

## **Transport Decarbonisation Alliance releases report on six innovative approaches to vehicle charging infrastructure worldwide**

Report offers case studies from California, Rotterdam, British Columbia, Portugal, Costa Rica and Ghana.

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UN Climate Change Conference 2022 (COP27) Sharm-El-Sheikh – The Transport Decarbonisation Alliance (TDA) today announced the release of a new report that captures six innovations from around the world where governments have successfully championed the installation of vehicle charging infrastructure as part of broader efforts to accelerate the number of zero-emission vehicles on the roads.

“[Deploying Zero-Emission Vehicle Infrastructure Innovations to Accelerate Transport Decarbonisation](#)” is designed to help guide investment in charging and refueling infrastructure deployment to spur higher ZEV adoption. It was prepared by the Center for Law, Energy and the Environment (CLEE) at University of California, Berkeley, School of Law, along with the Transport Decarbonisation Alliance (TDA) to highlight case studies of successful electric vehicle charging infrastructure deployment around the world.

The cases describe how authorities engage in planning and implementing regulatory frameworks to support Zero Emission Vehicle (ZEV) adoption and infrastructure. These authorities are adopting innovative models and partnerships to increase ZEV fleet adoption, public and private charging deployment, and public awareness of the reduced total cost of ownership of ZEV. The report is a companion to the Zero Emission Vehicles Transition Council (ZEVTC) [white paper](#) assessing electric vehicle charging infrastructure and public investments in decarbonising transport. Members of the ZEVTC are committed to collectively addressing key challenges in the transition to ZEVs.

The report includes these six case studies:

### **California: Providing Market Certainty to Drive Private Investment**

The Golden State has ambitious targets to decarbonize transportation. California has a carbon neutrality target and hopes to reduce petroleum use 50 percent by 2030. The state is rising to meet the moment through a variety of regulatory proceedings, targeted incentives, and a commitment to building reliable electric vehicle charging and hydrogen refueling infrastructure. The regulations have successfully provided market certainty to automakers, truck manufacturers, equipment manufacturers, infrastructure providers and operators, private investors, and electric utilities. Consumers are responding accordingly. As of April 2022, more than 16% of all new cars sold are electric vehicles and there are more than 600,000 ZEVs on the road, supported by more than 80,000 total public and shared chargers. Now, the state turns to decarbonizing trucks to curb diesel emissions and decarbonize the movement of goods from ports to their destination.

### **Rotterdam, Netherlands: Deploying Fast Charging for Logistics**

The Netherlands has the largest number of EV charging stations in Europe, with more than 75,000 public charging stations and 200,000 residential chargers. The Municipality of Rotterdam has taken the lead in installing electric charging infrastructure for trucks and delivery vans, adopting a Roadmap for Zero Emission City Logistics and a subsequent Joint Covenant for Zero Emission City Logistics between the government and more than 50 companies. Rotterdam has committed to become a Zero Emission Zone for City Logistics. In addition to public fast-charging plazas, the municipality is jumpstarting private charging installations by providing technical assistance. Government officials provide companies with free trials of electric delivery vans and cargo bikes, favorable financing for ZEVs, resources to understand charging installation, and dedicated staff to support grid interconnection and reliability.

#### **British Columbia, Canada: Charging for Multi-Family Rental Buildings**

As much as 85% of charging for personal electric vehicles occurs at home. However, residents of multi-unit residential buildings do not usually have access to their own charger. Normally, it is the property owner who must decide to install charging infrastructure for the tenants. Deploying charging infrastructure in these multi-unit buildings is essential to help reach decarbonization goals. In the Province of British Columbia, the federal and provincial governments are helping with affordable deployment of charging infrastructure for homes, businesses, and municipalities through both rebate and fleet funding opportunities. The rebate provides property owners with up to 75% of the purchase and installation costs for an EV charging station. Additionally, British Columbia has provided additional funds on top of existing program funds to Indigenous communities and businesses, understanding that historically disadvantaged communities will need further assistance to finance ZEVs and the needed charging.

#### **Portugal: Designing a National E-Mobility Hub to Support Charging Infrastructure**

EV drivers desire a seamless charging experience throughout their experience. For much of the past decade, Portugal has been working on building a digital platform that allows drivers to pay for electricity at all charging stations regardless of owner or operator. Launched in 2015, MOBI.E is a state-owned entity in Portugal that assumes responsibility for all transactions in the public charging network. The user-centric platform eliminates the inconvenience of competing charging operators, allowing EV drivers to use one card or their mobile app to access any public charger. MOBI.E allows users to find a charging station, determine what speed of charging is available, and compare the price of charging stations. The platform has been successful at catalyzing private investment through an open regulatory regime that supports infrastructure buildout. Portugal is only the fourth country in Europe to have at least one charger per 100 km of road.

#### **Costa Rica: Scaling Electric Bus Charging Infrastructure**

In 2019, Costa Rica became one of the first countries to craft a national decarbonization plan which aims to reach net-zero carbon emissions by 2050. Because the country's electrical grid is already powered almost entirely by hydropower and wind energy, EVs are fueled largely by carbon-free resources. The country also mandated baseline installation of charging stations at least every 80 and 120 kilometers on national and county roads, respectively. Costa Rica also set a goal of 70 percent ZEV public buses by 2035. These binding public bus fleet goals has spurred EV infrastructure investments. Electrifying buses has allowed electric utilities to enhance grid capacity and reliability to meet increasing demand for private ZEVs. Thus far, successful bus pilots have traveled more than 75,000 kilometers and carried more than 150,000 people, displacing more than 60,000 liters of diesel and utilizing more than 30,000 kilowatt hours of

clean electricity.

### **Ghana: National Drive Electric Initiative Spurs Private Charging Investments**

Expanded hydropower and solar energy installations in Ghana has led to significant periods of excess zero-carbon electricity. As a result, electricity regulators and grid operators are looking to electric vehicles to help absorb excess electricity generation capacity. To create sustainable electricity demand and reduce emissions, Ghana's government embarked on the Drive Electric Initiative to introduce electric vehicles. The national initiative has been successful in undertaking a baseline study for EV deployment, which will develop standards and regulations to ensure conformity with international standards and regulations in the EV market.

### **About the Transport Decarbonisation Alliance:**

Launched in 2018, the TDA was one of 12 commitments made the [One Planet Summit](#) hosted by President Emmanuel Macron in Paris, France in December 2017. The TDA's core contribution to this needed transformation is to foster cooperation among countries, cities, regions and companies toward carbon-free transport and accelerate the worldwide transformation of the transport sector towards a net-zero emission mobility system before 2050.

Current members of the TDA include [Alstom](#), [Brisa](#), [British Columbia](#), [California](#) (which [assumed](#) the presidency of the TDA last year at COP 26 in Glasgow), [Cape Verde](#), [CEiiA](#), [Costa Rica](#), [EDP](#), [France](#), [Gaia](#), [Itaipu](#), [Lisbon](#), [Lille Metropole](#), [Luxembourg](#), [Maputo](#), [Matosinhos](#), [Michelin](#), [Mobycon](#), [Porto](#), [Portugal](#), [Quelimane](#), [Rotterdam](#), [Scotland](#), [The Netherlands](#), [TEVVA](#) and [Uruguay](#). You can learn more about TDA [here](#).