



EVCONNECT

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FROM THE CEO'S DESK

Dear Friends,

The 26th issue of EV Connect, our monthly electric mobility focused newsletter, brings to you a conversation with Mr. Nila Madhab Panda, a popular Indian film producer and director. In a freewheeling chat he explains how he highlights the issue of climate change through his films. He also talks about how impactful storytelling can play a crucial role in raising awareness among the masses.

Along with our regular news updates, from national and global frontiers, we have a special feature on how financial incentives are helping countries accelerate electric vehicles sales.

Various developments are taking place in the electric mobility market, and it is often difficult to keep up with them. We hope this curated and compiled newsletter will come in handy to those who are seeking the latest information on electric mobility. We hope you find this edition beneficial and share your thoughts so that we can improve further.



Sincerely,

Dr. OP Agarwal
CEO, WRI India

WATCH

Presenting EV Connect Powertalk - exclusive monthly interviews with EV experts, policymakers and stakeholders discussing key insights. We also present one hand-picked video that showcases a global EV innovation.



Power Talk with Nila Madhab Panda
Indian Movie Producer and Director



How lithium metal batteries could make EVs cheaper
Best Electric Vehicle



POWERTALK

IN CONVERSATION WITH NILA MADHAB PANDA

Indian film Producer and Director

Interview taken by Amit Bhatt, WRI India

“India is a developing country. To keep the economy on track, we need to grow in different sectors. But this growth should not be at the cost of environmental degradation.”

“We all need to work together and adopt sustainable transport. It is time that we must start sensitizing ourselves and not depend on the government or organisations to take steps.”

Interviewer: You have dealt with various social issues through your films and documentaries, what made you focus on climate change?

Mr. Panda: I grew up in a small village that was cut from the rest of the world. It has the perfect ecosystem...rivers, mountains, greenery and all the other resources. When I moved to big cities like Delhi, Mumbai and London, I felt suffocated and that eventually affected my mental health. The problem with climate change discussions is that they are still organisation-level issues or mostly connected with research studies. As a filmmaker, I thought that through my stories, I could reach out to people and help them understand their responsibilities towards nature. In 2005, I made a documentary ‘Climate’s First Orphans’ which talks about the effect of rising sea levels in the seven villages on Odisha’s coasts. The film raised the issue of climate change and become the basis for serious dialogue in India. And then, I made documentaries like *Kadvi Hawa* (Bitter Air), *Kaun Kitne Paani Mein* (Water Crisis), a short film, *Megha’s Divorce* etc. My current film is *Kalira Atita* (Yesterday’s Past) is again based on climate change and the issue of rising sea levels in Odhisha.

Interviewer: What was your motivation behind the film *Kadvi Hawa*?

Mr. Panda: *Kadvi Hawa* is all about air and extreme weather conditions. The whole idea behind making this as a fictional film was to reach out to mainstream masses who may not like to watch a documentary and would much rather see a personal story. The protagonist of the film is a 70-year-old blind man who wants to save his son from becoming a scapegoat of climate change.

Interviewer: When it comes to climate change, what are the prevailing issues in our country?

Mr. Panda: With increasing urbanization, India is facing many challenges like fossil fuel pollution, transport sector pollution, industrial wastage, etc. India is a developing country, hence, to keep the economy on track, we need to grow in different sectors. But this growth should not be at the cost of environmental degradation. We need to plan now for a sustainable future, or our kids will suffer. The COVID-19 pandemic is an eye-opener for all of us. We don’t know how many more pandemics will

come and we don't have any plans. Another very important challenge is restoring our urban forests. In 2020, the Maharashtra Government declared 600 acres of land as forests in Mumbai, Aarey Colony. This is one of the best examples of restoring our forests.

Interviewer: Do you think transport has a strong linkage to air quality and climate change?

