The climate crisis is the largest challenge facing humanity. How and when we respond to this challenge is critical. In order to limit the worst impacts of climate breakdown, especially those endangering our most vulnerable communities, an immediate and unprecedented response is required from all sectors, in all geographies, to limit global temperature rise to no more than 1.5 degrees Celsius.

Cities have an especially prominent role in tackling the climate crisis, as it’s projected that nearly 70% of the global population will live in cities by 2050. To rise to the challenge, cities are delivering strong, science-based targets that will help humanity avoid climate breakdown. But cities cannot do it alone.

Now more than ever, cross-sector partnerships matter. With this in mind, the C40 Cities Climate Leadership Group (C40) and the Citi Foundation joined forces to create the Financing Sustainable Cities Initiative (FSCI) to help cities address one of the most critical barriers to significant urban climate action: financing. FSCI is designed to bring together the world’s most ambitious cities with leading technical experts and investors to accelerate the pace of investment into sustainable municipal infrastructure.

The FSCI represents the shared values of C40 and the Citi Foundation. Our collective mission goes beyond singular sustainable finance transactions – it aims to create a systemic approach to sustainable finance that will nurture climate-safe and inclusive communities across the world. Action now will not only reduce the emissions causing the climate crisis, but also bring a wide range of co-benefits, including cleaner air and new employment opportunities. It will also avoid lock-in to high carbon growth pathways for decades to come.

Just as C40 members are leading their peers, Citi, as a global financial services provider, is a leader amongst its peers, having committed to finance and facilitate $100 billion over 10 years (2014-2023) toward environmental solutions and activities that reduce the impacts of climate change around the world.

Through our FSCI partnership to help cities finance ambitious climate action, C40 and Citi Foundation have proven that cities can deliver a low-carbon and climate resilient future. Now we need to accelerate the work so that we can deliver results within the timelines necessary to mitigate climate change. We must all work faster, harder and smarter to dramatically scale up finance flows, allowing cities and mayors to make ambitious commitments with the knowledge that the financing will follow.

The strong partnership between C40 and the Citi Foundation is central to this effort. We are extremely pleased by the early results of our joint work, many of which are showcased in this report, and look forward to providing continued support to cities over the critical years ahead.

Mark Watts
Executive Director, C40 Cities

Edward Skyler
Executive Vice President for Global Public Affairs, Citi
Climate change is the defining challenge of our time, posing an urgent threat to the lives and livelihoods of people across the globe. With over half of the world’s population living in urban areas, cities are on the frontline of this fight for sustainability. Whether it’s increased flooding, dangerous air quality, or rising global temperatures, cities are confronted with the negative impacts of poor environmental management every day. The need to respond with new sustainable infrastructure could not be greater.

The benefits of acting on climate change extend beyond just the environmental impact. Taking decisive action to limit global temperature rise to 1.5˚C vs 2˚C could prevent up to 457 million people being exposed to climate risks and related poverty.

Fortunately, the knowledge, technologies and ambition exists to make cities more resilient and accelerate urban sustainability projects across the globe. Furthermore, city leaders share, and champion this ambition, and are committed to making much-needed change happen for the wellbeing of residents and future generations.

For effective urban sustainable solutions to materialise, however, they need solid financial foundations – this is why the Financing Sustainable Cities Initiative (FSCI), funded by the Citi Foundation, was created. Through its work with the world’s biggest cities, FSCI connects city leaders with investors to bridge the gap between idea and implementation in the urban sustainability landscape and change the trajectory of the fight against climate change.

The Initiative sits within C40 Cities Climate Leadership Group. Around the world, C40 Cities connects 94 of the world's greatest cities to take bold climate action, leading the way towards a healthier and more sustainable future. Representing 700+ million citizens and one quarter of the global economy, mayors of C40 cities are committed to delivering on the most ambitious goals of the Paris Agreement at the local level, as well as to cleaning the air we breathe.

The purpose of the FSCI is to support the acceleration and scaling-up of investments in sustainable urban solutions, without which the targets of the Paris Agreement cannot be met. To this end, the Initiative is built around three main objectives:

- Bridging the gap between innovation and implementation in cities
- Scaling up investments in sustainable urban solutions
- Developing suitable business models to support innovation

Our vision is a world where all cities can access the financing they need to implement vital sustainable infrastructure and achieve their ambitious climate goals – limiting global temperature rise and improving the lives of their citizens both today and for generations to come.

