face a patchwork of local, state, and federal regulations; emerging industries face financial risks including revenue uncertainty and cost overruns; and an overloaded and outdated grid can create interconnection problems. Regardless, even with regulatory reforms, federal incentives, and infrastructure improvements, securing a social license to operate (SLO)[b] remains essential.

Bringing communities into project processes can be complex and requires careful thought and planning, and more community involvement can increase planning complications but also tends to increase acceptance. Figure 2 shows that basic engagement (as seen in the SLO Acceptance portion) may lead to community acceptance with some lingering concerns, while deeper partnership can achieve community approval with ancillary benefits in company perception and subsequent project acceptance (Figure 2).[4]

Figure 2. The more you engage, the more likely you are to get a social license to operate (SLO)

This figure describes levels of community acceptance and how to reach a social license to operate for energy projects. At the highest level, local people consider the project part of their community's identity and actively support it. Adapted from: Jan Hildebrand et al., "Public perceptions of geothermal projects: New ways of measuring and monitoring local acceptance and social impacts," European Geologist Journal *54 (2022), 10.5281/zenodo.7602374.*

[b] Refers to the ongoing acceptance of a company's or industry's standard business practices and operating procedures by its employees, stakeholders, and the general public.

To help developers reach these higher levels of project approval and achieve a smoother path to FID, this guide outlines a data-driven set of recommendations rooted in community preferences. By following these recommendations from the start of the project, developers and community partners are more likely to foster feelings of mutual trust, which is vital for engagement success, according to EFI Foundation (EFIF) research.

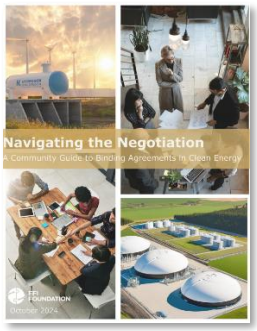
Though this report draws on EFIF's recent work with the U.S. Department of Energy's (DOE) Regional Clean Hydrogen Hubs (H2Hubs), the principles apply to a broader range of clean energy projects. All findings and recommendations discussed in this report are a synthesis of findings from four distinct EFIF studies (Table 1) and other existing literature on the topic.

Table 1. EFIF's community engagement studies

February 2024

May 2024

August 2024



October 2024

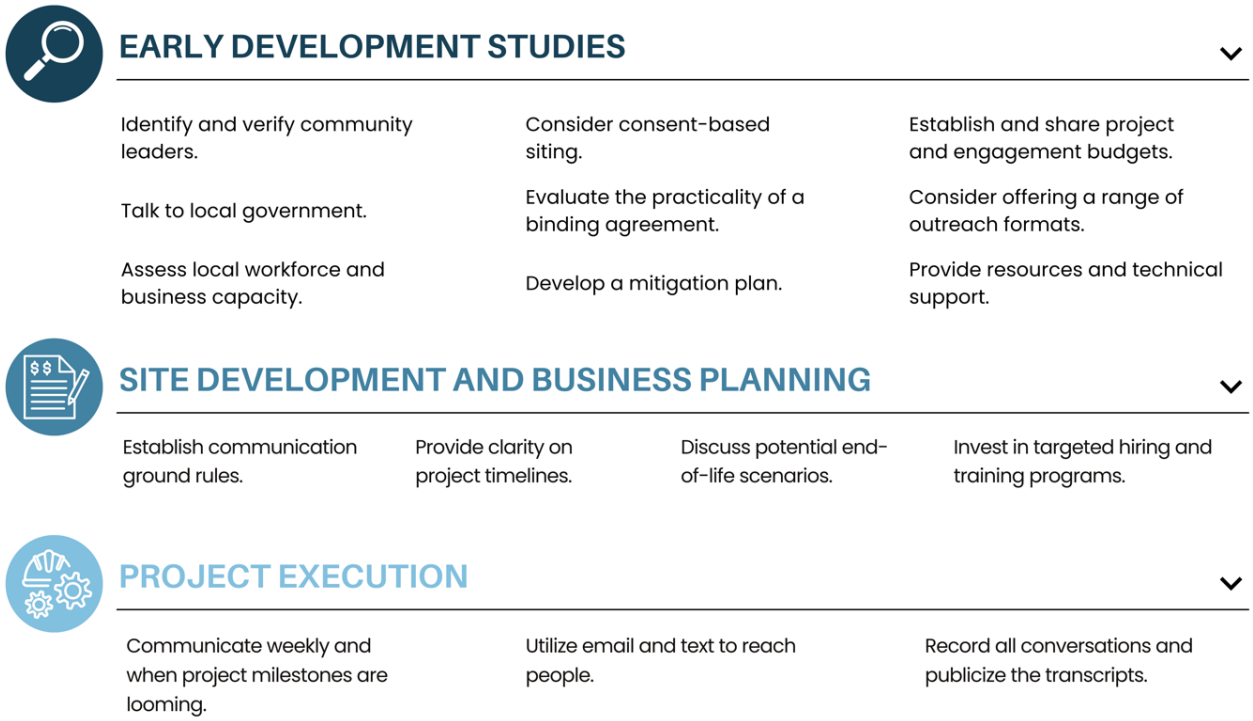
Major Takeaways: Tailored Processes and Shared Project Outcomes Build a Social License to Operate

