



# REGIONAL UTILITIES SUPPORTING HOUSING (RUSH)

## EXPERT PANEL REPORT



ULI & PlaceWorks Advisory Panel Partnership with SCAG | JULY 2023



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# EXECUTIVE SUMMARY

The State of California, through Assembly Bill 140 and the California Comeback Plan, has allocated \$600 million across the state through REAP 2.0 to accelerate housing production that facilitates choice and affordability in housing supply, affirmatively furthers fair housing, and reduces vehicle miles traveled.

The Southern California Association of Governments (SCAG) has a critical role in addressing the housing crisis by facilitating the process to allocate housing in our region, and by leading innovative solutions at many levels to overcome barriers to sustainably and equitably build more housing.

Under the REAP 2.0 program, SCAG is set to receive \$246 million in State funding to support programs that meet the objectives and implement Connect SoCal, SCAG's regional vision to address transportation and land use strategies that help the region achieve sustainability goals.



The Regional Utilities Supporting Housing (RUSH) Pilot will be a competitive grant under SCAG's REAP 2.0 Program focused on funding systemwide, sustainable utility infrastructure to support housing production across the SCAG region. The goal of the RUSH pilot program is to fund projects and programs with innovative solutions to reduce development costs and increase housing production capacity in infill areas through utility planning and investment. While there is a broad array of housing infrastructure needs in the SCAG region, the RUSH pilot program focuses on the basic utility infrastructure that directly supports entitling and delivering housing: water, wastewater, stormwater management, and electricity.

To launch the RUSH program, SCAG convened an Advisory Panel of industry experts to identify current challenges, best practices, innovative examples, and recommendations that could better align utility investments with planned housing production. This report is the summary of the Advisory Panel's efforts. The Advisory Panel participated in a week-long intensive investigation that led to a presentation of key findings and recommendations at the RUSH Industry Forum on April 28, 2023.

The recommendations include specific actions that SCAG can take to integrate the process of planning for critical housing production with the process of planning/improving infrastructure capacity. The panel also identified the types of projects that should be prioritized for the RUSH pilot program.



# INTRODUCTION AND BACKGROUND



\*Population aged 25 and over

Source: CA DOF and Construction Industry Research Board (CIRB). Single-family permits listed here utilize the CIRB definition, which includes attached duplexes and accessory dwelling units.

Building Permit Activity & Household Size, SCAG Region, 2000-2018

California is facing a housing crisis. Over the past decade, housing costs have increased dramatically and supply has not kept up with demand. This is causing various challenges in the SCAG region, including homelessness and displacement. Increased housing production is critical to the Southern California economy and the livability of its communities.

Every city and county in California are required to plan for future housing production as part of their housing elements, a required element of the general plan. California's housing element law acknowledges that, for the private market to adequately address the housing needs and demand of Californians, local governments must adopt plans and regulatory systems that provide opportunities for (and do not unduly constrain) housing development. As a result, housing policy in California rests largely on the effective implementation of local general plans and, in particular, local housing elements. State funding programs for transportation,

infrastructure, and housing often require or consider a local jurisdiction's compliance with housing element law. These competitive funds can be used for fixing roads, adding bike lanes, improving transit, or providing much-needed affordable housing to communities.

Despite these mandates, there continues to be a variety of barriers to increasing housing production, and one of those involves the readiness of utilities to serve planned housing. This issue is being addressed by SCAG in the RUSH pilot program. To initiate this program, SCAG partnered with PlaceWorks and the Urban Land Institute to convene a panel of experts to explore innovative strategies and solutions to better plan, finance, and implement regional utilities that are needed to support housing production across the SCAG region.

## Regional Early Action Planning 2.0

The State of California, through AB 140 and the California Comeback Plan, has allocated \$600 million across the state through REAP 2.0 to accelerate housing production, promote fair housing, and reduce vehicle miles traveled. The REAP 2.0 program is administered by the California Department of Housing and Community Development (HCD), in collaboration with the Governor's Office of Planning and Research (OPR), the Strategic Growth Council (SGC), and the California Air Resources Board (CARB).

The Southern California Association of Governments (SCAG) region is positioned to receive approximately \$246 million through REAP 2.0, \$35 million of which will be allocated to the Regional Utilities Supporting Housing (RUSH) Pilot Program.



The 6 counties of the SCAG region.

SCAG's REAP 2.0 funds will be administered across three programmatic areas:

1. **Programs to Accelerate Transformative Housing (PATH)** will support strategies to accelerate infill development leading to increased housing supply, choice, and affordability while also reducing VMT.
2. **The CTC Partnership Program and Regional Pilot Initiative Program** will connect infill housing to daily services and increase travel options that support multimodal communities to shift travel modes.
3. **Early Action Initiatives** tie this work together by building capacity for planning innovation across the region through advancements in community engagement and partnerships, data driven decision making, and performance measurement and monitoring.

The PATH program is structured around a Notice of Funding Available (NOFA) and two pilot programs, as summarized below:

1. Regional Utilities Supporting Housing (RUSH) Pilot Program: Nontransportation utilities infrastructure planning and improvements essential to housing production.
2. Funding for Lasting Affordability (NOFA): Funding for innovative housing finance, trust funds, catalyst funds, and new permanent funding sources.
3. Housing Infill on Public and Private Lands (HIPP) Pilot Program: Scaling up development of available land, large corridor-wide or area-wide infill housing policies and initiatives.

## Regional Utilities Supporting Housing Pilot Program

The RUSH program allocates \$35 million for a competitive grant program focused on funding systemwide, sustainable utility infrastructure to support housing production across the SCAG region. The goal of the RUSH pilot program is to fund projects and programs with innovative solutions to reduce development costs and increase housing production capacity in infill areas through utility planning and investment.

Below is the relationship between the RUSH program and the other housing-focused programs that SCAG grants funds for:

### Regional Early Action Planning (REAP) Program 2.0



### Programs to Accelerate Transformative Housing (PATH)



### Regional Utilities Supporting Housing (RUSH) Program

The focus of the RUSH program is founded on the following issues or opportunities in the SCAG region:

- Utility infrastructure is a basic requirement to deliver housing; while the broader range of housing supportive infrastructure is desired and critical for creating complete and sustainable communities, investments in the basic utility infrastructure are a precursor to any housing being entitled and delivered.
- Utility infrastructure is often inadequate, outdated, or in need of investment, particularly in older, built-out areas and other Priority Growth Areas identified in the region's 2020 Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS). These targeted geographic areas are the ones most likely served by high quality transit and close to other forms of housing-supportive infrastructure.
- Many cities do not have an accurate and up-to-date assessment of their utility infrastructure location, capacity, and maintenance needs. Additionally, the level of knowledge and information that utility companies have regarding the status of infrastructure is unclear.
- Utility investments often drive up the cost of housing production; to guarantee service or simply make up for the lack of system capacity often entails the need to upgrade whole systems beyond the scope of a single project. This is particularly critical for workforce and affordable housing projects because additional costs for major infrastructure investments or delays make a project infeasible.
- A strategic view of utility investments offers an opportunity to plan for sustainable and resilient growth at a systems level, which allows our region to implement climate change adaptation strategies.
- A growing number of funding and grant opportunities for jurisdictions include housing-related infrastructure.

