



A  Sempra Energy utility®

SUSTAINABILITY STRATEGY

# BUILDING A BETTER FUTURE

**OUR COMMITMENT  
TO SUSTAINABILITY**





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**LETTER FROM  
OUR CHIEF  
EXECUTIVE OFFICER**

2020 will go down as a seminal moment in time. Clearly, COVID-19 has dramatically upended the lives and livelihoods of our customers, our employees and the world at large. But the pandemic has not changed our mission to improve lives and communities by building the cleanest, safest and most reliable energy infrastructure company in America.

It has, in fact, only strengthened our resolve to anticipate, plan for and meet the needs of those we serve and bring sustainability to all our endeavors.

In short, we work every day to safeguard our operations, our resources and our environment – and shape the nature and role we play in delivering better energy outcomes for the communities we serve.

Doing so will not be easy, but it is the right thing to do. By championing people, investing wisely in our infrastructure and working collaboratively with local organizations, energy partners and our customers, we can help forge the path to carbon neutrality in California. In doing so, we will need to embrace the environmental, social and governance sustainability criteria that every successful organization is measured by.

The pages that follow will reveal the people of SDG&E, our commitment to sustainability and the actions we have taken and plan to take to shrink our carbon footprint. By doing so, we believe we can help expand opportunity for everyone – no matter who they are, where they live or work or what their future energy needs may be.



Partnering with you for a sustainable future,

A stylized, handwritten signature of Caroline Winn in black ink.

Caroline Winn  
Chief Executive Officer, SDG&E



**LETTER FROM OUR CHIEF  
ENVIRONMENTAL OFFICER**

At SDG&E, we spend a lot of time thinking about our mission and values. We ask ourselves: what will it take to be the cleanest, safest, most reliable energy infrastructure company in America? What does it mean to do the right thing, champion people and shape the future? Not just in 2020, but in 2030, 2040 and 2050.

We feel a sense of urgency about climate change and what it means for our future. The clock is ticking on achieving California's climate goals, and year after year, we see record-setting weather and devastating fires. It is clear we need bold action and extensive collaboration to reverse these patterns. We cannot wait for the pandemic to subside to tackle climate change.

At the same time, bold climate action must be equitable and affordable. The events of 2020 have highlighted deep divisions, inequalities and inequities throughout society. As we look to accelerate the transition to more renewable and zero-carbon resources, integrate technology and innovate, we must aspire to do so in a way that maximizes value and leaves no one behind.

And, that's not all. The transition to cleaner energy must also be reliable. For the first time in nearly 20 years, state authorities called for rotating outages. There was not enough energy on the electric grid to supply high demand throughout the West during a record-setting heat event. Unfortunately, we expect to see more heat events like these in the future.

These are daunting challenges, and we do not have all the answers. But we are willing to make commitments, be transparent, hold ourselves accountable and adapt to new circumstances. This region is not just where we do business. It's where we live, raise our families and contribute to our communities. We care deeply and personally about the future of this region and are ready to partner with stakeholders to find solutions.

This strategy takes a fresh look at SDG&E's commitment and efforts on sustainability in light of the need to accelerate decarbonization. We've identified long-term goals that are rooted in California's landmark climate policies, our mission and our values to do the right thing, champion people and shape the future. It includes a set of aspirational goals that we will hold ourselves accountable to over the next decade. We're already working out plans for how to deliver on these goals.

We know that circumstances will change. Our employees' and customers' needs will evolve, new challenges will arise, technologies will emerge and we will adjust accordingly. We look forward to your input and collaborating with you to achieve bold and equitable climate action safely, reliably and affordably.



This living strategy will guide us on our mission to build the cleanest, safest and most reliable energy infrastructure company in America.

The future is what we make it. We have an opportunity and an obligation to make it a promising one for everyone.

A stylized, handwritten signature in black ink, appearing to read 'Estela'.

Estela de Llanos  
VP of Clean Transportation,  
Sustainability and Chief Environmental Officer, SDG&E



## OUR MISSION

**To improve lives and communities by building the cleanest, safest and most reliable energy infrastructure company in America.**

### OUR VALUES:

- Do the Right Thing
- Champion People
- Shape the Future

To progress towards our goals, we must modernize our infrastructure and improve the customer experience through innovation and technology while we manage costs. Together, we are working to create a sustainable energy future for generations to come.

At SDG&E, we're committed to the success of our customers and employees. Our goal is to help build a community that is innovative and forward thinking by continuing to inform individuals on the importance of clean energy initiatives. Our dedication to protecting and improving lives is driven by a deep desire to better our environment with changes that help us adopt cleaner energy, enhance safety measures and redefine how we operate our reliable energy grid. Together, we can help ensure a better future for generations to come.

- **WE DO THE RIGHT THING BY HOLDING OURSELVES TO HIGH STANDARDS IN ETHICS, SAFETY, QUALITY AND SUSTAINABILITY.**
- **WE CHAMPION PEOPLE AND INVEST IN AND VALUE THE DIVERSE PERSPECTIVES THAT EACH OF US CONTRIBUTES TO THE COMPANY.**
- **WE SHAPE THE FUTURE BY COMBINING THE POWER OF TECHNOLOGY WITH THE BEST OF NATURE TO HELP MAKE A POSITIVE DIFFERENCE.**



# OUR COMMITMENT

SECTION 1



## OUR COMMITMENT

Our commitment to sustainability is built into everything we do. And as a forward-looking company in the pioneering state of California, we are closely aligned with our state's bold climate and environmental agenda. We believe California's progressive environmental policy leadership, its early adoption of clean energy solutions and the urgency to address climate change will continue to grow both inside and outside our state.

We are ready to do our part to help the state meet its ambitious goals.

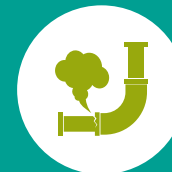
### FOCUSED ON SETTING THE STANDARD FOR SUSTAINABILITY IN SEVERAL CRITICAL AREAS:



**STEADILY EVOLVING  
OUR ROBUST  
WILDFIRE MITIGATION  
OPERATIONS**



**IMPLEMENTING AN  
AGGRESSIVE VEHICLE  
ELECTRIFICATION PLAN**



**MANAGING OUR  
NATURAL GAS SYSTEM  
TO REDUCE LEAKS**



**INNOVATING OUR  
GRID TO REDUCE  
EMISSIONS**



**EXPANDING OUR  
CLEAN TECHNOLOGY  
PORTFOLIO WITH  
ENERGY STORAGE  
AND MICROGRIDS**



**DEDICATING  
OURSELVES TO  
ENVIRONMENTAL  
STEWARDSHIP**

## CALIFORNIA LIVING

We have called the San Diego and Southern Orange County regions home for nearly 140 years – and proudly so. As such, we support California's aggressive sustainability goals, America's most ambitious, that call for 40% fewer greenhouse gas (GHG) emissions by 2030 and net zero emissions by 2045.

To meet these ambitious goals and build a zero-carbon grid affordably and reliably by 2045, our actions are guided by **the commitment to:**



**SEEK SUSTAINABLE LOW-COST RESOURCES THAT ARE SAFE AND RELIABLE**



**EVALUATE FLEXIBLE DEMAND-SIDE AND SUPPLY-SIDE RESOURCES AND PARAMETERS**



**INTEGRATE RENEWABLES AND LOW-CARBON RESOURCES**



**INNOVATE AND DEPLOY BREAKTHROUGH CLIMATE MITIGATION AND ADAPTATION SOLUTIONS**



**EMBRACE LONG-TERM SOLUTIONS, PARTICULARLY LONG-DURATION STORAGE OPPORTUNITIES INCLUDING GREEN HYDROGEN**



**EXPLORE OPPORTUNITIES FOR REDUCING THE CARBON INTENSITY OF OUR GAS PLATFORM THROUGH SUSTAINABLE BIOMASS, RENEWABLE NATURAL GAS (RNG), POWER TO GAS (P2G), HYDROGEN AND OTHER EMERGING TECHNOLOGIES**

We believe this multi-pronged approach is necessary to any successful decarbonization strategy for two fundamental reasons: 1) we are facing great uncertainty and 2) safety, reliability and affordability remain paramount.

## CURRENT CALIFORNIA CLIMATE GOALS

### 2050

GHGs 80% below 1990 levels (AB 32)

### 2045

Renewable energy resources and zero-carbon sources supply 100% retail sales of electricity (SB 100)

Net Carbon Neutral across all sectors of the economy (Executive Order)

100% of trucks sold and operated are zero-emission (Executive Order)

### 2035

100% of cars sold are zero-emission (Executive Order)

### 2030

GHGs 40% below 1990 (SB 32)

60% renewable electricity (SB 100)

5 million EVs (Executive Order)

### 2020

GHGs at 1990 levels (AB 32)



## JUST ENOUGH IS NEVER ENOUGH

Our goal to deliver clean, safe and reliable energy is merely a starting point. The same can be said for our environmental compliance efforts. So, as we execute our mission, we must consider the disproportionate societal impacts related to energy transition and climate action. We are designing innovative solutions to accelerate decarbonization and encouraging our employees and the communities we serve to take daily action to help ensure a sustainable energy future. The current pandemic, record-high temperatures, raging wildfires and rolling blackouts provide a sobering reminder that we need to be more adaptable in the face of adversity. These events also alert us to the need to collaborate and define a coordinated response to solve the complex challenges that affect us all.

We're looking at a transformation of the electric and transportation systems in the next 10 to 25

years in our service territory and beyond. There is a real sense of urgency to deliver solutions that build on our strengths in transportation, grid resilience, clean technologies, supply chain management and environmental stewardship. When it comes to sustainability, doing more than enough must be our mantra.

Making it so demands that we continue to do the right thing, champion people and shape a future where everyone and this planet we inhabit can thrive. Our sustainability strategy builds on our strengths, but doesn't stop there. Our commitment includes specific, actionable goals with the potential for high positive impact.

**OUR SUSTAINABILITY  
STRATEGY BUILDS ON  
OUR STRENGTHS, BUT  
DOESN'T STOP THERE.**

SEMPRA SUSTAINABILITY GOALS			
DO THE RIGHT THING		CHAMPION PEOPLE	SHAPE THE FUTURE
Achieving World Class Safety	Driving Resilient Operations	Championing People	Enabling the Energy Transition
<p><b>For our customers, employees, contractors and the communities we serve</b></p> <p><b>Each year, we aim to:</b> Achieve zero employee and contractor fatalities</p> <hr/> <p>Improve employee and contractor OSHA recordable injury rates and lost work-time incident rates</p> <hr/> <p>Participate in emergency planning processes in 100% of the communities we serve</p> <hr/> <p>Train 100% of critical employees in emergency management and response</p>	<p><b>To achieve consistent excellence in all we do</b></p> <p><b>Each year, we aim to:</b> Achieve electric reliability in top quartile</p> <p><b>By 2030, we aim to:</b> Reduce fugitive emissions from our natural gas transmission and distribution systems by 40% from our 2015 baseline</p> <hr/> <p>Eliminate 100% of natural gas vented during planned pipeline work (excludes emergency repairs)</p>	<p><b>To create an inspired workforce</b></p> <p><b>Each year, we aim to:</b> Achieve a voluntary employee turnover rate of 5% or less</p> <hr/> <p>Achieve a companywide employee engagement survey score in the top quartile</p> <hr/> <p>Provide 30+ training hours per employee</p> <hr/> <p>Achieve or maintain workforce diversity consistent with that of the communities where we operate</p>	<p><b>To provide affordable, lower-carbon energy in every market we serve</b></p> <p><b>Each year, we aim to:</b> Enroll 90% of eligible customers in alternative rates for energy programs</p> <p><b>By 2045, we aim to:</b> Deliver 100% renewable or zero-carbon energy to electric utility customers</p>

This chart shows goals released by Sempra in the May Corporate Sustainability Report (CSR) and adopted by SDG&E.



