SMUD®

Looking to 2020:

SMUD's Environmental Sustainability Road Map

April 2017


SMUD

Table of Contents

SMUD employees embrace environmental sustainability as a core leadership value. To us, environmental sustainability means delivering affordable and reliable service in a socially and environmentally responsible manner. We use science-based tactics to track and improve our operations and programs, conserve energy and water, minimize waste and pollution, and safeguard wildlife and other assets in order to protect our people, ecosystems and community.

CEO letter

Sacramento residents voted in 1923 to create the Sacramento Municipal Utility District (SMUD), a community-owned power company that represents local interests. Over the last century, Californians' environmental awareness has increased dramatically alongside resource scarcity. Our stakeholders demand that businesses like ours are stewards of the environment. Understanding that our success relies on customer loyalty and the demands of regulators, sustainability is becoming a major component of our operations and programs.

Throughout our long history, we have championed community values and achieved notable environmental sustainability milestones. SMUD was the first large utility in California to generate 20 percent of the power it supplies from renewable resources. The figure is now approaching 30 percent and will surpass 33 percent by 2020, demonstrating that when we identify a challenge, we continually find ways to meet and exceed expectations.

Looking to the future, we recognize that there are new business drivers transforming our industry, including increasing sophistication around sustainability and delivering a lower-carbon future. Our 5-year Strategic Plan presents the transformative strategies that will create SMUD 3.0. Implementation of this plan will position SMUD as an innovative and progressive environmental leader that delivers excellent customer service at a competitive cost. This Environmental Sustainability Road Map explains how we plan to 'walk the talk.'

The Environmental Sustainability team coordinates sustainability efforts by functional groups across SMUD. Our coordination focuses on breaking down any existing silos, providing the tools and insights necessary to consistently integrate sustainability into our business and community, and deliver the results that demonstrate SMUD's leadership.

The Road Map is outlined in the following pages and provides our cost-effective approach to transitioning towards a comprehensive sustainability program. We will use this framework to measure and report on progress. Our successes and challenges will continue to be reported through our website via our biennial Environmental Stewardship Report and, where relevant, through the annual presentations on our Strategic Directives to the Board.

We continue to learn from our challenges, our successes and refine our approach based on what works best. This Road Map provides a dynamic structure to begin integrating sustainability into our operations and across functions as we plan for a rapidly changing future.

We hope you will join us as collaborators in the success of sustainability at SMUD and in the communities that we serve. We are reminded through our engagement with key stakeholders, including community members, customers, and regulators, that sustainability is a collective effort. Together, we take on and will meet this challenge.

[1] *5-YEAR STRATEGIC PLAN 2016 – 2020. Sacramento: SMUD, 2016. Print.*

Photo credit: James, Ken, for Comstocks, "Keeping the Lights On,"2014, available at http://www.comstocksmag.com/snap/keeping-lights

Introduction

The landscape in which we operate continues to evolve, presenting new challenges and opportunities for integrating strategic sustainability into day-to-day operations.

Climate change has already started to reshape our communities, as have the responses to it. For instance, we are being challenged through changes like Assembly Bill 32, which lays the groundwork for California's comprehensive approach to reducing GHG emissions. Utilities and businesses across the state are challenged to change the way they operate and to avoid emerging business risks. In response, SMUD has already started to shift to generating more renewable power from solar and wind to reduce emissions and support resilience.

Beyond climate change considerations, we also see local and regional momentum around broader sustainability topics. From the State of California to our customers to financial analysts, many interested parties are regulating, questioning, and partnering with us to deliver broader sustainability performance.

Given these shared sustainability drivers, many of our regional and utility peers, as well as customers, have established robust sustainability programs that have clear multiyear goals and strategies for driving performance. Our environmental sustainability program has been designed not only to continue demonstrating the leadership to which SMUD is committed, but to deliver against our core business objectives of retaining existing customers, and attracting top talent into the SMUD workforce by delivering the sustainable energy solutions and operating in the cost- effective, sustainable manner our stakeholders demand. Further information on our environmental sustainability program and how we will involve employees across SMUD is outlined later on in the Road Map.

The good news is that SMUD has already made progress in adapting to the current landscape. The Road Map synthesizes our efforts, helps us get ahead of emerging physical risks such as climate change and evolving regulatory expectations, and demonstrates cost-effective leadership for other California businesses in environmental sustainability.

Connecting to the business

As we work to embed sustainability in our business, there are a number of key SMUD policies that inform how we integrate environmental sustainability. With the Road Map, SMUD is moving to a smart green program that balances economics, environment, and community to leverage a triple bottom line approach.

Our CEO continually reviews and refines our overall direction based on input from the SMUD Board of Directors to guide us in the decisions we make about SMUD's policies and operations. Everything from our vision statement to related core values address aspects of sustainability.

The CEO has set out a five-year strategic plan that outlines the vision for a future-ready SMUD that incorporates strategic goals defined as the North Star and SMUD 3.0. The North Star further summarizes the principles from SMUD 3.0 to set goals and measurements. Sustainability comprises one of the North Star's six points, reflecting its centrality to our business: "Sustainable future: We embrace a low carbon future while balancing affordability, reliability and customer choice. We are committed to sustainability in our business practices."

To accomplish this North Star objective, the Road Map is designed to bring us into the top quartile of leading California businesses in terms of sustainability practices. In reaching this goal, there are areas where we lead and others where we take a more moderated approach based on the specific drivers and strategic value to our business and customers.

Some of the critical Strategic Directions from the SMUD Board of Directors are highlighted below:

Vision Statement (policy number: SD-1B)

SMUD's vision is to be the trusted partner with our customers and community, providing innovative solutions to ensure energy affordability and reliability, improve the environment, reduce our region's carbon footprint, and enhance the vitality of our community.

SD-7 Environmental Leadership

Environmental leadership is a core value of SMUD. The Board is committed to environmental leadership through community engagement, continuous improvement in pollution prevention, carbon reduction, energy efficiency, and conservation.

SD-9 Resource Planning

SMUD strives to provide its customer-owners with a sustainable power supply. A sustainable power supply is defined as one that reduces SMUD's net long-term GHG emissions, while assuring reliability of the system, minimizing environmental impacts on land, habitat, water quality, and air quality, and maintaining a competitive position relative to other California electricity providers.

SD-10 Research and Development

To assure SMUD's long-term competitiveness and its ability to deliver innovative products and services, SMUD shall invest in research and development projects that support its core and key values, based on an analysis of the projects' relative risks and their potential benefits to SMUD customers.


SMUD 3.0's North Star
Be Safe. Always
We make every move a safe one for employees, our customers, and our community.
Zero incidents and injuries
Treasure Our Employees
Employees are the most important part of our success, and we create an environment where employees thrive and do their best.
Value Our Customer and Community
We act in the best interest of our customers and community.
Operational Excellence
We do it right. We innovate to improve our quality of service and lower our delivery costs.
Financially Fit
We are financially flexible to make necessary and timely investments and take advantage of opportunities while remaining competitive.
Sustainable Future
We embrace a low carbon future while balancing affordability, reliability and customer choice. We are committed to sustainability in our business practices.

Going forward, it is expected that business units and departments will translate the goals from the North Star into measurable goals and support the projects, programs, and tactics to achieve them. The Environmental Sustainability Road Map outlines what SMUD will need to do to meet the goal of being in the top quartile for overall business sustainability practices.

Defining the top quartile

Key stakeholders are increasingly demanding that an enterprise like SMUD have a comprehensive, coherent, enterprise-wide strategy with metrics to match. Hallmarks of strong sustainability programs are as follows:

- A governance system for managing and integrating sustainability into the business
- Clear processes for identifying material environmental sustainability issues
- Looking beyond direct operations at the entire value chain
- Specific, measurable, actionable, realistic, and timely targets that drive change
- Implementation of programs and actions
- Year-over-year progress against the targets
- Transparent reporting of the overall approach to sustainability and results following industry best practices

Finally, beyond having strong sustainability programs, leaders are using sustainability as a business differentiator to strategically transform their products and services. It does not just inform how they operate, but it is also a critical part of their business.

Despite the alignment on what a strong sustainability program entails, there is no single rating system or broadly-recognized awards program for corporate environmental sustainability that SMUD could use. Most of the existing rating and awards systems primarily focus on the S&P 500. So, although this is an active area of research, there is no single approach that will validate SMUD's sustainability performance on its own.

While there is no dominant externally defined and universally accepted rating system, we have drawn on the wisdom of the Global Reporting Initiative, ISO 14001, and extensive benchmarking to reach the comprehensive approach described above. The most common frameworks for tracking and defining organizational sustainability are listed below:

- Global Reporting Initiative (GRI): An international, independent organization that helps businesses understand and communicate the impact of critical sustainability issues. They are the most widely recognized organization for corporate sustainability, and thousands of organizations across 90 countries adhere to their standards.
- ISO 14001: An environmental management standard that provides a systematic framework to manage the immediate and long-term environmental impacts of an organization's products, services, and processes. The ISO 14001 framework further describes the sustainable business practices in the following graphic.

