

SILICON VALLEY CLEAN ENERGY STRATEGIC PLAN

JUNE 2019



SILICON VALLEY
CLEAN ENERGY

The Future is Electric



MISSION STATEMENT

Reduce dependence on fossil fuels by providing carbon free, affordable and reliable electricity and innovative programs for the SVCE community.

MESSAGE FROM THE BOARD CHAIR

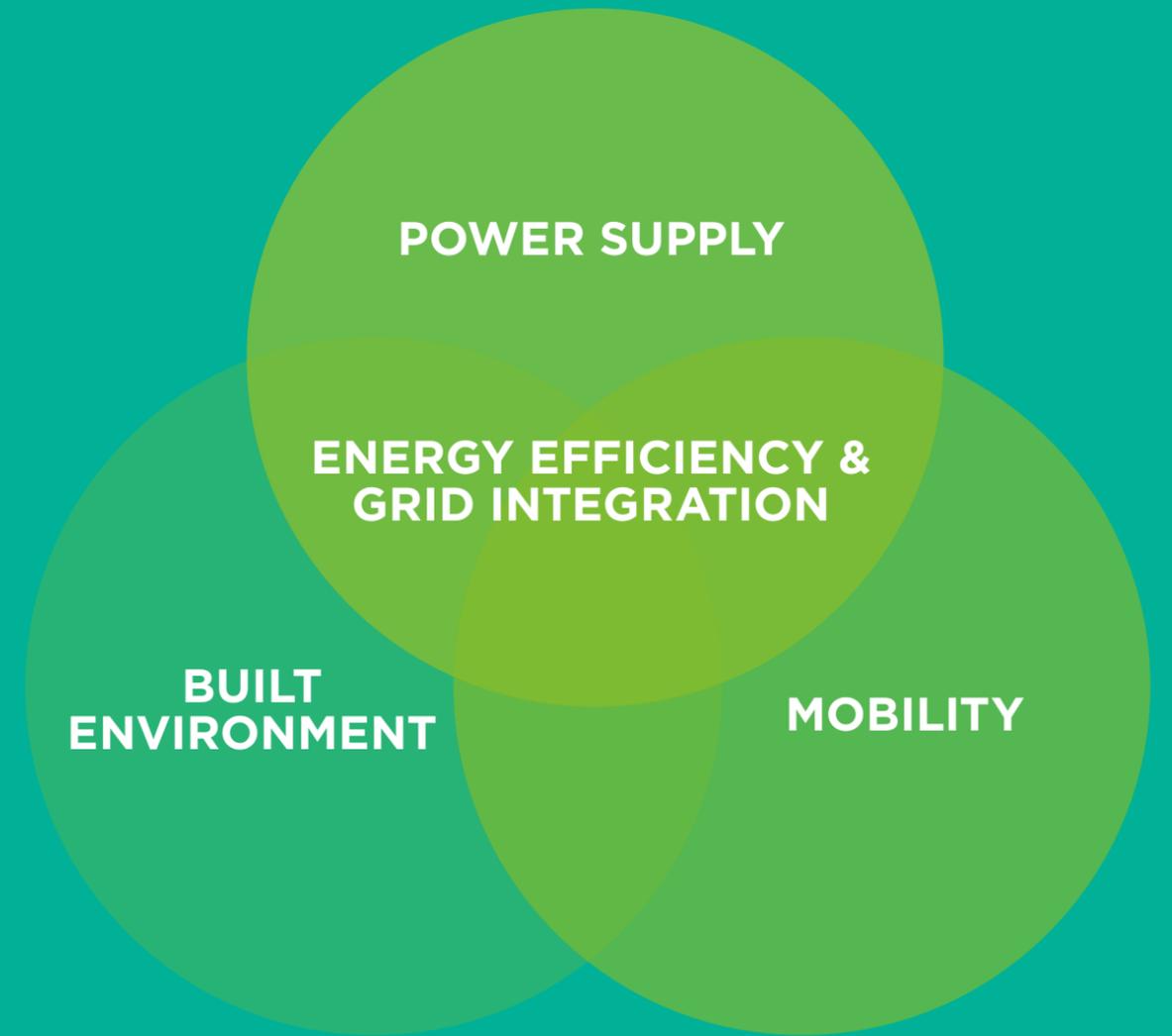
In its first two years of operation, Silicon Valley Clean Energy has decarbonized our region's electricity supply, resulting in a 16% reduction of community-wide greenhouse gas emissions. This has helped our member communities achieve their climate action goals while saving customers over \$20 million on their electricity bills. These incredible accomplishments would not be possible without a strong team and strategic plan to execute our mission. As our agency matures, we are excited to pave the way forward with cutting-edge programs that set forth our vision for a sustainable, clean energy future.

