

Office of Hon Simon Bridges

MP for Tauranga
Minister of Energy and Resources
Minister of Transport
Deputy Leader of the House

Associate Minister for Climate Change Issues
Associate Minister of Justice

Mr David Tong fyi-request-3481-8cb4e8f7@requests.fyi.org.nz

Dear Mr Tong

I refer to your request for information received on 11 December 2015. Under the Official Information Act 1982 you requested:

"any documents pertaining to any meetings that you may have had with energy, automotive, oil and/or gas or other fossil fuel companies while in Paris at and around COP 21, including but not limited to the relevant parts of your daily schedules, any email or other correspondence between you and/or your staff and the aforesaid companies, the agenda of any such meetings, and any notes or records of any such meetings."

Below are details of meetings I had which fall within the scope of your request. Please note that all these meetings were confirmed while in transit to or while in Paris so did not appear in my itinerary / schedule:

Monday 7 December, 12.30pm: Meeting with Eric Feunteun (Program Director Electric Vehicles & Batteries) and Florent Troubat (Chef de Projet COP21), Renault Nissan Group

Friday 11 December, 1pm: Meeting with Didier Richard (Head of Sales and Marketing India and the Pacific) and Philippe Chollet (International Relations and Economic Affairs), PSA Peugeot Citroen

Friday 11 December, 6pm: Meeting with Vincent Bollare (CEO) and Cedric Bollore (Development Director), Blue Solutions of Bollore Group

Attached are documents that fall within the scope of your request:

- Meeting briefings prepared for Renault Nissan Group, PSA Peugeot Citroen, and Bollore Group some information withheld under Section 9(2)(f)(iv).
- An email between Renault Nissan Group and a member of my staff (Monday 7 December) some information withheld under Section 9(2)(a).

You are entitled to ask the Ombudsman to review this decision under section 28(3) of the Official Information Act.

Yours sincerely

Hon Simon Bridges

Minister of Energy and Resources

Minister of Transport

Meeting with Carlos Tavares, Peugeot Citroën

Date:	
Time:	
Venue:	

- 1. You are meeting with Carlos Tavares, Chairman of the Managing Board of PSA Peugeot Citroën (PSA).
- 2. Primarily this meeting is an opportunity to discuss advances in vehicle and fuel technology at PSA.

Background information and suggested talking points

- 3. PSA is a French multinational manufacturer of automobiles and motorcycles sold under the Peugeot, Citroën and DS brands and headquartered in Paris, France.
- 4. PSA is a European leader in reducing CO₂ vehicle emissions. In 2015, their vehicles averaged 105.9 grams of CO₂ per kilometre, compared with an average of 120.9 grams of CO₂ per kilometre for the European market.

PSA's use of alternative technology

- 5. The majority of PSA research activities focus on three themes: the reduction of CO₂ and pollutant emissions, safety and connectivity
- 6. PSA has focussed on the development of low carbon vehicles by optimising powertrains for petrol and diesel engines, improving overall fuel-efficiency, developing hybrid technologies, and developing electric vehicles.
- 7. PSA has pursued the development of a range of alternative fuels. This includes compressed natural gas, ethanol/petrol blends and biodiesel. PSA also contributes to research projects and trials around the development of advanced bio fuels.
- 8. PSA offers EVs (Peugeot iOn and Citroën C-ZERO) but current efforts are focussed on technology for hybrid vehicles because these have a greater range and are more affordable than the typical full-electric car.
- 9. Introduced by the French government in 2013, the 2L/100km car programme challenges auto manufacturers to cut fuel consumption and CO₂ emissions. In response, PSA set themselves the goal of developing a "broadly affordable 2L/100km car by 2020."
 - To achieve this, the PSA has focussed on technological advances around hybrid powertrains, vehicle weight, aerodynamics and rolling resistance. In 2014, PSA unveiled two prototypes (Citroen's C4 Cactus Airflow 2L, Peugeot's 208 Hybrid Air 2L Demonstrator) with a Hybrid Air powertrain.
- 11. The Hybrid Air technology uses compressed air as an energy storage medium, rather than batteries, potentially offering lower costs and resolving issues over supplies of rare metals required to manufacture batteries. In 2015, PSA put their Hybrid Air technology on hold because the company has been unable to find a development partner.
 - You could ask Mr Tavares whether PSA's future focus will be on hybrid or full-electric technology.

You could discuss the main barriers to supply of EVs to New Zealand and what the New Zealand Government can do to address these barriers with Mr Tavares.

Real world fuel efficiency versus values gained under laboratory conditions

- 12. Carmakers produce fuel efficiency values for new light vehicles under laboratory conditions. However, individual driving styles, geography and traffic conditions can make real world results very different. In addition, there are a range of reports that show manufacturers are increasingly optimising vehicles to perform well in test cycles, rather than the real world.
- 13. Ministry of Transport research shows that the average divergence between real world and the manufacturers published fuel efficiency values for light petrol vehicles ranges from 10 percent to more than 25 percent, and 15 percent to 25 percent for light dieselvehicles. The divergence is more pronounced for vehicles with a smaller engine size.
 - You might ask Mr Tavares what success PSA has had in improving the real world fuel efficiency of its vehicles.

