

From: [Mark Roest](#)
To: info@planbayarea.org
Subject: Fwd: Collating my comments from Saturday, and some other people's
Date: Monday, July 27, 2020 7:30:40 PM
Attachments: [20-7-17_Collate my comments! MTC-ABAG Workshop \(Marin\).docx](#)

External Email

Replacing the lost copy.

----- Forwarded message -----

From: Mark Roest [REDACTED] >
Date: Mon, Jul 20, 2020 at 7:24 PM
Subject: Collating my comments from Saturday, and some other people's
To: <info@planbayarea.org>

Hello Plan Bay Area,

I went through my notes in the Q&A from Saturday, cleaning it up to a thread. I left a few comments I support from other people in the thread edit. I am attaching that as a Word document. I put the wrong date on the attachment, but it is for July 18.

Here is a more structured statement of our technology development network, starting with our own technologies.

We are a ceramic semiconductor technology development and manufacturing company; our goals are to end fossil fuels by 2030, and to fulfill Bucky Fuller's mandate of prosperity for all, without insult to nature.

Our founder, CTO and inventor William Todorof invented a 22.5% efficient multijunction, ceramic semiconductor thin film in 1982, He invented and patented the first modern gearless wind turbine, sized for 50 to 185 kW power generation, in 2007. He has been focused on creating a non-lithium battery since 2012.

We will develop, manufacture and market non-lithium, multi-crystalline ceramic semiconductor batteries (2,000 Wh/kg near term at cell level), selling for \$100 per kilowatt-hour; 300 to 700 million kWh (300-700 GWh) annual production per factory. We will make ceramic semiconductor solar thin film (now 36-48% efficiency) to provide electricity & charge batteries globally, in mid-size factories which unions could jointly own with us.

I also advise and represent a network of design and structural pioneers, including:

1. Ron Powers, founder of Powers Design International and of the entire advanced vehicle design consulting industry in Southern California, who has built everything from aircraft to boats to a high speed rail locomotive to 1/4-scale coaches for a working model of an elevated, bidirectional Group Rapid Transit system to trucks, buses, motor homes, cars, and motorcycles (including an ultralight-weight crossover SUV for developing nations), and is designing a line of advanced manufactured homes, from tiny home to

mansion. After designing the vehicles, he ordered the tooling and jigs & fixtures, and set up the factories as part of the project, when it was not a one-off design.

2. Asante', the North American distributor for the best and most widely used Ultra-High-Performance-Concrete (UHPC), testing basalt fiber reinforcement and designing methods of 3D printing structures with it. UHPC can form the bearing surface for cargo vehicles and aircraft, as well as replacing regular concrete and asphalt in pavements and buildings.

3. The family of the inventor of the ultimate high-strength, light-weight geometry, the Bosch Captive Column <www.CaptiveColumn.com>, which can be made with balsa wood and fiberglass or fiberglass core, graphite pultrusion columns and aramid fiber skin.

Ultimately, all of which I have written are parts of the larger solution to the global warming crisis, and all of them can scale to mass production within a year after products are fully-designed. The battery and the individual material substitutions will be made in specially-modified ceramic tile factories. The solar thin film will be printed with high-speed digital presses such as are used for fashion magazines and currency. The Bosch Captive Column can be mass-customized in volume production. All of the products and materials have highly disruptive performance-to-cost ratios. We can use the profits first to finance purchases and add factories, and then to fund the transition to the new economy. I would like to discuss the possibilities with you.

Regards,

Mark Roest
Director of Marketing & International Development
Sustainable Energy Inc.



20-7-18_Collate my comments! MTC-ABAG Workshop (Marin)

Anthony 10:08 AM

Good morning! Since we're working on the future of Marin County, I'd like to ask this pressing question: what interventions can Marin County do so that it can finally get more rail and transit services? I'd love to leave a legacy of BART to the North Bay, especially we have been short changed from the rest of the region due to our historically suburban stance. Oh, and I'd like to see potentially SMART service south of Larkspur that will use old rights-of-way too.

kevin carroll 10:35 AM

Here in Marin we are an aging population. Many, like me are dependent (or will be) on Social Security. I live in one of the 20% of mobile home parks in Marin (Larkspur) that are not covered with rent protections. Many seniors in Larkspur (48%?) live in totally unregulated rental housing. This year my rent is going up \$ 75.00 per month, my Social Security benefit went up \$ 20.00.