The FSCI sees cities as not only drivers of positive change but also exciting investment opportunities. Our work is focused on immediate impact with long-lasting positive effects for cities, their residents and the global climate. Everything we do is outcomes driven, with the needs of cities at its core.
A high proportion of current and emerging climate risks are concentrated in cities. These include extreme weather events, flooding, drought, and heat, all of which have a disproportionately high burden on vulnerable groups such as low-income communities, residents of informal settlements and women, children and the elderly. Climate change also presents significant economic risks to cities with huge property damage, mass unemployment and disruption to business sector operations predicted to occur as a result of the climate crisis.

FSCI’s adaptation finance workstream is designed to support the mainstreaming of climate adaptation into existing planning and operations within C40 cities.

Climate change extends beyond purely an environmental issue to encompass challenges of inequality and increasing inclusivity. Cities around the world must act to protect the most vulnerable groups of the population from the current and future effects of climate change, whilst taking advantage of the opportunities investing in sustainable infrastructure offers to tackle inequalities. By changing the way they think about climate-related projects, cities can achieve social co-benefits, alongside essential environmental goals, including improved access to employment, more resilient affordable housing and greater engagement with informal groups and unions.

The FSCI’s work is aligned with C40’s Inclusive Climate Action (ICA) Programme, which provides cities with a clear roadmap and support to plan, build consensus and deliver bold climate action that is equitable and beneficial for all. ICA principles are embedded in the agenda of all FSCI events and cities applying for technical assistance from FSCI are asked to demonstrate that the project being proposed is in-line with an inclusive climate action plan.

Specifically, cities are asked to consider two aspects when working on financing plans for sustainable infrastructure:

• Does the business model being considered disproportionately affect a particular community? E.g. financing an electric bus programme through regressive taxation or repaying a grant via higher user fees that can price out lower-income communities.

• Are the projects the city is looking to finance going to offer equal benefits to all residents? Is a selected project considering potential wider co-benefits throughout the project preparation phase?

City-wide provision of affordable and accessible clean public transport offers substantial environmental, social and economic benefits. Globally, road traffic is responsible for 25% of GHG emissions and 80% of people living in cities today are exposed to unsafe air quality. In low- and middle-income countries, 97% of cities with over 100,000 residents don’t meet World Health Organization Guidelines on air quality.

By helping cities create financially viable clean transportation initiatives, FSCI is supporting a reduction in global emissions, improved health and economic opportunities for urban residents.

Clean energy projects can not only reduce emissions but also reduce energy bills and alleviate energy-poverty. It is a great moment in time for those looking to take advantage of the increasingly affordable range of clean energy technologies, with Bloomberg predicting close to $300 billion (USD) to be invested in clean energy in 2019. However, it is estimated that around $2.4 trillion of annual investment in energy is needed over the next 10-15 years to limit global temperature rise to 1.5°C.

At the local level, cities face challenges in translating these global investment trends into local, implementable projects. Shifting from a fossil-fuel based energy supply to renewables requires new models of energy distribution, and with them, new financing models.

1 https://about.bnef.com/blog/transition-energy-transport-10-predictions-2019
2 Ref: https://www.ipcc.ch/sr15/chapter/spm

FSCI helps cities utilise innovative business models, reducing the need to pass on project costs to low-income citizens as well as supporting implementable action to achieve both inclusivity and environmental goals.

Promoting inclusive climate action

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HOW WE ACHIEVE IMPACT

The FSCI’s work plan is based on consultation with cities. We believe this is the best way to support successful impact – by listening to what they need and using our unique position and global overview to facilitate capacity and knowledge building in municipalities around the world.

Through years of working with city officials and leaders, we have established core pillars of our work that we have refined to achieve the best results with cities:

1. FINANCE ACADEMIES

At the core of the FSCI’s work are Finance Academies: intensive three-day workshops that bring together city officials from approximately 10 cities, with technical experts, to address financing challenges preventing implementation of a particular climate solution e.g. solar, electric buses, flood defences etc. Each city that wishes to participate is required to nominate a senior city official with expertise and power to act in both the sector being discussed (e.g. Head of Transportation) and the financing decisions of the city (e.g. Chief Financial Officer).