Mr. Panda: Yes, the transport sector is one of the most important sectors that contribute to air pollution. My short film 'Megha's Divorce' is about a husband and wife fighting for divorce just to save their child from increasing air pollution in Delhi. A recent report stated that 22 of the world's 30 most polluted cities are in India, with Delhi being ranked as the 10th most polluted city and the top polluted capital city in the world. Delhi sees the same story every winter. We talk about pollution due to crackers, stubble burning and then it all ends with no solution. Have we ever checked that how many people get admitted to hospitals because of the after-effects of pollution every year in Delhi? We have to raise awareness among the masses towards switching to public transport, electric mobility, etc. for the creation of a greener and sustainable future. At the same time, the pandemic has taught us some great lessons. When people were at home, Delhi saw blue skies and the best air quality. We all need to work together and adopt sustainable transport. It is time that we must start sensitizing ourselves and not depend on the government or organisations to take steps.

Interviewer: Do you think we as a country should promote electric mobility actively post-pandemic?

Mr. Panda: Absolutely. Look at smaller Scandinavian countries and how they are working towards creating a sustainable future via restricting GHG emissions, switching to cleaner modes of transport etc. I like the work that WRI India is doing in scaling up electric mobility. We need to start switching to electric mobility to achieve our climate goals.

Interviewer: How can organizations like WRI India help others connect with people like you, so that this can become a mass movement?

Mr. Panda: I like the concept and vision of your organisation i.e., to restore the world's ecosystem. But as an organization, I know you have limitations. However, I think as a filmmaker, I can create awareness among the masses through impactful storytelling. In this way, we can sensitize the masses about their responsibility towards the environment. We need to define a very interesting moment or a story to engage people. For instance, the Odisha Government has started a mandatory course on disaster resilience in schools so children can prepare themselves mentally and technically to face any kind of disaster. I think it is very important to advocate the world, governments and people to talk about the environment differently. We need to involve people in fighting climate change. In a way, we can start with personal stories that people in India love, and which can bring in a huge change. So, people like us have more responsibility to tell these personal stories, to make people aware of the current situation. The way we got conscious about the pandemic; the same manner we need to get serious about our environment.



UPDATES FROM THE WORLD

UK in talks with 6 firms to build gigafactories for EV batteries | *Market Development*

Summary of news: The UK Government is in talks with six companies (Ford Motor Co, Nissan Motor Co Ltd, LG Corp, Samsung, Britishvolt and InoBat Auto) for building gigafactories to produce electric vehicles batteries. The British government is planning to prohibit the sale of new petrol and diesel cars (by 2030) and hybrids (by 2035). [Read more](#)

Takeaways for India: The Indian government is looking to invite domestic and global firms to build gigafactories that can make millions of EV batteries. Domestic manufacturing will have a positive impact on EV sales in the years to come as prices become more aligned with improved infrastructure and technology.

Nissan unveils electric vehicle hub worth £1 billion in UK | *Market Development*

Summary of news: Japanese automobile maker Nissan, recently announced its plan to invest £1 billion to build a unique electric vehicle hub in Sunderland, UK. Dubbed 'EV36Zero', the flagship project will be the world's first EV manufacturing ecosystem to establish a 360-degree solution for zero-emission motoring. The project consists of three core pillars – developing a new gigafactory, producing a new all-electric crossover and getting 100% renewable energy from a new microgrid. [Read more](#)

Takeaways for India: The Indian Government has recently made amendments to the Faster Adoption and Manufacturing of Electric Vehicles (FAME-II) scheme with the intent of giving India's EV market significant momentum. Such initiatives will open doors for various global as well as domestic EV makers and create a conducive ecosystem for the growth of EVs in India.