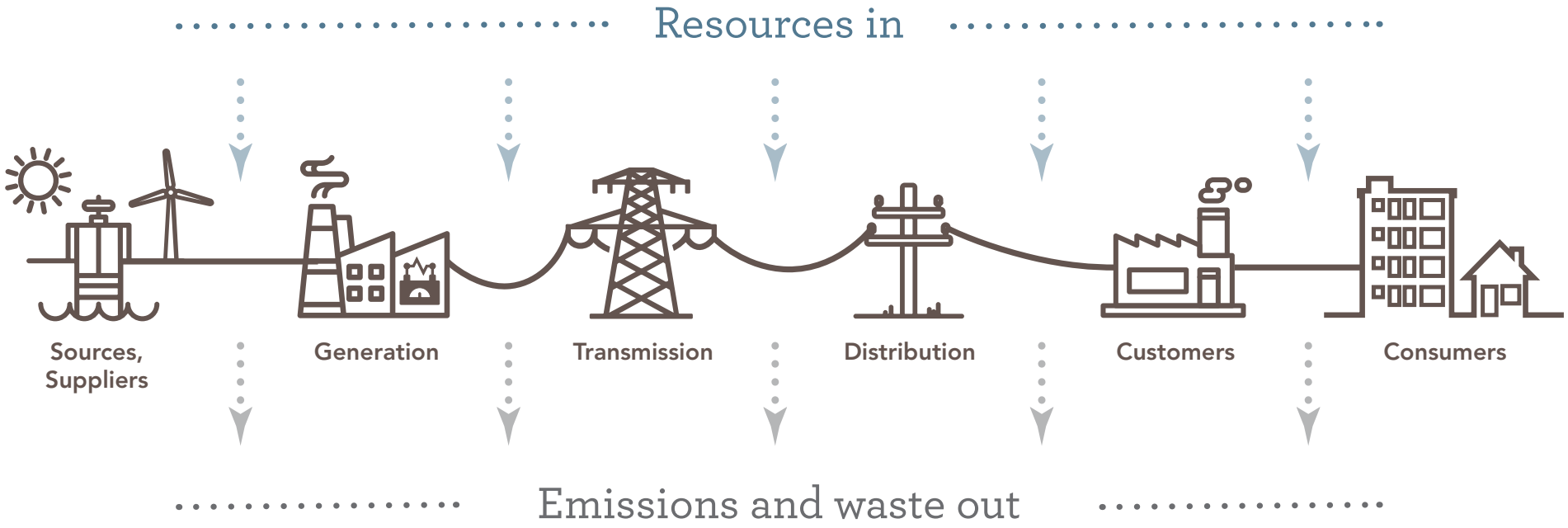
Specifically for SMUD, we benchmarked our competitors for market share including Pacific Gas and Electric and other California utilities, our competitors for top talent such as Apple and Amazon, our peers amongst publicly owned utilities, and finally some of our customers in the Sacramento Region using publicly available information. ***The full list of organizations that we have measured ourselves against include Amazon, Google, Apple, Intel, the City of Sacramento, the County of Sacramento, Salt River Project, and Pacific Gas and Electric. These organizations are the peer groups against whom we will measure whether we are in the top quartile.***

From our initial benchmarking, overall maturity varies when looking across our peer organizations. Amongst this group, leading organizations maintain comprehensive and coherent enterprise-wide strategies with strong performance against published metrics. Prior to this plan and having a comprehensive strategy, SMUD has already demonstrated leadership ability in our GHG and climate readiness, outpacing Pacific Gas and Electric in these areas. The Environmental Sustainability Road Map is designed to bridge the gaps that separate SMUD from a consolidated leadership position, demonstrable to California utility users and the top talent it seeks to recruit to ensure SMUD's continued success. It includes specific metrics that will drive our performance across functions, respond to stakeholder demands, and advance SMUD into the top quartile of our peers.

Graphic adapted from ISO 14001:2015

Considering our value chain

Increasingly, sustainability and responsible operations are understood to include not just local operations, but an organizations' complete value chain, from sources and suppliers to end users (customers). This is what is meant by "enterprise wide." At each point along our value chain, we use resources and create environmental impacts such as emissions and waste. Each of these points represents an opportunity to integrate environmental responsible tactics. By broadly considering hidden sustainability risks in the value chain, we are working to transparently address and internalize sustainability across our organization. The Road Map prioritizes our own operations and works outward from there to include environmental sustainability across our value chain.

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Our sustainability road

At SMUD, we strive to be a good neighbor and actively contribute to strengthening our community through our strong environmental programs. We plan to use the Road Map to provide greater transparency and look for new ways that all of us can partner to achieve a sustainable business. The Road Map is organized around the following principles:

- **Focus on what matters:** To organize our approach, we have mapped what is important to SMUD and our stakeholders. We are paying attention to where SMUD has the greatest impact because these provide the greatest opportunities for improvement.
- **Build momentum:** Our sustainability program has evolved as various individuals throughout the organization have demonstrated leadership and bring new ideas and innovation forward. The Road Map links the efforts various teams are making to enact change on a larger scale, further promote innovation, pilot new approaches, and identify short- and long-term wins.
- **Be cost-effective:** We are approaching environmental sustainability in the economic context of our business and identifying cost-effective sustainability solutions that align with overall business and community objectives. We are working to simultaneously manage environmental and financial obligations and opportunities.
- **Utilize a science-based approach:** Our responsibility as leaders extends beyond just thinking about what we might easily accomplish, to confronting larger environmental challenges in the context of our business. Drawing upon emerging best practices, we are using science-based approaches to set targets. As an organization filled with scientists and engineers, these science-based approaches align with our business framework and use logical and rational methods to setting targets.
- **Measure progress:** By using clear metrics and a dashboard to help chart progress, we use data to measure performance and make adjustments to the tactics that we undertake as needed.

The five-year journey outlined in the Road Map has been designed to create the structure required to make important progress, and also allow flexibility to accommodate innovation and learning as we push forward. SMUD's success will be one that every employee across our organization takes part in and we invite you to join us on this journey.

Ensuring success

To us, 'success' means engaging SMUD workforce holistically across various levels, measuring progress and reviewing the Road Map as necessary, and sharing our successes with stakeholders inside and outside organization to ensure visibility of our work.

The Environmental Sustainability team oversees transparent implementation of this plan across SMUD. We continuously seek input to ensure that the Road Map is inclusive and consistently aligns with the highest value for SMUD. The core functions and outputs of the Road Map are:

Executive and Director reviews: Executives and Directors provide valuable perspectives, including business insight and viewpoints, of key functions across SMUD. They provide structured feedback to the Environmental Sustainability team during annual status updates, including our progress against the environmental sustainability targets.

Environmental Sustainability team: Our core team defines the strategic direction and facilitates engagement with internal and external stakeholders. They also administer the environmental sustainability program and track its progress. Steering and championing the program inside and outside of SMUD, our core team consists of:

- Pat Durham (Patrick.Durham@smud.org)
- Laura Fisher (Laura.Fisher@smud.org)
- Jose Bodipo-Memba (Jose.Bodipo-Memba@smud.org)

SMUD Green Team engagement

Our Green Team is composed of members from functional groups across the organization from customer service to facilities to IT because we believe that everyone at SMUD has valuable skills to contribute to this effort. The Green Team meets at least quarterly to continue to guide the program, review progress, and take action on the targets. The Green Team acts as liaison between the functional groups they represent across the business and the Environmental Sustainability team. They also communicate back out to their teams on key concepts. Green Team members are also responsible for taking the lead in pushing forward key tactics. A Green Team membership list and meeting notices and minutes are available through the iNet.

- Green Team (iNet hyperlink)

Measuring performance

Progress is assessed annually using the SMUD dashboard and tactics tool. Through this platform, we are able to take stock of where we are and appropriately recalibrate the actions that need to be taken to ensure that we meet our targets.

- Dashboard Tool (iNet hyperlink)
- Data Handling Protocol (iNet hyperlink)

Communicating progress

Success and challenges against the Road Map are reported through our biennial Environmental Stewardship Report and in annual presentations to the Board. When requested by key stakeholders, we work to supply relevant data. More information on how we communicate progress and engage internal and external stakeholders is outlined in our Environmental Sustainability Communications Plan.

- 2015 Environmental Stewardship Report (website hyperlink)
- Environmental Sustainability Communications Plan (iNet hyperlink)

Photo credit (previous page): James, Ken, for Comstocks, "Keeping the Lights On,"2014, available at http://www.comstocksmag.com/snap/keeping-lights

Our focus

SMUD's commitment to the environment is evident every day. We integrate it into how we work, the materials we buy, and the decisions we make. We are always looking to further reduce our impact on the environment and to conserve resources for future generations, for the benefit of both our customers and our community.