Good community engagement is measured by its process and by its outputs. The process should be a structured, transparent approach that actively involves community members in setting agendas, deliberating on issues, and working together on relevant project decisions.

For example, if a developer is determining the timeline for project milestones, a strong engagement process would involve collaborating with community members to set realistic expectations, openly discussing any potential challenges, and making adjustments to the timeline based on community input. Outputs of good community engagement are tangible benefits, such as workforce training and local hiring guarantees, investments in local infrastructure, and increased environmental protections.

This playbook offers a practical guide with options for well-executed community engagement. EFIF's recommendations pertain to engagement **processes** and engagement **outcomes** across three major project development stages:

Figure 3. Options for successful community engagement to reach final investment decision (FID)



Source: EFI Foundation.

Chapter 1: Early Development Studies

This phase involves initial feasibility studies to assess the technical, economic, and environmental viability of the project. It includes resource assessment and preliminary design. During this phase, developers can take a variety of steps to engage community stakeholders.

Identify and verify community leaders. Community representatives act as intermediaries between developers and the broader community, offering local knowledge to developers and credibility to the community. Effective engagement starts with identifying an array of leaders from environmental justice (EJ) groups, local government officials, landowners, labor unions, and community-based organizations, among others. These groups are essential partners in understanding the community and addressing potential concerns early.[5]

In addition to these organized groups, it is also important to engage independent community representatives who may not be affiliated with formal organizations but have deep ties to the community and can provide valuable perspectives and credibility.

Community representatives can also be identified through surveys, polls, or an online nomination portal. One of the H2Hubs, for instance, said it plans to solicit nominations for community leaders through its website. A team of community benefits managers would then vet the nominations and make the final selections, based on criteria discussed during a virtual public engagement forum.[6]

Talk to local government. Local governments are easily accessible, play a central role in most development projects, and are well-positioned to identify important groups and influential individuals within the community. In binding agreement[c] negotiations, for instance, city council members often play a crucial role in expediting the process. In one case, city council members lobbied their colleagues, the public, and the developer and bridged the concerns of the local EJ group to facilitate a signed binding agreement.[7] While important, local officials should not be the sole focus, as a diverse range of groups is needed to represent the full spectrum of community opinions.

