SAN DIEGO COMMUNITY POWER

Community Power Plan

A five-year strategic plan for customer energy program offerings

May 2023

Note from Arup

This plan was developed by Arup US, Inc. in close coordination with San Diego Community Power. All recommendations in this plan are from Arup. The project was led, and the plan was developed by Heather Rosenberg and Ann Dennis. Special thanks to Sahar Abbaszadeh, Bond Harper, Cole Roberts, Kaiya Levine, Karuna Phillips, Maggie Messerschmidt, and Brittany Moffett for their contributions to the project.

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Thank you!

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Executive Summary

Introduction

San Diego Community Power (SDCP), a community-based provider of clean energy, created this Community Power Plan ("Plan") to provide strategic direction for developing customer energy programs over the next five years. As a not-for-profit public agency, SDCP is committed to developing a suite of customer energy programs that respond to community needs, with a focus on Communities of Concern.

The process of developing the Plan included the following steps, which are overviewed in the sections below:

Community Needs Assessment
Chapter 2

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Community Needs Assessment

The community needs assessment was a fundamental piece of the Plan. Between May and November 2022, SDCP heard from more than 3,450 community members through listening sessions, workshops, pop-up events in harder-to-reach communities, and a customer-wide survey. This helped SDCP understand the challenges, needs, goals, and priorities that could be addressed through customer energy programs. Throughout the community engagement process, SDCP prioritized equity and Communities of Concern. Additionally, SDCP sought to develop foundational partnerships with community-based organizations.

Engagement Method	Estimated Number Engaged
Community-Based Organization Co-Hosted Listening Sessions (2 Rounds)	325
Business, Key Stakeholders, and Public Listening Workshops	45
Unincorporated San Diego County Pop-Up Events	100
Community Needs Survey	2,980
Total	**3,450**

During the community needs assessment, SDCP's leadership—the Board of Directors, Community Advisory Committee, and staff—was also engaged to further explore the opportunities for SDCP to meet community needs through its program offerings. All the input received throughout the community and organizational engagement was used to identify key priorities that were later incorporated into a program prioritization framework tool. The program prioritization tool and community and organizational priorities helped in the evaluation of potential programs recommended in this Plan and served as important context for SDCP for future program design.

San Ysidro community members participating in a listening session co-hosted by Casa Familiar.

San Ysidro community members participating in a listening session co-hosted by Casa Familiar.

North Park community members participating in a listening session co-hosted by Art Produce.

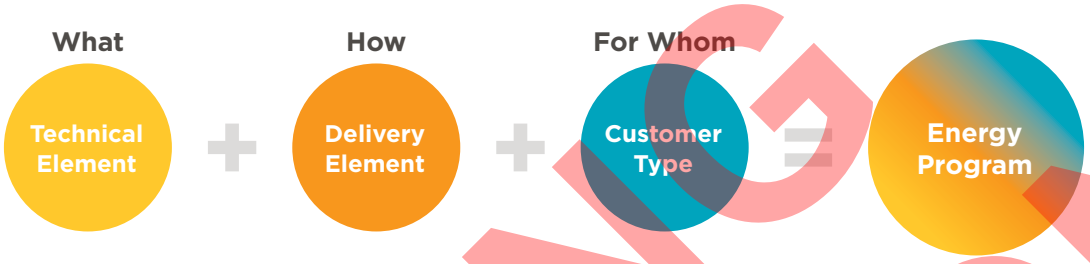
What We Heard During Initial Engagement

Community Priorities	Organizational Priorities
Reducing my energy bill	Increasing energy awareness and education
Addressing climate change by reducing greenhouse gas emissions	Maintaining financial stability
Creating good, well-paying jobs in the energy sector	Making investments in Communities of Concern and keeping energy affordable
Getting rewarded to adjust when I use energy	Managing load flexibility
Breathing cleaner air in my home or business	Maximizing infill solar and energy storage
Reducing air pollution in my community	Visibly showing benefits to customers by investing back into the community
Creating opportunities for Communities of Concern to participate in the clean energy transition	
Building more rooftop solar instead of large systems in remote areas	
Keeping the power on at my home or business	

Program Market Assessment

To understand the universe of existing energy programs available to customers throughout California and learn about best practices for program implementation, a program market assessment was conducted. As part of the assessment, program offerings from other community choice aggregators, state and regional agencies, nonprofits, and San Diego Gas & Electric (SDG&E) were assessed to compile a database of more than 200 programs. Programs were analyzed for similarities and differences and how they are delivered. These programs were distilled into their core characteristics as described below.

Programs generally follow a basic structure: they provide support to implement a specific action ("what") through a specific type of mechanism ("how") for a specific type of customer ("for whom"):



The program database included a range of technical elements (e.g., energy efficiency, building electrification) and delivery mechanisms (e.g., rebates, application assistance). Program options were evaluated for two customer types: if the program is available to all customer classes or is specifically targeted at low-income or customers in disadvantaged communities (referred to as Communities of Concern throughout this Plan). Program options were also evaluated across three market sectors (i.e., residential single-family, residential multi-family, and commercial).

Program Prioritization Framework

A program prioritization framework tool was developed to inform which programs best align with the key community and organizational priorities identified during the community needs assessment in a quantitative, consistent, and transparent way. The first step in the process involved creating a new list of 70 programs unique for SDCP based on the 200 programs analyzed to streamline further analysis. The resulting list represented programs that might align with community and organizational priorities but are not currently available to customers in SDCP's service territory (i.e., program gaps), as well as programs that are currently available but could be better delivered to customers. The program prioritization framework tool quantified each of the 70 program options' ability to support the identified community and organizational priorities for each market sector (i.e., residential single-family, residential multi-family, and commercial). The top 20 programs from each market sector were then aggregated into more general program types and analyzed for funding availability.

Program Funding Sources

There are two main ways that SDCP can fund programs—through its own internal revenues or by applying for external funding. Funding programs with internal revenues would provide the greatest amount of flexibility for SDCP to design programs in ways that specifically meet community needs; however, as a newer organization, SDCP must also balance building a strong financial foundation, meeting reserve targets and other organizational priorities. In the short-term, the amount of revenues SDCP can direct to customers in the form of programs will be limited, but that amount is expected to grow over time.

While building reserve funds and to have maximum impact, SDCP will need to pursue external funding from sources such as state and federal agencies. External funding takes more work to apply for and administer and is less flexible than using internal revenues, but the total dollar amounts from external sources can be much higher. The main sources of external funding include the California Public Utilities Commission and California Energy Commission, as well as other state and federal agencies. The federal Infrastructure Investment and Jobs Act and the Inflation Reduction Act will also create new funding sources, likely delivered through these same state agencies.

Program Recommendations

The process of program prioritization provided a list of program options that align with community and organizational priorities. There are more program types on list than SDCP can deliver in five years and therefore the list of program types should not be seen as a "to-do" list. Instead, the list provides SDCP with the confidence to target a core set of program types focused on community needs. It also gives SDCP the flexibility to co-design programs with community partners and to be responsive to external funding opportunities as they emerge.

SDCP is committed to supporting populations historically underrepresented in energy program participation and receiving associated benefits. As such, SDCP will commit at least **50% of a program's non-administrative budget**, to the extent allowed by funding sources, to participation from Communities of Concern. SDCP will center Communities of Concern in program design to enable participation by all customers. It's important to note that while SDCP will follow the commitment with internal funds, it may not be possible with external funds due to specific rules and regulations.

Prior to the development of this Plan, SDCP established a **Net Energy Metering** program for customers that generate renewable energy onsite, and a **Feed-In Tariff** program that incentivizes local, small-scale renewable energy generating projects.

As a result of this Plan, in the **short-term** (FY 23/24 – FY 24/25), SDCP should focus on developing the following types of programs:

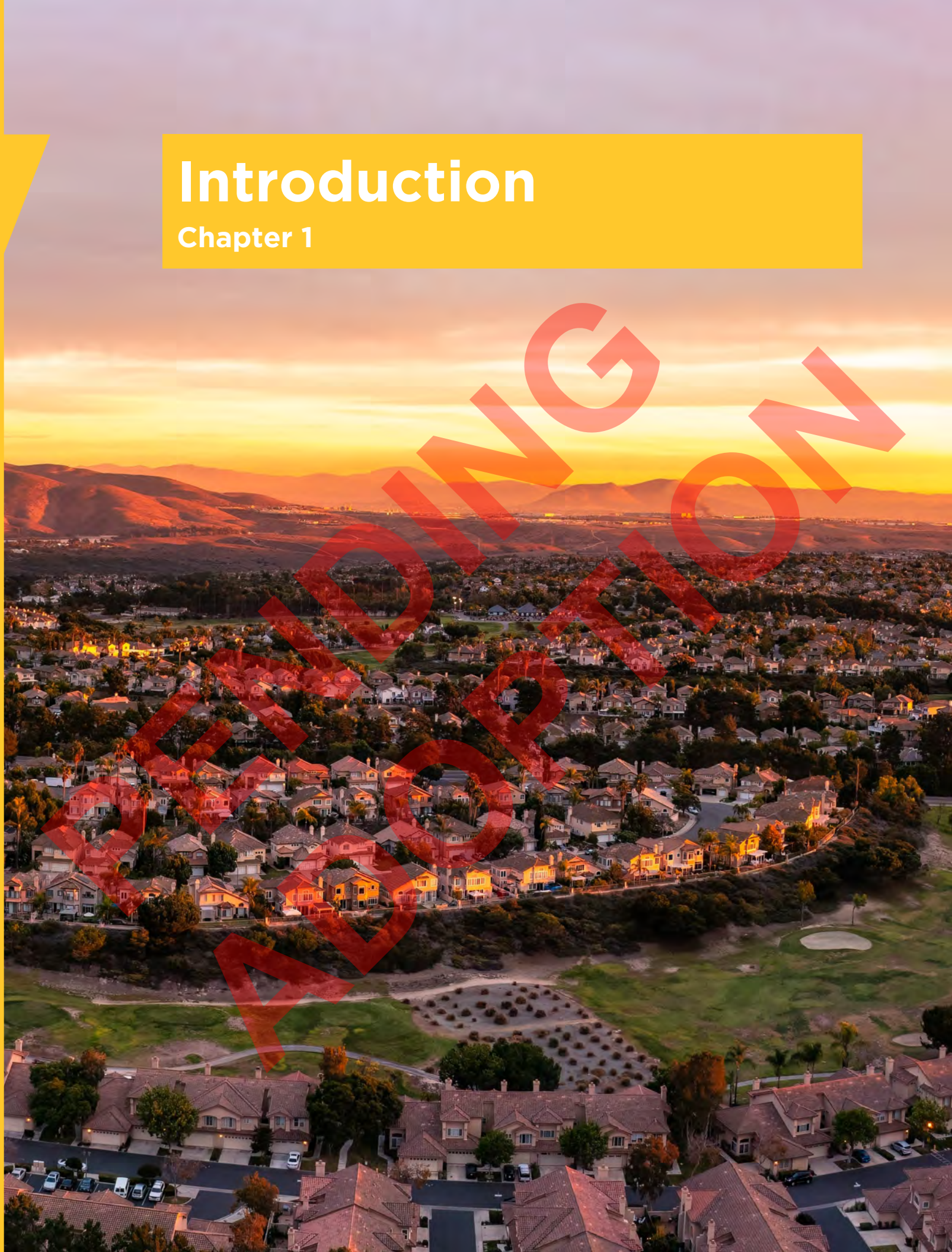
1. **Energy Awareness and Education** to boost understanding of energy issues and increase participation in energy programs available to SDCP's customers and workforce.
2. **Application Assistance** to support customers in pursuing existing third-party programs offered by other entities, including SDG&E and state and federal agencies.
3. **Disadvantaged Communities Green Tariff and Community Solar Green Tariff** to bring the benefits from local solar projects to those who may not be able to install solar on their roofs and offer a 20% bill discount to eligible residential customers in state-defined disadvantaged communities.
4. **Pilot Programs** to test out program concepts and support implementation of high-impact projects that SDCP may be able to scale with more funding.
5. **Grant Programs** to implement innovative program ideas from community-based organizations or specific clean energy projects that help SDCP's member agencies achieve their climate action goals.

In the **mid-term** (FY 25/26 – FY 26/27), SDCP should explore opportunities to deploy some of the following program types. SDCP may be able to deploy some of these program types sooner if funding and opportunities exist. The below list is meant to provide flexible guidance for SDCP to deploy a transformative suite of customer energy programs over time and does not commit SDCP to a specific program design or delivery mechanism.

6. **Building Electrification: Appliances** to encourage replacement of natural gas equipment such as stoves and clothes dryers.
7. **Building Electrification: Heat Pump Technology** to incentivize installation of electric space heating and cooling, and water heating to achieve building electrification.
8. **Distributed Energy Resources: Energy Storage Systems** to incentivize installation of energy storage (such as batteries) in combination with onsite solar systems.
9. **Distributed Energy Resources: Demand Response** to incentivize both behavior and installation of controls that help reduce peak energy demand from the grid and enable more efficient use of renewable energy when it is available.
10. **Energy Efficiency** to reduce the amount of energy customers use, improve indoor comfort, and lower energy bills.
11. **Transportation Electrification: Infrastructure** to support installation of electric vehicle charging stations and related technologies.
12. **Transportation Electrification: Light-Duty Vehicles** to incentivize the adoption of electric cars with a focus on Communities of Concern.
13. **Transportation Electrification: Medium- and Heavy-Duty Vehicles** to support the conversion of fleet vehicles including school and transit buses and drayage trucks.

Introduction

Chapter 1



1 Introduction

San Diego Community Power (SDCP) is a local, not-for-profit public agency that provides affordable, reliable electricity from renewable resources. As a community-based clean energy provider, SDCP is committed to providing local energy programs that meet community needs. To accomplish this, SDCP developed this five-year strategic document called the Community Power Plan (referred to as "the Plan" or "Plan") to provide guidance on the types of energy programs that will best meet community needs based on an extensive community engagement process. The Plan reflects SDCP's commitment to invest in programs and initiatives that align with the priorities, needs, and goals of the community, with a focus on Communities of Concern.

Communities of Concern are defined as communities identified by California Climate Investments (Assembly Bill 1550 and Senate Bill 535) that includes disadvantaged communities identified by CalEnviroScreen 4.0 and low-income communities and households with incomes either at or below 80% of the statewide median or below a threshold designated as low-income by the Department of Housing and Community Development, as well as the additional census tracts identified by the cities of San Diego and Chula Vista through their Climate Equity Index reports. Specifically, the City of San Diego identified these census tracts as areas with very low, low, and moderate access to opportunity. Meanwhile, the City of Chula Vista defined them as the top 25% scoring areas within its own analysis. If other member agencies were to identify additional census tracts in the future as the cities of San Diego and Chula Vista have, SDCP would recognize those designations under the umbrella of Communities of Concern.

1.1 What is San Diego Community Power?

SDCP is a local provider of electricity in the San Diego region that serves over 960,000 electric customer accounts. It provides service to the cities of Chula Vista, Encinitas, Imperial Beach, La Mesa, National City, and San Diego, and the unincorporated communities of the County of San Diego (Figure 1).

SDCP is governed by a Board of Directors that includes one elected official from each member agency and is supported by a Community Advisory Committee that includes two community representatives from each member agency.

SDCP was formed in 2019 as a community choice aggregator (CCA) to purchase energy on behalf of its communities. As a community provider of clean electricity, SDCP has the opportunity to support energy efficiency and decarbonization programs, develop more local renewable energy resources in the San Diego region, and invest in innovative, clean technologies and energy-related job training. SDCP currently supplies 50% renewable energy through its PowerOn service offering and provides an optional service offering for 100% renewable energy called Power100. SDCP is committed to providing 100% clean and renewable energy to all customers by 2035 or sooner—the most aggressive commitment of any CCA in California and the first to define it in its Joint Powers Authority Agreement.