Given our commitment to ensure that our Road Map is focused on key impacts and opportunities, SMUD identified seven key environmental sustainability priorities. A wide range of environmental sustainability issues were narrowed down to a short list through research, engagement with the SMUD Green Team, and validation from the directors and executive team. These seven key environmental sustainability areas are the most important to SMUD at an enterprise level, and form the chapters of this report. We have defined areas of importance as being those that have active regulatory activity, are being scrutinized by non-governmental organizations (NGOs), are the most impacted by SMUD operations and are considered critical to environmental sustainability by our main stakeholders. Though there are many environmental sustainability areas that we could address, we worked diligently to prioritize essential areas based on our unique operating context.

Following best practices in sustainability, we have targeted the key areas that are most meaningful to our business. This focus ensures that we are addressing regulatory compliance, emerging risks, customer expectations, and community needs. In the long-term, having a strong social license to operate will reduce community opposition and ensure that everything from capital projects to business changes are supported by the broader community. Tactics that might be important at an operational level will be addressed through individual functional groups.

[2] *Khan, Mozaffar and Serafeim, George and Yoon, Aaron S., Corporate Sustainability: First Evidence on Materiality (March 9, 2015). The Accounting Review, Forthcoming. Available at SSRN: https://ssrn.com/abstract=2575912*

Environmental sustainability priority areas:


GHG and energy


Climate readiness


Managing impacts to shared resources


Green facilities


Supply chain


Habitats and biodiversity


Engagement

Across all the areas that we focus on, there are synergies that we have leveraged as part of the Road Map. For example, value chain tactics result in minimizing waste and increase the recycled content of the materials that we buy, which helps us meet our waste diversion target. Similarly, the tactics that we take to reduce the use of potable water enhance our climate readiness.

How to read the road map

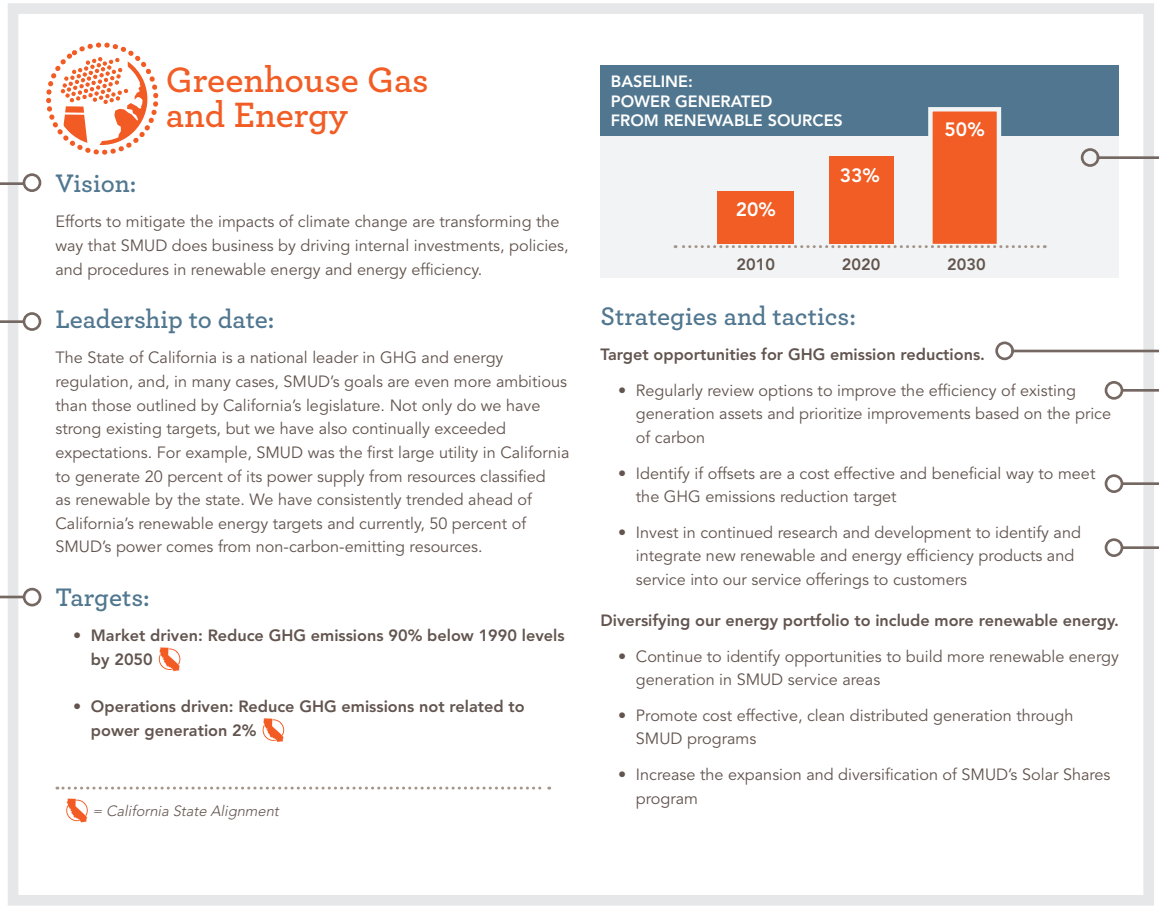
The chapters in the Road Map cover the priority areas. The following provides a guide to the structure of the Road Map.

Vision

Introduces how we define the sustainability challenge and gives insights as to the sustainability context and why we are prioritizing this particular issue.

Leadership to date

Provides a summary of past successes that SMUD has had, which forms the foundation for the program. In the Road Map, we are not trying to recreate or reinvent sustainability but rather elevate and highlight success stories across the organization to broaden and deepen our engagement around sustainability.



Greenhouse Gas and Energy

Vision:

Efforts to mitigate the impacts of climate change are transforming the way that SMUD does business by driving internal investments, policies, and procedures in renewable energy and energy efficiency.

Leadership to date:

The State of California is a national leader in GHG and energy regulation, and, in many cases, SMUD's goals are even more ambitious than those outlined by California's legislature. Not only do we have strong existing targets, but we have also continually exceeded expectations. For example, SMUD was the first large utility in California to generate 20 percent of its power supply from resources classified as renewable by the state. We have consistently trended ahead of California's renewable energy targets and currently, 50 percent of SMUD's power comes from non-carbon-emitting resources.

Targets:

- **Market driven: Reduce GHG emissions 90% below 1990 levels by 2050**
- **Operations driven: Reduce GHG emissions not related to power generation 2%**

= California State Alignment

Strategies and tactics:

Target opportunities for GHG emission reductions.

- Regularly review options to improve the efficiency of existing generation assets and prioritize improvements based on the price of carbon
- Identify if offsets are a cost effective and beneficial way to meet the GHG emissions reduction target
- Invest in continued research and development to identify and integrate new renewable and energy efficiency products and service into our service offerings to customers

Diversifying our energy portfolio to include more renewable energy.

- Continue to identify opportunities to build more renewable energy generation in SMUD service areas
- Promote cost effective, clean distributed generation through SMUD programs
- Increase the expansion and diversification of SMUD's Solar Shares program

Baseline

Provides a summary of available data as a reference point against which the target is being measured. Many of the future projections are estimated values that we will continue to refine.

Strategies

Presents the overarching strategy used to drive action and meet targets.

Tactics

Offers an initial list of tactics used to drive action to meet the targets. It is expected that as our business continues to evolve, we will continue to update and refine these tactics.

2020 Targets

Lists 2020 goals across key sustainability areas that are specific, measurable, actionable, realistic, and timely (SMART). The targets that are included as part of the Road Map text are just a snapshot of a larger target summary that includes the target, cost savings, environmental benefits, community/employee benefits, and if appropriate, regulatory drivers with citations. In the Road Map, we have specifically highlighted where these targets align with existing or signaled California regulation through the use of a California icon.

Greenhouse gas and energy

Vision:

Efforts to mitigate the impacts of climate change are transforming the way that SMUD does business by driving internal investments, policies, and procedures in renewable energy and energy efficiency.

Our performance on this aspect of sustainability is critically important, not only to us, but to many of our customers. For our customers, the electricity provided by SMUD represents a major part of their GHG emissions footprint, so many of the businesses and local municipalities that operate in SMUD service territory are actively relying on SMUD to help meet their emissions reduction targets. Our engagement on GHG emissions makes us active partners in helping our customers meet their targets and, by extension, in our customers' sustainability journey.