The FSCI runs a minimum of three Academies per year on its core topics of energy, transportation and adaptation finance. Finance Academies are hosted in cities that are leading in the field on which the Academy is based, with the host cities providing invaluable opportunities for site visits and access to the inner workings of pioneering infrastructure projects. The 8-12 cities that attend the Academies are selected from across all 94 C40 cities, through consultation with C40’s regional teams and networks.

“The 8-12 cities that attend the Academies are selected from across all 94 C40 cities.”

City Official Attendee

“[Attending the Academy] has brought different approaches and visions on e-buses funding and financing, opening up further options which, so far, we never considered in Madrid”

City Official Attendee

CITY OFFICIALS

from a total of 30 cities have attended FSCI academies

To date, FSCI has hosted

FINANCE ACADEMIES

in London, Quito, Vancouver, New Orleans and Los Angeles

THE 8-12 CITIES

 THAT ATTEND THE ACADEMIES ARE SELECTED FROM ACROSS ALL 94 C40 CITIES

FINANCING SUSTAINABLE CITIES INITIATIVE
2. TECHNICAL ASSISTANCE PROGRAMME

Sometimes city practitioners face a lack of good models that can be shared via peer-to-peer learning, or existing examples fail to account for a challenge with a specific local context. In these instances, cities require a more bespoke, specialist approach. To support cities in this situation, FSCI developed its Technical Assistance Programme, a package of resources that can be allocated to cities to help unlock finance and accelerate or scale progress towards clean transportation, clean energy and climate adaptation.

As part of the Technical Assistance Programme, the FSCI team helps cities develop a clear strategy, and scope of works to achieve their goals, procure services, and manage consultants until completion of the project. FSCI works closely with selected cities throughout the process to ensure that any relevant local context data is collected, local stakeholders are engaged, and that development of the final product is in line with both the expectations and requirements of the city.

Ultimately, technical assistance supports cities to access financial knowledge and tools to develop viable business models and financing mechanisms that will lead to successful projects.

**Pre-feasibility / Strategy - High-level research to guide policy and strategy**
- Roadmap to deploy electric buses
- Roadmap to debt financing
- Total cost of ownership analysis
- Lifecycle cost/benefit analysis
- Pollution reduction forecast and health benefits
- Overview of renewable energy ownership models

**Feasibility - Studies to address technical/financial challenges**
- Comparison of E-Bus charging technologies
- Electric bus route prioritisation
- Financial analysis and payback period for solar PV
- Roof space analysis for solar PV
- Interconnection analysis for renewable energy
- Climate risk management strategies

**Stakeholder Engagement**
- Facilitate collaboration between regional stakeholders
- Organise study tour
- Organise training sessions

**Access to Finance**
- Financial options assessment
- Evaluation of value capture opportunities
- Evaluation of viable procurement options
- Identification of potential financing sources
- Development of project proposals
- Advice on transaction structuring
- Resilience integration into bond issuances
3. FORUMS

The Financing Sustainable Cities Forum is the FSCI’s flagship public event. Previous Forums have been held in Rio de Janeiro, London, New York and Johannesburg from 2016-2019 accordingly. The Forum is an invitation-only, one-day annual conference that brings together global leaders in sustainable city finance, including investors, the private sector, philanthropy, non-profit leaders, and city and national government representatives, to make the case for accelerating investment in green urban infrastructure. FSCI Forum’s have explored themes such as women in climate finance, financing resilient urban infrastructure, financing inclusive cities and creating more impactful relationships between cities and the private sector.

In May 2020 the C40 Financing Sustainable Cities Initiative (FSCI) will host the fifth annual Financing Sustainable Cities Forum, in collaboration with a host city from the C40 network. The FSCI is excited to bring the Forum to a new city once again, and to unite the voices of all present to amplify the call for immediate action to finance the future of our cities.

The Financing Sustainable African Cities Forum

On 12 June 2019, FSCI hosted the Financing Sustainable African Cities Forum in Johannesburg, South Africa. This was the first regionally focused event in the series and was held in response to a direct ask from cities in the region for a platform at which to both publicly highlight unique financing challenges for African cities and to hold more informal discussion with peers, technical experts and investors. The event attracted around 150 guests, including over 60 city delegates from 10 C40 cities across the entire continent.