The introduction of new real driving emissions (RDE) tests

- 14. There is currently a proposal being considered by the European Parliament to alter the drive cycle used in the laboratory tests to test vehicles both for fuel efficiency and harmful emissions. The new test would look much more like real world driving than the current test. The new RDE test was proposed to be introduced from September 2017, but media reports indicate that manufacturers wish to delay the introduction until at least 2020.
- 15. While the proposal to introduce RDE tests was being considered before the recent Volkswagen emissions scandal the scandal seems to have given the proposal greater prominence.
 - You might ask Mr Tavares what PSA's plans are for complying with the proposed new RDE tests.

Technological innovation at PSA

- 16. PSA is a founding member of the VeDeCoM Institute (VeDeCoM), a public-private partnership dedicated to focussing research on carbon-free vehicles and mobility. In VeDeCoM, PSA works with aeronautic and IT companies on future hybrid and electric engines, developments around fuel hydrogen, and connectivity, mobility and shared energy (Smart grids).
 - You could ask Mr Tavares about the work of VeDeCoM and the value which PSA gets
 from partnering with companies outside the car industry.
 - April 2015, PSA announced a partnership with IBM to work with a variety of partners to develop new services for connected vehicles. The two companies will develop and market connected services for new and existing clients.
 - You could ask Mr Tavares about the possibilities offered by connected vehicle technologies.
 - You may wish to ask Mr Tavares about the role that governments can play to accelerate the uptake of connected vehicle technologies.
- 18. PSA expects that connected vehicle technologies will pave the way to an autonomous system by 2020. In July 2015, PSA began carrying out open road tests for four autonomous vehicle prototypes.

- 19. In October 2015, one of PSA's prototypes travelled the motorway from Paris to Bordeaux in an entirely autonomous mode to attend the ITS World Congress.
 - You may wish to ask Mr Tavares about the possibilities offered by autonomous vehicles, particularly regarding emissions and safety outcomes.

Developing services for changing mobility needs

- 20. Mobility is changing with carpooling, ridesharing and rentals becoming more widespread. PSA projects that the European mobility market "will grow to more than €13.6 billion in 2020, from €7.7 billion in 2015."
- 21. PSA's services include Share your fleet, a rental service for medium to large businesses and Mu/Peugeot Rent, a short-term rental service for individuals.
- 22. Since 2012, the car-sharing service *Citroën multicity* has deployed 300 EVs around Berlin. Users can locate a vehicle using a Smartphone and are able to make a trip without a reservation and without returning the vehicle to the same location.

Biography



Mr Tavares, a graduate of Ecole Centrale de Paris, held a number of different positions with the Renault Group from 1981 to 2004 before joining Nissan.

In 2009, he was appointed Executive Vice President, Chairman of the Management Committee Americas and President of Nissan North America.

He was named Group Chief Operating Office of Renault in 2011.

Since January 2014, he has been on the Managing Board of PSA Peugeot Citroën. He has been Chairman of the Managing Board since March 2014.

Meeting with Carlos Ghosn and Claire Martin, Renault-Nissan Alliance

Date:			
Time:			

- 1. You are meeting with Carlos Ghosn and Claire Martin.
- 2. Mr Ghosn is Chairman and Chief Executive Officer of the Renault-Nissan Alliance (the Alliance).

 He is President and Chief Executive Officer of both Renault and Nissan.
- 3. Ms Martin is Vice President of Corporate Social Responsibility Renault, Director of the Renault Foundation and Leader of the Alliance at COP21. She is leading an effort to provide 200 EVs to shuttle participants during COP21.
- 4. Primarily this meeting is an opportunity to discuss advances in vehicle and fuel technology at both Renault and Nissan.

Background information on the Alliance

Venue:

- 5. The Alliance is a strategic partnership between automobile manufacturers Renault, based in Paris, and Nissan, based in Yokohama, Japan. Together, the Alliance sells one in 10 cars worldwide.
- 6. The companies have been strategic partners since 1999. Renault has a 43 percent stake in Nissan, and Nissan a 25 percent stake in Renault.
- 7. Renault-Nissan BV, created in 2002 is responsible for the strategic management of the Alliance. The board is comprised of members of the executive committees of each company as well as the Chairman and CEQ of the Alliance, Carlos Ghosn.
- 8. The Alliance's goal is to be the leader of the "electric revolution". As of October 2015, the Alliance is the world's leading plug-in EV manufacturer with annual sales volumes almost doubling between 2012 (44,000 units) and 2014 (82,602 units).
- You met with representatives from Nissan in both Silicon Valley and Japan in July.