Leadership to date:

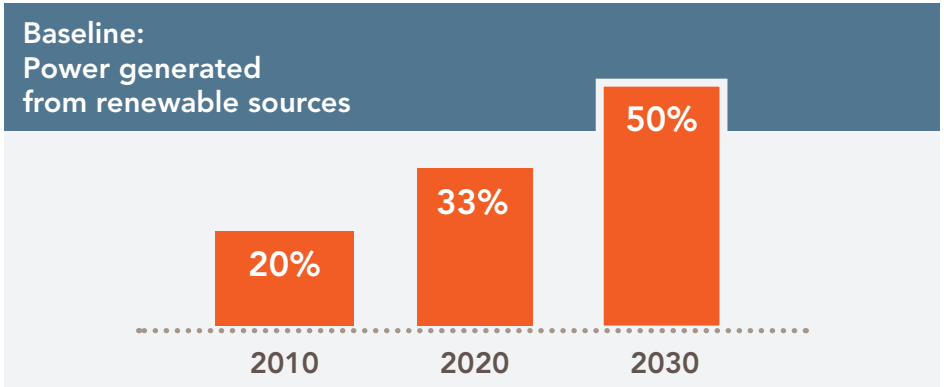
The State of California is a national leader in GHG and energy regulation, and, in many cases, SMUD's goals are even more ambitious than those outlined by California's legislature. Not only do we have strong existing targets, but we have also continually exceeded expectations. For example, SMUD was the first large utility in California to generate 20 percent of its power supply from resources classified as renewable by the state. We have consistently trended ahead of California's renewable energy targets.

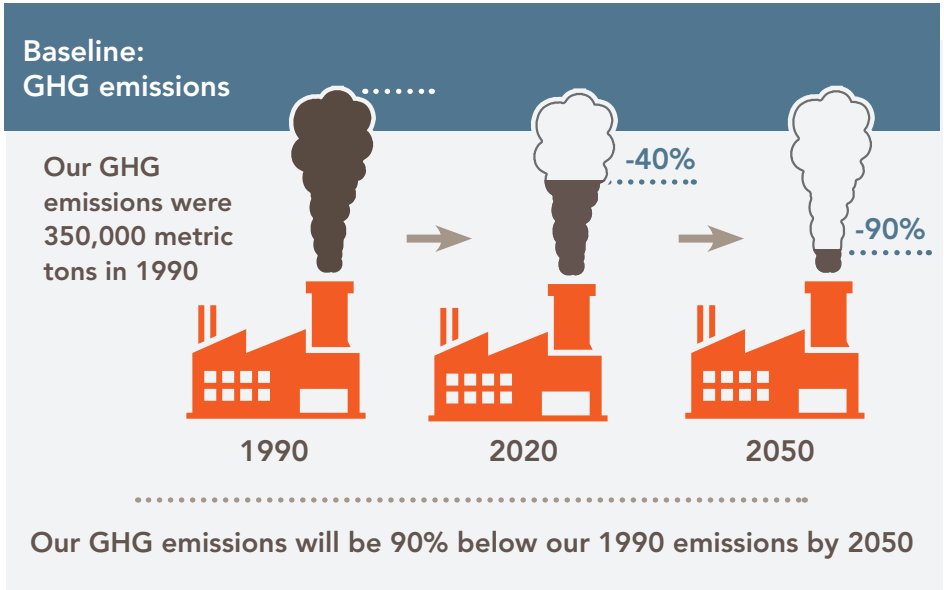
2020 GHG and energy targets:

- **Market driven: Reduce GHG emissions 90% below 1990 levels by 2050**
- **Operations driven: Reduce GHG emissions not related to power generation 2%**
- **Renewable energy: Renewable energy will represent 50% of the generation mix by 2030**
- **Energy efficiency: Achieve energy efficiency equal to a 2% per year reduction**
- **Transparency: Provide greater transparency and support customer requests by responding to the Carbon Disclosure Project (CDP) annually**

= California state alignment

= Above california target





Strategies and tactics:

Target opportunities for GHG emission reductions.

- Regularly review options to improve the efficiency of existing generation assets and prioritize improvements based on the price of carbon
- Identify if offsets are a cost effective and beneficial way to meet the GHG emissions reduction target
- Invest in continued research and development to identify and integrate new renewable and energy efficiency products and services into our service offerings to customers

Diversifying our energy portfolio to include more renewable energy.

- Continue to identify opportunities to build more renewable energy generation in SMUD service areas
- Promote cost effective, clean distributed generation through SMUD programs
- Increase the expansion and diversification of SMUD's Solar Shares program
- Identify net carbon free resources, including large hydroelectric resources and biogas

Increase the implementation of energy efficiency.

- Acquire as much cost effective and reliable energy efficiency as feasible through programs that optimize value for all customers
- Conduct residential and commercial distributed energy resource pilot projects
- Use energy efficiency metering and interval data to improve portfolio planning
- Reduce our operational emissions footprint to promote a culture of awareness. Leverage fleet, LEED upgrades, supply chain, and engagement tactics to reduce employee emissions
- Reduce the gallons of fuel used by 2 percent through robust trip planning and optimization

Demonstrate climate leadership through enhanced transparency and communication with external stakeholders.

- Complete the 2017 CDP submittal (August 2017)
- Demonstrate the alignment between our targets and emerging industry standards, such as the Science-Based Target certification and We Mean Business Coalition
- Find opportunities to demonstrate regional climate change leadership

Climate readiness

Vision:

Climate change will have profound impacts on our business by increasing energy demand at the same time that generation and distribution efficiency will fall. In the future, more resources will be needed to produce the same amount of energy while major weather events could pose a threat to infrastructure. These risks to our business range from shifting wind patterns to wildfires.

Given the challenges ahead, we are working to understand and leverage climate science to make our operations more resilient. We are prioritizing actions to address the most critical impacts of climate change and the most vulnerable components of our power generation system and operations. With these actions, we aim to improve SMUD's readiness on behalf of our ratepayers, community, and stakeholders.

Leadership to date:

In 2008, SMUD produced the first targeted climate readiness study and adaptation strategy, which identified a series of climate readiness actions. The review included a "state of the science" assessment to update scientific findings and incorporate lessons from the California Climate Adaptation Strategy, Adaptation Policy Guide, and a myriad of other resources. The analysis focused on the physical risks most likely to impact SMUD power generation and operations, and incorporated feedback and perspectives from SMUD stakeholders. This study was updated in 2016 and now includes a Readiness Action Plan with components addressing Community Engagement, Enterprise Programs, Capital Projects and Operational Initiatives.

Using these climate readiness study as a foundation, we have been able to make broad progress on integrating climate change into our decision-making processes. In particular, we have been integrating climate change into our emergency preparedness process and are mitigating risks through our investments in grid resilience.

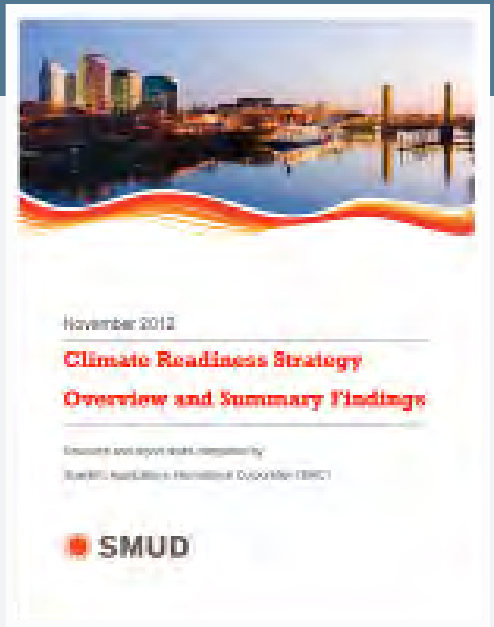
2020 Climate readiness targets

- **Develop a program to ensure climate readiness across all operations and functional groups at SMUD to ensure smart investments over time**

= California State Alignment

Baseline:
Climate readiness

We produced our first climate readiness and adaptation strategy in 2008 with updates conducted in 2012 and 2016



Baseline:
Flood preparedness

We partner with both the City and County of Sacramento on flood data analysis and preparedness planning

Strategies and tactics:

Leverage the best available climate science to make decisions.

- Update the "state of the science" assessment every four years
- Continue to partner with multiple local agencies on flood data analysis and preparedness planning

Take proactive measures to make SMUD more resilient.

- Conduct research into the impacts of sustainable forest management techniques on wildfire risk reduction and streamflows
- Identify systematic opportunities to integrate climate change projections in internal program planning and capital budget development and approval
- Investigate opportunities to employ resiliency bonds to finance further readiness measures
- Support and participate in the Capital Region Climate Readiness Collaborative to assist public and private partners in the region improve overall climate readiness

Managing impacts to shared resources

Vision:

To be a good environmental steward, SMUD continually reduces its impacts to air quality, water, and waste associated with generating power by improving efficiency and minimizing our impacts.

