



EV30@30 Campaign

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The opportunity

Transport electrification can help in facilitating the transition to a clean energy system. Electric vehicles help diversify the energy needed to move people and goods thanks to their reliance on the wide mix of primary energy sources used in power generation, greatly improving energy security. Thanks to their storage capacity, they can support the uptake of clean electricity, enabling greater use of variable renewables in electricity production.

If coupled with the decarbonisation of the power sector, electric vehicles also have great potential to contribute to keeping the world on track to meet climate goals.

Electric mobility comes with zero or ultra-low tailpipe emissions of local air pollutants and much lower noise, and, by being one of the most innovative clusters for the automotive sector, can provide a major boost to the economic and industrial competitiveness, attracting investments, especially in countries with large potential for a significant market uptake.

Aim

The EV30@30 Campaign aims to take advantage of these opportunities supporting the market for electric 2- and 3- wheelers, electric passenger cars, light commercial vans, buses, and trucks (including battery-electric, plug-in hybrid, and fuel cell vehicles), in accordance with each country's respective priorities and programs.

Goal

The EV30@30 Campaign sets a collective aspirational goal to reach 30% sales share for electric vehicles¹ by 2030.

This will also be the benchmark against which progress achieved in all members of the Electric Vehicles Initiative (EVI) will be measured (i.e. total electric vehicle sales in all EVI countries / total vehicle sales in all EVI countries). It can be met through actions that differ across modes and jurisdictions.

Endorsing governments will show leadership by establishing policies to help this goal become a reality, and will direct their ministries to engage through EVI to report progress and share best practices.

Other organisations and private businesses supporting the EV30@30 Campaign will, in their own capacity, contribute to the realisation of this goal via their own activities and operations.

¹ In the total of electric passenger cars, light commercial vans, buses, and trucks sales

Implementing actions

The EV30@30 campaign includes several implementing actions:

- support the deployment of chargers and tracking its progress,
- galvanise public and private sector commitments for electric vehicle (EV) uptake in company and supplier fleets;
- scale up policy research and information exchanges;
- support governments in need of policy and technical assistance through training and capacity building; and
- establish the Global EV Pilot City Programme, aiming to achieve 100 EV-Friendly Cities over five years.

Support the deployment of chargers and tracking its progress

Commit to the deployment of a network of charging and fuelling infrastructure consistent with the ambition of the campaign and partner with The Climate Group's <u>EV100</u> initiative for its deployment in the private sector.

The achievement of the EV30@30 deployment target will need to be accompanied by the deployment of publicly accessible charging and fuelling infrastructure. For example, the EVI <u>Global EV Outlook 2018</u>, suggests that, for plug-in electric vehicles (including battery electric and plug-in hybrids), this is likely to require one or more publicly accessible slow charger for every 15 electric cars, and one or more fast charger for every 80 electric cars.

Widening the availability of chargers for plug-in electric vehicles along highways, at the workplace, and at leisure/commercial destinations (such as stores, restaurants and hotels) will strengthen incentives to support the EV30@30 target. The EVI will collaborate closely with private sector stakeholders supporting the EV30@30 Campaign to drive jointly this deployment, as well as with those involved in the Climate Group's corporate leadership initiative EV100, which is also providing a global platform for companies to make public commitments to the roll out of charging infrastructure. The collaboration will consist of sharing of knowledge and best practice examples and the use of the EVI and EV100 networks to enhance dialogue amongst public and private stakeholders, as well as the development of complementary monitoring actions to track progress. The EVI welcomes the engagement of other partners on this.

The EVI will keep monitoring the deployment of chargers and will continue to integrate results in annual reporting instruments, including the EVI's *Global EV Outlook* report.

Galvanise public and private sector commitments for EV uptake in company and supplier fleets

Galvanize public and private sector commitments for EV fleet procurement and deployment, strengthening the work started with the EVI <u>Government Fleet Declaration</u> for public fleets and partnering with The Climate Group's EV100 initiative for private fleets.

Through their leadership, fleet operators can make a major contribution towards achieving the EV30@30 target, both from the demand signals they can send to the market and their broader role as amplifiers in promoting and facilitating the uptake of electric vehicles by their staff and customers.

This dual initiative will bring the case of fleets to the forefront of efforts in road transport electrification. Commitments from the public sector to electrify public car, bus, and dedicated vehicle (e.g. service vehicle used by municipalities) fleets will be included in activities further





developing the EVI Government Fleet Declaration. They will be complemented by the engagement mobilized by the EV100 initiative of The Climate Group, providing a global platform for companies to make public pledges for the electrification of their fleets.

This joint action will include sharing of knowledge and best practice examples and offer opportunities for improved dialogue between public and private sector stakeholders.

Feedback on the progress achieved under this work will be integrated in existing annual reporting instruments used to monitor the deployment of electric vehicles and will feed into the information included the annual EVI *Global EV Outlook*.

Expand policy research on emerging EV deployment topics

EVI members currently support, through annual contributions (currently close to EUR 300 thousand), research and analysis led by the EVI coordinator (the International Energy Agency) and supported by technical institutes in member countries. In addition to this, the <u>William and Flora Hewlett Foundation</u> are supporting the scale-up of the EVI coordinator's activities through a USD 400 thousand grant in the period 2018-2019.

As part of the campaign, national governments and partner organisations will provide additional financial or in-kind resources to expand the depth and scope of research activities to include but not limited to the following identified topics:

- policy efficacy to improve the understanding of market response to policy incentives;
- consumer behaviour and barriers to the adoption of electric vehicles, such as range anxiety and charging speeds;
- solutions to the financial, regulatory, and technical challenges of smart integration of
 electric vehicles in the electricity grid, and in particular opportunities allowing to
 enhance the positive relationship between grid modernization and the penetration of
 electric vehicles in the stock;
- identifying best practices and developing guidelines for co-deployment of electric vehicles and renewable energy;
- understanding the impacts of electric mobility on energy diversification and GHG emission abatement, including aspects imputable to technology characteristics (e.g. the power generation mix) and consumer behaviour (e.g. the time of charging);
- anticipating potential issues related to the sustainability of battery supply chains and exploring environmentally, economically and socially sustainable solutions; and
- analysing synergies between connected, automated and shared mobility and electric vehicles to design policies allowing to maximize opportunities for the uptake of electric vehicles from shared mobility, also considering the need to address congestion and trade-offs between electric car and ride sharing and public transport.

