

Community Engagement – A Citizen-Centric Approach to Seeking a Social License – 2017

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ABSTRACT

The long regulatory road has finally been completed—after years of effort a Record of Decision has been signed and a Permit to Construct has been granted or a Permit to Operate has been obtained. But what about the other road that should be taken in parallel—community engagement? Working with the public is not a sequential activity, rather it is a consequential one and needs to be integrated with overall project planning. Unless you have effectively, meaningfully, and patiently engaged with the project’s communities of impact, you may find your project trying to obtain a social license or a social license to operate (SLO). The SLO has its origins in the mining industry and its roots in the business model of corporate social responsibility and sustainability. These latter practices are well known to the US DOE and its contractor community. Aspects of the SLO are emerging as individuals and communities are becoming more informed and have increased expectations for being able to influence and shape decisions.

When local community issues are not sought out, listened to, or addressed early, and questions are left unanswered, they can become agenda items for larger unaffiliated groups, and project loss (through delays and/or cancellation) can occur. Issues can transition from resolvable to intractable, a type of SLO face-off. Social media campaigns, serial negative media coverage, and protest signs at project sites opposing regulatory decisions already made are no longer anomalies. These types of incidents demonstrate the increasingly delicate relationship between approved regulatory/technical decisions and public acceptance of those decisions.

A SLO is not a requirement. However, the building-blocks of a SLO—working with members of affected communities to build understanding, potentially to obtain and maintain community acceptance or even gain approval or support—are evidence of leadership by project sponsors. Actions taken, or not taken, by project sponsors truly have the ability to influence an outcome. While projects are not assured of success or failure, engaging the community in an empowered process is an investment of time and resources toward success for the project and thus for the communities of impact.

Authors Note: Extensive literature searches were performed in developing this paper. The majority of the published literature on SLO as a “movement” was found from sources in Canada, the European Union (Germany and France in particular), South Asia, South Korea, and many Latin American countries. The literature addressed resource development (mining), infrastructure, and energy projects. Articles written by US sources often spoke to origins and structural theory, specific project issues such as Not in My Back Yard (NIMBY) and to protests/demonstrations related to those projects, rather than systemic opposition/conflict phenomena. For these reasons many international SLO experiences and sources are cited in the discussion. The authors recognize these non-US experiences with SLO as having a “forecast” value to US projects, especially those related to nuclear projects of any type, waste treatment and disposal, energy development (especially fossil fuels as well as alternative sources), mining, and infrastructure. The body of future SLO experiences in the US will shape the future responses to it.

INTRODUCTION

SLO was first mentioned in March 1997, by Jim Cooney, the then Director of International and Public Affairs with Placer Dome, Inc., at a small conference convened by the World Bank, “Roundtable on Mining: The Next 25 Years.” [1] Mr. Cooney was addressing the political risk factors that the mining sector would face in the developing world, where mining was significantly expanding. Globalization and its impacts, in particular that of enhanced and expeditious connectivity was (and remains) a factor in the range of development projects worldwide. It was not intended as a concept, but rather a metaphor. For example, a (mining) company may have a permit to operate but a poor safety record, causing the government to suspend the permit. Similarly, Cooney had observed that a community’s support could be withdrawn if commitments were not met, or transparency and accountability were diminished. Mr. Cooney simply saw the concept as a two-track process requiring attention. It wasn’t intended to start a movement, but it did.

Over two decades later, impacts of challenges to approved government and industry projects are growing more frequent and visible, and are not without consequence. Over-capacity roads, rail accidents caused by rail serving as pipeline, ever-lengthening radiological waste disposal efforts, and brown-outs can all be traced back, in some manner, to project conflicts. Project developers (and regulators) may consider the journey to be over, whereas for others it has just begun. Politics can play a hand in these situations as well. Consider for example the unmet need for a spent nuclear fuel and high-level radioactive waste repository,

or natural gas for parts of New York and New England. Protesters may not contemplate a SLO when they stand in defiance of construction vehicles headed to approved development footprints, for example, but their actions are an inherent component of a SLO.

With regard to CERCLA actions, it should be noted that a SLO is not a requirement, however it is arguably tied to the modifying criteria under CERCLA at 40CFR300.430(e)(9) – community acceptance. [2] The strength of those ties depends upon the effectiveness of communication and listening efforts with the public and regulators. (Regulators often now require public meetings and transcripts of them.) The history of waste management projects has shown that success or failure in siting depends on community engagement as much as technical merit and regulatory compliance.

Just What is a SLO?

As described above, a SLO was intended as a metaphor to describe a business situation. Since its emergence, the following terms or phrases, among many, have been used to describe a SLO.

