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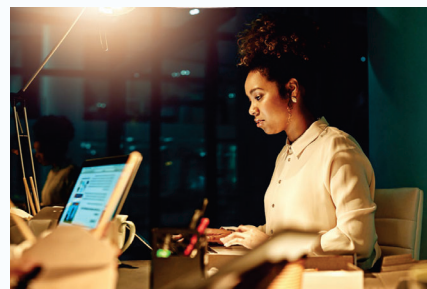
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APPROACH

Task Order 1: Strategic Program Design

Primary Objectives:

- Identify and Evaluate *Program Options*
- Identify and Evaluate *Premium Product Options*
- Engage Stakeholders to Inform Program Designs
- Develop Stakeholder Engagement Report and Program Strategy Roadmap
- Implement Program Strategy Roadmap



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APPROACH

Task Order 1: Strategic Program Design

Engagement Participants – Round 1:

Roundtables		Focus Groups
<u>Members</u> <ul style="list-style-type: none"> City of Benicia City of Cupertino City of Fremont City of Los Altos (x2) City of Milpitas (x2) City of Petaluma City of Pleasanton City of Saratoga County of Contra Costa (x2) County of Santa Clara 	<u>Stakeholders</u> <ul style="list-style-type: none"> City of American Canyon City of Dublin MCE Clean Energy RDAF Energy Solutions Sonoma Water United Energy Trading 	<u>Participants</u> <ul style="list-style-type: none"> Pacific Gas and Electric CalRecycle CCAs <ul style="list-style-type: none"> ✓ Central Coast Community Energy ✓ Silicon Valley Clean Energy Palo Alto Municipal Utility Bay Area RECAM / ZNE Alliance Vendors & Suppliers <ul style="list-style-type: none"> ✓ Shell ✓ Constellation ✓ United Energy Trading ✓ Clean Energy Fuels ✓ American Fuel Logistics ✓ RDAF Energy Solutions

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APPROACH

Task Order 1: Strategic Program Design

Engagement Participants – Round 2:

Roundtables		Focus Groups
<u>Members</u> <ul style="list-style-type: none"> City of Albany City of Cupertino City of Fremont City of Los Altos City of Milpitas City of Pacifica City of Petaluma City of Pleasanton City of Salinas City of Santa Rosa City of Saratoga County of Contra Costa County of Santa Clara 	<u>Stakeholders</u> <ul style="list-style-type: none"> City of San Bruno Clean Energy Fuels Constellation Energy County of Solano RDAF Energy Solutions Shell Energy North America Sonoma Clean Power Sonoma County Water Town of Windsor United Energy Trading 	<u>Participants</u> <ul style="list-style-type: none"> Potential Partners <ul style="list-style-type: none"> ✓ School Project for Utility Rate Reduction ✓ Bluesource Vendors & Suppliers <ul style="list-style-type: none"> ✓ Biofuels Energy ✓ Full Circle Renewables ✓ Amp Americas ✓ Pacific Summit Energy State Building Code Regulators <ul style="list-style-type: none"> ✓ California Building Standards Commission

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APPROACH

Task Order 1: Strategic Program Design

Initial Discussion Topics:

Products

- Blue Natural Gas
- Biogas/RNG
- Low-carbon Transportation Fuels
- Responsibly Sourced Natural Gas
- Renewable Portfolio Standard (RPS)
Compliant Gas Product

Programs

- SB1383 Compliance Program
- Transitional Electrification and
Decarbonization Programs
- GHG Accounting and Verification
Support Programs
- Natural Gas Efficiency and
Decarbonization Incentive Programs

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APPROACH

Task Order 1: Strategic Program Design

Incorporation of Feedback:

Product Reprioritization:

- ⬆ Responsibly Sourced Natural Gas
- ⬇ Blue Natural Gas
 - Biogas/RNG
 - Low-carbon Transportation Fuels
- ✓ **Transparent** Renewable Portfolio
Standard (RPS) Compliant Gas
products and timelines

Programs

- ⬆ **SB1383 Compliance Program**
- ⬆ Transitional Electrification and
Decarbonization Programs
- GHG Accounting and Verification
Support Programs
- Natural Gas Efficiency and
Decarbonization Incentive Programs

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02 FINDINGS

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KEY FINDINGS ROUND 1

Stakeholder Demand and Value

- Statewide goals and mandates (i.e., SB1383, SB32, etc.) are leading to increased demand and value for premium gas products in California, especially with cities, counties, and other government agencies.