Research on emerging topics regarding the deployment of electric vehicles will also be accompanied by expanded stakeholder engagement with an emphasis on municipal governments, utilities, regulatory bodies and the private sector as well as other initiatives working on the electric vehicle uptake.

The EVI will support this task by developing and coordinating an annual program of work and hosting working groups to promote accelerated learning among the aforementioned stakeholders.

Enhance knowledge sharing and capacity building

Insights from research activities, best practices and lessons learnt by policy makers will be disseminated among the EVI network and beyond through publications and actions specifically targeting the need to build capacity at the global scale on policy support for electric vehicles.

These actions will leverage on the engagement of the EVI coordinator, the representatives of EVI member governments and other initiatives aiming at the promotion of energy efficiency in transport and the uptake of electric vehicles, such as the IEA Technology Collaboration Programmes on Hybrid and Electric Vehicles, Hydrogen and Advanced Fuel Cells. This will also benefit from partnerships with stakeholders supporting the EV30@30 campaign. The actions will include:

- the development and provision of numerical and modelling tools helping develop policy support measures for electric vehicles;
- the engagement of the EVI coordinator, EVI representatives and other stakeholders in capacity building events, such as those developed during the IEA Energy Efficiency Training Weeks (EETW), aiming at the build-up of capacity for policy makers willing to implement policies supporting electric mobility in their jurisdictions.; and
- the provision of bilateral consultative policy support services to governments (including municipalities) and EV30@30 partners.

Establish the Global EV Pilot City Programme

The Global EV **Pilot City Programme** (PCP) is a global cooperative initiative aiming to gather a network of 100 EV-Friendly Cities over five years, to facilitate the exchange of experiences and the replication of best practices for the promotion of electric vehicles in cities.

By September 2018, 34 leading cities have joined the EVI Global EV Pilot City Programme from twelve countries² on four continents. <u>The Programme was launched</u> on 24 May 2018 at the ninth Clean Energy Ministerial in Copenhagen and it was followed by the first EVI **Pilot City Forum**. This is an exchange event allowing to facilitate networking and communication across interested stakeholders, to be held alternatively in China and in another country, every year. Helsinki (Finland) hosted the <u>first edition</u> on 28-29 May 2018.

EVI will work with partner organizations to expand the Programme, supporting greater dialogue with municipal governments on issues such as the benefits and implementation challenges of EVs. This includes **urban planning**, **infrastructure and charging technology**, **mass transit** (**including electric buses**) **and mobility as a service** (comprising car and ride sharing).

EVI will develop this task leveraging on city networks – including C40 – for outreach, identifying good practices and facilitating their replication and improvement. EVI government representatives will also facilitate the identification of cities ready to participate in the activities of the Global EV Pilot City Programme and support their engagement.

Reporting on the progress made under the Global EV Pilot City Programme will be incorporated into the annual edition of the *Global EV Outlook* or as a dedicated deliverable.

² Canada, China, Finland, Germany, India, Japan, Netherlands, New Zealand, Norway, Sweden, United Kingdom, United States.





Supporting Governments

Canada

Canada recognizes the importance of lowering emissions from the transportation sector as one key aspect of both our climate change and clean growth agenda. Electrification of transportation is an important component of our strategy to lower emissions from this pivotal sector. Canada is therefore pleased to continue our ongoing support of the EV30@30 campaign, as many of the activities complement actions which our Government is taking. In October 2017, Canada assumed the co-chair role of the Electric Vehicle Initiative. We are:

- developing a Zero Emission Vehicles Strategy to increase adoption of these vehicles;
- investing in electric charging and hydrogen refuelling infrastructure;
- developing enabling codes and standards;
- providing consumers with information and tools to inform their purchasing decisions;
- investing in research, development and demonstration of innovative technologies;
- leading by example and deploy greater numbers of zero emission vehicles in our government fleets; and
- enabling Canadian cities to join cities from around the world in the Global EV Pilot Cities Program.

China

With rapid growth of the automotive population, the problem of vehicle exhaust emissions and greenhouse gas emissions has aroused more and more concern in China. China considers New Energy Vehicles, which include BEVs, PHEVs and FCEVs, as the main solution to the energy and environment challenge. China will continue to be committed to the EV30@30 campaign and welcome representatives of local and national governments, and private organizations to join the EV30@30 campaign.

To meet the goals of the EV30@30 campaign, China will keep working on EVs and in particular in the following areas:

- conducting the research and development of EV relevant technologies;
- encouraging more Chinese Cities to join the Pilot City Programme, hosting events such as
 the EV Pilot City Forum and the Global NEV Congress to facilitate the cooperation and
 exchange among stakeholders around the world;
- supporting the deployment of EVs including buses, sanitation trucks, and urban logistics vehicles in main cities and regions; and
- summarizing and sharing the experience and lessons learned from EV promotion.

Finland

Finland finds EV30@30 interesting and relevant, and is willing to commit to the CEM-EVI EV30@30 campaign for a number of reasons.

The Finnish energy and climate strategy for 2030, launched in November 2016, calls for a 50% reduction in transport related greenhouse gas emissions by 2030 (reference year 2005). To achieve this goal, the strategy sets specific targets for fuels and vehicles in 2030:

- 250 000 electric vehicles;
- 30% biofuels (actual energy contribution);
- 50 000 gas fuelled vehicles.

The current passenger car fleet in Finland is around 2.6 million units. To reach an EV population of 250 000 units in 2030, maintaining the current growth rate in EV sales, the targeted share of EVs of new vehicle registrations would be reached or surpassed by 2030. Thus, the Finnish national ambitions are fully congruent with the EV30@30 target.

Finland also finds it very appropriate to promote electro mobility by supporting both public and private charging infrastructure. Several charging operators are already active in Finland today, and Finnish companies also provide hardware for charging equipment.

Public transport and commercial vehicles are considered attractive for electrification. Finland is aiming to engage 5 to 7 EV friendly cities, with a focus on electrifying bus services. Already now, the cities of Helsinki, Espoo, Tampere and Turku are running pilots on battery electric buses; Helsinki region transport is preparing for first commercial tenders involving electric buses, at the same time expanding the fast charging systems for buses. Currently, the e-bus systems put in service in Finland are based on the concept of opportunity charging, meaning fast charging – approximately three minutes – at the terminal points.