## RUSH Industry Forum Advisory Panel

To inform the development of the RUSH pilot program, SCAG led the formation of an Advisory Panel to solicit input on the issues, challenges, and opportunities associated with ensuring that utilities throughout the SCAG region are or will be ready to accommodate housing growth. The panel structure was based on a model honed by ULI's Advisory Services program, which endeavors to bring the finest expertise in the real estate field to bear on complex land use planning and development projects, programs, and policies. Since 1947, this program has assembled well over 700 ULI-

member teams to help sponsors find creative, practical solutions for issues such as downtown redevelopment, land management strategies, evaluation of development potential, growth management, community revitalization, brownfield redevelopment, military base reuse, provision of low-cost and affordable housing, and asset management strategies, among other matters. A wide variety of public, private, and nonprofit organizations have contracted for ULI's advisory services. Each panel team is composed of highly qualified professionals who volunteer their time to ULI. They are chosen for their knowledge of the panel topic and are screened to ensure their objectivity.





## Summary of the Process

The process of convening the industry experts involved the following activities:

- **Develop Scope of Work and Identify Panelists.** SCAG prepared the list of questions to be deliberated and answered by the panel. These questions informed the experience and skill sets needed on the panel. Potential panelists were identified, and a final list was approved by SCAG.
- **Prepare Briefing Book.** The panel's introduction to the RUSH program was provided by SCAG in the form of a briefing book. This document included deeper context about housing issues in the region and background information about the RUSH program. It also included foundational information about utilities in the region, including maps of various utility boundaries.
- **Conduct Stakeholder Interviews.** As a part of the data-gathering process, the panel interviewed a variety of stakeholders. These included various utility providers and municipal officials from across the SCAG region. These conversations helped the panel understand some of the broader infrastructure challenges in the region, as well as the regulatory environment in which utility districts operate. Stakeholders also provided excellent ideas for how infrastructure planning could be better aligned with planning for housing.

- **3-Day In-Person Roundtable Discussions.**

The panel gathered together for three days in SCAG's offices. The chairs of the panel guided the conversations to address the issues and opportunities that were identified. The ideas were documented and summarized in a presentation at the Industry Forum.

- **Recommendations Presented at the Industry Forum.**

At the conclusion of the Advisory Panel discussion, SCAG hosted a half-day forum where officials from all jurisdictions were invited to listen to the recommendations and then meet in groups for further discussion of the ideas.



# THE ADVISORY PANEL'S ASSIGNMENT AND FINDINGS

## Focus on Utilities

For the RUSH Industry Forum Advisory Panel, nine experts were selected to bring their knowledge and experience in Southern California related to water, wastewater, and dry utility infrastructure. SCAG focused on the basic infrastructure that directly supports entitling and delivering infill housing: water, wastewater, stormwater management, and electricity.



## Scope of Work

Panel members were asked to address each of the following questions:

1. What are the best approach(es) to designing a utility infrastructure program that addresses multiple objectives:
  - a. Maximize impact (facilitating both significant quantity and affordability of Housing production in infill areas)?
  - b. Center racial equity in its geographic targeting?
  - c. Is transformative in approach, and a model for sustainable and climate adaptive investment?
  - d. Can address the vast geography of the SCAG region?
  - e. Can leverage public assets, housing production targets, and investments in related planning and capital projects?
2. How can public agencies balance investments in housing-supportive infrastructure that accelerate new housing (and particularly affordable housing) production in higher-resourced communities without neglecting investments in historically disinvested/underinvested communities that already have a higher percentage of denser housing stock? How can infrastructure investments address systemic inequities and produce net-positive outcomes?
3. What is the appropriate scale to address utility infrastructure needs at a systems level? By block? By parcel? What is a district-level plan? Study a square mile? Citywide system level?

4. What are ways that sustainability and resilience can be wrapped into infrastructure planning to address natural resource constraints and minimize climate impacts? Through best practices? Identification of "districts" or other designations? How does a sustainability lens affect the scale of infrastructure planning?
5. Are there examples of utility infrastructure initiatives (locally, nationally, or even internationally) for creating an actionable investment strategy?
6. Given the expenditure deadlines associated with the Regional Utilities Supporting Housing (RUSH) Pilot Program, what types of projects should be prioritized to receive the \$35 million in available funding?
7. Assuming a future program can fund both planning and capital projects, what is the best way to size a program? For example, capital investment per housing unit/square mile/per capita? Citywide/subregional/regional? Utility infrastructure planning funding tied to the amount (units) of housing it will support?
8. Beyond the traditional/existing tax increment financing programs currently available in California (Community Facilities Districts, Enhanced Infrastructure Financing Districts, etc.), are there innovative funding programs and/or financing approaches that can maximize housing and infrastructure investment?
9. How can SCAG facilitate ongoing planning and collaboration among public agencies, utilities, and the private sector?

## Panel Discussion: Utility Infrastructure Challenges

Informed by the review of the briefing materials and interviews with stakeholders, panel discussions began with a focus on the typical processes undertaken by utility agencies/districts for long-term planning and on prioritizing improvements to existing systems. This included a briefing on the role of the State Public Utilities Commission (PUC) in regulating and approving investment decisions. Then the group moved on to discussing general infrastructure capacity across the region and the conditions of particular infrastructure systems. Given the diverse development patterns, age of infrastructure, and climate conditions, the readiness of infrastructure to accommodate significant housing construction differs greatly. In addition, the sheer number of utility providers, who operate independently of each other, further complicates the coordination that needs to happen between city/county planning departments and utilities. There are over 400 water utilities, over 200 sewer utilities, and numerous electricity providers.

The next paragraphs identify the utility infrastructure challenges that result from accelerating housing production in the SCAG region. The panel's final recommendations to SCAG address these challenges.

### **Entitlement Delays or Uncertainty.**

Developers often experience delays while utility agencies determine infrastructure capacity or off-site infrastructure needed to support proposed development. Often, problems with utility capacity are only discovered when a “will serve” letter is requested, which is typically quite far along in the design and development process. These delays are particularly costly for smaller infill housing projects. They create uncertainty and increase the time it takes to get entitlement, which increases costs. Also, unexpected off-site improvements can easily derail a development proposal. All utility sectors experience these situations, which are significant barriers to fast-paced housing production.

**Long-Range Planning by Jurisdictions and Utilities Are Unconnected.** Long-range growth plans by a jurisdiction via a general plan or housing element update are typically not a factor in long-range planning and capital expenditures by utilities. Utility agencies are often not aware of planned growth priorities, and if they are, it generally doesn't mean much to them because they make investment/improvement decisions based on other criteria. Utilities react to individual development applications (hence delays and uncertainty are created). They also need approvals from the PUC for major investments, and they need to demonstrate that the cost for those investments will be offset by development fees (approved projects ready to move forward). The PUC operates under a very different service model that does not consider all the efforts by the State to accelerate housing production. These are bureaucratic structure issues that will be a challenge to change.