Assess local workforce and business capacity. Without sufficient workers, projects risk cost overruns, quality control problems, and delays. Partnering with local labor unions can help address these challenges, as studies show that organized labor increases productivity by 14% and reduces total project costs by 4% compared to nonunion labor. Furthermore, projects with union workers are 40% less likely to experience skilled labor shortages and they have one-third lower turnover rates, which can lead to more predictable project timelines and costs.[8]

Beyond these operational benefits, labor representatives often have a greater familiarity with community engagement processes and the more technical aspects of energy technologies, like hydrogen, compared to other stakeholders. This expertise can be helpful for developers when they are explaining projects to a wider audience and exploring a project's compliance with local requirements.[9]

Developers also can evaluate local labor incentives, which impact project economics.[10] One example is leveraging progressive tax structures, a method that Washington state successfully implemented (Box 1).[11]

[c] Binding agreements are legally enforceable contracts between developers and communities that guarantee specific benefits in exchange for local support. They can come in the form of good neighbor agreements, host community agreements, community benefits agreements, and others. Source: EFIF, *Navigating the Negotiation: A Community Guide to Binding Agreements in Clean Energy*, October 2024, p.9.

Box 1

Incentivizing labor standards for clean energy in Washington

Washington's Clean Energy Transformation Act (CETA) of 2019 demonstrates how states can use creative incentive structures to promote strong labor standards in clean energy development. CETA established a three-tiered tax incentive system that rewards clean energy projects for implementing progressively stronger workforce practices. Projects can qualify for 50% sales and use tax exemptions for project machinery and equipment by meeting basic requirements like using apprentices, prioritizing local workers, and contracting with minority-, women-, or veteran-owned businesses. The exemption increases to 75% if developers also pay prevailing wages and demonstrate ongoing labor compliance. Projects can reach the maximum 100% tax exemption by also implementing project labor agreements or community workforce agreements.

Developers created these standards with building and construction unions. This resulted in a set of guidelines that meet labor needs and give developers flexibility and financial motivation to adopt comprehensive labor standards.

Source: Washington State Department of Commerce, "Clean Energy Transformation Act," https://www.commerce.wa.gov/energy-policy/electricity-policy/ceta/.

However, sometimes specific labor requirements are set by municipalities. For example, Erie County, New York, requires construction projects costing over $250,000 and employing at least three workers to maintain a local workforce comprising individuals from the surrounding eight-county area.[12]

Beyond the workforce, local businesses are equally important partners in strengthening supply chains, supporting economic growth, and building community backing.[13] To reach these enterprises, teams can meet with chambers of commerce and economic development organizations.[14,15]

By breaking larger contracts into smaller components, teams can create subcontracting opportunities for local businesses in construction, maintenance, and services—an approach successfully used in recent DOE projects.[16,17]

Consider consent-based siting. Consent-based siting is a process through which developers work with communities from the very start to obtain their approval on project development. For instance, the Southern Ute Indian Tribe's Oxford Solar Project was constructed with Tribal approval incorporated at multiple stages. This included initial site selection (with the Tribal Council's land dedication) through final construction authorization (via the completion of archeological and environmental reviews by the Tribal Environmental Division and other requirements). Through this process, developers selected a site that met technical needs (substation proximity, strong solar resources) and community priorities (non-residential, land with low agricultural value). The 1-megawatt facility was successfully constructed in 2017 with Tribal support.[18]

Conversely, when developers wait to announce projects until after securing land, it can lead to project delays and cancellations if the project draws organized opposition and misinformation. This can result in restrictive zoning laws and withdrawals of support from local officials.[19]

Evaluate the practicality of a binding agreement. Binding agreements with host communities can provide a structured framework for managing relationships and expectations throughout a project's life cycle. Binding agreements offer a way to formalize commitments made to community and labor stakeholders, as detailed in the Site Development and Business Planning section that follows. They can come in a variety of forms, including community benefits agreements (CBAs), community workforce agreements (CWAs), project labor agreements (PLAs), good neighbor agreements (GNAs), and host community agreements (HCAs), among others. Each type varies in the extent of stakeholders' involvement. For example, PLAs require greater engagement with labor but may not capture the needs of the broader community. To account for this, developers can consider a broad array of binding agreements that are diverse in the people they serve and the types of commitments they deliver.[20]

EFIF found that binding agreements increased support for clean hydrogen projects, which could be a model to apply to other technologies as well.[21] While these agreements require up-front investment, they offer developers legally enforceable mechanisms to secure community support and manage potential conflicts.