- Ongoing approval within the local community and other stakeholders.
- Society’s moral and political approval, sufficiently widespread and stable to allow legal approvals to proceed and to assure ongoing community support.
- A form of social acceptance or approval that the company or project has a legitimate place in the community. [3]

In a recent DOE Legacy Management (LM) Quarterly Update article discussing the International Atomic Energy Agency’s exploration of the concept of social license, it was described as “an intangible, unwritten, implied social contract, demonstrating ongoing approval by the local community for activities conducted by operators and regulators at legacy nuclear sites.” [4] The recognition of social license as a factor in radiological topics internationally is consistent with the research efforts encountered in developing this paper, namely that international experiences are indicative, and US projects should expect to them to increase. The particular relevance of social license to LM sites is uniquely clear—several of the LM program’s goals (protect human health and the environment, sustainably manage and optimize the use of land and assets, sustain management excellence, and engage the public, governments, and interested parties) are echoed in an “implied social contract, demonstrating ongoing approval.” For diligent and

responsible companies and organizations and their regulators that are used to operating in an environment of clear decisions, metrics, and written agreements, social license is fraught with uncertainty.

Whether individually or together, these descriptions suggest that the inherent need of a community to, at minimum, understand a project, is a function of community self-preservation. The SLO descriptions, and the multiplicities of them, also point toward ambiguity, emotion, and open-endedness. *While there are numerous descriptions of a SLO, there are no definitions.*

Although the term SLO refers to the operational phase of a project, the concept that *a SLO has to be maintained* is an additional consideration for the project sponsor. At the time that SLO was first used at the 1997 Mining Roundtable, the most challenging phase of a mining project was its operational phase. Since that time, the initiation of opposition to projects has shifted to the earlier stages, not only in resource projects, but in all projects, and the opposition may be faced at every stage (planning, construction, operation, and closure). [5] Recognizing that earlier public involvement is beneficial to project success, agencies and companies are aiming to engage earlier with their affected communities. In the case of the government, it seeks to maintain continuous engagement with their host communities. This offers opportunities for working relationships to develop and grow.

Keep in mind that a SLO is unidirectional; it is granted *by* the community. The varied descriptions imply that SLO is legitimacy by another name. Legitimacy, however, is bi-directional. Legitimacy can infer a community's evaluation of a company, it can likewise be a company's evaluation of its stakeholders. [6] Furthermore, legitimacy has as its basis a measure of a legal determination whereas a social license is malleable. Regardless of the term, it is a tenuous situation when something is sought that is not required. The tenuousness is enhanced when those affected (the social media community, for example) boundlessly exceed the impacted. Additionally, the departure from a structured regulatory process for project approval based in the law, from which project budgets and schedules can be developed and appropriations based, can give way to an emotional and fear-based process that results in mistrust of the process, the law, the regulators, the decisions, etc. [7] The fact that some of the upheaval is caused by outside interests—at the expense of the impacted—is recognized but not often addressed.

Impacts Here and Abroad

One of the most SLO-impacted economic sectors is that of energy infrastructure. In 2018 the US Chamber of Commerce's Global Energy Institute analyzed actual project impact costs for delays of 15 key projects throughout the US. In the case of energy infrastructure projects, the "Keep It in the Ground" movement (described below) has prevented an estimated \$91.9 billion in domestic economic activity and eliminated nearly 730,000 job opportunities. Federal, state, and local governments have missed out on more than \$20 billion in tax revenue. [8] These figures are from only 15 energy projects.

Three examples offer evidence of significant social responses/events that have had major impacts to energy projects. One movement has stopped certain types of Federal land leases in the western US, a second has affected renewable energy development in Germany, and a third has affected the infrastructure approach for delivery of fossil fuels in the US.

The international "Keep it in the Ground" movement has as its initial aim the cessation of future exploration for fossil fuels in response to concerns about climate change. The movement has effectively stopped Federal land leases for energy exploration purposes in portions of the western US, successfully used "necessity defenses" in cases of civil disobedience ("climate change made me do it"), and established a method to stop fossil fuel exploration called "Blockadia." [9] Blockadia is described as a "roving transnational conflict zone [...] where regular people are stepping in where our leaders are failing." [10] The "stepping in" is literal and primarily surrounds resource projects, however, methods that have been shown to be effective are instructive for others wishing to slow or stop projects.