**Missed Opportunities.** Conversations around construction of transit projects revealed a missed opportunity to incorporate infrastructure upgrades with necessary utility relocations during major capital projects. Metro is often required to rebuild local infrastructure when constructing major transit projects that open up the ground. However, the lack of advanced planning and coordination means that infrastructure is commonly rebuilt or relocated without substantial enhancement, missing opportunities to “dig once” to upgrade infrastructure to support future development. However, the structure for collaboration is often in place. Regular master cooperative agreements between Metro and utilities ensure that planning and design are advanced collaboratively and that utilities are at the table for coordination and decision-making. What is sometimes missing is coordination with the jurisdictions regarding planned or entitled development.

**Lack of Utility Mapping or an Information Clearinghouse.** From the outset of the RUSH Industry Forum, participants sought general information about utility capacity in the SCAG region to understand where service limitations may impede housing development objectives or, conversely, where infrastructure capacity would allow for substantial new development. SCAG did not have such maps or information, nor were they readily available—they belong to the utility agencies. Though SCAG will have mapping of all the housing sites across the region associated with the 6th housing element cycle, it does not have a process for gathering and overlaying important utility infrastructure data, which is needed to understand the barriers or limitations to housing production. A historical lack of coordination between local utility providers and SCAG was cited as a major barrier in meeting regional housing goals.

### **No Accounting for Underserved/ Historically Marginalized Populations.**

The panel heard from at least one major utility provider that historical discrimination and underinvestment in communities of color do not factor into current decisions about prioritization of infrastructure investments. Decisions around investment are mostly made based on objective criteria that do not take into account socioeconomic input. This seems misaligned with housing development planning, which actively pursues fair housing, and other planning and funding frameworks that prioritize racial equity and the needs of disadvantaged populations.

### **Wet Infrastructure Generally Has Capacity.**

Owing to the long-standing water use restrictions in California, water demand has gone down in the SCAG region. This decrease applies to both potable water use and generation of wastewater. One industry expert noted that sewer flow has declined so much in some locations that it causes problems for water reclamation plants. Needed improvements in wet infrastructure typically involve connecting specific sites to the main lines—something developers expect to pay for—but the main lines themselves do not generally lack capacity, even with the addition of more housing units. Stormwater capacity fluctuates across the region, and capacity issues tend to be area specific. Upgrades to major stormwater trunk lines is very costly and can significantly impact development feasibility if the burden to upgrade a trunk line falls on a single project.

### **Lack of Sufficient Utility Workforce.**

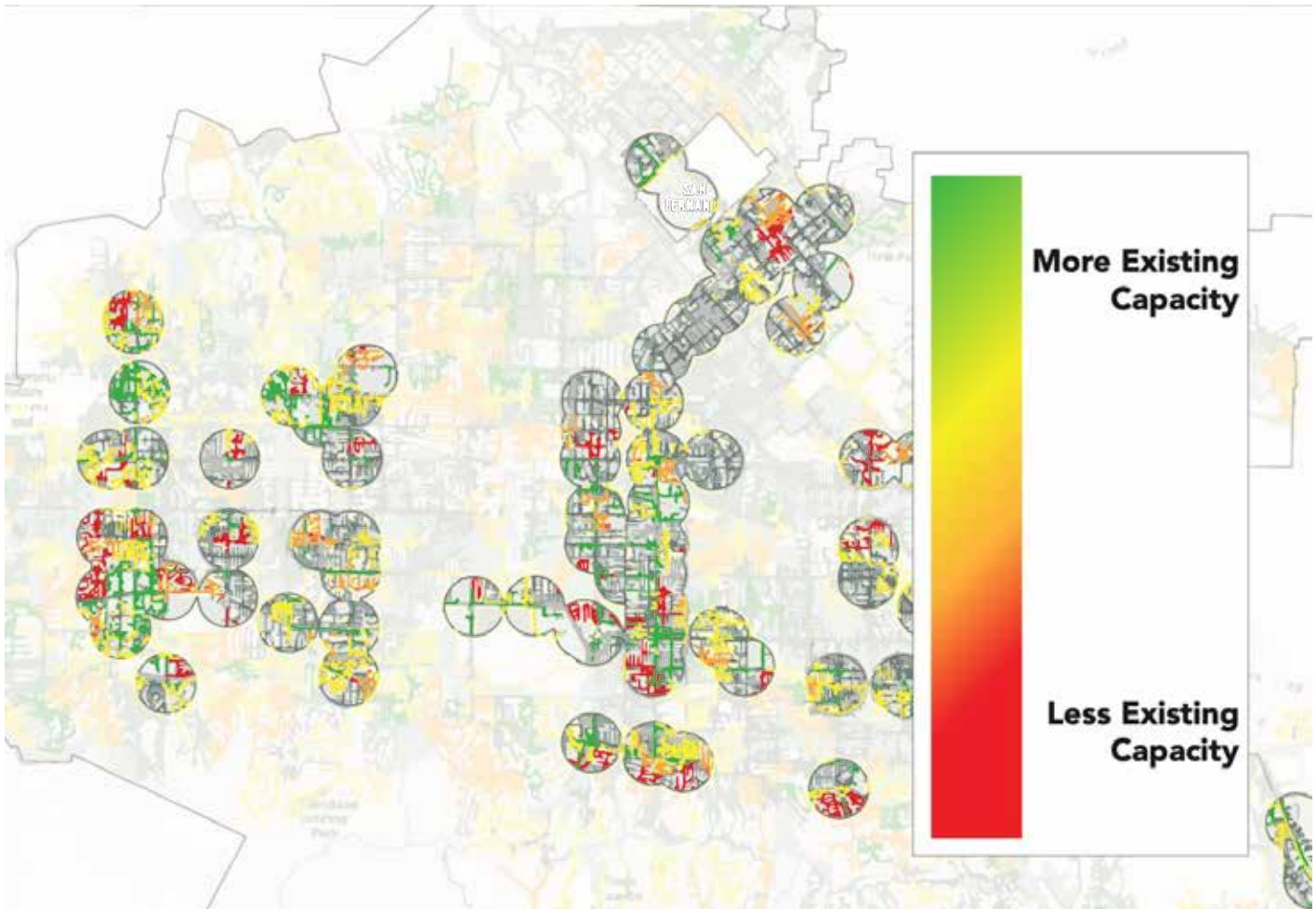
Like other industries, utilities face challenges related to attracting and retaining skilled workers. This is especially true for electricity providers, who not only face a significant increase in service demand, but are competing with high-paying technology firms for workers. This labor shortage delays planning for utility improvements, responding to requests for service, and identifying infrastructure improvements needed to increase capacity. Utilities are responding to this issue by providing additional training and more resources for hiring, but the shortage is not expected to be resolved in the near future.

