

July 15 2011

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 10-ALT-1
1516 Ninth Street
Sacramento, CA 95814-5512
docket@energy.state.ca.us

DOCKET	
10-ALT-01	
DATE	JUL 15 2011
RECD.	JUL 15 2011

RE: Docket No.10-ALT-1: 2011-2012 Investment Plan

Dear Sir/Madam

Better Place thanks the California Energy Commission (CEC) staff for their work in preparing the draft 2011-2012 AB118 Investment Plan and for the opportunity to provide our comments. Better Place strongly supports the CEC's commitment to electric vehicle incentives and infrastructure. Electric vehicles powered by renewable energy offer the most cost-effective and environmentally responsible alternative to California's current transportation model.

As the CEC develops the 2011 -2012 AB118 Investment Plan, Better Place recommends:

1. Including EV battery switch stations as an approved funding stream for electric vehicles infrastructure projects.
 - a. We believe the CEC's investment in electric vehicle infrastructure should include all available options of refueling technologies that let electricity compete with gasoline and alternative fuel infrastructure.
 - b. Consistent with alternative fuel infrastructure projects the CEC has funded for propane, ethanol, hydrogen and compressed natural gas, which allow drivers to "gas and go" in under ten minutes, battery switch stations enable rapid refueling for electric vehicles for a no-compromise EV experience. Through "instant-charging", battery switch stations will enable mass market adoption of EVs by reducing concerns over vehicle range and enabling longer trips.
 - c. Battery switch is a commercially ready solution that is being deployed around the world as part of our networks in Israel, Denmark, and Australia as well as by groups like Renault, China State Grid, Cherry and Siemens.
 - d. Battery switch extends EV charging reach to consumers who drive the most, use the most gasoline and emit the most smog-forming pollutants, including suburban drivers who cannot otherwise be served with today's EVs.
 - e. As part of a complete EV ecosystem, battery switch will play an important role in accelerating EV adoption in California to meet the state's goals to reduce greenhouse gas emissions and petroleum dependence.
2. Creating funding for automotive R&D activities that support alternative fuel vehicles, especially EVs.
 - a. Locating R&D in California supports in-state companies and innovation, and works as a seed to attract greater investment in deployment and manufacturing.

- b. This, in turn, stimulates the creation of local green jobs and encourages vocational institutions to develop training programs for maintenance technicians to integrate a new generation of workers into the clean energy ecosystem.

We make electric cars convenient, affordable and sustainable

Better Place, founded in California in 2007, currently operates in Israel, Denmark, Australia, North America, Asia and Europe. We provide the infrastructure and services necessary to provide mass market access to electric cars, enabling significant displacement of gasoline, reduction in carbon emissions, and creating regional jobs. Our EV networks and services accelerate large-scale adoption of EVs through innovative and cost-effective elements including electric vehicle supply equipment (EVSE), battery switch stations, grid management software, in-vehicle software, customer services, and third party battery ownership.

Affordable Electric Cars: Lower Upfront Costs

We decouple the cost of the vehicle and the battery, thereby making electric cars more affordable for more people. Drivers buy an electric car without paying the upfront cost of the battery and sign up for a membership package based on the number of miles driven each year. By separating the ownership of the car and the battery, we remove the burdens of cost and acquisition, maintenance, warranty and residual value risks for the driver.

In 2011, we announced our eMobility services in Israel and Denmark. This includes: a fixed-price membership package for electric miles that, unlike petrol, gives consumers and fleets predictable operating costs; installation of a home charge spot; access to our network of public charge spots and to our battery switch stations; energy for the vehicle coupled with personalized energy management and navigation services via on-board and network software to enable convenient charging access at all times; access to an inventory of batteries with a guaranteed service level agreement; and 24-hour access to customer service and support.

This package is the first scalable alternative to gasoline powered cars. It provides drivers with a zero emissions, convenient car with reduced maintenance costs. Our subscriptions vary around the world to meet the needs of the country markets and are designed to overcome the barriers of cost, range and convenience.

Managed EV Network: Smart Charging for a Smarter Grid

Our software platform enables dynamic EV charging optimization for utility and driver requirements, ensuring service quality to drivers while taking into account real-time grid conditions and signals communicated by the utility or grid operator. Better Place charging optimization capabilities support: charge plan optimization to utility objectives, network conditions, electricity supply and pricing, and physical constraints; load shaping; demand response; renewable energy integration, ancillary services.ⁱ

Charge management applies to both the EVs and battery switch stations in Better Place's network. Together, these resources can provide reliable, dispatchable, demand side flexibility that will be instrumental in helping California meet its Renewable Portfolio Standard and AB 32 emission reduction goals.

Global Progress: Building Regional EV Networks for Mass Adoption

Israel

In March 2011, we unveiled our first commercial battery switch station and announced a full-country infrastructure deployment roadmap for Israel toward a full launch of the network in the next 12 months. By the end of 2011, we plan to deploy 40 battery switch stations across Israel thereby providing complete coverage to electric car drivers, giving customers the freedom to drive from one end of the country to the other in an electric car with virtually no range limitations.

Denmark

In June 2011, we launched our first battery switch station in Denmark, on the heels of launching our second global experience center in Copenhagen. The station showcases our battery switch technology, switching a Renault Fluence Z.E., and is the first of 20 battery switch stations we'll deploy across the country over the next nine months as part of our nationwide network of infrastructure we'll launch in partnership with DONG Energy and more than 45 municipalities.

Hawaii

In 2011, Better Place began deploying two programs in Hawaii that will deploy and pilot the state's first public charging network for electric cars (140 charging stations) with funding support from the U.S. Department of Energy and Federal stimulus dollars. The programs are public private partnerships with support from the Hawaiian Electric Corporation, Hawaii Renewable Energy Development Venture, Hawaii State Energy Office, local industry and NGO partners.

San Francisco Bay Area

In October 2010, the City and County of San Francisco, through its Municipal Transportation Agency, received \$6 million in grant funds from the U.S. Department of Transportation via the Metropolitan Transportation Commission to deploy 4 battery switch stations and 61 battery switch capable taxi's in the largest pilot of high-mileage EV taxis in the nation. Approximately a \$24 million program, the Bay Area will be the first in demonstrating a cutting edge technology that has the potential to help California meet its aggressive energy and climate policy goals.

In closing, we encourage the CEC to include funding for battery switch station infrastructure and local electric vehicle R&D to accelerate mass market adoption of electric cars in California. Should you have questions, please contact Vandana Bali at (415) 350-3729 or me.

Sincerely,



Jason Wolf,
Vice President North America
Better Place

CC: Leslie Baroody, CEC lbaroody@energy.state.ca.us, Peter Ward, CEC pward@energy.state.ca.us

ⁱ Simply "plugging in" one million electric cars could add \$750 million in annual wholesale energy costs unless "smart charging" is adopted, according to a joint study conducted by PJM and Better Place, released by Better Place in July 2011. A complete copy of the white paper can be found at <http://btrp.lc/fXd>