

Draft Sebastopol Electrification Survey Results

July 4, 2023

Sebastopol Climate Action Committee Energy Task Force

Overview

The City of Sebastopol volunteer Climate Action Committee conducted a survey to learn more about residents' views and needs related to switching from natural gas to electricity in their homes. The survey was conducted online through the City of Sebastopol website from March 1st to April 30th 2023. Through this volunteer effort, the Climate Action Committee pursued the survey with the intention of using the results to help determine how to best serve the community by reducing greenhouse gasses and improving air quality through this electrification effort.

The survey was publicized in the City's digital newsletter, some posts on social media, flyers around town, and tabling efforts at various events. The survey received 515 responses of which 327 were within the city of Sebastopol. With 3,221 households within the City limits, this is an adequate sample size resulting in a low margin of error +/-5%.

The responses to the survey are included below with the interpretation of the results.

Background

This survey initiated by the Energy Task Force of the Climate Action Committee focused on the most impactful source of emissions for Sebastopol's built environment. According to the [2020 RCPA Greenhouse Gas Inventory Report](#), building energy use made up 26% of Sebastopol's activity based GHG emissions. Natural gas use in Sebastopol was responsible for 87% of that total.

Sonoma Clean Power has demonstrated that we can quickly reduce our GHG emissions in the electric sector. Since 2015, building based emissions have decreased 15% primarily due to Sonoma Clean Power's higher renewable supply.

The reason that it is important to focus on the existing building stock rather than simply modifying building codes for new construction is that there is very little new construction in Sebastopol. Between 2000 and 2020, only 155 residential units were added to Sebastopol, most of which were single-family homes. According to the [2023 Housing Element](#), two-thirds of the housing stock in Sebastopol was built prior to 1979 when the first building energy codes in California were mandated.

California is on the path to phase out natural gas and eliminate the use by 2050. California utilities have plans to phase it out sooner than that deadline. The [Bay Area Air Quality Management District](#) recently voted to require in 2027 that natural gas storage water heaters being replaced need to be replaced with appliances that don't emit nitrogen oxides which basically means electric appliances. The rules also require that in 2029 when natural gas furnaces are replaced that the replacement must be electric. These same requirements will apply statewide in 2030 with regulations from the [California Air Resources Board](#). Nationwide in 2022, [more heat pumps were sold](#) than gas furnaces for the first time.

As the Sebastopol Climate Action Committee, we along with many others see that natural gas use is going away. The question is how can government and institutions help in this transition, and how fast and equitably

can they do it. The federal and state governments have programs to spur electrification, but they are relying on local communities to play a major role. Communities that educate, assist and organize their residents and businesses will have a faster and easier time with the transition away from gas.

Conclusions

The following conclusions summarize the takeaways to the responses received:

- Awareness that new technologies exist is fairly high but the details about them are not well understood.
- Cost is the primary barrier to implementing electrification.
- Reliable electricity supply needs to be assured.
- Contractors and installer acceptance is the key to selling the change.
- Consumers confuse the cost of electric appliances of the past with the new electric options. These new options are four times the efficiency of standard electric resistance heating and twice the efficiency of air conditioning units from twenty years ago.
- Financial options to help consumers are not easily accessed.
- Many responses suggest that citizens believe that the City of Sebastopol is the initiator of retiring the gas infrastructure.

Next Steps

- Post results to a publicly accessible link
- Send a link to ~180 who asked to have results shared with them
- Present results to council
- Share results with local agencies
 - Sonoma Clean Power staff, board and advisory committee
 - RCPA
 - The Sonoma County Board of Supervisors
 - City Climate and Sustainability staff/boards
 - BayRen
- Work with the Sebastopol Climate Action Committee to identify first efforts for electrification. This may include finding a way to leverage the existing contractor/installer base in promoting conversion from gas to electric.

If you have any questions about the survey, please contact

ClimateActionCommittee@cityofsebastopol.org. You can learn more about the Climate Action Committee on the [City website](#).

Electrification Resources

[Sonoma Clean Power Advanced Energy Center](#)

[Sonoma County Climate Action and Resiliency Division](#)

[BayREN Electrification](#)

[North Bay Home Electrification Incentives](#)

[North Bay Area Electric Vehicle Incentives](#)

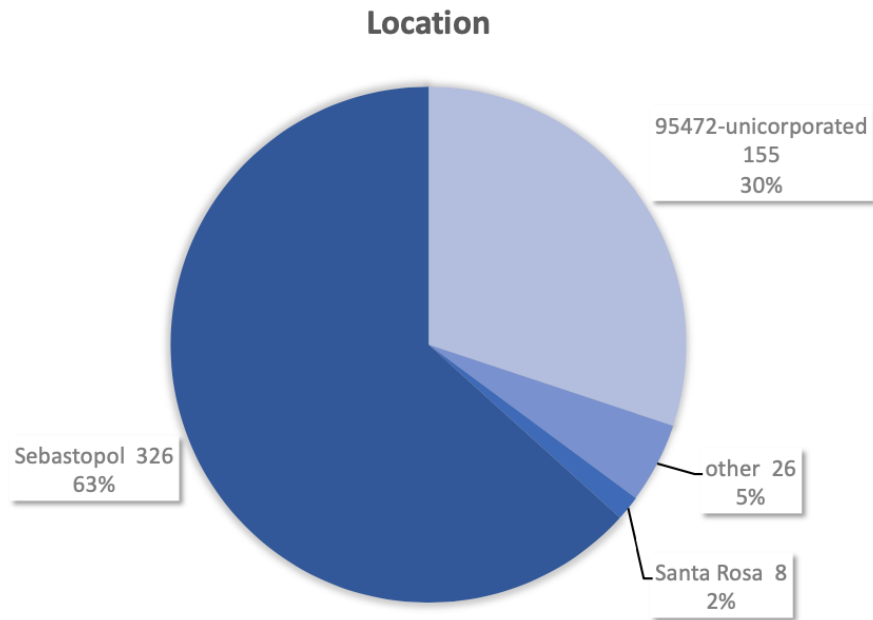
Survey Response

Methodology

Responses to survey questions that allowed a written response were collated into categories and are presented in the appropriate graphs.

Demographics

Where do you live?



Why Asked

The survey is intended to assist Sebastopol to move on climate actions, and we need to know the opinions on the needs, wants, and obstacles around electrification in Sebastopol.

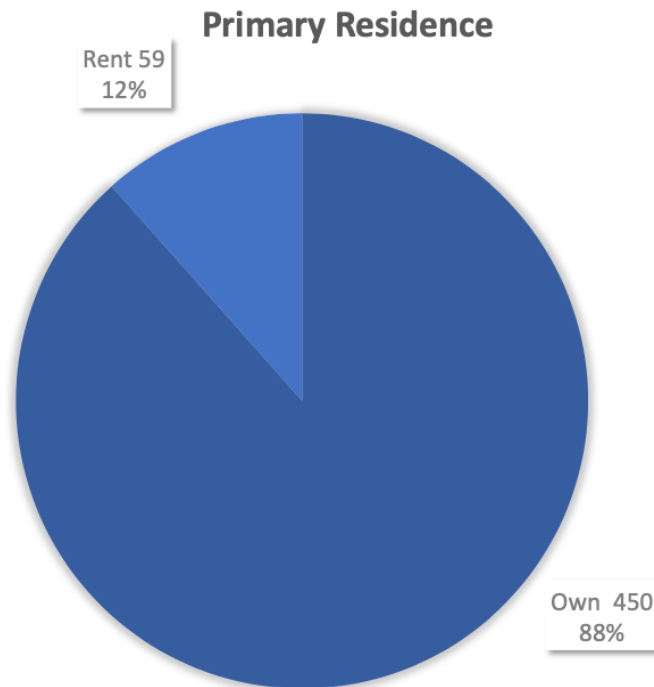
Results

The residents of Sebastopol are well represented in the survey results. The number of the responses indicate that the results are reliable.