- Air quality: Improving efficiency includes the reduction and management of other air emissions including nitrogen oxides, sulfur oxides, and particulate emissions to support community health.
- Water: Ensuring the short- and long-term quality and availability of water for other uses, especially given a changing climate in California, is critically important for utilities in the state.
- Waste: Management and reduction of hazardous (nuclear, poles, transformer oil, and universal) waste and all other non-hazardous waste (composting, recycling, and landfill waste) reduces workplace exposure and pollution.

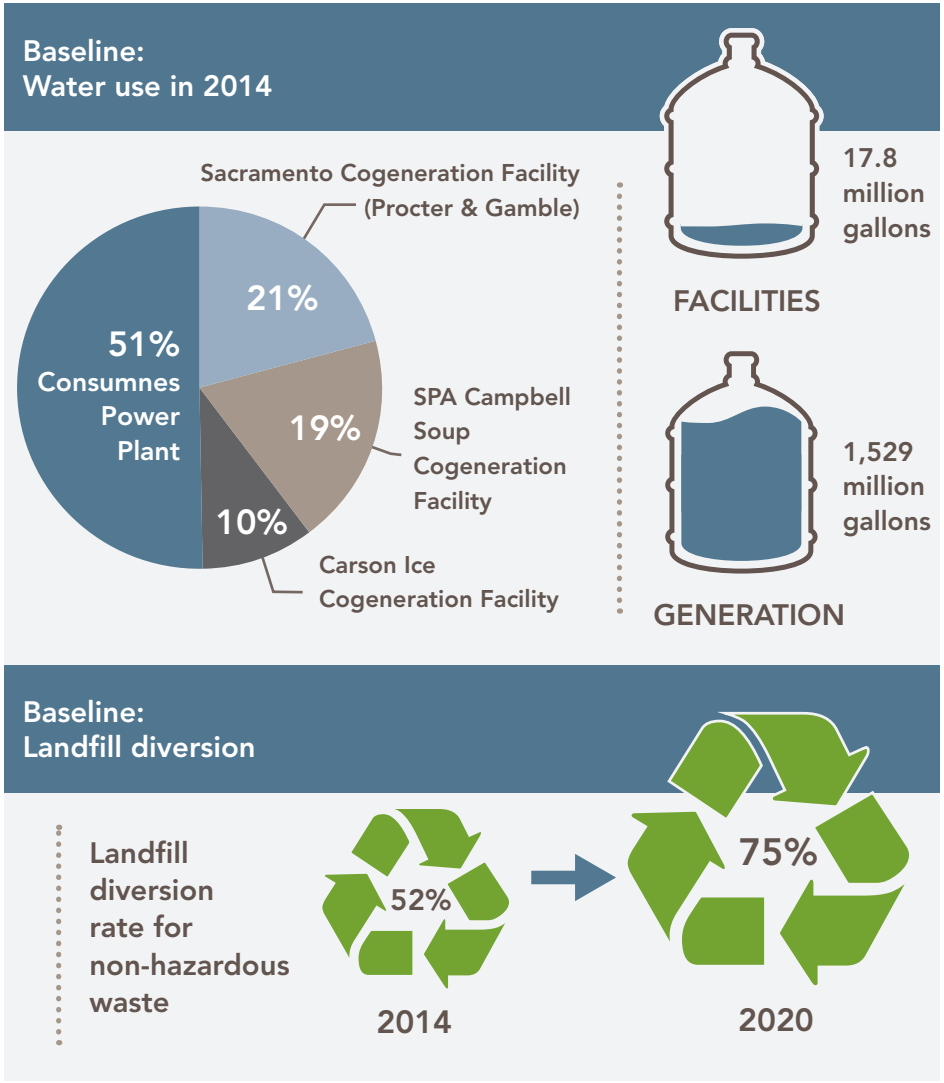
Leadership to date:

We have led the way in developing sustainable buildings with several recent construction projects, which provide a blueprint of what is possible in green design. Two of SMUD's largest facilities – the East Campus – Operations Center (ECOC) and the Customer Service Center (CSC)– are aligned with Leadership in Energy & Environmental Design (LEED) Platinum requirements. Platinum is the highest level of LEED certification and was only achieved through the deployment of innovative approaches including energy performance, water efficiency, reclaimed irrigation water, and recycled materials.

2020 managing impacts targets:

- **Air quality: Establish triple bottom line sustainability guidelines for selling, retiring, or leasing air quality emission reduction credits**
- **Large water users: Reduce potable water use 20% by 2020 at major facilities (including Headquarters, Customer Service, 59th Street, ECOC, Hedge, and Fresh Pond) using more than 5,000 gallons of potable water annually**
- **Small water users: Apply a checklist for behavior and technology-based water efficiency upgrades to 80% of small SMUD sites using less than 5,000 gallons of potable water annually**
- **Water at generation sites: Reduce potable water use for generation by 15%**
- **Waste: Explore the possibility of establishing a composting program for office buildings**
- **Waste: Divert or reduce 75% of non-hazardous waste**

= *California State Alignment*



Strategies and tactics:

Identify opportunities to leverage air quality emission reduction credits.

- Research existing examples and opportunities for sustainability guidelines around the future sale of emissions reduction credits
- Develop and implement a policy to ensure the permanent reduction of air quality associated with the use of emissions reduction credits

Reduce water use at our large office facilities.

- Conduct a water audit of key facilities
- Develop xeriscaping or low-water landscaping specifications
- Identify specifications for purchases of water-related equipment
- Install low-water fixtures

Continue to minimize impacts at small locations including substations.

- Synthesize key items for the checklist
- Pilot opportunities for potential inclusion on the checklist

Focus on emerging opportunities to reduce potable water use in generation.

- Join ImagineH20's Beta Partner Program to vet the latest innovations in promising water technologies
- Connect with local water districts to identify additional opportunities to use non-potable water for generation
- Develop a plan to diversify beyond potable water sources to be more resilient to fluctuations in water availability in the event of a drought

Minimize waste through reducing, reusing, and recycling.

- Identify opportunities to compost
- Conduct a waste audit and implement recommended actions
- Develop a replicable system for waste accounting and tracking

Value chain

Vision:

With an annual spend of over $400 million, we have an opportunity to ensure that we are reducing both our direct and indirect environmental footprint by incorporating sustainability into our purchasing decisions.

With this in mind, SMUD is prioritizing the integration of environmental sustainability and total life cycle costs and impacts. For example, if we buy a cheaper vehicle but it is not fuel efficient, we may end up paying more to operate this vehicle over the operational lifetime than the upfront savings is worth. In addition, there were more environmental impacts.

Leadership to date:

SMUD has drafted a Sustainable Purchasing Program (SPP) Policy to reflect SMUD's continuing commitment to buy products and services in a manner that reflects core values of fiscal responsibility, social equity, and environmental sustainability.

2020 value chain targets

- **Include current paragraph on sustainable environmental procurement in 80% of solicitations (excluding Supplier Education and Economic Development (SEED) providers)**

- **Integrate sustainability into the specification and evaluation in 80% of proposals (excluding SEED providers)**

Baseline:
Supply chain sustainability

80%

of our solicitations and proposals will include sustainability information by 2020

(excluding Supplier Education and Economic Development providers)

We have a Sustainable Purchasing Program Policy

Strategies and tactics:

Ensure SMUD is supplied with environmentally sustainable alternatives from the outset.

- Establish a sustainable procurement policy
- Set standards to ensure the consistent purchasing of environmentally sustainable goods
- Partner with other utilities and join supplier organizations to share best practices
- Leverage Salt River Project's investment recovery operation for scrap metal as a model to minimize the purchasing of excess materials
- Leverage software solutions to manage data, track progress, and make programmatic changes

Focus on the suppliers with the largest impacts.

- Partner with top-tier suppliers to refine products and drive down lifecycle impacts of SMUD operations, products, and services
- Where relevant, integrate product-specific sustainability requirements and metrics into the Request for Proposal (RFP) process

Support the integration of sustainability into procurement.

- Update SMUD's sustainability section in RFPs to encourage suppliers to propose cost-effective environmentally sustainable alternatives
- Ensure the sustainability section is consistently included in RFPs
- Provide training and share best practices on integrating sustainability into RFPs
- Communicate SMUD's environmental sustainability expectations to potential suppliers on the website
- Recognize the annual outstanding contributions of a supplier or SMUD employee to advance sustainable procurement
- Participate in the Electric Utility Industry Sustainable Supply Chain Alliance (EUISSCA) working group to advance industry wide sustainability initatives

Green facilities

Vision:

SMUD is an important member of the Sacramento community, which cares about environmental sustainability. As such, we strive to be a leader in the region by making how we operate our facilities a model for other green businesses.

The tactics listed in this area provide opportunities for employees across SMUD to take part in our sustainability work, and are vital to integrating sustainability into our shared culture. Fleet: California is moving towards zero emissions from light-duty vehicles. We are exploring new vehicle fleet technologies and working to transform the fleet to meet the needs of the future.

