

Board of Directors Regular Meeting Board Retreat

November 16, 2023



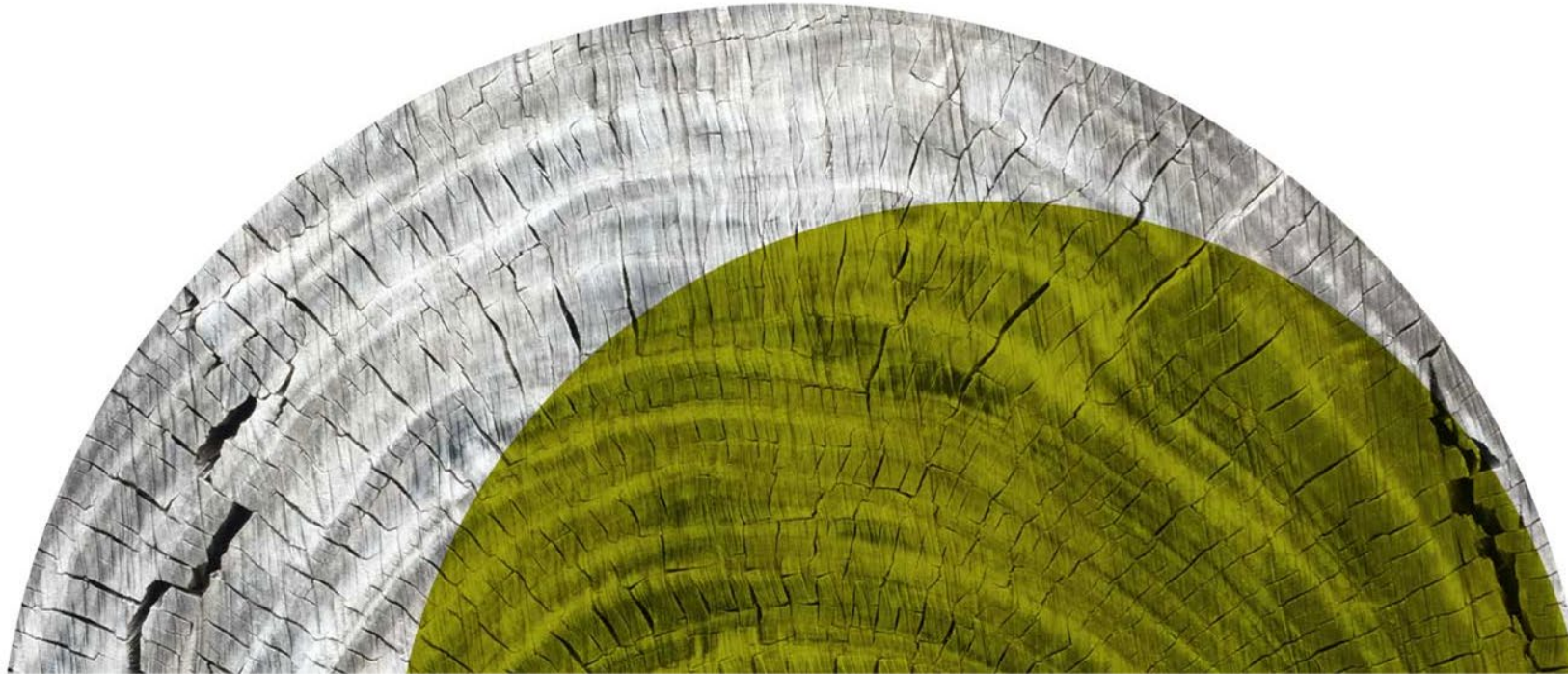
Agenda

- Call to Order / Roll Call
- Public Comment (for items not on the Agenda)
- Action to set the Agenda and Approve Consent Items 1-5
 - Consent - Public Comment
- Regular Agenda
- Adjournment



November 16, 2023

Board Retreat



Team



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Why Organizational Development?

Building organizational capabilities

- Time to convene, align, and build organizational strength
- Maximize internal potential to achieve future successes
- Open-minded and generative collaborations – "I wonder if"

Leadership and staff performance

- Stay grounded on shared goals and vision while navigating recent leadership transitions and rapid growth
- Equip individuals and teams with tools and readiness to embrace uncertainty

Strategic unity

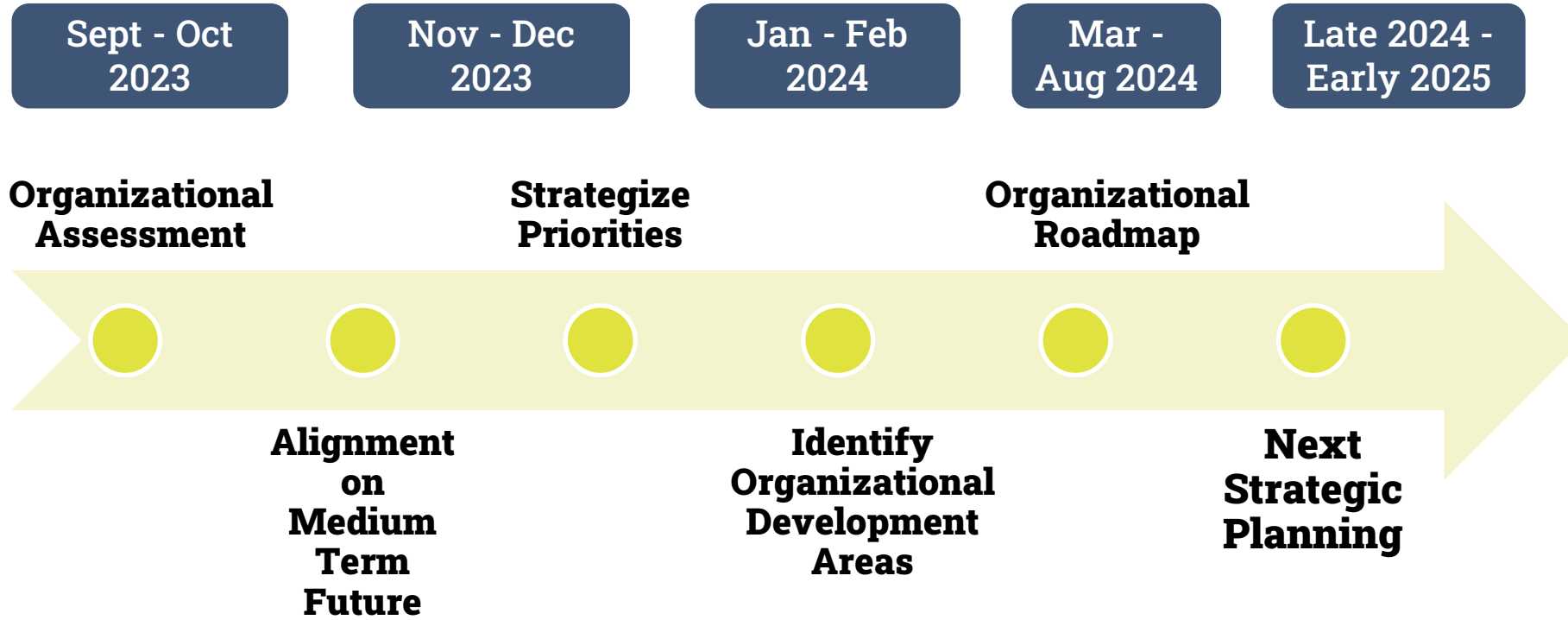
- Clear strategy direction and understanding
- Readiness to plan and implement strategy



Actionable Results

- Thorough analysis of PCE's current state
- Find essential opportunities for organizational evolution and growth
- Set aspirational and achievable goals for how to best work to drive performance
- Prelude to effective strategic planning

Evolution Framework



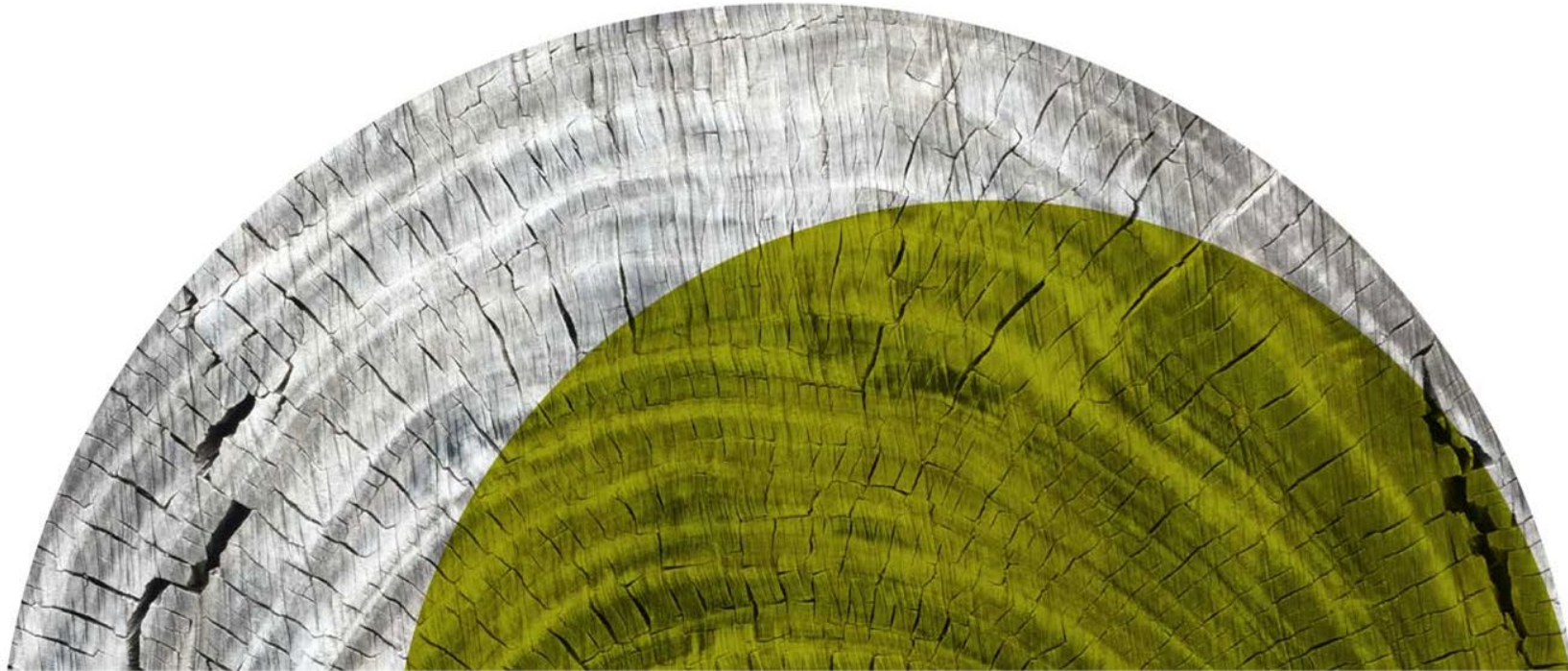
Segment 1 - Futures Exercise

PCE has been in exponential growth since its inception and is now moving into its next stage of organizational maturity. What does and/or should growth mean or look like for PCE in the next 5-7 years?