The Alliance's use of alternative technology

- The Nissan LEAF (LEAF), first launched in 2010, was the first mass-market full-EV. It remains the best selfing EV in the world today, with almost 50 percent of all-electric sales (61,000 units sold worldwide in 2014). In all, more than 180,000 LEAFs have been sold worldwide.
 - The LEAF has been available in New Zealand since 2012. As of October 2015, there are 87 new and 217 used imported LEAFs in the New Zealand fleet. The LEAF makes up the largest share of used EVs by far. The Mitsubishi Outlander plug-in hybrid outpaces the LEAF in the number of new vehicles in the fleet with 316 compared to 87.
- 12. Nissan is continuing to sell early-model LEAFs in New Zealand at a reduced cost. [Information withheld in accordance with Section 9(2)(f)(iv)].
- 13. Renault's first full-electric model, ZOE, has been on the market since 2012. Renault now offers four full-electric vehicles (one produced and sold exclusively in South Korea) including a two-seat quadricycle (the Twizy) for city driving.

- 14. Renault is not retailing any of their full-electric vehicles in New Zealand.
 - You may wish to tell Mr Ghosn and Ms Martin about initiatives in New Zealand to increase the uptake of EVs.
 - You could ask Mr Ghosn and Ms Martin about the Alliance's projections in terms of uptake for EVs in the future and the role that governments can play to help accelerate this.
 - You could discuss the main barriers to supply of EVs to New Zealand and what the New Zealand Government can do to address these barriers with Mr. Ghosh and Ms Martin
 - You may wish to ask what percentage of the Alliance's sales they envisage will be Evs in 2020 and 2030.

Nissan efforts to create consumer incentives and develop EV infrastructure

- 15. Nissan has a "No Charge to Charge" programme where qualified LEAF owners in select American cities receive two years of free charging from public charging stations. Nissan also developed an app that helps owners locate available charging stations as they plan their trip.
- 16. Nissan is currently working with architects Foster + Partners to develop a fuel charging station of the future. It will highlight the benefits of an EV system including harnessing the potential of battery storage and vehicle-to-grid systems.
 - You could ask Mr Ghosn and Ms Martin what intrastructure barriers companies can address on their own and what barriers they need help with when introducing EVs.

The Alliance's innovations in zero emission and autonomous technology

- 17. The Alliance is focussed on the development of new battery technology to extend the range of EVs and reduce charging times and costs. The 2016 LEAF is equipped with a new 30kWh battery and offers a 26 percent increase in LEAF driving range up to 250 km on a single charge
 - You may wish to ask Mr Ghosn and Ms Martin about the development of new battery technologies.
- 18. The Alfiance's focus is on "Zero emissions, Zero fatalities" and both companies have developed prototype autonomous vehicles.
- 19. In February 2014, Renault unveiled their autonomous and connected vehicle prototype, the Next Two.
- 20. In October 2015, Nissan conducted their first on-road test of a prototype vehicle with piloted drive on highways and in cities. Additional autonomous features will be developed in stages.
- Both Nissan and Renault expect to equip vehicles with autonomous technology that allows them to manage city roads and intersections by 2020. You drove in one of Nissan's prototype autonomous vehicle in Japan in July 2015.
 - You may wish to ask Mr Ghosn and Ms Martin about the possibilities offered by autonomous vehicles, particularly regarding emissions and safety outcomes.
 - You may wish to discuss your experience with Nissan in Silicon Valley and Japan.

Real world fuel efficiency versus values gained under laboratory conditions

22. Carmakers produce fuel efficiency values for new light vehicles under laboratory conditions. However, individual driving styles, geography and traffic conditions can make real world

- results very different. In addition, there are a range of reports that show manufacturers are increasingly optimising vehicles to perform well in test cycles, rather than the real world.
- 23. Ministry of Transport research shows that the average divergence between real world and the manufacturers published fuel efficiency values for light petrol vehicles ranges from 10 percent to more than 25 percent, and 15 percent to 25 percent for light diesel vehicles. The divergence is more pronounced for vehicles with a smaller engine size.
 - You might ask Mr Ghosn and Ms Martin what success the Alliance has had in improving the real world fuel efficiency of its vehicles.

The introduction of new real driving emissions (RDE) tests

- There is currently a proposal being considered by the European Parliament to alter the drive cycle used in the laboratory tests to test vehicles both for fuel efficiency and harmful emissions. The new test would look much more like real world driving than the current test. The new RDE test was proposed to be introduced from September 2017, but media reports indicate that manufacturers wish to delay the introduction until at least 2020.
- 25. While the proposal to introduce RDE tests was being considered before the recent Volkswagen emissions scandal, the scandal seems to have given the proposal greater prominence.
 - You might ask Mr Ghosn and Ms Martin what the Alliance's plans are for complying with the proposed new RDE tests

The Alliance's view on connected vehicle infrastructure

- 26. As a joint European-Japanese company the Alliance has a very real opportunity to understand and work to address issues of compatibility between European and Japanese standards for connected vehicles.
- 27. In discussions with officials in time 2015 in Japan, Nissan was the only manufacturer to state it did not want to develop a uniquely Japanese connected vehicle infrastructure.
 - You may wish to ask Mr Shosn and Ms Martin about the Alliance's views on aligning
 European and Japanese connected vehicle standards and how countries like New
 Zealand might be able to avoid problems with incompatible standards.