France

France is committed to promoting and developing electromobility, as it is an effective means to fight against climate change and air pollution.

France welcomes the EV30@30 campaign. The French objective is to reach 7 million charging points for plug-in hybrid and electric vehicles by 2030 (Energy Transition for the Green Growth Act in 2015) and to end the sale of GHG-emitting cars by 2040 (French Climate Plan, 2017).

To foster the deployment of charging infrastructure for electric vehicles, French local authorities benefit from the Investments for the Future programme (PIA), which was launched in 2009 by the French Government to boost strategic initiatives on electric mobility. More than 20 000 charging points for electric vehicles have already been funded by PIA, representing an investment of EUR 61 million.

France is committed to enhancing its market share of electric vehicles. To this end, France has designed incentives so that the number of new electric vehicles sold in 2022 is 5 times higher than in 2017. In particular, a bonus-malus scheme rewards or penalizes the purchase of cars depending on their CO_2 emissions level and since the beginning of 2018, the bonus is exclusively dedicated to electric vehicles. A vehicle conversion premium is also in place, supporting the replacement of an old GHG-emitting vehicle with a cleaner one.

In May 2018, the French Government and the French automotive sector signed an agreement in order to achieve this target. Moreover, France will continue to support the installation of charging points available to the public. A national scheme will be issued by 2020 to encourage French local authorities to do so. The number of charging points should reach 100 000 by 2022. Since February 2016, the ADVENIR program (in the context of energy savings certificates) has eased the installation of 12 000 charging stations on car parks (shops or businesses) and in collective habitats.





India

Rapid social and economic development with a burgeoning middle class and strong economic growth are expected to have significant impact on people's lifestyle including the modes of personal mobility. India is at the cusp of transforming its existing fleet of fossil fuel based modes of transportation to cleaner & connected ones in order to bolster the twin pillar of its national policy i.e. energy security and reduction in greenhouse gases (GHG). Mass adoption of ecofriendly, secure, efficient & affordable modes of transportation in the country require adequate EV charging infrastructure to suitably address the issue of range anxiety. Moreover, it is important to address the issues related to technical, regulatory and business models aspects to foster a reliable EV ecosystem in the country. To this extent the Government of India has already declared EV charging as "a service" instead of resale of electricity under Electricity Act-2003 to enable any individual or corporate to set up charging stations without need of a licence thereby addressing a major regulation hurdle in deployment of charging infrastructure. It is also exploring innovative business models like public private partnerships (PPP) and Viability Gap Funding (VGF) to accelerate deployment of public charging infrastructure in the country. Moreover, the Government of India is presently working on establishing indigenous standards for public chargers to ensure quality & safety of charging ecosystem that is proposed to be set up in the country in the next decade.

Japan

In order to move towards the goals of the Paris Agreement, the Japanese government is aiming to increase the share of battery electric vehicles and plug-in hybrid vehicles to between 20 and 30 percent and also the share of fuel cell vehicles up to 3 percent among total new passenger vehicle sales by 2030. Furthermore, we aim to decrease GHG emissions per vehicle by 80% by 2050 from the 2010 level.

Japan is also aiming to convert all passenger vehicles produced by Japanese automakers sold worldwide to electrified models, including hybrid vehicles, and cutting GHG emissions per passenger vehicle by 90% by 2050 from the 2010 level.

We are convinced that with the EV30@30 campaign we can contribute to accelerating the dissemination of electrified vehicles which will help reducing CO₂ emissions and make transport more sustainable.

Mexico

In its General Law on Climate Change of 2012, Mexico established a framework aiming to regulate greenhouse gas emissions to contribute to the stabilization of their concentration in the atmosphere to levels avoiding negative consequences on the climate system. In 2016, Mexico also committed to meet the goals of the Paris Agreement, pledging for a 22% reduction of its greenhouse gas emissions by 2030.

In 2015 Mexico also approved its Energy Transition Law, aiming to promote the transformation to a sustainable energy and economic system, capable to maintain the competitiveness of the Mexican economy. Mexican cities, primarily Mexico City, are also committed to improve air quality.

The National Strategy for Energy Transition to promote the use of cleaner technologies and fuels, mandated by the Energy Transition law, defines the main policies and action areas configuring a clean energy system for Mexico. In transport, the strategy foresees:

- the adoption of regulatory policies promoting the use of efficient technologies, including EVs;
- measures accelerating the replacement of vehicles in the Mexican fleet;
- the definition of a roadmap for the substitution of fossil fuels with clean energy in cities;
- public procurement programs to adopt efficient vehicles including EVs in public transport fleets; and
- the development of norms for the deployment of charging infrastructure.

Recent actions aiming to stimulate the uptake of EVs include the adoption of tax exemptions for electric cars and the support of the deployment of charging infrastructure through the Energy Transition Fund. In Mexico, electric vehicles are exempt from restrictions to vehicle use aiming to limit emissions of local pollutants.

Given the strong relevance of the automotive industry in the Mexican economy, Mexico sees the transition to electric mobility as a major opportunity to foster innovation and strengthen the competitiveness of its industrial system. Other measures will therefore strengthen the actions already undertaken to promote EVs, demonstrating the Mexican commitment to contribute to the attainment of the EV30@30 objective.

The Netherlands

The government of the Netherlands strongly supports the need for clean and sustainable mobility, also in view of the energy transition. The ambition for mobility is that in 2030 all new passenger vehicles sold will be zero-emission. The Netherlands has fiscal instruments in place to stimulate the sales of zero emission vehicles, and there is great attention for the availability of public charging infrastructure to match vehicle ambitions. The government works together with companies, non-governmental organizations and knowledge institutes to stimulate electric mobility, working together in the public private platform The Formula E-Team. E-roaming is easy in the Netherlands, with overall interoperability. The government supports cooperation with other countries to increase e-roaming and strongly supports open protocols for charging infrastructure. It also promotes the Netherlands as a nationwide Living Lab for Smart Charging.