In fact, the financial trade-off often favors prevention over litigation. For example, one individual who previously pursued a binding agreement told EFIF, "That [disagreement with the community] would cost the company, I estimate, something like $15 million. And then the question became: Instead of spending $15 million on litigation with everyone unhappy, what could we do proactively with equivalent funds—like monitoring programs and mine improvements?"[22]

When conflicts arise, binding agreements spell out clear steps for resolution, like requiring mediation before any lawsuits. To stay effective over time, these agreements can be updated to address new situations. This flexibility proved useful in one example where, years after signing, both parties revised their good neighbor agreement line by line. As one negotiator explained, “Both parties could address grievances and acknowledge successes. We've amended it maybe five times since then, though not always at that scale.”[23]

The ongoing implementation of these agreements creates strong working relationships between developers and communities, which can lead to more efficient day-to-day communication. As one study participant noted, routine matters could be handled through simple email exchanges: “For smaller matters, we might just send an email saying, ‘Here's what we plan to do and our interpretation. Do you have any disagreement?’ They can simply reply that it works for them.”[24] This open line of dialogue keeps the project running smoothly by addressing questions and concerns as they arise.

Develop a mitigation plan. At the very start, project teams should discuss the project’s potential impacts with community leaders and residents. These early discussions help everyone understand and identify which impacts matter most. DOE's H2Hubs listening sessions revealed,[d] for example, that communities’ interests range from air quality monitoring and traffic patterns to local job creation.[25] As one developer learned after significant delays that cost “an extra half a million dollars just to make everybody happy again,” it is far more efficient to establish a shared understanding of impacts and mitigation plans from the start.[26]

Based on what is learned from community conversations, the project’s mitigation approach should focus on members’ specific concerns. Developers can take three steps to address the community’s priority areas: First, avoid impacts that matter most to residents; this could mean relocating facilities away from areas they identified as sensitive or modifying the project design to limit its footprint. Next, for impacts that cannot be avoided but concern the community, developers can take measures to minimize these effects, such as implementing noise-reducing technologies, limiting construction hours, or using alternative materials. Finally, project teams can work with community members to determine fair compensation for any remaining impacts, whether through binding agreements or by funding locally supported projects.[27]

[d] DOE listening sessions are online public briefings where DOE engages with host communities, project developers, and interested public stakeholders to gather input about federally funded projects. DOE uses this feedback to guide award negotiations, improve community outreach strategies, and refine project implementation.

The Ten West Link project shows how good mitigation works. This 126-mile power line project initially faced opposition from conservation groups worried about the Kofa National Wildlife Refuge in Arizona. By working together, the Bureau of Land Management created an alternative route that avoided both the wildlife refuge and populated areas. This eliminated major ecological concerns but kept the project viable. For impacts that could not be avoided, they used specialized construction techniques and seasonal work restrictions to protect wildlife.[28]

Establish and share project and engagement budgets. When developers share their financial constraints up-front, communities can better tailor their requests. One project faced delays, despite reaching an agreement on the "principle" of funding for community benefits and engagement, because the community was asking for a much larger investment than the project could support. Once the developer clarified the scope of what they were able to offer, the community adjusted their ask to reasonably fit within the project constraints.[29]

Consider offering a range of outreach formats. In DOE listening sessions, community members consistently express frustration with limited meeting options, noting that online forums alone do not provide adequate engagement opportunities for everyone. Though a majority of people opt for public hearings and citizen panels as mechanisms to receive project information, developers should be mindful of variations in those preferences.[30] For example, people in the Appalachian hydrogen hub region prefer citizen panels, while people in the Gulf Coast and Midwest hubs prefer public hearings. Environmental justice organizations, broadly, prefer working groups.[31] Offering different options on a rotating schedule allows developers to maximize their reach.