You 10:43 AM

I recommend elevated, ultralight-weight, bidirectional, automated Group Rapid Transit, which can be suspended from the Golden Gate Bridge, and can form a network throughout Marin and surrounding counties, at far lower cost than with conventional construction techniques. The coaches may be made with phenolic honeycomb; a 30-passenger self-powered coach would weigh 10,000 pounds with all the trimmings. A solar canopy provides the electricity at 36% to 48% efficiency, as an update of the 22.%% efficiency solar thin film PV our CTO patented in 1983 and 1984. The guideway is built in a factory and installed by mobile crane; it is Bosch Captive Column structural geometry, and Ultra-High-Strength-Concrete (UHPC) structural material, reinforced with basalt fiber. These breakthroughs make it disruptively low in cost.

MTC/ABAG Staff: Adam Noelting 10:48 AM

This is an intriguing idea. I'll note that there is a growing interest in identifying lower cost solutions. Planners in San Jose are looking at the viability of new transit technologies and construction technologies to reduce the cost of traditional methods. The planners at MTC/ABAG are very interested in their findings.

Anonymous Attendee 10:44 AM

You identify plans for growth, but for the past 10 years the CA growth rate has declined. Last year, more than 200,000 residents left. We're losing at least one congressional seat - so what is the basis of your growth projections? And how do you explain the assumption of providing one new home per job?

Me:

Our coming 2 kWh/kg (2,000 Wh/kg) battery, at \$100/kWh or less wholesale will provide power at initial price parity for full battery-electric transportation, with greater range than today's BEVs.

In your beginning overview, you mentioned increasing wages in the category of economy. How will Plan Bay Area 2050 increase wages?

Me:

This will be disruptive of ICE vehicles, faster than currently predicted based on incremental improvements to lithium batteries. Our battery is non-lithium, and not subject to its limitations.

There is a high likelihood of sea level rise greater than 2 feet. The same construction used for the Group Rapid Transit we recommend is able to raise highways, turning them into viaducts, at less cost than relocating them. Buildings can be dike-protected, or raised, using the same construction.

Kate Powers 10:50 AM

Pre-Covid, SMART was expensive and had low ridership and had relatively low frequency of stops compared to other transit in Bay Area. As a diesel train it also did not meet GHG reduction goals. Some rail stations (Civic Center for one) are highly underutilized. If housing near jobs is a goal, how are GHG goals in PBA 2050 met if housing increases by 2% in Marin but jobs decrease and transit will not be able to efficiently and cost effectively accommodate Plan's population growth?

Me:

I realize these points are not likely to be addressed in the workshops, but they are based on existing technologies, and I would like to address them with staff. MarkLRoest@gmail.com, 650-888-3665.

Another job-creation strategy is to augment the small business incubator program with a systemic approach to making the entire economy far more sustainable. This can be fostered with Maker Spaces at the high school level as well as the planned rollout across the Community College system. We plan to seed such a system with advanced technologies for use, and with information systems for grass-roots-based planning for what can be changed at a detailed level, in order to identify strong startup opportunities.

We have two designers working on lines of manufactured housing with the technologies mentioned above, from a single tiny home to large homes. They will be significantly less expensive, yet have some high-end amenities and advanced systems.

We should definitely adapt the land trust model, and design walkable, bikeable neighborhoods with all daily-use resources within 15 minutes.

We should also tax financial hedge funds and other methods for keeping high wealth out of the tax system.

The elevated Group Rapid Transit (GRT) network goes above stoplights and stop signs, so it does not stop at intersections as buses must. We can also build bicycle lanes above it, and pedestrian and miscellaneous mobility devices above them, and top it off with a solar canopy to power the GRT system and export surplus to neighboring smart micro-grids.

This provides a highly attractive option to moving through congestion at grade, enough to actually relieve congestion. Part of the attractiveness, besides speed (an electric bicycle or athlete could cross SF diagonally in 10 to 20 minutes), is that you are above most buildings, looking out at the tree canopy and at the surrounding hills, which is a joy.

The GRT can be run above the freeways and arterials.