Norway

Norway has ratified the Paris Agreement on climate change and committed to 40 percent reduction of greenhouse gas emissions by 2030 compared with the 1990 level. As part of this agreement, Norway will continue our efforts for greenhouse gas reduction in the road transport sector.

By mid-2018, the total number of battery electric cars (BEVs) reached about 180 000 units with a market share of 26% for new sales. For plug-in hybrid electric cars (PHEVs), the market share is 19%.

The high proportion of electric vehicles has been spurred by a number of economic and other incentives. There is no purchase tax for EVs, no VAT, reduced annual fee and reduced benefit tax for electric cars used as company cars, no road usage tax and no re-registration tax. In addition, electric vehicles have until recently had free passage on toll roads, access to public transport lanes, free public parking and free passage on ferries. According to national law, EVs are still entitled to reduced fares by at least 50% on toll roads and on ferries. The government is also





aiming at securing minimum 50% reduced fares for EVs in public parking spaces. EVs still have access to most public transport lanes, but not always in the rush hours.

Sweden

In June 2017, Sweden adopted a climate law that aims to reduce road transport emissions by 70 percent by 2030, compared with 2010, and for the transport sector to be completely fossil-free by 2045. If these objectives are to be met, transport must become more efficient at the same time as the share of sustainable biofuels and electric vehicles must increase. Therefore, we support the EV30@30 campaign.

In order to reach these goals, the Swedish government has implemented a broad set of polices to steer in this direction. On 1 July 2018, Sweden introduced a cost-neutral bonus/malus system, replacing a plug-in electric vehicle purchase rebate scheme, which for example increases the maximum support for battery electric vehicles from 4000 Euro to 6000 Euro. Simultaneously, an increased vehicle tax is applied to petrol and diesel vehicles. The policy framework promotes the use of plug-in electric vehicles among company cars and vans. Electric buses have since 2017 been granted a purchase rebate. During spring 2018, the Swedish government also enabled for municipalities to introduce new levels of environmental zones. Since 2015, public support has been granted for the deployment of charging infrastructure (both publicly accessible and private charging infrastructure), and on 1 January 2018, a specific home-charger scheme was introduced. In 2015 the Swedish government appointed the Swedish Energy Agency to coordinate the public charging infrastructure deployment efforts. The R&D funding on e-mobility is continually substantial and has for example enabled demonstrations of electric road systems on public roads, a pilot production line for sustainable battery production and the on-going establishment of a 100 million Euro testbed for electric drivetrains.

The United Kingdom

The EV30@30 campaign demonstrates that the move towards zero emission vehicles is something that is happening across the world. Our mission is to put the UK at the forefront of the design, manufacture and use of zero emission vehicles. We will end the sale of new conventional petrol and diesel cars and vans by 2040. By then, we expect the majority of new cars and vans sold to be 100% zero emission and all new cars and vans to have significant zero emission capability. By 2050 we want almost every car and van in the UK to be zero emission.

Our Road to Zero Strategy details the Government's comprehensive plans to support this mission. The strategy sets out a clear pathway to zero emissions. By 2030 we want at least half of new cars sold, and as many as 70%, to be ultra low emission, alongside up to 40% of new vans.

To achieve this, we are investing nearly £1.5bn in a comprehensive package of support for the transition to zero emission vehicles with grants available for plug in vehicles and schemes to support chargepoint infrastructure.

Supporting organizations

C40

<u>C40</u> supports the EV30@30 campaign, as an opportunity to shift the global vehicle market towards Low Emission Vehicles, accelerating the transition to cities that are sustainable, low

carbon and enjoy clean air. We will continue to work with the 91 cities across the network to encourage the shift to electric vehicles, along with policies that incentivise citizens to choose public transport, walking and cycling.

C40 is a network of 91 of the world's leading cities committed to bold action on climate change. The C40 Low Emission Vehicle (LEV) Network supports cities to increase the uptake of LEVs, both in municipal fleets and private vehicles.

The C40 Clean Bus Declaration, an initiative of the LEV Network, has brought together 26 global cities in a shared commitment to reducing emissions and improving air quality by incorporating low- and zero-emission buses in their fleets.

C40 will support the EV30@30 campaign through outreach and collaboration in the Global EV Pilot City Programme and will engage in its development over time.

FIA Foundation

The <u>FIA Foundation</u> is committed to supporting and promoting all aspects of safe, clean, fair and green mobility, and sees electric vehicles – when supported by renewable and sustainable energy generation – as having a key role to play in that.

Indeed, the EV30@30 initiative fits well with other work which we are undertaking to improve vehicle efficiency, and clean up vehicle emissions. The FIA Foundation is therefore happy to support the work of the EV30@30 initiative in promoting electric mobility. With such an impressive range of supporters, EV30@30 has the potential to generate a step-change in the performance of this crucial sector.

GFEI – Global Fuel Economy Initiative

<u>GFEI</u> works to improve the efficiency of vehicles, ensuring the widest possible adoption of existing energy-saving technologies, and promoting the use of new ones. Electric vehicles are a core part of our analysis of future decarbonisation pathways.

Several of GFEI's partners are already engaged in the EV30@30 initiative, whose work looks set to offer real benefits to the development of this crucial technology, the improved market penetration of electric vehicles, and the policy support which the sector may need.

GFEI partners have also been engaging with the IEA on research, monitoring and tracking progress against GFEI targets, and capacity building activities to scale up the adoption of energy efficiency in transport. GFEI supported the development of IEA analysis on fuel economy developments across global markets, cooperated to strengthen the IEA outreach capacity, supported the development of training tools such as the Fuel Economy Policies Implementation Tool (FEPIT) and shared costs for training events. GFEI partners also contributed with training staff to capacity building activities. We look forward to strengthen our cooperation on these activities in the coming years.

Hewlett Foundation

The <u>William and Flora Hewlett Foundation</u> is committed to keeping global warming to under 2 degrees C. To realize this goal, we need large scale electrification of the transportation sector by 2030. The EV30@30 campaign makes such an outcome possible by coalescing governmental actions across its wide membership. We are delighted to provide financial resources and support to the campaign and EVI as whole.





NRDC - Natural Resource Defence Council

The <u>NRDC</u> is fighting climate change by tackling the climate crisis at its source: pollution from fossil fuels. NRDC is working to accelerate the shift to electric vehicles and integrating them with a clean power grid. NRDC is also working with cities in the United States, China and other countries and helping to provide clean energy solutions.

