

GREEN STREETS

At a time when most cities are struggling to turn back the climate-change trend and falling. Gary Diedrichs takes a nearly carbon-neutral break

clock, San Francisco's greenhouse gas emissions are bucking the global to the city that could teach the planet how to beat global warming

At the busy marketplace inside San Francisco's famous Ferry Building, David Jablons is handing out wedges of cheese to the assembled crowd of local foodies. Jablons is a lung-cancer specialist and surgeon, but, this being San Francisco, he also owns an environmentally friendly creamery northwest of the city. His artisanal cheese has just been given a national Good Food Award for the US's best responsibly-produced food at a ceremony in the same building.

It is no coincidence that the environmentally-minded awards take place in San Francisco, where 'green' is the new normal. In study after study, San Francisco stands at the apex of America's green elite, or close to it. The most rigorous ranking in recent years, the 2011 Green City Index by the Economist Intelligence Unit and Siemens, scored San Francisco highest in both the US and Canada.

President Obama has declared San Francisco 'a climate-action champion'. While many US cities are struggling to turn back the carbon clock, San Francisco's greenhouse gas emissions are 12 per cent below 1990 levels – even though its economy and population has grown. The city government is aiming for 40 per cent below by 2025. When it comes to green living, this city is so wildly successful that it's an utter anomaly. So how has San Francisco managed to do what almost no other city in America has?

'New York is about cash and deals. Boston is about medicine and education. And San Francisco? It's all about innovation,' says Jablons, when I ask for his opinion in between my mouthfuls of cheese. 'People are willing to stick their necks out – whether that's how we think about food, about gay marriage, or whatever. Leading the way on going green is another case of that.'

It's a view that is echoed by scientist Dr Jonathan Foley, who since 2014 has been the executive director of California Academy of Sciences and is a leading expert on the sustainability of ecosystems.

'This is the city of "Yes!" and of "Why not?"' Foley tells me when I call him. 'And from the Beat poets to the Summer of Love to progressive politics, cutting-edge thinking here has always had a big heart. I call

San Francisco the Cape Canaveral of sustainability.'

The Renzo Piano-designed California Academy of Sciences is an icon of the city and of sustainable architecture, with its distinctive two-and-a-half acre 'living roof', a canopy of steeply sloping greenery that acts as natural insulation and ventilation system. The architecture behind the scenes is equally innovative – rather than fibreglass, the cotton insulation material within the walls is made from recycled blue jeans.

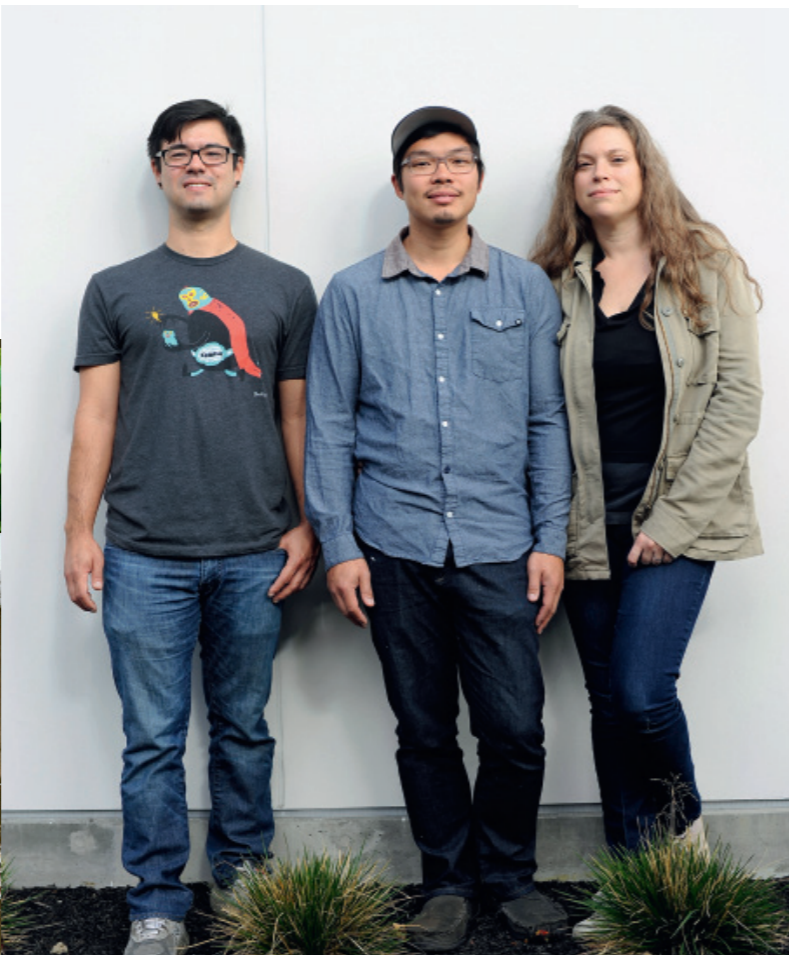
Exhibits you can see here include the deepest indoor coral reef in the world, and even an artificially cultivated rainforest. 'Our mission at the academy is to explore, explain and sustain life,' says Foley, 'but the sustainability part is new. We're now actively working to use our science and education strengths to be a leader in sustainability.'