Takeaway

We can rely on the results of the survey being a true representation of the opinions and needs on home electrification.

Do you rent or own your home?



Why Asked

The incentives to move to all electric are largely focused on owners. If the responses are mainly from tenants, then our data would not be matching those making the purchasing decisions.

Results

The profile of the respondents was much as we had expected.

Takeaway

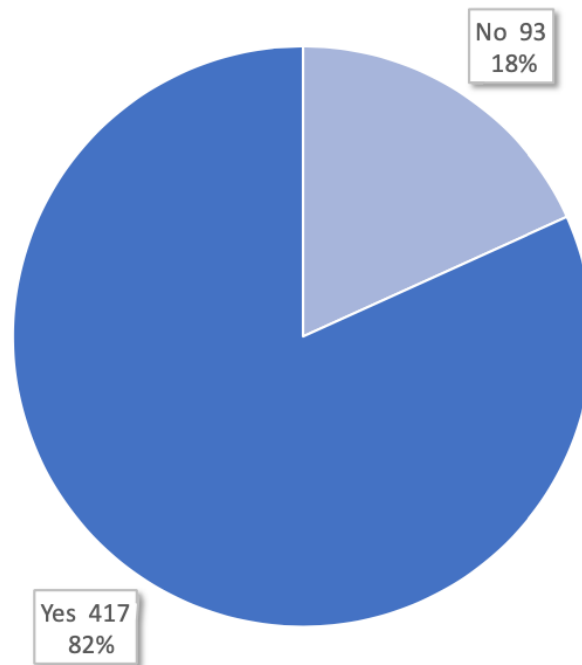
Addressing the rental market is difficult because the cost is on the landlord's while the benefit goes to the tenant in terms of improvements. We see from the tenant participation numbers that complication is well recognized.

With half the population of Sebastopol being renters, an approach that specifically targets landlords and tenants with information and opportunities for electrification needs to be developed.

Awareness

Are you aware that highly efficient electric heat pump options are available for water heating and space heating/cooling?

Knowledgeable about heat pumps



Why Asked

This question is asked to determine if a general electrification education campaign is needed, or if there is sufficient awareness.

Results

The Energy Working of the Sebastopol Climate Action Committee was surprised with the level of awareness given the lack of awareness on the part of contractors.

The first month of the survey the awareness of heat pumps was at fifty percent. After the first month, links with information about electrification were added to the survey and awareness increased.

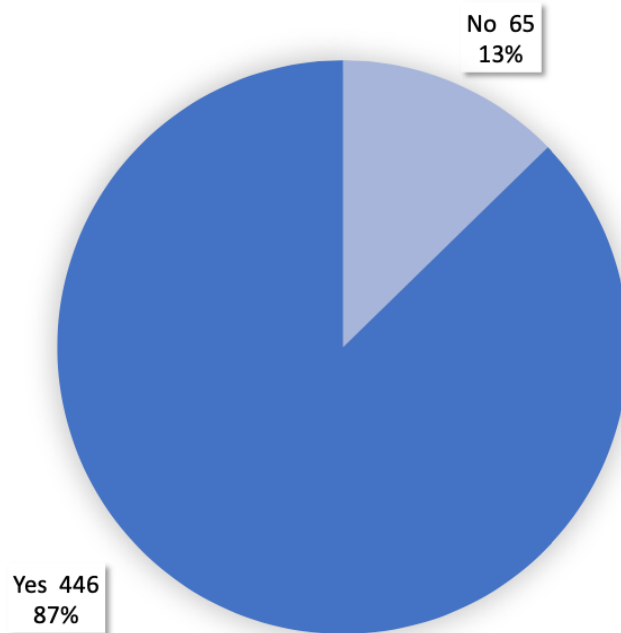
Takeaway

Awareness of the new options is not one of the main barriers to electrification.

The increase in awareness after the change in the survey suggests that people are motivated to learn more details about electrification and how it can benefit them.

*Are you aware of highly efficient
induction cook top stoves?*

Knowledgeable about Induction cooktops



Why Asked

This question is asked to determine if a general electrification education campaign was needed.

Results

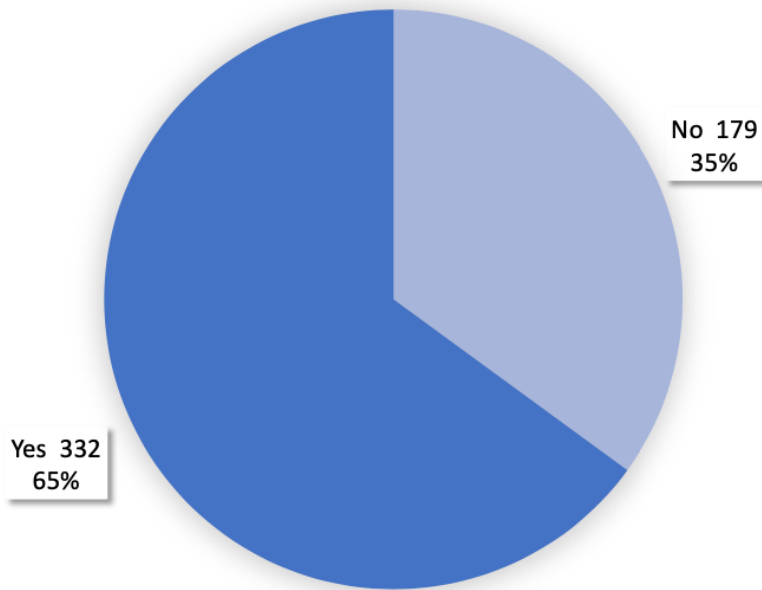
This level of awareness matches well to the amount of inductive equipment available in stores and the amount of recent press about cooking with gas.

Takeaway

Awareness of the new cooking option is not one of the main barriers to cooking electrification.

Are you aware that rebates and incentives are available for these energy efficient products?

Knowledgeable about rebates and incentives



Why Asked

This question is asked to determine if a general electrification education campaign was needed.