NRDC welcomes and applauds the EV30@30 Campaign and looks forward to collaborating with EVI in sharing policy research findings and best practices, promoting stakeholder dialogue and information exchange on EV-grid integration and co-deployment of EVs with renewable energy, as well as by helping to promote the Global EV Pilot City Programme among our city partners.

REN21 – Renewable Energy Policy Network for the 21st century

REN21, the Renewable Energy Policy Network for the 21st Century, supports the EV30@30 campaign and reinforces the idea that the electrification of the transport sector should go hand-in-hand with the transition to renewable energy in the power sector. REN21 consolidates data on renewable energy in transport and contributes to bridging stakeholders in transport and energy to construct a sustainable future.

SLoCaT – Partnership on Sustainable, Low Carbon Transport

<u>SLoCaT</u> promotes the integration of sustainable transport in global policies on sustainable development and climate change. It acknowledges the essential contribution of electric mobility towards the decarbonisation of the transport sector, including public transport, urban freight and personal vehicles.

Through the Global Macro-Roadmap: An Actionable Vision of Transport Decarbonisation, which SLoCaT is helping to develop in the context of the Paris Process on Mobility and Climate (PPMC), SLoCaT is actively working towards making electric mobility a key component of efforts to implement the Paris Agreement on Climate Change.

SLoCaT will contribute towards the implementation of the EV30@30 campaign by facilitating access and outreach for EVI to its membership of over 90 organizations representing United Nations, multilateral and bilateral development organizations, transport operators, business sector, civil society and academia.

SLoCaT will also support the EV30@30 campaign in the Marrakech Partnership on Global Climate Action³ of the United Nations Framework Convention on Climate Change (UNFCCC), where SLoCaT operates as thematic coordinator for transport. SLoCaT is confident that this will raise the profile of electric mobility in the UNFCCC process.

SLoCaT has a special interest to contribute to the development of the Global EV Pilot City Programme. It will do so through its work with a wide range of global, regional and national city networks on sustainable transport, helping EVI in the identification of cities participating to the Global EV Pilot City Programme. SLoCaT will strengthen the EV30@30 campaign by using these

³ The Marrakech Partnership for Global Climate Action will strengthen collaboration between UNFCCC Parties and non-Party stakeholders to allow greater mitigation and adaptation actions to be implemented immediately.

networks to promote the development and implementation of enabling national and local policy, regulatory and financial frameworks based on lessons learned from, and best practices, including those emerging from the Global EV Pilot City Programme.

The Climate Group

<u>The Climate Group</u> is an international non-profit bringing together powerful networks of business and governments that shift global markets and policies. We act as a catalyst to take innovation and solutions to scale, using the power of communications to build ambition and pace.

Our corporate leadership initiative EV100 brings together forward-looking companies committed to accelerating the transition to electric vehicles (EV) and making electric transport the new normal by 2030. With businesses owning a major part of vehicles on the road, it is crucial that companies lead the shift to electric vehicles. Through their investment, and influence on millions of staff and customers worldwide, they can address rising global transport emissions. Companies joining pledge to transition their own vehicle use to EVs and/or install charging infrastructure at all relevant premises by 2030.

Through their leadership, companies can make a major contribution towards achieving the goals set by the EV30@30 commitment. At the same time, supportive policy frameworks and coordinated efforts with other stakeholders are crucial for their success. The EV100 initiative therefore aims to collaborate closely with the governments and other stakeholders involved in the EV30@30 campaign to promote corporate EV leadership and link the business perspective into global conversations. This includes the sharing of knowledge and best practice examples around the business case for corporate EV engagement, as well as the creation of dialogue opportunities between EV100 members and policy makers.

UN Environment

<u>UN Environment</u> is a strong supporter of a global transition to electric mobility to reduce urban air pollution and reduce greenhouse gas emissions. It welcomes the EV30@30 campaign of the EVI under the Clean Energy Ministerial.

UN Environment calls on the countries in the Clean Energy Ministerial and all countries worldwide to engage in the EV30@30 campaign. It commits to support its activities by sharing information with the EVI and enhancing its outreach capacity.

The UN Environment is supporting close to fifty countries and cities around the world with the introduction of electric cars, busses and motorbikes. It will partner with EVI to build capacity on the policymaking process, enabling the uptake and management of electric mobility. UN Environment will also share contacts and support EVI outreach activities to engage national and local administrations in the EVI Global EV Pilot City Programme.

UN-Habitat

<u>UN-Habitat</u> launched the Urban Electric Mobility Initiative at the UN Climate Summit in September 2014. In the context of better urban planning and a transition to more efficient modes of transport and clean sources of energy, UEMI aims at travel by electric vehicles, by 2030, to make up 30% of all urban travel. Together with over 50 partner organisations, including industry representatives, under three EU supported projects (SOLUTIONS, EMPOWER and FUTURE RADAR), UN-Habitat has been working with 40 cities from the Asia, Africa, Europe and the Latin America regions in promoting a transition towards sustainable mobility and assess the role electric mobility can play in this. The joint efforts of the partnerships has included reviews of





policies, exchange of good practices, and capacity building, pilot project development and implementation support.

UN-Habitat looks forward to joining hands with the EVI under the Global EV Pilot City Programme in promoting the uptake of Electric Mobility, particularly in light of the New Urban Agenda adopted at Habitat III in Quito, Ecuador in October 2016. To support the EV30@30 campaign, the UN-Habitat will share contacts in its city network with EVI and will facilitate outreach. The UN-Habitat will also collaborate with partner cities to develop action plans and bankable projects for greater uptake of electric mobility, building on the insights emerging from the work of EVI and its partners, as well as the Global EV Pilot City Programme, supporting the capacity building and outreach actions of the EV30@30 campaign.

WRI - World Resources Institute

WRI is a global research organization that turns big ideas into action at the nexus of environment, economic opportunity and human well-being. WRI's Ross Center works to improve quality of life in cities and create accessible, equitable, healthy and resilient urban areas for people, businesses and the environment to thrive. We are committed to accelerating the adoption of more energy efficient solutions for the transport sector including electrification of vehicle fleets.