Margaret Abe-Koga

CEO MESSAGE

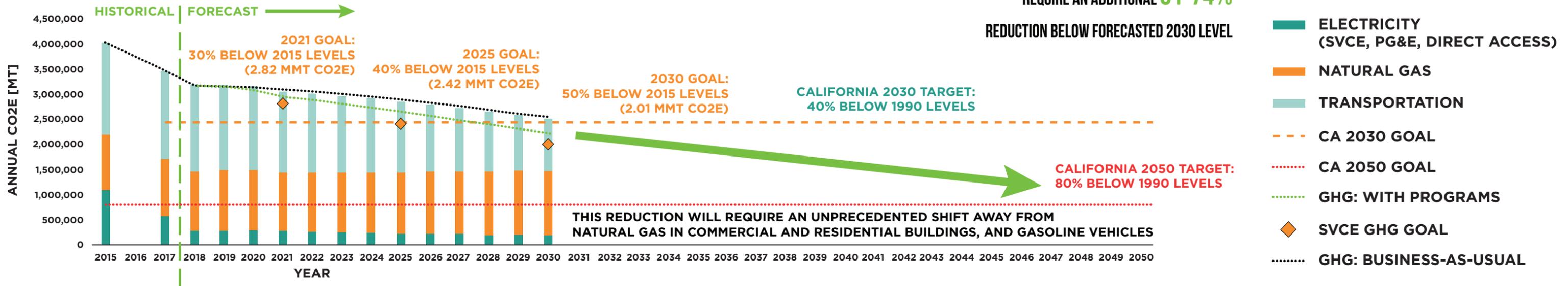
As we enter unparalleled changes in the electric utility industry, this strategic plan ensures that Silicon Valley Clean Energy is a leader in innovative approaches to decarbonization. We will continue to invest in long-term renewable resources, while ensuring reliability and competitive rates. Our wide-ranging programs amplify the benefits of clean, carbon-free electricity by electrifying our buildings and transportation systems, improving energy efficiency and grid integration, fostering innovation and maintaining a commitment to education and outreach in our community. All aspects of this plan help our organization achieve its mission, bending the carbon curve downward to benefit our community both environmentally and economically.

Girish Balachandran, CEO



GHG Reduction Goals

Staff carried out a GHG emissions forecasting and scenario analysis in SVCE service territory through 2030 from energy-related emissions (i.e. electricity, natural gas and transportation). The objectives were two-fold: 1) inform the development of GHG emissions targets beyond SVCE's current 2021 target, and 2) assess the potential impact of the proposed program portfolio to guide the development of the Decarbonization Programs Roadmap.



DEPARTMENT GOALS

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WORKPLACE I.

Human capital is a successful organization's greatest asset, and at SVCE we strive to build a highly talented and dedicated team that will ensure the success and prosperity of our organization. Valuing this team and nurturing its talent will require a start-up culture that supports creativity, open communication, and the free flow of ideas to spur innovation. We will provide an infrastructure within SVCE that supports and cultivates our employees through professional and personal development, recognizes and rewards their contributions to achieving our mission, and offers opportunities that position our people, as well as SVCE, for success. In attracting and maintaining skilled employees, SVCE will continue to provide a rewarding workplace experience.

1. Build a high-performing team

Support health, wellness and a productive workplace

- Promote healthy habits
- At least once every two years, evaluate wellness benefits to industry benchmarks and make recommendations for improvement
- Evaluate current facilities and recommend changes to promote a happy and productive workforce
- Evaluate Human Resources Information Technology Software (HRIS) to streamline core functions

Acknowledge high staff engagement and performance

- Annually, update compensation schedule to account for cost of living adjustment
- Through an annual review process, compensate staff accordingly
- Conduct a biennial compensation study and make necessary adjustments to ensure wage competitiveness

Build an inclusive and fulfilling company culture

- Monthly, arrange opportunities for staff to socialize in or outside of the office
- Annually, sponsor family events (e.g. holiday celebration, summer picnic, etc.)
- Promote team building through volunteer work
- Maintain an open-door policy for CEO and directors
- Maintain a monthly all-hands meeting

Build an environment that encourages creativity and innovation

- Support professional development
- Encourage staff to attend conferences and networking events

Provide effective and safe feedback processes

- Research and develop an annual feedback process, promoting an open and safe performance assessment
- Conduct an annual survey to measure employee engagement

How do we achieve deep carbonization?

carbonize electricity

electrify everything (esp. buildings and cars)

improve energy efficiency & demand
flexibility for successful grid integration

VALLEY
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CUSTOMER AND COMMUNITY

II.