Consider:

1. Electricity
2. Customer impact
3. Industry/market impact

Segment 2: Organizational Assessment

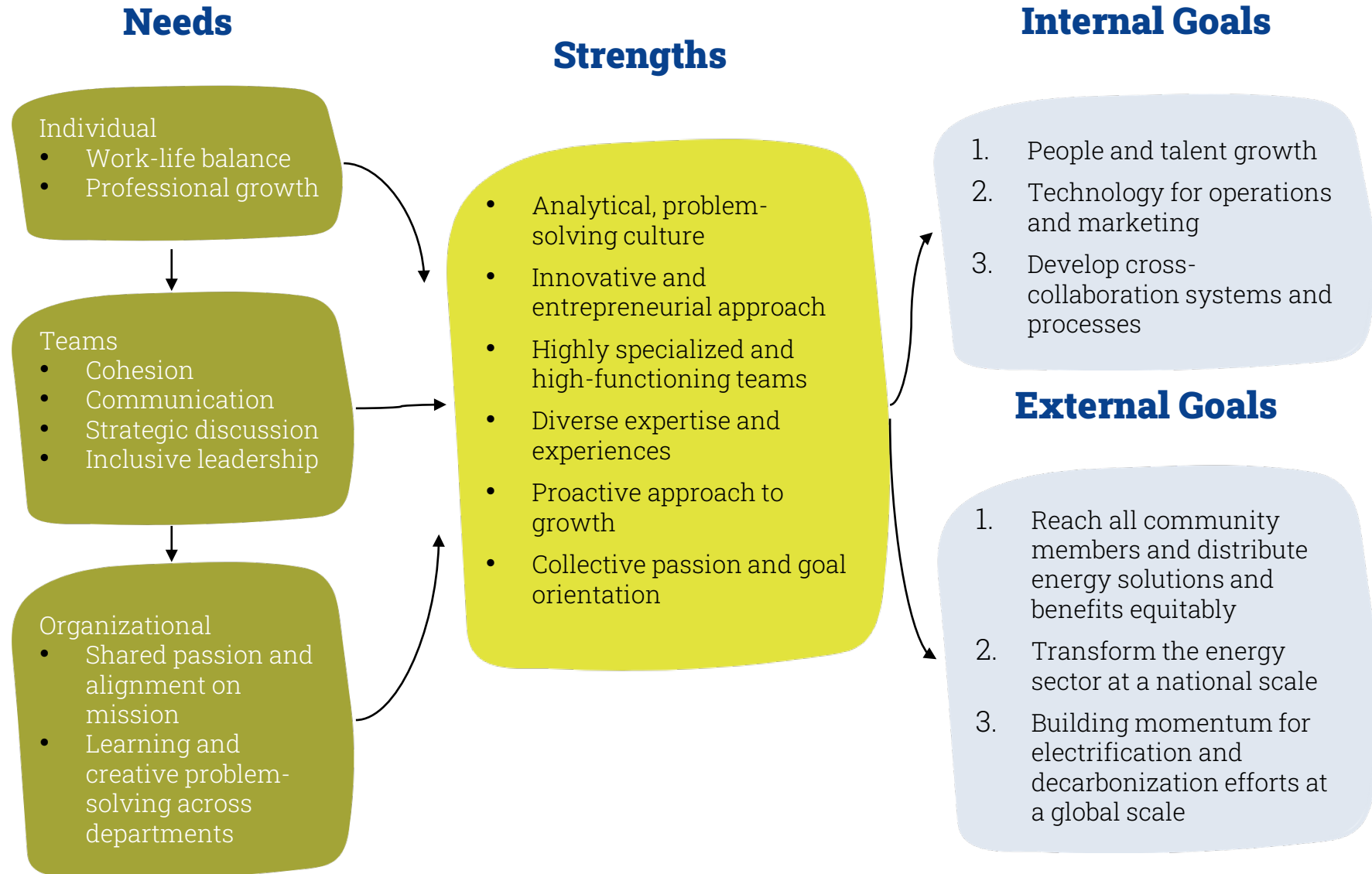


Staff Retreat



Initial High-Level Analysis

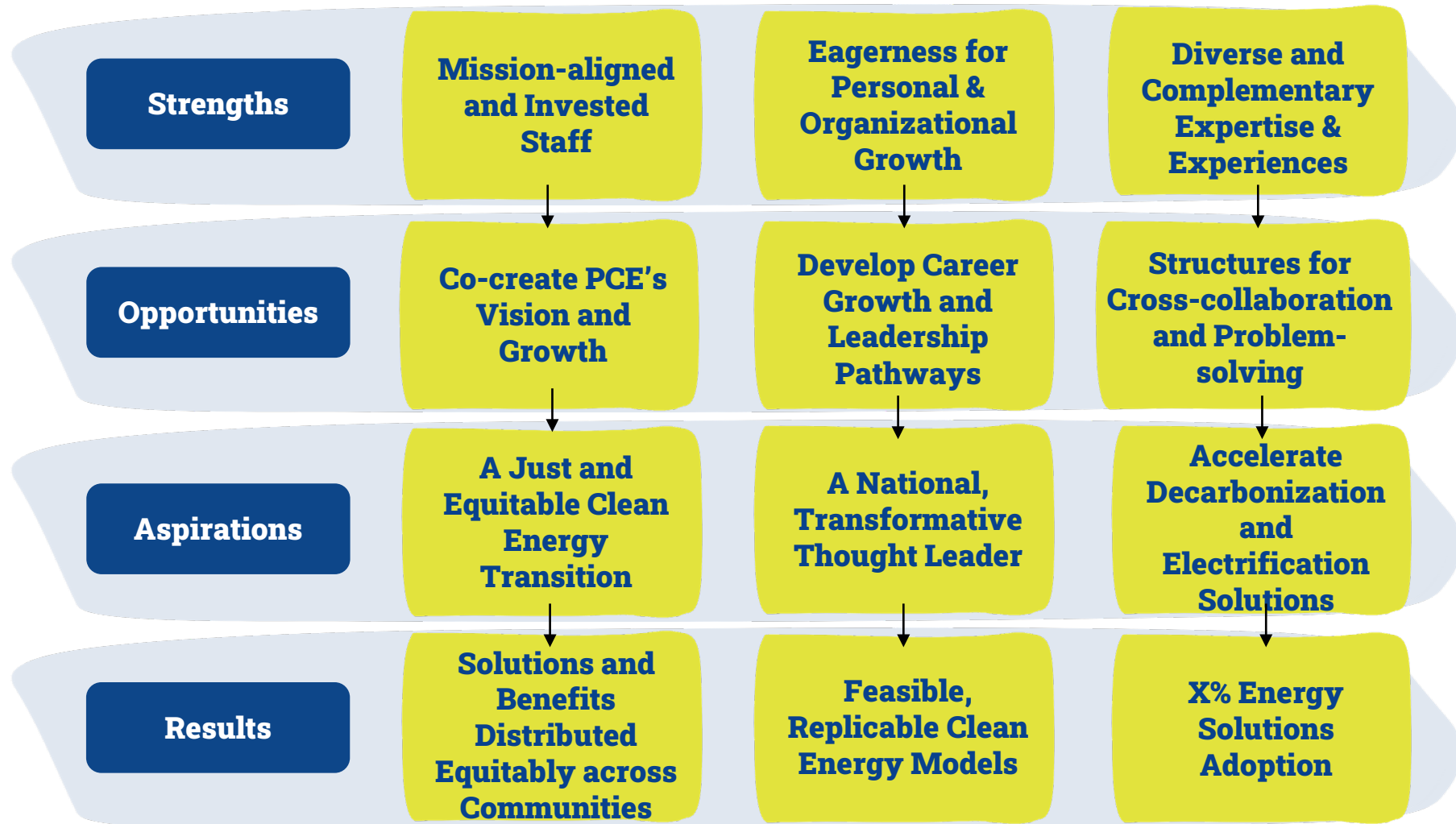
**Read left-right to see how further addressing needs could feed into organizational strengths and support possible goals.*



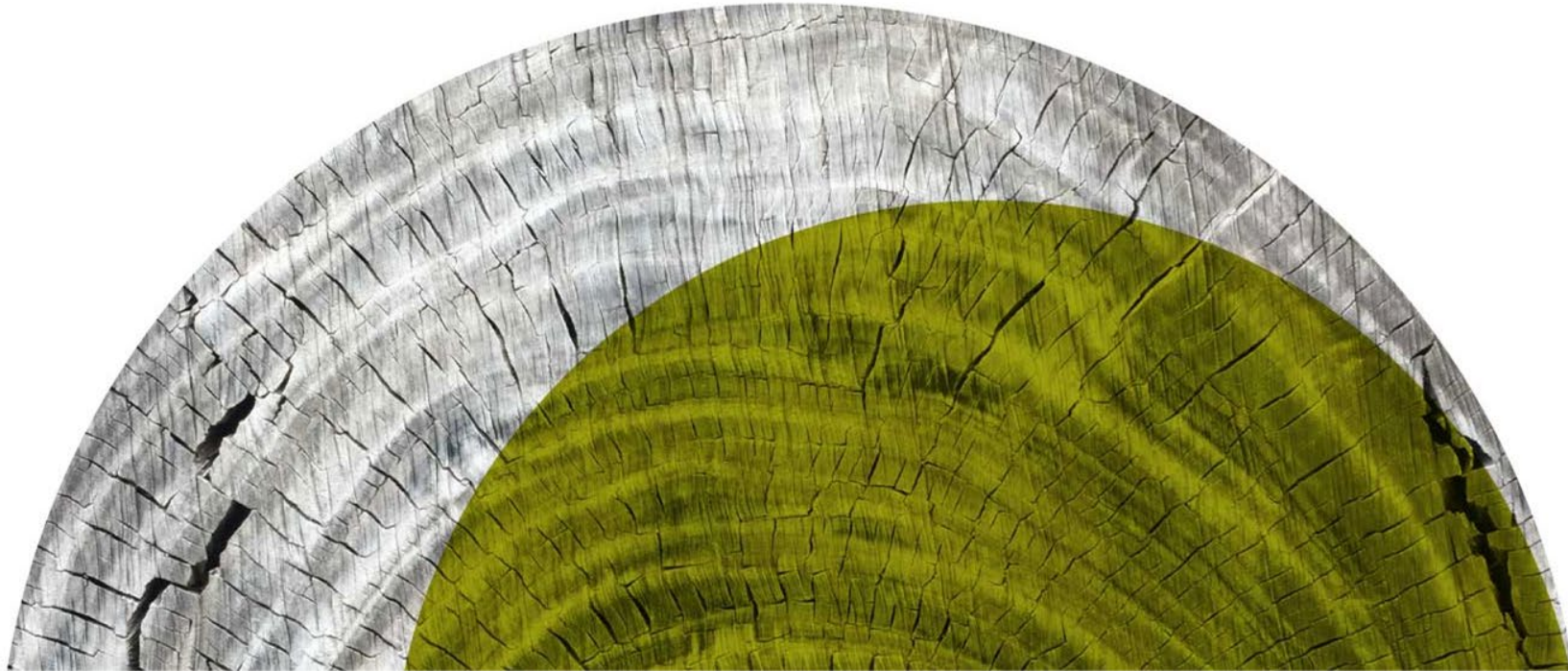
Initial Pathway Exploration

The **SOAR framework** is an alternative perspective to the SWOT analysis. While SWOT assesses the organization's current state, SOAR is **forward-thinking** and focuses on pathways to your desired future state.

**Read top-down to see how organizational strengths might create causal linkages to results.*



Strategic Priorities



Segment 3: Discussion of Key Priority #1 Procurement Priorities and 24/7 Time-Coincident Goal (*1 hour*)

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Priority 1: Deliver 100% renewable energy annually by 2025 and on a 99% time-coincident basis by 2027.

- How do we balance industry leadership, innovation, and what is possible within current market constraints and economic realities?

PCE's Procurement Puzzle

PRIORITIES

Serving Load

Compliance

ECO Plus/100

Renewable 100% Annual

Renewable 24/7 Hourly

Financial Stability / Affordability

PRODUCTS/INSTRUMENTS

Energy

RPS/REC

RA

MTR

GHG Free

RPS/REC

RPS/REC

RPS/REC

“24/7 Products”

Procurement
Strategies

Who?
Where?
What?
When?
How?