Typically, an advisory panel consists of selected representatives from diverse community groups who meet regularly to discuss project developments, provide input, and make recommendations. Survey data shows these panels are one of the most preferred engagement methods across all community types.[32] To be effective, panels should include balanced representation from disadvantaged communities, Tribal nations, labor unions, and EJ groups. They should be structured for sustained two-way dialogue through regular meetings and have transparent processes outlining how panel input will be incorporated into project decisions.

Box 2

Community advisory panels in the Diablo Canyon

The Diablo Canyon Decommissioning Engagement Panel established a diverse group to provide direct input for Pacific Gas and Electric Co.'s (PG&E) nuclear plant decommissioning plans. The panel includes eight to 11 community members serving staggered terms, holds regular public meetings, and operates with clear guidelines for how their recommendations inform PG&E's decision-making process.

Once a representative's term is complete (after up to three years of service), the panel initiates a structured nomination process where sitting community members form a nomination committee to propose new candidates, with final selections requiring approval from both the community members and PG&E. Notably, the panel explicitly chose to exclude elected officials from regular membership (except as possible ex-officio members) to maintain the focus on direct community representation.

Source: Pacific Gas and Electric, "Diablo Canyon Power Plan: Decommissioning Engagement Panel Charter," May 2018, https://drive.google.com/file/d/1FcyibgZ4lhM60CrePjzE26vqJYaUNFT6/view.

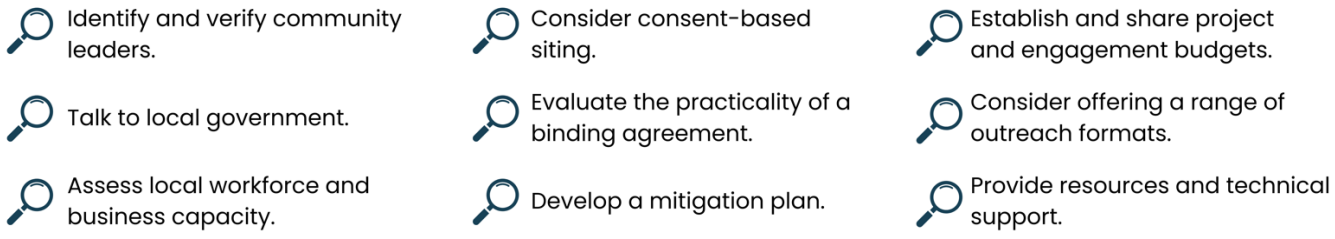
Provide resources and technical support. EFIF identified a variety of tangible resources that can help a community representative engage with a project:

- *Multilingual communication protocols:* Technical content should be available in multiple languages and formats to ensure everyone can participate. Spanish is the most requested language for translation services.[33] Documentation should consist of technical versions that maintain precise implementation details alongside clear explanations that help community members engage with the project without requiring deep technical knowledge. For example, developers can include translating equipment specifications and safety procedures, as well as create accessible versions of environmental impact studies and community benefit explanations.[34] Regardless, all engagement materials should be

translated into community members' native languages. During meetings, developer teams can provide live interpretation and create multilingual transcripts so everyone can fully engage in discussions.

- *Engagement capacity support:* Communities may need third-party support for engagements, like facilitators and technical expertise. Professional facilitators bring structured approaches that help manage dialogue productively while ensuring all voices are heard. Their independence helps build trust, as they can serve as neutral bridges between developers and communities. When communities have access to experts who can explain complex project elements, they can raise specific concerns early and contribute meaningfully to technical discussions. In one binding agreement negotiation, a developer made the offer to pay for "lawyers to help guide [community negotiation] through the process."[35] Developers should consider funding communities to hire third-party mediators to manage engagements.