SVCE will use various channels and platforms to cultivate relationships with and bring customer value to all segments of the communities we serve. These channels include leveraging existing outlets established by our member agencies, partnering with commercial customers to enhance their community presence, and re-engaging with those who have opted out.

Partnerships with commercial customers are particularly important to building SVCE's brand in a region known for innovation. Communicating our competitive rates and superior product in clear and accessible ways will strengthen customer loyalty and enhance our financial standing, enabling us to better serve our communities.



2. Maintain competitive rates to acquire and retain customers

Provide carbon-free electricity to additional customers in the SVCE service area and increase market share

- Communicate competitive rates to all customers
- Annually, communicate rates and power content mix of the SVCE electric supply in a joint rate comparison mailer with PG&E
- On an on-going basis, engage with selected prospective customers not currently served by SVCE to review options and benefits of service from SVCE
- Examine customized rate options for large customers while meeting SVCE's carbon and financial goals; establish SVCE margin analysis by customer class, and tools for evaluating customized rate options including targeted customer discounts and 'green sleeve' PPA arrangements

3. Promote customer awareness

Build awareness and trust through continuous interaction with the SVCE community

- Annually, provide SVCE update to member agency councils or at state of the city events highlighting SVCE and community activity related to electrification and decarbonization
- Annually, place booth/table at six or more regional events that emphasize energy efficiency, sustainability, and efficient use of natural resources

- Sponsor community and industry events that align with SVCE's sponsorship guidelines
- Present to community groups, environmental organizations, trade allies, commercial customers, chambers, and neighborhood associations at their respective meetings
- Organize and conduct monthly meetings of the Member Agency Working Group for SVCE member agency sustainability and communication staff and partner with them to disseminate information to the communities in the SVCE service area
- Organize quarterly meetings between commercial and industrial customers and various interest groups to promote renewable resources, decarbonization, and advanced technologies for energy storage

Share SVCE and customer stories to build goodwill and awareness

- Submit quarterly news features to all local papers
- Write and promote customer profiles for related work and recognition already in the community

Leverage partnerships with other Community Choice Aggregators (CCAs) to increase general CCA "brand recognition" among consumers

- Promote the undertaking of joint marketing campaigns with CalCCA and other regional CCAs
- Co-brand publicly visible energy service infrastructure

4. Maintain customer service satisfaction

Monitoring

- Track ongoing participation rate and opt out trends
- Track response rates to customer inquiries

Create a customer-centric culture

- Ensure that customer contact center reps are trained and deliver pleasant and effective customer experiences
- Randomly monitor and listen to calls, live or recorded, each quarter
- Monitor customer service statistics to ensure adherence to Service Level Agreements
- Offer a post-transaction survey to customers

Recognize GreenPrime customers' added contribution to SVCE's mission

- Maintain third party validation and marketplace recognition





DECARBONIZATION & GRID INNOVATION PROGRAMS

SVCE was founded to address climate change, the greatest existential threat of our time. We will play a vital role in this decades-long endeavor, with the ongoing support of our community and our Board. In addition to providing carbon-free electricity, we are reinvesting in our region and expanding our toolset for furthering emissions reductions by launching decarbonization and grid innovation programs. These programs represent the next stage in SVCE's maturity and are the mechanism by which SVCE will further engage our communities to achieve our mission. We will leverage partnerships, prioritize innovation and use data science to manage and influence carbon-free energy use. We will embody the entrepreneurial and innovative spirit of the community in which we live and work in, the spirit of Silicon Valley, to bend the carbon curve downwards and improve the lives of our community members.

III.