I started the day at one market, and now I'm heading to another: the area known as Mid-Market. For decades this was a place San Franciscans would tell you to avoid as it was an unsafe, underprivileged neighbourhood. Today, it is transformed.

New media giants such as Twitter have taken over the offices, and with a high-tech, biotech economy have come so many construction cranes you might think you are in Shanghai. You can feel change in the air here, literally, because it's so clean: zero-emissions buses glide by, and the people who aren't taking the bus are making use of the bike-share rental kiosks. More than any US city, you can't help but notice the alternative-energy transport everywhere in San Francisco.

At an electric-vehicle (EV) charging station, ☑

From left
An aquaponic greenhouse at 'mega-sustainable' SF restaurant the Perennial; Perennial founders Chris Kiyuna, Anthony Myint and Karen Leibowitz; a solar-energy system at a North Beach condominium



Photographs: Stephan Schacher/Gallery Stock (previous page); Michael Short. *Sources: estimates from public data and carbonfund.org; others supplied by individual businesses

48 (NEARLY) CARBON NEUTRAL HOURS IN SAN FRANCISCO

DAY ONE STAY

Settle at an eco-friendly hotel. Hotel Carlton in Lower Nob Hill is solar powered and completely carbon neutral. The LEED Gold-certified Intercontinental San Francisco in SoMa has plug-in hybrid autos.

Carbon emissions: Zero at Hotel Carlton; 11.1 kg carbon dioxide emissions, or CO₂ e, at Intercontinental.

EXPLORE

Take a bay-side stroll along the Embarcadero. Pedicabs and bike-share kiosks await. So do city taxis, all of which are energy-efficient hybrids. Hop onto a classic streetcar. San Francisco Municipal Railway runs vintage streetcars and trams here; their power is generated by hydro, so is carbon-free.

Carbon emissions, except by taxi: 0-11.1 kg CO₂ e.

EAT

On Saturdays, the city's best gathering of organic farmers is outside the Ferry Building. Just north is the LEED Platinum Exploratorium, a hands-on museum of science, art and human perception striving toward net-zero energy use. Nearby is the Plant, a café with

all-organic produce and sustainable seafood.

Carbon emissions: Zero for farmers' market, 1.5* kg CO₂ e for Exploratorium, 1.4* kg CO₂ e for a grilled veggie sandwich at the Plant. Total so far: 2.9-14 kg CO₂ e.

DO

By Pier 39, the green-certified Aquarium of the Bay inspires conservation of San Francisco Bay and its marine environments.

Carbon emissions: 1.5* kg CO₂ e. Total so far: 4.4-15.5 kg CO₂ e.