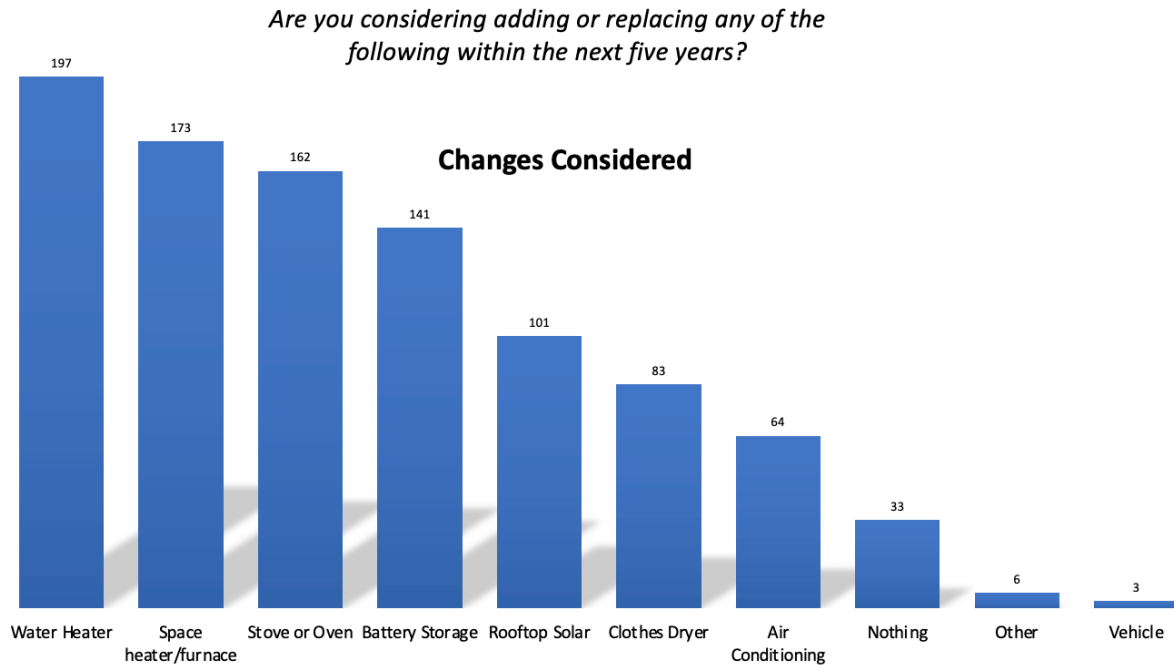
Results

Respondents have generally heard that incentives exist. Further questions show the general confusion around incentives and eligibility for them.

Takeaway

Awareness is lower on incentives than the new equipment. Education around eligibility for incentives and how to apply for them would be useful.

Considering Changes



Why Asked

We wanted to know where there were opportunities to electrify in the changes that they are already considering. This would be the low hanging fruit.

Results.

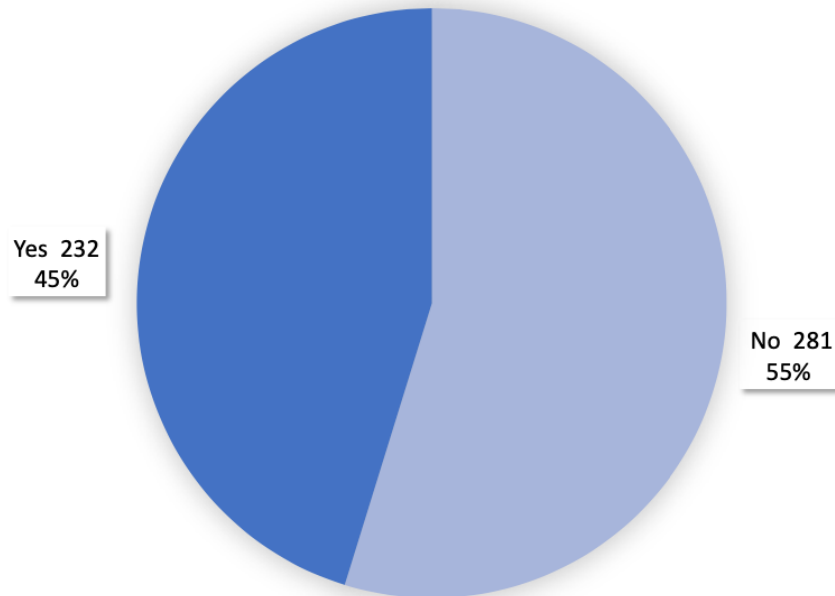
The two largest responses match the biggest GHG reductions achieved from electrification in the typical home.

Takeaway

This suggests that community efforts should focus on water and space heating/cooling. The high number of people considering air conditioning suggests an opportunity to educate on the benefits of heat pumps.

Have you been considering any changes in your home to shift from natural gas to electricity?

Are you considering electrification?



Why Asked

This question is asked to help determine the interest and marketability of electrification.

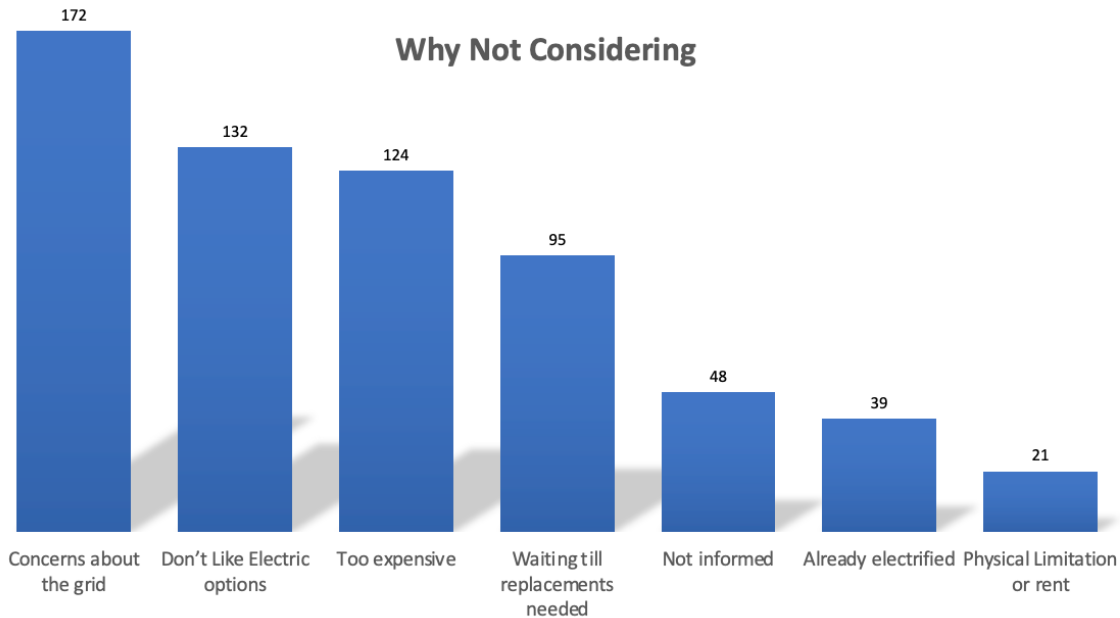
Results

While awareness of electrification technologies is relatively high, the number who are considering it suggest that there are barriers to its adoption that the community needs to recognize and address.

Takeaway

The response suggests that there is a need to increase public awareness around this issue and make clear the advantages of electrification.

If you have not been considering changes, why not?



Why Asked

This question is asked in order to determine the challenges in converting to electric. There will be some obstacles we can tackle locally, some regionally, but there may be others that make electrification unlikely.

Results

Intuition suggests that cost would be the major factor. However, the two high scoring obstacles, being grid concerns and resistance to electric options, might require some interpretation. The grid concerns are likely triggered by recent impacts of climate change that we are already experiencing.

The “Don’t like Electric Options”, however, is somewhat ambiguous. However, the survey did not differentiate between older resistive heating techniques and newer more efficient technologies.

Addressing this is further explained in the Takeaway section.