## SDG&amp;E SUSTAINABILITY GOALS

DO THE RIGHT THING	CHAMPION PEOPLE	SHAPE THE FUTURE
<p><b>Environmental Stewardship</b></p> <p><b>Each year, we aim to:</b></p> <p>Plant at least 10,000 trees (starting in 2021), support local biodiversity with the “Right Tree, Right Place” program and intelligent water use</p> <p><b>By 2030, we aim to:</b></p> <ul style="list-style-type: none"> <li>Divert 100% of our organic green waste, especially green waste related to vegetation management, from entering landfills</li> <li>Increase recycled water use to at least 90% at all our facilities</li> </ul> <p><b>Sustainable Operations – Fleet Decarbonization; SF6 Alternatives</b></p> <p><b>By 2030, we aim to:</b></p> <ul style="list-style-type: none"> <li>Electrify 100% of our Light Duty Fleet</li> <li>Transition 30% of our overall fleet to Zero Emission Vehicles (ZEV)<sup>1</sup></li> </ul> <p><b>By 2040, we aim to:</b></p> <ul style="list-style-type: none"> <li>Operate a 100% ZEV fleet</li> <li>Deploy 100% non-SF6 equipment, everywhere feasible</li> </ul>	<p><b>“Outside In” Community Outreach</b></p> <p><b>Each year, we aim to:</b></p> <p>Actively engage a growing network of external, community-based, nonprofit stakeholders that provides continuous constructive feedback and partners with us on meeting the needs of diverse, underserved and disadvantaged communities through sustainability initiatives</p> <p><b>Creating Opportunities through Diversity, Equity &amp; Inclusion Actions</b></p> <p><b>Starting in 2020:</b></p> <p>We are advancing our commitment to engage, act, measure and report our performance related to Diversity and Inclusion (D&amp;I) with greater transparency and urgency. Emphasizing five key pillars to track progress:</p> <ol style="list-style-type: none"> <li>1. Leading from the top</li> <li>2. Accelerating employee engagement</li> <li>3. Creating opportunity</li> <li>4. Driving conscious inclusion</li> <li>5. Partnering with the communities we serve</li> </ol> <p><b>Sustainable Supply Chain</b></p> <p><b>By 2025, we aim to:</b></p> <p>Develop an energy-industry leading supply chain sustainability program</p>	<p><b>Reimagine Transportation</b></p> <p><b>Starting in 2020, we aim to:</b></p> <p>Support California’s goal to transition to zero-emission vehicles by accelerating our strategic collaboration of key stakeholders<sup>2</sup> to deliver an ambitious region-wide clean transportation infrastructure goal, address air pollution and solidify the region’s leadership on the global transportation map; we will continue to shape constructive policies and legislation to ensure customer adoption and facilitate an equitable transition</p> <p><b>Grid Modernization &amp; Breakthrough Solutions</b></p> <p><b>By 2022, we aim to:</b></p> <p>Place two green hydrogen projects into service to offer long duration energy storage, increase system resiliency and reduce carbon intensity</p> <p><b>By 2025, we aim to:</b></p> <p>Plan and pilot a Virtual Power Plant (VPP) to further expand and leverage distribution-level demand response (DR) as a means to reduce GHG emissions, advance resource adequacy and enhance grid resiliency</p> <p><b>By 2030, we aim to:</b></p> <p>Collaborate with industry leaders and implement at least one breakthrough solution that mitigates direct emissions from gas-fired generation</p>

1. CPUC and CARB Zero-Emission Vehicle (ZEV) technologies definition includes full battery electric vehicles (BEV), plug-in hybrid electric vehicles (PHEV) and hydrogen fuel cell vehicles. Fleet goals contingent on original equipment manufacturer (OEM) vehicle availability and funding approval through the California Public Utilities Commission (CPUC).

2. These stakeholders include local jurisdictions, regional agencies, utilities and other key stakeholders.

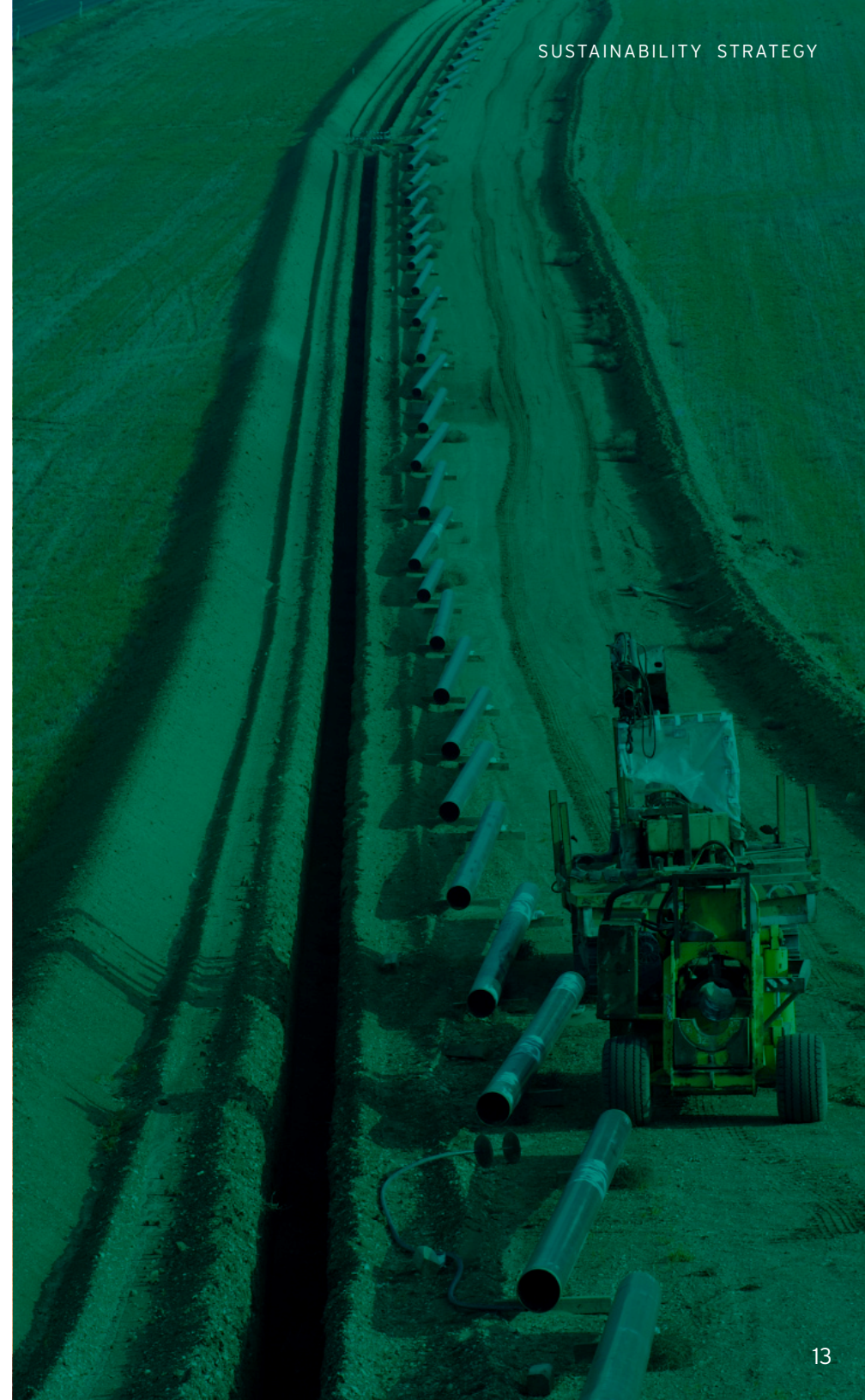
# DOING THE RIGHT THING

SECTION 2



## DOING THE RIGHT THING

At SDG&E, doing the right thing means striving to build sustainability into our operations, lead the nation in safety and deliver energy reliably to all our customers – residential, commercial and industrial. We all play a role in making progress toward a sustainable world and in this section, you will find examples of the sustainable endeavors SDG&E is undertaking in these three critical areas.





## **BUILDING SUSTAINABILITY INTO OUR OPERATIONS**

Our operations encompass everything from physical facilities including power plants, transmission lines, company vehicles and office buildings to the basics of purchasing, complying with regulation, sharing and reporting environmental data that goes into safe and reliable energy delivery. Doing so takes commitment, collaboration and innovation to make our operations more sustainable and help enable the communities we serve to thrive.



## CALIFORNIA GHG EMISSIONS INVENTORY BY SECTOR

### WORKING COLLABORATIVELY

Given the diversity of economic sectors that contribute to GHG emissions, we cannot achieve our goals alone. We need to define and develop creative solutions, embrace interconnected energy sectors (producers and consumers), take collective action and outline policies that deliver the desired environmental and socioeconomic outcomes.

**By undertaking and establishing collaborative, sector-wide efforts, we can help accelerate the speed and scale needed to achieve California's 2045 sector-wide carbon neutrality goal.**

Focusing more narrowly on our service territory, a clear example of collective action stands out: transportation. Due to this sector's disproportionately high contribution of GHG emissions, SDG&E has partnered with several local agencies including, the regional planning authority (SANDAG), the San Diego Air Pollution Control District (SDAPCD) and the County of San Diego since early 2019 on efforts to accelerate the adoption of electric vehicles throughout San Diego.



TRANSPORTATION

41%



INDUSTRIAL

24%



ELECTRICITY  
IN STATE

9%



AGRICULTURE

8%



RESIDENTIAL

7%



ELECTRICITY  
IMPORTS

6%



COMMERCIAL

5%

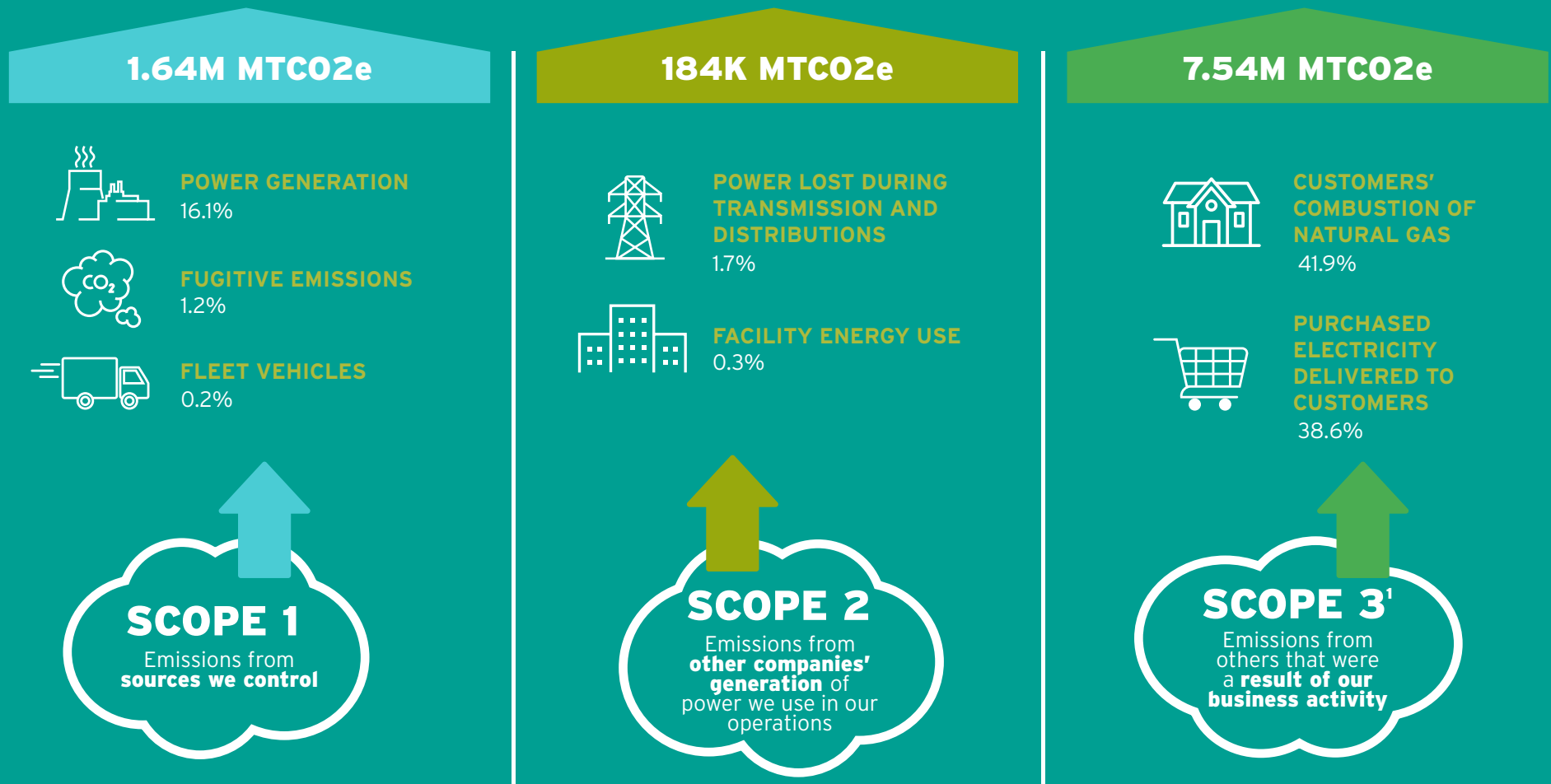


## LEADING THE EFFORT TO CAPTURE, REPORT AND SHARE EMISSIONS DATA

Accurate GHG emissions data is critical to establishing baselines and charting success in reducing CO<sub>2</sub> output. As a leader in GHG emissions reporting efforts, we joined the California Climate Action Registry (CCAR) in 2003 and The Climate Registry (TCR) in 2008. We supported the development of GHG reporting guidelines early on and

began voluntary reporting long before it became mandatory. We also began third-party verification of our first 2004 emissions inventory in 2005. An accurate account of our emissions includes not only our own carbon footprint, but the footprint of the end consumers of the energy we deliver, which falls into three categories or scopes.