Spain to invest \$5.1 billion in electric vehicle production | *Strategy and Initiative*

Summary of news: The Spanish Government plans to invest 4.3 billion euros (\$5.1 billion) to kick-start the production of electric vehicles and batteries as part of a major national spending program financed mostly by European Union (EU) recovery funds. The government-run plan would include the production chain, giving grants to companies to build the country's first battery plant and boosting manufacturing of electric vehicles. [Read more](#)

Takeaways for India: Investments in the EV sector will not just boost domestic manufacturing of electric vehicles but will also lead to the creation of new jobs. The Indian Government has announced various plans and schemes to spur domestic manufacturing of EVs and its components. Focus on such moves and initiatives will also help in overcoming key barriers to EV adoption such as financing, charging infrastructure, skill development etc.



EU Green Policy chief sets out plans to drive electric car uptake | *Strategy and Initiative*

Summary of news: To make the EU economy carbon-free, Frans Timmermans, Vice-President of the European Commission for Green Policy, set deadlines to phase out the internal combustion engine and get carmakers to pay a carbon price. As part of this plan, a commission has been created that is preparing multiple strategies and measures to reduce the cost of EVs and make cleaner cars 'accessible to all Europeans'. [Read more](#)

Takeaways for India: The Indian Government has undertaken multiple initiatives to promote domestic manufacturing and adoption of electric vehicles. Announcement of stringent norms and alluring subsidies will further compel the masses to switch to EVs, leading to a speedy transformation towards green mobility.

SP Group tests technology to push energy from battery of EVs back to power grid | *Market Development*

Summary of news: Singapore-based SP Group started a trial to test the possibility of transferring energy from the batteries of EVs back to the power grid. If proven viable, the technology would help to overcome intermittency from solar power while allowing vehicle owners to get paid for the use of their batteries. The Group is currently providing four vehicle-to-grid charging points at its premises for the trial, which will end in June next year. [Read more](#)

Takeaways for India: Vehicle-to-grid technology can be a 'win-win' for both discoms as well as electric vehicle owners. In coming years, the uptake of e-mobility in India is going to increase and hence vehicle-to-grid technology has a huge potential in scaling up the charging infrastructure in the country - which is currently a key barrier towards EV uptake.

Lightyear One Solar EV prototype promises range above 700 km | *Market Development*

Summary of news: Solar electric vehicle maker Lightyear recently tested its Lightyear One prototype car which drove a distance of 710 km (440 miles) on a single battery charge of 60 kWh for almost nine hours. This is the first time an electric vehicle drove such a long-range on a relatively small battery. [Read more](#)

Takeaways for India: In India, range anxiety is one of the topmost concerns for people considering an EV purchase. The concept of a long-range solar-powered car can further electric mobility as it surmounts the barrier of range anxiety, offering longer travelling distances on a single charge.



Israel's ElectReon charges electric vehicles batteries on the go | *Strategy and Initiative*

Summary of news: Israel-based ElectReon - a leading provider of inductive in-road charging technology for commercial and passenger electric vehicles - recently announced its intent to join the 'Arena of the Future' project in Brescia, Italy. As part of this project, the company will integrate its wireless technology to charge two Stellantis vehicles and an Iveco bus. 'Arena of the Future' aims to demonstrate contactless charging for a range of EVs on highways and toll roads as a potential pathway to decarbonising transportation systems along motorway transport corridors. [Read more](#)

Takeaways for India: Charging infrastructure is a key barrier when it comes to EV uptake in India. Inductive charging or wireless charging technology enables EVs to charge while driving on roads and highways, thereby allaying charging and range anxiety among masses. Such technologies will help governments and policymakers to reduce greenhouse gas (GHG) emissions from the Indian transport sector.