Rigor and Transparency

- Stakeholders underscored the need for rigor and transparency regarding premium gas product content and sourcing. A Green-e (or comparable) certification related to Product Content Labels will be valuable and important, particularly with diversified supplies.

Cost Sensitivity

- The cost premium of any premium gas products offered by ABAG POWER will be of critical importance, as members and stakeholders affirmed that they are highly dependent upon a cost balance and budget certainty.

Market Timing

- RNG supply is nascent – particularly 'in-state' – but growing, and an opportunity may exist for a 'central buyer' role. Premium CNG products may be viable in the near-term, as the RNG supply is being developed.

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KEY FINDINGS ROUND 2

Premium Gas Product Demand

- Jurisdictions are increasingly looking for opportunities to reduce GHG emissions associated with natural gas. Many pay a price premium for a greener electricity product, based on similar rationale (i.e., added environmental and social benefits).

Renewable Gas Supply

- SB 1383-compliant RNG supply is currently extremely limited, but an opportunity may exist for a 'central buyer' role. A majority of ABAG POWER members indicated interest in ABAG POWER providing assistance in securing RNG supply.

Cost Sensitivity

- The cost premium of any gas products offered by ABAG POWER will be of critical importance. The avoidance of SB 1383 non-compliance penalties may drive value for some members.

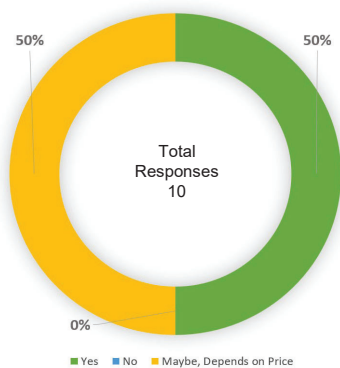
Electrification and Low Carbon Transportation Fuels

- Electrification has been identified as a component of achieving some members' climate-related goals. The program should consider incorporating an electrification incentive to its building and transportation fuel portfolios.

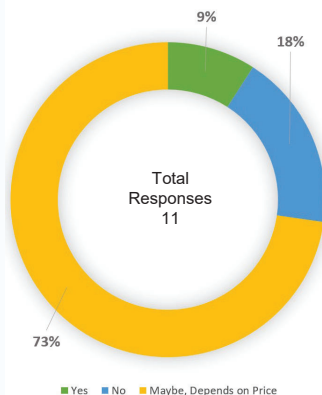
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FINDINGS

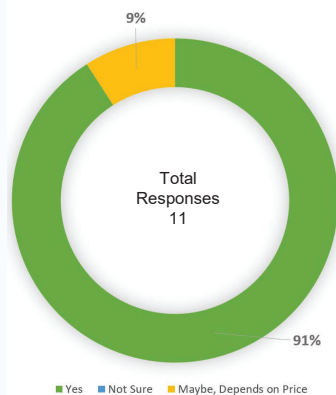
If ABAG POWER could offer a Responsibly Sourced Gas (RSG) product as a Default product, would there be value in that?



If ABAG Power could offer a Premium Blue Gas product that includes certified Carbon Offsets, would that be of interest/value to your jurisdiction?



Would your jurisdiction/organization consider enrolling in an ABAG POWER program that provides easy access to SB 1383 compliant RNG Supplies?



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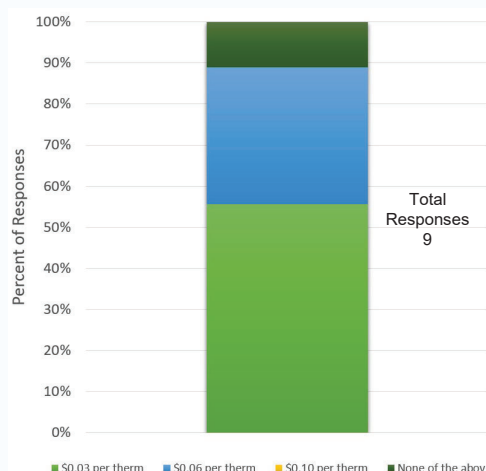
FINDINGS

Responsibly Sourced Gas (RSG)

A potential combination of "frack-free" gas, or gas purchased from DBEs and firms exhibiting certifiable methane reduction efforts

1. 100% of members agree that a Responsibly Sourced Gas product would be of value, depending on the price
2. RSG Premium Price Thresholds for Members:
 - a. 89% willing to pay \$0.03/therm premium
 - b. 33% willing to pay up to \$0.06/therm premium
2. The use of certified RNG and carbon offsets is highly valued

How much of a price premium for a Responsibly Sourced Gas (RSG) product would be acceptable to your jurisdiction?