  Developers also can provide funding to communities to hire technical experts. One project team paid for the community to attend a three-day session of the community's choice on how to negotiate with developers more effectively.[36] In other examples, developers have allocated over $100,000 annually for technical consultants for a host community.[37] Additionally, developers could provide goods and services to facilitate connection. Fifty-five percent of community members surveyed by EFIF say free devices are the top need for engagement, followed by free energy vouchers (55%), compensation for time (54%), and free Wi-Fi access (54%).[38] For compensation, $15/hour is the average requested rate.[39] Providing these goods can help bridge gaps in accessibility to engagement. Developers also can customize tangible engagement support to the community and region. For example, the Midwest hub respondents prioritized compensation for engagement over free products or other goods and services.[40]



Chapter 2: Site Development and Business Planning

This phase involves developing a comprehensive business plan, refining financial models, and establishing the project's legal and organizational structure. It includes securing financing, negotiating contracts, and obtaining necessary permits and approvals. Developers can build on the relationships established in the Early Development Studies phase and put plans into action.

Establish communication ground rules. Communication protocols should outline for communities and developers what information can be shared, how it can be shared, and with whom. For example, one team set a rule to avoid the press, and when they did speak with the press, to say, “We're negotiating, and things are going well, and we're still working on stuff,” in order to minimize external influence and pressure.[41] Project teams also can define what information is confidential and what can be discussed publicly. In another case, a confidentiality clause allowed for participating community members to gain detailed insight into technical aspects, financial plans, and development timelines, while ensuring business-sensitive details remained private to the group.[42] Developing and documenting communication protocols in writing can prevent misunderstandings, allow project discussions to proceed with minimal external disruption, and protect all parties’ interests during critical engagement periods.

Provide clarity on project timelines. Discuss typical project phases, changing time frames, and delays (even when details are limited). This is especially important for federally funded projects that operate under a staged funding model where funding is released in waves. This approach can create uncertainty for community commitments as developers want to ensure they have the funding necessary to deliver on commitments before signing binding agreements with communities, but communities want firm guarantees of benefits as early as possible.[43] Additionally, permitting processes like National Environmental Policy Act (NEPA) reviews further complicate timelines since their completion dates vary. Regular discussions about timeline uncertainties from the start and during these periods help reduce risk of opposition and continue collaboration as community partners remain informed, even when complete details are not available.[44]

Discuss potential end-of-life scenarios. Early planning for site closure is crucial but often overlooked. One of EFIF’s interviewees noted, “We should have prepared for closure from the beginning. When negotiating the agreement, we focused on the 25-year lifespan and did not adequately address what would happen beyond that. Now, 24 years later, we are suddenly facing the next steps.”[45] Effective closure planning with the community should start at the beginning of engagement, recognizing that a developer’s

role in the community shifts as a facility transitions from operations to closure. Some options for site restoration may include continuing energy-related activities, transitioning to non-energy uses, or creating mixed-use developments. Recreational and scientific uses, such as national parks or sites of special scientific interest, could also be considered.

Several concerns should also be considered during discussions about end-of-life scenarios:[46]

- *Jobs:* Developers and the community should work together to plan for the potential need to replace lost jobs. This involves aligning on the best method and timeline to inform operational staff well in advance about future land uses and job opportunities, both for decommissioning and new roles in the area. They can also consider restoration projects that require similar skills to those of existing workers.
- *Local economic outcomes:* When project developers partner with local economic agencies early, they can transform a project's completion into a catalyst for economic growth and diversification. If thoughtfully planned, this transitional period can bring unexpected economic opportunities but requires early evaluation of the site closure's effects on businesses, housing, hotels, and contractors. Through this process, local workers can develop expertise in site restoration and remediation, which builds marketable skills for future projects. Additionally, some communities have turned this transition into an advantage by establishing training centers or attracting new industries that benefit from the skilled workforce and existing infrastructure.
- *Environmental and visual outcomes:* Developers and the community should discuss potential environmental concerns and mitigation plans, including pollution, waste disposal, transport issues, and the need for new facilities. The team also should converge on the positive and negative visual impacts of site closure. On the positive side, closure can restore the natural landscape, reduce visual clutter, and enhance the area through revegetation. However, the process can also cause temporary disturbances and leave scars on the landscape. Balancing these impacts requires proactive work to ensure the environmental and visual quality of the landscape is preserved or improved.
- *Local schools or other teaching institutions:* Project teams should form strategies to stabilize school funding and maintain educational quality following closures, as energy projects often become needed financial anchors for local schools through tax revenue and direct support. In addition, these projects create a stable population base of workers' families who fill classrooms and attract quality teachers. When a project closes, schools can face budget shortfalls and gradual enrollment declines if families relocate for work. This ripple effect can reduce

