# **USDN** urban sustainability directors network

#### Urban Sustainability Innovation Report

September 2017

### **Celebrating Energy Sector Successes**

#### Energy Supply and Demand Achievements Rank Highest Among USDN Member Achievements in 2016

USDN asked members in the 2017 Impacts Survey to list the top three sustainability successes over the past year. Discover their most cited achievements, and how USDN supports these endeavors.

**Why Survey?** As USDN begins implementation of its first Long-Term Strategic Plan, cataloguing and quantifying the biggest impacts members have achieved in their communities – as well as what members hope to achieve in the future – helps the USDN Planning Committee and staff track impacts and design programming that is current, relevant, and works to meet member's needs. USDN releases an annual survey to better understand the collective impacts that Sustainability Directors achieve together.

Who Responds, and to What Types of Questions? In spring of 2017, 129 USDN members responded to the 2017 Member Impact survey. The survey gathered member opinions about successes within the field of sustainability over the past year, as well as future opportunities for impact over the next 3 to 5 years. The results show that members see continuing potential for USDN's contribution to successes and opportunity for increased impact in specific sustainability sectors. The survey collected two main sets of data. First members were asked to describe (in their opinion) the three biggest sustainability successes their teams accomplished in 2016 along with resulting impacts from each. Then members were asked to look to the future and detail the top three biggest sustainability opportunities within their communities over the next 3-5 years.

**Defining Success.** While measuring success can be a difficult exercise when working within the parameters of local government, respondents noted sustainability impacts mainly through plan or project implementation, policy adoption, and community engagement initiatives. And although these are the categories most frequently used to quantify success, members also noted a variety of other ways in which they measured the impact of their work, such as having access to technical assistance or funding sources to support implementation.

**Celebrating Success in Energy Supply and Demand.** During 2016, USDN members made notable strides in the advancement of the field of urban sustainability. These accomplishments spanned 20 topic areas in unique sustainability market sectors. While members saw success in areas ranging from climate adaptation to equity, energy initiatives were the primary area in which respondents achieved success. The survey analysis drilled down into the specifics of energy sector activities to better understand where members were finding the most success. The survey reveals that within energy-related member work, many achievements are related to initiatives in sustainable energy supply and demand, particularly in reducing building energy consumed, and in promoting renewable energy implementation. Specific energy supply actions included:

- Advancing community solar efforts
- Installing municipal renewable energy projects
- Implementing community choice aggregation (CCA)

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## ENERGY ACTIONS WERE THE MOST COMMON SUSTAINABILITY SUCCESSES

Other common themes included waste/recycling, operations/funding, and climate preparedness.



### BUILDING ENERGY AND RENEWABLE ENERGY WERE THE MOST COMMON BROAD ENERGY ACTION CATEGORIES



Figure 1: Energy Demand And Supply Are Most Commonly Cited Sustainability Successes

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**Supporting Role of USDN.** USDN members note that USDN makes strong contributions in supporting these successes. Staff-supported network funding opportunities, along with activities that promote idea sharing (e.g. peer learning exchanges and face-to-face networking opportunities), provided members with valuable insights and inspiration for their achievements. The survey found the following:

- USDN made a valuable contribution on 55% of all reported member successes.
- USDN helped many members make important initial steps in project planning, like building support or laying the groundwork for high-impact actions.
- Ideas and inspiration gained through USDN activities and from the direct access to peers that USDN provides continue to be very valuable to members.

**Example: Energy Systems Transformation from Idea to Scaling**. Boulder's active USDN Innovation Fund Project, *Renewable Heating & Cooling: Thermal Decarbonization of Residential Buildings*, provides a picture of innovation progressing from an ideology into work plans that are now being refined in a variety of cities, climates, and regions. The unfolding energy transformation story is interesting to watch, and is not over yet.

This phased work started in early 2016 as a Carbon Neutral Cities Alliance Innovation Fund grant (*Energy Systems Transformation Framework*). The framework developed a shared vocabulary, understanding, and vision for how municipalities can develop a community-wide energy planning and management system. Developing this system will support a thoughtful and well-planned transformation of their energy systems from a fossil fuel base to 100% renewable energy.

Concurrently, Boulder's <u>Natural Gas, Fuel Oil & Related Thermal Energy De-Carbonization Strategies</u> developed strategies for decarbonizing thermal energy systems in different building types in two cities: residential and commercial/light industrial buildings in Boulder and municipal buildings in San Francisco. This 2016 work complimented the Boulder's *Energy Systems Transformation Framework*.

The project progressed into a 2016 Peer Learning Exchange where team members identified the best path forward for scaling this work. The following are some significant outcomes noted from this exchange:

- A local program initiative to develop a natural gas appliance replacement program has been formalized and launched in each of the four participating cities.
- Boulder has initiated the development of a new "Energy Transition Roadmap" for residential building owners.
- During a second city-industry summit, agreements for participation were secured with all of the major heat pump manufacturers.

The active phase of this work is currently integrating the initial planning frameworks and thermal decarbonization tools developed in earlier USDN and CNCA efforts into a multi-city coordinated implementation strategy.