I designed airspace construction above BART for the San Jose / AARP BART charrette. It can have openings in the side for GRT 'ribs' to come in and link up with BART or the GRT that could provide stops between BART stations.

It's part of a whole systems approach to a multimodal transportation system.

You should talk with the Valley to Valley initiative from Governor Newsom and the High Speed Rail Authority. We can run GRT into the bay area from multiple directions.

Also, you mention a new Bay crossing. I've studied the Dumbarton Rail Bridge, which is in shallow water. I would rebuild the bridge with the construction methods listed above, including the heavy rail that was in use previously. I would build a column system between the tracks, and do the stacked GRT, bicycles, pedestrian and misc. mobility device lanes, with solar canopy above. I would extend that along the Dumbarton Corridor to meet the rail system near El Camino Real.

Regarding Valley to Valley, the idea is to get manufacturers to expand into the Central Valley rather than adding jobs here. That way lots of people don't have to commute. The GRT links to the 5 bay counties and across the bay get most of those who still do out of their cars, so the rest are not stuck in traffic.

Regarding ferries, I have designs for multi-hull ferries in which the hulls are triangular cross-section Bosch Captive Columns with hydrodynamic fairings. The cross-pieces are square cross-section Bosch Captive Columns. The decks are Flash-Core honeycomb or phenolic honeycomb. Power comes from our solar PV thin film and Bosch Captive Column mast and spar sail systems. When energy available is greater than hull speed, the excess is drawn off by using propellers to drive motors as generators, and stored in our batteries.

Talk with the Valley to Valley program! I can give you more in-depth strategies, so you can prepare to talk with them with leverage and knowledge of what you want to ask by way of accommodations for your needs.

kevin carroll 11:36 AM

Any city council members? City planning directors

MTC/ABAG Staff: Ursula Vogler 11:37 AM

On our panel, we have Marin Supervisor Damon Connolly and Novato Mayor Pro Tem Pat Eklund.

We used to have a very large ferry system.

Especially before the bridges went up.

Our ally Ron Powers, of Powers Design International, can design very advanced ferries using a combination of his and our construction methods.

Anthony 11:44 AM

On the Transportation Improvement Plan, will there be an opportunity to accelerate the reconstruction of the Richmond Bridge? Not only I'd love to see it survive another earthquake, but I also want to see a rail connector using that bridge between Marin and Contra Costa Counties.

Me:

They will be especially low-cost if we build a lot of them -- economies of scale.

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We can get fossil fuels out of transportation by 2030 with the cost and performance of our batteries (both in-vehicle and stationary at charging locations) and solar thin film PV to provide the electricity for charging -- and for the buildings associated with the vehicles.

We can expand production rapidly once we are funded for a factory: each plant produces 300 to 600 million kilowatt-hours per year, for around half a billion dollars capex, and they are fast to put in once the building is done.

That's batteries.

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This question has been answered live

Anonymous Attendee 10:25 AM

there no's sound w/the video

This question has been answered live

MTC/ABAG Staff: Jules Teglovic 10:26 AM

Hi, is anyone else having trouble? I can hear personally

Host: Leslie Lara-Enríquez 10:26 AM

You can access the video here: <https://mtc.ca.gov/whats-happening/news/video-gallery/crafting-blueprint-bay-areas-future>.

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Here in Marin we are an aging population. Many, like me are dependent (or will be) on Social Security. I live in one of the 20% of mobile home parks in Marin (Larkspur) that are not covered with rent protections. Many seniors in Larkspur (48%?) live in totally unregulated rental housing. This year my rent is going up \$ 75.00 per month, my Social Security benefit went up \$ 20.00.

How is this sustainable?

This question has been answered live

MTC/ABAG Staff: Adam Noelting 10:37 AM

Kevin, great question! We will respond during the Q/A portion of this morning's meeting.

Kate Powers 10:39 AM

How will low lying areas of San Rafael specifically be protected from SLR by the Plan?

This question has been answered live

Anonymous Attendee 10:39 AM

Have you collected data on the reduction of GHG emissions between March-July?

MTC/ABAG Staff: Adam Noelting would like to answer this question live.

MTC/ABAG Staff: Karin Betts 10:48 AM

Thank you for this question.

Anonymous Attendee 10:40 AM

Is 19% GHG reduction a goal of Plan Bay Area 2050 or a state mandate?