Cost of Energy

±Risk

< Revenue (Rates)

Revisiting the 24/7 Hourly Matching Renewable Goal

Purpose

STRATEGIC PRIORITY:

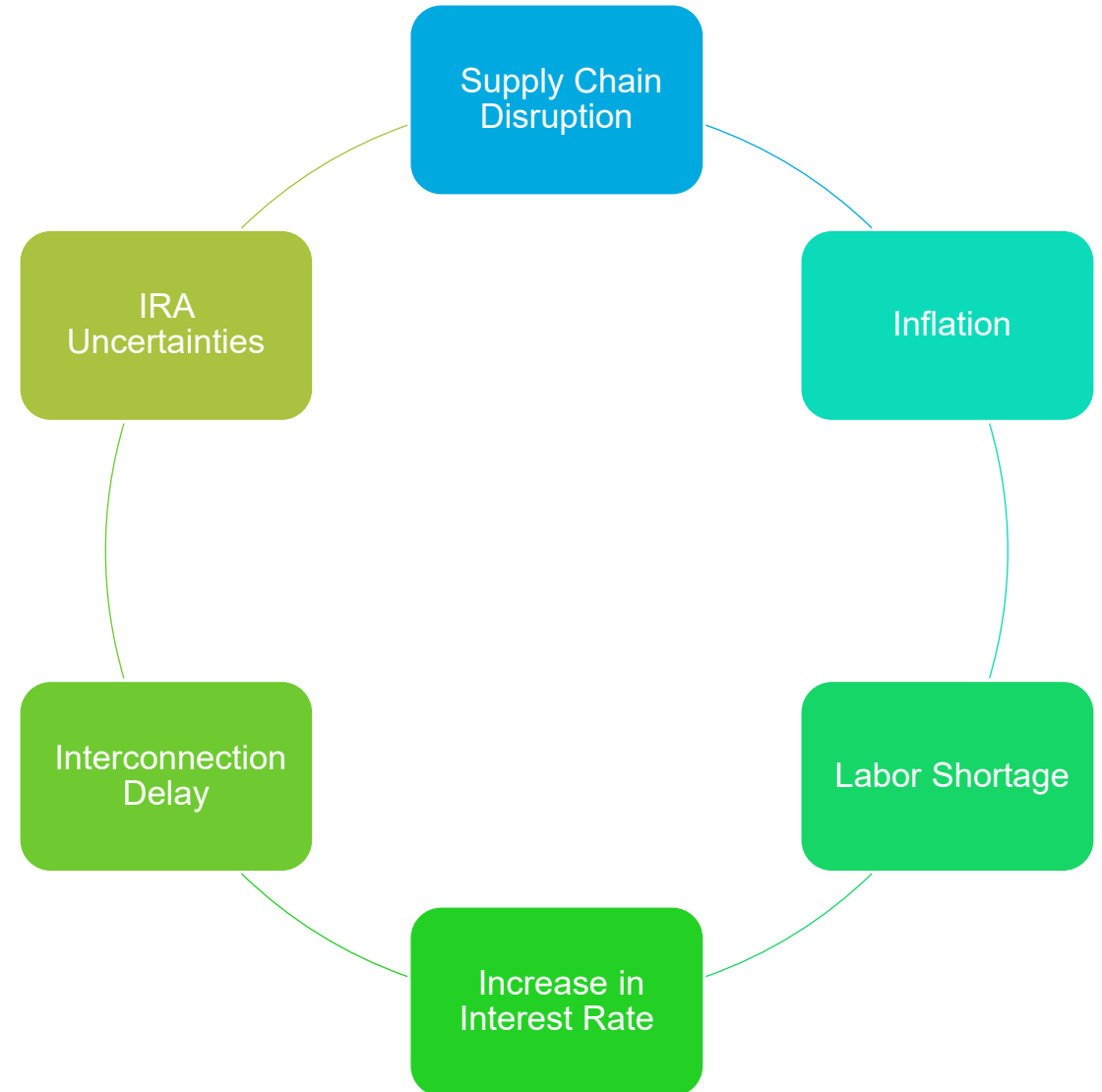
- In November 2022, PCE's Board of Directors approved the strategic priority of delivering 100% renewable energy on a 99% time-coincident basis by 2025.
- In June 2023, the Board updated the strategic priority to delivering **100% renewable energy annually by 2025 and on a 99% time-coincident basis by 2027.**

Market conditions have drastically changed in the past two years, which warrants the need to revisit PCE's current strategic goals:

- *Understand the financial and risk implications of meeting the goals under adjusted assumptions*
- *Set framework and priorities to guide procurement, and*
- *Recalibrate the strategic goals if deemed appropriate*

Background

- Staff's 2022 analysis (published in the white-paper) was based on early-mid 2022 market conditions
- But Market has not materialized in the direction we expected



Why Does the 24/7 Strategy Matter?

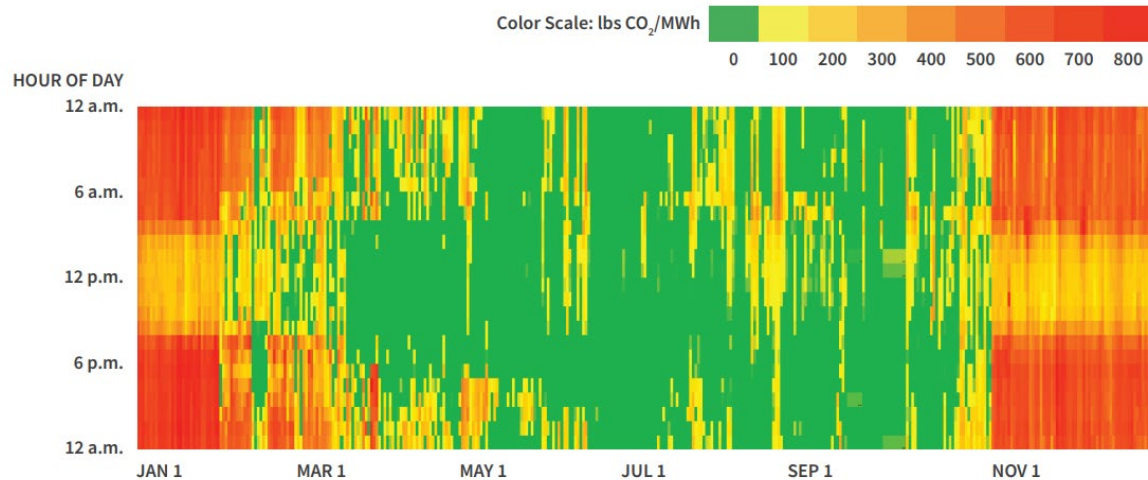
- Nearly eliminates PCE's emission footprint
- Facilitates displacement of grid-level fossil fuel generation
- Improves grid reliability by bringing on new clean & storage resource capacities
- Establishes PCE as a leader in sustainability and innovation

In general, the 24/7 strategy promotes a mechanism in the power industry to combat climate change, which could lead to larger benefits such as preventing sea level rise, wildfire, extreme weather events and reduce health impacts to society.

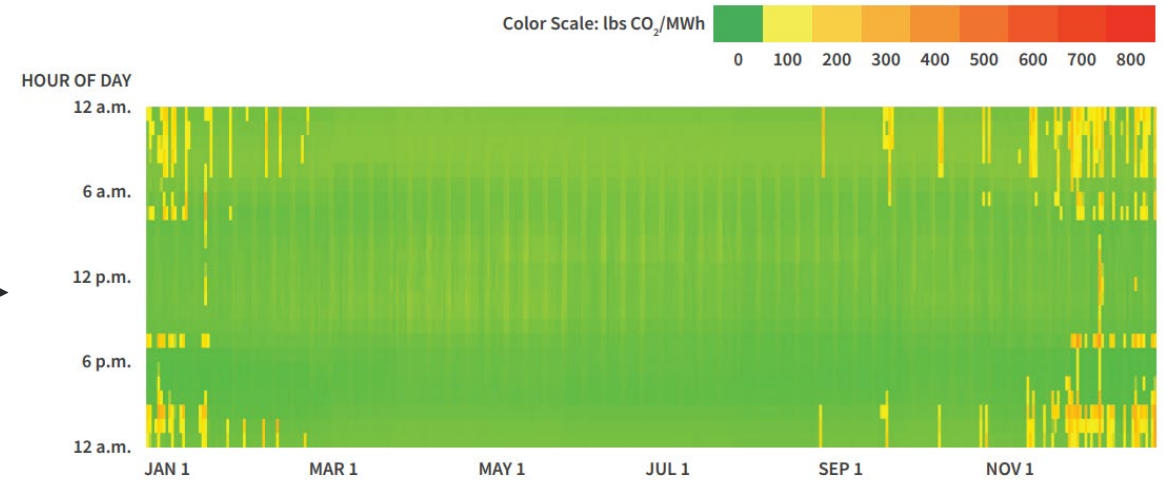
Hourly Matching Concept Review

The 24/7 goal is to match our electricity supply to customer load each hour on a planning basis

2021 Peninsula Clean Energy 24/7 Emissions Footprint



Peninsula Clean Energy 24/7 Emissions Footprint
(Hourly 99% Goal)

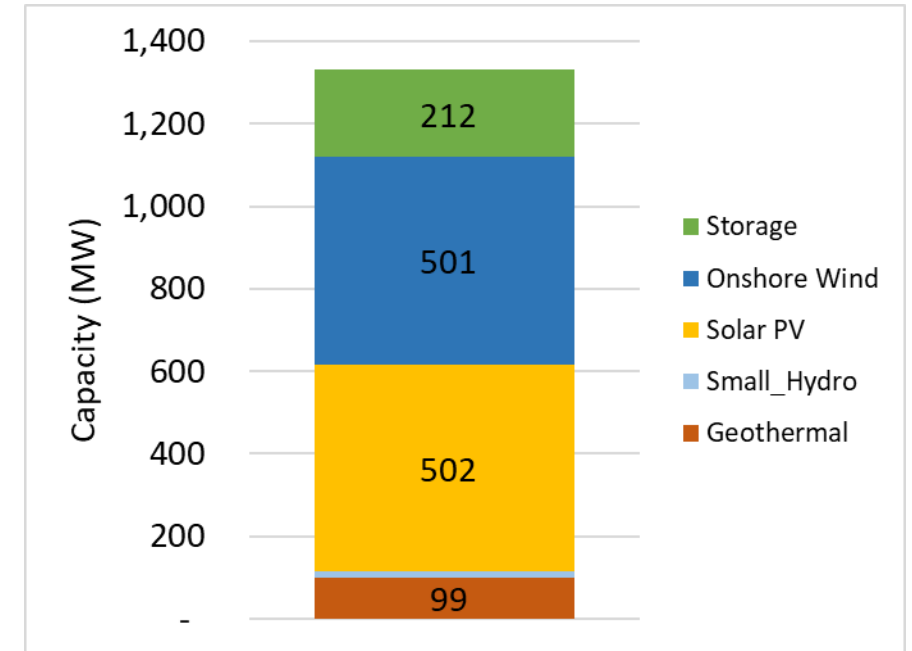
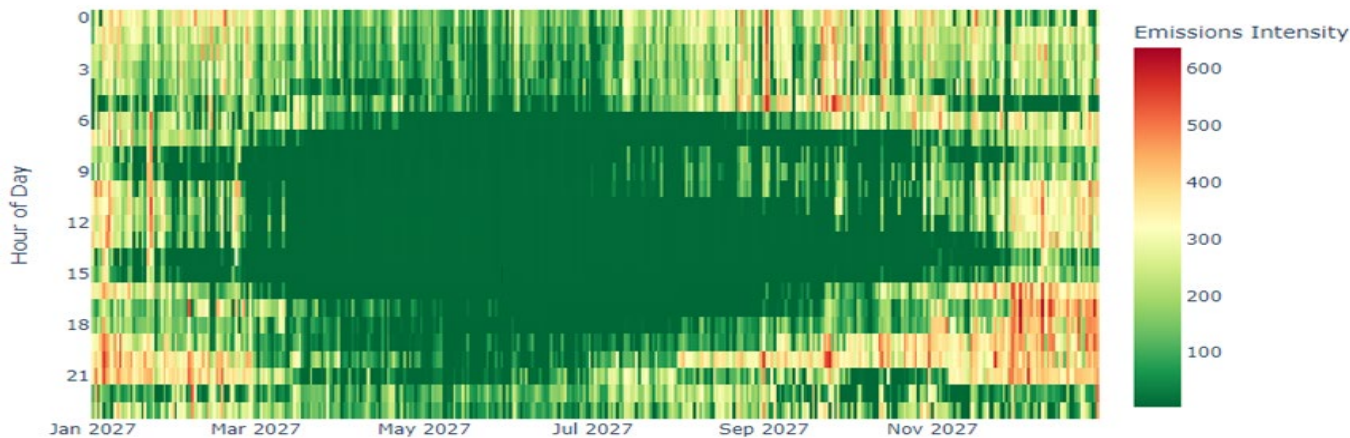