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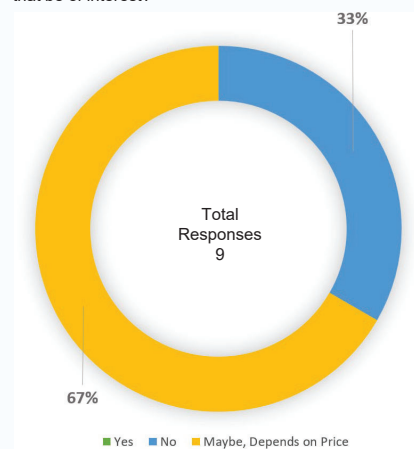
FINDINGS

Low-Carbon Transportation Fuel Program

1. ABAG POWER has two existing accounts that are eligible for participation in State (LCFS) and Federal (RFS) programs.
2. 8% of members polled indicated that they have plans to purchase new compressed natural gas (CNG) vehicles.

While 67% of members polled indicated they would be interested in a vehicle fuel program, most members do not have CNG vehicles. There is potential for the program to attract additional participants.

If ABAG POWER could offer a Premium LCFS Compliant product for CNG-powered vehicles, would that be of interest?



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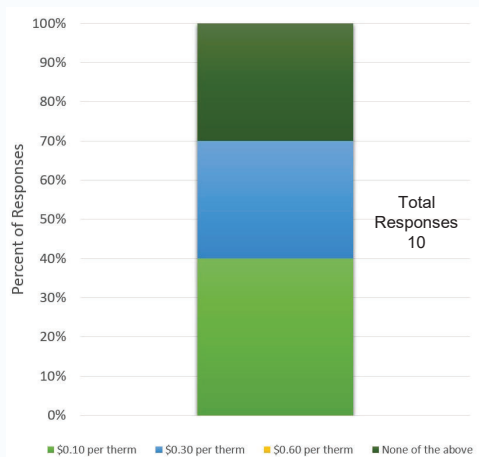
FINDINGS

Blue Natural Gas

Natural Gas bundled with carbon offsets

1. Over 80% of Members agree that a Blue Gas product would be of value, depending on the price
2. Members Premium Price Limits
 - a. 70% may pay \$0.10/therm premium
 - b. 30% may pay up to \$0.30/therm premium
3. The use of certified carbon offsets is of importance

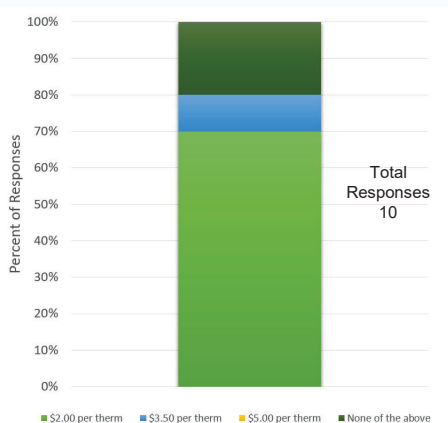
How much of a price premium for Blue Natural Gas (w/Certified Carbon Offsets) would be acceptable to your jurisdiction?



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FINDINGS

Given that penalties for noncompliance with SB 1383 can range from \$0.10 to \$31.00 per therm/day (\$500-\$10k/day), what price would your organization be willing to participate in a joint RNG development project to avoid Procurement Target violations?