### **Demand for Electricity Is Rapidly Increasing.**

The speed of electrification across the state is greater than anticipated, challenging the readiness and stability of electric infrastructure. This is amplified by climate policies that require utilities to continually expand their renewable energy sources. Experts also noted that building codes requiring solar energy on homes increase housing costs, which further exacerbates housing affordability. Investment in maintenance of existing electric utility infrastructure has suffered as electric utility agencies try to keep pace with increased demand and state regulations. Record high temperatures and wildfires have also taxed the electrical grids in the region. There are opportunities to build a more resilient grid using batteries and other storage solutions, but industry experts expressed that their more immediate concern is the ability of the existing grid to handle rapidly increasing demands.



# KEY RECOMMENDATIONS FOR SCAG



Example of a Red Light / Green Light Areas Map.

The panel explored a variety of different approaches to these utility infrastructure challenges. Its key recommendations were presented during the RUSH Industry Forum on Friday, April 28, 2023, at the Japanese American National Museum.

## **Integrate Utility Mapping with SCAG Database to Identify Opportunities and Challenges**

Currently, information from various utilities is siloed and incomplete. There is limited map sharing, an incomplete utility capacity picture, and limited alignment with regional housing development. However, SCAG could create a utility data layer(s) as part of its overall mapping system. Like the cooperation of transit agencies and individual jurisdictions with SCAG to share important data, this approach can be extended to and

cultivated with utility agencies. The result could be a new database that integrates utility capacity with housing element sites and other important considerations, such as CalEnviroScreen data.

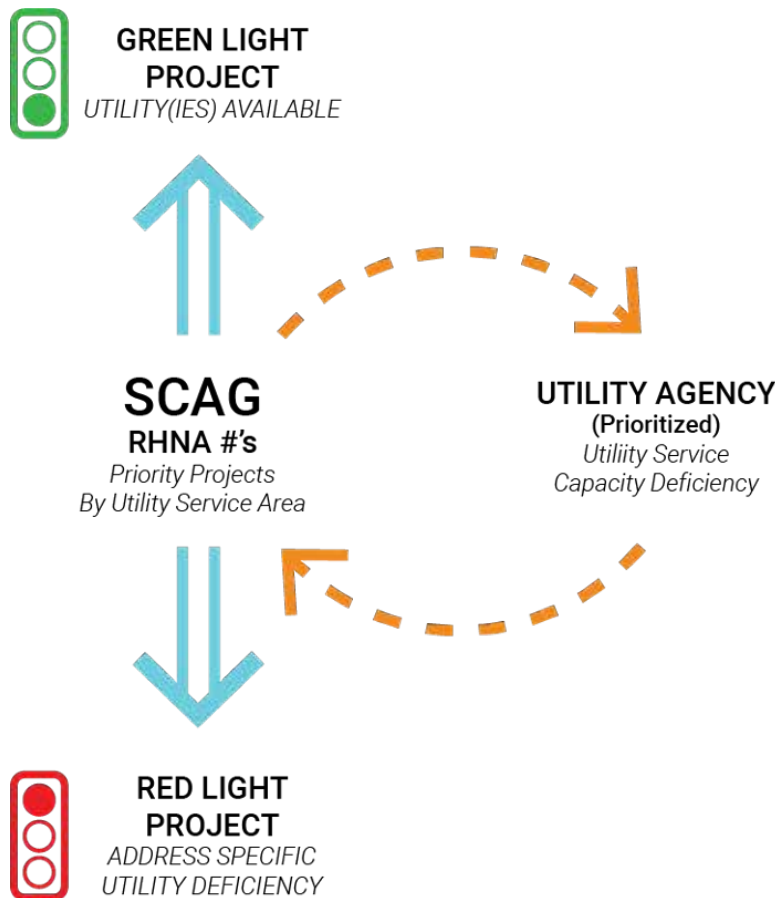
The panel further developed some ideas for mapping and analysis:

- **Red Light / Green Light Areas Map.** The example map, on the opposite page, would be a simple way to convey utility capacity as either development ready or problematic. This mapping exercise could be done for each type of utility—potable water, sewer, storm drain, and dry utilities. There could then be coordination on the targeted areas that require strategic investments to align with anticipated housing growth.

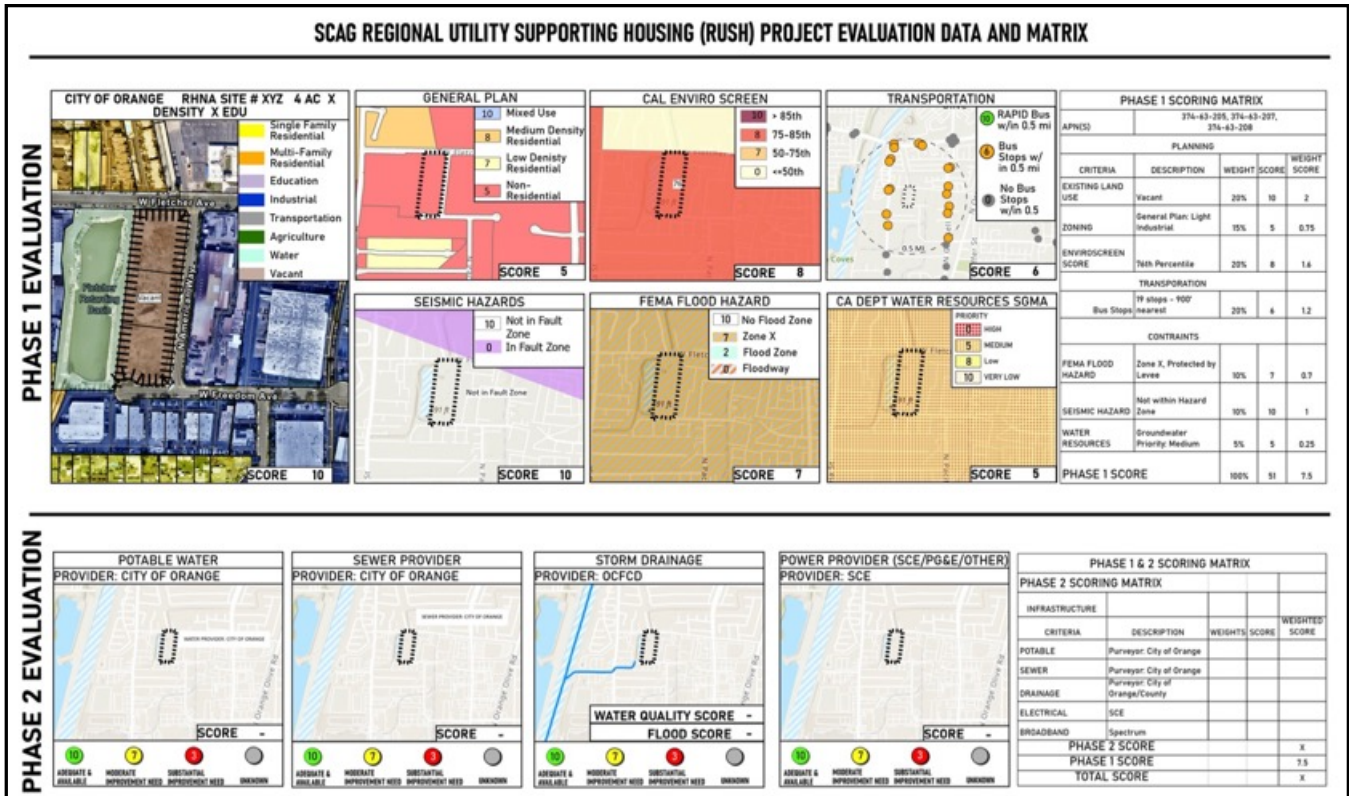
This type of map would give developers information they need before selecting project sites. They could start the conversation early with the jurisdiction and the