24/7 Hourly Matching Current Status

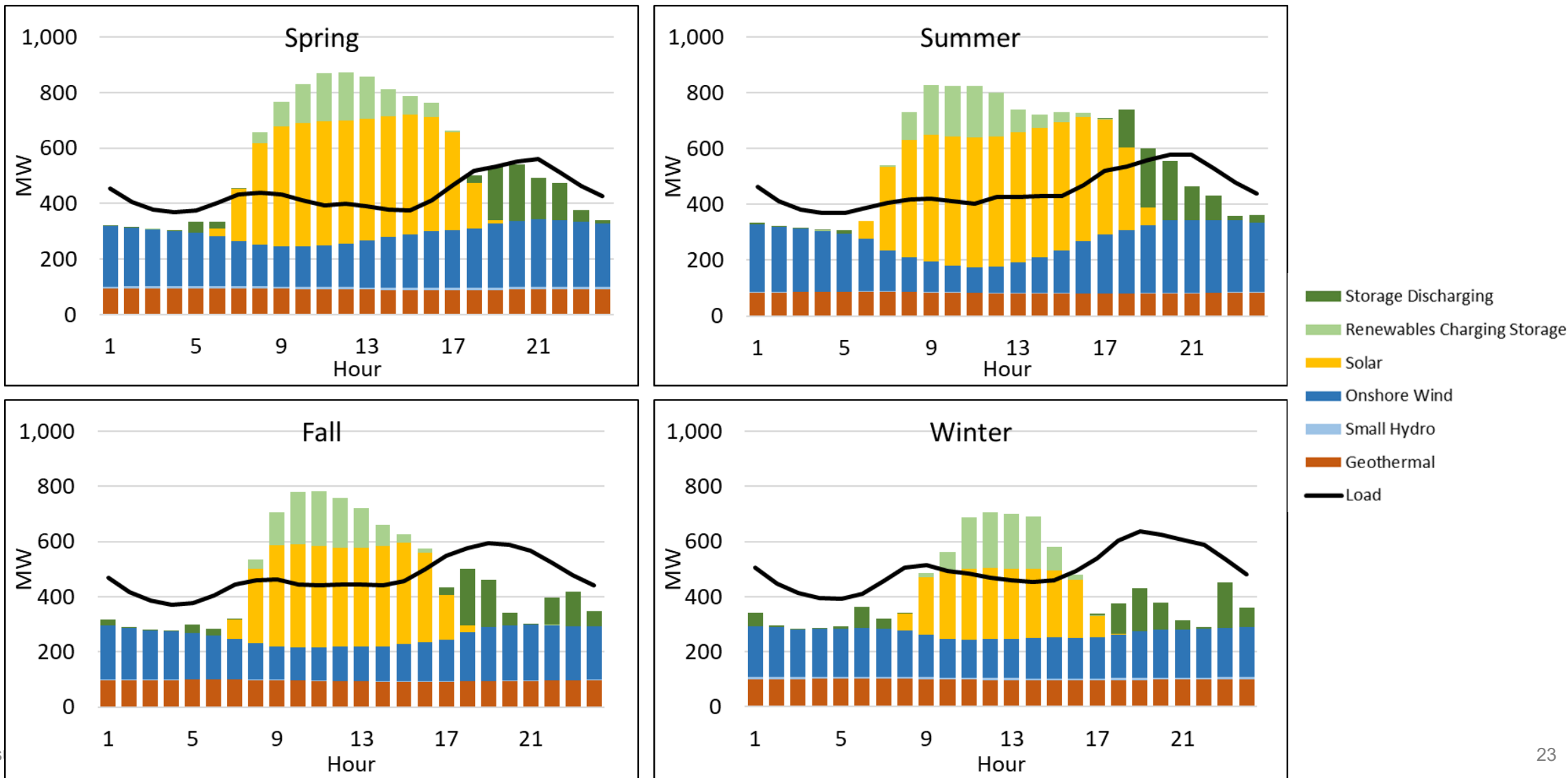
With existing contracted resources in our portfolio:

- **83%** hourly renewable matching by 2027*

** Note: Assuming contracted projects will be on schedule*



Seasonal Supply Stack (2027)

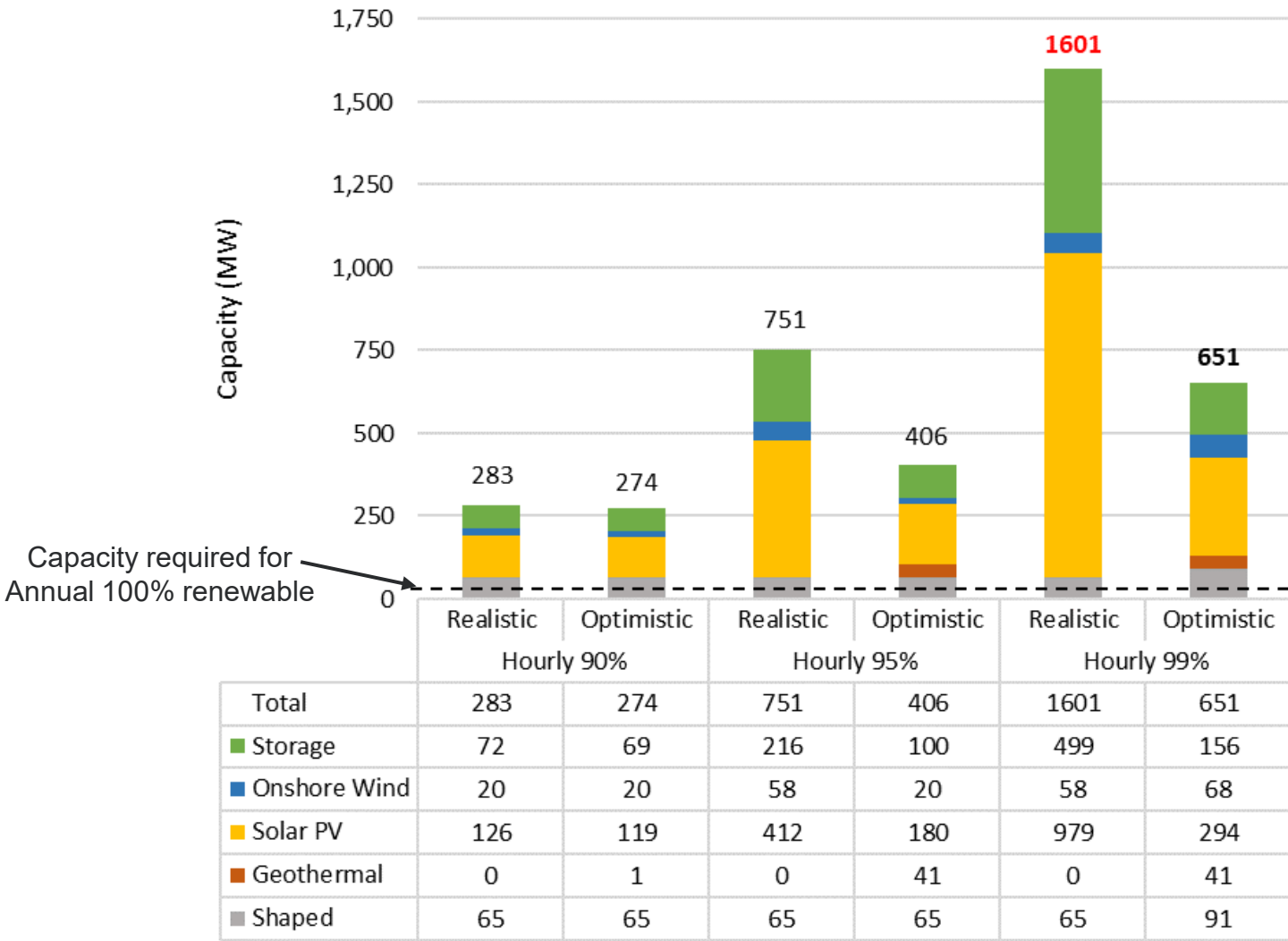


Refining PCE's 24/7 Strategy

- Since June, staff has worked on several analysis with focuses on:
 - Resource Availability: What resources would be available in 2027?
 - Market Uncertainty: What are the forecasted future price ranges for energy, RA, and REC?
 - Reselling Excess Products: Can we sell our excess products? What are the best ways to sell the excess products?
 - Cost and Risk: What's the best way to evaluate the cost and risk impact for different time-coincident percentages?

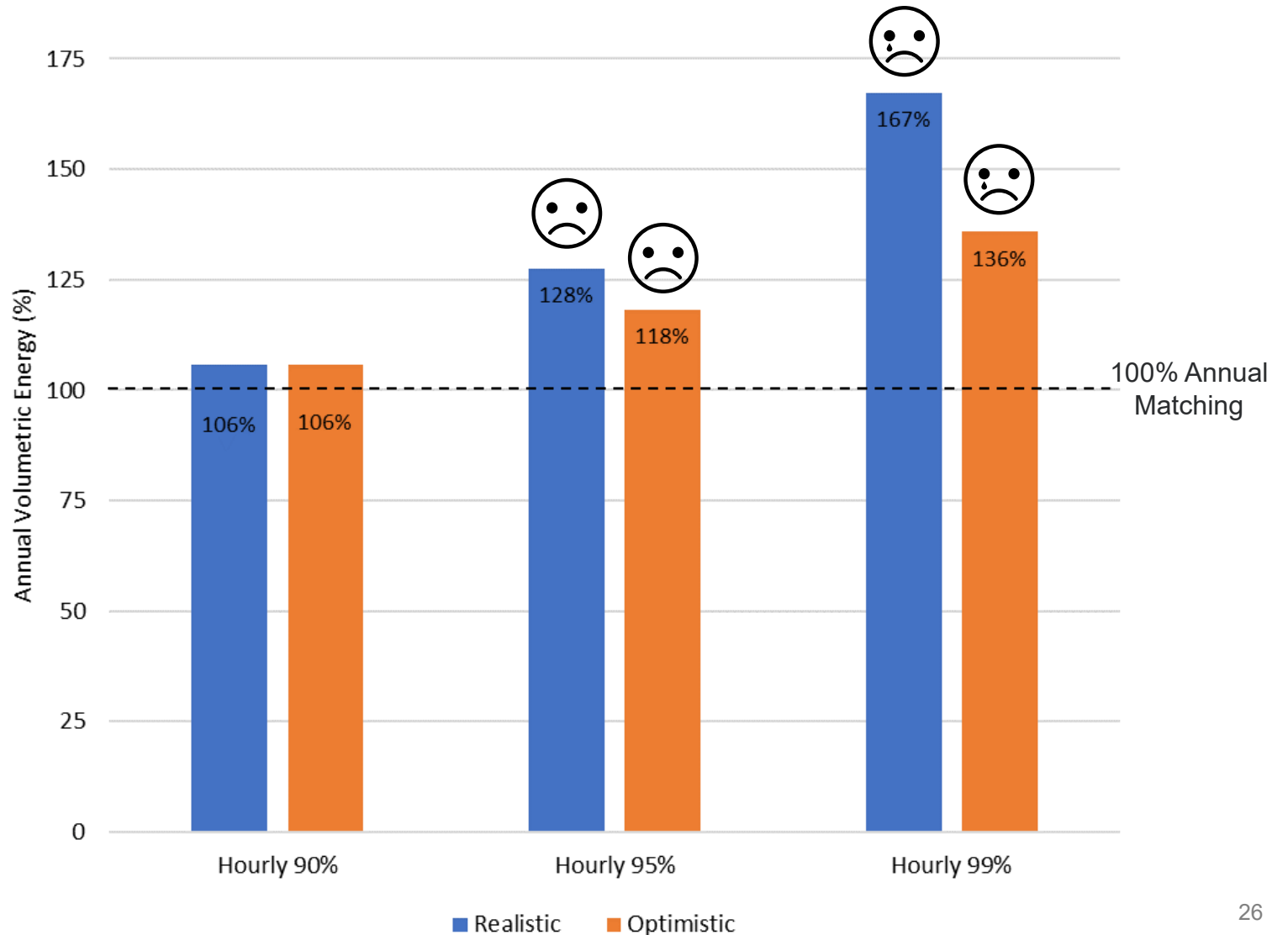
Resources Availability: Additional Capacity Needed by 2027

- Under the **Realistic** scenario, PCE will need to procure significant amount of additional capacity to achieve higher time-coincident targets
- Under the **Optimistic** scenario, a more desirable set of available resources significantly reduces over-procurement. This scenario is unlikely for 2027.