5. Work with the community to achieve energy and transportation GHG reductions of 30% from the 2015 baseline by 2021, 40% by 2025, and 50% by 2030

Collect and track data for SVCE service territory to guide SVCE decarbonization activities

- Carry out an annual emissions inventory
- Use the updated emissions inventory to assess progress toward meeting SVCE-wide emissions reduction targets; reassess targets, as needed
- Evaluate developing sector-specific objectives or targets (e.g. “25% of new construction all-electric by 2020)
- Support member and customer GHG accounting efforts (e.g. Power Content Label, emissions intensity, recognized certifications, etc.)
- Execute and maintain SVCE’s Decarbonization Strategy & Programs Roadmap (please see the Decarb Roadmap for the comprehensive list of programs and strategies SVCE is pursuing) to achieve community-wide emissions reduction targets
- Leverage external partnerships (CCAs, municipal utilities, etc.) where feasible for programmatic initiatives
- Review and update the roadmap on an approximately annual basis, guided by comprehensive stakeholder input (community members, startups, non-profits, academia, corporations, etc.), updated emissions and market data, and initial program results

Create an innovation-focused culture

- Support staff training and use of concepts and tools to support innovation, such as design thinking, rapid iteration, and various brainstorming techniques
- Strive to develop a reputation as an active partner in innovation amongst academia, accelerators/incubators, and other entities in the innovation ecosystem
- Develop 2-5 year roadmap for priority innovation areas where innovation program activities should be focused

Define, develop, maintain and leverage internal databases and tools to carry out high-impact analyses to support activities and functions across SVCE

- Establish SVCE customer interval data analytics platform based on requirements developed from input across all functions at SVCE
- Acquire, aggregate, and manage additional data sets with high potential for business insight (tax assessor data, EV adoption, etc.)
- Develop visualization and other interpretation tools to facilitate distilling complex, data-intensive, and/or technical topics into informative graphics and actionable insight for broad audiences



FINANCE AND FISCAL RESPONSIBILITY

A respected financial ranking requires disciplined fiscal strategies and financially sound policies. SVCE is committed to managing its financial resources responsibly and setting a standard of transparency and accountability, ensuring efficiency and strong stewardship of the agency's financial resources. At SVCE, our commitment to fiscal and operational excellence will ensure that all processes and operations are clearly defined and efficiently designed to align people, systems, and policies to maximize productivity and improve efficiency. Adhering to these policies and actively examining and assessing risk will earn us a high credit rating and a healthy position in delivering customer value.

IV.



6. Commit to Excellence

Evaluate current systems, policies and processes to identify opportunities to optimize agency resources

- Identify opportunities for collaboration internally between departments and externally with community partners
- Optimize the business processes to maximize value to the community and realize cost-efficiency opportunities at both the department and agency levels
- Define and implement project management processes and tools that meet the needs of the agency
- Identify opportunities for eliminating redundancies by increasing automation and system functionality

7. Achieve an investment grade credit rating by end of 2020

Update the cash reserves policy and monitor reserves to hedge unexpected variation in power supply costs, provide capital during economic downturns and mitigate sudden rate increases

- Maintain pursuit of the liquidity target of 180 days of the following twelve months of projected operating expenses
- Maintain a debt-to-equity ratio of 0.5 or less
- Maintain rate competitiveness with PG&E
- Develop and maintain risk management policies and controls with respect to power procurement

8. Empower decision making with data

Integrate advances in information and systems technology to enhance the collection, structuring and analysis of data for decision-making and change management

- Bi-annually update and present 5-year financial forecast to predict rate adjustments and financial risks
- Assess agency budgeting and planning approach in order to define strategies and solutions that will advance strategic initiatives and strengthen financial sustainability
- Build executive dashboards in order to utilize accurate and timely data in both operational and strategic decision-making
- Evaluate data available in financial systems and other administrative systems to identify and address gaps between the data available and the data desired
- Provide analysis and context to guide and inform decision making for our business partners

REGULATORY AND LEGISLATIVE



The regulatory and legislative processes wield critical influence over SVCE's ability to serve our customers and fulfill our core goals and mission. SVCE will actively engage with the regulatory and legislative communities in order to protect the interests of our customers, enhance our ability to mitigate greenhouse gas emissions, and help build a regulatory framework that supports innovation and customer choice in an equitable and cost-effective manner while preserving reliability and universal access.