### 2018 SDG&E GREENHOUSE GAS EMISSIONS MTCO<sub>2</sub>e



<sup>1</sup> Scope 3 emissions data based on internal estimate, not 3rd party verified

## SETTING THE BAR FOR LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN

Currently, 14 SDG&E facilities are LEED (Leadership in Energy and Environmental Design) certified. LEED is the most widely used green building rating system in the world. And we are pursuing LEED certifications as part of our SDG&E Headquarters (Century Park) Renew Project. All new construction or tenant improvements at SDG&E facilities larger than 10,000 sq. ft. are required to pursue LEED Silver or higher certification. We have also set targets around reducing energy and water usage and waste production at all our facilities.

We are reducing energy usage at existing office facilities through HVAC system efficiencies, renewable energy sourcing and Energy Star certifications. For new facilities and leases, SDG&E aims to incorporate green building principles from LEED and other building-industry sustainable best practices.

## FINDING WAYS TO MAKE WASTE WANTED

We are committed to a circular economy – one that is regenerative by design and aims to gradually decouple growth from the consumption of finite resources and reducing waste. **By 2030, we aim to:**

- **DIVERT 100% OF OUR ORGANIC GREEN WASTE, ESPECIALLY GREEN WASTE RELATED TO VEGETATION MANAGEMENT, FROM ENTERING LANDFILLS**
- **INCREASE RECYCLED WATER USE TO AT LEAST 90% AT ALL OUR FACILITIES**

Our most recent data shows we have diverted or reclaimed more than 13.5 tons of waste since 2017. Efforts include reducing our food waste through composting the pre-consumer food waste from our on-site dining facilities and donating unused food to Feeding San Diego.

### SDG&E WASTE INITIATIVES



**9,860 TONS**  
VEGETATION WASTE  
DIVERTED FROM  
LANDFILLS<sup>1</sup>



**3,842 TONS**  
SOLID WASTE  
RECYCLED<sup>1</sup>



**1,108 TONS**  
FACILITY GREEN  
WASTE RECYCLED<sup>2</sup>



**159 TONS**  
CAFÉ FOOD  
WASTE RECYCLED<sup>2</sup>



**238 POUNDS**  
GREEN TEAM  
ECOCHALLENGE<sup>3</sup>



**3,750 CUBIC  
YARDS**  
MULCH DONATIONS<sup>4</sup>

<sup>1</sup> FROM 2017-2019

<sup>2</sup> FROM 2017 - Q2 2020

<sup>3</sup> FROM 2019 - Q2 2020

<sup>4</sup> IN 2019



## SDG&E WATER CONSERVATION INITIATIVES

Our water conservation initiatives have reclaimed or conserved in excess of 1.7 billion gallons of water, with more than 1.5 billion since 2017 alone.



**1.5 BILLION  
GALLONS**

PALOMAR ENERGY  
CENTER RECLAIMED  
WATER USE<sup>1</sup>



**192 MILLION  
GALLONS**

SUBSTATION IRRIGATION  
IMPROVEMENTS<sup>2</sup>



**28 MILLION  
GALLONS**

FACILITY  
IMPROVEMENTS<sup>3</sup>



**4 MILLION  
GALLONS**

DROUGHT TOLERANT  
LANDSCAPING<sup>4</sup>



**13,100  
GALLONS**

GREEN TEAM  
ECOCHALLENGE<sup>5</sup>

<sup>1</sup> SAVINGS FROM 2017-2019

<sup>2</sup> SAVINGS FROM 2004-2013

<sup>3</sup> SAVINGS FROM 2008-2011

<sup>4</sup> SAVINGS IN 2018

<sup>5</sup> SAVINGS FROM 2019 - Q2 2020





## DECARBONIZING THE SDG&E FLEET

To achieve standards set forth in California's Zero-Emission Vehicles (ZEV)<sup>1</sup> goals, **SDG&E aims to:**

- **ELECTRIFY 100% OF OUR LIGHT DUTY FLEET BY 2030**
- **TRANSITION 30% OF OUR OVERALL FLEET TO ZERO EMISSION VEHICLES (ZEV) BY 2030**
- **OPERATE A 100% ZEV FLEET BY 2040**



### PROOFPOINT

**CALSTART Fleet Accreditation.** In 2020, SDG&E obtained CALSTART Sustainable Fleet accreditation. This tiered accreditation program recognizes corporate fleet commitments and measures actions and progress toward a cleaner fleet. The Accredited Sustainable Fleet in Tier 2 indicates we have a Sustainable Fleet Plan, are tracking fuel and GHG emission data and demonstrating meaningful action to integrate sustainability into the fleet. We intend to improve our ranking by reducing idle times, improving fuel efficiency and increasing the number of Zero-Emission Vehicles in our fleet.

1. CPUC and CARB Zero-Emission Vehicle (ZEV) technologies definition includes full battery electric vehicles (BEV), plug-in hybrid electric vehicles (PHEV) and hydrogen fuel cell vehicles. Fleet goals contingent on original equipment manufacturer (OEM) vehicle availability and funding approval through the California Public Utilities Commission (CPUC).

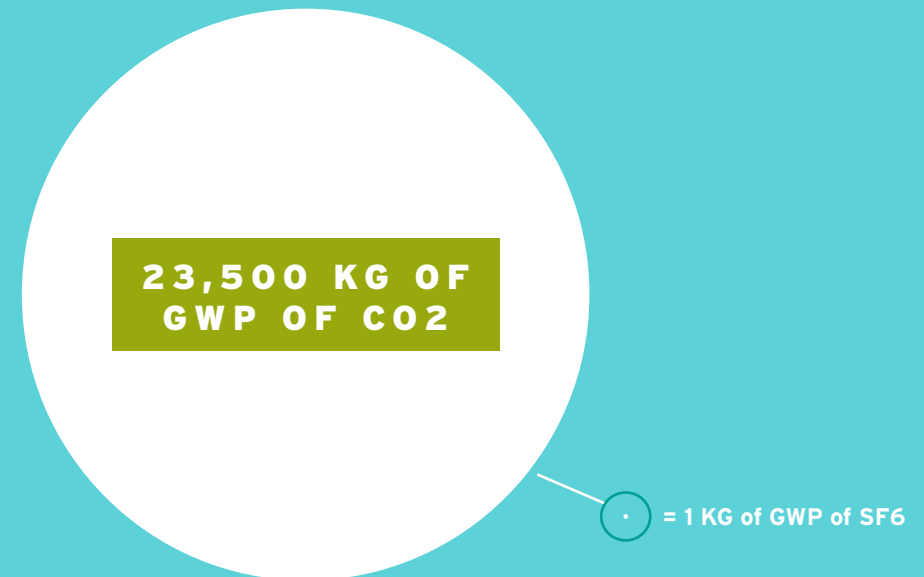
## PHASING OUT SULFUR HEXAFLUORIDE

Used by electric utilities to insulate circuit breakers and distribution switches, sulfur hexafluoride (SF6) is the most potent greenhouse gas. With a global warming potential (GWP) 23,500 times of CO2 over 100 years and an atmospheric<sup>1</sup> lifetime of 3,200 years, phasing out its use is critical. SDG&E is pursuing an aggressive SF6 leak abatement strategy to:

- **DEPLOY 100% NON-SF6 EQUIPMENT, EVERYWHERE FEASIBLE BY 2040**

While the pace and scale of progress of eliminating SF6 emissions has been constrained by replacement technology availability, equipment form factor and cost, we are testing a new technology that is SF6 free as part of our abatement strategy. We are also collaborating with industry partners to develop non-SF6 technology for high-voltage transmission equipment and exploring ways to scale non-SF6 solutions as part of the utility infrastructure through a Joint Utilities Group membership.

## WHY SHOULD WE WORRY ABOUT SF6?



1. Intergovernmental Panel on Climate Change AR4.



## DECOMMISSIONING SAN ONOFRE NUCLEAR GENERATING STATION (SONGS)

As a 20% owner of SONGS, SDG&E is working with partners to help ensure that it is decommissioned safely and responsibly. That includes working with the California Coastal Commission and the U.S. Navy to develop plans and programs for the long-term stewardship of the site. The primary owner and former operator of SONGS, Southern California Edison, is scheduled to publish a long-term nuclear waste storage plan for the project in late 2020. SDG&E also works with Southern California Edison on the Wheeler North Reef Restoration Project and the San Dieguito Wetland Restoration Project as part of our environmental commitments related to this project. For example, The Wheeler North Reef near the San Onofre kelp beds will undergo expansion to restore fish stocks, an important part of supporting the reef's health.





## LEADING THE NATION IN SAFETY

SDG&E has been recognized as an industry leader in occupational safety, emergency management and wildfire mitigation operations. Our approach to safety is strategic, deliberate and holistic. Safety is a top priority and is monitored by safety committees and safety performance metrics tracked as outlined by SMAP – Safety Model Assessment Proceeding by the CPUC. The proactive safety culture is strong at SDG&E, and we never stop improving in our efforts to protect employees, contractors and the public. We are also pursuing certification for the Cal OSHA Voluntary Protection Program for several of our facilities.

### PROOFPOINT

Managing the safety of a complex natural gas and electric system involves significant coordination to address multiple activities and dynamic circumstances. Pursuing SDG&E's goal of zero incidents requires a comprehensive, systemic effort. In early 2020, we became one of the first electric utilities to implement an enterprise-wide Safety Management System, or SMS. This holistic approach goes beyond traditional occupational safety by placing critical emphasis on strong interdependencies of risk, asset, incident response and operational management. Our SMS allows us to manage and reduce risks and hazards and helps enable continuous improvements in safety performance through deliberate and integrated processes. Through SMS, we aim to align current and future risk, assets, emergency and safety management improvement efforts; build upon the existing strong safety culture; and further commit to safety for employees and our customers.

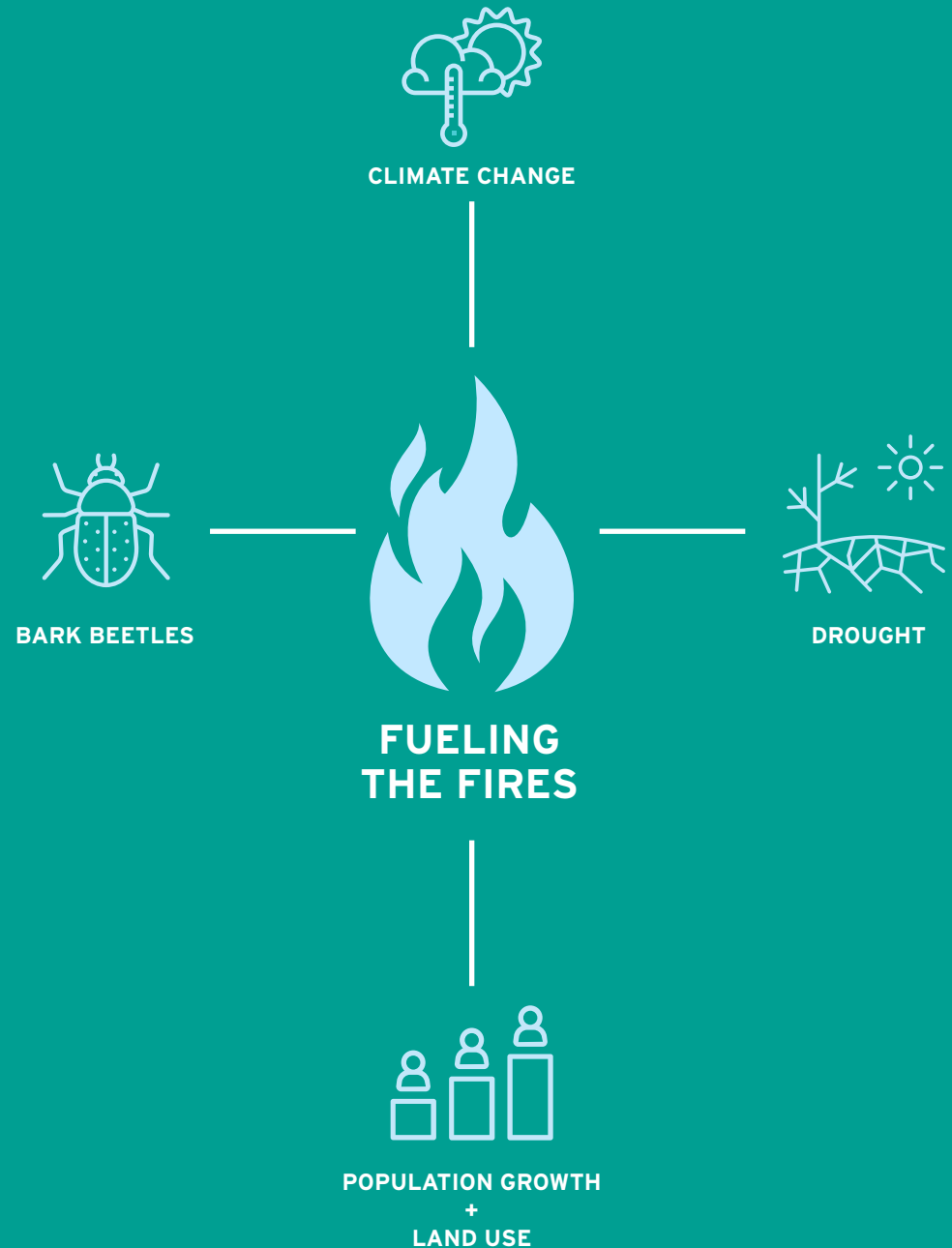


## COMBATING WILDFIRES

We are proud to be a national leader in wildfire-risk mitigation. We recognize that fire-season weather conditions, coupled with climate change, are making the length and intensity of wildfires in our service area more pronounced. Since 2007, we have invested over \$2 billion in a variety of safety measures to prevent catastrophic wildfires – we were one of the first utilities in the country to develop a dedicated Fire Science & Climate Adaptation Department to combat this growing threat. Among other technological advancements, we have our own in-house modeling software. This software is designed to allow our employees and our partners to forecast fire threats so that we can be better prepared for weather conditions that can lead to fires.

