

San Francisco Zero Emission Building Taskforce - Existing Commercial Buildings Work Group:

Meeting #2 Notes

Existing Commercial Buildings Work Group – Kick-Off Meeting

Wednesday, February 26, 2020 from 9:00am-12:00pm at 1455 Market Street, San Francisco

Hosted by: San Francisco Department of Environment Taskforce

Facilitated by: Michelle Vigen Ralston, Common Spark Consulting

Attendees

Those in attendance are listed below. Those grayed-out were absent.

Name	Organization	Representation
Johnathan Kocher	350 Bay Area	Environmental Advocate
Danielle Mieler	San Francisco Office of Resilience and Capital Planning	City Resilience Planning
Alex Spilger	Cushman Wakefield	Real Estate Services – Large Commercial
Lauren Riggs Burt	Google	Tenant & Ownership – Large Commercial
Amanda von Almen	Salesforce	Tenant & Ownership – Large Commercial
John Bozeman	Building Owners and Managers Association of San Francisco	Trade Association- Large Commercial
Zachary Brown	CBRE	Real Estate Services and Ownership Representation – Large Commercial
Tristam Coffin	Whole Foods	Commercial Tenant
Hannah Kaye	PG&E	Utility – Decarbonization Planning
Daniel Considine	Boone Energy	Building Efficiency Consultant
Jim Coyle	Equity Community Builders	Contractor/Developer
Barry Giles	The Net Zero Existing Buildings Company	Building Efficiency Consultant
Rami Moussa	Point Energy Innovations	Engineer
Ryan Tinus	Hudson Pacific Properties	Ownership – Large Commercial

Laura Ettenson	Natural Resources Defense Council	Environmental Advocate
Chris Cayten	CodeGreen	Engineer
Michael Hyams	CleanPowerSF	Municipal Utility/Load Serving Entity
Jim Kelsey	kW Engineering	Engineer
Tony Birdsey	Tishman Speyer	Ownership – Large Commercial
Bill Whitfield	Shorenstein Realty Services	Ownership – Large Commercial
Ted Tiffany	Guttman & Blaevoet	MEP Engineering, various TAGs
Sean Donnelly	TMG Partners	Ownership – Large Commercial

San Francisco Environment Staff in attendance included: Cyndy Comerford, Climate Program Manager; Barry Hooper, Green Building Specialist; Paris Smith, Green Building Energy Associate

Consultant Team: Lane Burt, Ember Strategies; Michelle Vigen Ralston and Jack Chang, Common Spark Consulting

Meeting Notes

1. Summary of Meeting 1

Barry Hooper, a Green Building Specialist with the City of San Francisco, began the meeting by summarizing what the city took away from the first Existing Buildings Work Group session:

- Time is of the essence to both give the industry time to phase natural gas out of existing large commercial buildings and to meet the city’s climate goal of zero emissions in all buildings by 2050.
- The city needs to clearly understand the community’s interests and capital planning processes
- The city needs to provide clear signal that fossil gas will be eliminated from existing buildings, including large commercial buildings.

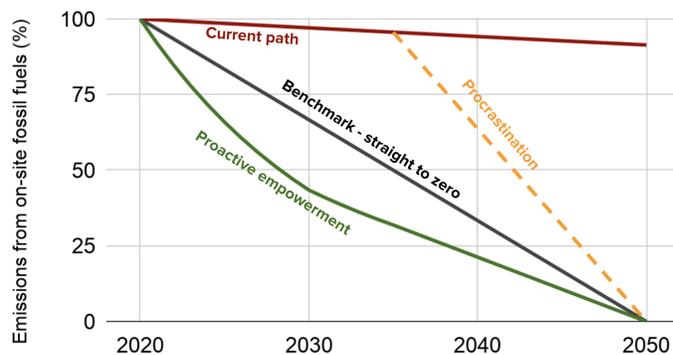
Mayor Breed has pledged to achieve zero emissions from all buildings citywide no later than 2050.

The City seeks to collaborate with the owners of large commercial buildings due to scale of energy use & emissions, and because owning a building is akin to owning a share in the city. Owners bear shared risk of climate impacts to their investment and to local infrastructure.

The challenge set to the Existing Commercial Workgroup is to define a roadmap to accelerate building decarbonization – e.g. eliminate onsite fossil fuel use via electrification and renewable electricity. The City is asking for guidance on how to help stakeholders plan and implement building decarbonization – prioritizing the systems that owners most consistently control: base building space conditioning and water heating. At the request of participants, SFE clarified:

- Emergency generators are viewed as an exception at this time. Due to low utilization and limited practical alternatives at present, the Roadmap is not expected to propose major changes.
- Restaurants, food service, and other tenant “process loads” with on-site fossil fuel use must be decarbonized in order to fulfill the Climate Action goals. These issues will be addressed via a separate track; suggestions are welcome, but this is not the forum for fully resolving concerns about tenant energy use or preferences.

Pathways to Zero Carbon...



To achieve zero emissions from buildings citywide by 2050, an average of 3.5% of buildings and equipment must eliminate use of fossil gas annually from 2020 to 2050. The trajectory today is much slower.