The event was split into two parts – a high-level morning plenary and parallel workshop streams on FSCI’s core areas of work, financing for clean transportation, energy and adaptation. The plenary focused on cross cutting issues highlighted by cities, including the need for greater, and broader, multi-stakeholder engagement, financing sustainable infrastructure in informal settlements, and the challenge of leverage capital for critical immediate action that also qualifies as a sound long-term investment. Speakers included:

- Executive Mayor Herman Mashaba, City of Johannesburg
- Executive Mayor Stevens Mokgalapa, City of Tshwane
- Honourable Mohammed Adjei Sowah, Mayor of Accra & C40 Vice Chair for Africa
- Val Smith, Managing Director and Global Head, Corporate Sustainability, Citi
- Jerrod Moodley, Rand Merchant Bank
- Rose Molokoane, Slum Dwellers International & Federation Of The Urban Poor

The unique nature of the gathering attracted both local and international press, with the event featuring in over 140 pieces of coverage in outlets including Africanews, Mail and Guardian, and Global Finance and Banking Review.

‘THIS IS WHY WE PARTNERED WITH THE C40 FINANCING SUSTAINABLE CITIES INITIATIVE (FSCI), FUNDED BY CITI FOUNDATION. IN RECENT YEARS, IT HAS PUT THE SPOTLIGHT ON CITIES AND GROWN INVESTOR AWARENESS OF OUR IMPACT AND INNOVATION, BRINGING TOGETHER OUR CITY OFFICIALS WITH GOVERNMENT AND INVESTMENT LEADERS AROUND THE WORLD.’

Executive Mayor Herman Mashaba,
City of Johannesburg
4. SHARING KNOWLEDGE & BEST PRACTICES

In addition to the more in-depth support offered to cities via Academies and Technical Assistance, FSCI promotes knowledge sharing and adoption of best practices through light engagement activities including webinars, blogs, and publication of research.

EXAMPLE
Providing Essential Data and Analysis to Cities: Electric Buses in Cities

Following a call from multiple cities for more information on the global battery market, and how to accurately cost out a transition to electric buses in their cities, FSCI commissioned Bloomberg New Energy Finance to produce the report ‘Electric Buses in Cities: Driving Towards Cleaner Air and Lower CO₂’.

Launched at the 2018 Financing Sustainable Cities Forum in New York, the report gained international attention, with coverage by outlets including Cities Today, Bloomberg, Devex and Vox. The research continues to be utilised by cities, non-profits and other stakeholders looking to play an active role in the transition towards cleaner transportation.

EXAMPLE
Thought Leadership: Sharing the Perspective of City Leaders

Through regular blog posts and webinars, FSCI provides both public and closed platforms for discussion and debate between city leaders and the investment community. Webinars are conducted on topics requested by cities or in response to global events with relevance to city practitioners. The sessions are by invitation only, creating a ‘safe-space’ for sharing information, and can be presented by technical experts, city officials or FSCI staff.

Where webinars provide an opportunity for a more technical deep dive, FSCI blogs raise the profile of key issues faced by cities in a short format with broader appeal. By publishing and sharing blogs through social media, FSCI is continuing to bring the perspective of cities on the need for sustainable urban finance to both new and established audiences. Authors of pieces include former Mayor of Toronto David Miller and Executive Mayor of Johannesburg, Herman Mashaba.
Through its place within C40 Cities, FSCI is uniquely positioned to work with the world's leading municipalities on climate action, across all geographies and economic contexts.

Support from the FSCI is open to all of C40’s 94 (at the time of publishing) cities; the only criteria being that the city can demonstrate a finance challenge and the desire to act decisively to overcome the barrier. By offering a range of engagement opportunities to cities, the initiative can support on a broad range of challenges, whether they require light-touch collaboration, or more in-depth technical assistance.

Cities we have worked with:
City Context

Auckland is the largest metropolitan area in New Zealand, with over 1.7m people. As the fastest growing major city in Australasia, Auckland expects to see its population reach 2.3m people by 2043. Acknowledging the role of transportation as a major source of GHG emissions in the city (40% compared to the national average of 18%), combined with population growth forecasts, the local government has been actively working to green the City's public transport system.

With a complex mass transit system involving buses, trains, rail, and ferries, Auckland Transport, the city's lead agency responsible for all Auckland's transit services, is facing challenging conditions to secure Auckland's independence from fossil-fuel technologies.