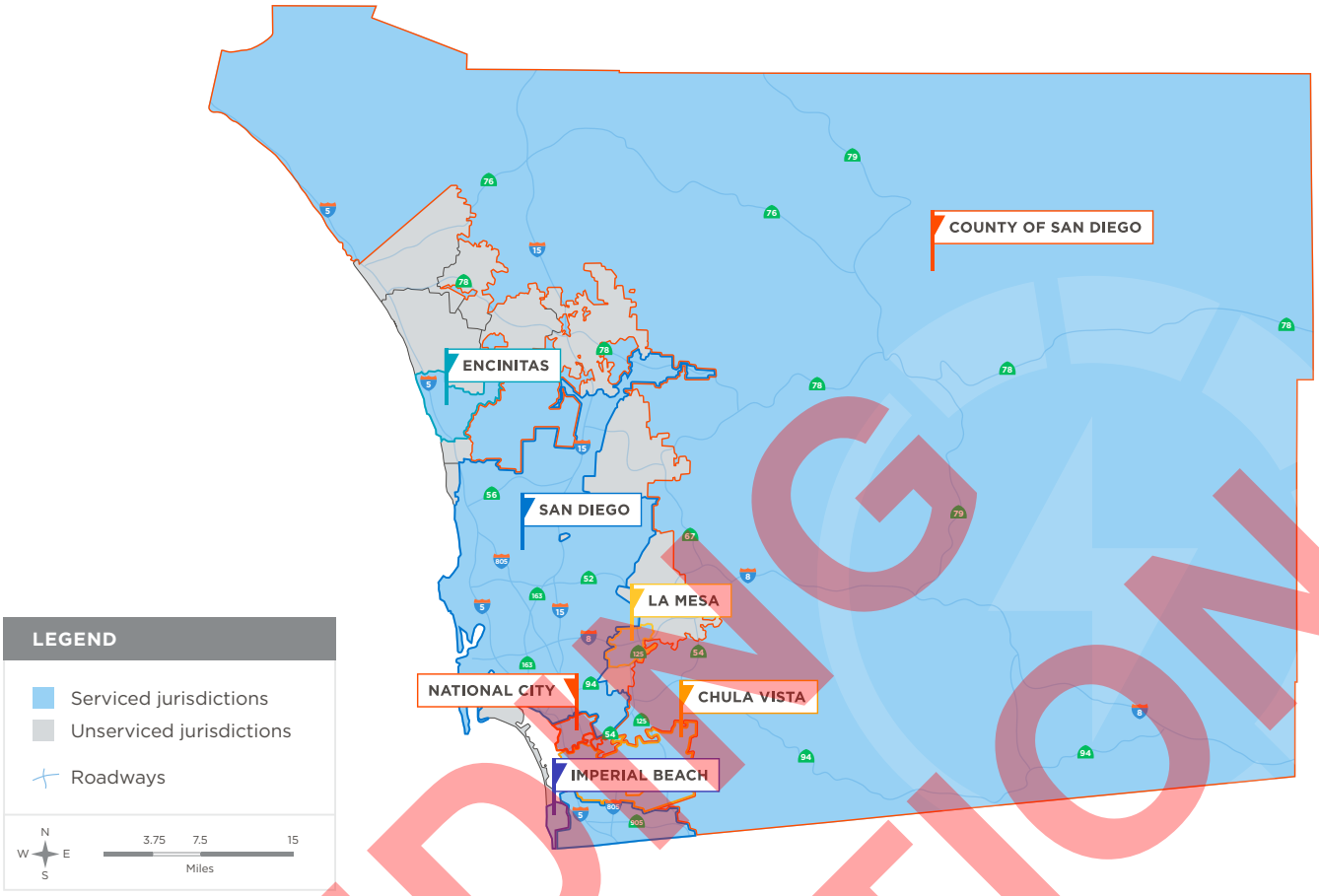
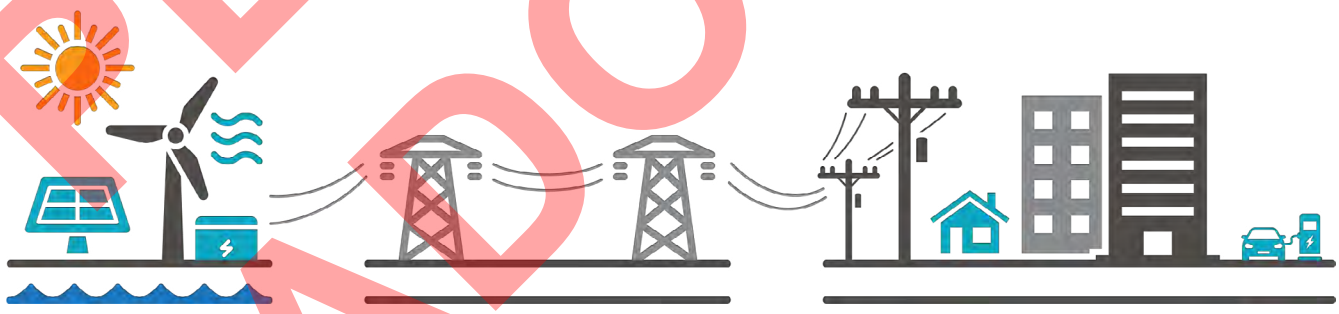


Figure 1. SDCP member agencies

SDCP is different from traditional investor-owned utilities in that it does not own or operate the energy grid—that is still handled by San Diego Gas & Electric (SDG&E). Instead, SDCP purchases the energy needed to supply its customers by contracting directly with renewable energy providers. This introduces competition and more local control into the energy market, allowing SDCP to negotiate for cleaner and more local energy at competitive rates, and to reinvest revenues in community projects and programs (Figure 2).



SDCP
Buys electricity from renewable sources

SDG&E
Delivers power and maintains the grid

You
Cleaner power, local control and competitive rates

Figure 2. How SDCP works

1.2 San Diego Community Power's Commitment to Equity

SDCP's founding document—the Joint Powers Authority Agreement—established SDCP's commitment to equity by pursuing "purposeful and focused investment in Communities of Concern, prioritization of local renewable power, workforce development, and policies and programs centered on economic, environmental, and social equity." SDCP's goal is to provide affordable, clean energy and invest in the community to create an equitable and sustainable future for the San Diego region.

With this commitment in mind, equitable and inclusive engagement methods were integrated throughout the community engagement conducted during the development of this Plan. These methods seek to acknowledge, understand, and address the implications that the differences in individuals' and communities' backgrounds have in the engagement process. These methods are also mindful and responsive to societal inequities, underserved communities, and unequal environmental impacts on communities. Specific equitable and inclusive engagement methods that were undertaken during the development of this Plan are described in the community needs assessment (Chapter 2).

1.3 What is an Energy Program?

Energy programs broadly refer to reinvestments in the community in various forms, such as through financial incentives, rebates, and education, to achieve energy reduction or sustainability goals. In general, energy programs are designed to help customers take action by lowering the cost of such action, reducing the barrier(s) to acting, or otherwise making it easy for the action to be accomplished. An example of an energy program is providing an incentive or up-front funds to customers to reduce the cost of switching from natural gas to electric equipment.

1.4 About the Community Power Plan

The purpose of this Plan is to help SDCP better identify the types of customer energy programs that should be prioritized over the next five years to best serve its communities and meet other organizational goals. To accomplish this, SDCP created a Plan that:

1. Engaged with communities across SDCP's service territory to learn about customer values, needs, and priorities;
2. Evaluated and prioritized program options based on customer priorities; and
3. Developed strategic direction for SDCP to guide the development of individual programs over the next five years.

SDCP assembled a project team for the Plan, referred to throughout this document as "the team", that included SDCP Program staff, energy and strategic planning advisors, community engagement specialists, language justice experts and translators, and members of SDCP's Community Advisory Committee. The team designed an ambitious community engagement process that was paired with technical analysis to narrow down potential customer energy programs that could be implemented by SDCP.

This Plan is not a prescriptive document, meaning it does not lock SDCP into a defined set of energy programs. Rather, the Plan aims to communicate the methodology that was used to capture community input and how that input informed the list of program types that are most likely to respond to community needs. **The Plan offers context and strategic guidance to support SDCP in selecting and developing a strong portfolio of programs.**

1.5 Organization of the Community Power Plan

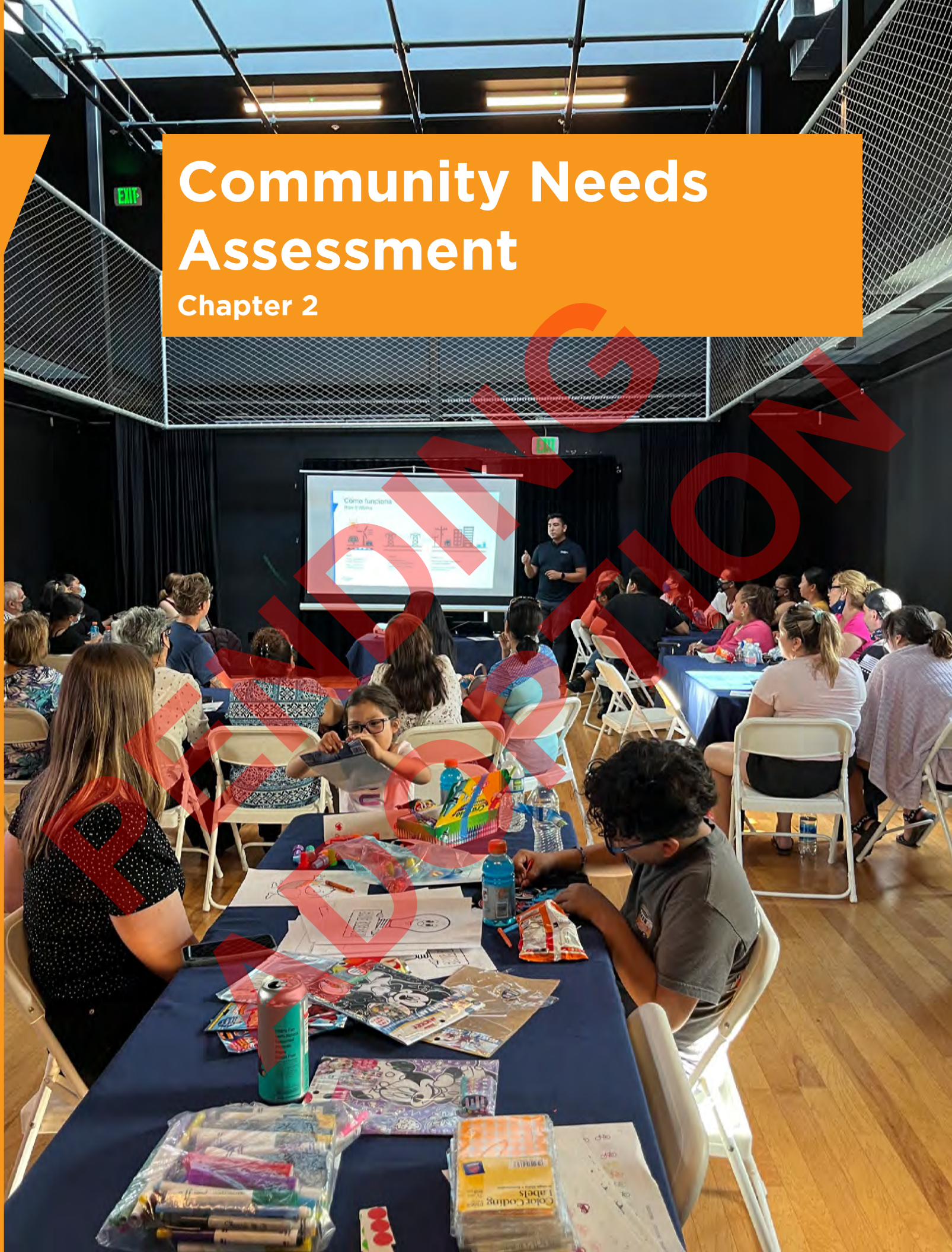
The sections in this document are structured to follow the process the team undertook to develop the Plan (Figure 3). An overview of each of the chapters is below.

- **Chapter 2 – Community Needs Assessment:** The process and findings from the community and organizational engagement process that provided insight into values, needs, and priorities.
- **Chapter 3 – Program Market Assessment:** The process for gathering and reviewing the universe of existing customer energy programs that formed a toolbox that the team assembled to align with and address community needs.
- **Chapter 4 – Program Prioritization Framework:** The framework for scoring a program's contribution to community and organizational priorities and ranking the programs from highest to lowest priority.
- **Chapter 5 – Program Funding Sources:** The assessment of available funding sources to select and phase programs appropriately.
- **Chapter 6 – Program Recommendations:** The set of program types recommended from this strategic framework.

Figure 3. Community Power Plan process

Community Needs Assessment

Chapter 2



2 Community Needs Assessment

The community needs assessment is the result of engaging with more than 3,450 community members through listening sessions, workshops, pop-up events in harder-to-reach communities, and a customer-wide survey between May and November 2022. The purpose of the community engagement process was to learn the values, needs, and priorities of SDCP's communities and in turn, utilize the input to inform future program offerings that respond to community needs. During this time, the team also engaged with SDCP's leadership—the Board of Directors, Community Advisory Committee, and staff—to further explore the opportunities for SDCP as an organization to meet community needs through its program offerings.

This chapter provides an overview of the community and organizational engagement process, including how SDCP prioritized Communities of Concern and other communities that have historically been underrepresented in decision-making processes, and key themes and findings of the community needs assessment.

Pop-up outreach in Dulzura, CA, an unincorporated community in San Diego County.

North Park community members participating in a listening session co-hosted by Art Produce.

2.1 Community Engagement Process

The community engagement process provided SDCP a key opportunity to hear directly from community members and to build relationships with community partners. SDCP is invested in developing and maintaining relationships with community partners so that community input can continue to inform future program design and implementation. The community engagement process conducted as part of this Plan should therefore be viewed as a key step in establishing an on-going relationship with the community, rather than as a one-time process.

Southeast San Diego community members participating in a listening session co-hosted by Project New Village at their Health & Healing Summerfest event.

2.1.1 Prioritizing Equity and Communities of Concern

SDCP is committed to making equity central to any community engagement conducted and to this Plan. To undertake meaningful equitable and inclusive engagement, SDCP prioritized partnering with, and providing compensation to, local community-based organizations that work directly with community members in Communities of Concern and can advocate for their collective needs. Specific equitable and inclusive engagement principles that were integrated into the community engagement for this Plan are noted below.

Minimizing obstacles

The team implemented engagement strategies that were responsive to people's different needs, circumstances, and/or varying experiences interacting with public agencies to build comfort and trust. The team employed strategies and activities that minimized obstacles to participation, including the amount of time required for participation and providing virtual and in-person options. The team focused on maintaining flexibility and adaptability to incorporate lessons learned during the engagement process.

Valuing input

The team valued local and lived knowledge by gaining an understanding of the priorities and initiatives of each community when soliciting input. This included collecting perspectives regarding a community's current goals, projects, and potential solutions.

Bridging partnerships

The team established partnerships with community-based organizations throughout SDCP's service territory. In doing so, SDCP gained a deeper understanding of the issues, priorities, and effective engagement methods of its key stakeholders and their respective communities.

Recognizing everyday challenges

The team recognized the day-to-day challenges community members face and adapted subject matter to their needs and experiences. For instance, addressing climate change and reducing air pollution may not be top priorities for community members facing multiple types of burdens. Additionally, the team considered that increasing electricity bills and many households behind on bills and at risk of service shutoffs would likely generate some initial distrust in SDCP.

Promoting accessibility

The team considered accessibility for the broadest range of community characteristics, including language, internet access, physical disability, time limitations, and subject matter understanding. Materials and presentations were developed for broad understanding using non-technical, simplified terms.

Incorporating language justice

The team employed a language justice approach throughout the community engagement process. Language justice recognizes the power of language and the ways that it intersects with and reflects a community's history, culture, and identity as a key part of establishing trust and understanding. This ensured that everyone involved in the process could speak, understand, and be understood in the language(s) in which they feel most comfortable. It also included a commitment to creating multilingual and cross-language opportunities where all communities, especially those who do not speak English as a first language, can be valued as equal participants. Language justice also supports the development of accessible and relevant communication tools and strategies that connect with the unique and varied experiences, interests, and priorities of communities.

2.1.2 Community Engagement Strategy

The strategy for community engagement for this Plan was developed by working with SDCP's member agencies and local community groups that have extensive community engagement experience and best understand how to reach their stakeholders, including harder-to-reach populations. The resulting engagement strategy focused on understanding community characteristics, historic and current challenges, and barriers for effective engagement. It centered on partnering with local community-based organizations and stakeholders who work directly with community members and could advocate for their needs and best practices for meaningful engagement.

Throughout the community engagement process, the team aimed to foster open and transparent communication about how input would be used to inform the Plan. Because of the COVID-19 pandemic, engagement activities were purposely crafted to be flexible and adaptive to adhere to public safety measures and reflect the comfort levels and health concerns of communities and individuals. See Appendix A for the detailed engagement strategy.

2.1.3 Initial Community Engagement Methods

To understand what SDCP's customers value and prioritize, the team employed focused conversations and listening sessions with community-based organizations and their members, interviews with interest groups, and, listening workshops with businesses, key stakeholders, and the general public.

The information gathered from initial community engagement served two purposes. First, the team used the information to identify key themes across the various engagement methods which was incorporated as qualitative data into the community needs assessment findings. Second, the key themes influenced the questions included in the community needs survey.

Community-Based Organization Co-hosted Listening Sessions

A central component of the community engagement effort was to have focused conversations with community members. To accomplish this, the team partnered with five community-based organizations to co-host two rounds of listening sessions with their members. The organizations were selected based on their representation of residents who live in Communities of Concern, service footprint across multiple member agencies, experience and ability bringing community members together, and established relationships and trust with community members. Table 1 includes the community-based organization partners for this Plan and the communities they represent.

Table 1. Community-Based Organization partners

Community-Based Organization	Community Represented
Art Produce	Mid-City San Diego
Casa Familiar	San Ysidro
Chicano Federation	Communities near San Diego's ports
MAAC	Northern and eastern San Diego County
Project New Village	Southeastern San Diego

The first round of listening sessions took place between August and September 2022 and nearly 200 community members participated. The team held the sessions either in English or Spanish with live interpretation services at the direction of the partner organizations. During the second

round of listening sessions that took place between November and December 2022, the team shared key findings from the community needs survey back with the community and sought additional feedback.

As part of equitable engagement, SDCP allocated a total of $20,000 for compensation to the community-based organizations that co-hosted the two rounds of listening sessions for their time and staff effort to organize the listening sessions. SDCP also compensated listening session participants with gift cards for their time and lived experience shared. See Appendix B and C for summaries of both rounds of the community-based organization listening sessions, including a detailed account of the input received during these sessions.

