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# CITIES AND CIVIL SOCIETY AS ALLIES FOR THE ENERGY TRANSITION

IRENE GARCÍA, DIVYA KHANDKE









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Please direct inquiries to: The German Marshall Fund of the United States 1744 R Street, NW Washington, DC 20009 T 1 202 683 2650 F 1 202 265 1662 E info@gmfus.org

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#### **About Energy Cities**

Energy Cities is the European association of local authorities in the energy transition. The Energy Cities network, which advocates for a democratic and locally led energy transition, has been helping bring change since 1990 to its 1,000+ member cities and regions in Europe through a commitment to collective and cross-border cooperation for post-carbon societies. From 2017 to 2020, Energy Cities is under the presidency of the city of Heidelberg, Germany with a board of directors representing 11 European cities. Energy Cities' premises are in Brussels, Belgium and Besançon, France.

#### About the authors

Irene García is a program officer at the Urban and Regional Policy Program of the German Marshall Fund of the United States.

Divya Khandke is a program coordinator at the Urban and Regional Policy Program of the German Marshall Fund of the United States.

#### Contributors

Alix Bolle is a EU affairs manager at Energy Cities.

Ian Turner is a project manager at Energy Cities.

### About Energy Allies

In 2017, the German Marshall Fund of the United States and Energy Cities launched "Energy Allies: Transatlantic Multi-Stakeholder Dialogues for the Local Energy Transition," funded by the European Union under the program EU–U.S.: Transatlantic Civil Society Dialogues to foster strategic partnerships and collaboration between local civil society and government leaders, and embed them as a constant pillar in the policy planning and implementation that support cities' energy transition.

Energy Allies was designed to:

- Connect and leverage the expertise of U.S. and EU civil society and local government leaders in driving democratic and inclusive processes to accelerate cities' climate and energy actions;
- Outline and understand the best practices for successful partnership models in the energy transition, leading to the mutual empowerment of city governments and civil society; and
- Disseminate and encourage wide replication of participatory policymaking and implementation regarding climate and energy action in U.S. and EU cities.

The project included the participation of sixteen individuals from Europe and the United States. Two cities in Europe (Nantes, France and Heidelberg, Germany) and two cities in the United States (Cambridge, Massachusetts and Charlotte, North Carolina) were each represented by one local government representative and two individuals from relevant civil society groups, business organizations, and utilities within the city. Also included were five representatives from stakeholders operating at the U.S. and EU levels. This report summarizes their discussions.

Throughout the discussions and convenings held from 2017 to 2019, the Energy Allies project relied upon the definition of civil society utilized by the European Commission, as actors that have independence from the state and a voluntary basis upon which they have come together to act and promote common interests. These actors encompass non-governmental organizations, grassroots organizations, cooperatives, trade unions, professional associations, universities, media, and independent foundations. In the United States, this definition is even bigger, since it includes industry representatives and social entrepreneurs employing innovative and/or market-oriented approaches for social and environmental outcomes¹.

1 Center for Strategic and International Studies (2017), Concept and Definition of Civil Society Sustainability.

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### **SUMMARY**

This report summarizes discussions by European and U.S. local representatives, stakeholders, and experts responsible for the energy transition of their territories. Brought together by the German Marshall Fund and Energy Cities in the Energy Allies project, funded by the EU, the group discussed practices in forming partnerships and developing participatory policies for all stakeholders to effect a successful transition to renewable energy by cities in Europe and the United States. This report presents the good-practice models that emerged from the discussions based on Energy Allies participants' experiences and highlights different models of civil society engagement that produce more holistic outcomes by capitalizing on civil society's growing roles and skills, as:

 Advocate: Campaigning is important to bring these stakeholders to the table and encourage a shared outcome;

- Connector: Engaging with organizations and people within a city's ecosystem remains an asset of civil society that can be leveraged to strengthen networks;
- Implementor: Activating civil society in action further stimulates ownership and supports cities in the implementation of their decarbonization strategies;
- Educator: Programs targeting education and outreach throughout civil society knowledge and networks empower communities and equip stakeholders with information;
- Lab for cities: Partnering with civil society partners can also serve as beneficial to piloting initiatives before streamlining policies;

Figure 1. Energy Allies cities.



 Curator of ideas: Expressing thoughts, burdens, challenges, and hopes remains important for civil society actors to be a part of the energy transition.

The report also lays out the main lessons from cities for successful partnerships with civil society in six key dimensions:

- 1. Providing real opportunities for engagement in planning and implementing with transparency and easy access to information on existing opportunities;
- 2. Establishing trust and helping energy-transition stakeholders understand what the city's vision and goals are to align needs and build something together with civil society;
- 3. Setting principles around civil society participation to make it meaningful, as it is time- and cost-intensive;
- 4. Being clear on the process, on the stages, and on the objectives of the partnership;
- 5. Finding the enabling institutions that provide inclusive and valid representation for specific community groups on the topic of concern; and
- Promoting regulation and changing procurement in a way that eases the role of civil society and facilitates the scaling of renewable energy.

Last, the report identifies how cities can commit to further empower civil society and guarantee that the energy transition generates real and widespread benefits for all. An important aspect is ensuring a triangular relationship between the city, civil society, and the private sector. This tandem can be effectively leveraged to:

- Unlock investments and sharing the benefits of the energy transition with everyone;
- Set coherent and flexible legislation that works for everybody;

- Think strategically through complex solutions;
- Collaborate on public engagement around the energy transition; and
- Use innovative communications to garner attention to climate change.