Collaboration with FSCI:

- Representatives from Auckland have attended 2 Finance Academies (2017 & 2019) as well as participating in a study tour of 4 European cities with active electric bus programmes.
- Auckland received support through the FSCI Technical Assistance Program to conduct an evaluation of the potential impact that an electric bus fleet would have on the city's electricity distribution network. FSCI funded the work and managed the delivery of specialist services by an external consultant. The findings of the study have been used to help shape the city's electric mobility strategy and timeline.

Outcomes:

- Auckland Transport published the city's Low Emission Bus Roadmap, which makes the recommendation that all new buses procured after 2025 be zero emission. This report uses data from several feasibility studies undertaken over the past 3 years. Specifically, the conclusions of the report are supported by two reports commissioned and funded by the FSCI: the Electric Buses in Cities report (conducted by BNEF) offered the necessary data to support the business case for electric buses, as well as a forecast for the evolution of e-bus prices. In addition, the grid analysis carried out by FSCI as part of the technical assistance provided to Auckland Transport demonstrated the need for extensive upgrades to the city's electricity distribution network and associated cost estimates. By using these two reports, Auckland Transport was able to make sound decisions for the planning and procurement of electric buses in a way that is financially, operationally, and technically viable.

What’s Next?

- Auckland Transport is now looking to conduct a more in-depth feasibility study focused on the large-scale deployment of electric buses. This is the direct continuation of the technical assistance provided by FSCI previously and it is expected to guide the infrastructure and financial planning supporting the deployment of the buses.

“Auckland, New Zealand, has been involved in assessing the transition to zero emission buses since 2017 with great support from C40 and the Financing Sustainable Cities Initiative (FSCI).”

The technical assistance programme funded by FSCI enabled Auckland Transport and C40 Cities to commission Element Energy Limited to complete a Study of Impact of the Electrification of Auckland’s Bus Depots on the Local Electric Grid. This study has contributed to the development of Auckland’s Low Emission Bus Roadmap (“Roadmap”) with a commitment to procure only zero emission buses from 2025 and a transition to zero emission bus fleet by 2040. The Clean Bus Finance Academy held in May in Los Angeles provided ability to learn about new and innovative ways to finance clean buses. The innovative business models introduced at the Academy can mitigate the high up-front capital costs through bus charging and battery leasing, financing using private capital or tariff at the meter for a pay-as-you-go-like systems and could enable accelerating the introduction of clean buses in Auckland.

The Technical Assistance Programme and the Clean Bus Finance Academy helped to progress the actions of Auckland’s Low Emission Bus Roadmap and work to accelerate it. In July 2019 Auckland Transport hosted a Low Emission Bus Forum bringing together Auckland bus operators, key stakeholders from New Zealand Transport Agency (NZTA), Ministry of Transport (MOT) and Energy Efficiency and Conservation Authority (EECA) and potential players in the supply chain of a zero emission fleet and technology. This Forum facilitated a greater understanding of clean bus technology by Auckland’s bus operators and connected them with potential solution providers. Key learnings from the Academy were shared at the Forum and the new business models were introduced to Auckland’s bus service supply chain. A Low Emission Bus Working Group has now been set up. This working group will work on removing the known barriers to earlier adoption of electric and hydrogen fuel cell (HFC) buses, and any new challenges and opportunities. This progress in implementing Auckland’s Low Emission Bus Roadmap would not be possible without the support from C40 Cities and generous funders of the Financing Sustainable Cities Initiative.”

Darek Koper
Manager Bus Services,
Auckland Transport
City Context
Chennai joined the C40 network in 2016, less than a year after experiencing some of the worst flooding in the area’s history. These floods underscored the importance of accelerating climate action in the city of over 7 million people.

The renewable energy sector in India has rapidly expanded over recent years. The World Economic Forum reported that the country now (2019) produces the world’s cheapest solar power, at 1/3rd of the cost of the most expensive nations surveyed. Whilst the cost of large-scale installations in India fell dramatically in 2018 (-27%), cities still face the challenge of financing small scale solar projects and developing the financial and regulator policies required to integrate them into the energy system.