The Alliance at the COP21 climate conference

- 28. Ms Martin is leading the Alliance effort to provide 200 EVs to shuttle participants during COP21. The all-electric fleet will include the Renault ZOE, the LEAF, and a 7-seater Nissan e-NY200 van.
 - The Alliance installed a network of 90 quick and standard charging stations in partnership with French electric utility company EDF. They will be powered by low-carbon electricity. The quick charging stations will be able to charge the EVs from empty to 80 percent capacity in about 30 minutes.
- 30. The Alliance is also holding several sessions on sustainable mobility during COP21.

Biography



Born in Brazil, Mr Ghosn is a graduate of the École Polytechnique and of École des Mines in Paris.

Mr Ghosn joined Michelin in 1978 as manager of the Le Puy plant in France. He became Chief Operating Officer of Michelin's South American activities before being appointed Chairman and CEO of Michelin North America in 1989.

He joined Renault as Executive Vice President in 1996 before being appointed Chief Operating Officer of Nissan Motors in June 1999. He was named CEO in June 2001. CEO of Renault since May 2005, he was appointed President and CEO of Renault on May 6, 2009.

In 2013, Mr Ghosn was elected Chairman of AvtoVAZ, Russia's automotive manufacturer. In May 2014, he was elected president of the European Automobile Manufacturers' Association. He is a World Economic Forum Governor and a member of the International Advisory Council of Tsinghua University in Beijing.



Ms Martin was born in France and has degrees from the ESCP Europe Business School and Harvard.

She joined Renault in 1989 as a consultant and socioeconomic researcher. Between 1998 and 2008 she held different leadership roles in communications for Nissan and Renault, including Manager of CEO Communication and VP of Global Corporate Communication.

Since 2008, Ms Martin has been the Managing Director of the Renault Foundation. In 2009, she became VP of the Corporate Social Responsibility department of Renault. Since June 2012, she has been Managing Director of Renault MOBILIZ Invest, the founding company for Renault's social business projects.

In January 2015, she became the Leader for COP21 involvement of the Renault-Nissan Alliance.

Ms Martin was chairwoman of Fluigent, a French start-up in Biotech Microfluidic Innovations from 2007 to 2013 and currently serves on their Board of Directors. Ms Martin is a member of the French Academy of Technologies.

Meeting with Vincent Bolloré, Bolloré Group

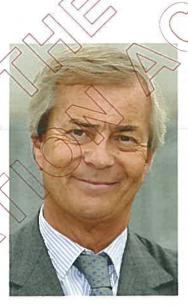
You are meeting with Vincent Bolloré, Chairman and Chief Executive Officer of the Bolloré Group.

Mr Vincent Bolloré

Vincent Bolloré, 63, attended the Lycée Janson de Sailly, considered one of the most prestigious schools in Paris, before graduating with a Master of Laws from Université Paris X Nanterre.

He is Chairman and Chief Executive Officer of the Bolloré Group.

Considered one of the titans of the French business world, Mr Bolloré runs the diversified holding company Bolloré Group, which has been in the Bolloré family since 1822. When Mr Bolloré assumed control in early 1981 - not long after starting his career at Edmond de Rothschild bank - the family business that made paper for cigarettes and bibles was struggling. He overhauled it and turned it into one of the largest companies in the world, with holdings in media, advertising, shipping, construction, logistics and more.



Mr Bolloré is a well-known corporate raider in France who has succeeded in making money by taking large stakes in French listed companies.

Mr Bolloré has been busy growing Blue Solutions, the manufacturer of electric car batteries that he took public in 2013. The company's batteries power the Bolloré Bluecar, used in Paris' electric carsharing service; a success he's trying to replicate throughout France, as well as London and Indianapolis (USA).

Mr Bollore has four children from his first marriage and is married to Anaïs Jeanneret, a French writer. He is ranked 329th richest person in the world according to Forbes, with an estimated fortune of US\$4 billion.

He is a close personal friend of former French President Nicolas Sarkozy.

The Bollore Group

The Bolloré Group is a French investment and industrial holding group headquartered on the outskirts of Paris, France. The company is a paper-energy-plantations-logistics conglomerate.

The Bolloré Group is among the 500 largest companies in the world and employs approximately 53,600 employees in more than 152 countries.

Whilst the company is listed on the Euronext exchange in Paris, the Bolloré family retains majority control of the company through a complex and indirect holding structure.

The Bolloré Group manufactures the Bolloré Bluecar electric vehicle. It was initially produced to showcase the company's range of electric power cells.

The Bolloré Bluecar

The Bolloré Bluecar is a small four-seat, three-door electric vehicle supplied by Bolloré, designed by Pininfarina and manufactured by Cecomp in Bairo, Italy, under a joint venture owned by Bolloré and Pininfarina.

The car has a 30 kWh lithium polymer (LMP) battery located under the passenger seats, coupled to a supercapacitor, that provides an electric range of 250 km in the city and 150 km on the highway. The maximum speed is 130 km/h.