- Fleet: We focus on delivering our services as efficiently as possible and have been leading the way in using data driven approaches to green our fleet.
- Design and Construction: We design and build green facilities to ensure we manage our environmental impacts throughout the life of the building.
- Green Offices: We can ensure sustainable operation of SMUD facilities from the printer paper to the overhead lighting.

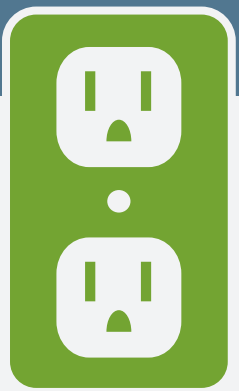
Leadership to date:

SMUD's strength has always been our talented and engaged employees who lead the way in sustainability. For example, our Fleet Operations team has been piloting and developing innovative new approaches and technologies to provide services that deliver safe, reliable, and environmentally friendly transportation. They have taken a new look at the fleet using a data driven approach to understand trends and look for opportunities.

Our Fleet Operations team has outlined an ambitious plan to right size and convert the fleet to low emission vehicles. There are already 19 electric vehicles in the fleet and this is expected to increase by over 400 percent in the next five years due to SMUD's equipment purchase policy, which requires vendors to provide the cleanest emission technology available. Using this approach, Fleet Operations is on track to meet its target of only purchasing replacement light duty vehicles that are all electric, hybrid, alternative fuel, or ultra-low emissions.

Baseline:
Sustainability features of the East Campus Operations Center

- **1.1-megawatt photovltaic system**
- **LED lighting throughout the facility**
- **Geothermal pump and radiant cooling and heating systems**
- **Advanced window design**



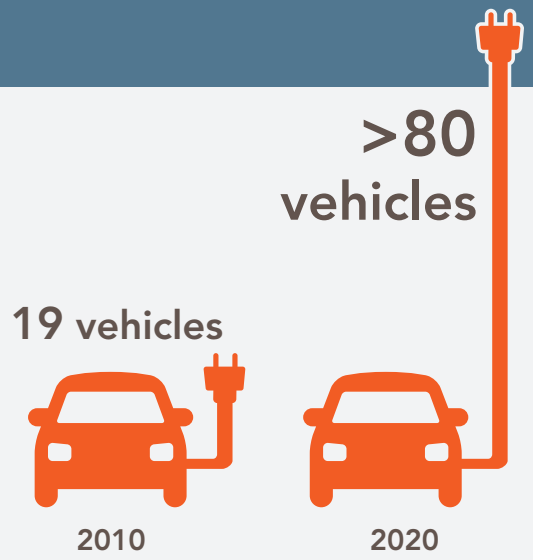
2020 Green facilities targets

- **Fleet: Continue to pursue the best available technology and fuels on the market to reduce fleet emissions**
- **Fleet: Pilot opportunities to make the medium and heavy duty fleet more sustainable**
- **Design and construction: Adopt SMUD-wide green building standard policy so that all buildings are consistently designed and constructed to align with SMUD's sustainability vision**
- **Green office: Certify all of SMUD's major facilities under the California Green Business, Business Environmental Resource Center (BERC), or equivalent green office program**

= California State Alignment

Baseline:
Electric vehicles in our fleet

We will expand our electric fleet to more than 80 vehicles by 2020



Strategies and tactics:

Continue to shift to a sustainable fleet.

- Right size the fleet
- Increase the number of electric vehicles as part of planned replacements
- Pilot alternative and new technologies
- Incentivize trip reductions, public transport use, and carpooling

Institutionalize our approach to sustainable facilities through the adoption of consistent and externally recognized policies.

- Develop a green building standard for major renovations and new construction
- Complete the California Green Business, BERC, or equivalent checklist for major office locations

Baseline:
East Campus Operations Center

The East Campus is projected to avoid 3,200,000 pounds of carbon dioxide emissions annually.

Biodiversity and habitat conservation

Vision:

As part of our business, we are conveying power over ecologically varied locations, and our infrastructure can have unintended consequences on habitats and biodiversity. For SMUD, our operations cover a lot of ground since there are more than 900 square miles in our service territory and we have more than 4,300 miles of overhead power lines.

We are committed to working to ensure operations and facilities have a reduced impact to ecosystems and biodiversity through strategies including impact minimization, habitat avoidance planning, habit restoration and creation, mitigation banking, avian and bat protection, and endangered/protected species monitoring.

Leadership to date:

SMUD actively monitors impacts to biodiversity and habitats using a "green zone" map to automatically flag projects in sensitive plant and animal species areas for further review. This process helps us assess and mitigate environmental concerns across the SMUD service territory.

In some cases, the impacts are unavoidable and SMUD has established proactive mitigation strategies that include the development of an Avian and Bat Protection Plan, an Eagle Conservation Plan, a Habitat Conservation Plan, and the establishment of the Nature Preserve Mitigation Bank at Rancho Seco. The 1,132 acre mitigation bank at Rancho Seco, was one of SMUD's most forward thinking environmental activities. The mitigation bank protects all 1,132 acres of land from future development and restores habitat that supports wildlife and native plant species. The market value of the Mitigation Bank is approximately $26 million in endangered species and habitat mitigation credits. This creates a "bank" of credits SMUD can use to offset the environmental impacts of future projects associated with our own operations or those of third parties.

2020 Biodiversity and habitat targets

- **Using the Green Zone Map, the Environmental Workflow Integration Program, and CEQA to identify, monitor, and mitigate 100% of any potential environmental impacts associated with field maintenance and new work reducing the risk of encroachment on sensitive habitats or ecosystems**
- **Adopt the Habitat Conservation Plan and precautionary principles around habitats and biodiversity**

= *California State Alignment*

Baseline:
Protected land

1,132
acres of protected land at Rancho Seco

Baseline:
Habitats and biodiversity

100%
of projects in sensitive habitats undergo further review for impact assessment and potential mitigation

Strategies and tactics:

Create a model approach to biodiversity and habitat conservation.

- Complete the initial draft of the Habitat Conservation Plan
- Ensure alignment with industry best management practices for reducing impacts through participation in third-party groups
- Establish SMUD Environmental Thresholds for evaluation and determination through the CEQA Process

Expand protection of biodiversity and habitats.

- Continue to evaluate habitat development, creation, and preservation opportunities at Rancho Seco, Fresh Pond, and Solano Wind
- Continue to reach out to educators and our community to enhance the knowledge and appreciation of the biodiversity and habitats in the SMUD service area

Explore new approaches to operate equipment to reduce impacts on wildlife

- Update our Avian and Bat Protection Plans as well as the Eagle Conservation Plan as needed
- Working with local regulatory agencies and organizations like UC Davis to support and promote conservation
- Monitor and remove invasive species from SMUD lands

Engagement

Vision:

With 1.4 million people in our service territory, 624,000 residential and corporate accounts, and over 2,000 employees, SMUD is an active participant in engaging the community on sustainability. In recognition of our ability to have broad ranging impact through our influence, we are committed to continuing to build our culture of sustainability through engagement.

- **Employee engagement:** We foster and create a culture of sustainability with SMUD employees that empowers everyone to take action.
- **Community engagement:** SMUD is very much a part of the community, and both our ambition and ability to deliver on sustainability is influenced by the community. To ensure the success of our program, we maintain two-way communication with the community about our strategic direction, challenges and progress.

Leadership to date:

SMUD's strength is our employees, who lead the way in sustainability in their day-to-day work. Through their broad efforts, we have made progress on leadership to date across our operations. At the ECOC, a cross-functional group of employees has stepped up to help us identify opportunities to meet our energy reduction targets. Through their collaborative efforts, we have implemented new campus-wide campaigns and reduced overall energy use.

SMUD's Community Engagement group sponsors and participates in more than 150 community and business events promoting energy efficiency and environmental stewardship for our residential and business customers.

2020 engagement targets

- **Community engagement: Communicate key components of the sustainability program through an biennial report distributed to our customers, regulators, suppliers and other key external stakeholders**
- **Employee engagement: Provide sustainability training and awareness for key functional groups**
- **Employee engagement: Engage employees in changing behaviors through SMUD-wide sustainability programs and competitions**

Baseline:
Energy and environmental events

150

energy and environmental events sponsored by our community engagement group

1.5 Million

customers reached by these events

Baseline:
Sustainability engagement

We produce a...

Strategies and tactics:

Promote sustainability engagement in SMUD's day-to-day operations.

- Pilot a resource efficiency competition
- Provide sustainability awareness training for key staff
- Celebrate the success and leadership of SMUD employees by recognizing an employee or group of employees annually for their sustainability leadership within the organization

Communicate the sustainability journey through transparent and centralized reporting.

- Release the Environmental Stewardship Report biennially
- Provide an annual data update on SMUD's progress against environmental sustainability targets

Develop a comprehensive Communication Plan to strategically engage employees and external stakeholders.