Collaboration with FSCI:
• Two senior representatives from the State of Tamil Nadu attended the 2018 Clean Energy Finance Academy in Vancouver (as well as the 2018 Clean Bus Finance Academy in Quito.)
• Tamil Nadu state officials took part in a study tour of London’s TfL electric bus installations. They were able to meet the Head of Bus Business Development at Transport for London and the Engineering Director of GoAhead, London’s largest electric bus operator.

Outcomes:
• Using experiences shared by cities at the Clean Energy Finance Academy (Vancouver in particular), the city was able to develop a net-metering policy for solar PV, which allows building owners to sell surplus generated back to the grid. This policy dramatically improves the business case for investing in rooftop solar in the city.
• This policy was the foundation for a recent tender for the first solar rooftop projects on municipal buildings. 600 buildings will be fitted with solar panels for a total of 5.6 megawatt, resulting CO₂ emissions savings in the order of 7,000 tons annually.

What’s Next?
• The State of Tamil Nadu is looking to build upon the success of the recent tender and scale up the installation of rooftop PV panels on municipal buildings with another tender for a total of 50 megawatts, almost 10 times the original project.
City Context

eThekwini (Durban) is the third largest city in South Africa and is often best known for its busy port, melting pot of cultures and subtropical climate. However Durban also has ambitions to be known as a leader in the region, and globally, on climate action. Having identified transport as a major contributor to GHG emissions from the City (37% of total emissions) in the 2014 Durban Climate Change Strategy, the City has been working towards cleaner options for the 500+ buses operated in its fleet. To progress towards a cleaner bus fleet the city identified a series of challenges it would need to overcome, including congestion on major routes, improving employment opportunities through transportation and spatial planning, and financing new technologies and infrastructure.

Collaboration with FSCI:

• Durban has attended 3 of the FSCI Clean Bus Finance Academies (2017, 2018 and 2019) as well as participating in a number of study tours to cities already running electric buses.

• The city has also participated in a number of knowledge sharing exercises with FSCI, including webinars and providing data for research reports, such as the ‘Electric Buses in Cities: Driving Towards Cleaner Air and Lower CO₂’ study, which was produced in a collaboration between FSCI and Bloomberg New Energy Finance (BNEF) in 2018.

• The city is currently receiving support as part of the FSCI Technical Assistance Program, for a project focused on developing a viable electric bus pilot programme, and conducting a feasibility study for scaling up the deployment of electric buses in the city.

• Durban has worked with FSCI during 2018/19, in collaboration with other cities in the region, to develop a framework for greater collaboration between South African cities in order to create a more favourable environment for procurement of electric buses at the city level.

Outcomes:

• Attending the 2017 Clean Bus Finance Academy allowed the city Chief Financial Officer (CFO) the opportunity to directly scope out the financial feasibility of electric buses in Durban, kick-starting the future work towards a pilot.

• Ongoing support from the FSCI has helped Durban to develop their own ownership cost models, demonstrating a remarkable gain in technical and financial expertise in e-bus technology, primarily through FSCI knowledge-sharing activities. Durban was also able to conduct preliminary feasibility studies to identify specific bus routes suitable to run a pilot program.

• The City has issued the Vehicle and Plant Ultra Low Emissions Policy and included a provision for the electrification of the bus fleet as one of the three key objectives of the policy.

• The Durban Office of the CFO submitted a report to the South Africa National Treasury and Department of Transport advocating for national incentives for the procurement of electric buses. The report makes extensive use of supporting data acquired through FSCI activities, and in particular the FSCI & BNEF report, ‘Electric Buses in Cities: Driving Towards Cleaner Air and Lower CO₂’.

What’s Next?

• With support from C40, the City is preparing a pilot of 10 electric buses.

“FSCI HAS HAD A POSITIVE IMPACT ON OUR DECISION TO IMPLEMENT A PILOT PROGRAMME ON EV BUSES. MY PERSONAL VIEW ON EV BUSES HAS BEEN CHANGED, AND NOW I AM ADVOCATING THE IMPLEMENTATION OF EV BUSES INTO OUR OPERATION, THANKS TO THE EXPERTISE AND SPECIALIST ADVICE PROVIDED THROUGH THE FSCI”

Head of Fleet, eThekwini Municipality
City Context
As detailed in their recently published ‘Green New Deal Sustainability pLAn’, Los Angeles is committed to taking bold action against climate change across almost all sectors, whilst creating economic growth and tackling inequality. An area where the City is already demonstrating global leadership is in its targets on transitioning towards electric vehicles, and most notably electric buses.