We welcome the work that the EV30@30 campaign is doing to accelerate this transition; in particular, by contributing to creating market conditions that will make the transition cost-effective and focusing on the critical pillar of charging infrastructure. WRI has been conducting research on innovative business models for EV deployment and applying this research in pilot projects in cities in developing countries. We look forward to using this on-the-ground expertise and research to support the EV30@30 campaign and its ambitious goals.

ZEV Alliance – International Zero Emission Vehicle Alliance

The <u>ZEV Alliance</u> is a collaboration of national and subnational jurisdictions to accelerate the adoption of ZEVs, including battery, plug-in hybrid, and hydrogen fuel cell electric vehicles. In 2015, the ZEV Alliance members announced that they would strive to make all passenger vehicle sales zero emission in their jurisdictions as fast as possible, and no later than 2050.

The ZEV Alliance welcomes commitments to accelerate the global transition to electric vehicles, including the Electric Vehicles Initiative's EV30@30 campaign and other collaborative efforts among countries and subnational jurisdictions. Every country has work to do to allow automotive markets to shift to 100% zero emission vehicle sales as soon as possible. The ZEV Alliance will continue to coordinate with the Electric Vehicles Initiative to enhance the knowledge sharing among governments seeking to accelerate zero-emission vehicle adoption.

Supporting companies

ChargePoint

In the path of decarbonization of the energy system, electro-mobility will be a key enabler to build more sustainable economies. Electro-mobility can make energy demand more flexible, contribute to the electricity system management through smart charging solutions and can address air pollution challenges by reducing local emissions and integrating more renewables in

the energy system. ChargePoint is building this network by connecting energy providers, automakers and all kinds of businesses to EV drivers.

Today, ChargePoint is the world's leading and most open electric-vehicle charging network with more than 54,000 total charging spots and more than 900 Express DC globally. In total, with more than 42 Million charges delivered as of August 2018, drivers have avoided more than 42,338,000 gallons of gas, 134,585,000 kg of CO_2 emissions and 141,669,000 kg of GHG emissions, and more than 1,011,900,000 electric miles have been driven on the ChargePoint Network. ChargePoint stations have dispensed more than 337,300 Megawatt hours (MWh) of electric fuel.

EV Charging infrastructure roll out will be key to support electro-mobility deployment. ChargePoint is committed to work with municipal and local stakeholders to support the installation of AC and DC fast charging to meet the needs of new EV drivers, partner with private sector willing to offer additional benefits to employees or customers with e-mobility solutions and support smart charging solutions to make EVs a dynamic part of the electricity system providing balancing and grid management tools as well as an opportunity to supply more green electricity. ChargePoint has developed a strong experience working with different stakeholders in all these sectors and is keen to share best practices and recommendations for a smart deployment of EV infrastructure.

ChargePoint is keen to contribute to address global climate challenges through a wider ray of technologies and solutions working with business partners, drivers and thought leaders. For this reason, ChargePoint is supporting the EV30@30 campaign to set a collective goal for EV deployment and creating a community to share best practices and best policies to enable EVs to deploy effectively.

Energias de Portugal (EDP)

EDP Energias de Portugal firmly supports and actively promotes electric mobility.

For almost a decade, EDP's corporate strategies targeted mainly renewables, efficiency and innovation combining the competitiveness of its business with one of the world's leading concerns: climate change. It has committed to: reduce its CO₂ specific emissions in 2030 by 90% (comparing to its 2005 levels), a more ambitious goal than our previous target recognized by the Science Based Target Initiative; exceed a 90% target of renewable generation by 2030; provide customers with energy efficiency products and services aiming at reducing overall consumption by 1 TWh by 2020 (against 2014 levels); invest €200M by 2020 in innovative projects and in promising and unproved clean energy technologies.

As part of a broader sustainability strategy the company has now committed to actively contribute to accelerating decarbonisation of transport by: i) electrifying our fleet, reaching 100% of electric light duty vehicles by 2030 and ii) develop new offers and commercial solutions that promote the energy transition, including charging infrastructures.

EDP's positioning regarding electric mobility is comprehensive and involves employees, operations, businesses, customers and suppliers. It aims at reducing both GHG and other emissions, promoting energy efficiency and improving quality of life of the people in the geographies where the group operates.

Most of these activities include partnerships with the public sector, major car manufacturers, suppliers of charging systems, technological and research centres and non-governmental organizations.

EDP also contributes to sustainable mobility by actively participating in forums, technical and standardisation groups, impact studies and R&D projects, both at national and international level,





including the World Business Council for Sustainable Development and the Transport Decarbonisation Alliance.

Enel X

Enel X is a brand new company within the Enel Group, which has been created to provide new digitalized products and value added services, such as energy efficiency, demand response, electric mobility, IoT and optical fiber at both residential and C&I level. In the framework of electric mobility Enel X has developed integrated and concrete actions to promote the business involving employees, operations, customers and suppliers, aiming at reducing GHG emissions, incentivizing circular economy business models, promoting energy efficiency and improving people's quality of life in the areas where the Group operates.

In the framework of public charging infrastructure deployment, the company will play an important role in the installation of such infrastructures across the countries where it has a consolidated market presence. To this end, Enel X is developing a plan in Italy that envisages the installation of around 14.000 charging stations by 2022, out of which 3,000 will be Fast & Ultra Fast stations.

The markets where Enel X is active in providing charging solutions to customers' segments such as residential, C&I, municipalities and public operators are US, Italy, Spain, Romania, Greece and some countries in Latin America.

Enel X contributes to the electrification of mobility by actively participating in forums, technical and standardisation groups, impact studies and R&D projects, both at national and international level.

Enel X is committed to deploy fast charging technology (50 kW to 350 kW) and is engaged in some R&D projects through the participation in several EU funded projects, mainly within the Connecting Europe Facility (CEF) and the Horizon 2020 programs respectively.

Additionally, Enel X promotes electric mobility also through concrete actions in favor of its employees. For example in Italy, Enel X has launched for the managerial staff a pilot programme that combines the possibility to choose an EV from a wide catalogue with the installation (for free) of charging stations at their homes. Furthermore, an electric car-sharing service for Enel X's staff, a plan to gradually electrify part of Enel's vehicle fleet and to install charging stations in the Enel Group premises have just been launched in Italy.