In October 2012, the Bluecar first became available to retail customers through leasing, and sales began in February 2013 at a price of NZD\$31,000 plus a monthly fee of NZD\$130 for the batteries. As of September 2015, a total of 4,521 units have been registered in the country, most of which are in service for the Autolib' program.

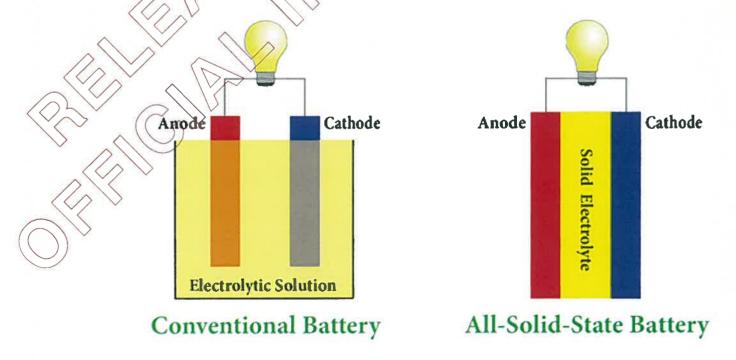
In 2014, Bolloré entered into a 70/30 joint venture with Renault to manufacture a three-seat version of the Bluecar from the second half of 2015.

Bolloré's Bluecar Battery Technology

The Bluecar incorporates a solid state (as opposed to fluid) lithium polymer (LMP) battery matched up with a supercapacitor developed by Bolloré. The energy storage component not only allows for high regenerative braking and acceleration capabilities but also extends the life of the battery.

The battery has no solvents or rare earths, requires no maintenance and offers high energy density.

Bolloré's long-term plans include selling its solid state' lithium metal polymer batteries to other carmakers.



Bolloré Car Sharing Schemes

Bolloré's proposal is to fund the entire infrastructure, install and provide the vehicles, and cover the costs of maintenance and repairs.

Autolib'

Autolib' is an electric car sharing service established in Paris in December 2011. It is operated by the Bolloré industrial group, and complements the city's bike sharing scheme, Velib', which was set up in 2007.

The Autolib' scheme maintains a fleet of all-electric Bluecars for public use on a paid subscription basis, employing a citywide network of parking and charging stations.

Over 2,500 Bluecars are registered for the service, and the scheme has more than 155,000 registered subscribers. Autolib' offers over 4,000 electric car charging points in Paris.

Since beginning operations in Paris, Autolib' has expanded its business to the cities of Lyon and Bordeaux.

Autolib is scheduled to provide a car sharing scheme in London in early 2016 using the Bluecar.

BlueIndy

In May 2014 in Indianapolis (USA), Bolloré Bluecars were showcased to the public for a public car sharing program called Blue indy. The carsharing service was opened to the public in September 2015. BlueIndy began with 25 charging stations and 50 all-electric Bluecars around the city at launch.

The Bluecars operated by the Blue dy service were adapted to meet American regulations. In addition, the models used in the U.S. have air conditioning and more airbags, the size is slightly bigger and have more weight. Over 500 members signed up for annual subscriptions during the first month of operation.

Bolloré Bluecar Leasing and Retail Version

Leasing to individual and corporate customers began in 2012 and but only in limited areas. The Bluecal was available with a minimum contract for 3 months and a maximum of 20 months. The griefing included insurance, charging in the Autolib' stations and parking.

In Pebruary 2013, Bolloré announced it was discontinuing the leasing program and began retail sales of the Bluecar starting at a price of NZD \$31,000 before the value added tax and the NZD \$11,500 government bonus, plus a monthly fee of NZD \$130 for the batteries. Bolloré also offers an optional package for the installation of a wall-box home charging station for NZD \$1,600, and for an optional monthly fee of NZD \$25, owners can have access to the Autolib' network of charging stations around Paris.

Possible Talking Points

- > Inform Mr Bolloré that the New Zealand Government is fully committed to accelerating the uptake of EVs in New Zealand.
- > Inform Mr Bolloré of the main barriers to supply of EVs to New Zealand.
- Inform Mr Bolloré about initiatives in New Zealand to increase the uptake of EVs
- Ask what he believes the New Zealand Government could/should consider to address the barriers and accelerate EV uptake.
- > Ask Mr Bolloré about the development of new battery technologies.
- Ask Mr Bolloré what his views are on the potential to reduce battery prices either through production efficiency or technological advances.
- Enquire what the Bolloré Groups plans are, if any, for mass-market models of their Bluecar.
- Enquire if the Bolloré Group has any plans to investigate car sharing schemes in countries other than France, the US and the UK.
- Pitch New Zealand as a suitable market for car-sharing schemes, whether they be trials or fully fledged commercial programmes.
- Invite Mr Bolloré and or his team to visit New Zealand and understand the opportunities for carsharing schemes in Auckland, and for Wellington and Christchurch.

EV Key Messages

New Zealand is electric vehicle (EV) ready

- Over 80 percent of New Zealand's electricity is generated from renewable sources.
- Elements of New Zealand's existing infrastructure also support EV uptake for example, we have high rates of off-street parking and a 230 volt power supply.
- New Zealanders' driving patterns also suit EVs with an average daily travel distance of 33 kilometres and 95 percent of vehicle trips being less than 120 kilometres.