## INTRODUCTION

No other relationship and cooperation in the world is as powerful, strategic, and integrated as the transatlantic relationship, yet it has entered into a period of uncertainty. The shared values, trust, and confidence built over more than six decades of cooperation between the United States and Europe led to the strongest and most comprehensive partnership in the world. They have worked together to cope with financial and economic crises, terrorism, nuclear proliferation, climate change, and other global challenges. Yet today critical voices are rising to question the shared interests and benefits of a strong transatlantic partnership. And changes in the U.S. administration are having reverberations on key areas for a cooperative framework, with significant consequences to the European Union, such as the fight against climate change. The decision of President Donald Trump to withdraw the United States from the Paris Agreement in June 2017 was received by EU leaders with regret and fear. Backsliding by the United States, the second-largest carbon emitter worldwide, could undercut collective efforts to reduce greenhouse-gas (GHG) emissions and weaken international resolve well beyond the country.

Nevertheless, when it comes to efforts to address complex global challenges such as climate change, it is clear that a transatlantic partnership is needed as a prerequisite for any viable solution. As a result, a new relationship for action is taking shape. In the words of Miguel Arias Cañete, the EU's climate action and energy commissioner, the U.S. decision to withdraw from the Paris Agreement "has galvanized us rather than weakened us, and this vacuum will be filled by new, broad, committed leadership," among which we find cities, states, and business leaders that promptly stepped up to lead the way on the climate

agenda through actions such as the "We Are Still In" declaration.

There is growing momentum behind the prominent role transatlantic cities are playing in the global efforts to fight climate change and in the transition to a new energy paradigm. Through their actions, local authorities are increasingly shaping practices, strategies, and frameworks for energy and climate action, which are taken up at the national and international level. Many of them are going as far as setting the target of reaching 100 percent renewable energy, as endorsed by the U.S. Conference of Mayors' resolution in June 2017. In the EU, an ever-growing number of cities are adopting bold targets on renewable energy. The combination of vulnerability to the adverse effects of climate change and a predominant role in energy consumption means that cities can and will be part of the climate solution. They cannot, however, act alone for they often control only a small fraction of local GHG emissions, a fraction which rarely exceeds 10 percent, and the majority are not responsible for their territories' energy supply.

# The Importance of Civil Society to Cities in the Energy Transition

The energy model is evolving from a centralized system based on fossil fuels controlled by a few to a decentralized grid involving a whole new set of players and local and renewable resources. Furthermore, large-scale socio-technical transitions such as the energy transition involve the coalescing of technology, infrastructure, institutions, and people. This energy transition is not only enabled by new technologies; in many ways, it is the result of new social practices and governance methods. It is

a fertile ground for the emergence of new solutions with an enormous potential to stimulate local economies, create social cohesion, and increase the overall resilience of cities and countries.

In the case of environmental initiatives over decades, it has been the activism of civil society that has pushed institutions such as government and businesses to think further about low-carbon futures<sup>2</sup>. Engaging civil society, given such a large-scale transition, sheds light on the participatory process. If conducted properly participatory processes enhance acceptability and legitimacy of change, contribute to improved efficiency of decisions, promote innovation, and improve the quality of decisionmaking<sup>3</sup>.

Recognizing the key role relevant civil society groups play in supporting cities' climate actions and in becoming innovators in this transition through joint policymaking and implementation will be a critical success factor. Fortunately, aware of this reality, several cities seek collective action but they often lack the right tools for building these strategic partnerships and embedding them in their policy planning and actions.

This report aims to capture how several initiatives led by citizens and relevant civil society groups have contributed to advancing the climate goals and the energy transition of Energy Allies' territories, as well as to shed light on how civil society can be further leveraged and add value through their growing role and influence.

<sup>2</sup> Smith, Adrian. (2012) "Civil Society in Sustainable Energy Transitions," in Verbong, G. and D. Loorbach (eds) Governing the Energy Transition: reality, illusion, or necessity? New York: Routledge Taylor & Francis Group, pp 1-31.

<sup>3</sup> Schroeter, Regina; Scheel, Oliver; Renn Ortwin; Schweizer, Pia-Johanna. (2016) "Testing the value of public participation in Germany: Theory, operationalization and a case study on the evaluation of participation." Energy Research & Social Science, 13(01.16), pp. 1-28.

# FOUR CITIES ADVANCING CLIMATE AND ENERGY GOALS THROUGH CIVIL SOCIETY ENGAGEMENT

### Cambridge

Cambridge, Massachusetts has long been an active player in tackling climate change. In 1999, the City Council voted to join Cities for Climate Protection, an international consortium of communities working to reduce the emission of GHGs. In 2002, the city adopted the Cambridge Climate Protection Plan, which set a target of an 80 percent reduction in GHG emissions by 2050 that is consistent with the targets of the state of Massachusetts. Since then, Cambridge has joined the Compact of Mayors and completed an updated community GHG inventory. In 2016 it committed to achieving carbon neutrality by 2050 through the Boston Metro Mayors Coalition.

Because buildings contribute over 80 percent of Cambridge's GHG emissions, addressing their emissions is crucial to the achievement of the city's climate goals. In 2015, Cambridge adopted the Getting to Net Zero Action Plan on the trajectory to net zero GHG emissions by 2050. As part of its Metro Mayors Commitment, Cambridge is developing an updated Climate Action Plan that will incorporate the lessons from the Net Zero Action Plan along with transportation and waste-related strategies to address all of Cambridge's GHG emissions sources.

The basic strategies of the city's Climate Action Plan are as follows.

Low carbon energy supply: Enabling the transition from fossil-fuel usage in buildings to alternative energy sources facilitates the reduction of CO<sub>2</sub> emissions. Decarbonizing the energy supply system through the growth of renewable energy sources such as solar and wind can enable efficient and resilient energy uses through district energy systems.