Unincorporated San Diego County Pop-Up Events

Community members in unincorporated San Diego County were harder to reach due to its vast, rural geography, and many communities had not yet enrolled in SDCP's service, resulting in less awareness of SDCP. For these reasons, the team employed a different engagement approach in the unincorporated County. The team engaged in a series of pop-up events throughout the unincorporated County, including outside of markets, at libraries, and at food distribution events to gather information from over 100 residents. See Appendix D for a summary of the unincorporated San Diego County pop-up events and input received.

Interest-Group Stakeholder Interviews

To supplement the listening sessions, the team engaged in interviews with "interest-group stakeholders"—organizations, groups, and agencies that have a close relationship with community members and understand the needs, priorities, and challenges of the community or represented populations that SDCP wanted to ensure were engaged during this Plan. The team requested interviews from over ten organizations or groups that represented a broad coalition of interests including community development, housing, and social services. Interviews were conducted with representatives from the Chula Vista Community Collaborative, Encinitas Community Resource Center, International Brotherhood of Electrical Workers Local 569, Logan Heights Community Development Corporation, San Diego Housing Federation, and San Diego & Imperial Counties Labor Council.

Nine Key Priorities Heard from Initial Engagement

- Reducing my energy bill
- Addressing climate change by reducing greenhouse gas emissions
- Creating good, well-paying jobs in the energy sector
- Getting rewarded to adjust when I use energy
- Breathing cleaner air in my home or business
- Reducing air pollution in my community
- Creating opportunities for Communities of Concern to participate in the clean energy transition
- Building more rooftop solar instead of large systems in remote areas
- Keeping the power on at my home or business

Business, Key Stakeholders, and Public Listening Workshops

To ensure that SDCP heard from a broad spectrum of customers including local businesses, key stakeholders, and the general public, five listening workshops were held. The business and key stakeholder workshops focused on understanding the challenges local businesses and major institutions were having around energy, energy trends in the region's business sector, and the kinds of customer programs that could help them meet their goals. The public workshops focused on understanding community needs and challenges and were held in English and Spanish with interpretation services on different dates. The sessions were all virtual and more than 40 people

participated. To encourage participation, the team held the workshops at various times and conducted outreach through social media and through relationships with business associations, community organizations, and public officials. See Appendix E for a summary of the workshops and input received.

2.1.4 Community Needs Survey

Leveraging the findings from the initial engagement, the team developed a community needs survey that ran between August 30 and October 15, 2022 to hear from as many SDCP customers as possible. The survey focused on learning about major challenges and issues customers face, how they prioritize energy issues and solutions, what energy improvements they have made to their homes or businesses, and what programs they are aware of and/or have participated in the past (see Appendix F for the residential and commercial survey questions). The team received 2,980 complete responses from community members and businesses within SDCP's service territory.

Community Needs Survey Statistics

Total Survey Responses	**2,980**
Residential	2,849
Commercial	131

To broaden survey participation, the survey was made available in Spanish and Filipino (Tagalog), the two most used languages in the region other than English. The team promoted the survey by posting on SDCP's social media channels, sharing survey information with community partners, elected officials, and SDCP's member agencies, and through paid social media and print advertising targeted specifically to Communities of Concern. In addition, SDCP collected survey responses in-person through tabling at places where community members were already gathered such as community events, parks, and libraries.

In-person survey collection at a tabling event in the City of San Diego's Barrio Logan community.

Survey Demographics

To ensure that SDCP was conducting a representative survey, respondents were asked to answer a few demographic questions, including their housing type (e.g., single-family, multi-family, or manufactured home), housing tenure (e.g., homeowner or renter), and annual household income. Respondents were also asked to enter their home or business location using zip codes so that the team could perform real-time analysis on where responses were coming from throughout SDCP's service territory. This information was then used to allocate additional resources towards boosting responses in SDCP's member agencies that were underrepresented relative to their population and towards Communities of Concern to ensure they were being represented. Participants were not asked background information to protect their identity and encourage a higher response rate.

The team found that residential survey responses were generally reflective of the population in SDCP's service territory across several variables compared to census data. Census data was sourced from the American Community Survey (ACS) five-year 2020 data tables. Figure 4 shows the breakdown of residential survey responses by SDCP's member agencies.

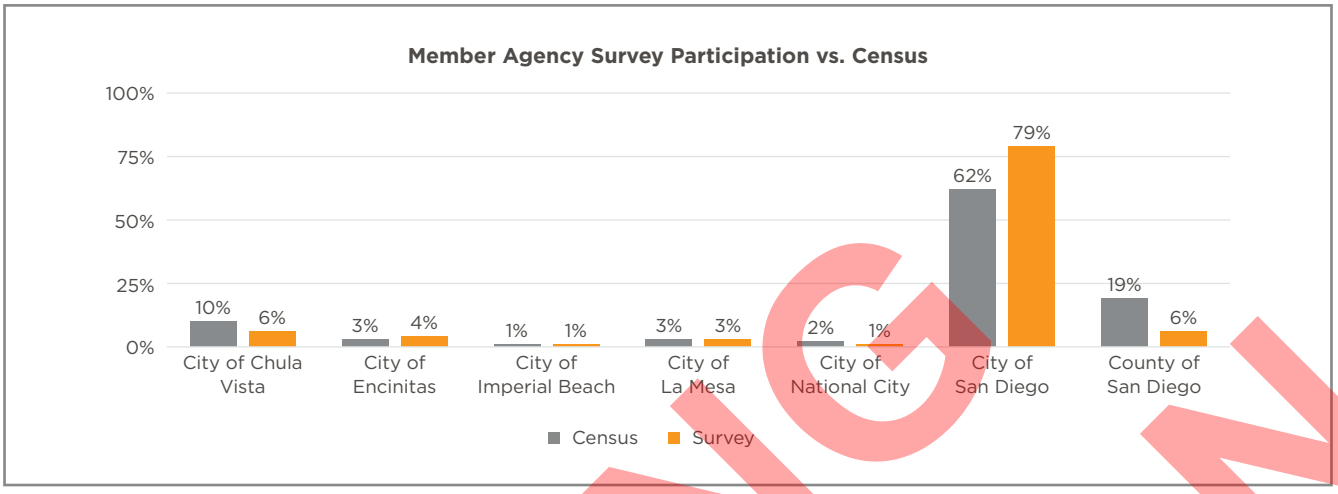


Figure 4. Survey participation by member agency compared to census data

Figure 5 shows the breakdown of residential survey responses by housing type and tenure. Compared to census data, more people who live in multi-family housing and manufactured homes responded to the survey and slightly fewer people living in single-family homes responded. However, more people who live in owner-occupied housing units responded compared to census data.

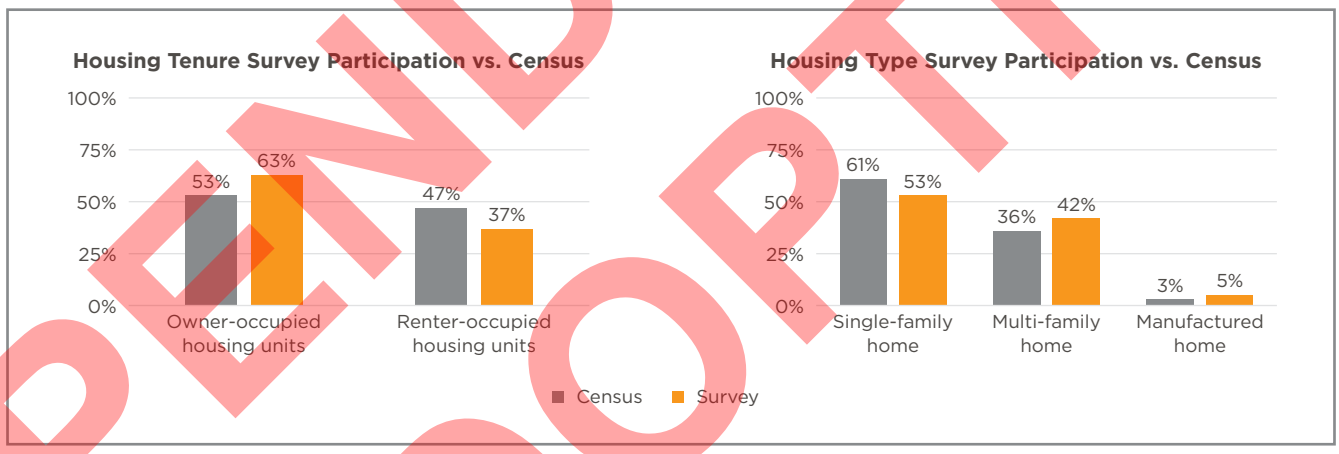


Figure 5. Survey participation by housing type and housing tenure compared to census data

Figure 6 shows the breakdown of residential survey responses by those who entered their annual household income. Responses were generally consistent with census data across most of the income categories in the region. However, there was a slight overrepresentation of people in lower and middle-income levels ($10,000-$99,999) and slightly lower representation from higher income levels (more than $100,000) compared to census data. The team hypothesized that this may be because survey outreach efforts focused primarily on Communities of Concern and these groups tend to have lower annual household incomes than other segments of the population. Knowing that surveys tend to be taken by wealthier people, the team views the spread of responses by annual household income as a success of outreach.

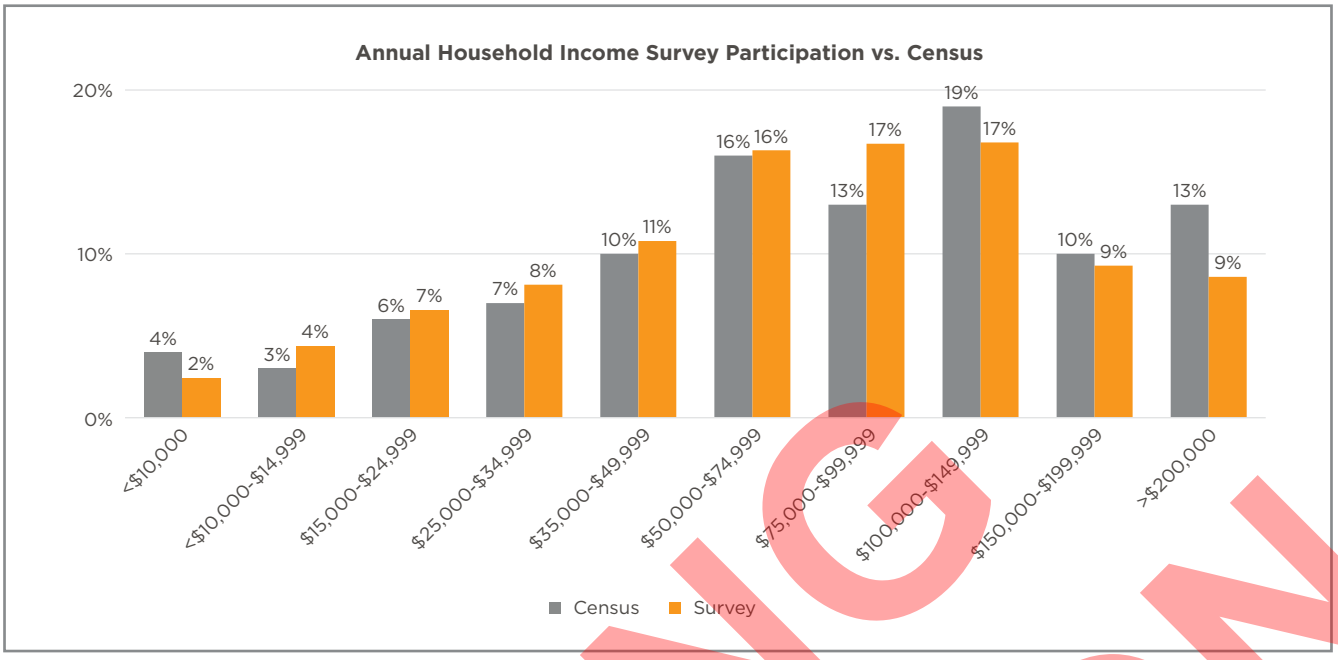


Figure 6. Survey participation by household income compared to census data

2.2 Community Needs Assessment Findings

Overall, the team heard from an estimated 3,450 participants in SDCP's service territory through the initial community engagement methods and community needs survey as outlined in Table 2. The next section overviews the key community priorities that emerged from the entire community engagement process.

Table 2. Estimated number of community members engaged

Engagement Method	Estimated Number Engaged
Community-Based Organization Co-Hosted Listening Sessions (2 Rounds)	325
Business, Key Stakeholders, and Public Listening Workshops	45
Unincorporated San Diego County Pop-up Events	100
Community Needs Survey	2,980
Total	**3,450**

2.2.1 Community Priorities

The team identified nine key community priorities based on feedback from initial community engagement. The priorities were included in the survey and respondents were asked to rank which were most important to them. Residential and commercial respondents ranked their top five priorities in the following order (Table 3).

Table 3. Energy issues most important to residential and commercial respondents

Order	Residential Priorities	Commercial Priorities
1	Reducing my energy bill	Creating good, well-paying jobs in the energy sector
2	Addressing climate change by reducing greenhouse gas emissions	Reducing my businesses' energy cost
3	Getting rewarded to adjust when I use energy	Getting compensated for when my business uses energy
4	Creating good, well-paying jobs in the energy sector	Addressing climate change by reducing greenhouse gas emissions
5	Breathing cleaner air in my home	Breathing cleaner air in my building

2.2.2 Key Insights About Community Needs

The team gathered many insights during the community engagement process that can help SDCP when designing targeted programs in the future. These insights are summarized below.

Providing important community context

One of the first survey questions focused on general challenges or issues community members are facing in their communities. It was important for SDCP to learn what is top of mind for community members and understand how future energy programs would be perceived or received.

Unsurprisingly, residential survey respondents stated finding housing *that is affordable* and *paying for essentials like food and gas* as their top two concerns. These two responses were highest among residents of multi-family housing, renters, and customers with annual household incomes less than $150,000 per year. Even most survey respondents with annual household incomes greater than $150,000 per year listed housing affordability as their top concern.

Key Insights

- Community members are concerned about costs
- Community members want to see a variety of energy solutions
- Community members need more energy education and resources
- Rural community members have different concerns than city-dwellers
- Community members care about climate change, health, and the environment

Relatedly, commercial survey respondents ranked the *cost of new construction and development* and *increased cost of goods and services* in the top challenges they are facing.

Community members are concerned about costs

Between the lingering effects of the COVID-19 pandemic, the high cost of housing throughout the region, and inflation, many people are hurting financially. This was expressed repeatedly in direct engagement sessions and was confirmed through the community needs survey results. Unpredictable and high energy costs are top of mind and many customers face strained monthly budgets. Programs that help reduce energy bills and create consistency in bills over time are important, especially for low-income customers and those on fixed incomes. Community members also understand that climate impacts are going to exacerbate these issues, particularly as extreme heat events trigger the need for more energy and thus higher energy costs.

Community members want to see a variety of energy solutions

While customers care about costs, they also want to see a variety of energy solutions in their communities. This suggests that strategies that reduce energy costs but increase pollution or fail to offer other benefits would not meet community needs. When asked about what types of energy solutions they want to see, survey respondents identified 1) *building more large-scale renewable energy generating systems in the San Diego region*, 2) *improved indoor air quality through building electrification*, 3) *improved outdoor air quality through transportation electrification*, and 4) *installing renewable energy generating systems on rooftops or parking lots* as top strategies. These top four energy solutions held true across single – and multi-family residents, renters and owners, and all annual household income levels. Commercial respondents had similar results; however, they overwhelmingly ranked improved indoor air quality through building electrification as their top energy solution.

Community members need more energy education and resources

Many participants shared that they or members in their community are confused by energy bills. The transition from SDG&E to SDCP raised questions, and some believed this caused their bills to increase. Participants frequently said they were not aware of energy programs or how to access them. Lack of awareness, confusing or complex applications, and underlying building issues all create barriers to participation. Others thought that things like community solar programs that bring solar into the community and reduce rates for specific customers sounded "too good to be true." Participants also cited challenges with finding skilled contractors to implement energy projects, particularly related to electrification, or trusted and vetted contractors, particularly related to solar installations.

Rural community members have different concerns than urban communities

A key difference in responses in both direct community engagement and the community needs survey occurred between those who live in urban/suburban areas and those who live in more rural areas of the unincorporated County. In the community engagement that took place in unincorporated San Diego County, participants regularly cited four key issues that were heard far less often in other areas:

- **Concerns about wildfires and power outages:** Participants expressed significant concerns about wildfires in general and their relationship to energy. Many unincorporated areas are highly susceptible to wildfires due to their proximity to natural areas, which are highly susceptible to burning, particularly during hot, dry, windy conditions. These conditions are increasing due to climate change, which is causing natural areas to burn more often and more intensely. Participants noted that during these conditions, their power may be shut off proactively by SDG&E to reduce the risk of wildfires caused by electric infrastructure. When asked about major challenges, most survey respondents from other locations listed *wildfires* as their last or second to last energy concern, while respondents from the unincorporated County listed *wildfires* as their second energy concern, following *paying for essentials like food and gas*.
- **Concerns about electrification:** Because rural areas are more susceptible to wildfires and power outages, fuel redundancy was identified as important during power outages (particularly related to propane or natural gas appliances that can operate when the power goes out). Additionally, some participants suspect switching to electric vehicles to be challenging due to perceptions of limited driving ranges and charging options. While many participants expressed questions about electrification, this concern was much more pronounced in rural communities.
- **Concerns about grid capacity:** Participants expressed concerns that they fear the electrical grid is not robust enough to support the additional electrical demand associated with building and vehicle electrification. There is concern that further electrification will lead to more power outages in rural areas if there are not investments in the grid's capacity.
- **Concerns about large renewable installations:** Some residents expressed concerns that large-scale solar installations would bring unwanted and unsustainable industrialization to local natural environments. Concerns included environmental degradation, dust, and aesthetics. Some suggested that there was strong preference for other strategies to offset the need for large remote installations, such as additional infill rooftop solar.