### WILDFIRES - CAUSE AND CONTAINMENT

A variety of factors – drought, bark beetle infestations, population growth and climate change, among others – have increased the threat and incidences of wildfires throughout California. Prolonged droughts in our service territory have contributed to exceptionally dry fuels. Combined with severe wind events, these factors can turn a containable wildfire into a rolling blaze, threatening lives, property and company facilities – and dramatically inflating the region's CO<sub>2</sub> output. So, every time we avoid a catastrophic wildfire, we avoid thousands or millions of metric tons of black carbon emissions.



## MANAGING WILDFIRE RISK – MAKING COMMUNITIES MORE RESILIENT

Approximately 64% of our service area is in High Fire Threat Districts (HFTD), which includes more than 206,000 customers. This fact alone has spurred the development of initiatives designed to mitigate the damage fires cause. Taking on this threat demands both aggressive and passive prevention and containment measures, organizational collaboration and programs that assist affected or at-risk communities.

## CHARTING THE SOLUTIONS

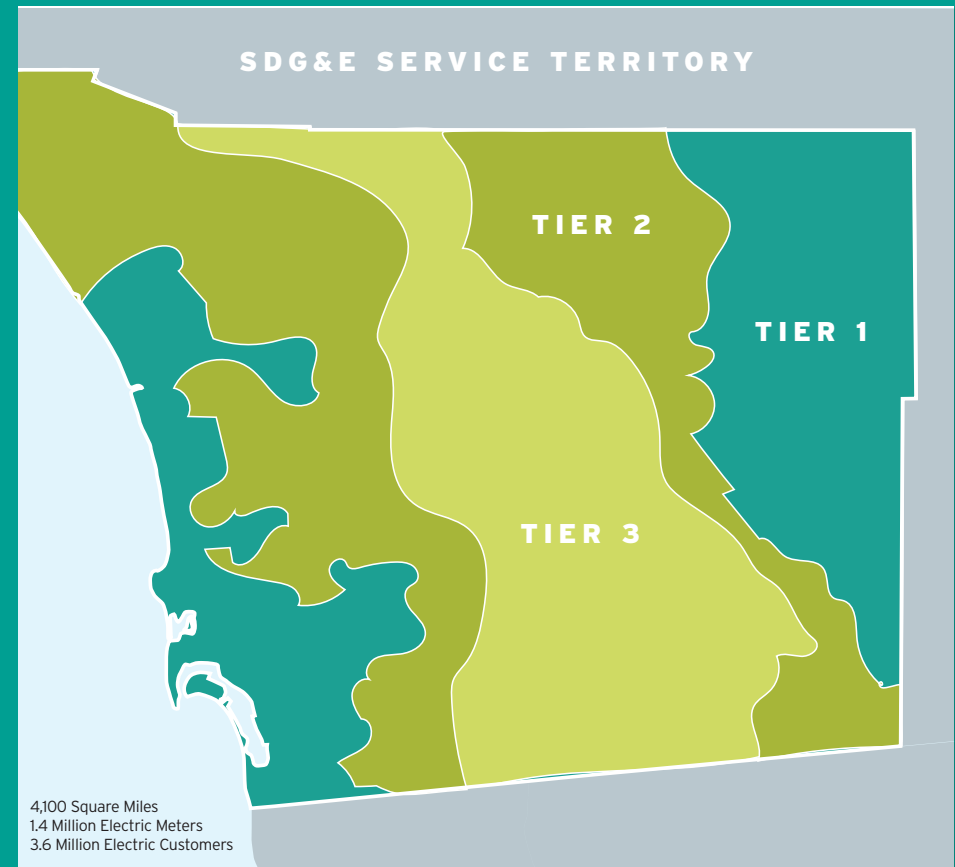
### TO PROTECT OUR COMMUNITIES, WE ARE:

- Increasing undergrounding of overhead lines
- Creating fire-hardened interfaces between urban areas, wildlands and coastal canyons
- Accelerating vegetation management to reduce fire fuels
- Expanding our tool box for fire detection and early warning systems
- Partnering with telecoms to improve cellular reliability
- Expanding customer education, awareness, preparedness and resiliency efforts
- Installing additional cameras to boost detection in real time
- Installing 30 additional weather stations for <30-second data reporting
- Deploying satellite detection systems for <30-second fire notifications
- Equipping all power-line poles with smart-reporting technologies
- Deploying an Artificial Intelligence (AI) Forecasting System to speed alert times

## MAPPING THE RISK

### HIGH FIRE THREAT DISTRICTS INCLUDE:

- 64% of Our Service Area
- 206,000 Customer Accounts
- 3,500 Miles of Overhead Energy Miles
- 53% Trees Impacting Operations



Tier 1 - High Fire Hazard Zone  
Tier 2 - Elevated Fire Threat Zone  
Tier 3 - Extreme Fire Threat Zone



## MINIMIZING THE IMPACT OF PUBLIC SAFETY POWER SHUTOFFS

Our top priority is the safety of our customers and employees. So, during adverse weather conditions, we may need to execute a Public Safety Power Shutoff (PSPS) to help prevent potential wildfires. We are expanding upon or developing new programs and strategies and leveraging backup power to mitigate the risk associated with PSPS. These programs include improving resilient internet connectivity at fire stations, expanding our Community Resource Center Network and implementing a grant program for portable generators targeted to select residential customers.

## THINKING OUTSIDE THE GRID

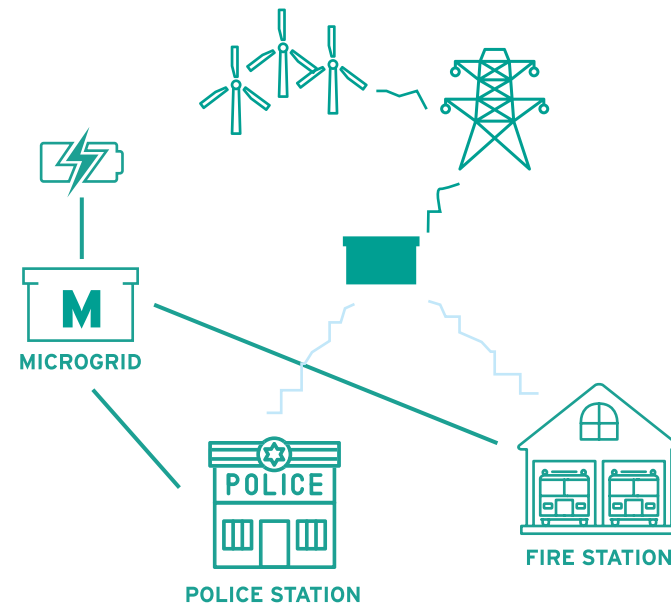
To mitigate the impacts of shutting off power, we have developed and continue to develop microgrids that can help keep our critical customers, often disadvantaged communities in our high fire threat districts, up and running during PSPS events, which may last for days at a time. Microgrids – basically mini power grids – use technologies such as energy storage to provide power to specific communities and neighborhoods if an outage occurs on the larger grid, including power for fire stations, police stations, hospitals and emergency community centers.

Working from the insights gained from our first microgrid in Borrego Springs, we plan to deploy one for the Ramona Air Attack Base in 2020 and have three others slated to go online in 2021 for the communities of Cameron Corners, Shelter Valley and Butterfield. These microgrids will provide power to customers and critical needs.

## SOLUTIONS DEVELOPED TO DECREASE IMPACT OF PSPS EVENTS

SOLUTIONS	OUTCOMES
Sectionalizing Devices	25% Fewer PSPS Customers Impacted in 14 Communities which include:  5 Schools 4 Fire Stations 1 Urgent Care Facility 33 Communication Sites 5 Water Facilities
Weather Stations	
Undergrounding	
Grid Reconfiguration	
Microgrids	
Local Generation	

## USING MICROGRIDS TO MITIGATE PSPS EVENTS



ACTIVE



INACTIVE

## THE NEXUS OF WILDFIRE MITIGATION AND VEGETATION MANAGEMENT

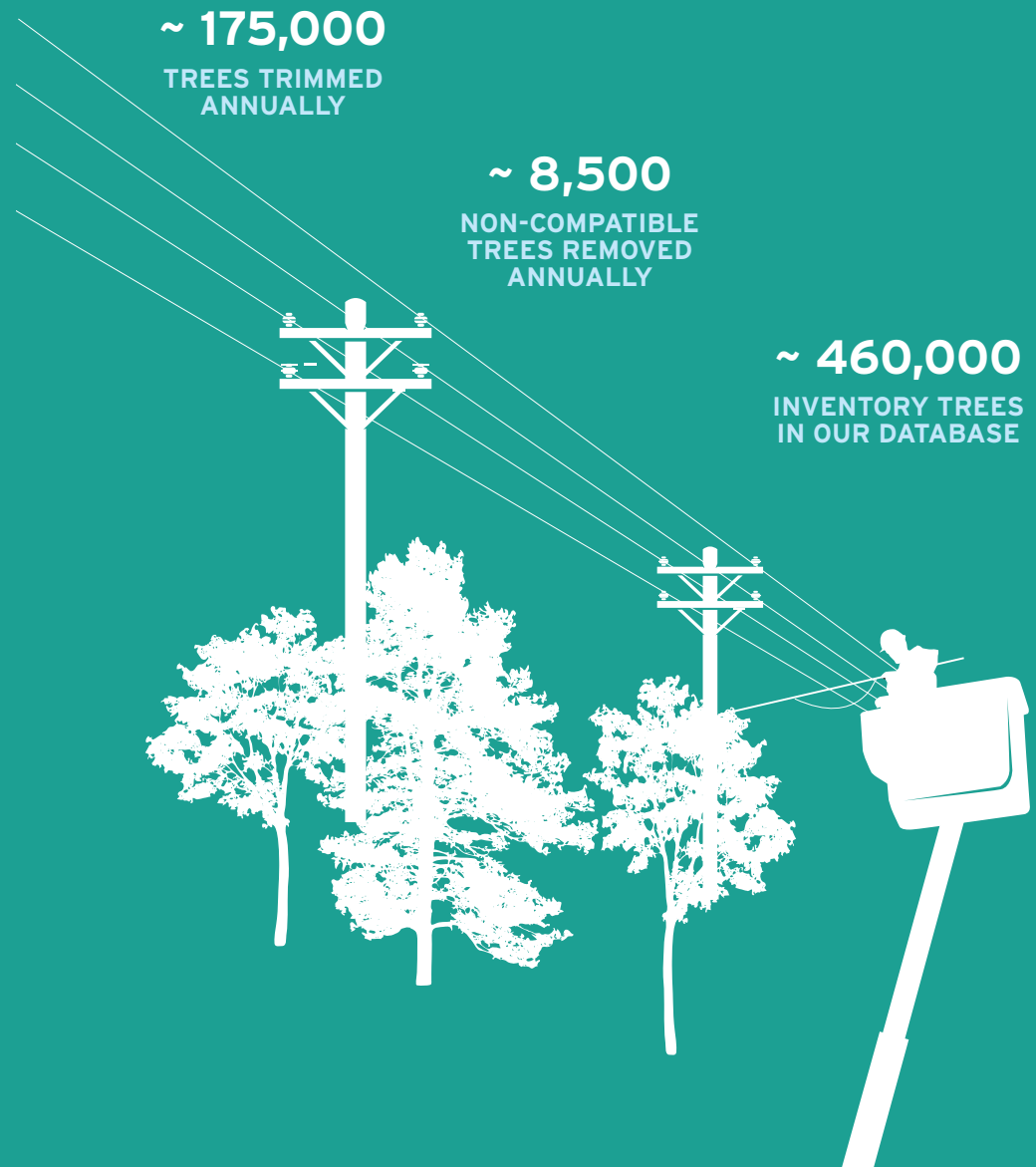
Our Environmental Services and Vegetation Management team has been thinning vegetation in high-risk wildfire areas and turning it into nutrient-rich mulch to be donated to local businesses and philanthropic organizations. Recycling this organic material allows us to help reduce carbon emissions and save landfill space.