### Energy efficiency in buildings and transportation:

By being smarter about the design and use of buildings and vehicles, and by capitalizing on technological innovations, the city can use less energy to accomplish its tasks. This includes setting aggressive standards and incentives for new buildings and establishing opportunities and mechanisms to retrofit existing buildings. In transportation, it includes the use of public transit, carpooling, cycling, and walking to significantly reduce vehicle miles traveled.

Waste reduction: Strategies to create less waste and to recycle have been in place for many years. Efforts must be made to increase the return of materials to productive use by preventing waste, increasing recycling, and composting organic materials.

# Cambridge's Approach to Civil Society Engagement

In 2013 Cambridge started a partnership with the Massachusetts Institute of Technology (MIT) and Harvard called the Cambridge Compact for a Sustainable Future. The goal was to establish a concrete set of goals with a three-year plan and identify how to meet them within the city's overarching GHG reduction goals. Over time, other actors and institutions have joined and the compact has become an effective framework to encourage joint action between the city and civil society. Every member signs it and agrees to "work to create broader collaboration among themselves and with other community partners in order to leverage the combined capacities in research, teaching, innovation, entrepreneurship, and program development" to "create a more healthy, livable, and sustainable Cambridge." The 19 Compact members are some of the largest energy consumers in Cambridge and are essential to achieving the local energy transition.

### Charlotte

In 2015, Charlotte, North Carolina committed to the Compact of Mayors (now the Global Covenant of Mayors), pledging to share a long-term vision of promoting and supporting voluntary action to combat climate change and move to a low-emission, resilient society. As part of this commitment, Charlotte agreed to establish a Strategic Energy Action Plan that was approved through a resolution in June 2018 for a "Sustainable and Resilient Charlotte by 2050", committing the city to striving for a low-carbon future by 2050 and delivering on global climate targets. Additionally, the resolution sets aggressive and aspirational municipal and community-wide GHG emission reduction goals for the City of Charlotte. Specifically, it strives to have a city fleet and facilities fueled by 100 percent zerocarbon sources by 2030, a short-term and aggressive target that underlines the city's commitment.

The Strategic Energy Action Plan directly focuses on achieving a low-carbon future through:

- Buildings—Retrofitting existing buildings and constructing new buildings in a sustainable manner;
- Transportation—Changing how people move around, improving efficiencies in vehicles, changing the fuels that are being used by the vehicles;
- Energy Generation—Optimizing production and integration of renewable energy; and
- Workforce Development—Formalizing and predicting the green energy jobs of the future.

Charlotte is implementing a new land-use plan, the Charlotte 2040 Comprehensive Plan, that turns much of the Strategic Energy Action Plan into clear actions and encompasses sections related to the energy transition including parks and greenway plans, land-use and community design plans, environment and sustainability, facilities and services, and transportation plans. Given fast-tracked economic and population growth, Charlotte's environment team seeks to balance economic prosperity with the protection of natural resources, exploring efficiencies that will streamline its efforts with those of the

community groups that are working to manage solid waste, energy, water, and air.

# Charlotte's Approach to Civil Society Engagement

Charlotte is engaging the community through its 2040 comprehensive plan. This plan addresses several factors through an equitable engagement strategy that makes information accessible online and physically, offers more convenient one-on-one and group meetings, and provides meetings in neighborhoods with incentives such as childcare and free transportation passes to promote community member engagement. In addition, the city has worked with specific partners<sup>4</sup> and community leaders who can ensure inclusive and equitable participation. The final aim of the city is to reach one percent of the population, approximately 8,590 citizens, in a two-year process through face-to-face meetings that will allow direct contributions to the plan and a shared vision for the future of Charlotte.

In addition, the city is working with Envision Charlotte, a public-private collaborative organization, to develop a GHG emissions baseline inventory, as well as targets that will inform the development of the Sustainable Energy Action Plan. This will provide the city with a roadmap to reach the GHG reduction goal of less than two tons of CO<sub>2</sub>-equivalents per capita and keep Charlotte in compliance with the Paris Agreement.

Last, to further promote and bring awareness of the benefits of addressing GHG emissions, Charlotte is preparing communication tools for decision-makers, educational tools for developers, and development tools for the community.

<sup>4</sup> Civil society actors engaged through the plan include: Envision Charlotte, Renewable Energy Transition Initiative, 350 Charlotte, Actually Done, Bike Walking, Catawba Riverkeeper, Charlotte Friends, Citizens Climate Lobby (Charlotte Chapter), Clean Air Carolina, NAACP Charlotte Chapter, Sierra Club, NC Coalition, North Carolina Climate Solutions Project, REBIC, Sustain Charlotte, Trees Charlotte, University of North Carolina, Charlotte, Johnson C. Smith University, YMCA/YWCA, Greater Charlotte Apartments Association, faith-based organizations, and quasi governmental organizations such as Housing Authority.

### Heidelberg

Over the years, Heidelberg, Germany has made a name for itself as an environmental-protection and sustainable-development leader thanks to its wideranging network of partners. It was the first German city to develop a climate-protection concept in 1992. The initial climate-protection and energy concepts were reviewed in 2004 and in 2010.

Between 1987 and 2011, Heidelberg reduced CO<sub>2</sub> emissions from its municipal buildings by 58 percent and decreased total energy consumption by 68 percent. In 1996, the municipality became a member of Energy Cities, the European association of local authorities in the energy transition. It was one of the first cities to join the Covenant of Mayors in 2008. In 2012, Heidelberg became a model municipality for Masterplan 100% Klimaschutz, a climateneutral-city program led by Germany's Ministry of the Environment, with the targets of reducing CO<sub>2</sub> emissions by 95 percent and cutting energy use in half by 2050. In four years, the city has seen a 10 percent rise in renewable electricity and a 20 percent increase in heat from renewables.