Community members care about climate change, health, and the environment

Even while many community members are concerned about costs, concerns about the health and financial impacts of climate change were also shared repeatedly throughout the community engagement process. Community members care about the societal benefits of energy programs, such as improved indoor and outdoor air quality from building and transportation electrification. Many shared concerns that Communities of Concern and income-qualified residents are often left out of the benefits of clean energy programs and other public investments, and therefore noted the importance of SDCP's focus on Communities of Concern and income-qualified residents.

2.3 SDCP Organizational Engagement Process

As stewards of SDCP, SDCP's Board of Directors, Community Advisory Committee, and staff are responsible for ensuring the long-term success of the organization for it to be able to meet community needs over time. During the community needs assessment, the team engaged with these groups to understand organizational goals and priorities that needed to be considered in the process of program prioritization. To do this, the team conducted interviews with individual Board members and workshops with the Community Advisory Committee and staff.

Board members and staff emphasized that SDCP's investment in programs will need to consider the context of SDCP building financial stability as a newer organization and remaining cost competitive. Growing reserve funds to create a stable financial foundation will allow SDCP to direct a larger amount of revenues to customers via programs in the future. Board members, committee members, and staff all highlighted the importance of creating programs that prioritize Communities of Concern and those who are struggling the most financially, noting that they will likely be faced with the greatest impacts of climate change. SDCP can have a positive impact on equity and Communities of Concern by providing local benefits and supporting low-income housing, good jobs, and reducing energy bills.

Board members expressed a need for a transparent, evaluative framework to prioritize programs based on community input and develop a diverse suite of programs. It was noted that SDCP will need to prioritize programs that have a multiplier effect—those that can enable additional funding, support energy procurement goals, or can be leveraged in other ways, while also showcasing visible benefits to the community.

Six Key Priorities Heard from Organizational Engagement

- Increasing energy awareness and education
- Maintaining financial stability
- Making investments in Communities of Concern and keeping energy affordable
- Managing load flexibility
- Maximizing infill solar
- Visibly showing benefits to customer by investing back into the community

It was repeatedly emphasized that SDCP was developed by and for the community and that customers are the cornerstone of the organization. As such, customers must be well served with competitive rates and local programs that benefit them. Doing this will require developing deep and lasting partnerships with community-based organizations to build trust in communities over time. The importance of education was also noted by committee members since there is confusion around understanding energy bills and what it means to transition to SDCP. Education can make energy programs more accessible, can increase participation in programs, and can keep customers from opting out of SDCP based on misinformation. See Appendix G for a summary of the organizational engagement process and input received.

2.4 Conclusion

SDCP is committed to designing energy programs that meet the needs of its customers. The results of the community needs assessment have been integrated in both quantitative and qualitative processes in the program prioritization framework (Chapter 5). These findings helped SDCP prioritize program types that met community needs and priorities and formed the basis of the recommended program types (Chapter 6).

This Plan is the beginning of an on-going conversation with the community, rather than an end point. To design effective programs, SDCP must work in partnership with the communities it serves. Programs designed and launched by SDCP will continue to include community engagement to ensure programs serve the needs of community members and have multiple community benefits.

Program Market Assessment

Chapter 3

3 Program Market Assessment

To understand the universe of existing energy programs available to SDCP customers and learn from the program experience of organizations similar to SDCP, the team conducted a program market assessment. The assessment included energy programs that are currently offered or have been offered in California by other CCAs, utilities, state and regional agencies, nonprofits, and SDG&E.

To conduct the market assessment, the team first conducted a desktop survey of program information available online from a variety of program providers. This review was supplemented by interviews with program subject matter experts. The team also gathered energy efficiency program data from the California Energy Data and Reporting System (CEDARS) database and validated the program offerings with SDG&E. Lastly, publicly available program information from the California Community Choice Association was leveraged to inform further analysis of other CCAs.

The team analyzed program offerings from the following entities:

- California Public Utilities Commission (CPUC) implemented or administered through SDG&E;
- California Energy Commission (CEC);
- California Air Resources Board (CARB);
- San Diego Association of Governments (SANDAG); and
- Other municipal and investor-owned utilities in California.

In addition, the analysis included a deep dive into program offerings from 20 others CCAs including well-established and emerging organizations (e.g., Central Coast Community Energy, Clean Power Alliance, East Bay Community Energy, Marin Clean Energy, Peninsula Clean Energy, Pioneer Community Energy, Redwood Coast Energy Authority, Silicon Valley Clean Energy, and Sonoma Clean Power). The team also spoke with energy program providers and implementers across California and in other states to understand best practices and innovative approaches. These conversations formed the basis of the program design best practices described in program recommendations (Chapter 6).

From this review, a database of over 200 programs was compiled that allowed the team to identify similarities and differences across programs and how they are delivered. Using this information, the team distilled programs into their core characteristics as described in detail below. This chapter outlines the ways the team identified, organized, and characterized energy programs to best align with community needs.

3.1 Energy Program Characteristics

Energy programs are generally designed to assist customers to take an action or achieve a goal that they might not otherwise by providing an incentive. For example, SDCP could offer customers free energy efficiency upgrades for their homes or offices to reduce energy use and therefore lower energy bills.

Programs generally follow a basic structure—they provide support to implement a specific action ("what") through a specific type of mechanism ("how") for a specific type of customer ("for whom")—shown in Figure 7.

Figure 7. Energy program definition

For example, the "what" might be installing electric heat pump water heaters, which may be more expensive but reduce building emissions compared to natural gas water heaters. The "how" might be offering rebates (e.g., money back after systems are purchased to offset the increased cost). The "whom" might be property managers of multi-family affordable housing.

The team defined the following terms to consistently describe how energy programs are characterized in this Plan (examples of each are described in more detail in the following sections).

- **Program types:** The purpose of the program and the outcome that programs are designed to support.
- **Technical elements:** The specific actions that a program encourages customers to take.
- **Delivery elements:** The methods that are used to encourage people to implement the specific actions that a program encourages customers to take (i.e., technical element).
- **Customer types:** The section of the community or a type of customer. For the purposes of this Plan, programs were viewed as either targeted for all customer classes or targeted specifically for customers in Communities of Concern.
- **Market sectors:** The section of customers or group of similar customers. This Plan includes three market sectors: residential single-family, residential multi-family, and commercial.

The structure of the program database and characterization of programs into these smaller elements allowed the team to look at both existing programs and theoretical programs that would be a good fit to meet community needs and organizational goals.

3.1.1 Program Types and Technical Elements

Using the database of energy programs, the team categorized technical elements into the following eight program types: *Energy Efficiency, Demand Response, Building Electrification, Transportation Electrification, Equipment Electrification, Distributed Energy Resources, Education and Training,* and *Codes and Standards.*

Energy Efficiency

Energy efficiency refers to the many different types of strategies used to directly reduce the amount of energy a building or system uses (e.g., adding insulation and/or replacing drafty windows) or performing the same service or task with less energy (e.g., switching to LED light bulbs). Energy efficiency lowers the total amount of energy needed, saves money, and reduces environmental impacts. Energy efficiency plays a vital role in making other program types most effective, such as building electrification and distributed generation and energy storage systems, as an energy-efficient building may need less solar and storage capacity and produce less strain on the grid.

While energy efficiency measures can vary in approach, the market for energy efficiency measures and programs is well established. To streamline the analysis for this assessment, the team combined energy efficiency measures into a single technical element: *Energy Efficiency: Mixed*.

Demand Response

Demand response programs encourage customers to shift or reduce their energy use during certain times of the day (usually the most expensive times) to reduce peak energy demand on the electrical grid. Energy providers must balance energy supply and demand, which can be a challenge during extreme events like heat waves or as renewable energy production is reduced due to a setting sun. Demand response programs provide an opportunity for customers to play a significant role in the operation of the electrical grid to reduce costs and power outages.

In this assessment, the team classified technical elements that encourage energy customers to change their behavior as *Behavior: Peak Management* and technical elements that encourage installation of controls as *Smart Devices: Peak Management*.

Building Electrification

Many homes and businesses in California use natural gas appliances for heating, water heating, cooking, and laundry. Natural gas is one of the major sources of carbon emissions and indoor air pollution in buildings. Building electrification programs aim to eliminate the burning of fossil fuels in buildings by switching natural gas equipment and appliances to energy efficient electric ones. This reduces indoor air pollution and may reduce long-term operating costs. Due to the limited capacity of many electrical panels to support electric technology, building electrification programs should also incentivize panel upgrades—a necessary step that must happen before other types of electrification can occur.

In this assessment, the team classified building electrification technical elements as *Heat Pump: HVAC, Heat Pump: Water Heater, Appliances: Laundry, Appliances: Cooking,* and *Electrical Panel Upgrades*.

Transportation Electrification

Fossil fuel burning transportation is the biggest source of carbon emissions in California and the San Diego region and is also a major contributor to outdoor air pollution. Transportation electrification programs eliminate the burning of fossil fuels in light-duty vehicles (e.g., sedans and sport utility vehicles) and medium- and heavy-duty vehicles (e.g., buses, delivery vans, and shipping trucks) by converting them to electric. This reduces greenhouse gas emissions and air pollution locally, as well as noise pollution. With volatile gas prices, electric vehicles can result in savings compared to traditional vehicles. Transportation electrification programs support electric vehicle adoption and installation of electric vehicle charging infrastructure.

In this assessment, the team classified transportation electrification technical elements as Electric Vehicle: *Light-Duty, Electric Vehicle: Medium- and Heavy-Duty, Electric Vehicle Charging,* and *Electric Bicycle*.

Equipment Electrification

Equipment electrification programs eliminate the burning of fossil fuels in landscaping, agricultural, and industrial equipment by converting the equipment to all-electric. This reduces carbon emissions and air pollution.

In this assessment, the team classified equipment electrification technical elements as *Electric Landscaping Equipment, Electric Agricultural Equipment,* and *Electric Industrial Equipment*.

Distributed Generation and Energy Storage Systems

Distributed generation and energy storage system programs promote installation of smaller, distributed renewable energy generation and storage systems on rooftops and other developed land. This reduces the need to develop large-scale generating systems in rural areas and invest in new transmission infrastructure. To increase the capacity of distributed generation and energy storage systems, energy storage (such as through batteries) is needed to supplement energy when renewable energy systems may not be generating.

In this assessment, the team classified distributed energy resource technical elements as *Onsite Solar, Community Solar, Feed-In Tariff, Utility Scale Solar,* and *Energy Storage.*

Education and Training

For community members to benefit from energy programs, they need to be aware that the programs exist, understand how to use them, and have access to trusted contractors that can do the work. Education and training programs can include outreach and engagement, public education, and workforce development. Public education programs can target a broad range of people to help raise awareness and access. Meanwhile workforce development programs aim to train existing and potential workers with skills relevant to the clean energy market, which is critical to the success of many programs.

In this assessment, the team classified education and training technical elements as W*orkforce Development, Public Education,* and *Technology Incubator*.

Codes and Standards

Codes and standards programs offer cities and counties assistance in establishing local building energy codes that go beyond the State's minimum requirements. Across California, many cities and counties have adopted building codes that go beyond the State's minimums (called reach codes) that encourage electrification of buildings and transportation. These types of reach codes are adopted because of the health, safety, and environmental benefits that result from switching to renewable energy resources. Codes and standards programs could include working with local governments or other organizations to develop a variety of technical or performance standards related to energy.

In this assessment, the team classified codes and standards technical elements as *Reach Codes*.

3.1.2 Delivery Elements

While the technical elements above describe the actions and objectives that programs are trying to support, the delivery elements below describe how the technical element is encouraged/what motivates a customer to participate in a program. The team identified the following nine categories as possible delivery elements that were considered for evaluation: *Rebate, Up-Front Incentive, On-Bill or Affordable Financing, Free Equipment/Service or Direct Installation, Grant/Fund, Bill Credit, Rate, Technical Assistance,* and *Application Assistance.*

Rebate

A rebate is a payment or partial refund after an action has already been taken by the customer. Rebates are usually issued as a check after the customer submits proof of purchase or proof of installation. Rebates rely on the customer having the money necessary to complete the action in the first place.

Up-Front Incentive

Up-front incentives are direct financial benefits that are paid at or before the time of action to help reduce the cost of a technology or installation. Up-front incentives may include a streamlined application and payment process or immediate payment, reducing the amount of money necessary to complete the action. This can help customers that do not have the money on hand to implement an action.

On-Bill or Affordable Financing

On-bill and affordable financing describe ways that customers can receive small loans with little to no interest to pay for energy improvements. On-bill financing allows the program provider to cover the cost of the project directly. With a lower utility bill because of the savings from the project, the customer can pay back the improvements on their utility bill over time. Affordable financing is provided through a partnership with a financial institution (such as a bank) that is willing and able to provide lower interest rates on loans, which the program administrator can then offer to customers.

Free Equipment/Service or Direct Installation

Free equipment/service refers to programs where energy upgrades are provided to customers for free with no requirements for repayment. For direct installation, contractors or installers are trained and hired by the program administrator to provide improvements directly to a customer at no or low charge.

Grant/Fund

A grant/fund refers to providing money for a particular purpose, such as providing funding to an organization to implement a project, or otherwise provide a service. A grant/fund is distinguished from an up-front incentive in that the funding is usually awarded on a project basis to organizations such as nonprofits, or the public sector to provide benefits to the public instead of to implement a technology.

Bill Credit

A bill credit is a dollar amount that a customer receives as a credit directly on their energy bill. Bill credits are different than rates (described below) which calculate how much a customer owes in a given time period based on their usage. A bill credit is instead a reduction off the cost. For example, a demand response program may credit a customer's bill at a given $/kilowatt (kW) of energy reduced a few times a year when energy savings events are active.

Rate

A rate or rate plan determines how and how much customers are charged for energy consumption, and in some instances, production by their utility provider. Rates can be designed for specific purposes such as electric vehicle charging or energy generation from solar panels. Generally, the objective of specially designed rates is to remove barriers or make the use of technologies more financially attractive to a customer.

Technical Assistance

Technical assistance is a method of providing access to experts that assist the customer in taking the desired action. By providing access to experts well-versed in clean energy programs, technical assistance can introduce customers to new technologies and services, determine exactly what would benefit them the most, and help them overcome barriers. Examples of technical assistance range from easy-to-navigate online resources to one-on-one customer support.

Application Assistance

Application assistance is a method of assisting customers with navigating program offerings or applying for existing programs available to them from other program providers (e.g., utilities and regional, state, and federal agencies). Application assistance can help customers streamline the various application processes and requirements.

3.1.3 Customer Types

Programs can be designed to serve different types of customers and target different populations. The team identified the need to study programs explicitly designed for customers in Communities of Concern and income-qualified residents to further demonstrate how those programs align with community and organizational priorities. The team found that many existing programs in the market are designed in this way. For the purposes of this Plan, energy programs were categorized on whether they focused specifically on Communities of Concern or if they were available to all customer classes.

3.1.4 Market Sectors

Residential and commercial energy customers often have vastly different needs and energy use patterns, therefore most utilities separate customers into these two broad categories. Within the residential sector, single-family and multi-family residents often have different barriers to take actions and are therefore segmented from each other. For example, programs for residents of single-family homes often have lower barriers to participation, while residents of multi-family homes often face higher barriers to program participation. This is due to requiring approval of building managers or owners, large capital expenditure, and the potential for benefits to skew more to one party over the other. Because affordable housing typically occurs in multi-family buildings, the lack of programs designed to support multi-family residents has resulted in an equity gap. For the purposes of this Plan, the team analyzed program lists for three market sectors: residential single-family, residential multi-family, and commercial.

3.2 Conclusion

The program market assessment and approach for consolidating programs in the program database provided a consistent and transparent way for the team to capture and organize hundreds of potential programs as well as analyze different combinations of program characteristics that SDCP might prioritize over the next five years. The next chapter discusses how the team evaluated and prioritized the program lists by market sector to provide strategic direction to SDCP.

Program Prioritization Framework

Chapter 4

4 Program Prioritization Framework

The community needs assessment (Chapter 2) provided insight into the needs and priorities of the community as well as the organizational priorities of SDCP. The program market assessment (Chapter 3) explored the range of customer energy programs that could be offered to address those challenges and goals. To identify and rank which programs best align with community and organizational priorities in a quantitative, consistent, and transparent way, the team created a prioritization framework tool.