9. Engage regulators and legislators in developing policy that protects CCA rights and facilitates CCA contributions to decarbonization, grid reliability, affordability, and social equity

Develop a voice and identity for SVCE in Sacramento that allows us to effectively shape a regulatory and legislative environment that supports SVCE's existence and GHG mitigation efforts

- Work with SVCE's lobbyists to establish and strengthen relationships with key legislative decisionmakers
- Leverage the voices of SVCE's Board of Directors and other community leaders within SVCE's territory by arranging for them to contact and meet with their legislators to discuss CCA issues
- Engage in long-term legislative planning that facilitates efficient use of SVCE's advocacy resources

Maximize the effectiveness of SVCE's advocacy through collaboration with the California Community Choice Association (CalCCA) and other CCAs where appropriate

- Where CalCCA and SVCE priorities are aligned, coordinate advocacy with CalCCA and contribute to CalCCA efforts in order to maximize efficiency of SVCE advocacy
- Develop an understanding of where SVCE's priorities differ from CalCCA's in order to make strategic decisions about when to collaborate and when to work independently
- Identify and collaborate with other CCAs who share SVCE's policy priorities

- Organize collaborative initiatives with other CCAs where possible in order to facilitate efficient expenditure of SVCE advocacy and policy resources

Develop relationships with community stakeholder organizations that foster support for SVCE and decarbonization

- Identify stakeholders whose goals and priorities align with SVCE's and develop plans for outreach and relationship-building
- Attend or cohost relevant community meetings and events to engage individual community leaders or groups
- Include members of local stakeholder organizations in SVCE's advocacy efforts by providing updates on key issues and encouraging them to contact legislators

Provide thought leadership and policy development expertise to help advance California's energy policy framework in a manner that supports SVCE's values

- Contribute to CalCCA and CPUC working groups, public forums, and other processes in which stakeholders have the opportunity to actively shape regulatory and legislative policy
- Ensure that the expertise of SVCE employees is given voice in policy-making forums
- Identify knowledge gaps in SVCE-relevant policymaking conversations and recruit consultants or other resources to help fill them
- Where appropriate, work with other departments in SVCE to publish white papers, research articles, and other materials that help spread SVCE's findings, ideas, and best practices



POWER SUPPLY

VI.

Navigating the world of wholesale power markets and state-mandated power mix and reliability requirements while fulfilling our commitment to sourcing 100% carbon-free electricity requires a constant search for the right resources to meet sustainability and value proposition goals. The threat of losing load to Direct Access presents new challenges and opportunities to enhance product offerings to meet SVCE's decarbonization goals and our customers' own environmental goals while considering financial and risk impacts. SVCE is committed to providing carbon-free electricity through a balanced approach which considers cost, risk, long-term value and best-fit in meeting community goals.



10. Acquire sufficient bundled energy and renewable resources to achieve SVCE's greenhouse gas reduction goals while exceeding California's mandates

On an annual basis, achieve 100% of California's Renewable Portfolio Standard (RPS) and meet long-term procurement requirements

- For the upcoming calendar years (2020 and 2021), balance procurement of RPS resources with in-state bundled renewables (PCC1) and out-of-state bundled renewables (PCC2) taking into consideration availability, cost and carbon-free objectives
- Procure sufficient long-term resources to achieve a minimum 65% of the mandated RPS through power purchase agreements for terms no less than ten years starting in 2021 for RPS Compliance Period 4 (2021-2024)

Stagger and diversify renewable energy acquisitions to accommodate regulatory uncertainty, changes in load and supply price risks