UPDATES FROM INDIA

Maharashtra unveils revised electric vehicle policy, 10% of new registrations to be electric |

Strategy and Initiative

The Maharashtra Government rolled out a revised EV policy that aims at 10% of newly registered vehicles in its major cities to be electric by 2025. The policy also targets the setting-up of 1,500 charging stations in Mumbai by 2025 along with converting 15% of Maharashtra State Road Transport Corporation (MSRTC) buses to electric. Early bird incentives, on the purchase of electric vehicles, have also been incorporated. [Read more](#)

Gujarat announces new EV policy, provides subsidies of up to Rs 1.50 lakh on EVs |

Strategy and Initiative

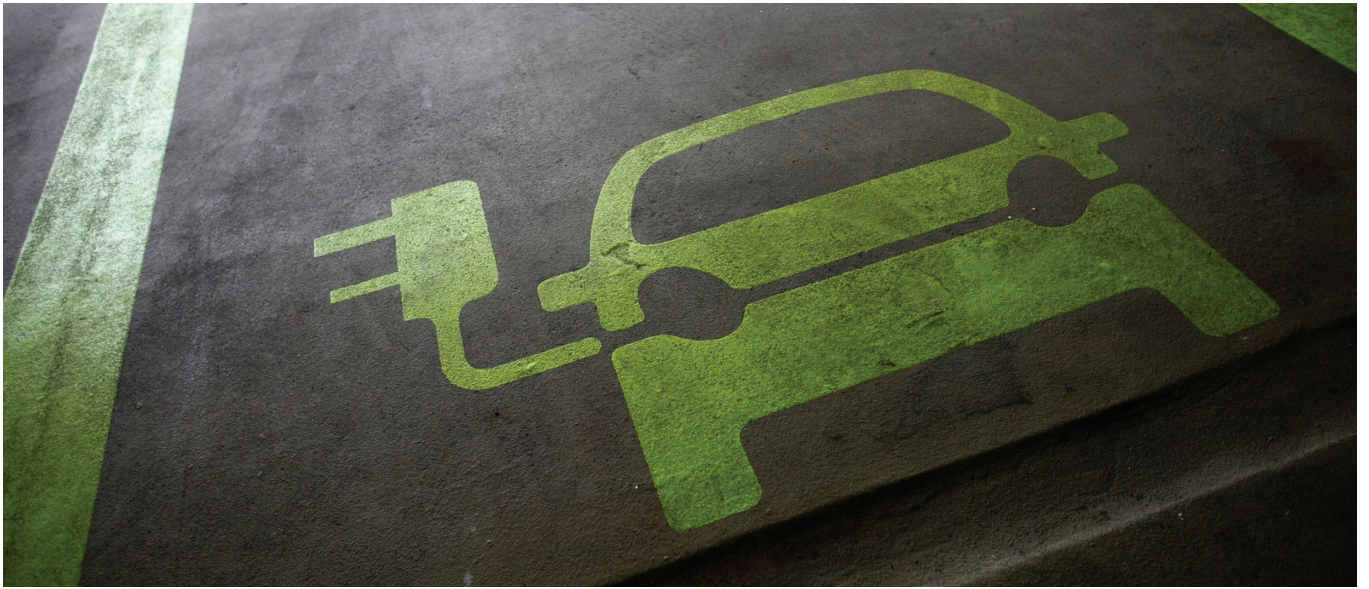
Gujarat Chief Minister Vijay Rupani unveiled the 'Gujarat Electric Vehicle Policy 2021' on 22nd June 2021. Under this policy, the state government will provide a subsidy of up to Rs 20,000 on electric two-wheelers, Rs 50,000 on electric three-wheelers and Rs 1.50 lakh on electric four-wheelers. The policy will benefit nearly 2 lakh electric vehicle buyers and will also boost the charging infrastructure in the state. [Read more](#)

Government plans electric vehicle financing industry: Nitin Gadkari | *Policy Initiative*

The central government is planning to set up an institution to fund EV in order to make the electric vehicle business more lucrative in India. The government aims to facilitate loans to the public transport and commercial vehicle segment and encourage construction equipment vehicles to go electric through attractive incentives. [Read more](#)

Nissan plans to produce electric vehicles in India, conducts feasibility study | *Market Development*