Through our Sustainable Fuels Management Program, we have donated approximately 3,750 cubic yards of mulch to organizations throughout our service territory including local schools, farms, parks and nonprofit organizations, such as the Children's Nature Retreat Foundation.

Since tree trimming is central to vegetation management, SDG&E maintains an electronic tree database that tracks the inspection, trimming and auditing of approximately 460,000 trees in our service area. An inventory tree is one that could encroach the minimum clearance or otherwise impact our electrical facilities.

We have also diverted a third of our green waste to San Pasqual Valley Soils (SPVS) where it is turned into biochar and then used to make nutrient-rich compost sold for a profit. Each year, we aim to:

- **PLANT AT LEAST 10,000 TREES (STARTING IN 2021)**
- **SUPPORT LOCAL BIODIVERSITY WITH THE "RIGHT TREE, RIGHT PLACE" PROGRAM**
- **MAINTAIN INTELLIGENT WATER USE**





### HELPING ENSURE CUSTOMERS CAN COUNT ON US

Maintaining reliability is the foundation of our day-to-day operations. More than 4,000 employees commit themselves every day to providing clean, safe and reliable energy to our 3.6 million customers. This commitment is also reflected in our drive to modernize and redefine how to operate a highly reliable, intelligent power grid in an effort to provide the communities we serve clean, safe and reliable energy for generations to come.

### KEEPING THE POWER FLOWING

We are proud to share that over the years, we have worked to reduce both the duration and the frequency of power interruptions that our customers may experience. Our Systems Average Interruption Duration Index (SAIDI) and Systems Average Interruption Frequency Index (SAIFI) have demonstrated low energy loss by both number of minutes and customers affected.

#### AVERAGE OUTAGE DURATION, IN MINUTES (SAIDI)



#### AVERAGE NUMBER OF OUTAGES PER CUSTOMERS (SAIFI)



## DELIVERING ENERGY SUSTAINABILITY

Our track record in reliability and other sustainability efforts has earned us recognition and awards from industry analysts and consultancies that provide benchmark comparisons to other energy providers nationwide.



### 2017

- Platts Global Energy Award for Industry Leadership in the Power Sector
- Energy Storage North America Innovation Award for what was then the world's largest energy storage facility
- Electric Power Research Institute Technology Transfer Award for developing a first-of-a-kind electric vehicle charging solution
- Project of the Year Award from Utility Dive for Escondido Energy Storage project
- Regional ReliabilityOne™ Reliability Award: Best in the West
- Outstanding Technology and Innovation Award for utilizing innovative technology to improve electric service

### 2018

- Regional ReliabilityOne™ Reliability Award: Best in the West
- National ReliabilityOne™ Excellence Award
- Edison Award from the Edison Electric Institute for enhancing wildfire preparedness and grid resiliency
- ESRI Enterprise GIS Award for leveraging geographic data to enhance emergency operations during an emergency event, as well as managing power outages
- Outstanding Technology and Innovation Award for the second year in a row for utilizing innovative technology to improve electric service

### 2019

- Edison Electric Institute Business Diversity Award for innovation in promoting diverse businesses
- Superior Partnership Award from California Governor's Office for supporting CERTS and emergency preparedness
- iCommute Diamond Awards Gold recipient
- Project of the Year from American Public Works Association (APWA) for the Chula Vista Electric Vehicle Charging Stations Project
- Real Heroes Community Partner Award from the American Red Cross of San Diego/Imperial Counties
- Tree Line USA Utility from The National Arbor Day Foundation
- Regional ReliabilityOne™ Reliability Award: Best in the West (14 years in a row)

### 2020 (TO DATE)

- Smart Electric Power Alliance Power Player: Investor-Owned Utility of the Year for Innovative Electric Vehicle Charging Program
- Industrial Environmental Association Environmental Excellence Award for the Sustainable Fuels Management Program
- iCommute Diamond Awards Gold recipient
- Corporate Partner of the Year from the Chicano Federation
- National Power of Purpose Award: Purpose Pioneer for our wildfire documentary





# CHAMPIONING PEOPLE

SECTION 3

# SUSTAINABILITY STARTS WITH PEOPLE

A sustainable world requires a persistent commitment to people – in their workplace, their homes and communities and the many places in between. Doing so demands building resiliency, inclusion and diversity into everything we do. At SDG&E, each one of us plays a role in sustaining each other by championing people – employees, customers, suppliers and others. Each year, we actively engage with a network of community-based, nonprofit stakeholders who can provide feedback and partner with us to help meet the needs of underserved and disadvantaged communities through sustainability initiatives.

This is especially true this year as COVID-19 impacts everyone's lives and livelihoods, the destructiveness of systemic racism is prevalent and the effects of climate change continue to take their toll on our environment. We must meet challenges by firmly living our values of doing the right thing, championing people and shaping the future.

**WE STRIVE TO REFLECT  
THE DIVERSITY OF  
OUR COMMUNITIES**





## PUTTING EVERY EMPLOYEE FIRST

At SDG&E, we have made sustainability a central tenet of our organizational culture. Starting in 2020 we set in place policies designed to engage, act, measure and report our performance related to diversity, equity and inclusion by:

- **LEADING FROM THE TOP**
- **ACCELERATING EMPLOYEE ENGAGEMENT**
- **CREATING OPPORTUNITY**
- **DRIVING CONSCIOUS INCLUSION**
- **PARTNERING WITH THE COMMUNITIES WE SERVE**

Navigating through the pandemic is a great example of how we focus on our employees; we created flexible options for remote work and continue to support our employees who have to deal with evolving child care, distance learning or other special care needs.

While we still have more work to do, we are proud to share additional examples of how we put our employees first.

### SUPPLIER DIVERSITY AMBASSADORS



Reaching beyond and through our many employees, ambassadors seek to identify opportunities to expand the diversity of suppliers in contract bids and mentor them to help ensure they remain competitive and can grow their businesses.

### LOCAL DIVERSITY & INCLUSION COUNCILS (LDICS)



LDICs help employees understand and appreciate workplace diversity. These councils seek to move beyond simple tolerance to embrace and leverage the many-layered dimensions of diversity and inclusion – all of which advance our sustainability goals.

### LEAN-IN CIRCLES



Our Lean-In Circles were established to help women achieve their ambitions. Its members include women of all ages, backgrounds and positions at SDG&E, offering each one the opportunity to help shape a world free of gender bias.

### ELECTRIC VEHICLE (EV) AMBASSADORS



SDG&E provides company-sponsored training to employees who want to become EV ambassadors so they can grow the knowledge they need to share with colleagues, friends and the general public on current EV information, trends and initiatives.

### GREEN TEAM



Green Team members work to identify opportunities to reduce our employees' and the company's impact on the environment. Members also organize volunteer opportunities for our employees throughout our communities to promote environmental stewardship.



## BUILDING SUSTAINABLE COMMUNITIES

We support and actively encourage our employees to donate their time through our various volunteer programs, including #BeThatGirl and Environmental All Stars. Each year, more than 1,000 of our employees and their families volunteer for the causes that are meaningful to them.

### #BETHATGIRL



Recognizing that women are underrepresented in STEM professions, SDG&E's #BeThatGirl initiative connects female SDG&E STEM professionals with schools and nonprofits as STEM mentors. Employees share their personal journeys, from grade school to STEM careers at SDG&E in engineering, meteorology, finance, biology and more. As an organization, we understand how STEM skills can influence young women's futures.

### SAN DIEGO AUDUBON SOCIETY



SDG&E's Environmental All Stars employee volunteers have partnered with San Diego Audubon Society for nine years to restore critical habitat for the California Least Tern, an endangered migratory shorebird. Their volunteer efforts to prepare the site for the Terns to nest and rear their young has made this location one of the most successful breeding sites in the region.

### BURN INSTITUTE



Since 2012, SDG&E employees have led efforts to raise more than \$350,000 for Burn Institute fire prevention and burn survivor support programs. Employees participate in the annual "Fill the Boot Fundraiser," volunteer to install free lifesaving smoke alarms for qualified seniors in San Diego County and coordinate an annual holiday celebration for burn survivors.

## INVESTING IN COMMUNITIES

SDG&E's current charitable giving areas include environmental education (SDG&E Environmental Champions), K-12 STEM education (Inspiring Future Leaders), safety & emergency preparedness (SAFE San Diego) and economic & workforce development in disadvantaged communities.

Through our charitable giving program, SDG&E Environmental Champions, we support more than 80 environmental nonprofit partners and organizations.

The SDG&E Environmental Champions initiative supports 501(c)3 nonprofit organizations whose programs promote environmental education, community engagement and stewardship to disadvantaged communities in San Diego County and Southern Orange County. To learn more, visit [sdge.com/community](https://sdge.com/community).



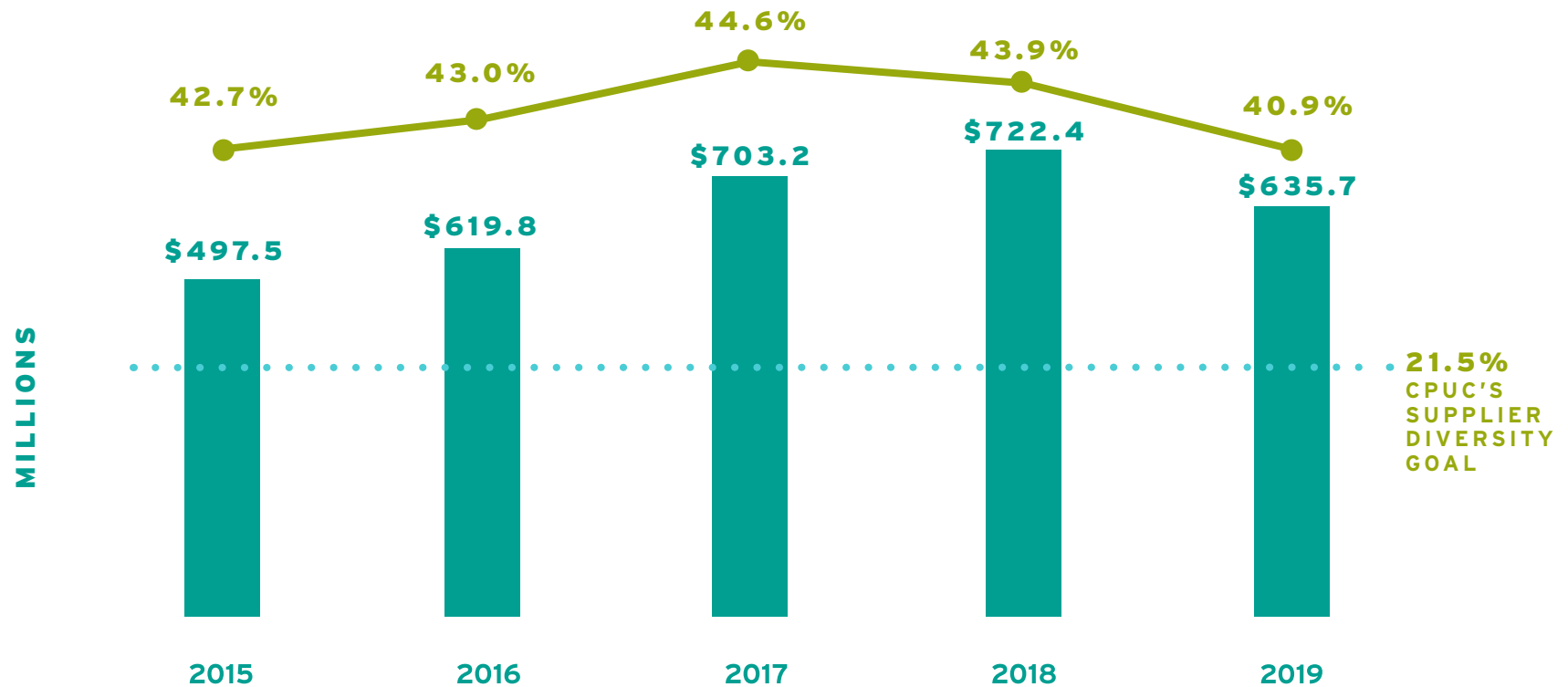


## BUILDING A SUSTAINABLE SUPPLIER NETWORK

Supply chain sustainability is central to our sustainability efforts at SDG&E. Our plans are to develop an energy-industry leading supply chain sustainability program by 2025 and assume a leading role in supplier diversity, resilience and safety to champion people outside of our own workforce.