Takeaways

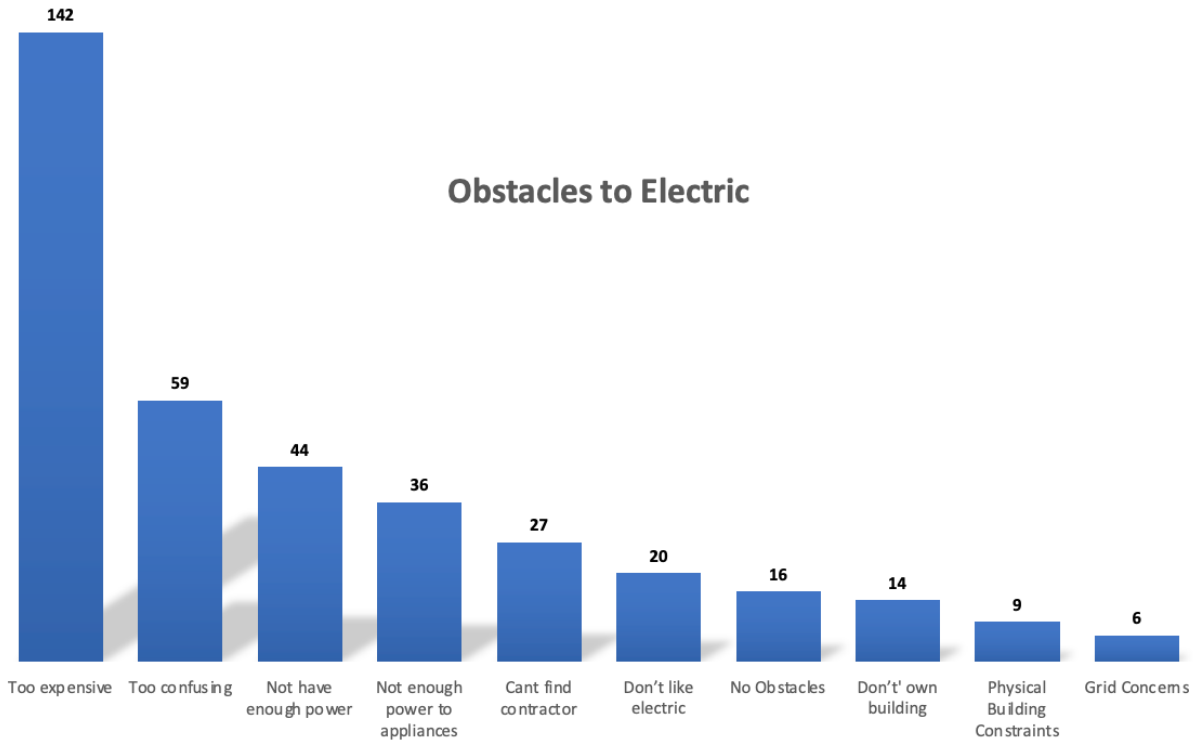
Concerns about the grid can be addressed with reliable neighborhood based energy and storage.

Dislike of the electric options suggests a need for further study, because (as mentioned above) the Energy Task Force believes that this may be a result of past experiences using older inefficient technologies.

Embedded into the “too expensive” response are concerns about the equipment cost and the future cost of electricity. This suggests that many people may not be aware of the level of incentives to reduce electrification costs and what future energy cost trends for both gas and electricity are likely to be.

Obstacles

What kind of obstacles have you encountered to electrification?



Why Asked

One of the major goals of the survey is to reveal the reasons that building owners might resist conversion from gas to new efficient electric replacements. This question is designed to identify those obstacles and help us learn if they can be addressed.

Results

Expense is a major obstacle. The design of the survey did not provide a way of identifying what part of this response results from the conversion costs versus the long term operating cost.

However, it is promising that there are existing approaches to overcome the five top ranking obstacles.

It is a bit confusing that “grid concerns” is represented so lightly here. However, the wording of the question might explain this difference.

Takeaways

New efficient electric appliances are relatively recent innovations in the United States. This results in both a relatively high cost for the materials and exceptionally high costs for installation.

With more competition and training, both the equipment cost and the availability of trained contractors will drive costs down. Consequently, as more consumers move on electrification, prices are expected to drop.

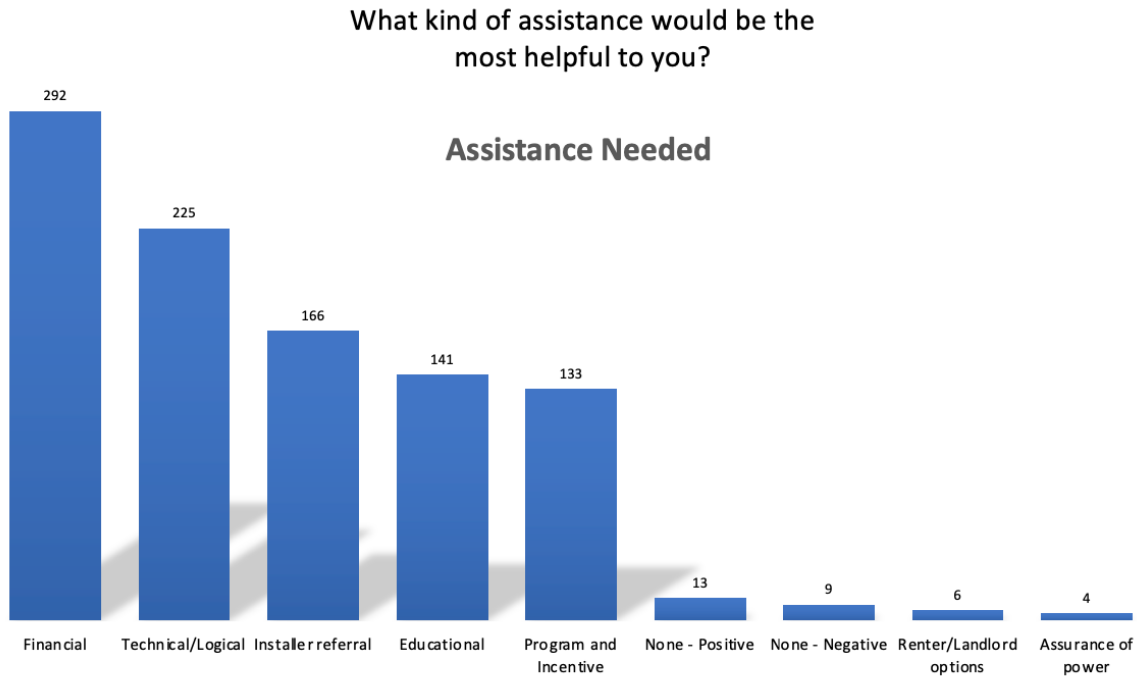
Regarding the “too expensive” response, a future survey should be careful to distinguish between the installation versus the perceived operating costs. Natural Gas costs are certainly going to increase and fluctuate as they do today. However, with new electricity sources coming online with both lower installation and operating costs, there is the possibility that electricity costs will stabilize or even drop in the coming years.

Confusion is an obstacle that the community can address. We can take advantage of programs offered by the Sonoma County Climate Action and Resiliency Division and Sonoma Clean Power. Many comments made it clear that applying for incentives is confusing. Providing guidance with this process will help address the high cost obstacle as well as the confusion associated with this.

Much of the local building stock was created when electricity did not play a major role in operating the home. It supplied lights and ran the few auxiliary devices in our homes. Consequently service of 100 amps or less was often sufficient. This is a limitation both with the electrical panels and with the service and transformers used to deliver that electricity to the building's meter.

Further examination of existing building codes is recommended to determine what service level is needed for electrification in the typical home.