Nissan Motor recently announced its plan to manufacture electric vehicles in India by setting up a complete ecosystem, including a gigafactory to make EV batteries. The Japanese carmaker is currently conducting a feasibility study that is likely to be completed within the next nine months. The company will take a call on the EV strategy for India based on the outcome of the study. [Read more](#)



Rajasthan announces EV policy for buying electric vehicles - subsidies of up to Rs 20,000 | *Policy Initiative*

The Rajasthan State EV policy aims at pushing sales of electric two-wheelers and electric three-wheelers and has a different incentive structure as compared to other states. The policy states that the government will refund the state component of GST (SGST) to EV buyers who purchase EVs between April 2021 and March 2022 with the cash subsidy ranging from Rs 5,000 to Rs 20,000. [Read more](#)

Tata Motors to launch 10 new EVs by 2025 | *Market Development*

Tata Motors plans to launch 10 new battery-electric vehicles by 2025 across segments to aggressively push its presence in the Indian EV market. The company recently also announced its plan to invest in lithium-ion cell manufacturing in India and Europe to establish a proper supply chain for its zero-emission vehicles. Currently, Tata Motors has two fully electric models - Nexon EV and Tigor EV - in the market. [Read more](#)

Goa to subsidize 11,000 electric vehicles annually for five years | *Strategy*

In a bid to reduce the carbon footprint of Goa, the state government is providing subsidies to 11,000 electric vehicles every year for the next five years. The subsidy will be capped at Rs 25 crore annually and will be given on a first-come-first-serve basis to 10,000 two-wheelers not exceeding Rs 10 crore, 500 three-wheelers not exceeding Rs 1 crore and around 500 four-wheelers not exceeding Rs 14 crore per year. [Read more](#)

Delhi Govt approves single-window facility for e-vehicle chargers | *Policy Initiative*

In line with the vision of making Delhi the EV capital of India, the Delhi government approved an innovative, single-window process for quick and efficient installation of EV chargers at private and semi-public places in the national capital. This facilitates the rapid installation of thousands of EV chargers at apartments and group housing societies, institutional buildings like hospitals and commercial spaces like malls and theatres. [Read more](#)



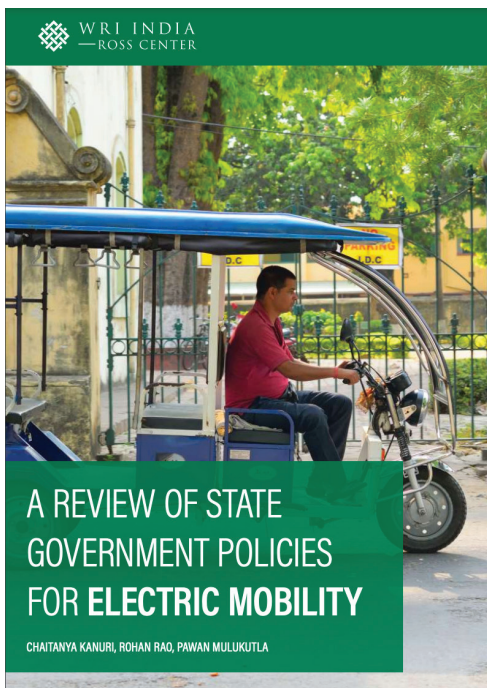
TRACKING ROAD FREIGHT'S PATH TO ELECTRIFICATION IN INDIA

Freight activity is expected to increase five-fold by 2050, corresponding to a vehicle stock of about 50 million. With expanding fleet sizes there are corresponding implications on GHG emissions and additionally, the factors of fuel price volatility. In this webinar, WRI India spoke with industry experts and policy makers to discuss the techno-economic feasibility of EVs in the urban freight segment through the prism of current policy and regulatory landscape in India. View recording [here](#)