From the community needs assessment, nine community priorities and six organizational priorities were identified, and weights were assigned. These included the following:

Community Priorities	Organizational Priorities
Reducing my energy bill	Increasing energy awareness and education
Addressing climate change by reducing greenhouse gas emissions	Maintaining financial stability
Creating good, well-paying jobs in the energy sector	Making investments in Communities of Concern and keeping energy affordable
Getting rewarded to adjust when I use energy	Managing load flexibility
Breathing cleaner air in my home or business	Maximizing infill solar and energy storage
Reducing air pollution in my community	Visibly showing benefits to customers by investing back into the community
Creating opportunities for Communities of Concern to participate in the clean energy transition	
Building more rooftop solar instead of large systems in remote areas	
Keeping the power on at my home or business	

4.1 Developing the Program List

The team analyzed more than 200 programs from the market assessment and created a new list of 70 different program types developed uniquely for SDCP. This list focused on programs that could fill gaps in what is already available to SDCP customers, programs similar to what other CCAs are providing, and potential new programs that could help fill gaps (see Appendix H for the list of 70 program types assessed). The list of programs evaluated was tailored to address gaps in the current program market in SDCP's service territory in the following ways:

- **Technical elements:** The team analyzed programs or actions that would support community needs that are not available to SDCP customers through current programs. In some cases, new programs were added to introduce new technical elements such as electrification of industrial equipment.
- **Delivery mechanisms or market segments:** The team analyzed programs that might be available locally but are not accessible to some customers (particularly Communities of Concern) because of the incentive type offered or other barriers. In these cases, new programs were added to deliver technical elements via different delivery mechanisms (e.g., up-front incentives instead of rebates) or to additional market sectors (e.g., residential or multi-family).
- **Existing programs with high alignment but potential for increased participation:** The team analyzed programs that are currently available, such as energy efficiency programs offered through SDG&E. Programs like these were included for consideration as "application assistance" programs meaning that SDCP could assist customers with applications to help them receive the benefits of existing programs.

4.2 Evaluating Programs

In the program prioritization framework tool, each program's technical element, delivery element, and customer type was scored by SDCP staff based on how strongly it aligned with addressing each community and organizational priority relative to one another. Each was given a score of – 1 for negative impact, 0 for not applicable, 1 for somewhat/indirectly aligned, and 2 for strongly/directly aligned.

By the Numbers

3 Market Sectors

9 Community Priorities

6 Organizational Priorities

Over 200 Existing Programs

70 Unique Programs Evaluated

13 Program Types Recommended

For example, electric vehicle chargers, as a technical element, contribute strongly/directly to *addressing climate change by reducing greenhouse gas emissions* and *reducing air pollution in my community* among other community and organizational priorities. An up-front incentive, as a delivery element, receives a higher score for *creating opportunities for Communities of Concern to participate in the clean energy transition* and *making investments in Communities of Concern and keeping energy affordable* than a rebate might because up-front incentives are more accessible to customers that do not have resources to afford the technology without initial support.

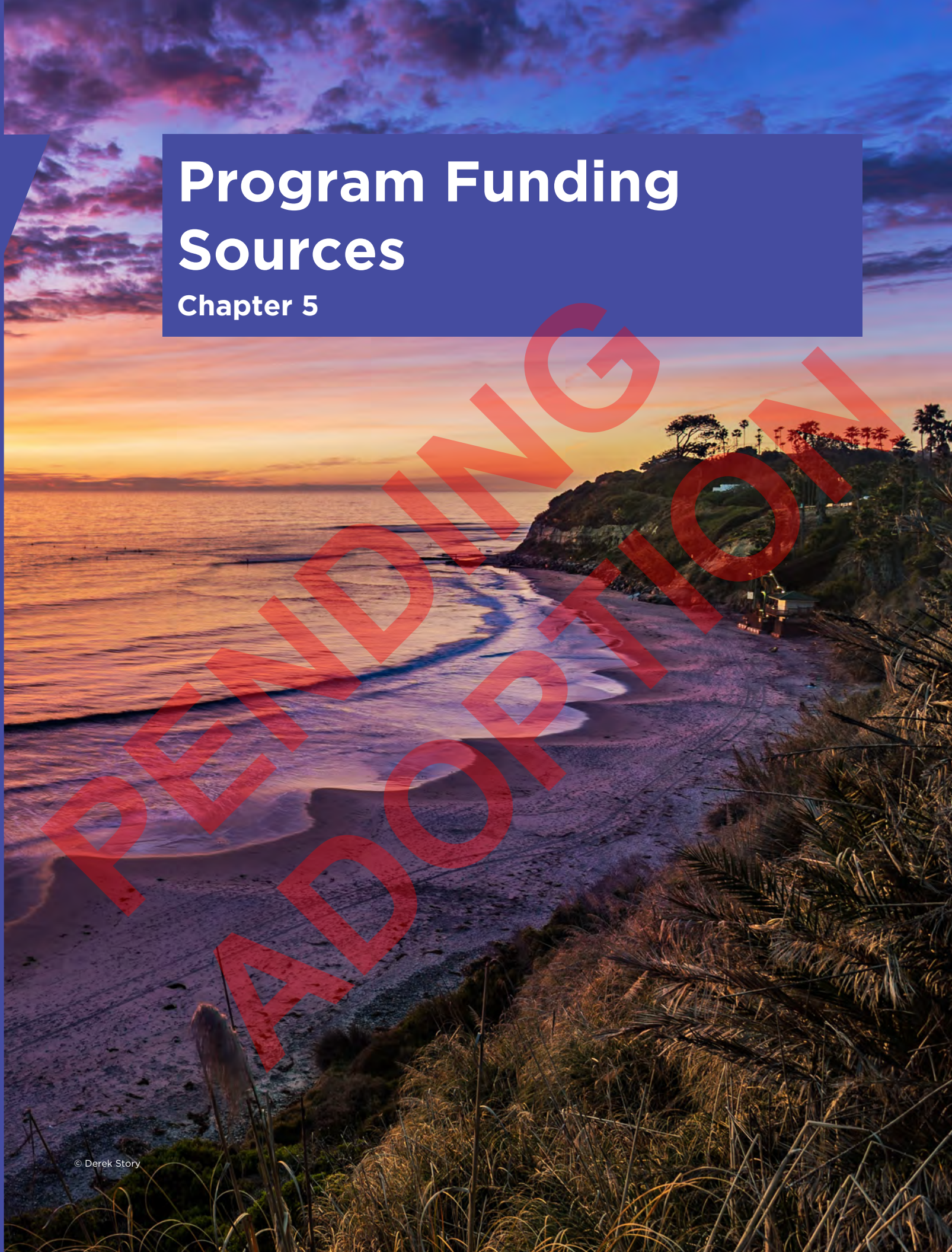
The tool calculated a score for each program using the technical elements, delivery elements, and customer types. This resulted in a ranked list of programs for each of the market sectors (i.e., residential single-family, residential multi-family, and commercial). The top 20 programs from each market sector were then aggregated into general program types and analyzed for funding availability. These program types formed the recommended set of program types presented in Chapter 6.

4.3 Conclusion

The program prioritization framework provided a way for the team to evaluate many programs in a consistent and transparent way and helped narrow a set of options that best align with community and organizational priorities. The resulting program options then needed to be evaluated for their alignment with potential funding sources (described in Chapter 5) and organized into an ambitious but manageable set of choices for action. The framework did not provide all the answers, but it helped SDCP make sure that whatever is pursued from the list of recommended program types will help meet community and organizational priorities.

Program Funding Sources

Chapter 5



5 Program Funding Sources

5.1 Overview

The previous chapters focus on the process of aligning programs with community and organizational priorities as well as cataloguing the universe of potential programs SDCP could offer its customers. This chapter outlines the range of customer energy program funding sources, including for programs offered to SDCP customers by other agencies (i.e., third-party programs) and for programs that SDCP may deliver to its customers itself through external funding.

5.2 Available to Customers

> ***With an ever-increasing investment in climate mitigation and justice programs by the federal and state governments, SDCP should prioritize enabling access to this funding by its customers at the same level as SDCP-delivered programs.***

We learned in the community needs assessment (Chapter 2) and market assessment (Chapter 3) that knowledge of and/or access to third-party programs remain a significant barrier to adoption. SDCP's standing as a public agency, unbiased source of information can play a meaningful part in increasing the amount of third-party program funding that is ultimately invested in the San Diego region. With an ever-increasing investment in climate mitigation and justice programs by the federal and state governments, SDCP should prioritize helping customers access this funding at the same level as delivering SDCP programs to customers. To do so, SDCP can educate customers on program availability and help customers through application assistance (described in Chapter 6).

The main sources of third-party programs that are available to SDCP customers are described below. It is important to note that this is not a comprehensive list but is instead a subset of example program types available to SDCP customers. SDCP fully expects that new third-party program sources will emerge. SDCP will need to monitor third-party programs as part of any future customer education and application assistance initiatives.

5.2.1 California Public Utilities Commission

The California Public Utilities Commission (CPUC) directly funds several comprehensive distributed energy resource and building electrification market development programs. These programs are typically implemented by program administrators and largely funded with Public Purpose Program Surcharge funds or Greenhouse Gas Allowance Auction Proceeds. Public Purpose Program Surcharge funds are an amount added to the electricity (or gas) bill that customers pay to fund programs created by Assembly Bill 1890 in 1996 and are regulated by the CPUC. Greenhouse Gas Allowance Auction Proceeds are allowances from the Cap-and-Trade program allocated to electric distribution utilities to be used for the benefit of ratepayers as authorized by Assembly Bill 32.

Incentivizing rooftop solar in communities and on buildings with low adoption is the primary goal of the **Disadvantaged Communities–Single-Family Affordable Solar Homes (DAC-SASH)** and **Solar on Multifamily Affordable Housing (SOMAH)** programs. DAC-SASH enables income-qualified homeowners in disadvantaged communities to receive no-cost rooftop solar installations and is available to SDCP customers through 2030. The program is funded by Greenhouse Gas Allowance Auction Proceeds, and if needed, utility ratepayers and is overseen by the CPUC; GRID Alternatives administers the program statewide, with a $8.5 million annual budget. The SOMAH program provides financial incentives to property owners for installing solar systems on qualifying multi-family housing throughout California. Funded through Greenhouse Gas Allowance Auction Proceeds, SOMAH has a program budget of up to $100 million annually and an overall target to install 300 megawatts (MW) of generating capacity in low-income and disadvantaged communities by 2030.

The **Self-Generation Incentive Program (SGIP)** is a statewide program that offers rebates for clean and energy-efficient distributed generation and energy storage technologies, with 80% or more of funding (subject to change) allocated for energy storage. Starting in mid-2023, SGIP will

start providing over $84.7 million in incentives for heat pump water heaters with half the funding reserved for low-income customers. SGIP is a ratepayer-funded program overseen by the CPUC and available to retail electric and gas customers of the major California investor-owned utilities, including SDCP customers. The Center for Sustainable Energy administers SGIP in the SDG&E and SDCP service area, while Energy Solutions will administer the SGIP Heat Pump Water Heater program statewide. In 2022, the CPUC authorized funding of more than $1 billion through 2024 for SGIP. This funding includes prioritization of communities living in high wildfire threat areas, communities that have experienced two or more Public Safety Power Shutoff events, as well as low-income and medically vulnerable customers. The funds are also available for "critical facilities" that support community resilience in the event of a Public Safety Power Shutoff or wildfire. SGIP storage technology incentives are divided into the following budget categories: large-scale energy storage, small residential energy storage, residential equity, non-residential storage equity, equity resiliency (residential and non-residential), and heat pump water heaters (general). As of January 2023, roughly $27.9 million (subject to change in future years) is available for SDG&E and SDCP customers.

Building electrification is the focus of the **TECH Clean California** program, funded by ratepayers and overseen by the CPUC. SDCP customers are eligible to participate in this statewide initiative that provides incentives, education, and resources for building electrification such as heat pump installations. Originally, $116 million was allocated to this program over a four-year period starting in December 2021 with approximately $6.6 million earmarked for customers in SDG&E's service area. Demand for this project was high causing all incentive funding to be exhausted by April 2022. In September 2022, additional funding for TECH Clean California was approved that allocated $50 million to benefit all California residents. The State is expected to allocate $95 million (subject to change) to the project for fiscal year (FY) 23/24.

5.2.2 California Air Resources Board

The California Air Resources Board (CARB) provides funding for various transportation electrification efforts that cover light-, medium-, and heavy-duty vehicles. For the purchase or lease of new electric vehicles, incentives of up to $7,000 are available from CARB though the **Clean Vehicle Rebate Project**. In partnership with the San Diego County Air Pollution Control District, CARB is preparing to fund the San Diego region's **Clean Cars 4 All** program that provides incentives for low-income residents in disadvantaged communities to trade in and scrap their old fossil-fuel powered vehicles for newer electric vehicles. Lastly, the **Clean Vehicle Assistance Program** provides grants and affordable financing to help income-qualified Californians purchase or lease a new or used hybrid or electric vehicle. The program currently has no available funding but is expected to receive additional funding in future budget cycles.

CARB offers a host of incentives for medium- and heavy-duty vehicles, with the most prominent source being the **Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)**. For FY 22-23, $250 million was made available for standard funds and $65 million for transit vehicles. CARB also manages the **Volkswagen Mitigation Trust** which provides $130 million for zero-emission transit, school, and shuttle buses (administered by the San Joaquin Valley Air Pollution Control District); $90 million for zero-emission class 8 freight and port drayage trucks (administered by the South Coast Air Quality Management District); and $70 million for zero-emission freight and marine projects (administered by the Bay Area Air Quality Management District). These programs can provide tens to hundreds of thousands of dollars in funding for the electrification of medium- and heavy-duty vehicles.

5.2.3 San Diego Gas & Electric

SDG&E currently offers more than 90 energy efficiency, demand response, and transportation electrification programs that are available to eligible SDCP customers. These programs are funded by SDG&E and SDCP ratepayers, with the energy efficiency and demand response programs largely funded through the Public Purpose Program Surcharge funds as required by the CPUC. The CPUC authorizes SDG&E to administer the energy efficiency and demand response programs and approves their budgets. For the 2024-2027 energy efficiency budget cycle, over $332 million is being proposed for a suite of energy efficiency programs including but not limited to educating customers, training contractors, moving beneficial technologies toward greater cost-effectiveness,

providing energy efficiency to "hard-to-reach or underserved customers", and supporting the development of the next generation of state and federal building and appliance standards.

SDG&E transportation electrification programs are mandated through the CPUC and largely originated via state legislation such as Senate Bill 350 and Assembly Bills 1082 and 1083. Programs primarily aim to incentivize the installation of charging stations at apartments, condos, schools, parks, and beaches, as well as supporting medium- and heavy-duty fleet electrification. Additional pilot projects target specific industries or customers like ports, airports, and park & ride lots. Several transportation electrification programs include a goal to invest 50% of program funding in underserved communities, as defined by Assembly Bill 841.

5.2.4 Regional Agencies

Several regional San Diego agencies administer programs that are open to eligible SDCP customers. Most relevant to SDCP customers, the San Diego County Air Pollution Control District (APCD) and San Diego Association of Governments (SANDAG), both administer several federal, state, and regional funding programs to reduce emissions from mobile sources. These agencies are expected to provide significant funding to support transportation electrification over the coming decades and will be a critical source of third-party programs that SDCP customers can access.

SANDAG has proposed over $1 billion in transportation electrification investments by 2035. This includes over $600 million for incentives for zero-emission vehicles, over $150 million for electric vehicle charging infrastructure incentives, and $325 million for zero-emission buses and charging infrastructure. APCD has historically focused on incentivizing medium- and heavy-duty vehicle and equipment emissions reductions; however, recently it has expanded into light-duty vehicle-scrap programs as well as projects with high community impact as deemed by the Assembly Bill 617 Community Steering Committee. This resulted in a dramatic expansion in grant programs and budget, increasing from $5 million annually in 2017 to $25 million annually in 2021.

A noteworthy program that is funded by the California Energy Commission (CEC) and implemented by the Center for Sustainable Energy is the **California Electric Vehicle Infrastructure Project (CALeVIP)**. CALeVIP is funded from vehicle and vessel registration, vehicle identification plates, and smog abatement fees. Under the San Diego County Incentive Project, presented in partnership with SANDAG and APCD, CALeVIP provides rebates of up to $6,000 for Level 2 electric vehicle chargers and $80,000 for Direct Current Fast Chargers. Starting in 2019, San Diego County had a three-year funding allocation of $21 million for CALeVIP; all initial funding has been allocated or reserved but additional funding is expected in future years.

5.2.5 Federal Funding

The federal Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA) provide an unprecedented opportunity for clean energy project funding. Both pieces of legislation are well aligned with SDCP's priorities for increasing community energy resilience, decarbonization, and environmental justice, and target funding accordingly. In addition to grant opportunities available to SDCP (covered in section 5.3), IIJA and IRA will provide funding directly to customers in the form of grants, loans, rebates, technical assistance, and tax incentives.

The federal **Home Owner Managing Energy Savings** rebate program is expected to provide $292 million to California. Rebates of up to $4,000 will be provided for whole-house energy saving retrofits, including installing solar panels, with rebate amounts doubled for low – and middle-income individuals. The program is under development now by the CEC, and rebates are expected to be available in 2024.

This is not to be confused with the **High-Efficiency Electric Homes Rebate** program which is expected to provide $290 million to California. This program will incentivize low – and middle-income families to electrify their homes (e.g., heat pump technology and electric clothes dryers) with a maximum of a $14,000 rebate per household.

In addition to equipment incentives, IRA includes significant tax provisions directly available to consumers and businesses. The homeowner efficiency credit, called the **Residential Energy Efficiency Home Improvement Credit**, was expanded by the IRA to become annual instead of the previous lifetime limit. Now consumers can receive a tax credit of up to 30% of equipment costs

each year for residential clean energy equipment and upgrades. The new **Residential Clean Energy Tax Credit** extends, increases, and expands homeowner tax credits for onsite energy production and storage through 2034. Similar tax incentives are available to support transportation electrification.