A list of Elements SFE staff heard is attached as a handout, accompanying these notes.

2. Stakeholder Concerns

Michelle Vigen Ralston, the facilitator with Common Spark Consulting, invited the group to write on Post-it notes their concerns and questions about eliminating fossil fuel use in existing commercial buildings. The notes/questions are summarized in the Appendix. The group discussed - clarifying, adding to, and organizing the comments, to gain a better understanding and identify remaining questions.

3. Timing

Consensus: The group reached an initial consensus that 2035 is a reasonable target year for all commercial base building systems (space and water heating loads) to be off natural gas. Buildings that reach the goal sooner should receive special recognition from the city for early action. Buildings with specialized requirements or dependencies (such as district steam heat) should have a longer runway.

Work group members generally thought a 2035 deadline is both aggressive and doable as long as SF provides:

- Early clear signal to the market of requirements with sufficient runway.
- A recognition program for early adopters and buildings that are all-electric/decarbonized that would be accepted by GRESB (or other ESR reporting platforms).
- A tool to assess feasibility and support planning. Accompanying such a tool would be the possibility that if assessments show that decarbonization by 2035 is technically infeasible, there is a pathway to develop a custom plan and timeline with the city.

Comments contributing to the above result:

More time needed: Several large building owners stressed that a target of 2030 for elimination of onsite fossil fuel use would be difficult to meet for existing base building systems. A timeline that leverages buildings' capital planning cycles is necessary.

More study needed: Owners also said they hadn't fully studied the implications of moving off natural gas to commit to a 2030 target. At time of replacement, like-for-like replacement of a gas boiler already costs millions of dollars; it will be necessary to understand how both capital and operating cost are affected by going electric.

Grid uncertainty: Owners also desired assurance that the electrical grid will be ready to support large-scale fuel switching.

Geography: PG&E noted any given segment of gas distribution must remain operating as long as there are customers. Therefore, gas network fixed costs would be best managed by fuel switching all customers connected to a given line or geographic area.

Refrigerants: Several owners asked how the City's approach would fit with state requirements to phase out refrigerants with high global warming potential.

Recognition for early birds: Building owners requested public recognition of buildings that moved off natural gas before required to do so. A positive rating issued by the City in collaboration with GRESB (or similar) and recognized by investors as substantially mitigating climate risk would be valuable.

Subsidies: If energy efficiency using existing natural gas systems is no longer the top priority, redirect building efficiency funds toward decarbonization programs. (New York City example)

4. Next Steps

- Survey #2 to workgroup participants to gather additional comments.
- Building owners wanted to see examples of other large commercial buildings in other cities that had moved completely off natural gas.
- A March 11 public workshop will bring together other owners, tenants, engineers, and stakeholders to learn more about the existing commercial building workgroup's progress.
- A final Existing Commercial Building Work Group meeting is planned for Monday, March 23.

Appendix: Post-it Note Comments

Elements

What do we mean by “decarb?”

San Francisco Environment to confirm/state the definition of zero emissions. Is this cutting gas?

Building Owners

How should owners include decarbonization in the valuation of their assets?

A longer implementation runway is needed for building owners.

How are investors assessing climate risk in their future investments?

What is the cost to transition from gas to electricity?

Tenants

Unless buildings are single occupancy, tenants are important voices but are not significant stakeholders in the process.

Energy efficiency is not the same as carbon emissions reduction.

Tenant plan/priorities when determining which buildings to eventually vacate include whether a building is on track to decarbonize.

Workforce

Training is not a problem provided we have a clear course plan of what we are trying to achieve.

Capital Planning/Budget Cycle

A 10-year capital plan to convert gas systems to electrical is doable.

Check-in/Reporting (Enforcement)

Needs to align with Existing Commercial Buildings ordinance audit requirement and build in ways for owners to include an electrification pathway.

Strategic Energy Assessment (SEA) offers a clear and standardized output and actionable small and large outputs.

Natural gas Infrastructure

The last meeting started the discussion about electrification “zones” – target geographies to go all electric.

What is the plan for microgrids and how will that impact the electrification plan geographically?

Equity - Managed transition for gas system could help affordability/equity issues.

Seismic - Strategic decarb and earthquake prone areas first.

Early birds

First group of buildings needs to be better defined. Large equals bigger than 500,000 square feet or downtown/CBD or small (50,000 to 100,000 square feet) or “most feasible” to convert?

2030 is a great goal for 1) early adopters 2) everyone has a plan

Recognition Program

Give us a rating – GRESB

Feasibility

Electrification feasibility as part of existing audit requirements

Need reasonable exceptions for non-feasible conversions/too expensive/not in line with budget cycle or capital expense planning.

2030 is too early if this means full cutoff of gas to existing downtown stock.

Targets

When we fix a date we must stick to it. 50% completed zero emissions by 2030.

Need STRONG % of building electrified by 2030.

Capacity

How is the city going to assist with this transition to electrification and ensuring enough capacity?

What is the infrastructure capacity to support conversion to all electric buildings?

How quickly could the electric infrastructure pivot to accommodate the increased loads? Time of study?