Meeting electrification objectives requires the city to overcome a number of local and universal challenges including:

• an ingrained car culture in Los Angeles

• a very large and fragmented regional bus network with multiple operators and transit authorities with different timelines and objectives

• limited space at existing depots to maintain and charge electric buses

• working out the right type of charging technology and assessing the electricity demand and impact from charging an electric bus fleet.

• designing a financially viable business model for electric bus procurement in the city

Collaboration with FSCI:

• Los Angeles have attended 3 of the FSCI CBFA (2017, 2018 and 2019) the latest of which was hosted in the City and showcased the progress being made.

• Attending their first Academy in London in 2017 gave the city the opportunity to explore the potential of electric buses in cities and to get the expert and peer support required to assess electric as a viable option for the city, both in terms of financial and technical criteria.

• The Los Angeles region possesses a very large yet incredibly fragmented bus network, with over 20 different transit authorities. As a result, regional collaboration has been extremely challenging and the setting of objectives has been primarily done without consultation of the other players. To address this, FSCI worked with LA Department of Transportation (LADOT) to organise and run a one day workshop for transit authorities in the greater LA area, focused on solutions for collaborating towards an enabling environment within the region and state to accelerate the successful adoption of e-buses for all agencies.

• Los Angeles is currently receiving support from FSCI’s Technical Assistance Program for two separate projects.

Outcomes:

• The one day workshop co-hosted by FSCI and LADOT led to the creation of an LA regional electric bus working group. Since its creation, the working group has been meeting every quarter to discuss, strategise, and share experiences with other regional stakeholders.

• By facilitating the creation of the LA regional working group, FSCI has supported progress towards state-led electric bus joint procurement. State-led procurement will allow most California transit authorities and operators to purchase electric buses based on a predefined schedule and price.

• By jointly procuring buses, transit authorities across the state can expect to achieve economies of scale in the order of 20%.

• LADOT’s ongoing participation at Academies has brought Green House Gas emissions reductions of 426,156 MTCO2e over the life of the project.

What’s Next?

• pLAn outlines the cities target to ‘Electrify 100% of LA Metro and LADOT buses by 2030’, coupled with commitments to be powered by 100% renewable energy by 2045.

• The City continues to work with the FSCI via two technical assistance projects, as well as sharing experiences and best practices with the wider C40 network.

Electrifying 100% of buses in the L.A. region by 2030 will support 155 battery-electric buses and electrify two existing bus depots.

• The initial fleet of 155 electric buses is expected to bring Green House Gas emissions reductions of 426,156 MTCO2e over the life of the project.

• LA is also supporting other cities to achieve commitments towards cleaner transportation. Through mutual understanding of one another’s work, LADOT and FSCI organised a 3-day study tour in Los Angeles for 4 high-ranking city and elected officials from Durban to discuss Los Angeles’ strategy for electrification of the bus network and increase confidence in electrification within the city.

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Medellin is the second-largest city in Colombia with a population of 2.5 million in 2017. The transportation sector contributes 80 percent of PM2.5 emissions. As a result, the City has been working towards greening the sector and in the last years the Medellin transport system has witnessed a transformation. From the renewal of the entire bus fleet to the development of a BRT system, the integration of fully electric powered buses, to the trade off of old taxi vehicles for electric ones and to the distribution of 25 eco-stations. The public transportation system in Medellin is well respected and was named one of the top transport systems in the world in 2012 by the Institute for Transportation and Development Policy (ITDP).

**City Context**

**Collaboration with FSCI**

- The 2018 Clean Bus Finance Academy in Quito was attended by the Secretary of Mobility of Medellin.
- The President of Metropoli, the city’s public transit authority, attended the 2019 iteration of the Clean Bus Finance Academy in Los Angeles.
- The C40 Regions Team help Medillin obtain external funding from the Interamerican Development Bank for technical assistance to support a tender for electric buses.

**Outcomes**

- The City implemented an innovative tender process for electric buses in the form of an auction. Suppliers were invited to propose a solutions package including buses and chargers against a fixed budget. The winning bid offered to supply 64 buses.
- Medellin received 64 electric buses in August 2019 and is currently in the process of preparing them for deployment.
- All 64 buses are expected to be put into service in November 2019, generating CO₂ emissions savings of over 3,600 tons annually.