The IIJA also established the Environmental Protection Agency's (EPA) **Clean School Bus Program** which provides $5 billion over the next five years starting in FY 22. This program can award up to 100% of the cost of replacing a school bus and may provide funding for charging infrastructure. In 2022, the EPA provided $500 million in rebates with a maximum funding amount of $375,000 per school bus and up to $20,000 in funding for charging infrastructure. The EPA has the authority to release funding through grants, rebates, or contracts.

5.3 Administered by SDCP

SDCP seeks to address community needs through customer energy programs. In many cases, the multitude of third-party programs that are available to customers will address those needs, but when they do not, SDCP will need to design and deliver its own programs. Identifying the most appropriate funding for SDCP-administered programs is a critical and on-going element of strategic planning.

5.3.1 Internal vs. External Funding

When considering funding for administering programs, SDCP must evaluate using internal revenues and applying for external funding, which both have impacts that need to be thoroughly considered. Investing internal revenues into programs would be done so over other potential organizational priorities. That said, investing revenues back into the community through programs provides arguably the most equitable distribution of revenues to customers and undoubtedly provides the highest level of certainty and flexibility for SDCP to administer programs.

External funding is typically competitively bid, requiring additional resources for grant tracking and writing, and creating risk for long-term program planning due to the uncertainty of grant awards. Additionally, many of the potentially cumbersome administrative elements of external funding (e.g., reporting, program design, and timelines) can be less burdensome when funding programs with internal revenues. This flexibility is particularly important when considering SDCP's equity commitments because external funding sources may have requirements that can make it difficult to deliver programs effectively to customers in Communities of Concern.

Research across the CCA landscape shows a variety of different approaches when considering program funding sources. Some CCAs aggressively spend their own revenues on programs with little use of outside funds due to the administrative burden and complexity associated with external funds, among other reasons. Others spend a relatively limited amount of revenues on programs, instead relying almost solely on external funding sources. As a young organization, SDCP should prioritize a middle ground between these two extremes and adjust the strategy as the organization matures.

> ***As reserve targets are met, the opportunity for SDCP to invest revenues back into communities through programs will increase.***

In the short-term, SDCP has committed to building financial reserves of $500 million (180-day cash on hand), since one of the organization's strategic goals is to obtain a credit rating. This attention to building a strong financial position is important to enable SDCP to effectively meet the long-term needs of the community. As reserve targets are met, the ability of SDCP to invest revenues back into communities through programs will increase.

Meeting financial reserve targets will give SDCP the ability to offer programs with larger budgets and provide financial incentives using internal revenues. Internal revenues can also support increased external funding, for example by developing pilot programs which can be expanded with external resources, or by supplementing external funding with additional funds to support full project needs. Doing so can make SDCP's internal dollars go farther.

5.4 External Sources

SDCP can apply for funds from a variety of sources to supplement SDCP's own investments in programs. These external sources vary in the level of funding resources they provide, the complexity of the application process for securing them, and the flexibility they offer in how funds are distributed.

New funding opportunities will become available as budget is allocated through state legislation. SDCP will monitor for funding opportunities that are a good fit to pursue, based on community and organizational priorities, and apply for them in the short-term, while understanding that funding may not become available until the mid-term. For some external funding opportunities, SDCP may be able to partner with other regional agencies and partners to share the administrative burden. SDCP should explore the viability of capturing funding from the sources below.

5.4.1 California Public Utilities Commission

SDCP has multiple avenues to provide energy efficiency programs to customers using Public Purpose Program Surcharge funds managed by the CPUC. The CPUC allows for two direct pathways for SDCP to access funding for energy efficiency: **Apply to Administer (ATA)** and **Elect to Administer (ETA)**. Under the ATA pathway, SDCP could offer energy efficiency programs that do not duplicate SDG&E's current offerings with all programs required to meet strict cost-effectiveness tests. Cost-effectiveness requirements can limit program offerings to residential customers and especially to customers in Communities of Concern. Due to the administrative burden, lack of flexibility and creativity, and strict cost-effectiveness requirements, MCE Clean Energy is the only CCA that has gone the ATA pathway. MCE has been administering energy efficiency programs for nearly a decade and recently submitted its 2024-2031 Energy Efficiency Business Plan for approval from the CPUC with approximately a $19 million budget allocated each year.

The ETA option is a more streamlined pathway to access Public Purpose Program Surcharge funds available to CCAs. Unfortunately, due to the methods used to determine available funding, currently there are no available funds eligible for SDCP to receive in the short – and mid-term under this pathway.

An alternative opportunity to access Public Purpose Program Surcharge funds for SDCP is to form a **Regional Energy Network (REN)**. The San Diego region is one of the last highly populated areas in the State not included in one. REN programs fill gaps in existing energy efficiency programs by serving "harder-to-reach" customers. They are also not held to the same cost-effectiveness thresholds, allowing for more flexibility in developing programs that serve Communities of Concern.

Separate from energy efficiency funding, the CPUC expects to fund innovative transportation electrification pilot projects called **Locally Invested Transportation Equity (LITE) pilots**. Incentives from the LITE pilot projects are limited to low-income customers and small fleets located in disadvantaged communities as defined by CalEnviroScreen 4.0, and would allow for testing new rebate design approaches that may fill gaps in the statewide rebate program in creative ways. Up to $25 million will be available statewide with individual pilots capped at $4 million. The CPUC will seek pilot concepts by the end of 2023 with projects expected to begin in 2025.

5.4.2 California Energy Commission

The CEC regularly releases funding opportunities for competitive grants to advance the transition to clean energy and transportation. Currently, there are more than 40 programs listed on its website that offer a range of technical elements and delivery mechanisms for different market sectors. Funding amounts and technologies targeted under each program vary considerably. Of particular interest are future demand response and building decarbonization opportunities. The **Demand Side Grid Support Program** is currently under development and will ultimately offer incentives to electric customers that provide load reduction and back-up power generation to support the State's electrical grid during extreme heat events. Also under development is the **Equitable Building Decarbonization Program** which envisions two incentive programs to reduce greenhouse gas emissions in homes: a direct install program and a statewide incentive program. The State has allocated $600 million in the FY 23/24 budget (subject to change) for these two residential building decarbonization programs; the role of CCAs is still solidifying as program guidelines develop.

Additionally, the CEC's **Electric Program Investment Charge (EPIC)** program is a consistent funding opportunity to advance new and innovative clean energy solutions. The EPIC program invests $130 million annually in a variety of technology research. The CEC has awarded EPIC funding to CCAs for a variety of projects. Most notably, Sonoma Clean Power received a $5 million EPIC grant in 2018 to support its Advanced Energy Center and associated energy efficiency programs. Lastly, the CEC is a potential source of funding for **Vehicle-to-Building/Grid Integration (V2B or V2G)** pilots that will become more valuable to SDCP, both from a customer program perspective and potentially from an energy procurement perspective in the future.

5.4.3 California Strategic Growth Council

The California Strategic Growth Council (SGC) is funded by California's Cap-and-Trade system and the State's General Fund to provide grants to promote equitable, sustainable, climate-friendly communities. The SGC administers the **Transformative Climate Communities** and **Affordable Housing and Sustainable Communities** programs that would not necessarily be a program funding source for SDCP but do provide opportunities for regional partnerships and significant funding toward projects that are addressing SDCP customer needs. Beyond the Transformative Climate Communities and Affordable Housing and Sustainable Communities programs, and more directly applicable to SDCP, the SGC will distribute $100 million in competitive grants to develop and deliver **Community Resiliency Hubs**; $25 million will be available in FY 22/23 and $75 million will be available in FY 23/24. SDCP could partner with local agencies or community-based organizations to support the development of community resilience hubs, with a focus on providing onsite solar, energy storage, and backup power that can support communities during emergencies. The SGC is currently developing guidelines, with the applications for both planning and implementation grants expected to open in early 2023. As a not-for-profit public agency, SDCP is eligible to apply, and could pursue partnerships with organizations that operate one or more qualifying facilities. Partnerships and investment in a strong application will be key, as SGC grants have been highly competitive historically.

5.4.4 Federal Funding

As stated above, the IIJA and IRA represent the largest climate investment in the history of the federal government. SDCP is eligible to pursue forms of funding not available to for-profit entities such as traditional investor-owned utilities. Several funding opportunities are clear to SDCP now, and more may arise as details continue to emerge during program development.

The IRA established the federal Environmental Protection Agency's **Greenhouse Gas Reduction Fund** to provide competitive grants for mobilizing financing and private capital for clean energy projects. The Greenhouse Gas Reduction Fund emphasizes projects that benefit low-income and disadvantaged communities. Expected to be available in 2023, it will expend $27 billion in competitive grants and financial and technical assistance to enable communities to deploy or benefit from zero-emission technologies. SDCP should consider partnerships with community-based organizations or other regional entities to fund pilot programs (discussed in Chapter 6).

The Environmental Protection Agency was also funded through the IRA to establish **Environmental and Climate Justice Block Grants**. Local governments and community-based organizations are required to partner to apply for $3 billion in funding available over the next five years. The block grants will fund various activities in line with SDCP community and organizational priorities, such as indoor air pollution reduction, greenhouse gas emissions reduction, and climate resiliency. No specific timeline for the funding has been announced for the block grants. SDCP should continue to monitor federal funding created from the IRA and IIJA to identify the alignment with the recommended program types discussed in Chapter 6.

5.4.5 Other

Other funding sources may include philanthropic organizations, private sector partnerships, or other state agencies. This would be an opportunity for those supporters that are inclined to contribute to climate change initiatives that benefit the local community. Additional financing mechanisms may emerge in the short-term that are appropriate to explore for funding mid-term programs. Partnerships with large corporate clients that have their headquarters or significant presence in San Diego may also create opportunities.

Several other state agencies could provide funding opportunities for SDCP programs. The California Department of Community Services & Development, which oversees the **Low-Income Weatherization Program**, **Low-Income Home Energy Assistance Program**, and **California Arrearage Payment Program**, among others, has a long history of working to reduce poverty for people in California. Future budget allocations may include opportunities for SDCP to partner with community-based organizations to access and direct California Department of Community Services & Development funding to Communities of Concern and income-qualified residents.

SDCP welcomes interested agencies and organizations to contact them to explore partnership opportunities.

The **Clean Mobility Options** is a statewide program that helps under-resourced communities fund clean, shared, zero-emission mobility projects. This program is funded in partnership with the California Air Resources Board and the California Energy Commission. For FY 23/23, $34 million in funding was made available via vouchers and up to $1.5 million per voucher can be awarded for a project that fills in a community's transportation gaps.

Lastly, the San Diego region has united around the effort to advance transportation electrification under the **Accelerate to Zero Emissions Collaboration (A2Z)**. Led by SANDAG, the APCD, the County of San Diego, the City of San Diego, and SDG&E, A2Z seeks to attract public and private investment into the region and maximize the effectiveness of regional deployment of electric vehicle chargers, with a focus on increasing equitable access to electric vehicles and charging infrastructure. SDCP should participate in A2Z discussions to increase regional competitiveness for future grant funding.

5.5 Conclusion

To serve its communities long-term, SDCP must build a strong financial foundation. Luckily, state and federal agencies are making unprecedented amounts of financial support available directly to SDCP customers to fund the clean energy transition. In the short-term and beyond, SDCP has a clear role to play in aiding customers with securing available funding. External funding is available for SDCP to seek for its own program administration but that brings with it administrative burden and other costly factors that need to be considered. Once firmly established, SDCP can more freely invest its own revenues into the community through programs and enjoy the freedom and flexibility that comes with utilizing its own revenues.

Program Recommendations

Chapter 6

6 Program Recommendations

This Plan was created to provide strategic guidance for SDCP in developing a suite of programs over the next five years. Weaving together technical analysis, community input, market research, funding analysis, and lessons learned from other CCAs, this chapter outlines both overall guidance for designing effective programs, as well as a list of specific program types that address community and organizational priorities.

6.1 Program Design Best Practices

Well-designed programs that are accessible, efficient, effective, and responsive to customer needs are the cornerstones of successful program delivery. The team interviewed CCAs and other program administrators across California to learn about best practices for designing successful programs. Common themes from the interviews are listed below. See Appendix I for a more detailed summary of the input received.

- **The best programs are simple and accessible for customers.** Long and complicated application processes create barriers to participation. SDCP should design programs to be as streamlined and stackable as possible.
- **Programs take time to develop—be ambitious but realistic.** A few well-designed and targeted programs can achieve more than lots of programs that are not appropriately aligned or resourced. It would be better for SDCP to select a few program types from the recommendation list to execute well rather than trying to do everything at once.
- **Be specific about program objectives and metrics for success.** While programs were evaluated in this Plan for their fit across all community priorities, not every program needs to be developed to meet every need. By setting specific goals for each program at the beginning, program design can be optimized, and performance can be more effectively evaluated.
- **Deepen local partnerships.** SDCP is committed to growing strong partnerships with communities, and in particular working with local community-based organizations who help build bridges into Communities of Concern. Building trust takes time, especially when people have been historically marginalized and exploited. SDCP should commit resources and develop structures for meaningful two-way dialogue and deep collaboration—not just through program design but through on-going program implementation, evaluation, and improvement.
- **Build internal capacity and strong systems.** For all programs to be successful over time, SDCP will need to develop strong internal systems to design, implement, measure, and improve programs. This includes developing streamlined information portals and program applications, establishing appropriate metrics for program evaluation, and creating the tools necessary for data capture and process improvements.

6.2 SDCP's Commitment to Communities of Concern

SDCP is committed to supporting populations historically underrepresented in energy program participation and receiving associated benefits. As such, SDCP will commit at least **50% of a program's non-administrative budget**, to the extent allowed by funding sources, to participation from Communities of Concern. SDCP will center Communities of Concern in program design to enable participation by all customers. It's important to note that while SDCP will follow the commitment with internal funds, it may not be possible with external funds due to specific rules and regulations.

Communities of Concern are defined as communities identified by California Climate Investments (Assembly Bill 1550 and Senate Bill 535) that includes disadvantaged communities identified by CalEnviroScreen 4.0 and low-income communities and households with incomes either at or below 80% of the statewide median or below a threshold designated as low-income by the Department of Housing and Community Development, as well as the additional census tracts identified by the cities of San Diego and Chula Vista through their Climate Equity Index reports. Specifically, the City of San Diego identified these census tracts as areas with very low, low, and moderate access to opportunity. Meanwhile, the City of Chula Vista defined them as the top 25% scoring areas within its own analysis. If other member agencies were to identify additional census tracts in the future as the cities of San Diego and Chula Vista have, SDCP would recognize those designations under the umbrella of Communities of Concern.

An aerial photo of San Diego Bay, including the communities of Barrio Logan and Logan Heights in the City San Diego — two Communities of Concern.

Workforce Development

Workforce development and a just transition have become increasingly important in California and nationally. Ambitious state and local clean energy goals continue to increase the expected demand for renewable energy and related clean energy technologies. These trends create a need for a skilled workforce to support the development, installation, and operation of clean energy projects and technologies. As new jobs are created, it is imperative to support the equitable distribution of those economic benefits and to enable a just transition for workers in fossil fuel dependent industries.

SDCP is committed to supporting the just and equitable development of a clean energy workforce. Identifying SDCP's role in supporting the just transition initiatives and more generally in the regional workforce development ecosystem is the first step. Effective workforce development initiatives can fill training gaps and enable the skilled workforce necessary to achieve clean energy goals. Additional benefits include providing career opportunities and economic benefits to local communities, especially Communities of Concern, as workers gain skills and experience that can be applied across a range of clean energy-related industries.

To guide internal business decisions, SDCP has adopted an Inclusive and Sustainable Workforce Policy. This policy enables several goals outlined in the organization's founding documents, including:

1. Demonstrating economic benefits to the region, including prevailing wage jobs and local workforce development;
2. Supporting a stable, skilled, and trained workforce; and
3. Promoting supplier and workforce diversity, including returning veterans and those from Communities of Concern, to the extent permissible by Proposition 209.

6.3 Member Agency Partnerships

Partnerships with member agencies is critical for achieving meaningful progress on climate action. With land use and other regulatory authority, member agencies are at the forefront of climate action by implementing ambitious goals and policies that can drive change across entire regions. By partnering with member agencies, SDCP can understand unique challenges and opportunities that exist within each member agency and gain valuable guidance on navigating on-the-ground hurdles for program implementation. Member agencies can be instrumental in helping to identify local partners and coordinate stakeholders.

Additionally, offering programs to member agencies can be beneficial, as it can help create new opportunities for collaboration and innovation. By helping member agencies achieve their own climate action goals, SDCP can build trust and establish long-term partnerships. SDCP envisions ongoing collaboration with member agency staff to identify impactful program opportunities to support local climate goals.

6.4 Program Phasing

Given the significant influence that timing of available funding imposes on program delivery, this five-year Plan approached programs using the following phases:

- **Current-term (FY 21/22 – FY 22/23):** Programs that SDCP currently offers.
- **Short-term (FY 23/24 – FY 24/25):** Program types that can be launched quickly with available funding and/or with a manageable amount of SDCP's revenues to address immediate needs identified in the community needs assessment.
- **Mid-term (FY 25/26 – FY 26/27):** Program types that will take time for external funding to be secured, internal funding to be allocated, and/or require additional time to design and deliver. These include program types that may require more significant investments from SDCP's revenues. SDCP may choose to implement these program types sooner as funding and opportunities arise.
- **Long-term (FY 27/28+):** Program types that require more complex program design and development, are dependent on SDCP being more established, and/or that support emerging clean energy technologies.

