24 October 2011

BRCWG Secretariat
Deregulation Group
Department of Finance and Deregulation
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Re: Future COAG Regulatory Reform Agenda Stakeholder Consultation

Better Place welcomes the opportunity to contribute to the Future COAG Regulatory Reform Agenda Stakeholder Consultation.

In recent years there has been rapid development in the electric vehicles sector: technology performance is improving, costs are decreasing and more electric car models are becoming available on the market. Electric cars can support positive outcomes in a range of policy areas including climate change, urban air quality and health, energy security and cost of living pressures. Globally, governments, car manufacturers, capital markets and customers have moved decisively in favour of electric vehicles, and there is a clear international consensus that the future of transport is electric.

In line with the strategic theme of A sustainable and liveable Australia, we propose that the COAG Seamless National Economy reforms seek to address the regulatory barriers to the introduction of clean technologies, such as zero-emissions electric cars.

We have attached a high-level summary outlining some of the potential areas that could be considered under a regulatory reform and harmonisation package. Pursuing reforms that remove regulatory barriers to the introduction and adoption of clean technologies, such as electric cars, is an important complementary activity to the Commonwealth’s Clean Energy Future Package, and will assist in promoting investment in clean technologies in Australia.

Better Place is the world’s leading electric car network company and has raised over US$700M in venture capital in the last 2 years – most recently from a consortium of leading global banks led by HSBC. The company works with all parts of the transportation ecosystem, including automakers, battery suppliers, energy companies, and the public sector and therefore has a detailed and up-to-date knowledge of global developments in this rapidly moving space.

Of Better Place’s announced roll-outs, Australia is currently the largest (including Denmark and Israel), while publicly announced partial deployments in Japan, the US and Canada presage wider implementation shortly afterwards. As such, Australia is at the forefront of this transformation from petrol to electric vehicles.

Better Place will begin rolling out the necessary charging infrastructure by the end of 2011 in Canberra, with the national rollout commencing in 2012.
We look forward to continuing to engage with COAG’s Business Regulation and Competition Working Group in the development of the Future Regulatory Reform Agenda, and would be keen to meet with your team to discuss these issues further. If you require any further information or clarification about our submission, please contact our office.

Yours sincerely

[Signature]

Alison Terry
Head of Automotive and Corporate Affairs
About Better Place

Better Place delivers the network and services that make an electric car affordable to buy and easy to use. Electric car drivers will have access to a network of charge spots, battery switch stations and systems that optimise the driving experience and minimise environmental impact and cost.

Better Place provides a personal charge spot at home, access to a network of charge spots at work and in public, access to “instant recharge” through battery switch stations and in-car services to help drivers know when and where to recharge.

The ability to be continuously recharging, or ‘topping up’ the battery in their car is important in reassuring drivers that they will never run out of energy while on the road.

Benefits of Electric Cars

Electric cars solve multiple problems simultaneously:

- reducing carbon emissions from the transport sector;
- supporting the development of intermittent renewable energy;
- eliminating toxic air pollutants from our cities; and
- building energy security by replacing imported oil with domestically produced renewable energy.

The transition from imported oil to domestic electricity also offers households an alternative to high and volatile petrol prices. As petrol prices continue to rise and battery prices fall, more and more households will be able to save money by switching to electric cars.

These benefits have been recognised by governments around the world, who have accordingly taken aggressive action on a range of fronts to accelerate the transition to an electric fleet.

Better Place has committed to charging all cars on our network from 100% renewable energy. Electric cars powered by renewable energy can directly displace carbon emissions in the road transport sector and provide a zero-emissions alternative to motorists. Every 100,000 electric cars (powered by renewable energy) would eliminate approx. 400,000 tons of carbon emissions per year. The adoption of electric cars, run on 100% renewable energy, is the only currently available method for delivering zero-emissions driving.

Electric cars can also play an enabling role in the transformation of the stationary energy sector supporting higher levels of renewable energy production, more efficient energy production and distribution, and more efficient energy markets through the introduction of massive amounts of distributed energy storage on an increasingly intelligent electricity network.

Better Place manages the impact of recharging the cars on the electricity grid by using software that coordinates the charge spots so that the charging needs of customers are met within network capacity constraints. This helps make the electricity grid more efficient and significantly reduces the need for additional generation, transmission and distribution infrastructure, while allowing much higher levels of penetration of intermittent sources of generation such as wind or solar.
Finally, in addition to the significant reductions to greenhouse gas emissions that can be achieved, electric cars have no toxic exhaust emissions, eliminating a significant source of harmful pollution from our cities.

**Electric vehicles are happening now, not in the distant future**

The shift towards the electrification of the automobile is already underway at considerable speed. Developments in battery technology and the advent of large scale recharge networks will ensure that battery range is not a constraint to convenience of use, removing the largest barrier to adoption.

Every major car maker in the world will have production plug-in vehicles launched by 2014. This includes vehicles to be made by leading car makers such as Ford, General Motors, Toyota, Mitsubishi, Renault, Nissan, Subaru, Peugeot, Chrysler, BMW, and new car makers such as BYD, Tesla, and Fisker. Multiple car models will be available for sale to the general public in Australia from 2012.

**Regulatory Issues for electric vehicles**

Electric cars face a range of regulatory challenges, none of which will prevent uptake, but many of which will affect price and convenience for consumers. Reform in these areas will accelerate the transition to electric cars, thereby accelerating the public policy benefits this transition will deliver. This will also accelerate investment and job creation in this sector. Several of the barriers result from older regulatory systems which were not designed to accommodate this new technology while others are the result of different systems evolving in different states.