utility to identify any barriers to expedited processing or unexpected infrastructure upgrades. In theory, housing production in the region would quickly take advantage of the green sites while SCAG and the jurisdictions focus on the issues associated with the red or yellow sites and coordinate with the utilities accordingly. Ideally, utility upgrades or improvements would be prioritized in red and yellow areas. This type of map would also be useful in planning for future housing growth beyond the current RHNA cycle.

The graphic below illustrates how the utility agencies could be brought into the local housing element process to facilitate housing production and implementation of RHNA need.

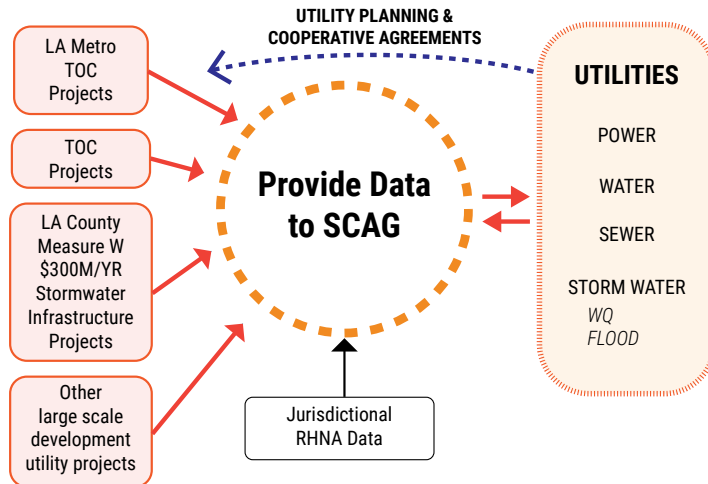


## SCAG REGIONAL UTILITY SUPPORTING HOUSING (RUSH) PROJECT EVALUATION DATA AND MATRIX



- Expanded Mapping and Decision-Making Tool.**  
 The expanded mapping graphic, above, is an illustration of all the types of data that would be helpful for analyzing and prioritizing improvements. It includes an example “score sheet” that would document how an area scored based on certain criteria, such as access to transit, disadvantaged populations, environmental hazards, etc.

Overall, this integrated planning approach could dramatically streamline the process of building housing units in the SCAG region. The graphic below illustrates an LA County specific example of the role that SCAG could play in the gathering and synthesizing of data and helping to establish cooperative agreements where needed.



**Example of the Input Process to SCAG**

## Bring Everyone to the Table

SCAG has an important role as a convening agency and thus has the ability to bring together the jurisdictions and utility agencies to address comprehensive needs for furthering housing production.

The panel identified the disconnection between how utilities typically plan for improving or increasing service and how jurisdictions plan for growth. Utilities identify infrastructure needs and set priorities independent of where growth is planned. This misalignment in planning typically has negative consequences for infill builders due to increased costs associated with upgrading infrastructure and increased time to get necessary approvals. This is especially true in older areas of the region. The increase in costs, time, and overall uncertainty results in housing that is either more expensive or not feasible to build. Some utilities, like Los Angeles Department of Water and Power, have adjusted their approach and recognize their role in supporting housing production, but most have not.

SCAG has already proven itself as a nimble convener. Historically, that experience has been leveraged to develop regional transportation plans. Many of the same stakeholders from those planning processes could be brought back to the table to focus on infrastructure. SCAG could expand upon existing relationships and invite utilities to the table. SCAG could bring together other MPOs, from the region and other parts of the state, to create an even more robust coalition. This could allow for additional advocacy on related topics, such as the workforce challenges being experienced by the utilities.

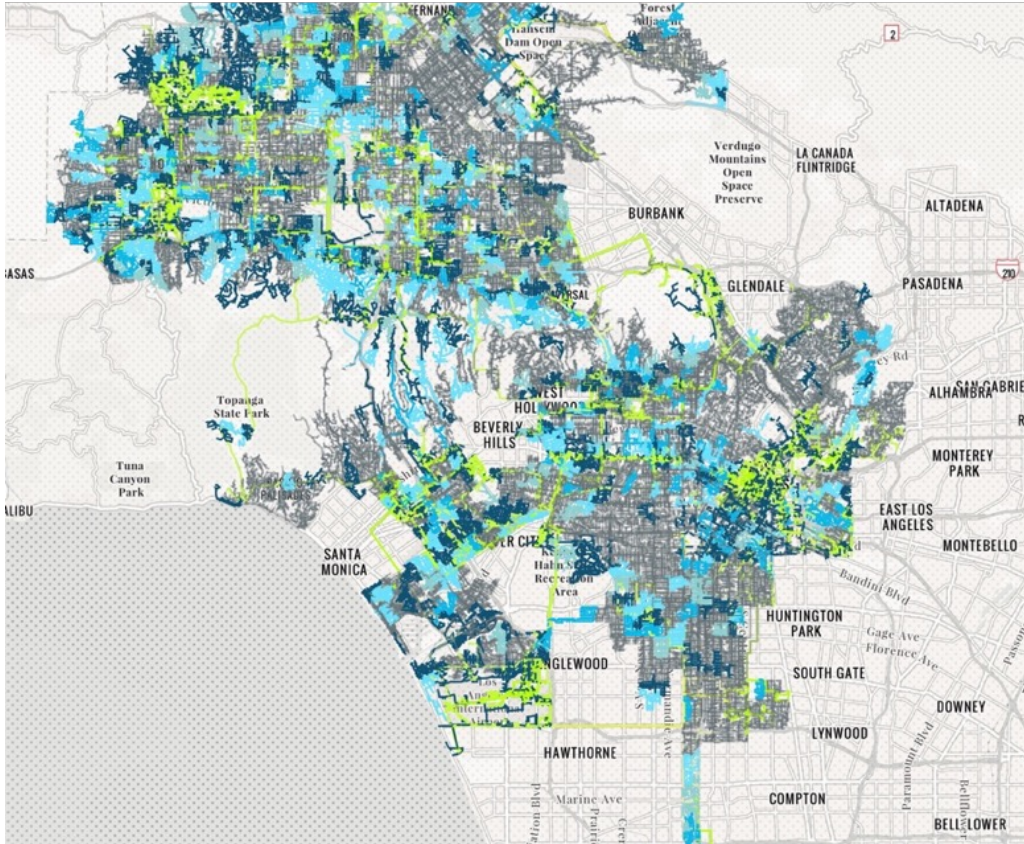
Additionally, there is a role for SCAG in convening the appropriate state utility regulators and local utility representatives to address current policies that drive the investment priorities of local utilities. There is a need to better align utility mandates and state regulations with the equally important state goals for housing production. SCAG can facilitate these conversations and lobby for utility-related policy changes at the state level that better support the near-term plans for housing across the region.