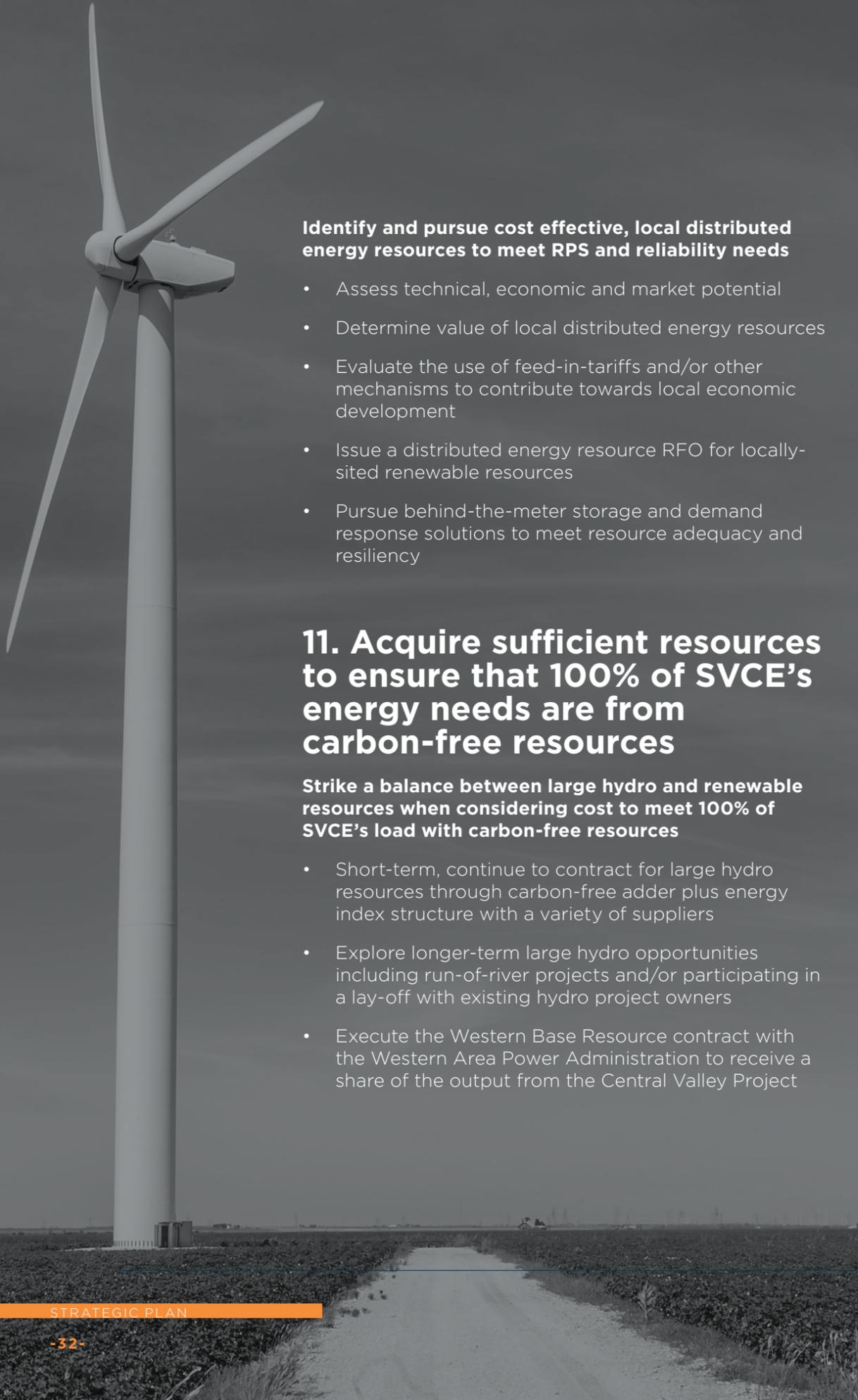
- Diversify price risk by contracting for a mix of fixed-price and index-plus REC structured RPS resources
- Consider the impacts of Direct Access and/or load loss by diversifying term with a mix of short-term (less than 5 years) and longer term RPS resources

Diversify the location and technology used when acquiring renewable resources to achieve least-cost, best-fit planning objectives, while improving reliability, matching energy delivery to load needs and minimizing emissions

- Assess the value and risk of resource technology, baseload versus intermittent, storage and potential changes in technology
- Consider location and expected generation value with consideration for time-of-delivery and uncertainty as part of the selection process

Deploy storage to achieve renewable, carbon-free and resource adequacy objectives

- At a minimum invest in storage capacity to meet California's mandated energy storage requirement of 1% of SVCE's 2020 peak load forecast by 2021
- Consider the costs and benefits of storage when combined with intermittent renewable resources to enhance energy value and minimize renewable curtailments
- Assess the merits of various storage technologies, configurations, sizes and contracting mechanisms including AC versus DC coupled, grid versus non-grid charging and lease versus owned
- Consider stand-alone storage to meet grid reliability and resource adequacy needs



Identify and pursue cost effective, local distributed energy resources to meet RPS and reliability needs

- Assess technical, economic and market potential
- Determine value of local distributed energy resources
- Evaluate the use of feed-in-tariffs and/or other mechanisms to contribute towards local economic development
- Issue a distributed energy resource RFO for locally-sited renewable resources
- Pursue behind-the-meter storage and demand response solutions to meet resource adequacy and resiliency