MTC/ABAG Staff: Adam Noelting would like to answer this question live.

MTC/ABAG Staff: Karin Betts 10:47 AM

Thank you for your question.

You 10:43 AM

I recommend elevated, ultralight-weight, bidirectional, automated Group Rapid Transit, which can be suspended from the Golden Gate Bridge, and can form a network throughout Marin and surrounding counties, at far lower cost than with conventional construction techniques. The coaches may be made with phenolic honeycomb; a 30-passenger self-powered coach would weigh 10,000 pounds with all the trimmings. A solar canopy provides the electricity at 36% to 48% efficiency, as an update of the 22.%% efficiency solar thin film PV our CTO patented in 1983 and 1984. The guideway is built in a factory and installed by mobile crane; it is Bosch Captive Column structural geometry, and Ultra-High-Strength-Concrete (UHPC) structural material, reinforced with basalt fiber. These breakthroughs make it disruptively low in cost.

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This question has been answered live

You 10:45 AM

Our coming 2 kWh/kg (2,000 Wh/kg) battery, at \$100/kWh or less wholesale will provide power at initial price parity for full battery-electric transportation, with greater range than today's BEVs.

MTC/ABAG Staff: Jules Teglovic 10:54 AM

Thanks Mark, we're noting all your comments and will follow up with you.

Lindsey Huebner 10:45 AM

Is future wildfire risk in the region (especially Marin) and smoke harm addressed?

MTC/ABAG Staff: Adam Noelting would like to answer this question live.

MTC/ABAG Staff: Karin Betts 10:50 AM

Thank you for the question, Lindsey.

Anonymous Attendee 10:46 AM

In your beginning overview, you mentioned increasing wages in the category of economy. How will Plan Bay Area 2050 increase wages?

This question has been answered live

You 10:46 AM

This will be disruptive of ICE vehicles, faster than currently predicted based on incremental improvements to lithium batteries. Our battery is non-lithium, and not subject to its limitations.

This question has been answered live

You 10:46 AM

(faster)

Anonymous Attendee 10:47 AM

To get to meaningful equity requires capacity to acquire assets. What's being done to support home ownership?

MTC/ABAG Staff: Adam Noelting would like to answer this question live.

MTC/ABAG Staff: Karin Betts 10:53 AM

Great question. Thank you for introducing it into the conversation.

You 10:49 AM

There is a high likelihood of sea level rise greater than 2 feet. The same construction used for the Group Rapid Transit we recommend is able to raise highways, turning them into viaducts, at less cost than relocating them. Buildings can be dike-protected, or raised, using the same construction.

This question has been answered live

MTC/ABAG Staff: Jules Teglovic 10:57 AM

Thanks Mark! Noting all of this.

Kate Powers 10:50 AM

Pre-Covid, SMART was expensive and had low ridership and had relatively low frequency of stops compared to other transit in Bay Area. As a diesel train it also did not meet GHG reduction goals. Some rail stations (Civic Center for one) are highly underutilized. If housing near jobs is a goal, how are GHG goals in PBA 2050 met if housing increases by 2% in Marin but jobs decrease and transit will not be able to efficiently and cost effectively accommodate Plan's population growth?

MTC/ABAG Staff: Adam Noelting would like to answer this question live.

MTC/ABAG Staff: Karin Betts 10:56 AM

Thank you for the question, Kate.

You 10:51 AM

I realize these points are not likely to be addressed in the workshops, but they are based on existing technologies, and I would like to address them with staff. MarkLRoest@gmail.com, 650-888-3665.

MTC/ABAG Staff: Ursula Vogler 10:52 AM

Ok, I will read your comments

Lindsey Huebner 10:54 AM

How does the plan address K-12 education equity given differences in localities?

This question has been answered live

You 10:55 AM

Another job-creation strategy is to augment the small business incubator program with a systemic approach to making the entire economy far more sustainable. This can be fostered with Maker Spaces at

the high school level as well as the planned rollout across the Community College system. We plan to seed such a system with advanced technologies for use, and with information systems for grass-roots-based planning for what can be changed at a detailed level, in order to identify strong startup opportunities.

This question has been answered live

MTC/ABAG Staff: Adam Noelting 10:58 AM

Thanks for the suggestion. The polling portion will provide additional opportunities for you to submit more of your ideas!