This Plan primarily focuses on the short – and mid-term phases, due to the long-term phase occurring after the five-year timespan of this Plan. Forecasting five years or more into the future is a difficult task because of how quickly the clean energy market is accelerating and the anticipated shifting of customer priorities. During the long-term, SDCP will continue to learn from and improve existing programs and strengthen relationships with its partners and communities. While not explicitly called out in this Plan, in the long-term, SDCP will be better positioned to deliver more complex and involved customer incentive types (e.g., on-bill financing), unique rate structures, and support emerging emission-reducing technologies (e.g., industrial equipment electrification).

6.5 Current Programs

SDCP established limited program offerings before this Plan was developed, including Net Energy Metering and Feed-in Tariff programs. These programs focused on meeting the needs and requirements to serve customers in the transition to SDCP as well as supported initial strategic goals.

- **Net Energy Metering:** To enroll customers into SDCP's service and support customers who generate renewable energy onsite, a Net Energy Metering program was established. This program tracks the difference between energy sent to the grid and energy used from the grid, known as 'net energy', and appropriately credits or charges according to the rate schedule. SDCP's program is customer focused by providing options for monthly or annual billing.
- **Feed-In Tariff:** To support local businesses, provide local economic development benefits, and increase the development of local renewable energy resources, SDCP established a Feed-In Tariff program. This program incentivizes local, small-scale renewable energy projects that are not typically price competitive with utility-scale developments. Higher payment levels at certain times of the day encourage wholesale projects to deliver energy during peak periods when natural gas "peaker" plants are coming online as well as projects that are paired with energy storage.

6.6 Program Type Recommendations

Utilizing the input received during the community needs assessment, the programs from the market assessment, and the scores from the program prioritization framework, five short-term program types and eight mid-term program types are recommended as options for implementation. All recommended program types align with at least one of the following community and organizational priorities and could target at least one of the following market sectors/customer types.

Community Priorities	Organizational Priorities	Market Sectors/Customer Types
Reducing my energy bill	Increasing energy awareness and education	Residential single-family
Addressing climate change by reducing greenhouse gas emissions	Maintaining financial stability	Residential multi-family
Creating good, well-paying jobs in the energy sector	Making investments in Communities of Concern and keeping energy affordable	Commercial
Getting rewarded to adjust when I use energy	Managing load flexibility	Communities of Concern
Breathing cleaner air in my home or business	Maximizing infill solar and energy storage	
Reducing air pollution in my community	Visibly showing benefits to customers by investing back into the community	
Creating opportunities for Communities of Concern to participate in the clean energy transition		
Building more rooftop solar instead of large systems in remote areas		
Keeping the power on at my home or business		

The list of mid-term program types was selected due to their alignment with community and organizational goals. Implementation of programs will largely be determined by funding considerations and other market developments. Given that it is better to develop a small number of well-designed and impactful programs rather than trying to do everything, SDCP should be deliberate about which of the recommended program types to focus on, for which market sectors/customer types, and in which order. The below list is meant to provide flexible guidance for SDCP to deploy a transformative suite of customer energy programs over time.

Short-Term Program Types (FY 23/24 – FY 24/25)

1. Energy Awareness and Education
2. Application Assistance
3. Disadvantaged Communities Green Tariff and Community Solar Green Tariff
4. Pilot Programs
5. Grant Programs

Mid-Term Program Types (FY 25/26 – FY 26/27)

6. Building Electrification: Appliances
7. Building Electrification: Heat Pump Technology
8. Distributed Energy Resources: Energy Storage Systems
9. Distributed Energy Resources: Demand Response
10. Energy Efficiency
11. Transportation Electrification: Infrastructure
12. Transportation Electrification: Light-Duty Vehicles
13. Transportation Electrification: Medium- and Heavy-Duty Vehicles

Program Type 1:
Energy Awareness and Education

Phase	Priorities Addressed	Recommended Market Sector/Customer Type
Short-term		

Description

SDCP could offer energy awareness and education programs for its customers and workforce. Energy and bill education programs teach customers about how their energy bill works, how usage impacts costs, and the benefits of clean energy. Beyond energy bills and usage, education efforts can provide workers with resources and customers with unbiased information about how to participate in the clean energy transition, such as through lists of qualified and vetted contractors and equipment installers. Energy awareness and education initiatives could also include K-12 education programs.

An educated workforce will be needed to support the development, installation, and operation of many electrification technologies, especially among building electrification programs. Providing education to contractors can ensure that workers have knowledge on the latest electrification technology to support broad adoption and acceptance.

Benefits

As a significant barrier cited in the community engagement process, building awareness around energy can support behavioral changes to promote energy efficiency and lower bills—a key issue for many community members. Education can also lead to increased uptake of rate-based programs (e.g., California Alternate Rates for Energy) that benefit Communities of Concern.

Many clean energy technologies face increased barriers to adoption due to the lack of qualified contractors and equipment installers or lack of awareness by Communities of Concern. Education and awareness programs for contractors can help overcome these barriers and benefit customers.

Design Considerations

During the community engagement process, many expressed a lack of awareness around energy and the need for education, especially among Communities of Concern. Because many communities have a high level of distrust for government and utilities, partnering with trusted community-based organizations on education programs can help increase access, build trust, and deepen partnerships. Education programs can also be paired with other program offerings to maximize awareness and participation.

SDCP should consider offering education via K-12 programs to increase awareness of the benefits of clean energy and grow awareness of SDCP as an organization. SDCP should also consider contractor training opportunities to support greater adoption of clean energy technologies, such as electric heat pumps, as contractor participation will be required to bring newer technologies to a broader market at scale. Lastly, SDCP should consider partnering with water agencies/authorities that offer water education programs to complement those programs and explain the water/energy nexus.

Funding Considerations

SDCP should consider using internal revenues for this program type to expedite implementation. SDCP should explore partnering with trusted community-based organizations that currently offer educational programs or have experience with implementing educational programs and provide funding to the organizations to administer the programs.

Program Type 2: Application Assistance

Phase	Priorities Addressed	Recommended Market Sector/Customer Type
Short-term		

Description

There are many existing energy programs that SDCP customers may have access to from other local, state, and federal agencies (i.e., third-party programs). SDG&E alone offers more than 80 energy efficiency and demand response programs, though not all of them are relevant for each customer. The number of programs and the complexity of application processes can create barriers to access for many customers including under-resourced community members, small businesses, and/or organizations that serve Communities of Concern; therefore, an opportunity exists for SDCP to assist with application processes for third-party programs.

Benefits

Funds are available from a variety of third-party programs that can currently help meet community needs. Since a lack of participation in existing programs was noted in the community needs survey, SDCP can help customers access the benefits of third-party programs to boost the success of the programs and help bring additional resources for a variety of energy measures to the San Diego region.

Design Considerations

Because there are many existing programs that each have their own intricacies, SDCP should consider working with partners to select a targeted list of program types to provide application assistance for, rather than trying to support all application types. Recommendations for program types to provide application assistance for include energy efficiency, heat pump technology, transportation electrification infrastructure for income-qualified individuals and Communities of Concern, and onsite solar and energy storage for Communities of Concern. Example programs that align well with community needs could include SDG&E's energy efficiency programs, like the Residential Energy Solutions program and Energy Savings Assistance program, the TECH Clean California program, the Self-Generation Incentive Program, and the Disadvantaged Communities–Single-Family Affordable Solar Homes program.

Application assistance can be a strategy to build partnerships with trusted community-based organizations and partners or other public agencies. While application assistance may be offered to all, outreach can be conducted in partnership with community-based organizations to target support for Communities of Concern.

Funding Considerations

SDCP should consider allocating internal resources (i.e., staff time) for application assistance to amplify the local benefits of available funding from existing programs.

Program Type 3: Disadvantaged Communities Green Tariff and Community Solar Green Tariff

Phase	Priorities Addressed	Recommended Market Sector/Customer Type
Short-term		

Description

The Disadvantaged Communities Green Tariff (DAC-GT) and Community Solar Green Tariff (CSGT) programs provide the benefits of solar and provide a bill discount to income-qualified residential customers in under-resourced communities who have barriers to installing or are unable to install solar on their roof. Eligible communities are determined by the California Public Utilities Commission using the CalEnviroScreen tool which identifies "disadvantaged communities" as census tracts that are disproportionately burdened by and vulnerable to multiple sources of pollution.

Benefits

The DAC-GT and CSGT programs are intended to further promote the installation of renewable energy generation among disadvantaged communities with a particular focus on low-income residents within them. The California Public Utilities Commission created both programs to include a 20% bill discount so that low-income customers can affordably access local renewable energy resources that they would not otherwise be able to access.

Design Considerations

As California Public Utilities Commission programs, many of the design elements of DAC-GT and CSGT are already established and prescribed. Customers are sometimes automatically enrolled in these programs; therefore, some participants may be unaware of the program, its benefits, or their enrollment status. Additionally, participants may be skeptical and view the combination of benefits and bill savings as "too good to be true." Partnering with trusted, local community-based organizations can help increase program awareness. Additionally, partnering with local organizations will be critical for the CSGT program since one of the requirements is identifying local program sponsors. SDCP should work with language justice specialists to remove jargon from program descriptions so that participants learn about the program benefits and do not unsubscribe.

Funding Considerations

The DAC-GT and CSGT programs are funded first through Greenhouse Gas Allowance Auction proceeds. If such funds are exhausted, the programs are then funded through Public Purpose Program Surcharge funds. SDCP is in the process of pursuing funding from the California Public Utilities Commission for these programs.

Program Type 4: Pilot Programs

Phase	Priorities Addressed	Recommended Market Sector/Customer Type
Short-term		

Description

Pilot programs are small-scale, short-duration projects (6-18 months) that can provide SDCP and stakeholders data on program design, technology acceptance, and other information helpful for broader program delivery.

Benefits

Pilot programs can provide a range of benefits, such as:

- Testing local acceptance of incentive projects that have successfully been implemented in other parts of the State or country.
- Filling in gaps and facilitating bringing State funding into the region.
- Demonstrating the efficacy of emerging technologies and/or business models in the real-world.
- Evaluating innovative incentive delivery methods and mechanisms.
- Provide data on real-world, local project costs, barriers, and opportunities.
- Reducing risks of large-scale broad program delivery by providing lessons learned at a smaller scale.

Design Considerations

Pilot programs can give SDCP the opportunity to flexibly invest defined amounts of internal resources to quickly learn about elements of a particular program before seeking significantly more investments for scaled programs. When developing pilot programs, SDCP should integrate opportunities to capture lessons learned throughout the process, whether that be through data capture, performance evaluation, and/or on-going stakeholder dialogue. Pilot programs can also provide the opportunity for SDCP to partner, support, and learn from community-based organizations. SDCP should work with community-based organizations, where feasible, to design and implement pilot programs.

Funding Considerations

Depending on the amount of investment required, pilot programs can be funded by internal revenues. Smaller pilot programs can function as a preliminary phase in the design of broader externally funded programs. However, due to the size of SDCP's service area, SDCP should also consider seeking external funding to scale pilot programs to the entire service area and maximize impact.

Program Type 5: Grant Programs

Phase	Priorities Addressed	Recommended Market Sector/Customer Type
Short-term		

Description

Grant programs allow SDCP to provide financial assistance to community-based organizations and member agencies to implement clean energy projects or innovative program ideas. Grant programs require applicants to submit a proposal outlining their project or initiative and how it will meet the goals and objectives of the program.

Benefits

Grant programs can provide numerous benefits for SDCP and the communities it serves, such as:

- Providing a source of funding to community-based organizations and member agencies that may not have the resources to implement innovative projects.
- Encouraging and supporting creative ideas that may not be possible through traditional funding sources.
- Creating tangible trust – and relationship-building opportunities between SDCP, its member agencies, and community organizations.
- Increasing visibility of SDCP within the communities it serves.
- Helping to achieve SDCP and member agency sustainability goals by aligning grant programs with initiatives such as promoting clean energy, reducing carbon emissions, and supporting local economic development.

Design Considerations

SDCP should consider creating grant programs to support both community organizations and its member agencies. SDCP could provide community grants focused on addressing the key priorities heard during the community engagement process for the this Plan and provide member agency grants to support regional climate action goals. SDCP should consider partnering with trusted and proven regional organizations to streamline grant program development and implementation while easing administrative burden on staff.

Funding Considerations

SDCP should consider using internal revenues to expedite the initial launch of the programs and simplify the funding administration process with community-based organizations and/or member agencies. Future philanthropic funding may be available for grant programs, especially if SDCP is providing internal revenues as a match. SDCP should consider partnering with regional entities to expand the impact of grant programs.

Program Type 6: Building Electrification: Appliances

Phase	Priorities Addressed	Recommended Market Sector/Customer Type
Mid-term		

Description

Appliance electrification programs encourage the adoption of electric appliances, such as electric induction stoves and electric clothes dryers, to achieve building electrification.

Benefits

Converting appliances from natural gas to electric helps reduce reliance on fossil fuels and provides a safer cooking environment due to the lack of an open flame. Switching to an electric induction stove or cooktop from a natural gas one can significantly improve indoor air quality because natural gas appliances release harmful pollutants. Gas stove cooking exposes millions of people in California to pollution levels that would be illegal outdoors (Environmental Health Perspectives, January 2014).

Induction stoves work by creating heat only within compatible cookware making them much safer due to the lack of an open flame or hot surface/burners. Induction stoves are extremely efficient and provide better temperature control than traditional electric stoves and rival gas stoves.

Electric heat pump clothes dryers require less maintenance than gas clothes dryers, which provides cost savings in repairs over their operational life. They can reduce the amount of energy used by up to 30% when compared to a traditional electric dryer. Additionally, due to their efficient design, heat pump clothes dryer do not need to be vented which reduces installation costs.

Design Considerations

The transition to electric stoves can be a big change for people who are used to cooking with natural gas stoves. SDCP should consider providing education and outreach, including demonstrations, to make residents of single-family and multi-family homes, and building owners/landlords aware of the negative health impacts of gas stoves, the performance and safety benefits of electric induction cooking, and the compatibility of induction cookware. SDCP should also consider providing gift cards or other incentives for induction compatible cookware to help offset costs.

Many buildings will require electrical panel upgrades to accommodate electric appliances, which may require hiring electricians for installation. If panel upgrades performed by an electrician are necessary, the total cost of the project will increase. SDCP should consider offering incentives for panel upgrades alongside appliance electrification programs. For Communities of Concern and other income-qualified customers with limited access to financing, direct installation, or up-front incentives are recommended over rebates.

Funding Considerations

SDCP should consider using internal revenues to fund appliance electrification and panel upgrade incentive programs. Providing additional incentives that can stack on top or fill in the gaps of the TECH Clean California program and the Home Electrification and Appliance Rebates that will be administered by the California Energy Commission (CEC) should also be considered.

Program Type 7: Building Electrification: Heat Pump Technology

Phase	Priorities Addressed	Recommended Market Sector/Customer Type
Mid-term		

Description

Heat pump technology programs encourage the installation of electric heat pumps for space heating, cooling, and water heating in buildings.

Benefits

Conversion to heat pump technology supports buildings that are more efficient, cleaner, healthier, and safer. Heat pump technology is more efficient than its natural gas counterparts and avoids the onsite use of natural gas, which is responsible for most building emissions and can cause negative health impacts due to indoor air pollution. Unlike traditional heating systems, heat pump technology can provide space heating and cooling from the same system, which can lower costs compared to installing separate systems. Heat pump technology can benefit older homes especially because they can introduce incredibly efficient cooling capacity that has not typically existed—a critical service for many residents in a changing and warmer climate. Switching to a heat pump water heater removes an additional source of pollution especially when they are located inside the home and can efficiently heat water.

To enable the installation of heat pump technology, electrical panel upgrades may be needed for buildings that have outdated or constrained electrical panels. While panel upgrades do not have direct environmental or health benefits, outdated panels are a barrier for electrification for many projects, as their cost can significantly increase project costs that may not be covered in other incentive programs.

Design Considerations

SDCP should consider supporting electrical panel upgrades in addition to the installation of heat pump technology. SDCP, like other CCAs, should also consider smart control requirements to enable demand response functionality since heat pump technology can be controlled to optimize when it is used to save energy and lower costs.

To support income-qualified customers and multi-family affordable housing, who may have challenges accessing up-front capital and have limited capacity to research and implement projects, SDCP should consider direct installation programs. These sectors often have limited cash flow and complex ownership structures that make it difficult to access capital through loans, which can result in maintenance backlogs that would need to occur before energy retrofits. As a result, they may not implement clean energy programs without significant financial support and technical assistance. SDCP should consider that residents of these buildings may be overburdened by rent and utility costs and may end up displaced if housing costs increase because of electrification. Given the vulnerability of the occupants, programs should also include protections for renters. This may require SDCP to work closely with local housing departments or other agencies to ensure that Communities of Concern are supported in the transition.

One common barrier during program design is the lack of skilled labor and equipment being carried by contractors. When older systems fail and need to be replaced, residential building owners generally cannot wait for contractors to order new equipment. Direct installation programs around efficiency and weatherization have traditionally leveraged entry-level skills, whereas the installation of heat pump technology requires more skilled labor, including electricians, heating and ventilation

technicians, and plumbers. SDCP should consider providing contractor training and mid-stream incentives to enable contractors to know how to install heat pumps correctly, have heat pumps on hand, and offer competitive pricing.