# Heidelberg's Approach to Civil Society Engagement

For over 20 years, Heidelberg's energy and climate policies have been designed and implemented by actively involving citizens and other local players. It has pioneered a city-citizen collaboration throughout the energy transition process.

The first steps consisted of analyzing emissions and redefining the municipality's internal organization to offer optimal working conditions with the creation of an environmental office, along with the allocation of additional staff. In 1992, the city council adopted the first climate-protection and energy concepts prepared by the Institute for Energy and Environmental Research. The climate-protection concept covered energy management by not only providing technical solutions but also including an analysis of the obstacles and pathways for raising key players' awareness.

Furthermore, the energy-transition process has been built jointly with key local players through roundtable discussions, which produced an energy concept that led to the adoption of low-energy standards for new municipal buildings that are stricter than national regulations and to low-energy requirements for building plots sold by the municipality.

In recent years, the city has prepared a Green City Masterplan for sustainable mobility with the cities of Mannheim and Ludwigshafen. Another plan has developed an electromobility concept with the Fraunhofer Research Institute and has started an analysis of municipal fleet management. In addition, the city launched a campaign in 2018 to promote solar photovoltaics (PV) that includes energy advice and a partnership with civil society organizations working in this field. Individuals that want to implement PV systems get free advice through phone or individual visits. Last but not least, through its utility, Stadtwerke Heidelberg, the city is promoting community energy projects in the area of solar, storage, and electromobility.

### **Nantes**

Nantes Metropole, France committed to fighting climate change in 2006. In 2008, it was one of the first French cities to sign the Covenant of Mayors and was designated the European Green Capital in 2013 by the European Commission. The following year, Nantes retroactively tracked and calculated a decrease of 23 percent in GHG emissions since 2003. In 2015 and 2016, it carried out an assessment of its Climate Plan, which earned it the European Energy Award. In 2016, it also was the first city to host the Climate Chance World Summit of climate stakeholders, registering 4,000 participants.

In 2018, Nantes Metropole updated its Sustainable Energy, Climate, and Air Action Plan, that seeks to triple the region's renewable energy and reduce emissions by 50 percent by 2030. Through this new plan, Nantes intends to accelerate its climate-change objectives and promote changes to working practices. The strategy is based on mitigation to reduce GHG emissions mainly from energy sources and adaptation to become more robust while improving quality of life and resilience.

Nantes's Approach to Civil Society Engagement

In 2014, Mayor of Nantes Johanna Rolland and 23 fellow mayors of communes, France's lowest

administrative division, in the Nantes Metropole Council decided to create a common vision among a broad range of stakeholders to accelerate the energy transition. In 2016, the council unanimously voted to carry out a Great Debate, emphasizing local stakeholders' perspectives and concrete initiatives related to the energy transition.

The Great Debate took place from September 2016 to March 2017 with 53,000 participants, and 11,000 contributors from 270 different organizations. There were 80 events organized within all of Nantes Metropole's 24 communes, facilitated by an independent commission of four citizens that guaranteed the smooth management of the process and the production of a final report. As a result of the Great Debate, numerous citizens and civil society organizations experimented with innovative new ways of implementing the energy transition in Nantes' territory. This resulted in the launch of 10 crowdfunding campaigns, the evaluation of 12 projects led by Nantes Metropole, the production of an "energy conservation" guide, and the development of five new projects.

The final report of the Great Debate on the energy transition was published in September 2017. It called on the Nantes Metropole Council and local stakeholders to produce a shared roadmap, which was later adopted unanimously on February 2018<sup>5</sup>.

The roadmap aims to:

- Provide benefits to 100 percent of inhabitants, specifically in transport and housing;
- Create a territory based on 100 percent resources (local renewable resources, nature in the city, agriculture and food, waste); and
- Have the metro area, the municipalities, stakeholders, and citizens working together toward the energy transition.

Beyond the examples provided by Energy Allies' cities on how they are approaching civil society engagement, the participation of civil society in the energy transition can be further defined based on

the specific function they perform. The examples below highlight the typology identified by Energy Allies' participants based on their own experiences, and demonstrate how civil society's roles are growing in diversity and influence.

<sup>5</sup> See Nantes Metropole et al. (2018), La transition énergétique c'est nous: Nos grandes ambitions, nos engagements partagés. Nantes Métropole en transition.

# LEVERAGING CIVIL SOCIETY THROUGH DIFFERENT STRATEGIES

### **Civil Society as Advocate**

Campaigning is important to bring these stakeholders to the table and encourage a shared outcome.

In the United States, Local Clean Energy is a membership-based organization in Oakland, California that advocates for community choice aggregation, with a focus on procuring equitable, decentralized renewable energy in the Bay area; local business development for energy services to increase local wealth-building; and strong community participation. It has been able to work as an advocate and as a watchdog. It has accomplished this through a community advisory board that has a significant supervisory role over the selection of energy and local community development. It is also looking into how to develop renewables equitably. Cambridge has a similar program, the Community Electricity Aggregation program. This offers residents and small businesses in the area more renewable energy by supporting the development of a local solar project, as well as the option to upgrade to 100 percent renewable electricity.

In Charlotte, the main electricity provider, Duke Energy, collaborates with stakeholders<sup>6</sup> that often have differing views on how Duke should meet demands for clean energy. Duke engages with

stakeholders on issues that inform new programs, products, and services. One example is the collaboration with the nonprofit organization NC GreenPower that seeks to support renewable energy and carbon offsetting. Such collaborations facilitate more people using solar and other renewables in the North Carolina energy system.

### **Civil Society as Connector**

Engaging with organizations and people within a city's ecosystem remains an asset of civil society that can be leveraged to strengthen networks.