Assistance



Why Asked

The responses from this question can help the community determine what to focus on. This question allowed for several responses to be selected which helps clarify the many places where community help would be useful.

Results

The interest in financial assistance aligns well with the focus on electrification cost. Understanding how to complete electrification, where to get knowledgeable resources and how to pay for the change all are common needs.

Takeaways

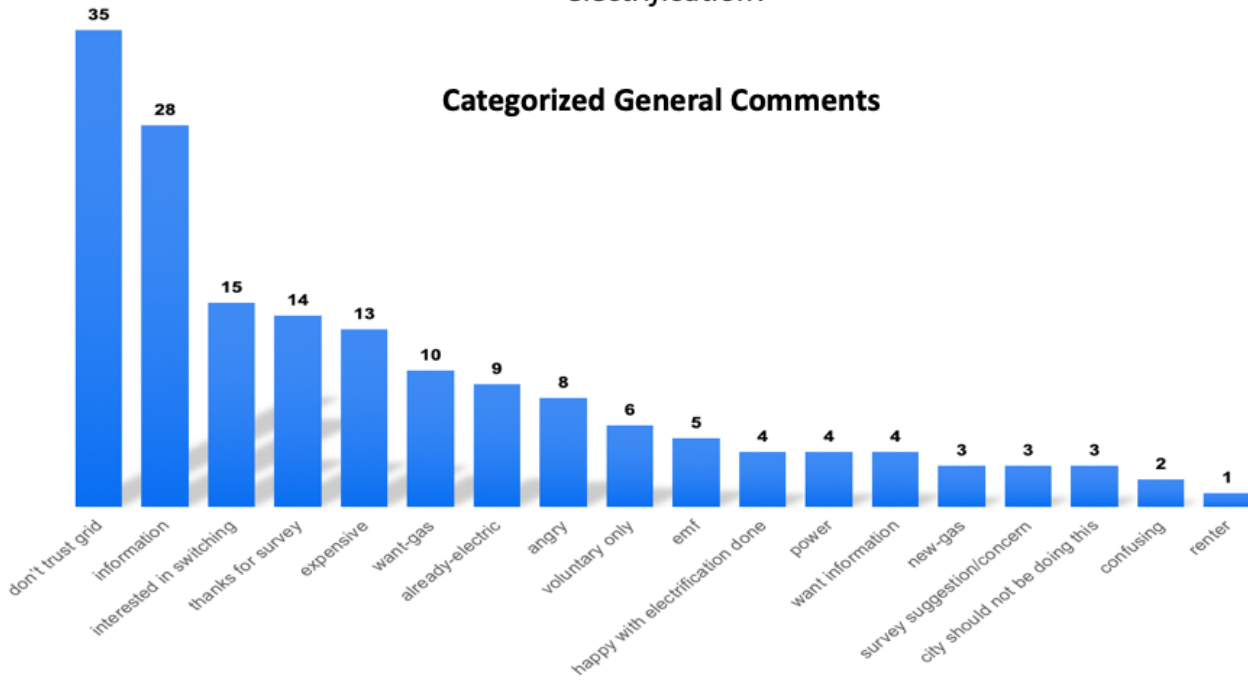
Though “awareness” of the electric options and incentives is relatively high, the response to this question identifies that perhaps the details are not well understood.

Based on this response, the initial cost is more of an issue than the concern for higher operational costs. A reliable resource for explaining and assisting in applying for incentives would address both the financial and incentive needs that are expressed. People are generally not aware of the assistance programs that are currently available to them.

Education efforts need to drill down beyond the “awareness” level and start answering the practical questions that arise regarding electrification. Installers and contractors are the primary resource for educating customers today. The best way to meet the needs of customers is to ensure that installers and contractors are well informed and comfortable with supporting these new technologies.

General Comments

Do you have any additional comments that you would like to share on the topic of electrification?



Why Asked

The questions in the survey are somewhat directed. This question is purposely open ended, allowing respondents to write-in and identify any other thoughts or concerns

Results

Many people commented on the challenges they see in electrification. By far, the biggest concerns were about power outages and our electrical grid having sufficient capacity to meet growing demand.

Many others took this opportunity to share information about their particular circumstances. These responses were grouped under the "information" category.

Takeaways

The transition to electrifying our buildings is not a Sebastopol driven initiative. It is mandated at the state level and supported by the public utilities, who would like to leave natural gas behind sooner rather than later.

Many respondents seem to be unaware of these coming requirements.

More literature explaining what is happening state-wide, nationally, and internationally needs to become easier for citizens to find.

Many of the comments identify deficiencies in our existing infrastructure. Utilities, the state, and private concerns are scrambling to address all of these issues, but this information needs to be put out there in a more public manner.

For instance, PG&E power is now 85% carbon-free with 31% coming from renewable energy.

Sebastopol, in this survey and other efforts, is hoping to help citizens prepare for the changes that are going to occur. Some respondents mistakenly see this as the city initiating the changes, rather than the city preparing its citizens for the changes that are coming.

General Comments

1	I am not interested in switching
2	We don't generate enough electricity in the area thru PGE. We would be too dependent on one source, which is always a bad idea. Diversification is better. If you let me put a windmill in my backyard to keep the electricity flowing, I will reconsider. It's a phase, not a lasting trend, IMHO. Look at solar power...now we can't even get a rebate for supplying it. Environmental BS. A good idea whose time has not yet come.
3	we recently replaced our gas cook stove, gas water heater & gas furnace with induction cooktop, & heat pumps ~ very happy so far
4	Our Generac works on gas - how would that work with the plan?
5	I'm also interested in electrification options in lieu of propane (water heater, stove, forced air heating)
6	PG&E has been an enormous thorn in my side and hurdle to overcome just trying to upgrade to a newer and safer electrical box. These barriers need to be removed in order to upgrade a faltering system and make it more efficient
7	A clear understanding of how this actually will save me money.
8	It is hard to navigate the incentives - with \$83,000 in spend I received \$15,183. I am sure there was more available, but I would need a service to ferret it all out
9	Please consider that the cost of electricity has been quite high recently, and there are currently limits to how much electricity a property can get (200 amps). If you want people to switch all these high-load appliances to electricity - it should be free to increase that limit, and the county/state should also offer more subsidies for electricity or require lower rates.
10	We have already removed a gas heater and added a heat pump , have removed two gas stoves/ovens to switch to electric, have installed new solar on roof.
11	I will never have an electric stove until they work like gas.
12	With all the power outages, we'll be freezing cold...
13	Let's stop burning gas
14	We just put in solar panels and bought a hybrid (Not a plug-in) car. I've been wanting to replace our wood stove and fireplace use to lessen air pollution. We put a new gas heater in about 6 years ago so that'll be awhile down the road before we replace that! Thanks!
15	Maybe the survey could include the question: Have you already made the switch?
16	help us to be independent from PGE
17	Check out this video about a community-wide commitment to electrification in Australia. You'll see lots from Arwen O'Reilly Griffith, wife of instigator Saul Griffith, who grew up in Sebastopol. I'd love to see something like this in Sebastopol, though frankly, I think we have too many cranky old people (I'm 68 and have lived here 41 years, BTW) and not enough people who'd be willing to work together and go for it. Probably a better idea to try it in Roseland. Regardless, it's inspirational and may provide food for thought.
18	I want to keep my gas fireplace
19	I already have a heat pump water heater. Next I'd like to get an induction range. And if I could find an electric heating plan that would work.....

