RESEARCH BRIEF SERIES
August 2023

Regional Collaboration for Energy Efficiency in the Inland Region: The Case of the Inland Regional Energy Network

Key Facts:

- I-REN is a regional collaborative initiative that aims to improve energy efficiency in the Inland Region with a focus on disadvantaged and hard to reach communities.
- I-REN aims to achieve three goals in energy efficiency: improving public sector capacity, improving workforce training and development, and ensuring compliance with energy codes and standards.
- I-REN will provide staff, technical assistance, regional coordination and outreach, information sharing, and training provision activities to achieve these goals.

Takeaways for Practice:

- I-REN has the potential to enhance regional collaboration and coordination of energy efficiency improvement in the Inland Region, but the effect of the improvements needs further observation and assessment.
- Industry and workforce in the Inland Region should consider taking advantage of I-REN's resources to nurture the next generation of energy efficiency.
- There is great potential for I-REN to work with local universities and research institutions to better understand the relevant needs and the future strategies that would enhance energy efficiency in the Inland Region.

UC RIVERSIDE | Inland Center for Sustainable Development

Author

Shengxiao (Alex) Li
Postdoctoral Researcher,
Inland Center for Sustainable Development,
University of California Riverside
shengxil@ucr.edu

Kristen Kopko
Policy Analyst & Research Manager,
Inland Center for Sustainable Development,
University of California Riverside
kristenk@ucr.edu

Editors

Benjamin Druyon
Program Manager
Western Riverside Council of Governments
bdruyon@wrcog.us

Rick Bishop
Co-Director, Inland Center for Sustainable Development,
University of California Riverside
rick.bishop@ucr.edu

The purpose of this policy brief is to overview the background, vision and goals, governance structure, and strategies for the Inland Regional Energy Network (I-REN), a regional network that aims to improve energy efficiency through regional collaboration and coordination. A regional coalition is vital to address the effects of climate change, as it allows for coordinated action, shared resources, and collective problem-solving, ultimately leading to more effective and sustainable climate solutions. I-REN, which functions as a regional collaborative body, provides local officials, building corporations, energy companies, and non-profit agencies with basic information on energy improvements and efficiency practices. ICSD's last policy brief, titled "State and Local Energy Policies to Combat Climate Change in the Inland Region: A Review", concludes with the fragmentation of programs developed by the Investor-Owned Utilities (IOUs) and the Public-Owned Utilities (POUs) (Li, 2023). This seemingly circuitous structure requires multi-departmental agencies and multi-level governments to facilitate energy efficiency and affordability. I-REN aims to supplement the programs developed by IOUs and POUs. This brief is based on the Inland Regional Energy Network (I-REN) 2021-2025 Energy Efficiency Business Plan[1] developed by the Western Riverside Council of Governments (WRCOG), the Coachella Valley Association of Governments (CVAG), and the San Bernardino Council of Governments (SBCOG) (Western Riverside Council of Governments (WRCOG) et al., 2021).

1 While the original Business Plan filed was for 2021-2025, it was ultimately approved for program years 2022-2027.

I. Background

Initiated in 2018, I-REN is a regional collaborative initiative by WRCOG, CVAG, and SBCOG to convene local administrators and energy companies to deliver energy efficiency programs. Another goal of the network is to ensure localities and customers in the region to meet the requirements of greenhouse gas (GHG) emissions at the state level.

Two major state-level public policies compel the Inland Region to improve energy efficiency: 1. Senate Bill (SB) 350, which requires an increase of energy efficiency by 50% for existing buildings by 2030; 2. Assembly Bill (AB) 32, which mandates the greenhouse gas (GHG) emissions fall 40% below the level of 1990 by 2030.