In Charlotte, organizations such as the Renewable Energy Transition Initiative (RETI) and Envision Charlotte constantly engage with other civil society actors involved in the climate and energy field and can easily connect the city to the complementary skills of other organizations. RETI runs an annual festival where civil society organizations participate and collaborate for complementary skills.

In Heidelberg, the organization Bürgerwerke eG has started a campaign to make Heidelberg a solar city. In doing so, the energy cooperative has engaged more than 30 other organizations in support. Through involving consulting firms and individuals on how to install solar panels, the network of people onboard for solar initiatives has increased.

<sup>6</sup> American Gas Association, American Wind Wildlife Institute, Association of Corporate Contributions Professionals, Business Roundtable, Center for Climate and Energy Solutions, Consortium for Energy Efficiency, Corporate Eco Forum, Edison Electric Institute, Electric Drive Transportation Association, Electric Power Research Institute, Electric Utility Industry Sustainable Supply Chain Alliance, Institute for Electric Efficiency, National Wild Turkey Federation, Midwest Energy Efficiency Alliance, Southeast Energy Efficiency Alliance, SustainAbility Engaging Stakeholders Network.

### **Civil Society as Implementor**

Activating civil society in action further stimulates ownership and supports cities in the implementation of their decarbonization strategies.

Cambridge Energy Alliance is a city-sponsored program that helps residents and small businesses in Cambridge save money while also reducing its carbon footprint. The city promotes the Mass Save program, a statewide, utility-run initiative that offers significant incentives for a wide range of energy upgrades and connects customers to financial institutions that can help them pay for energy efficiency improvements. Eversource, an energysupply company operating in the northeast of the United States, has collaborated with governmental and nongovernmental organizations to offer training for the future workforce. Cambridge is exploring further collaborations around energy resilience with local organizations such as Climable. This woman-run nonprofit organization in the city distills complicated information related to energy challenges into easily understood material and has been working on initiatives to help vulnerable communities own energy assets. It is working with community groups to identify goals and build a virtual micro-grid that maps out assets of buildings in Cambridge neighborhoods that can be linked remotely should there be a power outage.

Charlotte's North End Smart District (NESD) is a community of eight neighborhoods north of the Charlotte Uptown working toward creating a center for economic growth driven by residents, data, and technology. Multiple projects in the NESD bring together stakeholders from the community, public, private, and nonprofit sectors to work collaboratively for improved mobility, safety, energy, public services, education, and environmental health. One such project is the Smart Homes initiative. This seeks to identify how to reduce the energy burden on households, combining perspectives from residents, the city, RETI, and Duke Energy. RETI defines a high energy burden as a household that spends more than 6 percent of its annual household income on energy utilities. Smart Homes is working to weatherize existing homes with the help of data collected by smart home devices. The Smart District mixes approaches to engage neighbors by utilizing social media, in-person roundtables, petitions for those

that do not have internet, dinner meetings with provided childcare, and additional forms of meeting people where they are. Moreover, Duke Energy has partnered with the South Carolina Technical College system to provide training for utility line workers and strengthen talent for the future electric grid<sup>7</sup>.

Following the Great Debate, Nantes organizes meetings with citizens and civil society organizations to identify the strategy, role, and expectations for each of the actors involved. One such initiative is the solar cadaster<sup>8</sup>, a web platform to facilitate citizen solar PV projects. In collaboration with companies, organizations, and research centers led by the "In Sun We Trust" startup, the web platform informs citizens about potential gains and savings available through solar installations and connects them to available installers.

Another initiative, "MIN à Watt," also benefited from the mobilization of the energy players during the Great Debate. The citizen cooperative Cowatt was strongly engaged in gathering citizens to participate in the investment of a PV installation on the new National Wholesale Market owned by Nantes Metropole, and established in April 2019. As a result, the PV plant of 3,000 square meters of panels became the largest citizens project in self-consumption demand in France, taking charge of about 10 percent of the installed area.

The city of Heidelberg works with the independent energy agency KliBA that supports municipalities, companies, and citizens in the region. In Heidelberg, KliBA provides free energy advice to citizens. The city also partners on energy initiatives with Caritas, which provides energy and water consumption advice for low-income residents. Caritas has helped unemployed residents get trained and educated as electricity-saving managers.

Based in Heidelberg, Bürgerwerke eG is an energy cooperative with community energy projects in the areas of solar, storage, and electric mobility. It is the largest association of energy cooperatives in

<sup>7</sup> See Duke Energy (2018), Duke Energy partners with S.C. Technical College System to expand lineworker training with \$1 million grant.

<sup>8</sup> A solar cadaster provides orientation, angle, irradiation, and the potential of solar production for each rooftop.

<sup>9</sup> In French, Marché d'Intérêt National. Nantes's is the second-biggest in France, inaugurated in April 2019. It is where businesspeople and restaurants from the region get their food supply.

Germany and buys energy from local production to supply households and companies throughout the country. As much as 11 percent of the electricity generated comes from citizens-owned solar and wind power plants. Profits are reinvested into local energy-transition projects. Through the cooperative, citizens can invest in power plants, buy energy from local power plants, join local project groups, or be a board member. Here, community-controlled renewable energy is one of the strongest leverage points for civil society.

Cities leveraging nonprofit organizations such as anchor institutions (universities, hospitals, libraries), which are rooted in local communities, can also pursue large-scale models. Changing the course of procurement to incentivize higher-intensity roles for civil society organizations can catalyze energy-transition and climate-plan initiatives.

### **Civil Society as Educator**

Programs targeting education and outreach throughout civil society knowledge and networks empower communities and equip stakeholders with information.

The city of Charlotte has established partnerships between its Sustainability Office and the University of North Carolina Charlotte for paid internships to help facilitate data analysis and communication on its climate and energy commitments. Charlotte's utility, Duke Energy, works with community colleges and trade unions to train workers in the skills required for energy-efficient buildings.