Germany's *Energiewende* - In response to the 2011 Fukushima incident, in 2012 Germany began pursuing the *Energiewende* ("energy transition"); the common term for its shift from nuclear energy (and fossil fuels) and towards renewable sources. [11] Germany recently increased its 2012 renewable power goals from 55% by 2030 to 65%. [12] This energy transition calls for over ~ 4600 km (~2900 mi) of new power lines by 2025. Approximately ~645 km (400 mi) were built as of 2015, and only 900 km (560 mi) have been built as of 2019, a steeply declining rate of installation. [13, 14] Voters in the large cities, and their numbers, say that they want the transition, but the burden is overwhelmingly on the less developed and less politically powerful areas and their populations. Citing noise, harm to birds and bats, deteriorated aesthetics, and declining property values, the opposition to windfarms is increasing, with 500-1000 protest *groups* identified by 2019. [15] "Ambitious infrastructure renewal plans cannot be implemented against

the public's will. Citizens want to have a voice both in debating and deciding on new planning projects, and so neglecting their voices and concerns may entail delay or failure.” [16] It appears that the winds are shifting.

The Dakota Access Pipeline protests of 2016 are a notable US example of a SLO challenge. Protests of the permitted and approved 1886 km (1172 mi) pipeline project, that entailed the installation of a portion of the pipeline below the Missouri River in North Dakota, went on for months and gained international attention and support. The pipeline traversed vast areas of Plains Indians (Lakota, Dakota, Pawnee, Iowa and other tribes) ancestral homelands with immeasurable cultural resource value. Initially the protests focused on the construction of the pipeline where it would cross the Missouri River out of concern for water quality protection, but “within a short period of time, and with the involvement of environmental allies from around the world (spurred by media, both social and traditional), the protest changed from a dispute over a water body crossing to land claims from the 19th century, to overall opposition to any infrastructure development.” [17]

DISCUSSION

The impacts of change on a community are at the heart of a SLO. In contrast, project costs and schedules are at the heart of the impacts of SLO challenges/conflicts. Some costs are measurable while others are not. Cost overruns can be measured, but it has been noted in the literature that the origin of additional costs may not be specifically identified as being a result of conflict. Project reports can indicate “delays” without noting if the delay was conflict related, or simply a delay in equipment receipt, for example. The resources and time needed to manage conflicts, as well as the effects on the willingness of employees to remain or join the company, are regularly overlooked. [18] It is reasonable to expect that demonstrations and impacts as noted above will continue to increase and will affect more Federal projects such as those proposed by DOE, especially those involving radioactive waste management, remediation strategies and technologies, and uranium leasing.

The common thread through situations of conflict where some measure of progress has been realized, is effective community engagement. This discussion first looks at how a community is defined and functions for purposes of project planning, and also the importance of community context. *The ability to understand the community is essential baseline knowledge because the community is the body that does, or does not, grant the SLO.* The factors that contribute to SLO challenges, including those that can motivate them, are then introduced. In light of the types of SLO challenges that may be faced, different approaches and tools for community engagement are proposed for consideration by practitioners.

The approaches discussed are structured around creating opportunities for comprehension and awareness that can address community issues and expectations, and enable a greater understanding of what is proposed. Another common thread through situations of conflict is fear. People tend to be fearful of what they do not understand. Project sponsors have the key role in working to build understanding that can in turn, and in time, reduce fear and optimally, conflict.

Community—Not Just a Place

Prior to determining which challenge/conflict factors can affect a community in a project area, it is first necessary to both understand and define a community. For purposes of project planning, it is safest to consider that a community includes all of the homes, businesses, and people within them that the project impacts directly and indirectly. This is not to say that only those within a community will be impacted. Regular commuters, as well as both frequent and infrequent visitors can also be impacted by projects. The traditional understanding of defining a place by spatial relationships, e.g., neighborhoods, parts of town, towns themselves, and counties or regions in rural areas, is only a starting point. Both of these aspects, the political and the spatial, are in themselves only surface features. The values of a community, and its context, are where communities are truly defined.

Community context, which considers the history of a community, its positive and negative conditions and experiences with companies/industries or government; its experiences with types of projects or technologies, and its past, present and projected economic conditions, can powerfully shape the perception of proposed projects. These collective factors could in turn motivate or deter collective action. [19] Consider the term “a company town.” Certain communities, for example, Oak Ridge, TN, Los Alamos, NM, Twentynine Palms, CA and Norfolk, VA are nuclear or military “company towns,” where the government is the company. Each of these towns have history, economic ties, and experience of conditions and technological

tolerance that would be expected to mitigate challenges/protests of new projects. Common interests, experiences, and values are components of community, and features of context. *Community values can often speak the loudest about how projects are perceived and whether they are welcomed or not.* A project-by-project assessment of the context and values of the community relative to a proposed project is needed to anticipate challenges.