E.ON

E.ON is one of the largest privately owned energy companies in Europe. We are determined to drive the transition towards a fossil-fuel free future by developing and deploying renewable energy solutions throughout Europe. We are among the largest providers of electric mobility in Europe and have invested more than 12 billion Euro in renewables over the past decade. Together with partners we are currently establishing a comprehensive ultra-fast charging infrastructure in Europe, making it possible for people to drive seamlessly through Europe. Our ambition is to electrify peoples' journey and become Europe's leading provider of smart charging infrastructure and innovative mobility solutions. We are on a journey towards a fossil-fuel free future, which the EV30@30 Campaign helps us achieve. We therefore support the campaign.

Fortum

Fortum is a leading clean-energy company that provides its customers with electricity, heating and cooling as well as smart solutions to improve resource efficiency. We want to engage our customers and society to join the change for a cleaner world. We employ some 9,000 professionals in the Nordic and Baltic countries, Russia, Poland and India. In 2017, 61% of our electricity generation was CO_2 free.

Fortum actively promotes the electromobility development, therefore we would like to express our support to the EV30@30 Campaign. We are committed to contribute to the environmental improvement of the transport sector, by providing different EV charging services in Europe and India.

Today Fortum is a leading EV charging services provider in the Nordics, enabling access to an extensive public charging network, offering destination charging services, as well as a cloud solution that helps also other organizations in Europe to develop and offer EV charging services.

In 2018 we took another important step to promote electrification by simplifying charging access also to European EV drivers outside of the Nordics. In India via various partnerships we aim to develop charging services in the cities. We have also deployed electric vehicles and charging station in our Indian office.

In order to facilitate a rapid transition towards more environment friendly car fleets, since the beginning of year 2018 the company car policy in Fortum Finland is restricted to BEVs and PHEVs. We have also installed and made available 46 EV chargers with 92 outlets to our employees in Fortum's new headquarter in Espoo, Finland. In addition we have so far installed 9 chargers available for our employees in Norway.

We will continue to work towards an increased uptake of electric vehicles among our employees by information sharing and other educational actions. We will also actively participate and contribute to the development of favorable legislation within the EU, we will also continue to promote various regulatory initiatives that supports the development of E-Mobility.

Iberdrola

Electric mobility is key to reach a sustainable energy model in terms of climate change, air quality, noise pollution and energy efficiency. Faster than expected technology improvement and cost reductions will make the EV30@30 objective not only achievable, but also desirable from a social perspective. Environment, health and economy will be better off, and especially cities will be more friendly places to live.

Iberdrola, as a leading electric utility focused on renewables and networks, firmly supports and actively promotes electric mobility. It has developed a Sustainable Mobility Plan, which is part of a broader commitment from the Company in our Sustainability Policy approved by the Board of Directors. This comprehensive plan, which involves employees, operations, businesses, customers and suppliers, is structured around 23 concrete actions aiming at reducing both GHG and other emissions, promoting energy efficiency and improving quality of life of the people in areas where the group operates. Among these actions, Iberdrola plans to install by 2021 up to 16.000 charging points at homes and 9.000 at workplaces in Spain. As far as customers are concerned, Iberdrola offers the Smart mobility program, which includes both the provision of a charging point and a special tariff to charge the vehicle with green electricity. Some actions are also aimed at Iberdrola's staff, like the Electric vehicles for employees, that includes different incentives for the purchase of an electric vehicle, the progressive installation of charging facilities at our park places, or electric-car sharing services in certain offices of the Company; and others





are related to the company's operations, like the progressive electrification of our vehicle fleet. Most of these activities include partnerships with public administrations, major car manufacturers and suppliers of charging systems.

Iberdrola also promotes the electrification of mobility by participating actively in forums, technical and standardisation groups, impact studies and R&D projects, both at national and international level.

With all these actions, Iberdrola contributes to the fulfilment of the goals set in the EV30@30 campaign, both through its operations and the provision of the energy needed to feed its customers' EVs.

Renault-Nissan-Mitsubishi Alliance

As pioneer and global leader in zero emission electric vehicles, Renault-Nissan-Mitsubishi actively develops and promotes electrified vehicles as a key competitiveness lever and sustainability enabler. In supporting the EV30@30 Campaign, we desire to work toward an "EV-friendly" eco system, which is essential to promote EV adoption.

Renault-Nissan-Mitsubishi has the largest product offer of electric vehicles in the world. The Nissan LEAF, the first mainstream, mass-marketed electric vehicle, remains the world's best-selling EV with more than 350,000 vehicles sold since its launch in December 2010. In addition to the LEAF, Nissan has recently launched the Sylphy Zero Emission in China and the 40 kWh Nissan e-NV200, a light commercial vehicle, in Europe. With more than 170,000 of its electric vehicles in circulation, Renault has the most complete range of affordable EVs on the market: ZOE - the most sold EV in Europe since its launch - Twizy, Kangoo Z.E. and Master Z.E. Mitsubishi Motors has sold the i-MiEV since 2009.

By the end of 2022, Renault-Nissan-Mitsubishi will strongly increase the penetration of electrified models. Thus, Alliance member companies will launch more than 12 pure electric vehicles by then, utilizing common EV platforms and components. In addition to expanding our product range to cover all main segments in Japan, the USA, China and Europe, we will also improve the vehicles performances significantly to make them more useful and valuable for our customers. By 2022, we expect the range of these vehicles to exceed 600 kilometres (NEDC). In addition, the charging experience will be significantly improved with new technologies that enable faster charging.

We are convinced that electric vehicles are more than mere cars and represent an entire ecosystem. They have lots of potential to contribute to people's lives and society. Electric vehicles carry a large battery that helps to balance power grid loads, and thus have a major role to play in the energy domain; they have the potential to charge wherever they are parked, allowing them to be a major player in new energy mobility trends. The alliance is seeking to co-construct the ecosystem that supports them with several partners from different fields. Renault has thus created together with its partners the world-first "smart-island" in Porto Santo. It uses electric vehicles, second-life batteries, smart charging and V2G to boost the island's energy independence and stimulate the production of renewable energy. In Japan, Nissan has sold more than 7,000 units of vehicle-to-home systems, which allow electric vehicle owners to supply their home with the energy stored in a battery.