Funding Considerations

A major source of State funding for heat pump technology is the TECH Clean California program. SDCP should consider leveraging this program to provide additional stackable incentives. With funding flowing from the Inflation Reduction Act through the Environmental Protection Agency's Greenhouse Gas Reduction Fund and Environmental and Climate Justice Block Grants, SDCP should consider partnering with community-based organizations and regional agencies to apply for funding targeting the conversion to heat pump technology. SDCP should also monitor how funding from the Home Electrification and Appliance Rebates will be administered and implemented by the CEC.

Program Type 8: Distributed Energy Resources: Energy Storage Systems

Phase	Priorities Addressed	Recommended Market Sector/Customer Type
Mid-term		

Description

Energy storage system programs support the installation of onsite energy storage systems to be paired with renewable energy resources (e.g., onsite solar).

Benefits

While the amount of solar available on the grid has increased dramatically in California, it is not being sufficiently captured during times of high production so that it can be used to meet needs when renewable energy resources are not available. This causes an imbalance—too much energy on the grid at times and not enough at others, requiring fossil fuel-based sources of electricity to make up the difference. Increasing the amount of energy storage that is paired with renewable energy generation helps make the electric grid cleaner. Energy storage can help to increase the resilience of the grid by balancing supply and demand and can also be used for backup power during outages or emergencies. This can be especially beneficial for critical facilities, community resilience hubs, and for customers who need to always have power available for medical devices, safety, or emergency response.

Design Considerations

Multiple program pathways exist to support energy storage market development, depending on the level of resources available. For example, SDCP should work with local governments or others to implement energy storage systems at scale in critical facilities or community resilience hubs in ways that enable bulk purchasing of batteries and controls, including microgrids. SDCP should also provide technical support to customers to enable comprehensive energy retrofits, including energy storage systems.

Funding Considerations

SDCP should consider offering incentives to stack on top of other energy storage funding sources such as the Self-Generation Incentive Program (SGIP) like other CCAs have done. Additionally, SDCP should also consider creative financing to bridge the gap in SGIP processing timelines and complexities by providing an up-front incentive instead of requiring participants to wait for a rebate. Internal revenues could be prioritized for energy storage system market development programs given the potential multiple organizational and community benefits.

Program Type 9: Distributed Energy Resources: Demand Response

Phase	Priorities Addressed	Recommended Market Sector/Customer Type
Mid-term		

Description

Demand response programs incentivize customers to reduce their electricity use when energy demand on the grid is at its peak. These types of programs can encourage behavioral changes to shift or reduce usage or can leverage smart devices to automatically take the desired action.

Benefits

Decarbonizing buildings requires more than just reducing the amount of energy used; it requires changing the time of when energy is used to maximize the use of renewable energy and minimize peak demand when the grid requires larger fossil-fuel generation to come online. Demand response technologies enable this shift in when energy is used, helping customers control costs, and making the best use of renewable energy when it is available. Demand response technologies can also enable buildings to help build the overall resilience of the grid by helping operators shift loads during peak times, reducing the likelihood of power outages during extreme heat events.

Design Considerations

A gap exists around support for installation of smart controls on other systems, such as heat pump technology, electric vehicle chargers, and energy storage systems. Many CCAs require or encourage the equipment they incentivize to have demand response capabilities. SDCP should require that incentivized equipment be grid interactive. By establishing technology requirements across other programs, SDCP could provide the most future-proofing and flexibility to enable customers to participate in demand response programs.

Funding Considerations

Because demand response programs have the potential to reduce the amount of energy that SDCP needs to procure or bring value to SDCP's power services in other ways (i.e., resource adequacy), SDCP should consider funding these programs through internal revenues. SDCP should monitor the Demand Side Grid Support program development and other related demand response programs available from the California Energy Commission and California Public Utilities Commission.

Program Type 10: Energy Efficiency

Phase	Priorities Addressed	Recommended Market Sector/Customer Type
Mid-term		

Description

Energy efficiency programs promote a wide range of strategies that can reduce the amount of energy buildings use.

Benefits

Energy efficiency is a critical decarbonization strategy with multiple co-benefits: reduced energy demand, reduced customer energy bills, increased indoor air quality, and increased indoor comfort. Weatherization efforts, including insulation, improved windows and doors, and cool roofs can help keep indoor environments safe and comfortable longer when power outages occur—and less energy demand means customers can install smaller renewable energy generating systems (e.g., onsite solar) which leads to lower installation costs.

Design Considerations

With SDG&E offering a multi-year energy efficiency program portfolio, SDCP should develop complimentary programs that fill gaps and avoid duplication. SDCP should consider opportunities to provide free or low-cost energy efficiency upgrades for income-qualified customers and residents in Communities of Concern to be responsive to community priorities. Energy efficiency programs for multi-family buildings can help fill a gap, as these buildings often have complex ownership structures and other barriers that make it difficult to access traditional programs; this is especially notable for affordable multi-family housing.

SDCP should consider that residents of inefficient buildings may be overburdened by rent and utility costs and may end up displaced if housing costs increase because of energy efficiency upgrades. Given the vulnerability of the occupants and the importance of keeping people housed, energy efficiency programs should include protections for renters. This may require SDCP to work closely with local housing departments or other agencies. While challenging, these considerations can help support Communities of Concern.

Funding Considerations

Since SDCP is not eligible to receive energy efficiency funding via the Elect to Administer pathway, SDCP is limited in its opportunity to access energy efficiency funds from the California Public Utilities Commission via Public Purpose Program Surcharge funds. However, as one of the last regions in the State without a Regional Energy Network (REN), SDCP should continue its exploration of forming one. Programs from a REN would fill gaps in existing energy efficiency programs by serving hard-to-reach customers and would not be required to meet the restrictive cost-effectiveness thresholds.

Program Type 11: Transportation Electrification: Infrastructure

Phase	Priorities Addressed	Recommended Market Sector/Customer Type
Mid-term		

Description

Transportation electrification infrastructure programs support the deployment of electric vehicle charging stations and related technologies (e.g., Vehicle-to-Grid) to enable light-, medium-, and heavy-duty transportation electrification.

Benefits

Expansion of the electric vehicle charging network is needed to support customers switching from fossil-fuel powered cars, which are associated with both carbon emissions and local air pollution. Increasing access to charging infrastructure can increase customer confidence to make the transition to electric vehicles, especially for residents of multi-family buildings and in rural areas, as noted during the community needs assessment.

Design Considerations

SDCP should focus transportation electrification infrastructure programs on locations where the private sector is not currently prioritizing development (i.e., geographical areas or market sectors). Gaps in access to electric vehicle charging infrastructure could be filled through strategies such as direct installation of equipment for multi-family buildings located in Communities of Concern. In some cases, SDCP should provide additional funding to residents to stack on top of existing funding from incentive programs for all applicants or some sectors (e.g., Communities of Concern). In light of significant funding becoming available for public charging infrastructure, SDCP should partner with member agencies to expand public access to charging infrastructure in locations underserved by public charging and/or that could serve residents of multi-family buildings. Creative approaches for deploying charging infrastructure on member agency-owned land could create benefits (e.g., lower charging costs and increased charging locations) relative to charging infrastructure on commercial properties. SDCP also should consider offering technical assistance and incentives for commercial charging infrastructure to support the transition of medium- and heavy-duty vehicles to electric.

Funding Considerations

Significant focus has been placed on transportation electrification by state and federal agencies, creating many opportunities for SDCP to seek external infrastructure incentive programs. The California Public Utilities Commission's Locally Invested Transportation Equity funding offers a chance to test innovative program designs with a focus on community partnerships. The California Energy Commission is expected to provide additional opportunities for creative incentive design and delivery through future Vehicle-to-Grid funding and the Electric Program Investment Charge program.

SDCP should continue to collaborate with the San Diego Association of Governments and San Diego County Air Pollution Control District through the regional Accelerate to Zero Emissions Collaboration and in their effort to incentivize charging infrastructure. Lastly, SDCP can support member agencies in their efforts to seek funding such as through the Clean Mobility Options program.

Program Type 12: Transportation Electrification: Light-Duty Vehicles

Phase	Priorities Addressed	Recommended Market Sector/Customer Type
Mid-term		

Description

Light-duty vehicle electrification programs support customers in the transition from fossil-fuel powered cars to electric cars. Examples of light-duty vehicles include sedans, sport utility vehicles, and pick-up trucks.

Benefits

The switch from fossil-fuel powered cars towards electric vehicles have the dual benefit of reducing carbon emissions and air pollution locally. Compared to light-duty fossil-fuel cars, light-duty electric vehicles are easier to maintain and have an overall lower lifetime cost of operation. With the right rate structures and technology, electric vehicles also present the opportunity to serve as energy storage systems and help with grid resiliency.

Design Considerations

SDCP should prioritize expanding access to electric vehicles for income-qualified customers, such as offering incentives for used electric vehicles to increase affordability. Previously leased electric vehicles can be good options for used electric vehicles if they are in good condition. SDCP should consider partnering with car dealerships to offer point-of-sale incentives on used electric vehicles. SDCP should avoid providing after-sale rebates since it requires customers to have the upfront capital and ability to wait for a rebate. It should be noted that point-of-sale incentives can be more challenging to implement and SDCP will need to do additional work to support this type of delivery mechanism.

In addition, SDCP should focus on reducing other barriers to electric vehicle adoption such as by providing favorable financing options. Electric vehicle programs can be paired with support for charging infrastructure in Communities of Concern. Lastly, SDCP should consider designing programs that reduce other barriers to electric vehicle adoption by providing point-of-sale incentives or other types of up-front assistance instead of after-sale rebates. SDCP should also consider how best to fill in the gap for financing options by income-qualified customers.

Funding Considerations

Internal revenues may be required to create incentives to stack on top of available State funding for electric vehicle adoption (i.e., Clean Vehicle Rebate Project and Clean Vehicle Assistance Program) or the future regional vehicle-scrap program (i.e., Clean Cars 4 All). As with transportation electrification infrastructure programs, the regional Accelerate to Zero Emissions Collaboration initiative will be involved in all aspects of bringing funding to the region, both for SDCP to potentially access for self-administered programs and for its customers to access via third-party programs.

Program Type 13: Transportation Electrification: Medium- and Heavy-Duty Vehicles

Phase	Priorities Addressed	Recommended Market Sector/Customer Type
Mid-term		

Description

Medium- and heavy-duty vehicle electrification programs encourage the transition away from fossil-fuel powered commercial vehicles toward electric alternatives. Examples of medium- and heavy-duty vehicles include delivery and shuttle vans (class 2-6), diesel shipping trucks (class 7-8), school and transit buses, transport refrigeration trucks, drayage trucks, and forklifts.

Benefits

The electrification of medium- and heavy-duty vehicles reduces carbon emissions and local air pollution. Air pollution tends to be high around ports and logistics corridors, where heavy commercial vehicles regularly travel and often spend time idling. These are also places where large portions of Communities of Concern can be found, leading to disproportionate impacts on the health of these communities. Transitioning these vehicles has the added benefit of reducing noise pollution as well.

Design Considerations

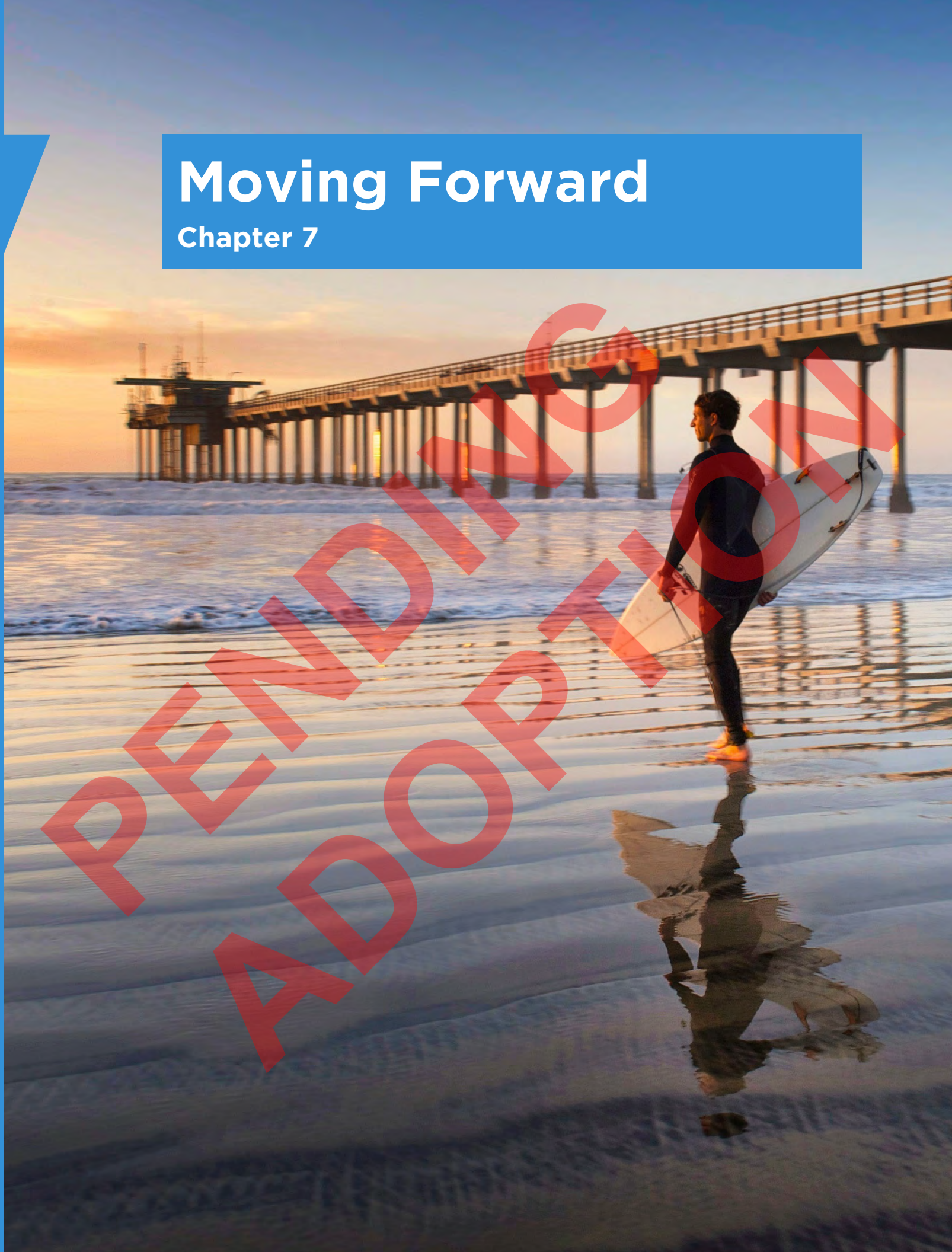
SDCP should analyze which fleets of medium- and heavy-duty vehicles have the highest impact on Communities of Concern. The Port of San Diego is a clear partner given its location, business operations, and recent policy direction in the Maritime Clean Air Strategy. Working with transit agencies, school districts, and public agencies, SDCP can support the transition of fleets that serve the public to create the co-benefit of exposing more of the public to electric transportation. SDCP should also create medium- and heavy-duty vehicle electrification programs that target businesses that operate their fleets primarily in Communities of Concern. While some medium-duty electric vehicle types are cost-competitive now, others are far more expensive and will take more support and resources to transition. In addition, because medium- and heavy-duty vehicles vary in the distance they can travel on each charge, SDCP should work with commercial customers to determine which vehicles options would work well based on their specific need, travel patterns, and markets served. SDCP also needs to consider the need for appropriate charging infrastructure to support the conversion.

Funding Considerations

SDCP should consider working with customers to implement innovative business models that lower the cost of vehicles. It should also consider leveraging internal funding to capture new funding opportunities and maximize impact.

Moving Forward

Chapter 7



7 Moving Forward

For SDCP and the communities it serves, the completion of this Plan is just the beginning. This Plan summarizes program options that SDCP can draw from over the next five years to advance an equitable, clean energy future for the San Diego region. The program type recommendations provide a toolbox that SDCP can use to meet community needs in ways that provide the most benefit.

Moving on from strategic planning, SDCP will:

- Continue working with stakeholders, with a focus on Communities of Concern, to clarify program design elements that fill gaps and overcome barriers to participation;
- Leverage internal revenues to bring in greater external funding to meet community needs and organizational goals;
- Build internal processes to capture program data and support continual improvement over time; and
- Scale successful programs to expand impact and accelerate change.

SDCP is committed to being ambitious but realistic. As a new CCA, it must set a strong foundation over the next five years so that it can create transformative opportunities for all in the decades to come.

SDCP staff conducting outreach at the San Diego Wave Futbol Club's first game at Snapdragon Stadium.

Appendix A

Community Engagement Strategy

Appendix B

Listening Sessions Co-Hosted with Community-Based Organizations (Round 1)

Appendix C

Listening Sessions Co-Hosted with Community-Based Organizations (Round 2)

Appendix D

Business, Key Stakeholders, and Public Listening Workshops Summary

Appendix E

Unincorporated Communities Pop-Up Engagement Summary

Appendix F

Community Needs Survey Instrument

Appendix G

Organizational Engagement Summary

Appendix H

Program Types Assessment

Appendix I

Community Choice Aggregator Listening Tour Summary