IN THE NEWS

WRI India and CESL sign MoU to catalyze India's EV journey

Convergence Energy Services Limited (CESL) and WRI India, recently signed a memorandum of understanding (MoU) to support building a 'Thought Leadership Unit' at CESL wherein WRI India will provide analytical and evidence-based advocacy to accelerate the energy transition, particularly in electric mobility with a focus on electric buses. CESL is a subsidiary of the state-owned Energy Efficiency Services Limited (EESL), a joint venture of public sector companies under the Ministry of Power, Government of India. [Read more](#)



COMMENTARIES AND REPORTS

A Review of State Government Policies for Electric Mobility

By Chaitanya Kanuri, Rohan Rao and Pawan Mulukutla

India has identified electric mobility as a promising pathway to reduced greenhouse gas emissions and increased energy security. While less than 1% of vehicles in India are electric, state governments have started expressing greater intent in promoting transport electrification. Many states have rolled out electric vehicle (EV) policies to support the EV ecosystem. The paper 'A Review of State Government Policies for Electric Mobility', provides a comprehensive overview of policy incentives and mechanisms being deployed for promoting electric mobility in 12 Indian states. [Read more](#)



EV FEATURE

What are countries doing to drive electric vehicle sales?

by Sean Fleming, Senior Writer, Formative Content | June 2021 | This article first appeared in weforum.org

- By the end of 2020, there were 10 million electric cars on the road.
- Financial incentives are helping to increase sales of electric vehicles (EVs) worldwide.
- New Zealand is the latest country to offer cash rebates for switching to EVs.
- Tax bonuses in Norway have closed the price gap between EVs and conventional cars.

While the pandemic oversaw a global car sales drop of 16%, electric car registrations grew by 41% in 2020, according to the International Energy Agency (IEA). That rise meant that there were around 10 million electric vehicles out and about on the world's roads by the end of last year. With a growing level of awareness about climate change driving some people's desire to swap their old polluting car for an electric one, many governments have deployed a range of incentives to encourage the take-up of EVs.

Electric car sales continue to grow

Consumer spending on electric cars rose to \$120 billion in 2020, the IEA says in its Global EV Outlook 2021 report. That's a jump of 50% on 2019's figures. Alongside that, "governments across the world spent \$14 billion to support electric car sales, up 25% from 2019, mostly from stronger incentives in Europe".

That said, the share of government-supplied incentives – as a proportion of total EV spending – has been falling over the past five years, the IEA report shows. Government incentives made up around 10% of EV spending in 2020, down from roughly 20% in 2015.

Incentives for EV purchase

The most common mechanisms for administering incentives have been the kind of rebate New Zealand has just announced. Drivers there can look forward to a cash rebate if they buy electric or hybrid cars. The Clean Car Discount scheme comes into effect on 1 July 2021 and will “make it cheaper for New Zealanders to buy electric and low-emission cars,” the country’s Transport Minister Michael Wood said in a statement online.

As well as rebates on cleaner cars, the scheme will also introduce additional fees on the price of vehicles that produce high levels of carbon dioxide emissions, earning it the nickname “the feebate” in New Zealand. The fees will be introduced on 1 January 2022, along with an expansion of the rebates to include low-polluting, fossil-fuelled cars. “It will prevent up to 9.2 million tonnes of carbon dioxide emissions and will help with the upfront cost of switching over, with Kiwis getting up to \$8,625 (US\$6,080) back,” Wood said.