11. Acquire sufficient resources to ensure that 100% of SVCE's energy needs are from carbon-free resources

Strike a balance between large hydro and renewable resources when considering cost to meet 100% of SVCE's load with carbon-free resources

- Short-term, continue to contract for large hydro resources through carbon-free adder plus energy index structure with a variety of suppliers
- Explore longer-term large hydro opportunities including run-of-river projects and/or participating in a lay-off with existing hydro project owners
- Execute the Western Base Resource contract with the Western Area Power Administration to receive a share of the output from the Central Valley Project

Promote the expansion of the energy imbalance market to enhance the value of both in-state and out-of-state renewable and carbon-free resources and speed the timeline for achieving carbon neutrality

- Support the CAISO's effort to expand the energy imbalance market and other initiatives that promote the development and cost-effective integration of renewable resources throughout the western interconnected grid

12. Manage power supply resources and risks to financial and rate objectives

Optimize existing resources to increase value to SVCE customers and evaluate opportunities to minimize cost of procuring and scheduling electricity and related products

- Assess core procurement, scheduling, settlements and reporting functions and determine best use of in-house versus outsourced resources
- Consider joint procurement for electricity and related services with other CCAs through the formation of a joint power agency and/or other arrangements
- Explore opportunities to partner/procure energy and related services with publicly owned utilities

Manage market price, credit, load and supplier volume risk to meet rate and financial objectives

- Implement an energy risk management program consistent with the Board-approved Energy Risk Management Policy
- Develop internal models to measure, monitor and report portfolio and net revenue risks
- Evaluate hedging strategy and use of hedging products
- Evaluate the use of off-the-shelf products for enhanced risk management analytics, contract management and portfolio optimization
- Leverage the use of consultants to evaluate product offerings, strategies and optimization of supply resources



VII.

INFORMATION TECHNOLOGY

At SVCE, we take customer information, privacy, and security seriously. Our systems and processes follow best practices and industry standards. Performance metrics are in place to ensure resiliency and high system availability on standard and mobile platforms. Periodic upgrades to IT resources will ensure continued adherence to these high standards. This strategic plan provides the approach that SVCE is taking to address the challenges of delivering IT services in a dynamic environment with new regulations and continuous advancements in science and technology.



13. Ensure SVCE's Information Technology infrastructure is secure, reliable, and disaster resilient to provide 24/7/365 online access

Deliver advanced capabilities to foster collaboration, knowledge management, and analytics

- Ensure the availability of and access to information that enables departments to make timely, informed decisions by strengthening data and knowledge management approaches
- Deploy a modernized IT infrastructure that enables seamless access to information resources
- Develop metrics and communicate to management via a monthly Information Technology report to gauge the overall performance of the system

Advance business management practices to transform service delivery

- (IT Policy and Governance) Establish and employ streamlined policy and governance processes that align IT solutions with customer expectations and mission requirements
- (IT Business Systems) Ensure efficient and effective performance of core business functions and enterprise services

Improve mandates & IT audit compliance

- Develop a strategy that includes a disaster recovery solution that provides business continuity for critical applications and vital records
- Conduct an annual audit with an independent third party to determine the security of the system and correct any findings and consider implementing recommendations
- Conduct a triennial Advanced Metering Infrastructure audit and report findings to the CPUC

Improve asset management

- Leverage enterprise architecture and asset management tools to collect a complete inventory of assets and applications to enhance asset management
- Evaluate available industry standard IT service frameworks and develop and implement a strategy in support of managing, maintaining, and applying IT governance over applications and technologies

Reduce redundancy and promote consolidation

- Streamline the procurement portfolio by performing strategic sourcing and category management
- Leverage enterprise architecture and business capability model to reduce infrastructure footprint
- Perform application rationalization to identify unused, redundant and out-of-date applications, and trim down the portfolio through application modernization and decommissioning

Enhance cybersecurity compliance and operations

- Conduct highly effective incident response, insider threat detection, operational situational awareness, compliance, and to decrease the overall security risks to sensitive information and IT infrastructure
- Implement data loss prevention, multi-factor authentication, security incident/event management tools, and encryption at rest
- Implement continuous diagnostics and mitigation capabilities to identify cybersecurity risks on an ongoing basis and prioritize these risks based upon potential impacts



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