20	I think that the city has more important things to focus on than imposing these types of changes on the citizens. If folks individually want to make changes to their homes they should be allowed to do so but it is none of the city's business.
21	not clear how to get a permit. from city? or county? where to go? how to get?
22	I like gas ranges for cooking since it heats up faster and you can control the temperature better.
23	I really don't think PG&E will be competent to provide enough electricity at a reasonable price.
24	Looking for a used EV Leaf.
25	I would consider changing to electric for everything but my stove. To replace my furnace would be very difficult financially
26	We have lived with all-electric, and the cost was extremely high. The result was a high dependence on woodstove and pellet stove heat, which is certainly not an option I'd like to see encouraged.
27	Previous contractor said too expensive to run additional electricity for heat pump and water heater. That I had to go with gas.
28	I'm 79 years old and there is much else to spend money on in 100+ year old house.
29	Gas seems to provide a better energy source in some appliances and never seems to have outages. Electricity still comes in a large part from the burning of fossil fuels. Electricity loses energy over the transmission lines where gas does not. Solar is great and many panels are made from renewable sources. Batteries on the other hand have a large ecological footprint to the planet. Thank you
30	Need reliable power to move forward. My solar and batteries?
31	Please take seriously the issue of EMFs. Too often our culture rushes into the new without hearing the warnings. This needs to be addressed before pushing people into this path!
32	Our gas heater is pretty new and efficient and our bill is low since we use it very judiciously. I feel it would be wasteful to replace it. My oven is old and works well and is well made as many older things are. I use my toaster oven more often than my large gas oven. I heat water with an electric kettle and use a microwave. I probably use my gas dryer 10 times a year. Otherwise I use a clothesline.
33	How clean is our electricity really? I know there are the geysers at Geyserville but is that all of our region's energy? And if not, what is powering the electric plants?
34	My house only has electricity - mostly SOLAR
35	The elect grid is not reliable enough to depend solely on electricity.
36	Our biggest problem is increasing the capacity in our panel and it's proximity to the gas meter
37	Electricity is much more expensive than gas. During an outage IF I had a gas stove, at least I could have had hot food. I just purchased a new gas heater and a new gas furnace. Over \$ 25,000 in cost. Won't be changing out any time soon. Ditto for my woodstove. During the winter outages, it literally saves our lives.
38	I am in an all electric neighborhood
39	What is the comparative cost of operating on gas compared to electric appliances.
40	power outages are really scary when considering doing away with natural gas. Right now, if the power is out, I can still cook on my stove which means i can have warm food and drinks...especially important if my house is freezing!

41	I would change out all of my appliances but, the reality is that the City of Sebastopol, the County of Sonoma, the State of California and our entire country does not have the electric infrastructure that could support a mass switch from gas. Start with baby steps and change the building code to require new homes to be all electric. Let restaurants have their natural gas. Force gas companies to replace/repair their infrastructure, there are a bazillion leaks everywhere. It's easier for them to just pass the cost of lost gas on to the consumer than it is to fix all the leaks.
42	If one were to do a deep dive on each, you might be surprised at how much getting electricity and gas to a home is not very different in almost all ways.
43	just insane
44	Electricity supply is not reliably enough. Plus Supply is not guaranteed to be pollution free
45	Too many power outages, I like gas better than electric.
46	Thank you for asking and getting ball rolling.
47	When the power goes out we have a gas stove so we can still cook. We appreciate that. I was injured by EMFs from indoor wiring. I have researched the health and environmental effects of EMFs since 2006. This is a real problem, backed by peer reviewed published science. In general, I am not opposed to electrification, but I don't believe electricity is clean, green or safe. The smart or wireless component of new electrical appliances is the biggest concern, as is the electric and magnetic fields, and the "unintentional radiation" devices add to the electricity lines. It's not simple. In fact it's complicated. I don't believe using gas is necessarily safe either, but I don't think electricity is "safer". If I could go completely off grid that would be ideal!
48	would love more information about the potential for back up/battery power storage
49	Wake up to 5G and beyond.
50	I'm concerned about what happens when the power goes out, as is often the case.
51	Too much money
52	We have already installed a heat pump and replaced our methane oven with electric induction.
53	I listened to one of the heat pump zoom talks, but I still do not have a clear enough understanding how it actually works, or an estimated cost. The talk was too broad, not focused enough on the topic. It seemed like a sales pitch for BAREN
54	I'm a member of the Sebastopol Grange and I will be going to the next talk at the Grange on electrification
55	Put in a mini split heat pump two years ago and are happy with it. We kept our gas furnace so it's a hybrid system. The heat pump supplies about 2/3rds of the heating needs. No savings in heating cost, none was expected. We also just purchased a battery electric car and are pleased so far, and it has cut fueling costs.
56	We have actually already completed our project to electrify our whole home. The biggest obstacle we found was getting enough power to our home without stressing the neighborhood supply. Now we have issues when the power is out because we can't heat our home or have hot water. We will eventually get a home battery, along with more solar panels.
57	The amount of power going to many homes is a big and expensive problem
58	When you provide me with a solution to nine days without electricity we can talk again. Natural gas allowed us to cook our meals during those nine, long days as it does during the shorter power outages that we experience multiple times every year.
59	As long as a large share of electricity is generated with gas it is counter productive to electrify, except for heat pumps which are much more efficient.
60	Making electricity has an impact on th plant, too, especially if it is made by burning coal. Even hydroelectric sources have a negative impact on ecology

61	There seems to be a disconnect between city staff and residents regarding to to accomplish getting these appliances for a house—if it's a high priority, maybe there should be someone available to work with homeowners on best placement.
62	Rooftop solar and electrification should be made available to everyone. Not just the rich, obviously, but also not just the poor but the middle class folks too. Don't leave out anyone. As a society we need to shift off of fossil fuels.
63	Expensive not as reliable as gas appliances
64	I've looked into solar but my income is too low to make the tax credits worth it, plus my neighbor won't trim or allow me to trim his trees to provide sun for my solar
65	Again, we need micro-grids and community solar to protect native trees in urban areas
66	I encourage you to keep doing what you're doing. I just am not yet looking for this sort of help. When I eventually buy a place I'll want you're assistance.
67	They will be sent separately.
68	Currently our grid is insufficient on extremely hot days and we are asked not to consume electricity to avoid blackouts. If everyone now were to switch to electricity, where would the needed power come from? For decades we were told to use natural gas, now all of a sudden, it is deemed evil. We as a state need to make ourselves energy secure and need to see the larger picture – look at states like Texas that have tried to rely on wind or solar, but have had to endure weeks of power outages/shortages even during extreme cold. I find these “green” sources of electricity impractical at best, dangerously deficient at worst. This knee-jerk reaction of switching everything to electric power is going to cause many long range problems, especially as hydroelectric plants and our one nuclear plant are being decommissioned ... our economy and lives depend on a secure energy system.
69	homes should be able to grandfather their gas piping and options if their house has gas
70	I've already done as much as I can in two houses (except for possible heat exchanger ventilation) – induction cooking, solar, battery backup, heat pumps – and have a fair amount of practical experience. I'm happy to try to help out (virtually) if that would be useful.
71	The high efficiency heater and a/c cost us 33000 dollars. I replaced my pellet stove and portable a/c. Had to put ducts in etc. My electrical has gone up about 300 dollars per month. Should have kept the carbon neutral pellet stove. The induction stove, GE brand cost me another 3k due to replacing natural gas and had to run 220v about 50 feet. Subsidies will not come even close to these costs. A/c salesman advised a new heating system would cost about the same as a new car. Yep my new Toyota hybrid cost me 37000 \$ with 12k down a payment monthly payment of about 500 dollars per month. Get real and be honest how much a top of line Bryant heater a/c and new cook stove cost in the real world.
72	On a fixed income it's hard to imagine a financial assistance program that would be affordable to replace my current heating system.
73	Wood heat is cheapest and most reliable and disposes of fallen trees. Propane seems better with multiday outages when solar does not charge batteries much.
74	Really want to switch but even with rebates it is out of our reach
75	what about Electric Vehicles? or the reasons for electrification? :-)
76	Thank you for this effort!
77	We just spent \$10k to replace our furnace and water heater. They both run in gas. The CA power grid is not prepared to handle fully electric households. And with rolling power outages or storms a gas stove top is essential along with gas water heater.
78	I'd like to switch from gas to electric for my furnace and water heaters. I just installed solar on my