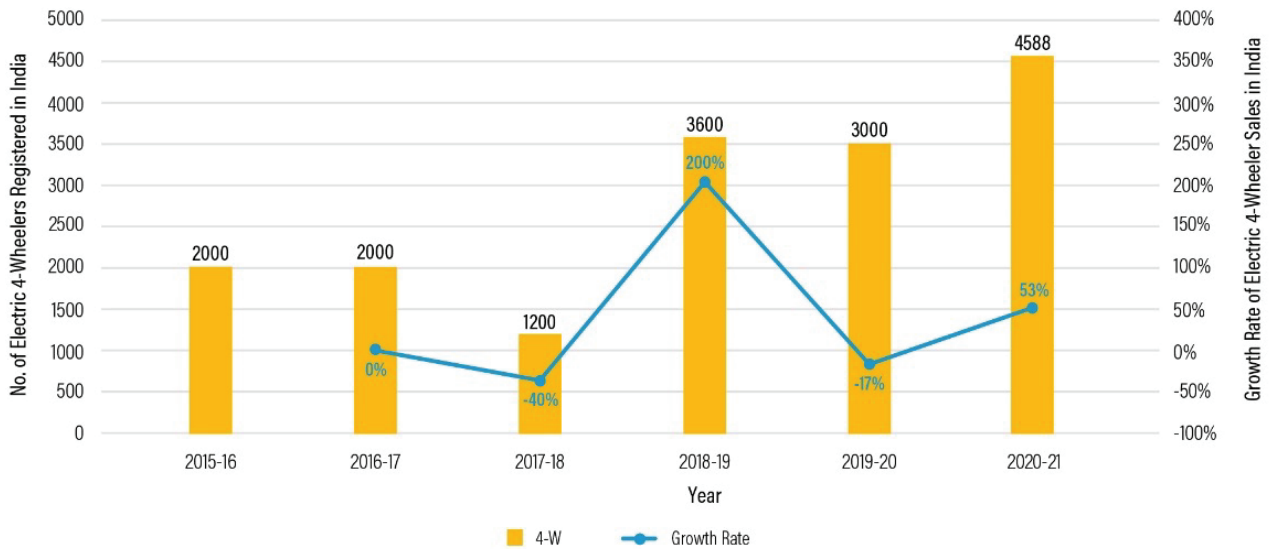
Tax bonuses level the playing field

In the US, President Biden has just announced \$7.5 billion for an EV charging infrastructure network, but it’s not yet clear what will be made available for vehicle purchasing incentives – \$100 billion was originally earmarked for EV subsidies in Biden’s ‘American Jobs Plan’. In California, the Clean Vehicle Rebate Project offers discounts of up to \$7,000 on new EVs, although the scheme is currently on hold as funding has been used up. California also operates a Clean Fuel Reward programme, which can be worth up to \$1,500 when buying or leasing an EV.

The UK government offers a \$3,480 discount on new EVs under \$48,670, but this represents a cut to the previous grant, which was \$4,170 on EVs worth \$69,500, according to The Guardian. In 2019, the vehicle-maker Volkswagen carried out a comparison of some of the world’s leading EV markets and the different incentive levers governments were pulling to encourage sales. Generous tax bonuses in Norway are attributed to bringing the price of EVs and conventional cars close to parity. China, meanwhile, is the world’s largest market for EVs, due in large part to its extensive regulatory incentives.

Priority actions for accelerating EV adoption in India

Trend of Electric Car Sales in India



Source: SMEV



EV Podcast

Meet the zero-emissions power couple – solar and electric vehicles

India has ambitious plans to become a 100% EV nation by 2030, and the government is offering plenty of incentives to accelerate electric vehicle uptake. But the key to decarbonising India's transport sector will lie in deploying solar energy powered EV charging stations across the country. The podcast explores why solar generation and EVs are the perfect match.

Listen to the podcast [here](#)

COURTESY FOR THE ARTICLES

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What are countries doing to drive electric vehicle sales: www.weforum.org/agenda/2021/06/electric-vehicles-financial-incentives/

EDITORIAL

Dr. OP Agarwal, CEO, WRI India
Amit Bhatt, Director of Integrated Transport, WRI India
Nikita Gupta, Senior Associate Communications, Sustainable Cities and Transport
Rama Thoopal, Communications Lead, Sustainable Cities and Transport

LAYOUT AND DESIGN

Ronak Naik, Design Consultant
Garima Jain, Manager, Communications, WRI India

ABOUT WRI INDIA

WRI India is a global research organization that turns big ideas into action at the nexus of environment, economic opportunity and human well-being.

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