You 11:01 AM

We have two designers working on lines of manufactured housing with the technologies mentioned above, from a single tiny home to large homes. They will be significantly less expensive, yet have some high-end amenities and advanced systems.

MTC/ABAG Staff: Adam Noelting 11:04 AM

I recommend submitting these ideas into the polling. We are also recording these comments too.

You 11:03 AM

We should definitely adapt the land trust model, and design walkable, bikeable neighborhoods with all daily-use resources within 15 minutes.

This question has been answered live

You 11:04 AM

We should also tax financial hedge funds and other methods for keeping high wealth out of the tax system.

This question has been answered live

You 11:05 AM

I'm unable to use the polling the way it's presented. I tried to do it on phone and got blocked by a demand for a password.

MTC/ABAG Staff: Adam Noelting 11:06 AM

Understood. Be assured that we are recording these comments and they will be shared with the group too.

Staff: Alia Al-Sharif 11:08 AM

Hi Mark! Can you please share what number you are texting and also what you are texting to the number? You send a message to phone number: 22333

The message you send to this number is MTCABAG302

Please try that and let me know if it doesn't work for you.

You 11:06 AM

I prefer this format, to introduce proposals that I want to discuss in depth with staff.

MTC/ABAG Staff: Adam Noelting 11:07 AM

We will also reach out to you based on the contact info you provided to discuss in more detail

You 11:09 AM

The elevated Group Rapid Transit (GRT) network goes above stoplights and stop signs, so it does not stop at intersections as buses must. We can also build bicycle lanes above it, and pedestrian and miscellaneous mobility devices above them, and top it off with a solar canopy to power the GRT system and export surplus to neighboring smart micro-grids.

This question has been answered live

You 11:11 AM

This provides a highly attractive option to moving through congestion at grade, enough to actually relieve congestion. Part of the attractiveness, besides speed (an electric bicycle or athlete could cross SF diagonally in 10 to 20 minutes).

This question has been answered live

You 11:12 AM

is that you are above most buildings, looking out at the tree canopy and at the surrounding hills, which is a joy.

You 11:13 AM

The GRT can be run above the freeways and arterials.

You 11:14 AM

Cool!

You 11:16 AM

I designed airspace construction above BART for the San Jose / AARP BART charrette. It can have openings in the side for GRT 'ribs' to come in and link up with BART or the GRT that could provide stops between BART stations.

You 11:17 AM

It's part of a whole systems approach to a multimodal transportation system.

MTC/ABAG Staff: Ursula Vogler 11:18 AM

Thank you, Mark. I will consolidate your comments above and read them during next Q&A.

You 11:18 AM

You should talk with the Valley to Valley initiative from Governor Newsom and the High Speed Rail Authority. We can run GRT into the bay area from multiple directions.

You 11:22 AM

Also, you mention a new Bay crossing. I've studied the Dumbarton Rail Bridge, which is in shallow water. I would rebuild the bridge with the construction methods listed above, including the heavy rail that was in use previously. I would build a column system between the tracks, and do the stacked GRT, bicycles, pedestrian and misc. mobility device lanes, with solar canopy above. I would extend that along the Dumbarton Corridor to meet the rail system near El Camino Real.

This question has been answered live

You 11:23 AM

Hi Alia, I tried texting and got an invalid number signal on my phone.

MTC/ABAG Staff: Ursula Vogler 11:24 AM

Did you type mtcabag302 to the number 22333?

You 11:24 AM

I can touch type, so it is much faster on the keyboard, and as you can see I have a lot of points to make in a short time.

You 11:25 AM

I actually tried to do it by phone instead of text. It crosses my wires; I don't function well that way. This is what I can manage productively.

MTC/ABAG Staff: Karin Betts 11:26 AM

We're collecting all comments, both in Q&A and via the presentation.

kevin carroll 11:27 AM

How many members of the public, not staff, politicians, consultants, participating today?

MTC/ABAG Staff: Jules Teglovic 11:29 AM

It looks like we have 18 participants from the public tuning in now.

You 11:28 AM

Regarding Valley to Valley, the idea is to get manufacturers to expand into the Central Valley rather than adding jobs here. That way lots of people don't have to commute. The GRT links to the 5 bay counties and across the bay get most of those who still do out of their cars, so the rest are not stuck in traffic.

