Communication, theory of change, and clean energy

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Some years ago, I stepped away from my faculty position at the University of North Carolina at Chapel Hill (UNC) to become more deeply engaged with the Sierra Club, one of the oldest environmental NGOs in the United States. Given my research, I knew insights into strategic communication in advocacy campaigns would likely be applicable, particularly, to the climate change efforts in which I was planning to participate. Climate change campaigns, like campaigns focused on other issues, usually involve multiple forms of communication—grassroots organizing, social media, demonstrations, media coverage, placards, canvassing, etc. Beyond these tactical uses, NGOs also may conceive a *strategic rationale for a campaign itself* as derived from core communication principles. As it turned out, I would have an opportunity to help to design one such campaign, a message driven initiative to accelerate the movement toward a greater commitment to use 100% clean, renewable energy in the United States.

1 A clean energy initiative

Shortly after I left UNC, the Sierra Club invited me to become a co-lead in designing a different type of climate campaign. It would be a communication-driven, clean energy initiative centered around a message and mode of change aimed locally—town-by-town and city-by-city—but be coordinated and echoed throughout the country. It would also be an opportunity for me to work with talented staff and a savvy group of communication professionals who would be part of our team.

I soon discovered that the rationale for a *communication* focus, specifically, had been prompted by climate activists' frustration. The Sierra Club's ongoing Beyond Coal campaign and other clean energy campaigns during this time, while successful in closing or stalling the construction of coal-burning coal power plants (Cox, 2010), nevertheless were being met with skepticism from local officials. Even as opposition to fossil fuels grew, activists were painfully slow in moving the conversations with these officials to a decision to transition their operations to 100% clean, renewable energy sources any time soon. Many local government officials believed that moving to greater reliance on clean energy sources would be too expensive and unreliable and would meet only a small percentage of their energy needs. Still, this had been the goal of many climate NGOs, a vision of a carbon-free electric sector by 2030 and an economy-wide, 100% clean, renewable energy sources by 2050.

At the same time, the sheer scale and shortness of time to avert the planet's warming beyond 1.5°C remained overwhelming. As a consequence, these challenges—frustration and an urgency to act—were prompting earnest conversations among our team members about the nature of an efficacious response. Although a transition to 100% clean energy was an ambitious goal, our discussions led us to forego a "moonshot" strategy, that is, a single, big objective such as a federal mandate to transition the U.S. economy to reliance on clean

energy by 2050. Among other reasons, a moonshot strategy was utterly unrealistic after the U.S. Congressional elections in 2014. The opposition party not only retained control of the House of Representatives; it won a majority in the Senate as well. In the face of this political reality, we decided that a more localized approach—but one that could be broadened—was more likely to succeed.

We puzzled over what such an approach would involve; what would form its strategic rationale. Initially, our challenge was to understand in greater depth the reasons for officials' skepticism toward a fuller reliance on renewable sources of energy. In an effort to learn more, we secured a small grant that allowed us to survey attitudes about clean energy held by local officials and residents in selected cities. Unsurprisingly, we learned that, though respondents supported solar and wind energy, only 35% believed the goal of a 100% clean energy future was "very realistic" in the near future. Not only did they believe such energy technologies were not ready, respondents believed they were too expensive and unreliable: "*What happens when the sun doesn't shine or the wind doesn't blow?*" Public perceptions, unfortunately, had not been keeping up with technological changes and the declining costs of solar panels, wind, battery storage, energy efficiencies, etc.

The findings of our survey confirmed our understanding of the ambivalent mood of many in the country—weariness with fossil fuels and, at the same time, a growing awareness of and interest in cleaner energy sources, but hesitancy to adopt them any time soon. To be effective, then, the campaign's efforts to deepen the enthusiasm for clean, renewable energy would have to address the reasons for local resistance. How, then, could we do that? Importantly, we found something else in our survey. When we told respondents of examples of several towns and cities that had already adopted a 100% clean energy goal, their belief that such a future could actually happen *increased*. In a sense, "*seeing was believing.*" This response was encouraging, and it pointed to a strategy to move the campaign forward.