	home. Also looking for an EV. I don't want to give up my gas cooktop however. My meter is 120 AMPS. I think I need more amps.
79	Thank you for helping gather information, and maybe helping people get what they need
80	Our gas appliances are the water heater, cooktop and forced air furnace. As they need replacement we would consider electric. I am concerned about power outages and not having the ability to cook. We would consider replacing the furnace with a heat exchange system and the water heater would be replaced with an electric one probably.
81	I feel that any existing homes or businesses with gas systems or appliances should be grandfathered. There should not be any requirements to change systems (especially gas stoves and ovens), either when a city ordinance is passed, or when the home or business is sold or rented to a new resident. Likewise, I don't feel that restaurants should be required to switch from gas stoves and ovens to electric.
82	Elect. not always available - outages, etc.
83	PGE is not reliable. Costs increasing. Power demands result in brownouts now. Just imagine when everything is switched over and we have all electric cars and charging stations also. I have no faith that PGE can be run responsibly and do not want to tie myself to a company supplying electricity that has proven to have a damaged track record. In an earthquake when power is knocked out at least with my gas stove I can heat food and water. Fires also.
84	Like it or not we all will be going electric in the coming years; good that you thought have the survey.
85	PGE is expensive and has many outages, most from negligence in tree care
86	Electrification is not possible without extensive upgrades to existing electrical systems. It leaves the community vulnerable in times of disasters and power outages. A prudent approach should include a mix of both electric and natural gas options.
87	Electric is environmentally garbage.....F#!# electric
88	Can we do this street by street with vigorous outreach
89	remove smart water meters
90	This movement toward conversion needs much better financial incentives from Sacramento-the CPUC & Governor-and the utilities going forward. The incentives, for say, solar, are instead being thwarted by these bodies. The little guys are between what is the right thing to do for the climate and what is too expensive for their income level in this economic 'climate'.
91	Yes, this idea is ludacris! There is nothing wrong with natural gas! There is not enough electrical resources in CA to sustain such a plan! This is just another "pipe" dream of the liberals in this town, county & state! Stop thinking and governing in a "fantasy" world and start dealing with reality!
92	Modeling efforts should consider the production demands required for large scale electrification. Increased demand from both home and vehicle electrification, may result in electricity demand surpassing localized production, thus removing the ability for regulators to maintain control of the market price.
93	Yeah, it's a bad idea. We're already experiencing brownouts in the summer, so why the heck would we want to add additional burdens to our electrical grid? A grid that's still consuming fossil fuels, just like if we keep using gas. Electric is a pipe dream and a MASSIVE corporate tax giveaway, until we've actually eliminated fossil and nuclear fuels from its production. Let's work on that first, and when we've done that, AND we can produce more than enough power to cover all these conversions, PLUS all the electric vehicles being forced on us. Otherwise, we're all gonna have a real bad time.
94	I live in a 1964 mobile home. I'm not sure that it would be possible to install a heat-A/C pump here. Definitely can't do solar because of the flat roof.

95	Please don't force everyone to go electric through means of law or financial necessity. It is a financial and logistical burden for people to make this switch. Please make significant financial incentives available if you want people to switch to electric. And there needs to be a clear plan in place to ensure that people who switch to electric can have power during outages
96	You all rock! My house is now 100% electric and produces more power than I use.
97	The cost of electrification is very high and unless the electricity is from a renewable source it is not worth it. It would be much better to use public funds for more wind or solar electric than on electrification with the possible exception of heat pumps. Heat pumps are more efficient than gas furnaces but not resistive heating. Are resistive heating systems still being installed? If nuclear is part of the energy mix, then electrification is contributing to a disaster.
98	PG&E is too unreliable and expensive.....both !
99	Glad the city is doing this!
100	I hope these changes will not be mandatory.
101	I hate cooking with electric!
102	F#!% electric cars and stoves No...againNo
103	Txs!
104	During power outages, if I have electric water heat and a heat pump, they won't work.
105	I do like my gas wall heater as it works when we loose electrical power.
106	<p>We are a middle income family of four. Please don't make it any more expensive to live in Sebastopol than it always is. We don't qualify for most programs because we make "too much money." Yet costs are real and it's only gotten more expensive to live here in town. Rather than broad "everyone must do this" focus money and attention on the lower income folks and buy their upgrades for them. This will hit two goals of social engineering to support those of lower income and reduce energy usage. But- what happens when the power goes out? Is a real question. Not sure the public is ready for cold showers and freezing cold winter nights sans gas and wood stoves. Bring back woodstoves! This can help heat when the power is out.</p> <p>Also bring a shared micro mobility - electric scooter and e-bikes program to Sebastopol. Get people out of their cars and use the new bike lanes in town.</p>
107	Since moving here I've been very surprised at the number of power failures especially during the winter. I think the county should straighten all of that out before forcing people to go Electric. There are probably areas where underground lines are in order. And most likely many other issues that could be rectified if the power company cared, or if municipalities insisted on enforcing safety and reliability issues. Of course, PG&E once more people to have more Electric. However what is the source of their power? Most of the country is still electric powered by coal. This is not green. If solar power systems were subsidized to a greater degree, then going electric would make all the sense in the world. At this point, getting solar power and battery power to store the solar power, is extremely expensive and takes a long time due to all the permits needed.
108	let us keep gas ranges and ovens
109	Thank you for doing this. We are highly motivated to get a heat pump and possibly to replace our gas stove, gas water heater, and gas furnace.
110	Public agencies should not push electrification without / unless the electric supply is **reliable** . In the event of a power outage, we would lose lights, water (pump for the well), home heating, cooking, communications, etc. I am reluctant to give up my gas stove and water heater without a **dependable** electric supply.
111	You need to stop trying to take things away!
112	I may move within 2 years, can't afford new stuff