- Integrate sustainability messages into existing communication channels
- Use social media to share key external sustainability messages on a regular basis
- Track and measure interest associated with these messages

Future growth

We have been a part of the Sacramento community for over 70 years, and we want to ensure that SMUD reaches the top quartile for environmental sustainability among industry peers and is a regional leader. To achieve this, we have articulated short-term targets and implementation pathways as part of the Road Map. As our program continues to grow and evolve, we hope to continue to change apace to ensure a smart green program where we are balancing economics, environment, and community.

We have set this Road Map as the first of several 5-year plans. For our next update, looking forward to 2020, we will have stronger data against which to chart progress and a longer track record of integrating sustainability into our business. Furthermore, there might be new drivers or technologies that will drive changes we could not imagine today. Taking all of these factors into account, the foundation set by the 2020 plan will be leveraged into our next five year strategic plan for 2025.

Each of us is responsible for making this plan a reality and we hope to achieve these long-range goals through a collaborative effort. Together we can do great things and ensure that the SMUD way is the sustainable way.

Recognizing current challenges

We want to take a moment to acknowledge the challenges that we face in implementing and measuring progress against the Road Map. Significant changes are anticipated in both the nature of our business and our facility footprint.

SMUD's 2016 5-Year Strategic Plan reimagines our business to move from today's business model to a new one. To do this, we are embracing change and looking for innovative ways to work more efficiently and streamline processes.

Simultaneously, we are investing in our facilities. Over the next five years, there will be major changes to our built space. Notably, our planned rehabilitation of the Headquarters building and grounds has resulted in temporary offices. As a result of these changes to facilities and headcount, we will temporarily find it harder to measure performance over time. This presents a dynamic backdrop against which to plan.

Though we cannot predict the future, we know that "to fail to plan is to plan to fail." With all of these challenges, we are actively seeking opportunities to address any barriers to measuring and delivering on our performance. As we progress, we may need to respond to additional challenges such as changing deadlines, unanticipated costs, etc., and shifts in SMUD's strategic plan.

Special acknowledgements

We are beholden to the many longstanding efforts of SMUD employees who have taken action on sustainability. In developing our Environmental Sustainability Road Map, we came across ambitious and innovative action that we hope to continue to catalyze and build on with this Road Map.

In addition, many employees including our Executives, Directors, and the SMUD Green Team supported the development of SMUD's Environmental Sustainability Road Map. They provided critical input, which informed every step of the process, and for which we are deeply grateful. Without their continued effort in collecting data, setting targets, and identifying opportunities for implementation, we would not have the Road Map.

Proposed 2020 targets

Proposed 2020 Targets	Existing SMUD Target	CA Alignment	Alignment Summary	Current Progress	Proposed Ownership	Key Milestones	Suggested KPIs for 2017 (% as compared to the previous year)	Metrics	Regulatory Links
Greenhouse Gas and Energy									
Market driven: Reduce GHG emissions 90% below 1990 levels by 2050	X	X	Global Warming Solutions Act (AB 32, 2006)		Scott Martin	See SD-9; 33% RPS by 2020, 50% RPS by 2030	Reduce GHG emissions by 27,815 MT GHG	GHG emissions (Please note: SD-9 accounting is different than the state's protocol. This is determined by the SMUD Board. For example, there is an adjustment for hydro conditions and an adjustment for wholesale sales.)	
Operations driven: Reduce GHG emissions from operations 2%		X	Global Warming Solutions Act (AB 32, 2006)		Pat Durham	See fleet and engagement targets	Reduce total gallons of fuel used by 2%	GHG emissions	
Renewable energy: Renewable energy will represent 50% of the generation mix by 2030	X	X	Senate Bill 350, codifies 50% by 2030 RPS		Scott Martin	See SD-9	Increase renewable energy generation to 27%	Renewable energy generation	http://www.energy.ca.gov/portfolio/
Energy efficiency: Achieve energy efficiency equal to a 2% per year reduction	X	X			Scott Martin	See SD-9	Increase in energy efficiency savings by 2% as compared to the average annual retail energy sales	% of renewable energy	
Transparency: Provide greater transparency and support customer requests by responding to the CDP annually					Laura Fisher	"1. Review questionnaire and identify key data and information gaps (2016) 2. Develop and submit initial response (2017) 3. Update the response annually (2018, 2019, and 2020)"	Complete the 2017 CDP response	Qualitative - Annual CDP submittals and score	
Resource Efficiency									
Air quality: Establish triple bottom line sustainability guidelines for selling, retiring, or leasing air quality emission reduction credits					Laura Fisher	"1. Research existing examples and opportunities for sustainability guidelines (2019) 2. Compile a policy for emissions reduction credits (2020)"	No action proposed in 2017	Emission reduction credits	
Large water users: Reduce potable water use 20% by 2020 at major facilities (including Headquarters, Customer Service, 59th Street, ECOC, Hedge, and Fresh Pond) using more than 5,000 gallons of potable water annually		X	Senate Bill X7-7, sets an overall goal of reducing per capita urban water use by 20% by December 31, 2020		Terry Hicks	1. Conduct a comprehensive review of opportunities for water efficiency action to reduce water usage (2019-2020)	Reduce water use at large sites by 2.5%	Potable water use	http://www.water.ca.gov/wateruseefficiency/sb7/

Underway or already complete

Some progress has already been made but more programmatic support is necessary

Further programmatic support is necessary

Proposed 2020 Targets	Existing SMUD Target	CA Alignment	Alignment Summary	Current Progress	Proposed Ownership	Key Milestones	Suggested KPIs for 2017 (% as compared to the previous year)	Metrics	Regulatory Links
Small water users: Apply a checklist for behavior and technology based water efficient upgrades to 80% of small SMUD sites using less than 5,000 gallons of potable water annually		X	Senate Bill X7-7, sets an overall goal of reducing per capita urban water use by 20% by December 31, 2020		Terry Hicks	"1. Synthesize key items for the checklist (2017 Q1) 2. Pilot the checklist and review progress (2017 Q2) 3. Distribute and track implementation of checklist (2017 Q3-2020)"	Complete the checklist at 10% of the smaller water user sites	Potable water use	http://www.water.ca.gov/waterusee fficiency/sb7/
Water at generation sites: Reduce potable water use for generation by 15%		X	Executive Order B-37-16, develops a framework for using water more wisely, eliminating water waste, strengthening local drought resilience, and improving agricultural water use efficiency and drought planning		Ross Gould	"1. Use 95% recycled water at Campbell's Soup facility 2. Explore further opportunities to diversify the water supply in the event of a drought (2018)"	Increase recycled water by 17%	Consumptive vs. non-consumptive water use for generation	http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/docs/2016nov/113016_executive%20 order_report.pdf
Waste: Explore the possibility of establishing a composting program for office buildings	X	X	Assembly Bill 1826, requires business generating a specified amount of organic waste per week to arrange for recycling services for that waste		Laura Fisher	"1. Study opportunities to compost (2017 Q1) 2. Pilot promising options (2017 Q2)"	Complete the composting review and pilot	Qualitative - Review of composting opportunities	http://www.calrecycle.ca.gov/recycle/commercial/organics/FAQ.htm
Waste: Divert or reduce 75% of non-hazardous waste		X	Assembly Bill 341, sets a statewide goal for 75 percent disposal reduction by the year 2020		Terry Hicks	1. Review the waste audit results and implement reductions	Reduce waste by 6%	Total weight of hazardous and non-hazardous waste by the disposal method including reuse, recycling, and composting	http://www.calrecycle.ca.gov/Recycle/Commercial/FAQ.htm
Habitats and Biodiversity									
Evaluate using the Green Zone Map and CEQA the impacts associated with 100% of field maintenance and new work to ensure that we do not do not encroach on sensitive habitats or ecosystems		X	CEQA, or the California Environmental Quality Act, is a statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible		Emily Bacchini	Continue	Evaluate the impacts associated with 100% of operations for both maintenance and new work especially in sensitive areas	Major species conserved / protected	http://resources.ca.gov/ceqa/guidelines/
Adopt the Habitat Conservation Plan and precautionary principles around habitats and biodiversity	X	X	Natural Community Conservation Planning (NCCP) program takes a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity.		Emily Bacchini	Continue	Align the wetland mitigation bank with the requirements of the Wildlife Habitat Council	Alignment with the Wildlife Habitat Council	https://www.wildlife.ca.gov/Conservation/Planning/NCCP