2019 marked the seventh consecutive year that our supplier diversity spending has been above 40%, far exceeding the California Public Utilities Commission's (CPUC) goal of 21.5%.

### SUPPLIER DIVERSITY SPENDING - 2015 TO 2019



## MAKING SUSTAINABILITY WORK FOR OUR CUSTOMERS

Our customers expect innovative solutions that increase their energy savings while decreasing their monthly bills – and providing critical assistance when they need it.

We are on track to meet state-mandated regulations for doubling energy efficiency savings by 2030, reaching 100% zero-carbon energy by 2045 and achieving zero net energy (ZNE) in buildings over the coming years. And we plan to do so while creating equitable impacts in our communities.

When we all use less energy, we reduce GHG emissions.

### Energy efficiency programs include:



**HELPING OUR CUSTOMERS SHIFT ENERGY USE TO TIMES WHEN RENEWABLE ENERGY MAKES UP A LARGER PORTION OF THE GRID**



**RUNNING PEAK-DEMAND CAMPAIGNS SUCH AS “REDUCE YOUR USE” AND “DIAL IT DOWN”**



**PROVIDING PROGRAMS AND INFORMATION TO HELP CUSTOMERS EQUIP THEIR HOMES WITH MORE EFFICIENT APPLIANCES, WEATHER STRIPPING AND OTHER UPGRADES**



**OFFERING CLASSES AT OUR ENERGY INNOVATION CENTER TO BUSINESSES AND RESIDENTS**

### SAVING ENERGY TO SAVE THE PLANET

#### 2019 ENERGY & DOLLARS SAVED

~243 gigawatt hours

~53 megawatts

~3.27 million therms

\$64 million  
customer savings



#### GHG REDUCTION EQUIVALENTS

~179,029 metric  
tons of CO<sub>2</sub>

~38,678 fewer cars



## MAKING SUSTAINABILITY WORK FOR OUR CUSTOMERS

We believe customers should have a choice about where their energy comes from, how to access and promote renewable energy efforts and how to manage the cost of the energy they need.

### SUPPORTING CUSTOMER CHOICE

#### ECOCHOICE IS A PRICING PROGRAM WHERE UP TO 100% OF ENERGY IS ALLOCATED FROM RENEWABLE SOURCES



3,000+ Residential customers  
850+ Commercial customers



128,279 MWh  
delivered



Retired more than 128,280  
renewable energy credits



Promoted installation of  
50 MW renewable energy

#### ECOSHARE PROMOTES RENEWABLE ENERGY DEVELOPMENT IN LOCAL COMMUNITIES



Local economic benefits



Cheaper electricity prices



Clean air & better public health

#### NEW PROGRAMS PROVIDE 20% DISCOUNT TO PARTICIPANTS IN DISADVANTAGED COMMUNITIES (DAC)

- Disadvantaged Communities Green Tariff allows SDG&E to sign 18 MW new solar generation in DACs
- Community Solar Green Tariff allows SDG&E to sign an additional 5 MW of solar generation in DACs

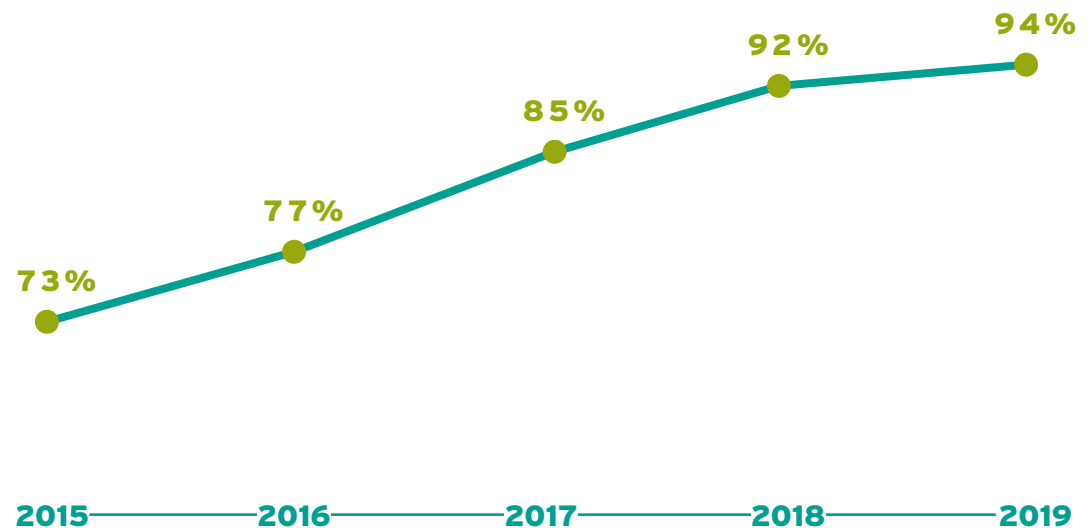
## BRINGING EQUALITY TO SUSTAINABILITY

Climate change affects all communities. However, energy efficiency technologies can be cost prohibitive to communities that are particularly vulnerable to such effects. To help offset this imbalance, our Energy Savings Assistance (ESA) Program provides customers free energy efficiency measures based on eligibility established by Federal Poverty Guidelines. In 2019, SDG&E's ESA Program served more than 16,000 customers, saving more than 1.7 million KW and 22,000 therms – equivalent to reducing GHG emissions by 1,110 tons.

Other programs designed to address inequality in our service territory include the California Alternate Rate for Energy (CARE) and the Family Electric Rate Assistance (FERA). The CARE Program provides up to a 30% discount on energy bills for qualifying customers, including those who have recently become unemployed or are currently participating in public programs.

If customers do not qualify for CARE, SDG&E automatically checks to determine if they are eligible for FERA, which offers families of three or more individuals a discount of up to 18% off their electricity bill based on their income.

### CARE ENROLLMENT RATE OF ELIGIBLE CUSTOMERS





## PROOFPOINT

**COVID-19 Response and Resilience.** COVID-19 has upended the lives of everyone in our community. To help customers – as well as employees and suppliers – we have undertaken a slate of efforts to minimize the effects of the pandemic.



Providing flexible payment plans

Donating \$1 million to support the Neighbor-to-Neighbor Program to provide assistance for customer gas and electric bills



Accelerating and repurposing \$2.6 million in shareholder giving to nonprofits



Donating personal protective equipment to small businesses in the San Diego Region



In partnership with the San Diego Foundation, SDG&E launched the San Diego COVID-19 Community Response Fund and has contributed \$3 million to the Fund to date



Delaying or suspending certain planned service outages to maintain uninterrupted energy service



Partnering with a local distillery to produce thousands of bottles of hand sanitizers



Coordinating employee volunteer efforts to procure cloth and materials to make masks



Responded to our employees by instituting new flexible policies for working parents





# SHAPING THE FUTURE

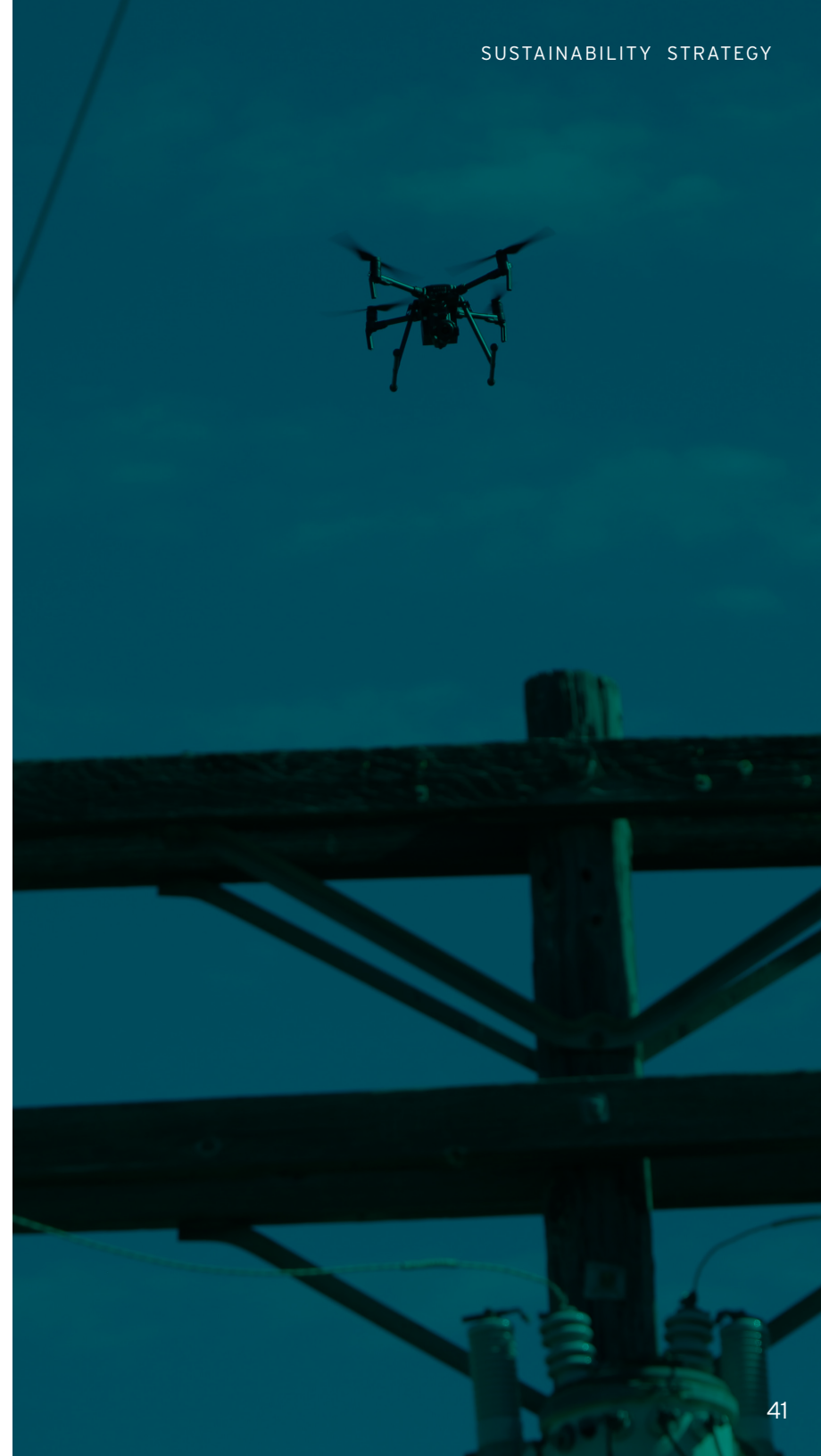
## SECTION 4



# SHAPING A FUTURE FIT FOR EVERYONE

A future filled with promise for all depends on what all of us do today. At SDG&E, we are doing our part to shape a sustainable future through a host of initiatives aimed at addressing climate change and developing the means necessary to bring our long-term goals to fruition.

Innovative technology is in our DNA. By leveraging the power of artificial intelligence (AI), machine learning, cloud-based solutions and other emerging technologies, we have been able to increase the reliability, resilience and sustainability of our technology platforms. These investments can help us deliver an equitable and smooth transition to new forms of energy.



## TRANSPORTATION REIMAGINED

The transportation sector represents the single largest GHG emissions source – more than half of the GHG emissions in San Diego County. To reduce those emissions, SDG&E installed more than 3,000 electric vehicle chargers at over 250 locations, including apartments, condominium complexes and offices. And we are expanding our programs to include charging for both light, medium and heavy-duty vehicles – all in an effort to encourage the adoption of more electric vehicles, which will reduce GHG emissions. More than 30% of the chargers we installed are in vulnerable communities – areas that suffer from high levels of air pollution given their proximity to freeways or industrial facilities.

To reimagine transportation in our region and beyond, we commit to:

- **SUPPORT CALIFORNIA'S GOAL TO TRANSITION TO ZERO-EMISSION VEHICLES BY ACCELERATING OUR STRATEGIC COLLABORATION OF KEY STAKEHOLDERS<sup>1</sup> TO DELIVER AN AMBITIOUS REGION-WIDE CLEAN TRANSPORTATION INFRASTRUCTURE GOAL**
- **ADDRESS AIR POLLUTION AND SOLIDIFY THE REGION'S LEADERSHIP ON THE GLOBAL TRANSPORTATION MAP**
- **CONTINUE TO SHAPE CONSTRUCTIVE POLICIES AND LEGISLATION TO ENSURE CUSTOMER ADOPTION AND FACILITATE AN EQUITABLE TRANSITION**

We will continue to promote policies and legislation to help ensure customer adoption and facilitate an equitable transition.