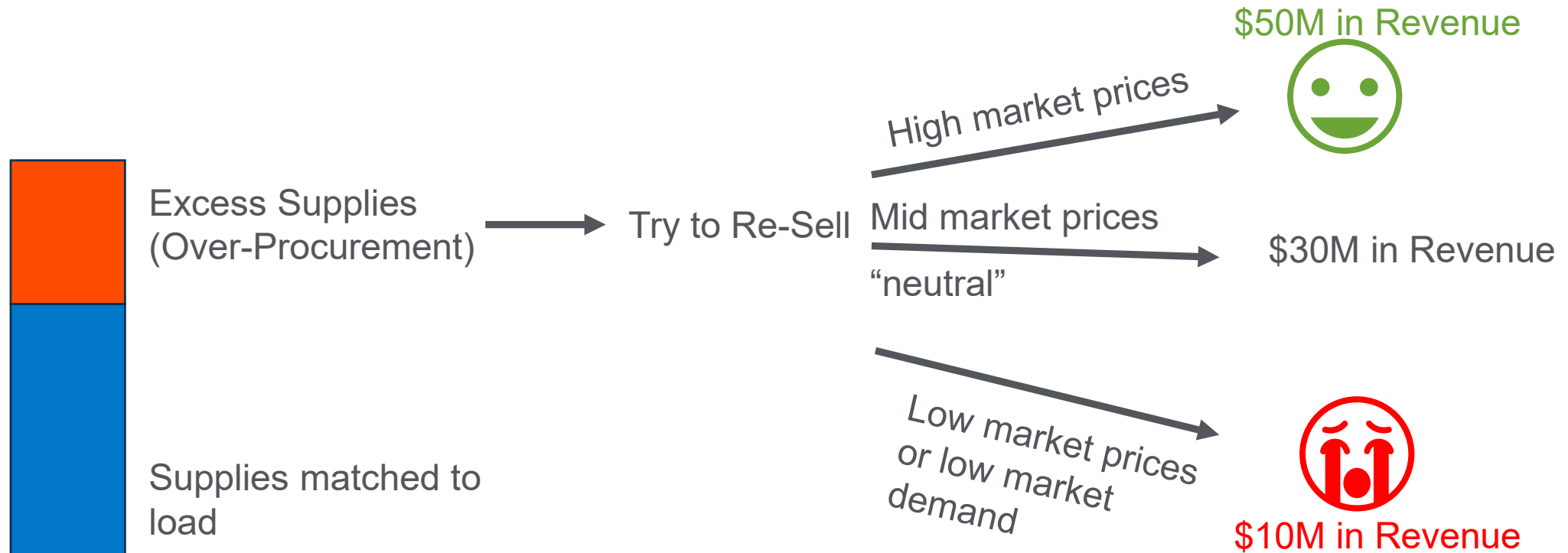


Over-Procurement in 2027 with the Current 24/7 Target

- Higher time-coincident target results in more over-procurement, especially under the **Realistic** scenario.



Why is Over-Procurement Risky?



Kicked while we're down:

Low market prices also cause high PCIA,
which means we'd lose money from both poor
sales of over-procurement and lower customer
revenue

PCE's Current 24/7 Goal is Challenged

CHALLENGE: Lack of Desirable Resources Available in 2027

- Limited supply of wind, geothermal, shaped-product, long-duration storage
- Record-high prices



Significant Over-procurement at High Prices



RISK: Inability to sell excess products or selling excess at low market prices

Other Challenges & Risks

- Delays in project development and commercial operation
- Changes in law that forces PCE to additional procurement of resources (in addition to the 24/7 needs)
- Disconnect between real-time operations and the planning target
- Maintaining the 24/7 goal after the target year and challenges with finding perfect replacements

General Conclusions

- Meeting the 99% time-coincident target in 2027 is going to be extremely challenging.
- Continuing to procure heavily in the current market with lack of best-fit resources will significantly increase PCE's exposure to future market with excessive over-procurement, potentially resulting in high cost to PCE and our customers.
- A more risk-conscious strategy is needed to balance achieving a high time-coincident renewable target and keeping cost & risk at a reasonable level.

Next Steps

Staff, in consultation with the Procurement Subcommittee, will continue to refine the 24/7 renewable strategy and return to the Board in Q1 of 2024 with recommended amendments to the strategic priority for consideration and approval.

Segment 4: Discussion of Key Priority #2 Support Decarbonization of Member Agency Communities by 2035 (1 hour)

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Segment 4 - Discussion

Priority 2: Contribute to Peninsula Clean Energy member jurisdictions reaching the State's 2045 goal to be 100% greenhouse-gas free for transportation and building electrification by 2035.

- What innovative strategies can we deploy to meet our 2035 decarb goal, with focus on demand response and distributed energy resources (DERs), and solutions that meet load modification and reliability goals?

Agenda

1. Decarbonization Goal History
2. 2035 Decarbonization Feasibility Analysis & Plan
3. Distributed Resources

Decarbonization Strategic Goal History

- Original Goal from 2025 Strategic Plan

Contribute to San Mateo County reaching the state's goal to be 100% greenhouse gas-free by 2045.

- Sept. 2021: CAC recommendation

Contribute to Peninsula Clean Energy service territory reaching the state's goal to be 100% greenhouse gas-free by 2035. And take all necessary steps to meet this goal, as it is required by the climate emergency we all face.

- Sept 2021: Board adopted goal

Direct Peninsula Clean Energy to adopt a goal of 100% greenhouse gas free by 2035. And direct staff to return with a plan for achieving that goal.

In Public Communications



ACHIEVING
OUR MISSION

ORGANIZATIONAL PRIORITIES:

By 2025, deliver 100% renewable energy each and every hour of day.

Contribute to our community reaching a goal of 100% greenhouse gas-free in buildings and transportation by 2035

2035 Goal Advisory Committees

Board Sub-committee

Rick DeGolia

Jeff Aalfs

Dave Pine

Laura Parmer-Lohan

Advisory Committee

Jeff Aalfs

Board of Directors, Peninsula Clean Energy

Jeff Byron

Former CEC Commissioner

Nancy Ryan

Former CPUC Commissioner

Mary Anne Piette

Division Director, Lawrence Berkeley National Lab

Diane Bailey

Executive Director, Menlo Spark

Andrea Chow

Sustainability Analyst, City of San Mateo

Pierre Del Forge

Clean Buildings Director, NRDC

Cisco Devries

CEO, OhmConnect

Adrienne Etherton

Sustainability Manager, City of Brisbane

Laura Feinstein

Sustainability Policy Director, SPUR

Zach Franklin

Chief Strategy Officer, GRID Alternatives

Matt Golden

CEO, Recurve

Ortensia Lopez

Executive Director, El Concilio

Loren McDonald

EV Industry Analyst, EVAdoption.com

Joshua Pierce

EVP, Richard Heath and Associates

James Russell

Energy Transition Director, CLEAResult

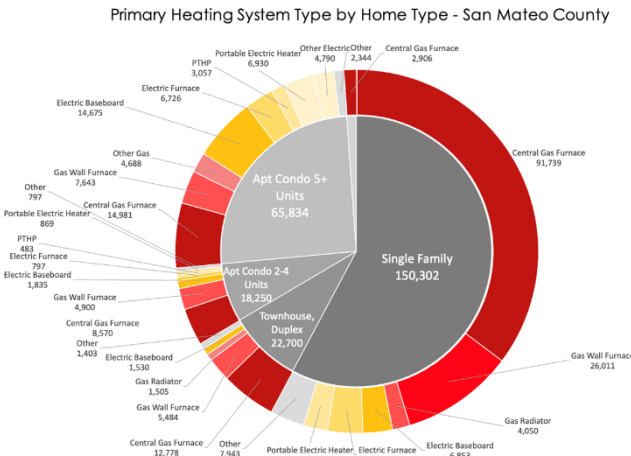
Justin Zuganis

Director of Decarbonization, SVCE

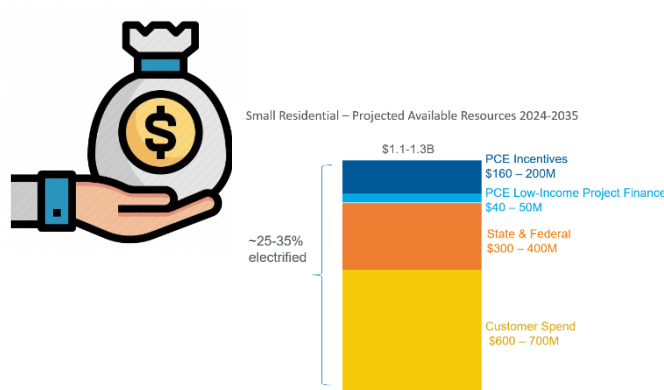
2035 Feasibility Analysis & Plan



Market Conditions & Tech Innovation

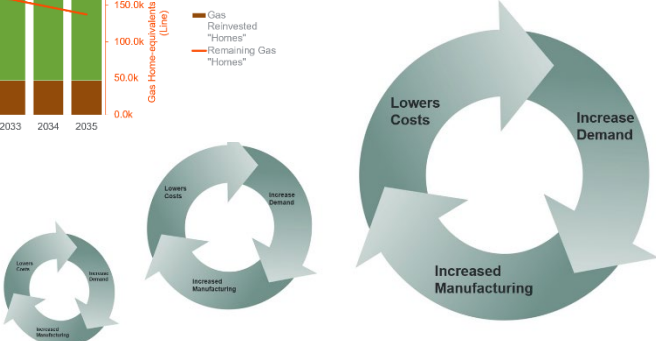
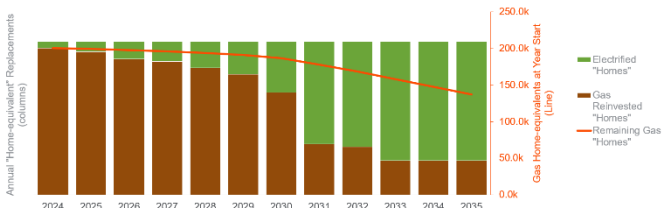