113	Like other current bandwagon electrical uses, the health and environmental effects of these appliances and batteries have not be seriously or deeply researched. We humans often jump on things without looking wisely ahead.
114	Because of several power outages each winter I would be reluctant to give up my gas stove top
115	I'm looking forward to doing the right thing
116	too expensive an ost older homes will not be able to handle these proposed changes
117	I've done some changes (heat pump for some heating/cooling where already had ducting) but concerns about power outages for some equipment. Also, there are areas i don't have ducting and have radiant floor - concern about electric hot water heater and electric costs.
118	I think forcing homeowners who are on fixed incomes to pay for this is unacceptable. I am in support of electrification ONLY for new construction
119	I live on a fixed income. When the power goes out I have the wall heater to keep warm. My power panel will need to be upgraded to serve an electric stove or heater. I need to save money to live here.
120	This is the complete opposite of supporting local businesses, more and "new and improved" are marketing slogans. They are effectively keeping people in debt.
121	I'm surprised at the lack of mention of electric cars. Perhaps the city could work with pge to put ev chargers on street utility polls
122	Remember Texas a couple years ago. Stop 5G and beyond, learn about where this agenda is going. Wake up.
123	Info on heat pumps for heating and air conditioning for small houses
124	Government fails to understand the personal cost hardship coupled with the loss of use in a power outage of an "all electric home"...unless you have full solar with battery back-up systems...having natural gas appliances have helped us endure extended power outages by being able to still turn on a fireplace for heat, have hot water to shower and to cook a meal on the range top...without Nat Gas we would have to had found shelter elsewhere at an extreme costs including our domestic pets...please say no and just allow this to be an option for anyone who chooses it....
125	I appreciate this survey & the movement to reduce gas pollution!!!
126	Thank you for this effort!
127	I do not think this initiative has been thought through, because it is extremely costly, and will put people in jeopardy of not having access to heat and electricity as our power grids are maxed out as it is. This will be a hardship on the elderly especially, not to mention all the disposal of the gas appliances that still function.
128	We have made the "easy" switches from gas to electric: clothing dryer, stove, etc. and are interested in converting the water heater and furnace to electric/heat pump, but the cost is so much greater and we haven't found contractors able to help us navigate the options for retrofitting a multi-story, multi-bath home designed for a large family.
129	Electric won't be useful when the grid cannot handle the load
130	The electrification conversion meeting at the Grange was great!!!!
131	PGE does not have a reliable distribution network. I can heat food with gas when the power is out
132	I'm all for electrification! It's too expensive to do everything at once and with winter storms and potential PSPS outages it's no fun to lose everything when the power goes out. NEMS 3.0 is making the switch to solar much harder to afford. Free solar car chargers in the city would be excellent as well as micro grids. Offering UPS systems could help people feel more comfortable without a home battery. I have solar, a home battery, an EV, a plug in hybrid and an electric hot water heater. I will do a heat pump and induction range in the future. The more financial incentives people can get the more will switch. Thank you for your efforts!

133	I firmly believe that the number one priority is to get a more reliable electric grid before we place additional burdens on that grid.
134	I would like information but may not have time to follow through very soon
135	Thanks for all the good support toward climate responsibility
136	Leave to individuals. Egregious over reach of government
137	make the law voluntary...not mandatory. This is America with free choice
138	it is unfair to make residents spend money, especially retired residents on limited incomes, by forcing them to make unreasonable changes to appliances that were legally installed. It is unfair and probably illegal to enforce new regulations in a retrospective manner. Building codes can be changed for new construction, but not for existing structures. I am also concerned that PG&E does not have the capacity to provide enough electricity to meet such demands in the future.
139	I electrified most of my home 20 years ago including electric heat pumps, and solar... but some of the items now need replacing or expanding. The only gas I have is my stove and I would consider moving to induction if I can get it financed.
140	Thank you
141	Buying the appliances is one thing. The bigger issue to me is the cost to upgrade our electrical box to handle the increase in load and need for more 220 connections.
142	We just completed installing two heat pumps, doing our own permitted work. At this time I do not want to change to electric stove as I don't like them and we have too many power outages. We are keeping our gas "woodstoves" as backups for power outages.
143	This is a no brainer-fossil fuel are driving the disaster we call climate change; the main thrust should be to regulate/control/ gradually sideline the carbon companies while the 2nd thrust is one of personal responsibility ie carbon foot print. simple!? transition from carbon to solar/wind etc. and let the fossil fuel companies (if they can) find some way to support the transition.
144	I had our gas furnace replaced with an all electric system . The PGE electric bills are killing me. I am not a happy camper.
145	It would be great to have a page on the city/county/state website to show the incentive programs available for green building.
146	issues with permits.
147	I'm for it. I just don't like replacing appliances that are still working well
148	There was a excellent presentation on house electrification at the Sebastopol Grange recently. Tor Allen of Rahun has a video copy of the presentation at rahun.org/electrify your home/
149	If we all drank one less bottle of plastic bottled water a year bigger impact on the climate than a gas stove replacement.
150	Put the power lines under ground
151	With power loss we are not able to function! We are elderly , and have felt evacuation very to be very negative ! We believe in the earth saving policies, but!
152	The government should stop trying to control our lives to destroy our power sources
153	more education, perhaps fliers at the library
154	There is not sufficient infrastructure to electrify

155	With power outages we depend on our gas range and our gas fireplace. We are not interested in switching.
156	These programs are idiotic, a waste of taxpayer dollars, and the climate crisis is all based on pseudoscience. California doesn't even have the power grid to support these ludicrous programs and btw...if we don't have carbon in the atmosphere, we cannot sustain life. Below 2% and living beings begin to die. Go get a mental health check. Stop living in fear.
157	I have concerns about the waste created by throwing out the gas appliances just to make room for electric.
158	The program needs to make affordable provisions for all property owners to have a power wall installed in each property. Feeding into the grid system has proved unreliable during outages. In addition, PGE has been irresponsible causing major disaster fires in the entire North Counties area and raising their rates to pay for their negligence and mistakes. That is not acceptable under any logical situation. Each home needs to be independent from this large conglomerate and be able to receive financial assistance from governing agencies to achieve the goal of true climate protection in the long run by installing this private generator of clean energy. Thank you.
159	The state is just not prepared for this type of move, pge has taken profit before keeping up on repairs and upgrades. The power grid just can't provide for California needs as evidenced in power outages.
160	We added a 9,000 BTUH mini split heat pump a couple years ago and are happy with it. It takes about 2/3 of the winter heating load, with the gas furnace running only in the early morning. The heating cost is about the same as before. We are upgrading our detached garage to an ADU, which will be all electric.
161	In 2019 fire evacuation, electricity was out for days. I was glad I could still be warm and cook, with gas. Ideally, I support going all electric
162	I would love to be able to act on what I've learned!
163	lived in Crestone CO and we got completely off the PG&E equivalent Duke Energy but having community solar. Why not here?
164	Building community around electrification is super important! Thanks for doing this.
165	THANK YOU TONSSSSSSSSSSSS FOR YOUR EFFORTS
166	It's just so expensive to upgrade, for anyone without a bunch of extra disposable income.
167	Electric stoves waste electricity heating up, cooling down and are too expensive. Hard to control the heat. Heat pumps are more expensive, can leak and are inefficient for older, not well insulated homes. Power outages happen. Then what? NO HEAT? CAN'T COOK? On fixed income- can barely afford bills already.
168	This is not a true survey. Mostly educational and biased.
169	Among other things, it concerns me that electrification is considered an environmentally friendly option considering that Sonoma County gets 11 per cent of its power from "biofuel" (according to Sonoma Clean Power). That means ripping up forests and burning trees--hardly harmless.
170	We are installing solar next month. We already changed our hot water heater to heat pump. Furnace/AC is expensive even with rebates. We love induction cooking but it's also expensive to switch our gas range.
171	I live in a 4 unit apartment rental complex. Unless owners understand and care about climate change, they have no motivation to make changes and spend money without new regulations and/or incentives.
172	doesn't this town have bigger issues to consider??