This approach could facilitate a more coordinated and strategic approach to infrastructure investment, resulting in more rapid delivery of housing.



# CASE STUDY:

## Los Angeles Department of Water and Power “Project PowerHouse”



LADWP Utility Map Example

This case study would be an excellent pilot project for SCAG to test for the recommendation of combining housing and utility map layers for increased coordination and improved results.

In March 2023, the Los Angeles Board of Water and Power directed Los Angeles Department of Water and Power (LADWP) staff to develop measures to cover the substantial cost of public right-of-way power infrastructure upgrades for 100 percent affordable and permanent supportive housing developments and to accelerate the utility’s processes and schedules for identifying an affordable housing developer’s precise power needs.

The “Project PowerHouse” pilot program ends the requirement that developers of 100 percent affordable housing pay for power infrastructure upgrades, and implements plans for faster power design services for affordable housing builders.

Developers with pending 100 percent affordable housing projects work closely with LADWP staff regarding their project’s expected power needs, and do so at the beginning of their project’s planning phase instead of near the end of the project approval timeline with L.A. City Planning.

Public right-of-way power system infrastructure improvement financial costs that were paid by affordable housing developers

are covered by LADWP through Project PowerHouse, saving developers substantial sums that typically elevate the cost of building affordable housing units.

### **Project PowerHouse achieves three objectives:**

1. Eliminates costs for routing power to the selected development projects—commonly called a “line extension”—that otherwise would be paid by a developer.
2. Determines power needs faster for developers of 100 percent affordable housing through up-front coordination with a developer’s architects.
3. Significantly shortens the time frame for LADWP approval of a development’s on-site electrical service plans.



### **The Board's Project PowerHouse motion directs LADWP staff to:**

1. Create a Power New Business Division Task Force to support all 100 percent affordable and permanent supportive housing projects.
2. Provide planning guidance through pre-development meetings for 100 percent affordable housing and permanent supportive housing projects to plan and help identify the scope of work, including possible line extensions, on-site infrastructure requirements, and clearances as well as the overall electric service process.
3. Reduce the preliminary project review phase to 10 days.
4. Propose process improvements and expedited timelines on specific project activities throughout the project's life cycle.
5. Complete electrical equipment drawings for on-site equipment within 60+/- calendar days for service planning and 90+/- days for customer station design once plans have been received and equipment locations have been agreed upon. This will require all 100 percent affordable housing, permanent supportive housing, or shelter projects to move to the top of service planning queues.
6. Prioritize all electric service representative inspections.
7. Approve overtime, weekend, and holiday work.
8. Coordinate all unhoused projects, including installing meters within 5 business days after all meter releases have been obtained.

During the Advisory Panel's investigation, panel members connected with LADWP staff, who shared their utility map and said they were ready to collaborate with SCAG and other regional entities. They requested information about housing element priority sites from other jurisdictional entities.

[Source: https://www.ladwpnews.com/l-a-water-power-commissioners-unanimously-approve-new-energy-services-policy-changes-to-speed-construction-lower-costs-for-100-affordable-housing-developments-and-permanent-supportive-units/](https://www.ladwpnews.com/l-a-water-power-commissioners-unanimously-approve-new-energy-services-policy-changes-to-speed-construction-lower-costs-for-100-affordable-housing-developments-and-permanent-supportive-units/)

[LADWP Utility Map Example - source: https://ladwp-power.maps.arcgis.com/apps/webappviewer/index.html?id=290be9aa52694ef39bf3088940079f62](https://ladwp-power.maps.arcgis.com/apps/webappviewer/index.html?id=290be9aa52694ef39bf3088940079f62)

## Lead a Multiagency Collaboration to “Dig Once”

A “dig once” approach could be used to strategically improve utilities by taking advantage of construction being planned by other agencies. An example identified by the panel is the upcoming construction of Metro’s West Santa Ana Branch light rail project. When Metro (or any transportation or utility provider) disrupts an area for construction, the infrastructure in that area is typically returned to its previous state. The construction of the West Santa Ana Branch line will impact many miles between Orange County and Union Station in Downtown Los Angeles. There is an opportunity to leverage this disruption to make upgrades in infrastructure that are needed in these areas to accommodate new housing. There is already a framework for this type of cooperation between Metro and other entities—the master cooperative agreement. Future agreements of this type could include utilities as additional entities.

## RUSH Program Implementation

With \$35 million in grant funding available for the entire region, it will be important to ensure that each grant has a meaningful impact. The distribution should include a diversity of projects and initiatives. The panel provided the following recommendations for the types of projects to prioritize:

- **Map Utility Infrastructure Constraints and Capacity.** Support the efforts of municipalities and utilities to analyze and synthesize mapping data that support strategic decision-making for infrastructure investment. Ideally, SCAG would be the home of these data sets, allowing for more seamless regional and multi-jurisdictional collaboration.
- **Capital Funding to Solve Capacity Issues at Priority Housing Sites.** Support the efforts of municipalities and utilities to increase infrastructure capacity in areas identified for housing. Prioritize projects in historically underserved areas and/or projects that bring underserved populations into high amenity areas. Also consider whether there is an opportunity to leverage grants with other sources of funding (from SCAG or other entities). Identify whether other utility issues could also be addressed as part of the grant, benefiting more users and building a broader constituency of support.
- **Pilot Projects for Technologically Innovative Infrastructure Solutions.** Ultimately, there needs to be a shift in how utilities and jurisdictions approach infrastructure investment. This is especially true with the rapid rate of electrification. Grant funds could be prioritized for applicants who are developing innovative and unique solutions to filling gaps in infrastructure, some examples of which are in the following table.

## Examples of Innovative Infrastructure Solutions

**Net Zero Energy Design.** Net-zero energy is when a building is able to offset or counterbalance the amount of energy required to build and operate it throughout its lifetime in all aspects of the site, source, cost, and emissions. In other words, the building is able to produce enough energy to cancel or “zero out” the amount of energy it takes to operate daily.

Source: <https://www.archdaily.com/977740/what-is-net-zero-architecture>

**Power Demand Management.** Demand response provides an opportunity for consumers to play a significant role in the operation of the electric grid by reducing or shifting their electricity usage during peak periods in response to time-based rates or other forms of financial incentives. Demand response programs are being used by some electric system planners and operators as resource options for balancing supply and demand. Such programs can lower the cost of electricity in wholesale markets, leading to lower retail rates. Methods of engaging customers in demand response efforts include offering time-based rates such as time-of-use pricing, critical peak pricing, variable peak pricing, real-time pricing, and critical peak rebates. It also includes direct load control programs so that power companies can cycle air conditioners and water heaters on and off during periods of peak demand in exchange for a financial incentive and lower electric bills.