Factors that Contribute to SLO Challenges

Extensive, diverse, subject to change—each of these terms offers a reasonable descriptor of the variety of factors that contribute to SLO challenges. The factors can be based on geography, culture, religion, socioeconomic conditions, community history, politics, level of education, length of time in the community, home ownership, age and health of the impacted population, and the type of project that is proposed. These types of factors can form defined blocs of project opposition or favor.

Another consideration in SLO challenges, particularly protest activity, are the motivating factors involved in opposition. While individuals protest, sometimes it is the group behavior (the “community”) that provides further motivation to persist in the opposition and even become more intractable or passionate in the rationale for opposition. As noted in the literature, this is particularly noteworthy when protests exact personal costs and have limited efficacy. Examples of motivating factors include protecting democratic values, the possibility that protestors’ participation would resolve or address the problem, provide an opportunity to learn from the experience, gain personal satisfaction, and release (their) emotions. [20]

Misinformation can also motivate SLO challenges and/or protests. The Internet and social media have significant influence on both individual and group behaviors and can be the source of accurate or highly inaccurate information. Misinformation examples include knowledge deficiency (a lack of factual information) and the accumulation/aggregation of incorrect information or rumor. The misinformation can be exacerbated by negative disposition to the proposed action or activity, and is often accompanied by higher levels of communication activity (information seeking, forwarding or forefending). [21] Higher levels of communication can become all-consuming, affording no opportunity to hear the accurate information or any other points of view.

With regard to outside interests, recent research indicates that community-level collective action is increasingly coordinated by advantaged groups concerned with technological and policy issues [22] as opposed to the specific concerns or values

of the impacted community itself. In the US, nuclear projects in particular, and fossil energy infrastructure projects, are often fought from their outset, not by the proposed host communities, but by external interests. The volume of opposition that can be generated by outside parties can overwhelm project sponsors—which is clearly the intent—but more problematically, it can essentially silence community voices. This is why it is essential for project sponsors to commit to early, patient, diligent, and consistent engagement directly with the impacted communities, while alternatives remain and outcomes are not fixed.

TABLE I provides a listing of example factors that influence SLO challenges. It is necessary to consider that none, any, some, or all of these factors may be present for a project. When multiple factors accumulate for a project, the ability to move forward may be in jeopardy. In studying the literature on conflict drivers of projects throughout the US, Canada, Mexico, Korea, Germany, and Latin America, it was noted that a small number of drivers topped the list of causes. These few drivers linked to dozens of others however. *It is the emotional factors that are most enduring and challenging to overcome, even when the other factors have been resolved.* Early citizen engagement is the way to (potentially) transform community opposition to community support.

TABLE I. Example Factors Influencing SLO Challenges

Psychological [23, 24]
Change/loss of control of their lives and conditions causing anxiety and/or other emotional responses
Harm to quality of life, including traditional values
Loss of use/lack of access to an attribute or resource
Deteriorated aesthetics
A sense of powerlessness/not being listened to
Stigma to the community
Sociopolitical [23]
Deficient planning by the project sponsors
Lack of adequate consultation or consultation overall
Lack of transparency in project information and decision-making
Lack of trust in the organization sponsoring the project
Historically motivated opposition based on past projects or past project sponsors/companies
Environmental/health and safety/technological [23]
Don't like, want, or trust the proposed technology to be implemented

Environmental degradation/pollution caused by the project during and/or after development Concerns about the safety of the project
Socioeconomic [23, 24]
Disproportionate effects to environmental justice populations Increased costs due directly or indirectly to the project Unrealistic expectations on behalf of the sponsor or the community Boom/bust economic changes Impediments to future development Lack of, or insufficient, community benefits, including payments to those bearing project effects 'The proposed improvement is a right and should not have a cost at all'

Classic risk acceptance analysis suggests that when a community is engaged, the people are in a more manageable voluntary risk scenario and are better able to navigate through the economic, social, and political factors as well as technological and emotional factors. When a community is not engaged, the people are thrust into an involuntary risk scenario and are likely to stall out on one or more of these factors because their participation and communication was either late or never sought. [25]

Factors that Exacerbate Project Impacts and Can Affect a SLO

Figure 1 illustrates that the compensatory/mitigation benefits of an example infrastructure project are concentrated at the endpoints. [26] The endpoint communities may obtain sound barriers, improved access, construction jobs and direct benefits to the community such as money for local roads, or contributions to emergency response facilities. However, along the route of the project, there are few direct benefits for these wayside communities. Rather, they obtain road closures, noise, dust, increased traffic, and road damage along the alternate routes. Pressure to finish can be applied by the endpoint communities, driven by concerns over economic impacts, whereas delays accrue to the waysides.