WANDER

Continue to the Presidio, a former military post upcycled into a park and hub

for restaurants, recreation and businesses such as George Lucas' Lucasfilm. British sculptor and environmentalist Andy Goldsworthy has three inspiring outdoor art installations here.

Carbon emissions: Zero if you walk, bike or take public transport. Total so far: 4.4-15.5 kg CO₂ e.

Also trending: pedal a rental bike over the Golden Gate Bridge then catch a ferry back from Sausalito.



Carbon emissions: Zero on the bike; your ferry ride emits 0.9 kg CO₂ e.

Total – day one: A mere 5.3-16.4 kg CO₂ e. The average American footprint is 55.9 kg CO₂e per day.



I chat to Jeanine Cotter, who owns Luminalt, a solar-electric installation company. ‘This is the perfect place for an electric vehicle,’ she says. ‘It’s compact, distances are not great, and it’s congested.’ It’s not that congestion is a good thing, of course, but stop-and-go traffic exacerbates the problem of tailpipe emissions. Companies such as Cotter’s hire and train disadvantaged local people as solar-power installers. She cites GoSolarSF as another key local initiative: it enables low-income households to obtain solar panels at almost no cost.

In the throbbing heart of Mid-Market is SF Environment, the public agency tasked with leading the ongoing greening. Its office was recently awarded LEED (Leadership in Energy and Environmental Design) platinum status: the certification for building design that uses renewable, clean energy, and an acronym you hear a lot in San Francisco. It’s in the same tower as Uber, the taxi app.

Having asked if I could drop in to SF Environment for a chat with some staff, I soon find myself surrounded by the czars of zero waste, energy efficiency and clean transportation. They’re friendly, but zealous. They rain factoids on me like a spring downpour: San Francisco is the first big city in America to target zero waste sent to landfills by 2020 (it is already more than halfway there). It is the first to collect kitchen food waste for composting; the first to ban plastic tote bags in stores. Since 2009, it has had the broadest mandatory recycling law in the country. Its requirements for new construction are up to LEED gold standards. And it has an audacious goal of 100 per cent residential electricity from renewable sources.

Using food waste for composting, to take one example, may sound progressive, but business owners here are already looking beyond that. People like Anthony Myint, a restaurateur and food author, who this spring will open what he calls a ‘mega-sustainable’ restaurant called the Perennial. Diners’ food scraps



From top
Wood Line is one of British sculptor Andy Goldsworthy’s three art installations in the Presidio national park; artisan cheese-maker (and cancer surgeon) David Jablons

DAY TWO

Start off at Golden Gate Park – 1,017 acres of public grounds. Move on to California Academy of Sciences, the world’s largest green public space and a world-class aquarium, planetarium and natural history museum under one ‘living roof’. Its cafés serve sustainable, seasonal ingredients.

Carbon emissions: 2* kg CO² e for breakfast at your hotel, zero for taking public transport, .74 kg CO² e for your Academy visit, plus 2* kg CO² e for lunch. Today’s total so far: 4.74 kg CO² e.

EXPLORE

Across from the Academy, at the fine arts de Young Museum, there’s a free-of-charge, 14th-floor observation deck, the Hamon Tower, with a splendid panorama of park and city. After that, arresting landscape attractions include the AIDS Memorial Grove and Shakespeare Garden. Free shuttle buses operate at weekends. There’s also a narrated tour while riding a Segway.

Carbon emissions: Zero. Total so far: 4.74 kg CO² e.

EAT

A distinctive new dining option is Cockscomb in SoMa, with nose-to-tail dining. Nearby lies Thirsty Bear, an organic brewery and gastropub.

Carbon emissions: 3* kg CO² e. Total so far: 7.74 kg CO² e.

CARRY ON

Energy to spare? Temple Nightclub in the Financial District aims to be the world’s most sustainable nightclub. Its Infinity Lounge features an energy-generating dance floor.