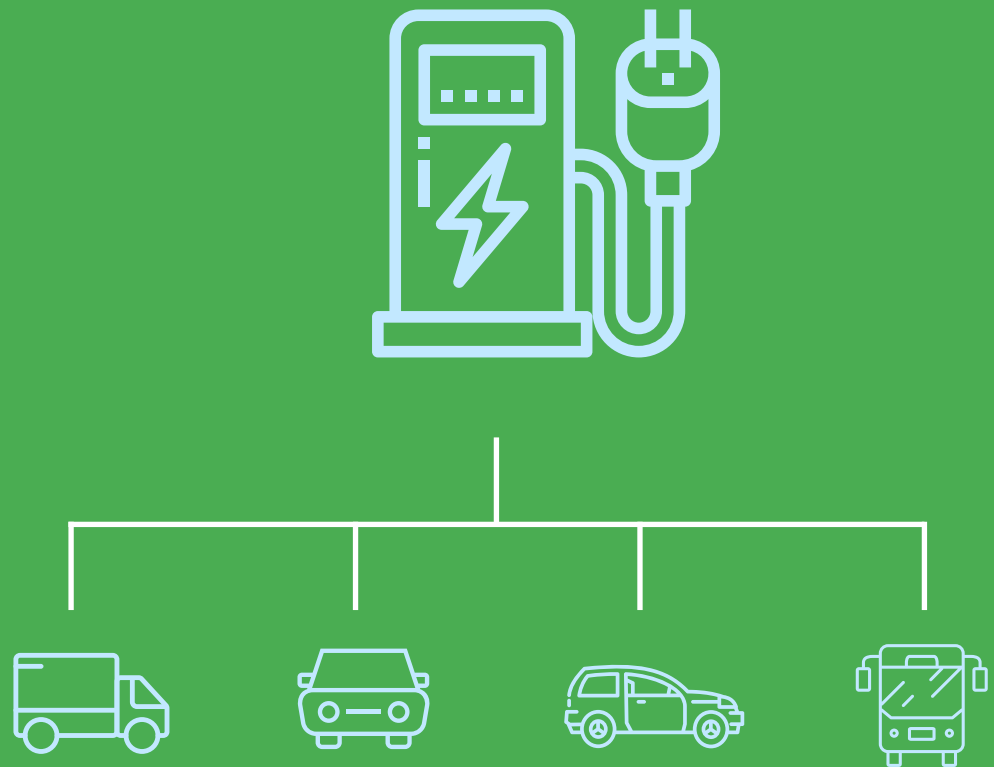
1. These stakeholders include local jurisdictions, regional agencies, utilities and other parties seeking to combat the effects of climate change.

**"THIS IS THE MOST IMPACTFUL STEP OUR STATE CAN TAKE TO FIGHT CLIMATE CHANGE."**

**- CALIFORNIA GOVERNOR GAVIN NEWSOM**

### CHARGING AHEAD

More chargers in more places for more vehicles





## EMPOWERING DRIVERS TO GO ELECTRIC

With our Power Your Drive (PYD) program, we were among the first utilities in the nation to deploy chargers at a large scale at workplaces and multi-unit dwellings.

PYD for homes and work provides an hourly dynamic vehicle grid integrated (VGI) rate, which encourages drivers to charge during grid-friendly times. Customers can set a maximum price they're willing to pay, and the charging station will stop charging once the hourly price exceeds their maximum price. PYD drivers pay, on average, around \$0.19 per kilowatt-hour – equivalent to paying about \$1.60 for a gallon of gas.

Over time, SDG&E has received CPUC approval for programs that further expand the EV charging network to meet customer needs. These programs focus primarily on the medium – and heavy-duty vehicle market – a critical sector that needs to be transitioned to clean technology. Because the needs of fleet operators are different from those of individual customers, we are working closely with stakeholders to design innovative rates to help enable a smooth transition.

### POWER YOUR DRIVE Growing the EV Network



#### 2017

15 Sites  
185 Chargers  
• Workplaces,  
Apartments  
& Condos



#### 2018

SB 350 Pilots  
240 Sites  
2,884 Chargers  
• Workplaces,  
Apartments  
& Condos



#### 2019

SB 350 Pilots  
267 Sites  
3,239 Chargers  
• Workplaces,  
Apartments  
& Condos  
• Fleets  
• State Parks, Beaches  
& Schools



#### 2020 (ESTIMATE)

SB 350 Pilots  
274 Sites  
3,330 Chargers  
• Workplaces,  
Apartments  
& Condos  
• Fleets  
• State Parks, Beaches  
& Schools

## PROOFPOINT

As a leader in EV adoption, we demonstrated our early commitment to reducing GHG emissions from transportation through a variety of pilot projects (in development).



### Port Electrification

Chargers, circuits, load research meters and data loggers



### Electrify Local Highways

Level 2 and DC Fast Chargers at four Caltrans Park-and-Rides



### Dealership Incentives

EV education and incentives to increase EV sales and enhance the customer experience



### Fleet Delivery

Charging for delivery vehicles



### Green Shuttle

Dedicated charging infrastructure for fixed route shuttles



### Airport Ground Support Equipment

Load research, charging ports, metering equipment and data loggers



### Schools

Install chargers at schools for employees, students and visitors



### Parks and Beaches

Install chargers for the public at State Beaches and City/County/State Parks



## WORKING COLLECTIVELY TO ADVANCE CLEAN TRANSPORTATION

At SDG&E we believe EV adoption should start with us. And we're encouraging our employees to do their part through our **It's On to 1,000** initiative, with a goal to get 1,000 employees at SDG&E and Sempra driving electric by 2023. At the end of Q2 2020, more than 700 employees have purchased electric vehicles.

Going beyond our employee-based efforts, we are collaborating with local governments and community EV stakeholders on the Accelerate to Zero Emissions plan to help determine where charging is needed in our communities.

### THE ACCELERATE TO ZERO COMMITMENT COLLABORATION INCLUDES:

- **DEVELOPING AND IMPLEMENTING AN EV STRATEGY**
- **ATTRACTING PUBLIC AND PRIVATE INVESTMENTS TO THE REGION AND MAXIMIZING THE EFFECTIVENESS OF REGIONAL CHARGER DEPLOYMENTS**
- **DEVELOPING PROGRAMS THAT ENABLE RESIDENTS, BUSINESSES AND PUBLIC AGENCIES TO PURCHASE EVs AND INSTALL CHARGERS**
- **ENCOURAGING EQUITABLE ACCESS TO EVs AND CHARGING INFRASTRUCTURE FOR ALL SAN DIEGANS**



## ENERGY INNOVATION CENTER

## ZERO NET ENERGY AND DECARBONIZATION EFFORTS

Together with the other California investor-owned utilities, we are promoting zero net energy (ZNE) to reduce greenhouse gas emissions and reduce the impact of climate change. The California Public Utilities Commission (CPUC) defines ZNE as any building, campus, portfolio or community “where, on a source energy basis, the actual annual consumed energy is less than or equal to the on-site renewable generated energy.”

([www.cpuc.ca.gov/ZNE](http://www.cpuc.ca.gov/ZNE))

A great example of a ZNE building can be found in SDG&E's Energy Innovation Center (EIC). Open to the public since 2011, EIC is a prime example of implementing green building principles when developing projects. Awarded double LEED® Platinum certification, the EIC is also a community resource for the public, offering more than 250 classes on energy efficiency, technology and green building practices at no charge. It includes examples of a working smart home, a commercial demonstration kitchen and a tool lending library for energy-related projects.

**OUR CLASSES, TRAININGS AND TOOLS  
ARE AVAILABLE TO ALL OUR CUSTOMERS  
TO ENCOURAGE THE ADOPTION OF  
ENERGY-EFFICIENT TECHNOLOGIES.**



## MODERNIZING OUR GRID

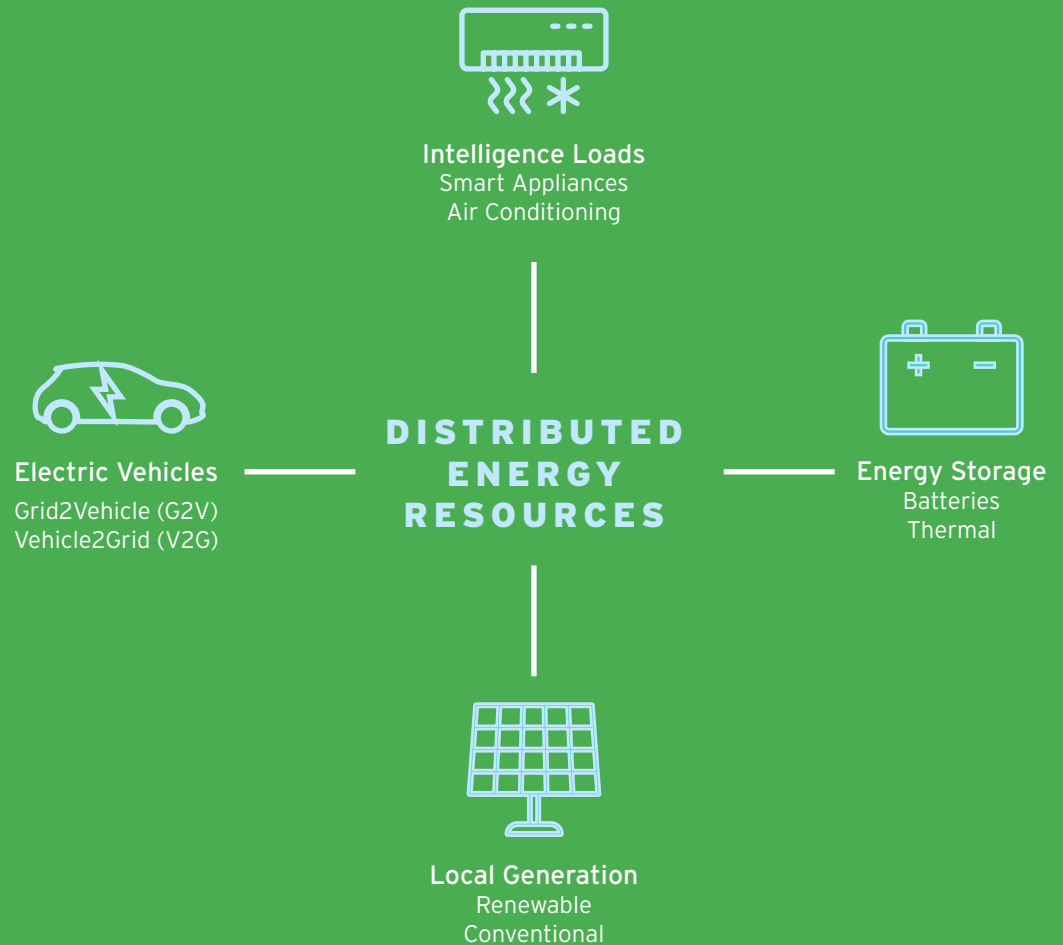
We view our role as a grid operator to be central to achieving California's climate agenda. And our goal is to innovate the grid to accelerate decarbonization and deliver value to all customers. We recognize the need to adapt our systems to further facilitate zero-carbon energy productions, storage and use.

These grid modernization efforts will require a holistic Distribution System Operator (DSO) strategy that advances the orchestration of Distribution Energy Resources (DERs), expands storage capabilities, integrates digital functionality when and where possible and provides customer communication and education.

Playing an important role in our grid modernization plans are intelligent DERs, especially when they are unified as a group and provide customers the means to optimize their energy futures. Doing so will allow them to use their DERs to fully participate in the grid, whether through energy generation, load or storage.

At SDG&E, we believe in taking a holistic view of grid modernization, breaking down traditional grid-management barriers and transforming passive customers into active *prosumers* of energy.

## GROWING THE GRID THROUGH DERs





## INTEGRATING BITS AND WATTS FOR GRID FLEXIBILITY

Integrating “bits and watts” can help us progress toward our zero-carbon goals in an increasingly digital world. One integrative solution is the Local Area Distribution Controller (LADC), a software and hardware solution that provides control functionality for multiple types of DERs and other microgrid components. We use LADC to augment and interoperate our existing Advanced Distribution Management System and Supervisory Control and Data Acquisition (SCADA) System. Designed to coordinate and optimally control DERs and conventional grid management devices (e.g., capacitors, switches), LADC helps ensure reliable operation during both island and grid-connected situations.

Deployed locally at our Borrego microgrid location, LADC supports remote control, visibility and supervisory operation to all microgrids from SDG&E's distribution control center.

With this centralized ability to manage and control all microgrids, we seek to maintain timely, safe and reliable operations within our distribution system.



## OUR HOLISTIC VIEW ON SUSTAINABLE ENERGY SUPPLY

A zero-carbon future hinges upon public policy support, technological breakthroughs, customer adoption and many sector-wide solutions. It also underpins our integrated resource plan (IRP) to balance varied supply-side resources and GHG goals without compromising reliability, flexibility and affordability.

The current IRP process is designed to help ensure that California's electric sector is on track to provide 60% of the electricity we deliver from renewable resources and reduce GHG emissions by 40% from 1990 levels by 2030 while maintaining reliability, flexibility and affordability. We are also exploring how to make sure that 100% of our retail sales supply comes from renewables and zero-carbon sources by 2045.