Detailed Characterization & Costs



Sources of capital

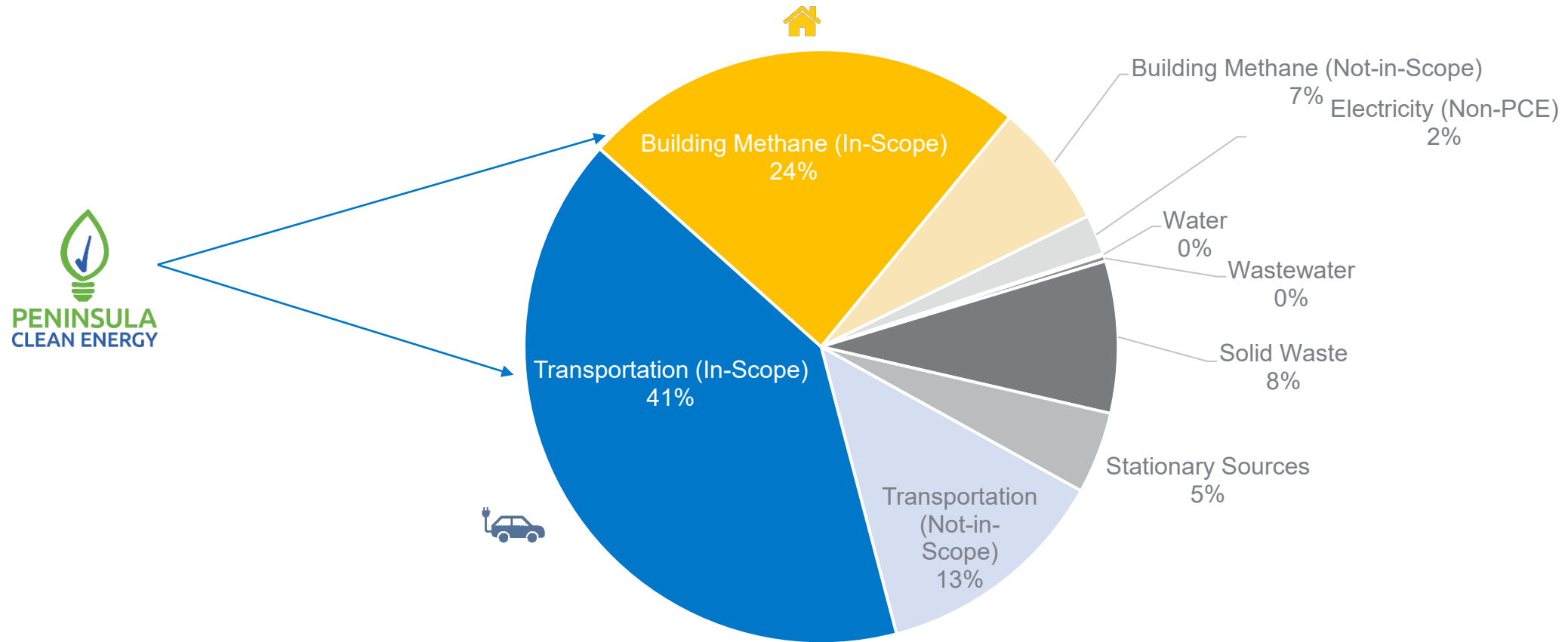
Expected "Home-equivalent" Electrification and Gas Replacements per Year & Remaining



Adoption Rates & Scaling Strategy

PCE Scope: Where PCE can Impact

San Mateo Countywide Greenhouse Gas Emissions,



Total: 4.1 MMTCO₂e/yr as of 2019
(by 2021 reduced ~13% by PCE energy supply)

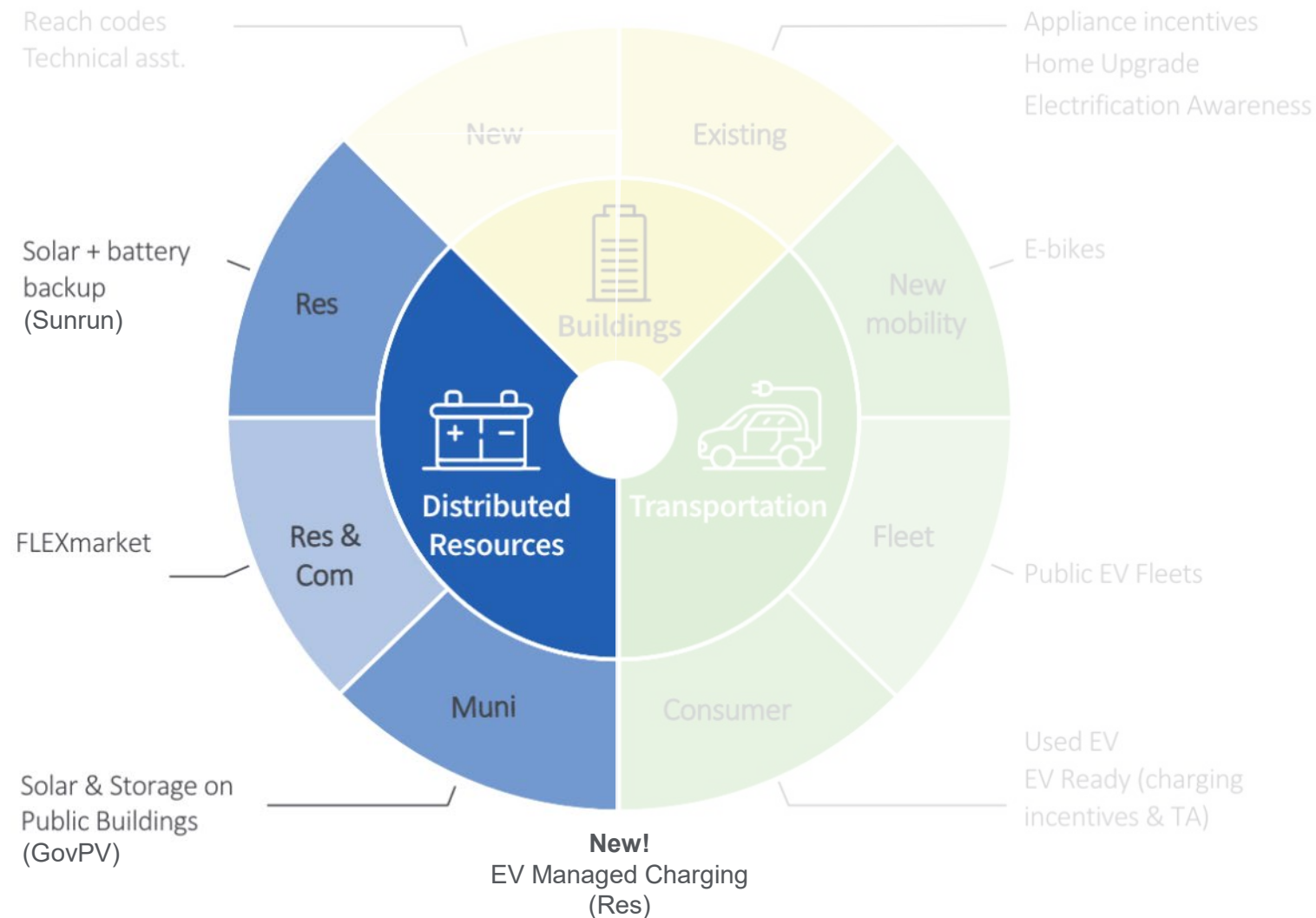
2035 Goal - Conclusions

Given current market conditions, funding and financing availability, current rate structures and policy status, achieving 100% GHG reduction by 2035 in PCE's service territory is infeasible.

- What PCE can achieve:

- **Private Vehicles: ~50-60% vehicles electrified, ~70-80% EV port need (not DCFC)**
- **Small Residential: ~25-35% homes electrified**
- Assuming stable external funds, aggressive finance, and modest PCE budget growth
- All resources must be leveraged (incentives, DR value, finance, etc.)
- Assuming no rate reform (identified as a major policy need)

Programs Portfolio



Distributed Resources

Key Questions

1. Do PCE's Distributed Resources fit with customer needs and PCE's decarbonization objectives?
2. Any missing critical elements for the program?
3. Should any aspect be reprioritized?

Distributed Energy Resources Definition

*Distributed Energy Resources (DERs) are **assets** on the distribution grid, typically **close** to load, and usually **behind the meter**, which can be used individually or in **aggregate** to provide **value** to the **grid and individual** customers.*



What PCE is trying to solve for

1. High Utility Rates

- PG&E territory has some of the highest utility rates in the country
- Adversely impacting customer economics, trust and electrification benefits

2. Power Outages

- Frequent power outages are creating both real and perceived customer problems resulting in reticence to electrify

3. Access to Capital

- Developing approach to deployment of solutions at scale



PCE DER Objectives

- Provide **grid benefits**, especially peak shaving to reduce wholesale costs and carbon intensity, aiding further penetration of renewables
- Provide **resilience**
- **Lower operating costs** for customers
- Make **electrification** more economically beneficial
- Deepen PCE-customer **relationships** and foster retention
- Reduce PCE costs and support self-sufficient business model

DER Plans In-Progress

Expand GovPV
& add storage



New residential
Solar + storage



Scale EV
managed
charging &
FLEXmarket



Develop & deploy
addl. storage
methodologies



Key Questions

1. Do PCE's Distributed Resources fit with customer needs and PCE's decarbonization objectives?
2. Any missing critical elements for the program?
3. Should any aspect be reprioritized?

Backup

Programs: Strategic Plan Goals & Objectives

STRATEGIC PLAN GOALS

1. Contribute to Peninsula Clean Energy member jurisdictions reaching a goal to be 100% greenhouse gas free for transportation and buildings by 2035.
2. Implement robust energy programs that reduce GHG emissions, align energy supply and demand, and provide benefits across the community.

OBJECTIVES

1. **Signature Programs:** Develop market momentum for electric transportation and initiate the transition to clean energy buildings
2. **Distributed Energy Resources:** Support strategic decarbonization and local power development
3. **Community Benefits:** Deliver tangible benefits throughout our diverse communities
4. **Innovation and Scale:** Leverage leadership, innovation, and regulatory action for scaled impact

Programs: Recent Highlights

1. Buildings & Appliances

- State-leading effort with 19 agencies adopting building & EV codes
- 10x acceleration in 2023, est. 2,000 heat pumps



2. Electric Vehicle Charging

- Innovation in approach, \$4,000 ave per port (vs PG&E \$18k)
- 2/3rds in multifamily, highest need segment
- EV managed charging pilot in-progress



3. Distributed Resources

- GovPV Round 1: 12 sites, 1.7 MW solar, CYQ1 2024, \$17M lifetime savings
- GovPV Round 2: ~30-40 sites, 6-16 MW, RFP in-progress



Highlights – Underserved Communities

1. Electric Vehicles: 346 vehicles

- \$3.6 million in savings over 10 years
- 18,000 MT CO2 over 10 years

2. Home Upgrade: 200 homes completed

- Home repairs plus electrification
- 2024 ramp-up: more homes, whole-home retrofits

3. E-Bikes: nearly 600 bikes

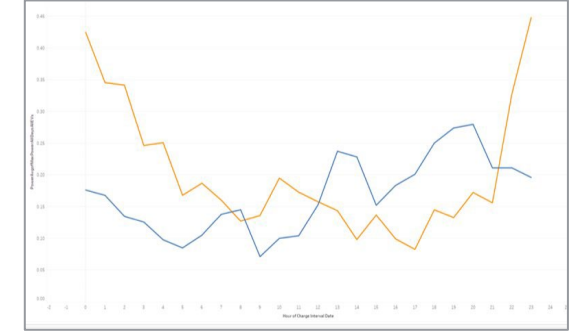
- Extremely popular
- >50% of trips displace car trips



Innovation Pilots

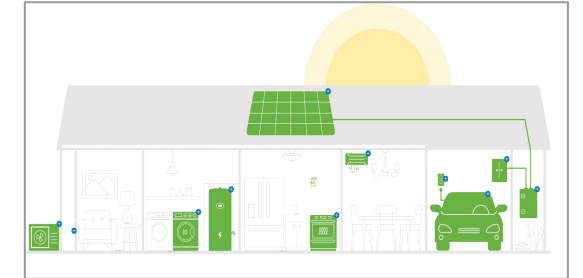
1. EV Managed Charging

- Support grid: shift charging out of evening peak
- Major opportunity: 7 kWh/EV, current: 40,000, future: 600,000+
- Through the vehicles: telematics based



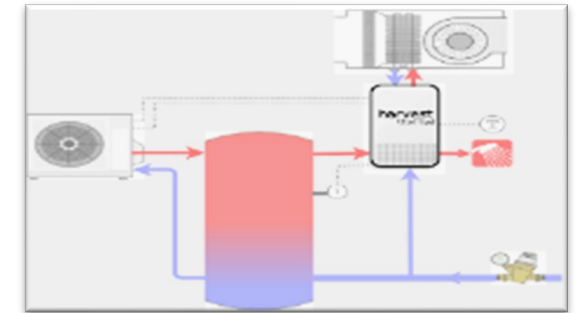
2. Electrification Guidelines @100A & 120V HPWH

- Advanced design guidelines (electrification without panel upgrades)
- Lower install costs



3. Advanced home system pilot (Harvest Thermal)

- Major innovation, combined space & water heating, “grid aware”
- 4 of 4 installs completed, data collection in progress
- Average install cost \$22-23,000
- 70-90% reduction in home emissions



Segment 5: What does it Mean to Shift to a More Customer-centric Approach Across our Agency? (30 mins)

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Segment 5 - Discussion

What does it mean to shift to a more customer-centric approach across our Agency?