Regions in California have different capabilities to achieve these ambitious goals. The Inland Southern California Region may lack the resources to achieve these goals, as it is historically underrepresented in the state-level energy efficiency programs. ICSD's first policy brief in this series, titled "Local Climate Change Actions in the Inland Empire Region: Evidence from Jurisdictional Climate Action Plans" shows that jurisdictions in the Inland Region did not publish locally adopted climate action plans until 2010, and often cities do not agree on strategies to reduce GHG emissions. Very few jurisdictions have published their GHG reduction goals for 2030 and 2050. The aforementioned second policy brief in this series, "State and Local Energy Policies to Combat Climate Change in the Inland Region: A Review" further demonstrates that despite some programs developed by IOUs and POUs to address energy efficiency issues, they target their own customers and specific areas of energy efficiency incentives, and do not fully address the needs of residents in the Inland Region, especially those living in low-income households.

In addition to the lack of agreement among the local jurisdictions and a lack of energy efficiency programs, some factors specific to the Inland Region further increase the difficulty of improving the energy efficiency of the region:

- The region is large with many different geography types: mountains, deserts, and isolated rural areas. This diversity adds substantial barriers to serving individual communities, and the region as a whole;
- The Inland Region has high poverty rates, and a large number of communities of color and tribal communities with insufficient energy resources. A large proportion of the people living in these communities have difficulties accessing clean energy and paying energy costs;
- The region additionally lacks a highly-skilled workforce and the resources needed to enhance workforce development;
- The current general climate as well as the region's vulnerability to the impacts of climate change provides a final challenge: increasing extremely hot and dry days contribute to greater energy usage.

II. Goals and Missions

Based on the I-REN business plan, I-REN's vision is to "connect residents, businesses, and local governments to a wide range of energy efficiency resources to increase energy savings and equitable energy access throughout San Bernardino and Riverside Counties." More specifically, based on the challenges of energy efficiency in this region, I-REN has three specific goals:

- **Increasing the public government capability:** "Build capacity and knowledge to enable local governments to effectively leverage energy efficiency."
- **Workforce training and development:** "Ensure there is a trained workforce to support and realize energy efficiency savings goals across sectors."
- **Ensuring compliance with energy codes and standards:** "Work closely with local building departments and the building industry to support, train, and enable long-term streamlining of energy code compliance."

III. Governance Structure

To achieve the vision and goals of I-REN, three councils of governments (COGs) in the Inland Region are involved in the network. COGs are voluntary government organizations consisting of city and county governments that strive to cultivate collaboration and coordination. The three Inland COGs leverage resources and power in 52 cities and 2 counties in the region.

The executive committee of I-REN consists of three COGs in the Inland Region: WRCOG, CVAG, and SB¬COG. The committee consists of elected members from cities, counties, Native American Tribes, and water districts. The committee provides direction on I-REN's programs and ensures the accountability of the member cities and counties. In doing so, I-REN improves the standing of the Inland Region in energy efficiency issues in the state. The three COGs have equal voting power in I-REN. WRCOG, however, serves as the administrative lead COG for general programmatic affairs, including purchasing, contracting, and regulatory contact.

Under the executive committee, there are three working groups: Public Sector, Workforce Education and Training, and Codes and Standards. These three working groups are responsible for visioning and delivering programs to achieve the I-REN goals mentioned above.

IV. Strategies

Under the three-COG governance structure, I-REN has developed many programs to aid in achieving their goals of improvement in public sector governance, workforce training and development, and code and standard compliance. This section focuses on the strategies in these three aspects.

1. Improving Public Sector Capacity

To improve local governments, special districts, and tribal communities' ability to enhance their capacity to address energy efficiency, I-REN serves as an information and support center. I-REN also developed incentives, programs, and leveraged different funding resources for energy efficiency throughout the region.

As a support and information center, I-REN provides the following resources for the local stakeholders to ensure sufficient resources for energy efficiency improvements:

Staff Support: I-REN provides concierge-style support through phone, email, and in-person for the local jurisdictions and special districts. I-REN also launched a Fellows program derived from WRCOG's Public Service Fellowship Program, which provides internship opportunities for students in local schools to help enhance the human resource capacity for energy efficiency issues at the local level.