educational quality and offerings, making the area less attractive for new businesses and residents.

Invest in targeted hiring and training programs. When setting hiring targets, developers should establish realistic local hiring percentages based on workforce availability and phased project needs. Whether voluntary or required by municipalities, local hiring creates an economic multiplier as wages recirculate through the community, fostering goodwill between developers and host communities. For example, projects in Minnesota that sourced 10% to 30% of their workforce locally generated an additional $41 million to $57 million in economic activity.[47]

For training programs to succeed, developers can begin by partnering with established training entities such as community colleges, regional development entities, pre-apprenticeship programs, and union training centers. In these arrangements, developers can identify their specific workforce needs, and training providers can create a curriculum that equips participants with the necessary skills to carve a clear pathway from training to employment.[48]

If a project pursues a binding agreement, project labor agreements (PLAs) and community workforce agreements (CWAs) can set employment terms, outline apprenticeship requirements, and establish recruitment strategies and small business participation goals. PLAs also stabilize projects by preventing work stoppages through no-strike and no-lockout provisions.[49]

Chapter 3: Project Execution

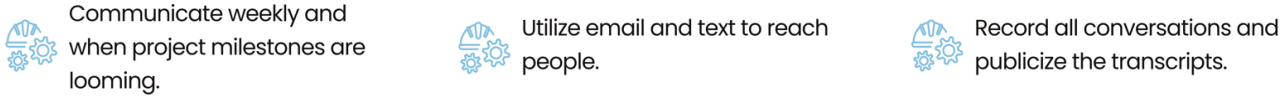
During this phase, the project moves into the construction stage. It involves procurement of materials, hiring contractors, and managing the construction process to ensure the project is built according to specifications and within budget. Developers can use this period to fulfill their commitments. EFIF research shows that following through on promises is necessary to build trust, and trust is a pivotal step to securing host community support and reaching operational status.[50]

Communicate weekly and when project milestones are looming. The timing, frequency, and type of meetings play a role in building trust and maintaining strong relationships with the community. Weekly engagement is shown to be the most preferred cadence among community members, particularly environmental justice (EJ) groups. However, underserved communities are more likely to prefer engagement on an

as-needed basis, when there is a new development in the project.[51] Integrating engagement activities into community rhythms maximizes participation and impact.

Utilize email and text to reach people. Email and text are the top two preferred contact methods for communities.[52] Setting up text and email alerts to relay and recap information shared at in-person meetings ensures that all stakeholders stay informed and engaged. This allows community members to receive information at home, which is one of their top choices among places to be reached.

Record all conversations and publicize the transcripts. Developers can maintain transparency by keeping records of proceedings and commitments during engagement events. By tracking promises made during conversations, communities and developers can hold each other accountable for assurances they gave. Structured, formally recorded meetings help track updates as they evolve and ensure that "nothing falls through the cracks."[53] Meetings designed this way create opportunities for focused discussions, allowing participants to revisit unresolved issues or address new topics.



Conclusion: Building a Strong Foundation for Community Partnerships

The data are clear. Structured investment in community engagement and benefits protects developer investments and increase the likelihood of project success across the country. With costly project cancellations and delays at stake, proactive relationship-building with host sites has become fundamental for market access. Clear communication with community representatives from the beginning, before opposition mobilizes, helps secure approvals and maintain schedules in an increasingly restrictive landscape.

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