The New Zealand Government is taking active steps to accelerate the uptake of EVs

- ✓ For the year ended October 2015, there were 859 EVs in New Zealand. This is about 0.024 percent of the light vehicle fleet.
- ✓ We are working on an EV package which aims to accelerate the uptake of EVs in New Zealand.
- ✓ A key part of our approach involves collaborating with industry and local government.



NZ HERALD

Auckland looks at private electric car-sharing scheme

By Mathew Dearnaley 5:00 AM Monday Mar 9, 2015

Auckland will issue a worldwide call for investors in an electric car-share scheme such as those in North American and European cities.

The proposal is to be unveiled this morning by Mayor Len Brown and Auckland Transport chairman Lester Levy.

Auckland Transport says in an invitation to a scheme launch event that it will seek bids from national and international operators to establish "a large-scale PEV [plug-in electric vehicle]-based carsharing scheme in Auckland".

Any such scheme will be privately owned and operated, it says.

North American-based CarSharing Association head Alan Woodland yesterday welcomed the proposal as potentially offering Auckland "access to a safe and efficient mobility service aligned with the public good".

But he told the *Herald* from Vancouver that Auckland needed to offer any scheme operator support through public rights-of-way and kerbside parking spots.

Mr Woodland referred to two overseas models, one in Amsterdam where the public sector made a substantial investment in vehicle charging stations to support Daimler's extensive Car2Go electric car share scheme, and another in Paris, where the Bollore Group installed more than 4000 charging points to support its own electric vehicle manufacturing business.

Bollore's Autolib scheme has more than 155,000 registered users, who pay daily, weekly or annual subscriptions and then a half-hourly rate starting at 5 (\$7.36) to drive an electric car.

Car2Go has 900,000 users across 29 North American and European cities, but has pulled out of London and Birmingham, blaming Britain's strong car-ownership culture, and Autolib is facing challenges plugging into local electricity networks there as well.

One New Zealand electric vehicle industry source said he had met Autolib officials in Asia but, after looking into a suggestion their model may work here, he had concluded Auckland lacked the population density. That was not to say it wouldn't work in the longer term, as the city became more compact under the 30-year Unitary Plan.

Transport Minister Simon Bridges is seeking ways the Government can increase the uptake of electric cars. There are about 400 on the roads so far.

- NZ Herald

International Business Times UK:

Vincent Bollore to launch London electric car scheme in January

By <u>Kedar Grandhi</u> December 9, 2015 06:54 GMT

BluepointLondon, a company that is part of the Bollore conglomerate, has invested more than £10m in reinstating and expanding the Source London network to 1,000 charging pointsReuters

French billionaire Vincent Bollore will bring his electric car-sharing scheme to London in January 2016. This scheme branded BlueCity will start operations with 10 vehicles across Hammersmith and Fulham and later expand to up to 40 cars by mid-February.

Bollore aims to have a total of 100 such cars on London's roads. The billionaire, who also serves as the chairman of investment group Bolloré, will hope to reap the same success as the "Boris Bike" cycle hire network.

Bollore's Puteaux-headquartered conglomerate has committed to invest close to £100m (€137.7m, \$150.2m) into the scheme, with no plans to earn profits directly. Instead, the company that has invested a lot of money in battery manufacturing, aims to promote the use of electric vehicles and establish charging infrastructure.

A spokesman added that BlueCity was currently ready and will enter customer trials from January. While detailed pricing is yet to be announced, it is understood that rates would be around £5 for a rental of half hour, according to The Telegraph.

The scheme has proven to be a hit in Paris where it has already started. The French capital has 3,600 such Bollore cars that Parisians can use by paying as they go.

In October, it was reported that London's iconic black cab will become electric in 2017, which is one year ahead of a new law that will demand all taxis or private-hire vehicles be "zero-emissions capable".

Delayed launch

The London launch was delayed primarily for two reasons: Complications involved in securing the cooperation of various borough councils; and the need to repair the charging network of Source London, a project initiated to provide charging points for electric vehicles across the city.

organisations. It was acquired by BluepointLondon, a company that is part of the Bollore conglomerate, with the aim of providing a well-organised network for emissions-free motoring.

However, the job of adding additional charging points got delayed amid arguments over pinning responsibility on maintenance. BluepointLondon has since shelled out more than £10m in reinstating and expanding the network to 1,000 charging points.

The Telegraph UK:

French billionaire Bollore readies London electric car scheme

Boris Bike-style scheme BlueCity targets January after delays

8:37PM GMT 08 Dec 2015

The French industrial magnate Vincent Bollore will next month bring his electric car-sharing scheme to London.

Beginning with 10 vehicles, the scheme aims to replicate the success of the Boris Bike excle hire network for electric vehicles by expanding across the city. The scheme has already proved a hit with Parisians, who can pay as they go in 3,600 Bollore cars across the French capital.