Fig. 1. Regional Examples of Impacts and Benefits
(I-69 Corridor in Indiana)

Figure 2 illustrates the point on a more regional or national scale. Smaller cities and towns and unincorporated areas between the endpoints of infrastructure projects can be *repeatedly* impacted. Existing infrastructure rights of way are the paths of least resistance for new linear infrastructure and related features. A present-day example would be a new natural gas development project with pipelines, well-pads, processing facilities, and storage facilities. Generally supported initiatives still have specific impacts, and specific impacts can result in emotional responses. SLO challenges may be forthcoming. Project sponsors need to consider that “Flyover Country” is both populated *and* impacted.

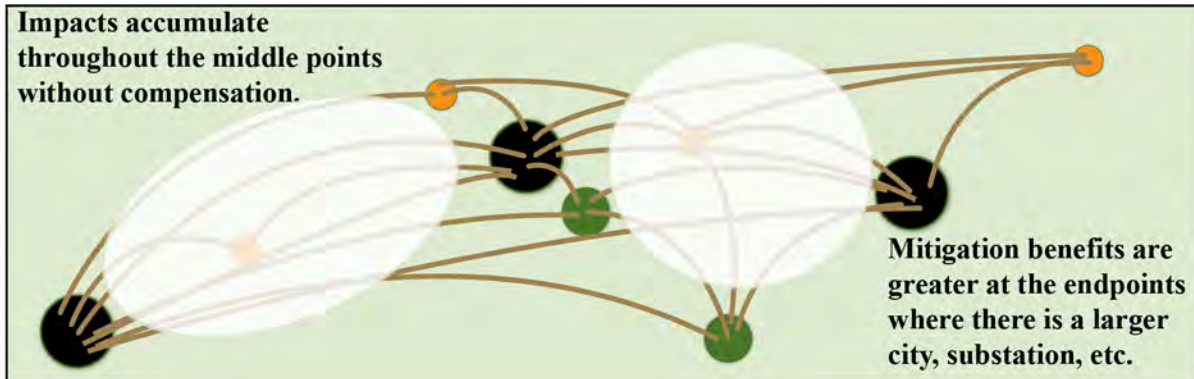


Fig. 2. Middle Points Bear Repeated Impacts of Infrastructure Projects

Consider Applying the Social Ecology Approach to Assist in Seeking a SLO

Social Ecology has its origins in the National Environmental Policy Act of 1969 and in its most basic definition is the idea of understanding the relationship between the physical and social environments in a specific place, recognizing, at its core, that people are a part of their environment. In order to understand a community's culture and how it works, it is critical that those proposing a project make the investment of time to get *into* the community. [27] A project, whether it is a new idea or one that is recognized as being needed (such as a highway interchange to ease traffic congestion on local roads, or a radioactive waste landfill to handle waste from a Decontamination and Demolition project), is a change. Regardless, changes proposed by others can be considered an intrusion by outsiders into a community. [28]

Communities tend to operate and communicate far differently than project sponsors, whether corporations, utilities, or government agencies. While both companies and communities rely on networks as organizational structures to get things done, community networks tend to be informal and horizontal in nature, enabling the more relaxed and responsive exchange of information. Individuals that project sponsors are not aware of, because they do not occupy elected or appointed positions, may very well be the leaders with whom projects need to engage. [29]

In order to find the people that need to be reached, the Social Ecology approach calls for entering into the routines of a community first. Seek out the people who understand the place. Those individuals can provide knowledge on community values, concerns, traditions, relationships—and in particular—past events/histories that may inform project sponsors on approaching community meetings, materials that they should read, and additional people to speak with to gain deeper

knowledge. That means going to the coffee shops, parks, farmer's markets, transit stops, neighborhood bars, and local businesses. This is also the means to find "silent supporters." Silent supporters are the people/groups of people who can learn to trust you because you are investing time and effort into finding out what matters to them—you are listening. With the trust built and the knowledge in hand you are able to be the bridge between the community and the project sponsor. [30]

"On occasions, the Social License can transcend approval when a substantial portion of the community and other stakeholders incorporate the project into their collective identity. At this level of relationship, it is not uncommon for the community to become advocates or defenders of the project since they consider themselves to be co-owners and emotionally vested in the future of the project, such is the strength of self-identification." [31]

Advisory Boards Can Be the Roots of Support in Building Community Understanding

The Federal Advisory Committee Act (FACA) [32] was the driver for the creation of the DOE's Site-Specific Advisory Boards (SSAB) and Citizens Advisory Boards (CAB) at Environmental Management (EM) Sites. Presently there are eight that meet regularly and engage with their host community's representatives. The mix of individuals from throughout a project area, and the thoughtful inclusion of representation that includes a range of ages, employment, education, culture, and affiliations strives for the consideration of all points of view. 'The value of long-term, stable leadership cannot be understated. The long-term participation ("following") of a Board is also of great value. Individuals may not be able to serve indefinitely, but they can always attend and serve to be sounding boards for ideas and offerors of insights onto past events.' [33]