Help for Strategic Energy Plans: Due to the lack of staff and financial resources, many local jurisdictions did not locally develop and adopt strategic energy plans, which are roadmaps to achieve energy efficiency and affordability goals. I-REN, therefore, starts to assess the current condition of strategic energy plan adoption of the Inland Region and provide technical assistance to the local jurisdictions in need to develop their own strategic energy plans.

Information Collection & Sharing: I-REN also serves as an information hub to collect and share resources with all member stakeholders. The network utilizes administrators to collect information for the energy efficiency programs, their eligibility and participation requirements, and creates online resources, printed materials, and information datasets to share with members and consumers through social media, Internet, and in-person educational workshop events.

Technical Support for Energy Savings: To leverage resources to improve the financial capacity to implement energy efficiency programs, I-REN further provides technical and financial funding for local stakeholders. One of the major initiatives is to design incentives for energy efficiency upgrades for public buildings, especially public gathering buildings such as senior centers, community centers, and health centers, to reduce energy use. I-REN also provides support for design assistance and building assistance for high-efficiency energy buildings.

Technical Support for Energy Efficiency Funding Application: Various funding opportunities from loans to public-private partnerships can help local governments and communities achieve energy efficiency goals. However, an obstacle for local governments and communities is the lack of time to collect information and assess options. I-REN helps local communities by identifying resources, assessing their eligibility for resources, and designing funding options for local communities and stakeholders.

2. **Workforce Training and Development**

Training the current workforce and developing the new workforce for energy efficiency programs is critical to the region. In doing so, I-REN is establishing connections with local training providers to create programs to increase the capacity of the current staff in terms of energy efficiency knowledge.

I-REN also has ambitious plans to create a new green workforce. I-REN aims to enhance the connection between industry and the workforce and identify the demand of the workforce for energy efficiency. To increase the number and skills of the workforce that meet the local energy efficiency improvement needs, I-REN strengthens the connections between the local workforce and high schools, trade schools, and colleges, with the goal of training the next generation of people who can serve and benefit from the energy efficiency development in the Inland

Region.

3. Ensuring Compliance with Codes and Standards

I-REN additionally supports the local jurisdictions in energy efficiency code, and standard compliance. To support this goal, I-REN provides a series of training, outreach, and assessment activities.

Training: The building industry is critical to advance energy efficiency. I-REN has developed a curriculum to improve the building industry's compliance with current energy efficiency requirements. I-REN also communicates with Program Administrators to ensure that the program does not repeat training that is already provided by localities or other organizations. As energy efficiency codes and standards update frequently, I-REN also communicates with community partners and local builders to understand code and building updates.

Outreach: I-REN promotes outreach to the local communities in two ways: first, I-REN develops a web-based Code Hub with two major functions: (1) as an online communication platform for stakeholders, online code coaches from I-REN answer questions about the codes and standards for stakeholders; (2) the community partners can demonstrate the best practices of standards and code enforcement and share with other partners. Second, I-REN initiates regional forums for local jurisdictions, private building firms, and planning departments to come together and discuss potential collaborations for ensuring compliance with codes and standards.

Assessments: I-REN uses surveys and interviews to assess the challenges of compliance with codes and standards at the local level. I-REN also works with local governments to identify the important codes and standards, identify the best practices, create materials, and distribute them to the local governments to make sure that local governments have the consistency of codes and standards. In addition, I-REN plans to identify the important areas of improvement in energy efficiency, identify the pilot programs that fit the local and regional needs, and disseminate the practice in the region.

V. Funding

The I-REN Business Plan was approved by the California Public Utilities Commission (CPUC). The budget for the current I-REN Program period, running from 2022 – 2027, is $65.5 million dollars. The funding for each REN is authorized by the CPUC, and the funds are collected directly by IOU's in the form of ratepayer funds. After CPUC approves a new REN Business Plan, that REN receives these ratepayer funds. Additionally, local members and organizations are able to receive support and services from the I-REN programs.