Carbon emissions: 1.5* kg CO² e, plus another hotel night (11.1 kg CO² e at the Intercontinental).

Total – day two: Just 9.24-20.34 kg CO² e – a fraction of the US average.

HOW DOES FLYING FIT IN?

Better planes

British Airways' new generation aircraft are the Airbus A380 and Boeing 787 Dreamliner. The A380 has 16 per cent fewer emissions per seat than the aircraft it replaces, while the Boeing 787 is 20 per cent more fuel-efficient than the Boeing 767 it is replacing.

Carbon offsetting

Join BA and act on climate change by donating towards community renewable-energy projects. puretrust.org.uk/one-destination-donate.jsp

The future of fuel

BA is working with the Solena Fuels Corporation to build a waste-to-fuel plant, aiming to complete construction by the end of 2015. BA will buy the jet fuel produced by the plant for ten years, valued at \$500 million. responsibleflying.ba.com/environment

will be fed to maggots, who are then fed to fish. The fish waste then becomes fertiliser for the restaurant's aquaponic greenhouse, from which the salad and vegetables will be harvested.

'What's weird is that, three years ago, I wasn't that concerned about sustainability,' Myint admits when we meet. 'But now I have a three-year-old daughter, I feel it's part of my responsibility to her.' Myint sees the Perennial as 'a laboratory' for an experiment in which every detail has been considered when it comes to reducing the carbon footprint.

He is far from the only pioneer. Traci Des Jardins is the celebrated chef-owner of five restaurants, championing the use of humanely-raised farm animals and sustainable seafood. I meet her at the newest of these, the Commissary, which she's opened to acclaim in the Presidio, one of SF's biggest parks.

'I remember sitting in New York once with a bunch of editors, talking about trash recycling, green this, green that,' Des Jardins tells me. 'They looked at me like I was out of my mind.' Her restaurants use solar energy from remote solar-panel farms and have recycled cork floors. These kinds of measures don't feel like optional extras to her. 'If we want a future for our children,' she puts it bluntly, 'they are must-dos.'

In this city, chefs and their customers alike are fanatical about the supply chain and expect to know the provenance of ingredients. The prevalence of urban farming in and around San Francisco, encouraged by tax breaks for landowners, helps to keep food-miles low. High up Potrero Hill I meet urban farmer David Cody at the 18th and Rhode Island Garden, a terraced plot on valuable real estate. It boasts 40 fruit and nut trees as well as perennials such as tree kale. In 2014, amid the worst drought in decades, the garden's rich black soil – which was

created from 19,000 pounds of composted cardboard boxes – was given a fifth as much water as usual and still produced 7,500lbs of food.

'So all these plants are living on waste stream material,' explains Cody. 'The UN says the way we're going to feed the world is not industrial agriculture – it's small farms and kitchen gardens like this one.'

Yet perhaps the real distinction of this urban farm, one of dozens in the city, is that it is the first to yield a substantial tax reduction for the property owner – \$35,000 (£23,250) over five years – for leasing his land for the growing of food. It's a statewide programme but San Francisco is the first city to adopt it.

If the city sounds like a utopia, it isn't, of course. There is well-documented strife surrounding the ever-increasing cost of housing for ordinary people, and ongoing tensions between how the tech kings and their companies intersect with the rest of the population. However, when it comes to green living, San Francisco operates on a more sophisticated and successful level than almost anywhere else in the US.

If anything could derail this city's extraordinary success story, it may eventually be climate change itself. The city has salt water on three sides, and scientists predict that the sea level here could rise 55 inches by 2050. So if we want to halt the greenhouse effect and the risks it holds for all of humanity, other metropolises will have to make sure that their future looks a lot more like present-day San Francisco. ■

Gary Diedrichs publishes *GreenTravelerGuides.com*



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Get an insider's guide to the city at highlife.ba.com/sanfran

Young at art

The de Young fine arts museum boasts a free 14th-floor observation deck with great views