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SB 1383 RNG Procurement Program

In-state RNG produced from eligible diverted wastestreams

1. Members are interested in an SB 1383 Procurement Program
 - a. SB 1383 enforcement begins on Jan. 1, 2022.
 - b. 80% of Members do not have a procurement plan
2. Members Premium Price Limits
 - a. 70% may consider paying up to \$2.00 per therm
 - b. 10% may consider paying up to \$3.50 per therm
3. Potential roles for ABAG POWER:
 - a. SB 1383 RNG "central buyer"/supply acquisition
 - b. Supply/Usage data and reporting

FINDINGS



ABAG POWER Indicative Premium Product Prices

1. The Blue Gas Premium Product will require certified carbon offsets and will have a premium in the range of \$0.1 to \$0.6 per therm.
2. An RNG Premium Product will be in the range of \$3.5 to \$9 per therm. SB 1383 RNG could possibly have a lower cost, depending on the project development costs. The wide price range is driven by the carbon intensities and competing LCFS markets.
3. The LCFS Program may be a potential source of funds for gas equipment replacement rebates. The LCFS credits would be put in a reserve and allocated to participating members for advancing electrification.

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* SB 1383 RNG pricing will be dependent on project development costs and be expected to take over 18 months to be made available.

03 PRELIMINARY CONCLUSIONS

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PRELIMINARY CONCLUSIONS

Renewable Natural Gas

SB 1383

In-State

- There is no current "spot" market.
- SB 1383-eligible RNG supply is extremely limited, and may require ABAG POWER to execute an offtake agreement for a project prior to ~12-24 month development.
- Offtake agreements typically desire a 10+ year term including a fixed-price.
- Letters of Interest/Intent from jurisdictions may be helpful if the program desires to pursue this procurement pathway.

Low-Carbon Transportation Fuel

In/Out-of-State

- Supply is available at various carbon intensities.
- Vehicle fuel markets (LCFS, RFS) drive value and create competing use cases for electricity generation and space/water heating.
- ABAG POWER could potentially join SPURR's program through a Memorandum of Understanding or similar agreement.

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PRELIMINARY CONCLUSIONS

Renewables Portfolio Standard (RPS) Approach

Responsibly Sourced Gas

Carbon Offsets

Renewable Natural Gas

- The products that could make up RPS gas are generally available if there is interest among the membership and value assigned to out-of-state RNG.
- ABAG POWER could establish a proposed timeframe and blend of RPS gas for the entire membership.
- Alternatively, Letters of Interest/Intent could be obtained from jurisdictions desiring to participate an RPS gas Program.
- The usage volumes can be used in the RFPs to obtain price quotes for RNG, RSG, Blue Gas and DBE supply. The resulting price discovery can then be used to optimally purchase a proportional amount of each desired premium product to achieve the desired weighted average cost of RPS gas.

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PRELIMINARY CONCLUSIONS

Electrification

In general, the electrification of buildings, appliances, or vehicles presents a challenge for the program because it results in departing load, thus creating a negative financial impact.

Recognizing that electrification can be an important aspect of achieving climate-related goals, the program is aspiring to create program elements that enable fuel-switching. These elements could result in an increase to the program's membership, thereby increasing load in the mid-term.

Buildings

- ABAG POWER could consider funding an electrification incentive for buildings.
- Funding for the incentive could be allocated from participation in the RPS-style products, or through a surcharge applied to each member's load.

Vehicles

- ABAG POWER could consider funding an electrification incentive for fleet vehicles.
- Funding for the incentive could be allocated from revenue generated from LCFS/RFS credits.

PRELIMINARY CONCLUSIONS

In order to enable these new programs, renewable product offerings and services, ABAG POWER should consider **enhancing its overall risk management capabilities**. This would require refinements across key areas such as risk governance, procurement guidelines, defined transaction level business processes and related internal controls, and enabling information technology (e.g., Energy Trading & Risk Management solution).

Formal structured program management requires an appropriate infrastructure to ensure ABAG POWER:

- Fulfills its responsibilities as a service provider to its members,
- Supports its interactions/activities with external parties and regulators, and
- Provides greater transparency to overall program activities that may translate to greater member satisfaction

PRELIMINARY CONCLUSIONS

The Project Team is providing this estimated supply and program implementation timeline. The development of an RPS product will require volume estimates and modeling to determine the percentage of each premium RNG and carbon offset product to be included in the portfolio.



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04 NEXT STEPS

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Next Steps

Task Order 1: Strategic Program Design

Phase III



- November 1st: Draft Stakeholder Engagement Report
- November 5th -19th: Public Comment Period
- November 26th: Program Strategy Roadmap
- December 16th : Executive Committee Meeting
 - ✓ Approval of Stakeholder Engagement Report
 - ✓ Approval of Program Strategy Roadmap