Source: <https://www.energy.gov/oe/demand-response>

**Battery Storage.** A battery energy storage system (BESS) collects energy from the grid or a power plant, then discharges that energy later to provide electricity or other grid services when needed.

Source: <https://www.nrel.gov/docs/fy19osti/74426.pdf>

**Microgrids.** A microgrid is a group of interconnected loads and distributed energy resources that act as a single controllable entity with respect to the grid. It can connect and disconnect from the grid to operate in grid-connected or “island” mode. Microgrids can improve customer resilience to grid disturbances.

With advanced microgrids, local power generators—including traditional generators, renewables, and storage—can keep the local grid running even during interruptions in the larger grid or, in remote areas, without connection to the larger grid. Local generators can work together with advanced microgrids to save costs, extend the duration of energy supplies, and produce revenue via market participation.

Source: <https://www.nrel.gov/grid/microgrids.html>

**Distributed Stormwater.** A stormwater harvest and reuse system captures and retains stormwater for beneficial use at a different time or place than it was generated.

Source: [https://stormwater.pca.state.mn.us/index.php/Overview\\_for\\_stormwater\\_and\\_rainwater\\_harvest\\_and\\_use/reuse](https://stormwater.pca.state.mn.us/index.php/Overview_for_stormwater_and_rainwater_harvest_and_use/reuse)

**Greywater Reuse.** Greywater, also spelled gray water, is water that already has been used domestically, commercially, or industrially. This includes the leftover, untreated water from washing machines, bathtubs, and bathroom sinks.

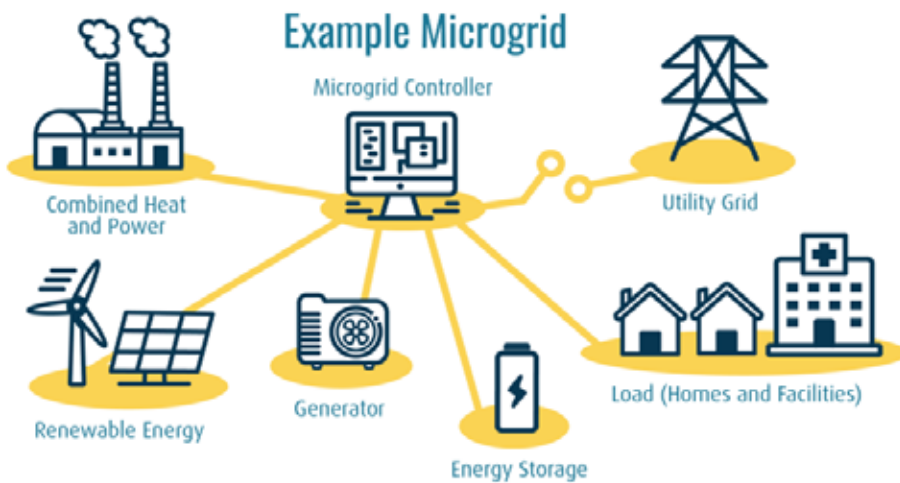
This water source is one way to stretch urban water supplies and is particularly beneficial during droughts when outdoor water use is restricted. Greywater reuse systems can help take the stress off municipal water supplies by replacing some of the water that would otherwise have been used for outdoor irrigation.

The typical household grey water system “harvests” water from washing machines and pipes it outside to be used on ornamental plants and fruit trees. Depending on the model of the washing machine, one load of clothes can produce 15 to 40 gallons of grey water, more than enough to keep most trees and plants alive throughout the year. More advanced systems can pipe grey water over an extended area like a lawn or flower bed.

Source: <https://www.watereducation.org/aquapedia/gray-water>

**Climate Resilience.** Climate resilience is a way to protect ourselves from the effects of extreme climate events—such as rising sea levels, wildfires, erosion, hurricanes, and extreme heat. Scientists start with climate modeling, that is, projecting climate patterns decades into the future. They use 3D models of the earth’s climate system to create maps showing how climate will evolve and ways that it could impact communities. With these models, communities can prepare for the particular climate hazards they face, thus gaining climate resilience.

Source: <https://www.anl.gov/science-101/climate-resilience>



## Equity Considerations

Equity must be a central focus for distributing RUSH Program funds. Equity could mean investing in historically marginalized communities as well as bringing affordable units into high amenity locations. And equity considerations should go beyond the metrics of CalEnviroScreen to include other important indicators for prioritizing housing element sites. Grants should be provided to urban, suburban, and rural areas so that solutions will be discovered and tested at various scales and in different environments.

Other equity criteria that can be used include:

- Percentage of affordable housing units to be delivered: Projects with a higher percentage of affordable units should be prioritized by the funding.
- Qualified Census Tracts (QCT): A common, readily accessible, and geographically granular method of identifying communities with a large proportion of low-income residents.
- Age of housing/infrastructure: Locations with older housing and infrastructure should be ranked with a higher priority.

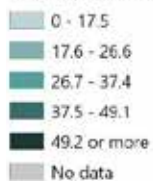
## Other Grant Funding Considerations

- Entitled projects: Priority should be given to sites and projects that are already entitled. This will allow for more rapid delivery of housing units.
- Within area of need: As noted, this could mean historically disadvantaged communities but should not be limited to these areas because there are broad ways to define need.
- Addresses multiple issues: Since the grant amount is relatively small, distribution of these funds should solve multiple problems. For example, it should facilitate capacity upgrades as well as solve technical challenges.
- Leverages other funding: For these funds to be most effective, they should be combined with other state, regional, and local funding sources.