Goals

- Customer-centricity overview
- Strategic questions for the Board
- Review brand audit findings

Case study



DMV case study

The screenshot shows the California DMV website interface. The top navigation bar includes the CA.GOV logo, REAL ID, Online Services, Translate, and MyDMV links, along with a search bar. The main content area is divided into two columns. The left column features a section titled 'Get in Line at My Local DMV Office' with a subtext 'Ready to do your DMV business in person right now?' and a prominent blue 'Get in Line' button, which is circled in red. Below this is a section for 'Schedule My Behind-the-Wheel Drive Test' with a 'CHOOSE A VEHICLE' section containing buttons for 'Automobile', 'Commercial', and 'Motorcycle', each with a 'SELECT' button. At the bottom of this column is a 'Make an Appointment' button and a section for 'Already have an appointment?' with a 'View Appointment' button. The right column has a section titled 'Need A Different Appointment?' with a subtext 'Most DMV services can be completed without an appointment. If you must visit a DMV office, select your service below.' Below this is a 'Service Advisor' search bar and a list of 'POPULAR APPOINTMENT TOPICS' including 'DL/ID Renewal', 'DL/ID Application', 'Permits', 'REAL ID Application', 'Vehicle Registration', 'Cancel Appointment', and 'Virtual Field Office (No appointment needed)'.

Ways DMV removed friction from the customer experience:

1. Simple, accessible website
2. Virtual ability to “get in line” same day visits with clock that shows you how long until your number waits
3. Each agent at each station knows who you are
4. Get in and out quickly



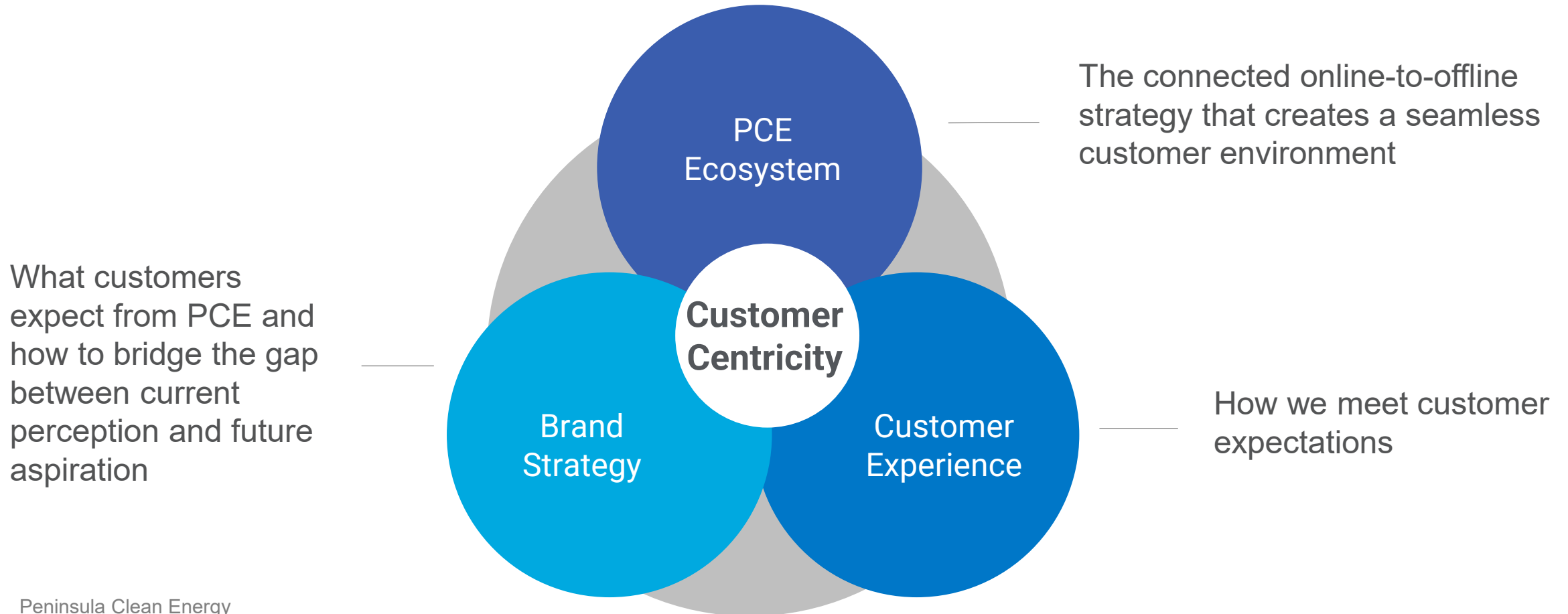
Customer-centricity is table stakes

"75% of consumers expect a consistent experience across channels (web, mobile, in-person, social) and 73% are likely to switch brands if they don't get it."

-Deloitte

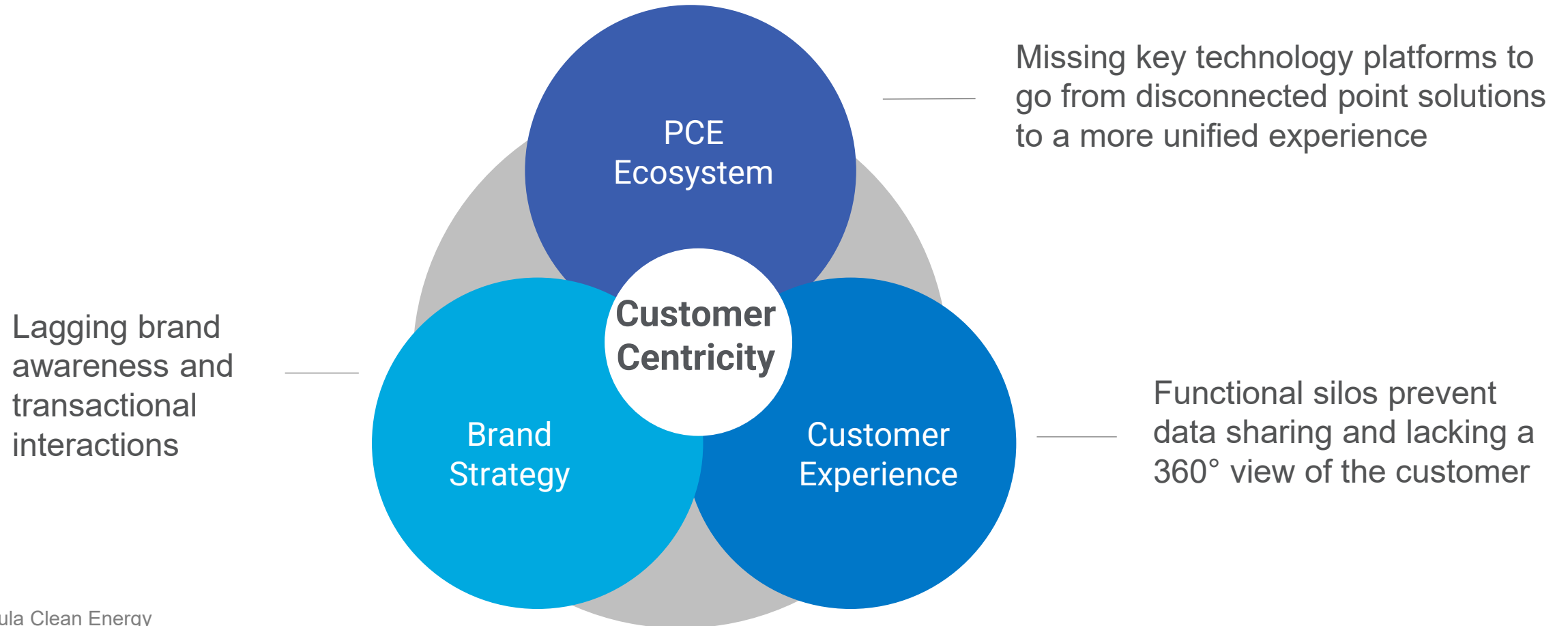
Building blocks

Customer centricity is the culture, framework and business strategy based on providing a positive customer experience and building long-term relationships.



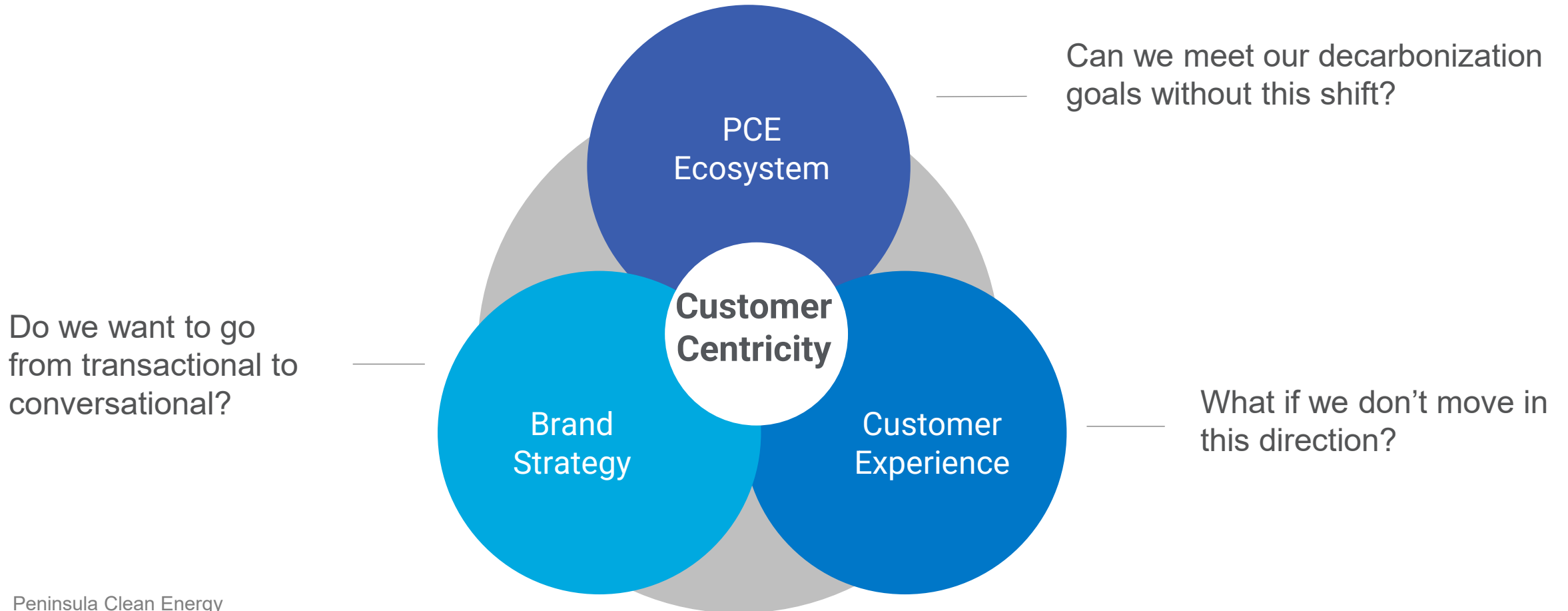
Core challenges

Alignment, strategy and investment are needed to operationalize a customer-centric approach to serving customers.