The leaders of these FACA groups, both Federal and contractor support, are skilled communicators, good listeners, and trained facilitators, and are well-versed in team building skills. Engaging with representative community members on activities such as participatory mapping or board-type games that allocate costs to particular alternatives can result in thoroughly considered recommendations to the EM Program leads. These SSABs and CABs can be the generators of recommendations that are adopted by the Program at the local and HQ level, accepted by state and Federal regulators, supported by communities at large, and ultimately successfully implemented. Rewarding experiences of this kind can be found at the Fernald Preserve in Hamilton Township, OH, and in process at the East Tennessee Technology Park in Oak Ridge, TN.

Opportunities exist for engaging at an even deeper level as part of a SLO as a way to build relationships that are at the heart of working in the community. DOE's outreach to Environmental Justice communities, as occurs at the DOE Savannah River Site in Aiken, SC is a prime example of an investment in relationships. For the past 25 years DOE has held semi-annual workshops with students representing Historically Black Colleges and Universities, Minority Serving Institutions and Hispanic Serving Institutions, as well as educators and community leaders in the SRS region of influence. [34] These workshops present DOE with an opportunity to inform and encourage, listen and learn what the issues of concern are within diverse communities, provide sincere feedback, address misinformation and rumor, and provide a counterpoint to fears that have often been generated by the misinformation and rumor. This initiative creates relationships that cultivate trust and facilitate future communications, as new projects or expansions are proposed.

Important Tools to Enhance Community Engagement

For those projects and initiatives that have faced SLO challenges, numerous experiences serve to inform future actions. Several lessons learned, tools, and anecdotes are provided below, as are some new tools.

Meetings

- Large meetings are not always an optimal method of engagement because they can be too impersonal, or they may simply serve as a venue for a third-party agenda to be presented. But larger town meetings do show a willingness to share information in an open forum and to show confidence in the project and the community. They may also be required. The authors' experience from radioactive waste disposal siting suggests that meetings with key individuals and small groups should come prior to larger town meetings in order to get a pulse on the community first. The larger meeting can also be a forum from which to invite additional small groups to meet whether they be positive, opposed or neutral to the project.
- It is essential that presenters at public meetings be relaxed and engaged, not rehearsed and distant which can lead to non-productive meetings and accusations of stonewalling. These settings can be intimidating to those who do speak (making for a less than effective opportunity to be heard), or who would like to speak, and can sometimes be dominated by those who cannot restrain themselves from speaking.

Participation and invitation

- Participation must start early and be conducted in a continuous and transparent manner, tailored to each particular planning phase. [35]
- Expand participation *beyond* those affected directly. [36]
- Poorly conducted citizen participation is more harmful than helpful. A genuine desire for citizen participation must be evident. There must be a willingness to receive and consider criticism, and an openness to making changes in plans. [36]
- Get the locals on board first. For example, “DOE’s plans for a deep borehole test for nuclear waste in the Dakota’s was doomed after local officials learned of the proposed test in the newspaper. Subsequently a solicitation was issued for new bids for the project. The bid specifically required “public engagement from the outset, including staff that will remain on the site day to day to hear local concerns.” [37]
- “Although it goes against the grain of every project proponent’s deepest instincts, in order to overcome their sense of oppression the neighbors must be invited to actually influence development outcomes within the bounds of feasibility. Ceding some measure of control over the design of the project eliminates the “zero sum game” negotiation that characterizes most approval processes. It often leads to creative solutions and empowers the problem-solvers and constructive participants more than the extremists.” [38]

Building relationships and understanding

- Don’t make assumptions about what the public wants to hear – ask them/get to know them so you can better serve their interests and questions (and build trust that you are listening).
- Focus on mutual priorities rather than conflicting values. [39]
- Identify, recruit, and mobilize project allies early on and ask them to share their thoughts with others. [39]

Working with challenges

- Understand the four causes of opposition: misinformation, emotional needs, conflicts of values, and conflicts of interest. [39] Then sensitively and diligently work to resolve them.

- Be prepared to provide justifications whenever citizen-introduced proposals will not be given further consideration. [39]
- Plan to negotiate, not just to mitigate. [39] Negotiation creates understanding, can build relationships and can also lead to more creative solutions. Mitigation can result in more mitigation and expectations for future mitigation.