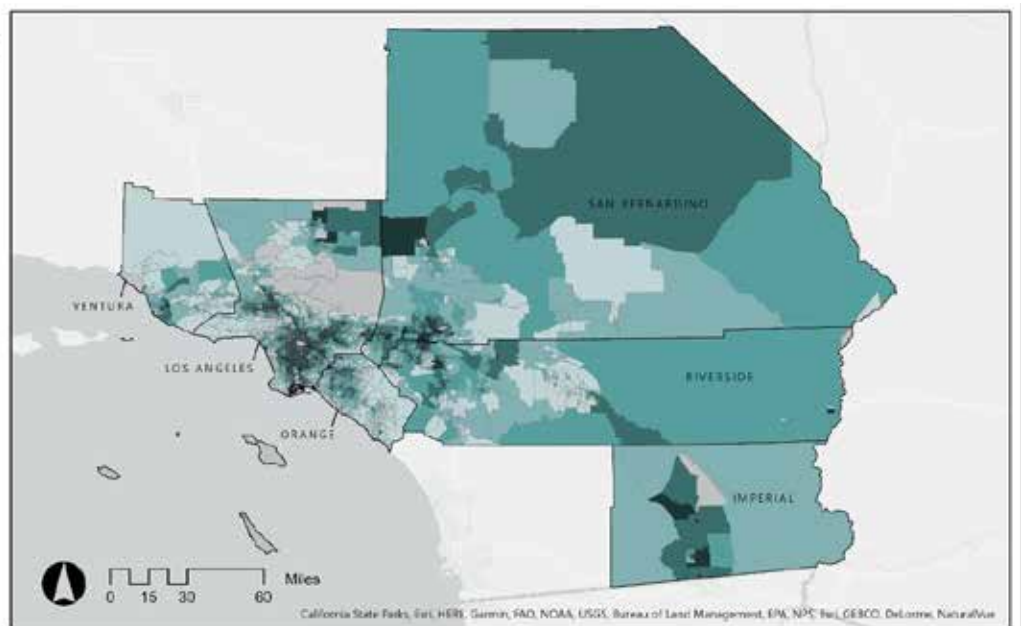
## CalEnviroScreen 4.0 Score

A weighted value that considers pollution burden indicators and population characteristics. An area with a high score is one that experiences a much higher pollution burden than areas with low scores.

CalEnviroScreen 4.0 Score



CalEnviroScreen 4.0, SCAG  
Date: 10/12/2022



CalEnviroScreen 4.0 Score in the SCAG Region



# CONCLUSION

Although the utility provider and ownership structure are a complex web in the SCAG region, the panel was able to identify common challenges in the industry in terms of being prepared to accommodate the planned and desired housing production. The recommendations focused on what SCAG can do to start better aligning housing priorities with utility priorities, from the state level to ground-level investment decisions. Some of these challenges are endemic to the regulatory structure/bureaucracy, but others are more simply about breaking down silos and improving coordination. The SCAG RUSH Program offers an opportunity to undertake some of these recommendations. SCAG has an important role as a convener in the region. Bringing everyone to the table is a good way to start the process of becoming a clearinghouse for all utility mapping data related to planned housing growth.

One local utility, LADWP, has already built and shared its map to illustrate what its needs are. If every utility did the same and the housing data layer was added, the region would have a powerful tool that could help target resources more efficiently and effectively.

The panel recommends distributing the \$35 million to a limited number of applicants—1 rural, 1 suburban, and 1 urban. This would allow for the most impact as well as an opportunity for different solutions in different environments.



Ultimately, the panel urges all stakeholders around this issue to think bigger. The process for making decisions about infrastructure needs a paradigm shift, especially because we need to adapt to climate change. As SCAG selects RUSH applicants, it should prioritize applications that:

- Align housing planning and utility planning.
- Ensure infrastructure is housing ready.
- Prioritize equitable investment.
- Include investments in sustainable and resilient infrastructure.
- Support innovation.

Complexity requires complete transparency and collaboration. Replicable innovation, creativity, efficiency, and social equity will come from seeding-focused, localized stakeholder efforts.

The more complex an endeavor, the more transparent and collaborative it needs to be. If we are to achieve efficiency and social equity, we need to foster innovation and creativity from the local level up.

# ACKNOWLEDGMENTS

## Special Thanks

The panel is thankful for the commitment and participation of stakeholders especially all of the individuals who were interviewed or provided valuable information and perspective during the process.

### **Rowena Lau**

LASAN

### **Anthony Nyivih**

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### **Michael Ruane**

VP, National Core

### **Mark Esguerra**

SoCal Edison

### **Jodie Lanza**

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### **Jenna Hornstock**

City of LA

### **Ian Gabriel**

Lift to Rise

### **Ted Bardacke**

Clean Power Alliance

### **Michael Hurley**

Inland Empire Utilities Agency

### **Tim Lindholm**

LA Metro, Deputy Chief Program Management Officer

## About the Southern California Association of Governments

Founded in 1965, the Southern California Association of Governments is a joint powers authority under California state law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is a designated metropolitan planning organization under state law as well as a regional transportation planning agency and a council of governments.

The SCAG region encompasses six counties and 191 cities in an area covering more than 38,000 square miles. The agency develops long-range regional transportation plans, including sustainable communities strategy and growth forecast components; regional transportation improvement programs; regional housing needs allocations; and a portion of the South Coast Air Quality Management Plans.

In 1992, SCAG expanded its governing body, the Executive Committee, to a 70-member Regional Council to help accommodate new responsibilities mandated by the federal and state governments as well as to provide a broader representation of Southern California's cities and counties. With its expanded membership structure, SCAG created regional districts to provide for more diverse representation. The districts were formed with the intent to serve equal populations and communities of interest. Currently, the Regional Council consists of 86 members.

In addition to the six counties and 191 cities that make up SCAG's region, six County Transportation Commissions hold the primary responsibility for programming and implementing transportation projects, programs, and services in their respective counties. Additionally, SCAG by-laws provide for representation on the Regional Council and Policy Committees by Native American tribes and air districts in the region.

## About the Urban Land Institute

The Urban Land Institute is a global, member-driven organization comprising more than 45,000 real estate and urban development professionals dedicated to advancing the Institute's mission of shaping the future of the built environment for transformative impact in communities worldwide. ULI's interdisciplinary membership represents all aspects of the industry, including developers, property owners, investors, architects, urban planners, public officials, real estate brokers, appraisers, attorneys, engineers, financiers, and academics.

Established in 1936, the Institute has a presence in the Americas, Europe, and Asia Pacific region, with members in 81 countries. ULI's extraordinary impact on land use decision-making is based on its members sharing expertise on a variety of factors affecting the built environment, including urbanization, demographic and population changes, new economic drivers, technology advancements, and environmental concerns.

Peer-to-peer learning is achieved through the knowledge shared by members at thousands of convenings each year that reinforce ULI's position as a global authority on land use and real estate. Drawing on its members' work, the Institute recognizes and shares best practices in urban design and development for the benefit of communities around the globe.

## About ULI Los Angeles

As the preeminent multidisciplinary real estate forum, ULI facilitates the open exchange of ideas, information, and experience among local, national, and international industry leaders and policymakers dedicated to creating better places.

A district council of the Urban Land Institute, ULI Los Angeles is a nonprofit education and research institute with more than 1,900 members in the Greater Los Angeles area. As a nonpartisan organization, ULI has long been recognized as one of America's most respected and widely quoted sources of objective information on urban planning, growth, and development.

The membership of ULI-LA represents the entire spectrum of land use and real estate development disciplines. They include developers, builders, investors, architects, public officials, planners, real estate brokers, appraisers, attorneys, engineers, lenders, academics, and students.

## About PlaceWorks

PlaceWorks is one of the West's most eminent planning, design, and environmental consulting firms serving communities. The firm serves both public- and private-sector clients in the fields of comprehensive planning, urban design, landscape architecture, environmental analysis and sciences, and GIS. Founded in 1975, PlaceWorks now employs a staff of approximately 140 people in six offices. Their broad experience and technical proficiency have given them a keen understanding of the complexities of public policies, project designs, and legal requirements.



ULI & PlaceWorks Advisory Panel Partnership with SCAG