Board questions

Alignment, strategy and investment are needed to operationalize a customer-centric approach to serving customers.





How it could look to a PCE
customer

A family of four is captured in a joyful moment, dancing together in a bright, modern living room. The mother, on the left, has curly hair and is wearing a white t-shirt and blue jeans. The father, on the right, is wearing a grey sweater and blue jeans. They are surrounded by their two children, a girl and a boy, who are also dressed in casual clothing. The room features large windows with light-colored curtains, a beige sofa, and a wooden coffee table. The overall atmosphere is warm and happy.

**How it could look to a PCE
customer**

Brand opportunities

Findings from Q2 brand audit

Brand Identity

‘Peninsula’ doesn’t represent all current (or future) coverage areas (ie: Los Banos)

“The logo looks like a gas flame or incandescent bulb. And the colors are not ADA compliant.”

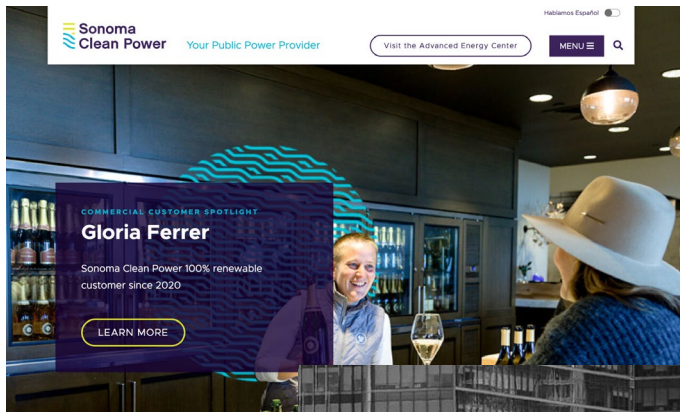
“Name and logo could better represent our positioning as a trusted guide”

“Peninsula Clean Energy is a long name, so we often shorten it to PCE, which is very easily confused with PG&E.”



Brand Imagery

- Place more emphasis on people and community-members
- Makes it more ownable, differentiated, creates a stronger connection with customers



- Current focus is mostly equipment and technology
- Less human, approachable, or differentiated




Messaging

- Can focus more on customers and the outcomes they care
- Can be aspirational
- Creates more of an emotional connection
- Can pair nicely with more artistic imagery


Ready to upgrade your lifestyle?

Top projects for renters



Want a car or truck that's better, faster, and cleaner? [Driving »](#)

Top projects for homeowners



Water heating

- Current focus on products and process isn't customer-centric
- Rational, literal focus doesn't create emotional connection
- Showing actual equipment doesn't feel on-brand

ENERGY SAVINGS TIPS


Maximize your A/C efficiency

- ✓ Have a technician perform annual maintenance, check and fix any duct or seal leaks
- ✓ Change filters regularly
- ✓ Keep A/C area clear of anything that would restrict airflow
- ✓ Shading the unit may improve efficiency if it does not restrict airflow

Water heater (HPWH)

For a [clean energy home](#), your water heater is a great place to reduce the gas used by homes is for heating water. Heat pump water heaters are electric. Peninsula Clean Energy offers a **rebate up to \$3,000** to switch to a heat pump water heater.

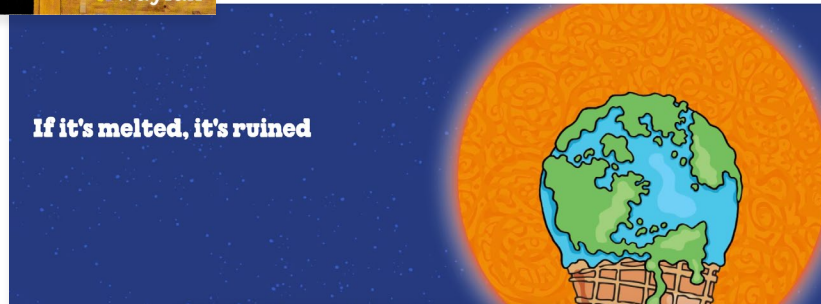
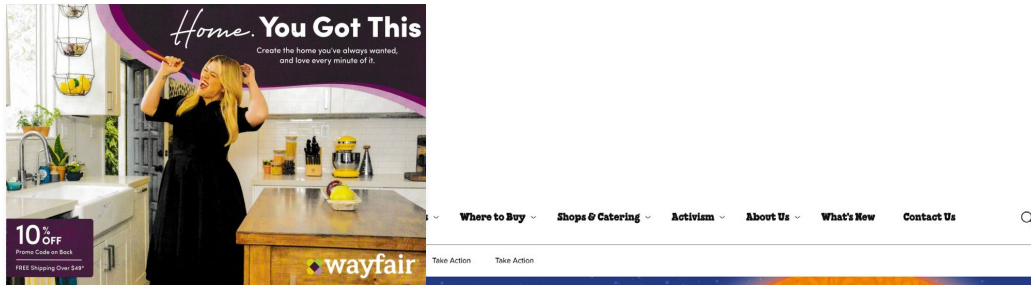
\$3,000 with no credit check and no money down for heat pump water heaters. [Learn more about our Zero Percent Loan Program.](#)



Installed heat pump water heater

Tone of voice & personality

- Can be more inspirational vs. informational
- Could be more straightforward and streamlined
- Opportunity to infuse more of a brand personality



- Formal and technical, with lots of information

CLEAN ENERGY LOWER RATES

ECOplus
Customers benefit from lower costs and cleaner energy with our standard ECOplus electricity service:

- 5% discount on PG&E's generation rate
- 50% renewable & 100% clean energy

You can apply to both PG&E's and Peninsula Clean Energy's rebates and programs

ECO100

If you want to do more for the environment, upgrade to ECO100:

- 100% renewable from wind and solar
- Costs only \$0.01 per kWh more than our ECOplus option

Go to PenCleanEnergy.com/upgrade or call 866-966-0110

HOW IT WORKS

ELECTRICITY GENERATION
Peninsula Clean Energy provides electricity from clean sources at lower rates than PG&E

DELIVERY
PG&E owns the power lines that deliver the power we generate, and they send a consolidated bill

CUSTOMERS
Customers of Peninsula Clean Energy are helping the environment and saving money

More value for your solar power

Our customers with rooftop solar get more value from our NEM (Net Energy Metering) rates than they would from PG&E

Peninsula Clean Energy on your bill means you are saving

ENERGY STATEMENT		Account No: 123456789-1	Statement Date: 04/07	Due Date: 04/28
Service For:		Your Account Summary		
William Sample 1234 Your Street Your City, CA		Amount Due on Previous Statement: \$314.16		
		Payment(s) Received Since Last Statement: -\$374.16		
		Previous Unpaid Balance: \$0.00		
		Current PG&E Electric Delivery Charges: \$67.80		
		Peninsula Clean Energy Electric Generation Charges: \$56.52		
		Current Gas Charges: \$184.71		
		Total Amount Due by 04/28: \$325.72		

PG&E charges for electric delivery whether you buy generation from them or Peninsula Clean Energy

Peninsula Clean Energy's electric generation rates are less than PG&E's

To learn more about your rates, visit PenCleanEnergy.com/for-residents

Discounts such as CARE, FEBA, and Medical Baseline continue with all of our offerings

You can opt out of Peninsula Clean Energy at PenCleanEnergy.com/opt-out



What can you get from the Inflation Reduction Act?

The Inflation Reduction Act can provide thousands of dollars in rebates and tax credits for households to go electric.

Get an estimate of how much you may get with the Household Electrification Savings Calculator

Learn more about the Inflation Reduction Act and what qualifies with this helpful guide.

View this email in your browser

Join fellow EV drivers in saving hundreds of dollars per year and helping us better support EVs on the grid with our new smart charging tool.

By participating, you will provide critical data about EV charging patterns, which helps us supply clean, renewable energy all day and night. This project, in partnership with ev.energy, is totally free to join and will help you save even more when you charge your EV at home.

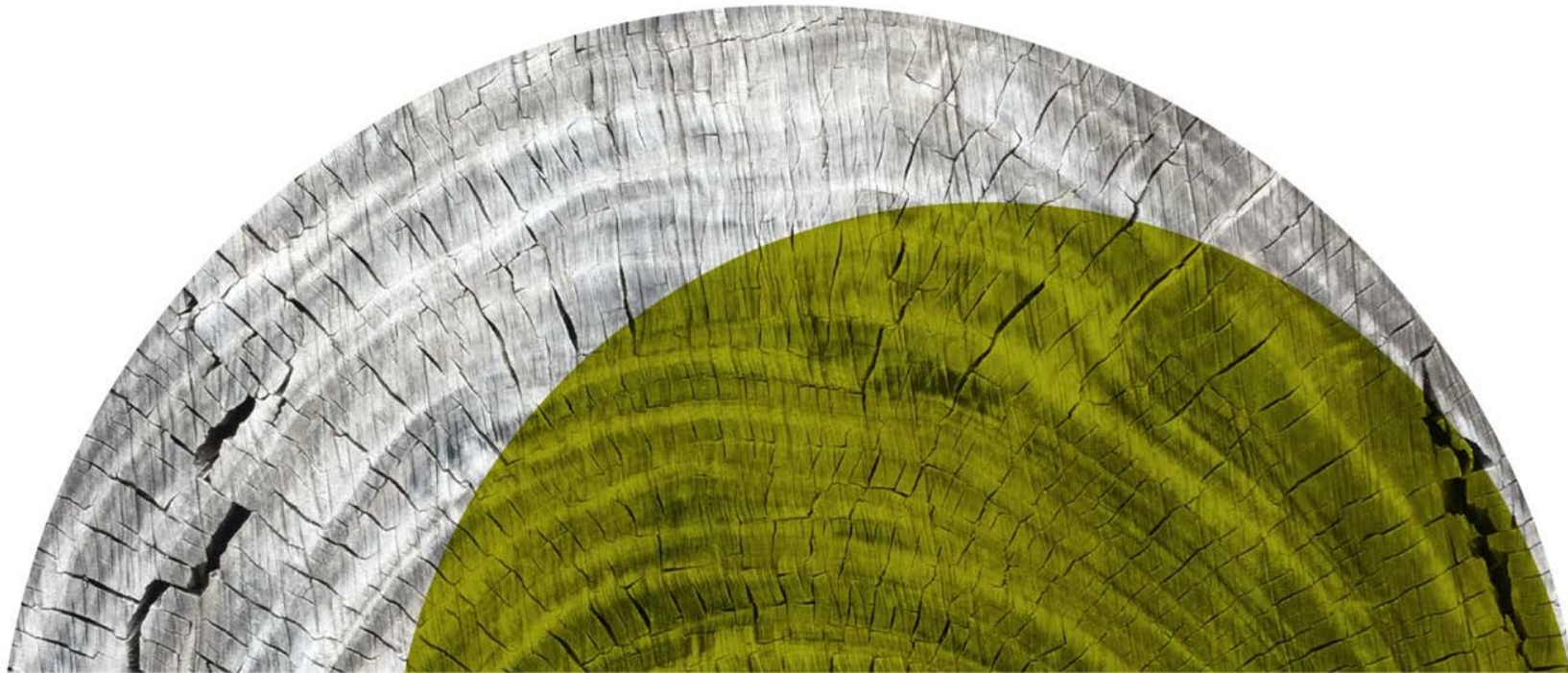
As a thank you, everyone joining will be entered into a raffle to win \$500 (with 20 winners). You must enroll now and stay enrolled throughout the analysis period, ending in February 2024 to be eligible for the raffle drawing. The raffle will be held in March 2024.

In addition to the raffle drawing, you will also receive a \$40/month credit, applied to your electricity bill every month, for the duration of the project.

Enrollment for this project is limited. Please click the link below today to get started.

[Get started here](#)

Next Steps



Contact



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Adjournment