Charlotte's RETI identifies activists environmental organizations, and trains them to engage youth and journalists regarding climate and energy. Sometimes communities do not want their stories to be portrayed in the media out of fear that the picture will be distorted. Journalists are trained to understand the importance of the energy transition and how is it relevant to a specific community. In this context, it is important to think of building trust from both sides, where civil society organizations such as RETI can act as bridge-builders. RETI's strong relationship with the media has facilitated articles about PV initiatives. RETI also hosts workshops and events with communities that bear

high energy burdens to equip them with insights on how to weatherize their homes and take advantage of research and installation programs to overcome energy poverty.

The city of Heidelberg has worked in close cooperation with schools through various projects to include energy education in the curriculum and with small and medium enterprises to implement an environmental management system. In addition, KliBA provides education programs to architects and craftsmen within the city. Heidelberg also runs a youth climate summit that promotes interactive discussion with different target groups.

Nantes works closely with the Alisée Association to propose different energy challenges to citizens. Since 2014, the "positive energy family" has challenged about 150 participating families annually to achieve an average 14 percent reduction in energy consumption at home. Since 2016, about 1,500 school children participate each year in the "class energy challenge," making it possible to achieve an average of about 12 percent savings in the energy consumption of their school buildings.

Cambridge employs a Community Engagement Team, consisting of members of different cultural community groups to engage each community in city initiatives. Team members speak Spanish, Haitian Creole, Chinese, Korean, and other languages needed to reach out to community groups. The team helps translate city materials, and spread messaging across the community.

### **Civil Society as Lab for Cities**

Partnering with civil society partners can also serve as beneficial to piloting initiatives before streamlining policies.

In Heidelberg, Bürgerwerke eG has been experimenting with business owners to incentivize the deployment of renewables in buildings where owners and tenants are different. For example, Bürgerweke eG worked with apartment buildings in Heidelberg operated by a cooperative. The cooperative did not have money to install solar PVs and partnered with Bürgerwerke eG to find a solution. The latter developed a model giving people

the option to participate in installing solar PVs with costs starting from €100. This model has been adopted in other German cities and has now been adopted in national legislation. To ensure the project gained momentum and transcended its boundaries, Bürgerwerke eG used expert media to publicize the project to other people in the area. The organization also implemented an education program in different locations with different utilities and business owners. Together the three sets of actors wrote policy recommendations that were taken up by Germany's government.

In the city of Cambridge, the Cambridge Compact for Sustainable Future is working toward net zero laboratories with civil society organizations. They meet in workshops with laboratory owners and tenants to explore challenges and identify solutions. Another good example is that of the Massachusetts Institute of Technology working with a group of students to develop a series of recommendations better customize state energy-efficiency programs to increase energy savings. Following these recommendations, the city worked with the university and the utility and in late 2018 launched "the Cambridge Multi-Family Energy Pilot," a program that provides no-cost energy efficiency assessments and solar assessments to owners of multi-family buildings in the City.

In Nantes, after the Great Debate, an open energy-transition conference was set up in June 2018, composed of thirty energy stakeholders (academics, public institutions, consular chambers, NGOs, committed citizens, etc.) with a role to assess, monitor, and follow up on the implementation of the commitments made in the energy transition roadmap. The conference has the power to audit and question the players creating open and participatory accountability.

In South Carolina, RETI has partnered with Duke Energy on "Shared Solar," a utility-owned community solar program launched in July 2018. Residents with Duke Energy accounts can subscribe to solar energy and gain monthly credits on their energy bills for the value of their energy produced. RETI served as a platform for education and subscription for the program, which has since been expanded to North Carolina (including Charlotte).

### **Civil Society as Curator of Ideas**

Expressing thoughts, burdens, challenges, and hopes remains important for civil society actors to be a part of the energy transition.

In Nantes, the Great Debate led to a common vision among a broad range of stakeholders to accelerate the energy transition. Four citizens summarized all the contributions into 60 actions and submitted them to the mayor. Their contributions helped to shape the report on the Great Debate in Nantes and the roadmap for the energy transition thereafter. This shared vision and effort from civil society helped to create tangible plans for the future of the region.

In Cambridge, the residents' Climate Protection Action Committee implements individual actions from the Climate Action Plan and provides oversight on the Net Zero Action Plan annual status reports. It asks questions, makes recommendations, and sends letters of recommendation to the city manager.

In Heidelberg, citizens within the energy cooperative seek to serve as motivators and watchdogs. They discuss what is working and what is not, facilitating transparency around progress. In Nantes, the solar energy cooperative Cowatt strives to be a project manager and not just a facilitator. In many ways, citizens want to break down top-down approaches and strengthen community connections to push projects forward. Civil society actors want to be seen as experts, facilitators, and catalyzers of innovation. The essential ingredient is trust; establishing trust helps achieve understanding and goal alignment.

In all the different examples above, cities have come up with different models and projects that will produce more holistic outcomes by bringing civil society on board and capitalizing on its skills.

# LESSONS FOR SUCCESSFUL CIVIL SOCIETY ENGAGEMENT

Partnerships with civil society can be successful in advancing cities' climate and energy goals. Below is a summary of the key ingredients to be promoted by cities for success that were highlighted by the Energy Allies participants based on their experience.

- Providing real opportunities for engagement in planning and implementing, with transparency and easy access to information on existing opportunities. The possibility for civil society actors to contract with local governments helps build relations over the long run.
- Establishing trust and helping energy-transition stakeholders understand what the city's vision and goals are to align needs and build something together with civil society. This also applies to civil society actors. As one of the Energy Allies participants from city government put it, "Often we are very focused on our own objectives and how to work with others instead of thinking about what are their driving objectives and how can those inform our direction and align with city actions."
- Setting principles around civil society participation to make it meaningful, as it is timeand cost-intensive.
- Being clear on the process, on the stages, and on the objectives of the partnership. A strong methodology provides clarity. Sometimes local governments reach out to society, in the later stages of project implementation and then civil society does not have enough time to process the follow-up or shape the project direction. This erodes trust.