Skills

- Specialists and experts are not limited to engineers and scientists. Communications professionals are specialists as well. Know when to let them take the lead. [40]
- It is imperative that conflict-prone projects have unbiased professional moderators and independent experts at events and workshops. [40]

Fundamental mistakes

- Anyone who “only” wants to secure approval for a project should only talk in terms of providing citizens with information, rather than giving the impression of actively involving them and raising expectations without cause. [40]
- Political decision-makers cannot use legally required administrative procedures as a substitute for broader citizen participation. [40]
- If you cannot answer questions during the early stages of your project, or in a timely manner along the way, prepare for a program to engage a large and diverse group over a longer (and longer) period of time.
- Dedicate a well-chosen, full-time communications lead to the project, don't keep changing communications personnel. People appreciate and need stability in times of change, and the commitment of personnel shows respect for the community.
- Don't confuse websites, social media and press releases for community engagement. They are examples of information sources, not engagement. Engagement occurs *between* people.

Misunderstandings and Misconceptions

Misunderstandings can and do occur with communication. Some that notably affect projects where a SLO may be at play are particularly harmful to a project sponsor's understanding of a community's journey between understanding and anything else that may follow. There are differences between acceptance and support. Acceptance can be, and often is, passive and can also be considered tolerance. [41] The highest form of SLO—co-ownership—can only occur when a high level of trust is present. “A *company sees gaining a SLO in terms of a series of tasks or transactions (in effect making a deal), while the community grants the SLO on the basis of the quality of the relationship.*” [42]

A number of related misconceptions have been identified in the important 2016 *Energy Policy* [43] article that coalesces analyses of how citizens aim to understand and make sense of energy infrastructure projects. The article is invaluable in identifying and explaining some of the misconceptions, in particular those that could be deemed as diminishing the views of the public. That “if only communication was enhanced and had started earlier in the process that the affected public would support the project.” [44] “Critical reflection is called for on how we understand acceptance...the inappropriateness in understanding that local opposition is something that has to be “fixed.” Moreover, it seems to be a widespread presumption that good participation processes can eliminate conflict in the planning process. [45, 46] Another approach that dominates the literature on public participation are methods aimed at “devising procedures to facilitate quick and efficient negotiations.” [47, 48, 49]

A summary statement from an unrelated article serves well to highlight the misconceptions. Pierre Lassonde, a former President of Newmont Mining Corporation, said, “You don't get your social license by going to a government ministry and making application or simply paying a fee...it requires far more than money to truly become part of the communities in which you operate.” [50]

A Major Culture and Values Misconception Provides a Useful Lesson in Social Ecology

The Keystone XL Pipeline, shown in red in Figure 3 is an example of the effect of human geographic boundaries on project siting. Referring to a DOE point of reference, there are reasons behind why SSABs and CABs are established to be inclusive and tailored to their communities/regions of influence. For example, the Savannah River Site's CAB is not limited to Aiken, SC, but encompasses 9 counties within the Central Savannah River Area, drawing from two states. The initial planners of the Keystone XL pipeline were not informed by regions of influence, cultures that overlay them, or even settlement patterns, but rather by the shortest distance between critical project connection points. Keystone XL differs from Keystone 1 (shown in blue in Figure 3). Although longer, Keystone 1 was not opposed, unlike Keystone XL which continues to make international news.