This question has been answered live

You 11:32 AM

Regarding ferries, I have designs for multi-hull ferries in which the hulls are triangular cross-section Bosch Captive Columns with hydrodynamic fairings. The cross-pieces are square cross-section Bosch Captive Columns. The decks are Flash-Core honeycomb or phenolic honeycomb. Power comes from our solar PV thin film and Bosch Captive Column mast and spar sail systems. When energy available is greater than hull speed, the excess is drawn off by using propellers to drive motors as generators, and stored in our batteries.

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kevin carroll 11:36 AM

Any city council members? City planning directors

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On our panel, we have Marin Supervisor Damon Connolly and Novato Mayor Pro Tem Pat Eklund.

You 11:37 AM

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You 11:37 AM

Especially before the bridges went up.

You 11:38 AM

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You 11:46 AM

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You 11:47 AM

For the Richmond Bridge, we can do GRT for a fraction of the cost and weight of a conventional rail system. Weight is a major issue for old bridges.

This question has been answered live

Anonymous Attendee 11:47 AM

If tolling is initiated on many freeways whether it is demand-based or need-based how will the fee structure be determined and will it co-ordinate with reductions other highway taxes?

MTC/ABAG Staff: Adam Noelting would like to answer this question live.

Kate Powers 11:48 AM

Does TIP funding of projects require reduction of GHG emissions?

MTC/ABAG Staff: Adam Noelting would like to answer this question live.

Lindsey Huebner 11:49 AM

We need much more County-wide authority in housing, police, fire, and k-12 schools. Too much duplication and lack of equity.

MTC/ABAG Staff: Ursula Vogler would like to answer this question live.

Lindsey Huebner 11:50 AM

Make public transit free for low income folks

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That's batteries.

<https://www.planbayarea.org/2050-plan/plan-bay-area-2050-blueprint>

Plan Bay Area 2050 Blueprint

Creating the Blueprint is the first step toward developing Plan Bay Area 2050. [Watch the video to learn more about the Blueprint\(link is external\)](#).

[scott-szarapka-8lQ252pO1xM-unsplash resized.jpg](#)



Transamerica Pyramid, San Francisco.

Credit

Unsplash

Wednesday, March 11, 2020

Update

What is the Blueprint?

The Draft Blueprint ("the Blueprint") is the "first draft" of Plan Bay Area 2050, integrating 25 resilient and equitable strategies from the predecessor [Horizon initiative](#). The Blueprint is a critical step in the Plan Bay Area 2050 process as the region strives to advance towards the adopted Vision of a more affordable, connected, diverse, healthy and vibrant Bay Area for all.

We Need Your Input

Public input is key in the success of the Plan Bay Area 2050 Blueprint, and we want to hear from you! Review the [Blueprint Strategies](#) PDF, [Blueprint Outcomes](#) PDF, and [animated video\(link is external\)](#) and provide [Public Comment](#) from July 10, 2020 through August 10, 2020.

From *Horizon* to the Blueprint to the Plan

Before now, the Horizon Initiative tested strategies against a wide range of external forces, exploring which policies and investments were best prepared for an uncertain future – from rising telecommute levels to economic boom & bust cycles to consumer preference shifts. Creating the Blueprint is a key first step toward creating the Plan itself, and thus the Blueprint

planning phase will require iteration and deep engagement of the public, stakeholders and elected officials.

The Plan Bay Area 2050 Draft Blueprint weaves together transportation, housing, economic and environmental strategies, alongside an expanded set of growth geographies, to advance critical climate and equity goals. Designed to accommodate the 1.5 million new homes necessary to house future growth and address overcrowding, as well as 1.4 million new jobs, the Draft Blueprint integrates critical strategies to address our severe and longstanding housing crisis. With infrastructure investments in walking, biking and public transportation – as well as critical sea level protections designed to keep most Bay Area communities from flooding through 2050 – the Draft Blueprint makes meaningful steps towards the adopted Plan Bay Area 2050 Vision.

While still remaining fiscally constrained per federal planning requirements, the Draft Blueprint includes available revenues from Needs and Revenue assessments as well as new regional revenues for transportation, housing, economic development and environmental resilience.