**What’s next?**

- In the next 12 months the city will complete the deployment of all 64 buses and build the necessary charging infrastructure. Metropoli will also conduct a thorough performance evaluation process for the newly acquired buses.
- The city is planning a new tender for articulated buses, which FSCI is expected to support through its role in the multi-organisational programme, Zero Emissions Bus Rapid Accelerator (ZEBRA).
City Context
Lying where the Mississippi Delta meets the Gulf of Mexico, New Orleans is one of the most climate-vulnerable cities in the US. Fortunately, the City has set ambitious goals for both increasing resilience and reducing emissions across multiple sectors.

Collaboration with FSCI:
• Representatives from the City of New Orleans and Finance Authority of New Orleans (FANO) attended a 1 day workshop held in conjunction with the Financing Sustainable Cities Forum in New York, mid 2018.
• The City of New Orleans also co-hosted the first FSCI Adaptation Finance Academy in December 2018, welcoming cities from across the USA to discuss the challenges of financing adaptation in the national and local context, and sharing solutions.
• Representatives from FANO attended the Academy and through discussions at the event were able to progress ideas around green financing by identifying existing powers within the Authority that could be used to achieve similar outcomes to a green bank.

Outcomes:
• FANO has already convened a working group to discuss barriers to expanding green finance.
• The working group has met on several occasions since the start of 2018. The working group consisted of members from various institutions including the City of New Orleans, FANO, New Orleans Redevelopment Authority (NORA) and New Orleans Business Alliance.

What’s Next?
• One of the solutions that was identified by FANO at the Adaptation Finance Academy in 2018 was the development of a green mortgage programme. FANO has already started developing their green mortgage programme and is using the working groups to engage with other actors in the city to gain buy-in.
• FSCI will continue to the support the City to integrate climate resilience into its green finance work, coordinating technical assistance through the established working group or stakeholders.

THE ADAPTATION FINANCE ACADEMY HELD LAST DECEMBER IN NEW ORLEANS WAS A SIGNIFICANT MILESTONE FOR THE FINANCE AUTHORITY. WE HAD THE OPPORTUNITY TO SHARE OUR STRATEGIES AND CHALLENGES WITH OTHER CITIES ALSO WORKING TO ADDRESS CLIMATE CHANGE.

We have quickly learned that the solutions to our climate challenges will not come overnight and will require cities to collaborate. The adaptation finance academy provided a platform to share those ideas but also develop actionable steps for cities across the country. We look forward to continue building relationships with partner cities.”
PART 3: LOOKING FORWARD

As more and more governments, cities, citizens and companies wake up to the scale and severity of the climate crisis, the momentum of climate action is accelerating. Across the world, C40 member cities are preparing their climate action plans. These commitments, which will be signed off by mayors and city councils, will outline a roadmap for each city to play their full role in delivering the 1.5°C maximum warming goal set out in the Paris Agreement. Climate Action Plans set commitments on city emission reduction targets broken down to the sector level, including transport, energy generation, building energy efficiency, water and waste management. Importantly, and with support from the Citi Foundation, the plans also focus on making climate action inclusive, incorporating the just transition as an important component to achieving citizen buy-in for climate action.

However, the strong intentions of the climate action plans can only be delivered if the finance can be secured for implementation. Because finance remains an acute barrier, C40 will continue to support member cities to finance climate action and intends to grow the FSCI as a core element of C40’s city support programme. The key components of the FSCI - peer-to-peer support, finance academies, technical assistance and international events - have proven to be very successful in delivering strong outcomes for cities. FSCI intends to build on this success, widening the number of project types supported, developing more regional convenings and connections, and linking more closely to the vital inclusion and just transition agendas.

The FSCI of the future will remain tightly focused on supporting strong and tangible climate action on the ground in C40 cities, and aim to play a vital role in supporting cities to implement their climate actions and, in turn, form part of the intense global efforts to avert catastrophic climate change. Engaging partners in this endeavour will be vital to the Initiative’s success. We will seek to engage more stakeholders in the city finance community on both a global and regional basis. The FSCI team welcomes contact from organisations with interest in collaborating or contributing.
For more information, please contact fsci@c40.org