1. **Energy market barriers**

**Metering arrangements**

These differ from state to state, and even by region in some cases. Current metering arrangements do not facilitate billing of flexible loads like electric car chargers (and some dishwashers, fridges, and hot-water systems). Enabling consumers to separate out the load of an electric car from that of the house is proving difficult, and could in some cases lead to administrative costs and delays for customers. Specifically, it will be important to create protocols for the quick and efficient establishment of sub-metering for the electric car load.

**Smart charging**

Electric car charging can be harnessed to improve the efficiency of utilisation of the distribution network and put downward pressure on network tariffs for all consumers. Network charges are 30%-50% of the typical power bill. Unlocking this potential requires changes in regulations on metering and electricity pricing. Conversely, if smart charging is not encouraged, there is a risk that electric cars will add to peak load, thereby exacerbating the issues being faced by the grid. Advances in this policy area by the States have been inconsistent despite national leadership.

Tariff structures from retailers and from network businesses should be facilitated, as this will incentivise the dynamic time-shifting which electric car charging can provide. Such tariffs could include time-of-use tariffs, critical peak tariffs and other dynamic tariff or payment structures.
Licensing of electricity retailers
It is important that the provisions of the new National Energy Retail Law and Retail Rules do not stifle innovation in the emerging market for electric car charging services. In California for example, the Public Utilities Commission recently determined that EV Service Providers would not be regulated as utilities.

2. Planning
The transition to electric cars will require recharge infrastructure to be installed to ensure that drivers have confidence that their vehicles will always be charged. This infrastructure will take the form of standard charge spots, and fast charge and battery switch stations for range extension. Standard charge spots will allow electric cars to recharge their batteries where they are parked, and battery switching stations will enable them to switch batteries for longer journeys. Charge spots are intended to be installed in residential homes, workplace car parks and in public locations where vehicles are parked for a length of time. A further consideration is the local nature of the proposed infrastructure rollout. It is in consumers’ interests to ensure consistency across different local planning regimes so that drivers are able to drive with confidence across the entire state.

Streamlined planning approvals: public charge spots, battery switch stations
Arrangements for charge spots on public land vary among states and local government areas – notwithstanding work on harmonising overall national planning. Consistency on this specific area would be desirable and provide more certainty and flexibility for users. Battery switch stations are a new type of development not explicitly foreseen in planning frameworks, and a streamlined and timely approach to approvals will be of great benefit.

Ensure new developments are EV Ready
The cost of wiring new buildings to be ‘EV ready’ is considerably lower than retrofitting old buildings. Many councils are looking at requiring new developments to be ‘EV-Ready’: that is, incorporate wiring required in car parking areas to allow low-cost deployment of infrastructure. This issue should sit alongside the harmonisation of energy efficiency programs in buildings, as the charge spots become part of the building stock. As an example of overseas experience, Vancouver has recently mandated charge spots requiring all new single-family homes and 20% of all parking stalls in new condo buildings to have dedicated electric plug-in outlets.

3. Consumer Affairs
Right to install for residential tenancies
Under current arrangements in some states, tenants are required to obtain consent from their landlord prior to installing any fixtures on their property. However, the landlord cannot unreasonably withhold consent for such an installation. The desirable outcome would be that tenants should have the right to have electric car charge spots installed at the rental property. This should be subject to the requirement that the landlord is not required to bear the cost of the charge spot or any service account associated with that charge spot. The circumstances under which tenants have the right to install charge spots should be clarified and harmonised across jurisdictions.
Right to install for owners in multi-unit properties
Owners of units in multi-unit properties should have the right to install EV charge spots and associated wiring in parking areas without body corporate approval so long as the installation complies with agreed standards, and the installation does not impose any costs or constraints on other members of the body corporate. Changes may be required to model rules for Owners’ Corporations and Body Corporates to ensure that unit-owners are able to charge their electric cars at home.

4. Safety and Standards
The development of standards for electric vehicles is crucial in providing certainty for customers and business. Acceleration of this process is also important to uptake and safety for users. As an example, in the absence of standards, there has been a proliferation of differing plug types on both the car and charge infrastructure side. This is confusing for consumers, and could be a barrier to the widespread uptake of electric cars.

Consistency and safety in relation to both installation and maintenance of electric car infrastructure is of paramount concern. A range of laws and regulations in the States and at a Federal level affect the following and should be harmonised, including electrical installations of charge points, battery safety and management, charging in the home garage.

Other existing work that affects electric cars
Existing national streams of work currently operating in relation to electric cars – which it would be desirable to incorporate (or reflect) into a single Seamless National Economy process – include:

- **The AEMC Review into Energy market barriers to the uptake of electric cars**: announced by the Prime Minister prior to the last election, has just commenced, but will not make final recommendations until late 2012.
- **The Standards Australia standards process**
  Funding will be sourced via the Victorian Department of Transport for the first phase of standards development only. The process has just commenced, but further funding will be sought by Standards Australia in 2012 to complete this work
- **The ATC National EV Roadmap proposal**
  On 20 May the Australian Transport Council approved the development of a National EV Roadmap. A range of state roadmaps, policies and trials are in various stages of development, but a nationally harmonised approach is preferred.

Many of these existing processes have been delayed or are proceeding at a very slow pace. Given that vehicles will be on sale to the general public in large numbers from 2012, the resolution of these issues is a matter of urgency.