The London launch has been delayed by the complications of securing cooperation from dozens of borough councils and the need to repair the Source London electric car charging network.

A subsidiary of the Bollore conglomerate, Bluepoint London, last year acquired Source London, which was meant to provide a coherent network for emissions-free motoring but fell into disrepair amid arguments over who was responsible for maintenance. Bluepoint london has since spent more than £10m reinstating and expanding the network to 1,000 charging points.

The electric car scheme, branded Blue City, is now ready to enter customer trials from January, a spokesman said. It will expand to up to 40 cars by mid-kebruary and by summer Mr Bollore aims to have 100 of the distinctive vehicles on London's roads.

Detailed pricing is ver to be decided but it is understood rates of around £5 per half hour rental are under discussion.

The Bollore conglomerate has committed to sinking as much as £100m into the scheme, with no plans to profit directly. Its early aim is to encourage the use of electric vehicles and establish charging intrastructure. The company has invested heavily in battery manufacture.

New York Times

Vincent Bolloré's Long Bet on Solid-State Batteries for Electric Cars

JUNE 12, 2015
By DAVID JOLLY, YANN CRES and SOPHIE DIMITRIADIS

He is the French billionaire who is the chairman and biggest shareholder of the media giant Vivendi.

But Vincent Bolloré has a side bet: Autolib, the <u>electric-car</u>-rental business that has become popular in Paris and other parts of France. And now he is working to bring a similar service to London — and even to Indianapolis, if all goes according to plan.

In London on Friday, Mr. Bolloré introduced the new model of electric cars that he hopes to put on the city's streets by early next year. The new vehicles are identical to his Bluecars, as they are known in Paris, except for their right-side steering wheels and red London-bus color.

The London rollout is part of Mayor Boris Johnson's effort to make the city the electric vehicle capital of Europe. For Mr. Bolloré, a 63-year old Paris native, it is his own further attempt to demonstrate the viability of electric cars and batteries — particularly batteries — as a key component of the green-energy transportation future.

"We regard the U.K. as a global hub for the creative industries," Mr. Bolloré said in a statement before the event. Those industries, he said, include "clean transport solutions."

The London foray follows by four years the introduction of his Autolib electric car-sharing project in Paris, its suburbs and two other cities. More than 3,500 of the cars are in service in France, driven by people who pay by the hour before returning them to one of the Autolib network's nearly 5,800 curbside recharging stations.

It is all done through membership and credit cards, similar to how Zipcar operates in many cities — but with the extra step of plugging the cars back in afterward.

Expanding into London, which already has plenty of transportation and car-hire options, has proved a greater challenge than Paris for Mr. Bolloré. His company has spent more than a year trying sort out the electric-grid logistics and win approvals from the dozens of local-borough governments that have jurisdiction within the city.

Mr. Bolloré's company has the contract to operate a network of electric charging stations that various battery-powered cars in London will be eligible to use — and with which his own car service will have to compete.

But building an international business in short-term electric-car rentals is not the main goal.

Mr. Bolloré made his personal fortune, estimated at \$7.3 billion, mainly through his family-owned industrial conglomerate, the Bolloré Group, one of whose companies designed and produces the batteries that power his rental vehicles. His bigger aim — and possibly even more quixotic quest — is to demonstrate that those batteries can compete with rival products made by industry giants like Panasonic and LG Chem, and to persuade other carmakers to adopt them for their own fleets of clean-energy vehicles.

Bolloré Group's electrical storage devices are known as lithium metal polymer batteries. The company declined to discuss the cost, but high-tech batteries are a major reason that electric vehicles tend to be more expensive than cars with internal combustion engines.

Bolloré Group executives argue that its solid-state design makes it much safer than the standard lithium-ion batteries used in Nissan's Leaf and Tesla Motors' Model S, which contain flammable liquid electrolytes. They also argue that it will eventually surpass the lithium-ion battery in its ability to operate between rechargings.

"They definitely have an interesting technology," Yasmina Barin, an analyst at the Swiss bank SYZ said of Mr. Bollore's company. "The question is whether this technology is massively superior to the ones on the market. That is not determined yet."

Mr. Bolloré, though, tends to see his endeavors as propelled by history and destiny. In an interview, he recounted from his office in Vivendi headquarters, with views of both the Arc de Triomphe and the Eiffel Tower, that his family "has known three kings, one emperor and 24 presidents of the Republic."

He has personally known a few of those, including former President Nicolas Sarkozy, who created a stir by celebrating his 2007 election victory with a three-day stay on Mr. Bolloré's 600-foot yacht.

The Bolloré Group last year posted revenue of €10.6 billion, or \$12 billion, and net income of €403 million. Besides its investments that include a 14.5 percent stake in Vivendi, which owns Universal Music Group, Bolloré group holds majority control over Havas, the multinational advertising and public relations company.

So far, though, the Bollore company behind the electric vehicles and batteries, Blue Solutions, has made no money. Last year it lost €5:7 million on sales of €97.2 million.