2 Design of "Ready for 100"

With a potential for a change in attitudes, we believed we had a basis on which to develop a theory of change (Hestres, 2015) or map of strategic influence. In other words, a shift in perceptions or change in attitudes requires a realistic description of what steps or actions, if taken, can accomplish these changes (Rowan et al., 2021); what in the design of a campaign, would "move the needle" toward a campaign's objective.

As a result, my co-lead, our advisers, and I believed that, to advance conversations toward greater public demand for 100% clean energy, we would have to re-conceptualize communication as occurring on multiple, interacting levels. To do this, we concluded, we would have to conceive two mutually reinforcing pathways—a dynamic but also a dimensional interaction, between (1) stories of local organizing successes and (2) the amplification of these stories via wider communication networks. With this conceptual understanding, we began to identify the steps that these two pathways would concretely involve in what we

were beginning to call a "Ready for 100" clean, renewable energy campaign.

At the local level, we planned to recruit, train, and support activists who would also partner with others—for example, sympathetic officials, faith-based organizations, educational stakeholders, and health institutions (in high pollution "hot spots") in communities in swing states and other influential locations. By re-framing renewable energy technologies, not as experimental and costly, but as feasible, affordable, and available, such campaigns could build public demand for new energy policies. The objective of activists would be to secure a commitment by a mayor, city council, or other governmental agency to begin to transition the energy sources for its operations to achieve 100% clean, renewable energy use by a certain year.

Still, a commitment to 100% clean energy in a few towns and cities, while important, would not address the scale and urgency needed to avert a catastrophic heating of the planet. A second scalable and mutually reinforcing pathway, building on these local stories, would be needed. It would be critically important to connect and magnify stories of local successes—decisions by towns and cities to commit to planning for a transition to 100% clean energy—in order to model and inspire similar efforts elsewhere. We would achieve this by developing an *echo chamber*, a communication network of allied environmental, climate, and health organizations, as well as earned media, social media influencers, actors, and other prominent spokespersons who would amplify stories of clean energy successes, building a message that would resonate more widely, calling attention to, educating, and inspiring additional commitments.

Such an echo chamber would, we hoped, be mutually reinforcing. That is, as stories of local successes were echoed or magnified by wider networks, they would initially serve as strong models. As these, in turn, served to inspire similar commitments in other locations, they would further strengthen a narrative that change was happening—towns and cities were pledging to use 100% clean energy—and that momentum was building, motivating initiatives elsewhere to build demand for 100% clean energy. Knowing of successes in another town or city would likely embolden other locations which, in turn, would feed into or further a wider narrative. As one local activist would later tell our team: "When we pick up the ball and run with it in North Carolina, we're aware of what's going on in Massachusetts and Rhode Island." He explained, "The fight we're fighting here bears on what happens elsewhere. There are fifteen places like this today. There will be fifteen more tomorrow and the day after that".

3 Implementing Ready for 100

In 2015, we secured funds to support organizing in a number of towns and cities. We initially selected five pilot locations—Pueblo, Colorado; Boise, Idaho; St. Petersburg, Florida; Cleveland, Ohio; and Arlington, Virginia (all five would eventually win a commitment from local officials to begin planning for a transition to 100% clean energy sources). Based on feedback from these pilot efforts, the campaign expanded the locations in which we would provide support for enthusiastic, local activists. Officially launched in early 2016, Ready for 100 issued "a challenge to

100 U.S. cities: Commit to 100% renewable energy!" The goal, my co-lead announced, was "to accelerate a transition to 100% clean, renewable energy by advocating for ambitious leadership at the local level and amplifying progress to make 100% clean energy 'the new normal'" (Jodi Van Horn, email to author, January 17, 2016).

As the campaign proceeded, we connected activists in many towns and cities with regional field staff and provided important resources—online and in-person—to support their organizing efforts. Sierra Club's media staff, for example, developed useful online tools for them. These included sites for clean energy technologies, an Activist Toolkit (a set of strategies to help set up local campaigns), and communication guidelines for activists to use in developing and telling their own stories around the basic message: 100% clean energy is here, reliable, and affordable. Further, in towns and cities across the country, campaigners used Facebook to mobilize turnout for rallies, marches, and media events; and to attend and speak at hearings at town or city councils.