There are two sources of energy efficiency financing: traditional (e.g. loans, leases), and specialized (e.g. on-bill, Property Assessed Clean Energy (PACE) Programs, and savings-backed arrangements). However, diversity in funding sources can provide a novel set of issues including the inability for local governments to discern funding availability and subsequent grant application processes. According to I-REN's Energy Efficient Business Plan, the disconnect between funding information and local governments is one of the largest barriers to I-REN organizations. Finally, statewide unfunded mandates such as building energy benchmarking and energy code compliance create additional funding confusion and difficulty.

Specific financing mechanisms available to I-REN organizations include federal grants (e.g. Energy Efficiency Funding), state grants (e.g. California Energy Commission Grants), local/regional committee grants, traditional banking industry loans, and climate/green bonds. Success stories from this style of funding resources are relatively common. For example, in recent years, SBCOG has received a grant from the Mobile Source Air Pollution Review Committee to install and maintain electric vehicle (EV) charging stations at the San Bernardino Metrolink Station and the San Bernardino Transit Center.

VI. Concluding Remarks

Given the historical underrepresentation of energy efficiency efforts in the Inland Region, I-REN has great potential to improve regional energy efficiency. Consisting of three COGs in the Inland Region, I-REN aims to improve regional energy efficiency through improving capacities of the public sector, workforce training and development, as well as ensuring compliance with codes and standards. In doing so, I-REN has created three coordinating working groups under the leadership of the COGs and developed many programs to achieve these goals. Programs that I-REN plan to enhance energy efficiency of the Inland Region include: providing staff support and technical assistance, fostering local community outreach and information sharing, creating data sharing platforms, providing training programs to ensure code and standard compliance, conducting research to assess code and standard compliance, and disseminating regional best practices in energy efficiency.

This brief demonstrates that I-REN has identified some of the challenges of energy efficiency in the Inland Region and has great potential to push the Inland Region towards state-level GHG emission reduction goals. I-REN's business plan has identified many unique challenges to the Inland Region in terms of addressing energy efficiencies, such as a lack of staff and resources, a large proportion of disadvantaged communities in distant locations, and a lack of information access to codes and standards of energy efficiency. To address these obstacles, I-REN has developed a number of strategies under the leadership of COGs. However, how effectively can I-REN coordinate regional energy efficiency, and to what extent I-REN contribute to the region's capability to meet the state-level GHG emissions await further observations and assessments.

A critical part of all I-REN strategies is workforce training and development. A workforce with knowledge of energy efficiency can enhance the public sector's capability in energy efficiency improvement and technical support for relevant programs. Therefore, the workforce is better situated to ensure compliance with codes and standards. To nurture a green workforce, public and private employers and potential workforce providers (e.g., universities, trade schools, and high schools), can work together under the support of I-REN to help both employees and employers meet the requirements of the energy industry throughout the region.

Of important consideration is the role of schooling in the region to provide I-REN with more research support to advance energy efficiency efforts in the region. I-REN has identified some future research needs, such as assessments of the current strategic energy plans and climate action plan developments, designing surveys and conducting interviews to examine the conditions of compliance with codes and standards of jurisdictions, and identifying best practices in energy efficiency initiatives. Research centers with expertise and knowledge in tools to advance these initiatives can work with I-REN to better understand these critical issues. These collaborations can also provide students who are interested in energy efficiency and innovation with opportunities in both local policymaking and research.

VII. References

Li, A. (2023). (rep.). Local Climate Change Actions in the Inland Empire Region: Evidence from Jurisdictional Climate Action Plans. Retrieved August 11, 2023, from https://icsd.ucr.edu/sites/default/files/2023-02/icsd-climate-report-1.pdf.

Western Riverside Council of Governments (WRCOG), Coachella Valley Association of Governments (CVAG), & San Bernardino Council of Governments (SBCOG). (2021). (rep.). Inland Regional Energy Network (I-REN) 2021-2025 Energy Efficiency Business Plan. WRCOG; CVAG; SBCOG. Retrieved August 14, 2023, from https://www.gosbcta.com/wp-content/uploads/2022/09/I-REN_BusinessPlan_Final_2021-02_For20221005.pdf.