But the quest continues. The company's electric Bluebuses shuttle visitors from the Place Charles de Gaulle in Paris to the newly opened Fondation Louis Vuitton, under a private contract. Soon, Bluebuses will begin operating under a public contract with Paris's transport authority as part of a four-year trial to replace an existing bus line.

In all, Mr. Bollore has invested more than €3 billion in his battery-powered vision.

"It was extremely risky," said Jean Bothorel, author of "Bolloré: A Family History." "That's the way Mr. Bolloré works: When he launches or purchases a business, he goes all out to make it work."

In Paris, users can sign up for an annual Autolib subscription for €120, then check out the tiny vehicles at a kiosk or online, paying €5.50 per half-hour. The service has been popular with young people who cannot, or will not, spend money owning cars and others who would rather avoid parking and maintaining cars in a crowded city.

Christophe Arnaud, managing director for BluePoint London, the Bolloré Group company that won the contract to operate the recharging network in the British capital, said London prices would probably be slightly more, to account for London's higher living costs.

As Mr. Bollore formally unveiled his plan in London on Friday, he said that it would have 50 electric rental cars to start in early 2016 and 3,000 by 2018. There are now 1,400 charging stations in London and the company plans to increase that to 6,000 by 2018.

Perhaps the most counterintuitive venue for Mr. Bolloré's e-vehicle projects is Indianapolis, home of the United States' most famous fossil-fueled auto race.

But Hervé Muller, president of Bolloré's BlueIndy unit, said the project had the support of the Indianapolis mayor, Greg Ballard, whom he said had taken a personal interest in electric vehicles and public transport as a way to improve life in his city. The local utility, Indianapolis Power & Light Company, is also a partner.

"The goal is to make Indianapolis a showcase for other U.S. cities," Mr. Muller said. "Paris is a wonderful showcase, but it's a little far away."

The Indianapolis project has had its share of bumps, including the refusal of Indiana state utility regulators to back a tax on electricity bills to help pay for it. But after Bolloré and the city agreed on the funds, the project is now going forward. Mr. Muller said he expected it to begin operating by the end of summer.

Mr. Bolloré is not alone in seeing the potential in solid-state batteries. Others with products in various stages of development include <u>Seeo</u>, backed by Samsung Ventures; <u>Sakti3</u>, supported by General Motors; and <u>Quantumscape</u>, with support from Volkswagen.

But none of them are taking Mr. Bollore's route of integrating production of batteries and vehicles, and creating a car-sharing program to demonstrate their viability.

"He's pursuing something different from what everyone else is doing," said Cosmin Laslau, an analyst at Lux Research in Boston, adding that the strategy has put him "ahead of the curve" in some respects.

The problem, Mr. Laslau said, is that currently there is no real performance advantage for solid-state batteries. Lithium-ion technology has a 25-year head start, he said, and will continue to benefit from improvements in operating voltage and storage for some time. "That will make lithium-ion a moving target, very hard to beat," he said.

So far, none of the large electric vehicle makers have signed on to Mr. Bolloré's technology. Tesla and Panasonic approunced last year that they would build a \$5 billion "Gigafactory" to make lithiumion batteries in Nevada. The Renault-Nissan alliance, which offers the broadest range of electric vehicles, has gone with LG Chem and Automotive Energy Supply for their lithium-ion batteries. BMW's 13 relies on Samsung SDI.

Mr. Laslau predicted that it would not be until the 2020s that solid-state batteries would begin to reach their full technological potential and make an impact on the market.

The question is how much patience Mr. Bolloré will have to wait for his battery side bet to pay off.

"If he gets bored and cuts it off," Mr. Laslau said, "it can't survive."

From: Sent: To:	TROUBAT Florent - Monday, 7 December 2015 7:23 a.m.
Cc:	., FEUNTEUN Eric
Subject:	RE: Possible meeting with New Zealand Transport Minister
Dear	
	, Electric Vehicle Program and Batteries at Renault Group, will be at COP21 on ands pavilion for an event scheduled 12:00 to 12:30.
Change Minister) from New Zeala It would be much more convenie he is speaker at Solutions COP21 Please let me know. Best regards,	et Simon Bridges, Minister of Transport and Energy (and also Associate Chimate and. Int if the meeting could be held before 12:45. Thit is not possible, 12:130 to 13:h00, as in Paris at le Grand Palais right after.
Florent TROUBAT ALLIANCE PROJECT MANAGER CO Renault s.a.s Office of the CEO 13-15 Quai Le Gallo 92100 BOUL	
De: Objet: Possible meeting with Ne	Envoyé : samedi 5 décembre 2015 16:43 À : TROUBAT Florent Cc : w Zealand Transport Minister
I am contacting you on behalf of Change Minister) from New Zeal	Hon Simon Bridges, Minister of Transport and Energy (and also Associate Climate and.
l understand ha Bridges, who is in Paris for COP2:	s reached out to you for a possible meeting between yourself and Hon Simon 1.
I would suggest 1230-1300 on M Le Bourget. Please let me know i	onday 7 December. We could meet at the NZ Delegation office (room 49, Hall 3) at f this time works for you.
Kind regards	
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