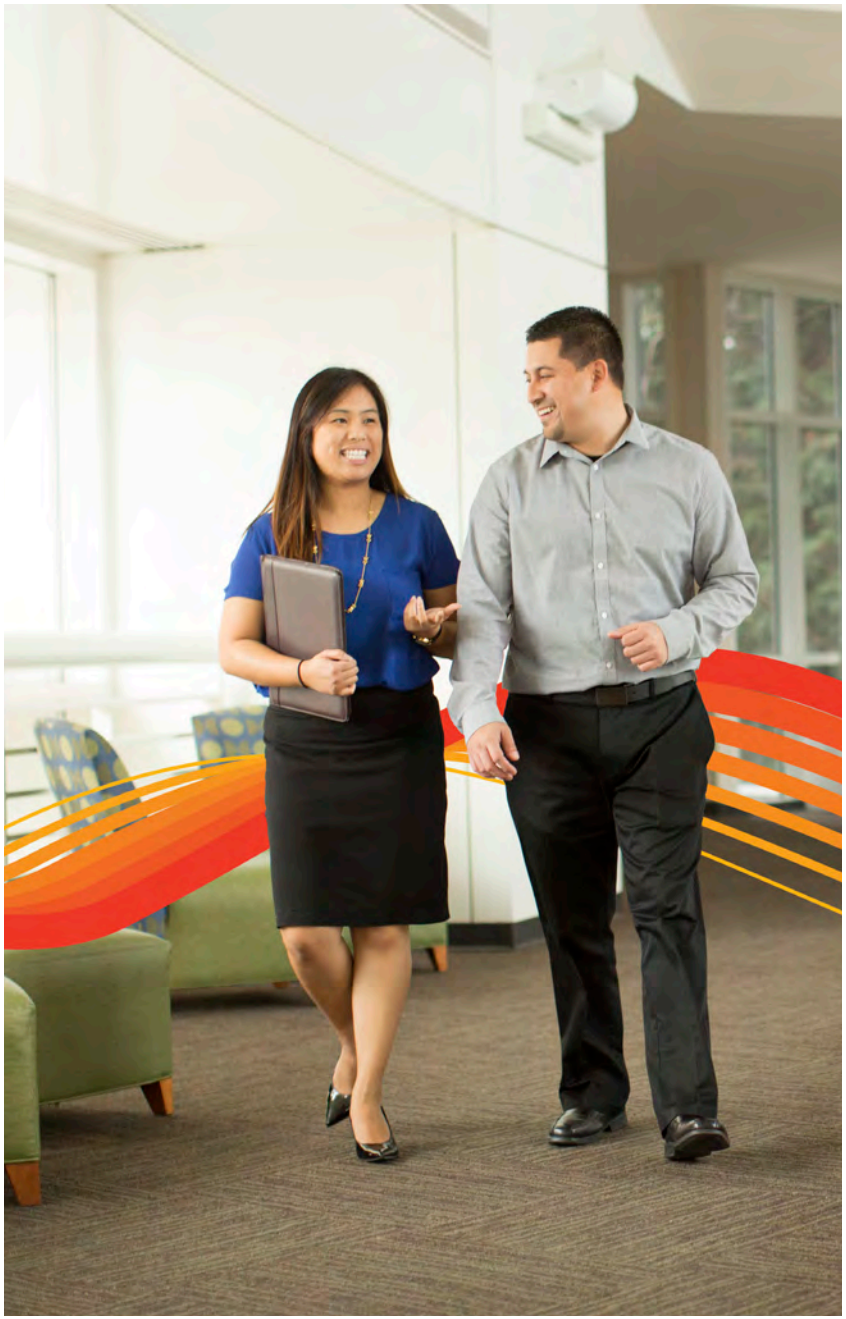
Proposed 2020 Targets	Existing SMUD Target	CA Alignment	Alignment Summary	Current Progress	Proposed Ownership	Key Milestones	Suggested KPIs for 2017 (% as compared to the previous year)	Metrics	Regulatory Links
Climate Readiness									
Develop a program to ensure climate readiness across all operations and functional groups at SMUD to ensure smart investments over time		X	2009 California Climate Adaptation Strategy		Kathleen Ave	"1. 2016 Climate Readiness Report (update of 2014) complete 2. Identify opportunities to make smart investments over time to manage changing climate conditions "	No action proposed in 2017	No action proposed in 2017	http://resources.ca.gov/docs/climate/Statewide_Adaptation_Strategy.pdf
Supply Chain									
Include current paragraph on sustainable environmental procurement in 80% of solicitations (excluding SEED providers)					Oscar Santos	1. Ensure consistent sustainability section review for RFP's by Supply Chain group (2017)	Integrate sustainability into 25% of proposals	"% of proposals and solicitations with sustainability integrated Supplier engagement by % of spend "	
Integrate sustainability into the specification and evaluation in 80% of proposals (excluding SEED providers)					Oscar Santos	"1. Conduct a review of the carbon footprint of the supply chain and identify focused opportunities to improve supplier performance (2017 Q1) 2. Since non-inventory items are a real issue at the warehouse and there is also 5-20% overbuy, look at SRP's investment recovery operation as a model for how to handle excess materials (2017 Q1) 3. Put together an action plan for improving supplier performance (2017 Q2) 4. Implement SAP Ariba to track environmental sustainable supply chain performance (2017 Q2)"	Study the carbon footprint of the supply chain and identify focused opportunities to improve supplier performance	Supplier sustainability performance	
Green Operations									
Fleet: Retool SMUD's light-duty vehicles to reduce emissions	X	X	" Executive Order B-16-12 directing state government to help accelerate the market for zero-emission vehicles (ZEVs) in California The ARB recognizes that ZEVs and PHEVs will have to represent nearly 100 percent of new vehicle sales in California by 2050"		Casey Fallon	1. Establish purchasing requirements to consider total cost of ownership and sustainability considerations during the vehicle selection process (2017 Q2)		% of light-duty vehicles that are zero emissions	https://www.arb.ca.gov/msprog/zevprog/zevcollaboration.htm

Underway or already complete

Some progress has already been made but more programmatic support is necessary

Further programmatic support is necessary

Proposed 2020 Targets	Existing SMUD Target	CA Alignment	Alignment Summary	Current Progress	Proposed Ownership	Key Milestones	Suggested KPIs for 2017 (% as compared to the previous year)	Metrics	Regulatory Links
Fleet: Pilot opportunities to make the heavy duty fleet more sustainable		X	" Executive Order B-16-12 directing state government to help accelerate the market for zero-emission vehicles (ZEVs) in California The ARB recognizes that ZEVs and PHEVs will have to represent nearly 100 percent of new vehicle sales in California by 2050"		Casey Fallon	1. Continue the use of RD diesel and the addition of JEMS to the fleet (Ongoing)	No action proposed in 2017	Qualitative - Key stories and insights learned from the piloting process	https://www.arb.ca.gov/msprog/zevprog/zevcollaboration.htm
Design and construction: Adopt SMUD-wide green building standard policy so that all buildings are consistently designed and constructed to align with SMUD's sustainability vision		X	Title 24 ensures that new commercial buildings will be ZNE by 2030		Terry Hicks	"1. Development of the policy (2017 Q1) 2. Senior management approval (2017 Q2) 3. Implementation of the policy (2018-2020)"	Establish a SMUD-wide green building standard	# of buildings designed and constructed to align with the policy	http://www.energy.ca.gov/title24/
Green office: Certify all of SMUD's facilities under either the Sacramento or California Green Business Program		X	California Green Business Network is a nonprofit organization that oversees programs operated by Chambers of Commerce, cities and counties throughout California		Casey Fallon, Terry Hicks, Laura Fisher, Green Team	"1. Complete the checklist for the initial site - ECOC with the help of the site Green Team (2016) 2. Phase completion of Headquarters, Customer Service Center, Hedge, and Fresh Pond "	Certify 40% of SMUD's major locations as either a Sacramento or California Green Business	# of facilities certified under the California Green Business Program	http://www.greenbusinessca.org/
Engagement									
Community engagement: Communicate with the community key components of the sustainability program through a biennial report					Laura Fisher	1. Publish the Environmental Stewardship Report in 2017 and 2019	Complete the Environmental Stewardship Report (2017)	# of downloads of the sustainability report and SD-7	
Employee engagement: Provide sustainability training and awareness for 100% SMUD employees					Laura Fisher	"1. Develop a framework for promoting sustainability (2018 Q1) 2. Record an online training for sustainability (2018 Q2) 3. Roll-out the training program (2019-2020)"	No action proposed in 2017	% of SMUD employees that have taken sustainability training	
Employee engagement: Engage employees in changing behaviors through SMUD-wide sustainability programs and competitions					Laura Fisher	"1. Pilot a 3 month long resource efficiency competition at Fresh Pond (2018 Q1) 2. Review data against a historical baseline (2018 Q2) 3. Host a SMUD-wide competition (2019)"	No action proposed in 2017	# of SMUD-wide sustainability programs and competitions by 2020	



Appendix:

Links to online documents:

- Gap Analysis
- Sustainable Purchasing Plan
- Composting Plan
- Targets
- Data Handling Protocol

SMUD®