Highlights of the Draft Blueprint include:

- **Improving Affordability for All:** The Draft Blueprint reduces the cost burden for housing and transportation, with even greater reductions for low-income residents.
 - **Expanding Housing Opportunities:** The Draft Blueprint integrates investments to build more than 400,000 new permanently-affordable homes.
 - **Focusing Growth in Walkable Places:** The Draft Blueprint focuses the majority of new homes and new jobs in walkable communities with frequent transit services.
 - **Saving Lives and Protecting Communities:** In addition to saving more than 1,500 lives from roadway crashes through 2050, the Draft Blueprint also protects 98 percent of housing units at risk of sea level rise inundation through the year 2050 with new resilient infrastructure.
 - **Positioning the Region for Robust Economic Growth:** Despite over \$200 billion in new taxes in the decades ahead to pay for the bold strategies approved in February 2020, Bay Area businesses are forecasted to rebound robustly.
-
- [Five Key Challenges to Tackle](#)
 - [Questions: Blueprint Elements](#)
 - [Timeline](#)

The Draft Blueprint makes progress toward advancing the bold vision of Plan Bay Area 2050, though challenges remain. We need public input to prepare for an uncertain future and better address the following questions as we consider how to make the Blueprint even more resilient and equitable. Five key challenges, organized by the [five Guiding Principles of Plan Bay Area 2050](#), are highlighted below:

- **Challenge #1: Affordable Guiding Principle.** While the Draft Blueprint funds a considerable amount of deed-restricted affordable housing, hundreds of thousands of

existing low-income residents would still lack a permanently affordable place to live. What strategies could we modify or advance to further increase production of homes affordable to lower-income residents, most importantly in High-Resource Areas with well-resourced schools and convenient access to jobs?

- **Challenge #2: Connected Guiding Principle.** While the Draft Blueprint makes significant headway in improving access for drivers and transit riders compared to existing trends, traffic congestion and transit overcrowding remain significant challenges across the region. How can new or expanded strategies better address these key transportation issues?
- **Challenge #3: Diverse Guiding Principle.** While the Draft Blueprint focuses a sizable share of affordable housing in historically-exclusionary places in the Bay Area, displacement risk continues to rise, especially in Communities of Concern. How can new or expanded strategies reduce this risk of displacement so more residents can remain in place?
- **Challenge #4: Healthy Guiding Principle.** While the Draft Blueprint includes robust protections for agricultural lands and communities vulnerable to sea level rise, the biggest challenge remaining relates to mitigating greenhouse gas emissions (GHG). Given the magnitude of the gap between Draft Blueprint performance and the state-mandated target, what strategies could we modify or expand to close this GHG gap in an equitable and sustainable manner?
- **Challenge #5: Vibrant Guiding Principle.** While Bay Area businesses thrive in the Draft Blueprint, job growth remains relatively concentrated in traditional job centers such as Silicon Valley. Potentially impactful strategies such as office development caps were not included in the Draft Blueprint following discussion at the Commission/Board workshop in January 2020, and more modest strategies such as impact fees led to positive yet limited effects in shifting jobs to housing-rich communities, such as parts of Alameda County. What additional strategies could be considered to shift jobs closer to the region's existing workforce?

Related Documents

[July 2020 MTC Commission Memo: Draft Blueprint Key Findings](#) 15.91 MB

[Draft Blueprint: Strategies](#) 867.03 KB

[Draft Blueprint: Outcomes](#) 8.76 MB

[Regional Growth Forecast \(July 2020\)](#) 413.38 KB

About

- [What is Plan Bay Area 2050?](#)
- [Vision](#)
- [Timeline](#)
- [Frequently Asked Questions](#)

2050 Plan

- [Horizon](#)

- [The Road to Plan Bay Area 2050](#)
- [The Blueprint](#)
- [Plan Bay Area 2050](#)
- [Implementation Plan](#)

Main menu

Previous Plans

- [Plan Bay Area 2040 \(2017\)](#)
- [Plan Bay Area \(2013\)](#)

Meetings and Events

News

- [News Features](#)
- [News Releases](#)

Resources

- [Vital Signs](#)
- [Glossary](#)

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- [Mailing List](#)
- [Public Participation Plan](#)
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