Schneider Electric

We support the EV30@30 Campaign, and the goal to reach 30% sales share for electric vehicles by 2030.

At Schneider Electric, we believe the future of energy is decentralized, decarbonized and digitized, and electro-mobility is essential for the world to reduce carbon emissions. We are leading the digital transformation of energy management and automation in homes, buildings, data centers, infrastructure and industries and have a global presence in over 100 countries. From this unique vantage point, we see that electro-mobility dominates the agendas of business leaders, but adoption is progressing slower than needed. Additional regulations, efficient infrastructure, and reduced costs to drive consumer demand are key to reach the tipping point.

In our Schneider Sustainability Impact 2018-20, we committed to using 80% renewable electricity across our global operations by 2020, and continue to work with stakeholders from business, governments, and civil society to prevent future effects of climate change. In our journey to achieve carbon neutrality in our ecosystem by 2030, we have a goal to achieve at least 30% electric vehicles in our own car fleet.

Schneider Electric brings its expertise to enable key players of the electro-mobility ecosystem; including Vehicle Manufacturers, Charging Point Operators, Fleet Owners, Oil & Gas companies and Utilities. We help defining an electro-mobility strategy and deliver scalable EV smart charging infrastructure ecosystems- from electrical distribution to energy management with software and services. Schneider Electric works with leading car manufacturers and has innovative solutions for smart manufacturing for electric batteries.

Our Innovation at the Edge program finds disruptive ideas on the edge of our business and provides the resources needed to gain market traction. Within this program, we are actively coinnovating and investing in electro-mobility companies that are building disruptive technology and business models such as eIQ Mobility in the USA and Inno2grid in Europe. We believe that collaboration and co-innovation are key to move the electro-mobility industry forward and we look forward to helping to make the EV30@30 campaign a success.

The Tokyo Electric Power Company Inc. (TEPCO)

TEPCO Group is an innovative company with a long history of promoting electric vehicles: Its predecessor company's purchase and testing of an electric car in 1908 firstly brought electric vehicles to Japan.

Ever since, the TEPCO Group has worked with automobile manufacturers and research institutes to develop electric vehicles. In 2005, TEPCO designed a fast charging method that led to the "CHAdeMO" charging standard. The CHAdeMO Association, for which TEPCO Holdings, Inc. serves as Representative Director, includes 411 participating organizations in 42 countries, and there are 22,600 CHAdeMO chargers installed worldwide (as of September 2018). The CHAdeMO Association also provides technical support for fast chargers in the Asian region such as China and India.

As part of our quest to realize a safer, environmentally friendlier and universal mobility for the future, the TEPCO Group is jointly developing electric vehicles, building charging infrastructure, promoting "Vehicle to Everything (V2X)" approaches, and developing solutions to reuse batteries. For example, the "e-Charge Point" program since 2017 awards points to EV owners according to their electricity usage and charging rate at home and is the first electricity rate point service of its kind in Japan.





The TEPCO Group introduced 400 electric vehicles to its fleet and installed charging facilities at almost all of its sites. In 2018, the first self-driving EV bus in Japan started operation at the Fukushima Daiichi Nuclear Power Station. The group aims at replacing its entire car fleet of 4,400 vehicles with electric ones by 2030.

The TEPCO Group contributes towards the EV30@30 campaign target through these activities. The TEPCO Group proactively conserves and creates natural and living environments and optimizes use of resources towards resolving global environmental issues and realizing a more sustainable society.

Vattenfall

Vattenfall welcomes and supports the EV30@30 campaign. Climate change is one of the biggest challenges of our time and we see electric transport as essential to reach climate goals in society as well as to reduce air pollution and noise in cities. By building up the largest charging network in North Western Europe as well as electrifying our car fleet, we want to provide a significant boost to electric vehicles and help achieving the EV30@30 target.

For our customers, we provide solutions for home and business charging, and facilitate use of electric cars by building the largest E-mobility charging network "InCharge" in North Western Europe together with partners. Currently, we operate 9.000 E-mobility charging points in the Netherlands, Sweden and Germany. In June, we expanded our presence to the United Kingdom. We aim to double the number of charging points every year.

Internally, Vattenfall's Executive Group Management set the ambition to switch our car fleet of more than 4.200 passenger and light commercial vehicles to electric alternatives until 2022. As first step, we implemented new policies for company cars in Germany, the Netherlands and Sweden. We promote the switch to electric cars by additional measures and run promotion offerings to speed up the switching rate. We also aim at electrifying our light commercial vehicles and have progressed most in densely populated areas such as in Amsterdam, Berlin, Hamburg and Stockholm. By mid-2018, we stand at an electrification rate of 20% for passenger cars and 2.5% for light commercial vehicles in our internal fleet. We facilitate for employees with company cars to drive electric by providing charging points and financial support for their installation in their home. At our Vattenfall locations, we have installed 370 charging points until 2018.

We actively advocate for ambitious CO_2 standards at European and national level for 2025 and 2030 to get more electric cars on the road. Through industry organisations, we push for open and harmonised charging standards that will help to facilitate a competitive market that delivers products that customers need. Our R&D department relentlessly tests new charging and E-mobility concepts (e.g. inductive charging, electric roads), to bring the E-mobility future ever closer.

Vattenfall is a leading European energy company that wants to make fossil-free living possible within one generation. Therefore we are driving the transition to a more sustainable energy system through growth in renewable production and climate smart energy solutions for our customers. We employ approximately 20,000 people and have operations mainly in Sweden, Germany, the Netherlands, Denmark, the UK and Finland.

How to join the campaign

The EV30@30 campaign aims at gathering commitments from governments in accordance with priorities and programs developed by each of them.

It calls for the participation of governments in EVI activities, joining its current members to pursue its goal.

It also seeks the engagement of local authorities, the mobilization of the private sector and the involvement of civil society, and welcomes the support of philanthropy to develop its implementing actions.

Commitments may include pledges for EV procurement, consumer awareness campaigns, establishing EV-friendly policy mechanisms, expanding vehicle charging networks, funding for policy-relevant research and analysis, and more.

For more information on making a commitment, or to discuss ways to get involved, please contact the EVI Coordinator at transportinfo@iea.org.