From the beginning of the Ready for 100 campaign, activists were strongly encouraged to incorporate into their organizing plans the vision of just and equitable transition to clean, renewable energy[1] within their communities. Local officials as well as those in neighborhoods would need "to think differently about where their energy comes from and how it impacts their communities," including disproportionate harms from fossil fuel pollution on low-come and frontline communities (Gudiel, 2022).

While activists worked with supporters in their area, they also needed to engage new constituencies. As a result, Ready for 100 organizers built coalitions, formed partnerships with leaders in different spheres of influence (for example, ethnic communities, health care organizations, small businesses), and coordinated with others—civic leaders, neighborhood organizations, principals, religious leaders, and others interested in an equitable transition to clean energy. In other locations, activists worked with energy justice activists in low-income neighborhoods who were fighting unfair utility rates, student-led sustainability organizations, and parents whose children suffered from toxic air pollution from area power plants.

By 2018, Ready for 100 reported that more than 80 U.S. cities had agreed to begin transitioning to 100% clean renewable energy sources. Many of them had already taken steps away from reliance on fossil fuels— investing in an electric vehicle charging infrastructure, purchasing renewable energy credits, shifting municipal operations to clean energy sources, planning for a solar-powered wastewater facilities and for public schools, and for development of 100-megawatt to 400 megawatt solar photovoltaic facilities (Denton, Texas, and Minneapolis, respectfully). Several were incentivizing energy-efficient home building projects, while others were entering negotiations with coal or natural gas utilities.

Some cities, such as Orlando, while it worked to decarbonize its municipal utility, were "creating programs that [would] reduce, defray, or even eliminate the upfront costs for end consumers" (Fortuna, 2018).

As these efforts won pledges from local officials to begin planning for a transition to 100% clean energy, an echo chamber across the country elevated these stories, sharing them with a wider network of influencers, opinion leaders, social media feeds, and earned media accounts. And as Ready for 100 activists shared the stories of towns and cities that had committed to 100% clean, renewable energy sources, they strengthened the belief that cleaner sources of energy were possible in other locations as well.

4 Conclusion

In 2022, the Sierra Club ended Ready for 100 and integrated its approach into other climate initiatives. By that time, the campaign's organizers and community partners had been involved in decisions in nearly 200 towns and cities, 10 school districts, and eight states that committed to transition to 100% clean energy. In addition, activists also worked with more than 100 mayors across the country who pledged to move away from fossil fuels. By April 2022, the Ready for 100 campaign reported that nearly 100 communities were "now completely powered by clean energy, with many more on the horizon" (Gudiel, 2022).

Ready for 100 activists and their partners did not work in isolation from other voices, influences, news, and related efforts. Indeed, the campaign did not claim credit for all of the many clean energy decisions that occurred in in the last decade across the country. Support for clean energy sources during this time had been rapidly expanding in the United States. Nevertheless, the campaign's 8-year effort successfully engaged local officials, formed partnerships, and helped to build public demand to move more quickly to a 100% clean energy future in hundreds of communities.

The vision of an achievable clean, renewable energy future became the premise of a message driven, local, and scalable approach that accelerated the pace of conversations about the need for a transition to cleaner energy. From 2016 until its conclusion in 2022, Ready for 100 organizers, their supporters, and coalition partners proved that mayors and city councils can provide leadership that inspires and helps to accelerate the transition to a just and equitable clean, renewable energy economy in the United States.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

RC: Writing – original draft, Writing – review & editing.

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1   A just and equitable energy transition usually refers to the distribution of benefits and costs in a just and equitable manner, that is, reducing inequalities in rates, services, and access to information as well as a voice in energy-related decisions. In addition, a just transition includes access to alternative sources of livelihoods for workers and communities adversely impacted by energy transitions.

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Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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