- Finding the enabling institutions that provide inclusive and valid representation for specific community groups on the topic of concern.
- Promoting regulation and changing procurement in a way that eases the role of civil society and facilitates the scaling of renewable energy. And, where the city acts as a coordinator, developing services to support civil society in the implementation of a given project.

Civil society partnerships and participation can follow a series of engagement patterns, where most of them are directly linked to the planning and implementation process. Civil society can provide insight on the regulatory framework, highlight social and economic factors, and represent the attitude of local stakeholders in the climate and energy field if the city and civil society are made to be natural partners.

As cities transition from an energy system based on fossil fuels to one powered by renewables, it is important not to replicate the inequalities embedded in the previous model that used vertical power. A new framework should be built that allows for democratic governance and equitable distribution. It is a matter of deciding together the way forward, since the actions to fight climate change and advance the energy transition need to transcend all segments of society.

The city of Buffalo, New York, illustrates this new reality well. It lies in the rustbelt of the United States and is highly affected by disinvestment. Push Buffalo, a grassroots organization, works to build community power and resilience. It realized housing was the key problem that united all residents and

decided to approach energy from an affordable-housing perspective and community-based land lens. As a result, Push Buffalo is looking into how to develop renewables in an equitable way and how to engage trade unions in their energy transition. It has operated as an advocate throughout the state, but is also now contracted by the city.

Cooperative Energy Futures, in Minneapolis, Minnesota is another example. Its model is based on "anchor institution back-up." The organization takes up to 75 percent in up-front payments for solar projects, and the remainder is allocated to low-income populations that pay through installments to avoid any up-front payments. Once the residents have paid the investment, they start getting the benefits. If any of the residents fails to pay, anchor institutions are willing to back people up for this since they have enough assets. This structure provides a great opportunity for low-income people to actively participate and profit from the benefits associated with the energy transition.

In Europe, the story of the Danish island of Samsø resonated among Energy Allies participants. It is considered one of the front-runners in the energy transition; eleven windmills generate 100 percent of the island's electricity consumption needs. When the project started in 1977, the goal was not only becoming climate-neutral but also transforming the economy. Political interest in renewables, together with an oil-supply crisis led Denmark's Ministry of Environment and Energy to launch a contest where communities had to submit a convincing plan to transition their entire energy systems to renewables within ten years. Samsø's proposal won. The closure of a slaughterhouse, coupled with the promise of economic opportunity brought about by the island's new project on renewables, led enough residents to get on board with this project, which was developed between local cooperatives and the local municipality<sup>10</sup>.

Another case is that of REScoop.eu, the European federation for renewable energy cooperatives, with a growing network of 1,500 European cooperatives and 1 million citizens. Recently REScoop.eu developed a European cooperative fund that is eligible to be joined by cooperatives and municipalities, with

the idea of starting joint investments in renewable energy projects across Europe.

An interesting example of municipalities coming together with cooperatives comes from Belgium. The municipalities of Amel and Büllingen are co-investing with the cooperatives of Ecopower and Courant d'Air in a €25 million project consisting of four wind turbines, with the benefits to be shared among them. Both municipalities already had a wind farm in their territory and knew the importance of engaging local citizens. Hence, they decided to organize a public tender in 2015 for the development, construction, and operation of the wind turbines, explicitly requesting the participation of the municipalities and local citizens. Ecopower and Courant d'Air won with a proposal in which citizens would be in charge of 40 percent of the project through the cooperatives, and the municipalities would be responsible for the other 60 percent of the project<sup>11</sup>.

It is important to think beyond emission reductions to include economic and social perspectives, and to provide a platform to the right actors—local citizens and civil society organizations in this case. Such inclusion can fulfill a city's commitments, all the while reducing the populations' vulnerabilities, encouraging local development, bringing substance and solutions to the city's plans, and strengthening natural partnership.

<sup>10</sup> See Climate Heroes (2018), Samsø, a wind of change.

<sup>11</sup> See Rescoop.eu, Amel-Büllingen.

### FURTHER EMPOWERING CIVIL SOCIETY

Leveraging and partnering with civil society can have real benefits on cities' energy-transition pathways. As exemplified by the different stories and strategies described in this report, this brings socioeconomic and environmental value, such as economic-development opportunities and energy-poverty alleviation. It also fosters equity and inclusion, as it promotes citizens' buy-in and ownership. And overall, it brings substance to the decarbonization strategies of cities.

Below are the main insights from Energy Allies participants into how cities can commit to further empower civil society and guarantee that the energy transition generates real and widespread benefits for all.

# Civil society can be further leveraged on city projects.

The city of Heidelberg buys 100 percent of its electricity from green sources through its own utility, which has a plan to build up renewable capacity within the city on its own. To further leverage civil society in its climate and energy actions, the city will seek to join forces with cooperatives and the utility. At present, some renewable energy projects are run by the local utility, while others are run by the cooperatives. The goal for the city is to identify strategies to bring together these two entities in joint projects, as in the solar campaign.

One of the city of Cambridge's priorities is bringing renewable electricity from outside to achieve its decarbonization strategy. For this, the city is learning from institutional partners to see whether they can jointly procure electricity, and to create a good model to collaborate and overcome challenges by figuring out how each institution procures energy and realizes other carbon-reduction measures.

The Sustainability Office of the city of Charlotte has developed a partnership with the civil society actor RETI to reach out to students and universities and communicate Charlotte's sustainability goals and how they can contribute to them.