SDG&E-OWNED BATTERY STORAGE PROJECTS		
COMMERCIAL OPERATION DATE (COD)	MW / MWh	PROJECTS
CURRENT IN-SERVICE		
2012, 2013	6 MW / 17 MWh	Pala, Ortega Highway, Canyon Crest Academy, Borrego Springs
2017	39.5 MW / 158 MWh	Miguel Flow Battery - VRF; Escondido and El Cajon
FUTURE IN-SERVICE		
2020, 2021	112.3MW / 449.75 MWh	Miramar, Fallbrook, Kearny <sup>1</sup> , Melrose <sup>1</sup> , Cameron Corners, Ramona Air Attack, Agua Caliente, Shelter Valley
2022	8 MW / 16 MWh (Li-ion); 125 kW / 1 MWh (H2)	Borrego Springs
~166 MW/ 642 MWh		
<p>These aren't the only storage projects we rely on to meet capacity/reliability needs, but they are projects that have been built because of the value they can provide to customers – co-location with our facilities and the ability to come online very quickly to meet an urgent need.</p>		

1. Kearny and Melrose subject to CPUC approval.

## SCALING ENERGY STORAGE TO MEET GRID DEMANDS

Energy storage at grid scale can help us mitigate the effects of renewable energy intermittency and energy shifting. When deeply integrated into the grid, energy storage can allow us to absorb grid disturbances while also providing a buffering capability to alleviate grid constraints. Over time, energy-storage and energy-shifting capabilities will need to expand to manage daily intermittency needs and mitigate the impact of lengthy weather events.

Our grid-scale battery energy storage systems at Escondido and El Cajon provide valuable early lessons for decarbonizing the electric grid over the next 25 years. Besides charging primarily when there is an overabundance of renewables and prices are low, and discharging later in the day when solar is coming offline, these batteries can provide ancillary services to maintain grid stability. And although these patterns will likely change over time as more energy storage and renewables are connected to the grid, they can inform planning for the next 25 years and beyond.

SDG&E is procuring close to 300 MW of battery storage by 2023 to meet local capacity needs identified by the CPUC. Of this, 150 MW is scheduled to come online by 2021.

SDG&E GRID MODERNIZATION GOALS + SOLUTIONS	
2022	Place two green hydrogen projects into service to offer long-duration energy storage, increase system resiliency and reduce carbon intensity
2025	Pilot a virtual power plant to further expand and leverage distribution-level demand response in order to reduce GHG emissions, advance resource adequacy and enhance grid resiliency
2030	Collaborate with industry leaders and implement at least one breakthrough solution that mitigates direct emissions from gas-fired generation



## REDUCING GHG EMISSION CAUSED BY ENERGY LINE LOSSES

We have been seeking ways to increase efficiency by reducing line losses that result in GHG emissions. SDG&E has made substantial improvements in reducing its line losses, particularly by utilizing Invar cables with low resistance that transport electricity more efficiently. The Transmission Engineering and Design team also assesses opportunities to reuse structures whenever possible and incorporate materials that can be readily repurposed when infrastructure is upgraded, without needing to replace them entirely.

### PROOFPOINT

**Insulating Against Line Losses.** Typically, transmission lines are rebuilt to increase the conductor size and improve its capacity. Our Transmission Engineering and Design team looks to reuse them as much as possible to increase efficiency and reduce waste. By using post insulators and drop tongue configuration, we have been able to increase the capacity of our structures by 50%. Drop tongue configuration provides easy changeouts, avoids conductor upgrades and prevents structure rebuilds, while reducing embodied carbon that would otherwise be present in structures no longer in use.

## LIMITING GHG IMPACT OF NATURAL GAS

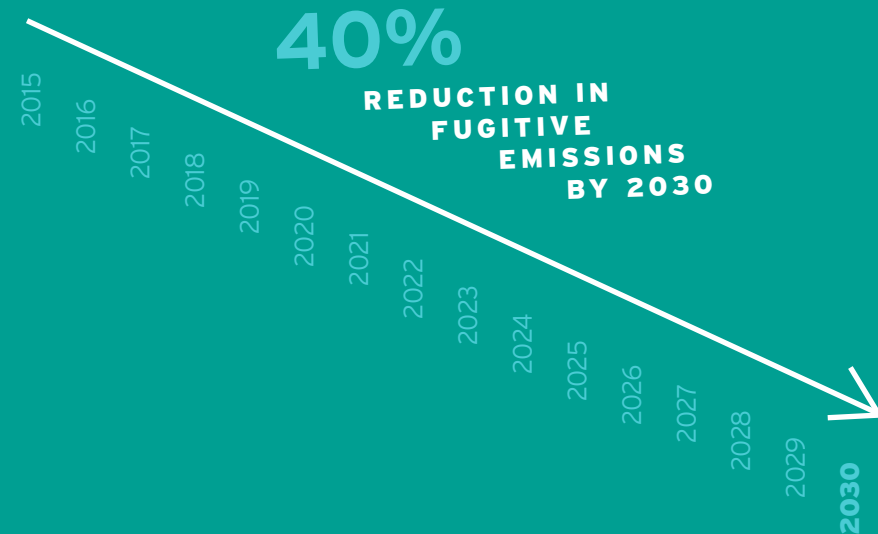
Natural gas consists mainly of methane, a potent greenhouse gas. Managing and mitigating any fugitive or process emissions related to natural gas within our network is a top priority for us. Every effort to curtail methane emissions enhances the sustainability of the gas we deliver to our customers. In 2019, we had zero leads for the third year in a row.

**By 2030, we aim to:**

- **REDUCE FUGITIVE EMISSIONS FROM OUR NATURAL GAS TRANSMISSION AND DISTRIBUTION SYSTEMS BY 40% FROM OUR 2015 BASELINE**
- **ELIMINATE 100% OF NATURAL GAS VENTED DURING PLANNED PIPELINE WORK**

SDG&E has utilized methane/natural gas recapture, expedited gas leak response rates, increased leak survey frequency, leveraged aerial leak detection with source pinpointing and quantification, installed isolation valves for leak control and raised awareness of the “Call Before You Dig” campaign, among other tactics to reduce its fugitive natural gas emissions.

## FIGHTING FUGITIVE GAS EMISSIONS





## HOW NATURAL GAS FITS INTO A LOW-CARBON FUTURE

We believe natural gas and its related infrastructure will play a critical part in the transition to low-carbon economies globally. Currently, the gas system is providing dispatchable energy during volatile peak demand and ramping needs caused by increasing reliance on intermittent renewables and non-contracted imports in California. Our gas generation infrastructure has been invaluable to the reliability of the electricity system. As we transition to a net-zero carbon future, we believe technologies such as biomethane, hydrogen and gas with carbon capture will play an essential role in decarbonizing economic sectors currently seen as hard to abate. Governmental policy and public support will be needed to help achieve the scale these solutions demand to free us from dependence on resources fueling CO2 emissions. We believe strategic investments in these advanced technologies will help pave the way for a smooth and equitable transition to our clean energy future.

### PROOFPOINT

Since 1963, the Point Loma Wastewater Treatment Plant has treated wastewater for more than two million San Diego residents - removing organic and inorganic materials from about 175 million gallons of wastewater each day before discharging it to the ocean. This process produces methane gas, which is captured and converted to renewable natural gas that is injected into SDG&E's gas pipeline system.

**WE COMMIT TO LEVERAGING OUR GRID MODERNIZATION INVESTMENTS, SUCH AS OUR HYDROGEN PROJECTS, TO IDENTIFY OPPORTUNITIES FOR REDUCING NATURAL GAS EMISSIONS WHEREVER FEASIBLE. AND WE WILL CONTINUE TO PURSUE OPPORTUNITIES THAT ENABLE OUR CUSTOMERS TO REDUCE THE EMISSIONS ASSOCIATED WITH THEIR NATURAL GAS CONSUMPTION.**

## CLOSING THOUGHTS

This report provides our approach to the three elements of sustainability - Environmental, Social and Governance (ESG) at SDG&E. It also provides a modest, yet holistic overview of the sustainability-related actions we have taken or plan to take and the strategic investments necessary to achieve them.

We believe that now is not a time for debate, but instead collective action, guided by data and tangible evidence. All mitigation and adaptation measures count since we cannot afford to delay meaningful actions to address the climate crisis. And we will continue to align and extend our abilities in delivering clean, safe and reliable energy to help make California's ambition to achieve carbon neutrality by 2045 a reality.

**THE TIME TO ACT IS NOW.  
SDG&E COMMITS TO WORKING WITH  
YOU TO SHAPE OUR SUSTAINABLE  
FUTURE TOGETHER.**

For updates, more information or to share feedback, visit [sdge.com/sustainability](https://sdge.com/sustainability).



## FORWARD-LOOKING STATEMENTS

This report contains statements that are not historical fact and constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are based on assumptions with respect to the future, involve risks and uncertainties, and are not guarantees of performance. Future results may differ materially from those expressed in the forward-looking statements. These forward-looking statements represent our estimates and assumptions only as of the date of this report. We assume no obligation to update or revise any forward-looking statement as a result of new information, future events or other factors.

In this report forward-looking statements can be identified by words such as “believes,” “expects,” “anticipates,” “plans,” “estimates,” “projects,” “forecasts,” “should,” “could,” “would,” “will,” “confident,” “may,” “can,” “potential,” “possible,” “proposed,” “target,” “pursue,” “outlook,” “maintain,” or similar expressions, or when we discuss our guidance, strategy, goals, vision, mission, opportunities, projections or intentions.

Factors, among others, that could cause our actual results and future actions to differ materially from those described in any forward-looking statements include risks and uncertainties relating to: California wildfires and the risk that we may be found liable for damages regardless of fault and the risk that we may not be able to recover any such costs from insurance, the wildfire fund established by California Assembly Bill 1054 or in rates from customers; decisions, investigations, regulations, issuances of permits and other authorizations, renewal of franchises, and other actions by (i) the California Public Utilities Commission (CPUC), U.S. Department of Energy, and other regulatory and governmental bodies and (ii) states, cities, counties and other jurisdictions in the U.S. in which we operate or do business; the success of business development efforts and construction projects, including risks in (i) the ability to make a final investment decision and completing construction projects on schedule and budget, (ii) counterparties’ financial or other ability to fulfill contractual commitments, and (iii) the ability to realize anticipated benefits from any of these efforts once completed; the impact of the COVID-19 pandemic on our (i) ability to commence and complete capital and other projects and obtain regulatory approvals, (ii) supply chain and current and prospective counterparties, contractors, customers, employees and partners, (iii) liquidity, rates;

moves to reduce or eliminate reliance on natural gas; weather, natural disasters, accidents, equipment failures, computer system outages and other events that disrupt our operations, damage our facilities and systems, cause the release of harmful materials, cause fires and subject us to liability for property damage or personal injuries, fines and penalties, some of which may not be covered by insurance (including costs in excess of applicable policy limits), may be disputed by insurers or may otherwise not be recoverable through regulatory mechanisms or may impact our ability to obtain satisfactory levels of affordable insurance; the availability of electric power and natural gas and natural gas storage capacity, including disruptions caused by failures in the transmission grid, limitations on the withdrawal or injection of natural gas from or into storage facilities, and equipment failures; cybersecurity threats to the energy grid, storage and pipeline infrastructure, the information and systems used to operate our businesses, and the confidentiality of our proprietary information and the personal information of our customers and employees; the impact on competitive customer rates and reliability due to the growth in distributed and local power generation, including from departing retail load resulting from customers transferring to Direct Access, Community Choice Aggregation or other forms of distributed or local power generation, and the risk

of nonrecovery for stranded assets and contractual obligations; volatility in interest and inflation rates and commodity prices and our ability to effectively hedge the risk of such volatility; the impact of changes to U.S. federal and state tax laws and our ability to mitigate adverse impacts; and other uncertainties, some of which may be difficult to predict and are beyond our control.

These risks and uncertainties are further discussed in the reports that San Diego Gas & Electric Company and its parent company, Sempra Energy, have filed with the U.S. Securities and Exchange Commission (SEC). These reports are available through the EDGAR system free-of-charge on the SEC's website, [www.sec.gov](http://www.sec.gov), and on Sempra Energy's website, [www.sempra.com](http://www.sempra.com). Investors should not rely unduly on any forward-looking statements.

Sempra North American Infrastructure, Sempra LNG, Sempra Mexico, Sempra Texas Utilities, Oncor Electric Delivery Company LLC (Oncor) and Infraestructura Energética Nova, S.A.B. de C.V. (IEnova) are not the same companies as the California utilities, San Diego Gas & Electric Company or Southern California Gas Company, and Sempra North American Infrastructure, Sempra LNG, Sempra Mexico, Sempra Texas Utilities, Oncor and IEnova are not regulated by the CPUC.