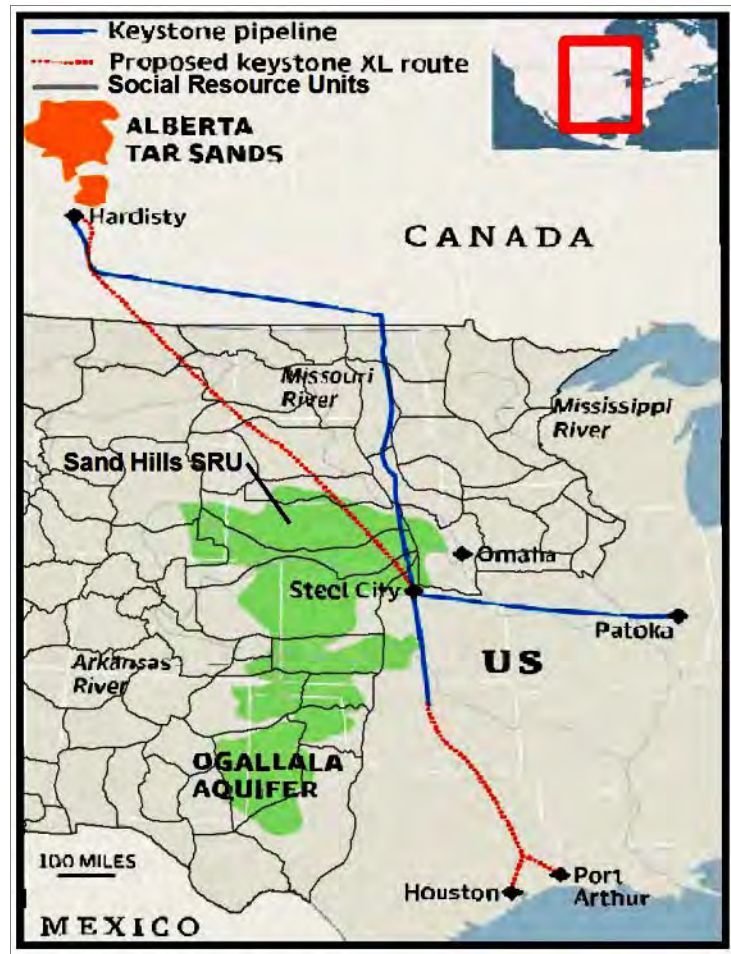


Fig. 3. Keystone and Keystone XL Pipeline Routes [51]

Figure 3 includes in light gray the boundaries of Social Resource Units (SRUs), those areas within which the populace generally has a common culture, beliefs, and traditions, (a type of bio-social ecosystem). [52] The centers of each of the SRUs are where the cultures are strongest, diminishing at the borders, which is the point at which there is a transition to the next culture. Notably, these SRUs do not align with state boundaries. While states are the bodies that issue permits and enforce state laws for example, they are irrelevant to SRUs. People's values, cultures and

traditions are stronger than state or national boundaries, and it is those attributes that Keystone XL encountered.

XL is routed through the center of 6 SRUs, causing an uproar and protests. Keystone 1 roughly followed the edges of numerous SRUs, where the cultures are transitional. Keystone 1 also comes straight down the 100th meridian. The 100th meridian is notable in meteorology, geology and the history of US settlement patterns – it is the transition point between the humid east/the Midwest and the arid west/the Great Plains. Rainfall drops off to the west, as does population. Farms of the east become ranches to the west. And while there are differences in history, cultures and national origins on either side of the meridian, something common – and critical - to both sides lay beneath it...the Ogallala Aquifer. Keystone 1 benefitted from that cultural and physiographic transitional boundary in its routing, whereas the route of Keystone XL is fighting both culture and water.

When speaking of the Keystone XL Pipeline, Alex Pourbaix, formerly of TransCanada (now TC Energy), said, “TransCanada did not realize that the project would become such a heated political and environmental issue in Nebraska. If the company had had any clue, we would have undertaken more efforts to communicate with the public.” [53] No doubt there are countless others who would make the same statement about similar project challenges. The bottom line is that *geography matters, and human geography is different from physical geography.*

CONCLUSIONS AND QUESTIONS

The increasing demands of the public, and individuals, to have a role, or in some cases, a veto power over decisions affecting their communities is a present-day reality from which turning back is unlikely. Given the desire for control of their environment, a reasonable question to ponder is whether public benefit projects are still possible? Is there still such a thing as the greater good, or does only “my good” have value?

SLO, in some instances—especially regarding resource exploration and fossil fuel-related activities—appears to be transforming into a Social License to Do Anything. It is not a matter of gaining public support to build or operate a facility, it is also social license to change how something operates, when (under what conditions), or in some situations, if a facility shuts down.

As noted above, the Keep It in The Ground movement has as its *initial* aim the cessation of future exploration for fossil fuels in response to concerns about climate change. What is the *ultimate* aim? It may be something called “Degrowth.”

[54] Sustainable development is unacceptable to Degrowth followers because it includes development. Degrowth advocates want existing development features to be abandoned. This devolution would be a stark, broad, and sweeping reduction in quality of life, with the greatest effect worldwide to people on the economic margins. Can the phenomenon of SLO, if unchecked, regress to Degrowth?

Organizations should strive for relationships with impacted communities that are based on openness and listening - all aimed towards building trust. Disregarding, or not working to understand the impacted communities' leaves projects vulnerable to being ransomed by agenda-seekers. The agenda-seekers have no desire to understand a project and its value or necessity, only to stop it.

The unidirectional nature of “social license,” its fluid definition and its fragility over time make it a type of unstable ladder. If the organizations proposing projects that will affect communities are not willing to make the investment of time to engage, be willing to listen to alternative points of view, and be prepared to make changes to their projects - they may not even get to the first rung of that ladder.

The intensity of the social license challenge on technical projects can be matched with the intensity of professionals building relationships in communities and learning their values and concerns. These engineers, communicators and project managers must be supported by corporate leaders also willing to engage, listen, and be involved early in the project.

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