## Civil society-private collaboration can be a win-win.

In Charlotte, the utility Duke Energy works with the civil society group NC Green Power Corporation on the North Carolina Green Power Program. The overall goal is to facilitate more citizens using solar and other renewables in the North Carolina system. In the program, the utility compensates the producer for the renewable electricity generated to the grid, and NC GreenPower is in charge of finding Renewable Energy Certificates within North Carolina that are then sold to customers through their bill. The utility has also been working with community colleges and trade unions to train workers in the right skills required for energy-efficient buildings.

In Nantes the AFUL (Association Foncière Urbaine Libre) Chantrerie was created for the financing, design, construction, and operation of a wood boiler and heat network of the site "La Chantrerie" between a private operator, COFELY Services, and several academic institutions. La Chantrerie hosts hightech companies and higher education institutions in a preserved natural environment. It hosts 3,000 employees, 4,000 students, and 1,000 inhabitants. The goal of the association is to catalyze the needed change to foster sustainability, instead of waiting for the city's policies and actions. Its vision for the future

is to meet 100 percent of the heating needs of the area with renewable energy and 80 percent of the electricity needs by solar PV. Moreover, they want to be connected to the national grid to share surpluses from renewable energy production or import in case of necessity.

# A triangular relationship between city, civil society, and private sector is needed and beneficial for performing the following key tasks.

Unlocking investments and sharing the benefits of the energy transition with everyone. The Energy Allies' participants from Heidelberg have recently started organizing a regular "solar boat breakfast" to bring about 20 to 30 small and medium companies in an informal atmosphere to present different options for installing PV on their premises or building surfaces. The goal of bringing the energy cooperatives on board is to match companies with citizens who are interested in investing in PV but do not own a surface and could be interested in jointly investing with small and medium enterprises. So far, 135 companies are on board with this idea.

Setting coherent and flexible legislation that works for everybody. Another front where collaboration can be beneficial for Heidelberg is on the legislation regulating solar PV and green roofs. New buildings in the city need to dedicate some space to green roofs. However, this creates competition over space between green roofs and solar PV installation on roofs. Conservationists advocate for green roofs, while the utility aims to maximize renewable energy production. Furthermore, adding both can add significant costs to a building project. Conversations have started with three sets of stakeholders to find common ground.

Thinking strategically through complex solutions. Cambridge has created the Cambridge Compact for a Sustainable Future, a partnership between city government, civil society, and business to foster collaboration among its signatories. The organization applies research, innovation, and entrepreneurship to create a more healthy, livable, and sustainable city. One area where this group of stakeholders is working together is in tackling the high energy intensity coming from the area's laboratories—Cambridge

has more laboratory space than any other city in the world—and identifying what a net-zero laboratory space might look like.

Collaborating on public engagement around the energy transition. To ensure the stakeholder participation needed to hit institutional energy and GHG reduction targets, Cambridge is working together with the Massachusetts Institute of Technology and the utility Eversource on the design and implementation of a multi-family energy efficiency pilot, hiring solar advisors and retrofit coaches to work toward an integrated process. So far they have secured the enrollment of 40 properties representing over 1,300 units. Nantes Metropole also gives priority to retrofitting measures, which are undertaken with associations and the building sector. These measures aimed at promoting the energy renovation of residential blocks have already involved more than 9,000 homes between 2011 and 2017.

Using innovative communications to garner attention to climate change. Nantes' Energy Allies participants worked together to mobilize citizens for April Fool's Day in 2019. To that goal, they devised fake news around rising temperatures, stating Nantes experienced unusually high temperatures in the month of February. As a result, Nantes Metropole claimed non-native bananas had started growing in the city's botanical garden and students were invited on April Fool's Day to the garden to taste the supposed growing bananas. While the bananas were not in fact growing, but were placed in the garden by city staff, Nantes used this as an opportunity to start a conversation around climate with the hundreds of students that showed up. In Charlotte, the city is working together with the civil society group RETI and the utility Duke Energy to ensure they have the right data about energy consumption to properly communicate with citizens and ensure different voices at the table. In addition, within this goal of reaching out and ensuring equity, Duke has put in place a program to let people know about their energy usage and develop an executive summary for people to get to know about the options within their reach to reduce energy consumption.

### ANNEX. ENERGY ALLIES PARTICIPANTS

### Cambridge (Massachusetts, United States)

Susanne Rasmussen, director of environmental and transportation planning, City of Cambridge

Seth Federspiel, net zero energy planner, City of Cambridge

Martin Turnbull, facilities—senior mechanical engineer, Massachusetts Institute of Technology

James Cater, energy efficiency consultant, Eversource

### Charlotte (North Carolina, United States)

Taiwo Jaiyeoba, director of Planning, Design, and Development Office, City of Charlotte

DeAndrea Salvador, founder and executive director, Renewable Energy Transition Initiative

Tim Duff, director of customer planning and regional strategy, Duke Energy

### Heidelberg (Germany)

Sabine Lachenicht, head of Environmental Office, City of Heidelberg

Felix Schaefer, founder and chief executive officer, Bürgerwerke eG

Thomas Sterr, managing director, UKOM e.V.

### *Nantes (France)*

Laurent Comeliau, energy transition roadmap Director, Nantes Metropole

Julien Moreau, member, Cowatt

Santa Orsini, consultant, Chamber of Commerce and Industry, ENGIE

### **Experts**

Courtney St. John, director, energy transition, ClimateNexus

Johanna Bozuwa, research associate, Democracy Collaborative

Josh Roberts, advocacy officer, REScoop.EU

Naomi Chevillard, policy advisor, Solar Power Europe

Jens Lowitzsch, professor, European University Viadrina



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