

Second Quarterly Progress Report to California Public Utilities Commission Electric Vehicle Charging Station Project

*For the period March 6, 2013 through June 5, 2013
Submitted July 3, 2013 by NRG EV Services LLC on behalf of the Dynegy Parties¹*

EXECUTIVE SUMMARY

During the second quarter of the EV Charging Station Project, NRG EV Services LLC (NRG) built the necessary property relationships to execute the project. NRG now has agreements in place with a sufficient number of retail properties to exceed the first year target for Freedom Stations. The first Freedom Station is under construction in Daly City, and multiple permit applications have been submitted across the state. NRG anticipates that the groundwork laid in the first half of the year will result in a ramp up in construction in the coming months sufficient to meet the first Settlement Year target for Freedom Stations.

Through the first half of 2013, NRG has conducted assessments and submitted draft contracts for more than the number of Make Ready Sites required under the Agreement.

NRG also continued to build its personnel and office support to execute the EV Charging Station Project. Total staff is now 12 full-time equivalents (FTEs) in California, with offices in Emeryville and Carlsbad, and a third office in West Los Angeles, which NRG should be occupying by August 1st.

During the second quarter, NRG continued its extensive outreach to stakeholders throughout the State. NRG staff participated in workshops and sought planning input from the California Energy Commission, the Plug-in Electric Vehicle Collaborative, the Bay Area Air Quality Management District, the South Coast Air Quality Management District, multiple utilities, the Governor's office, the Legislature, community colleges, the National Renewable Energy Laboratory, DOE Clean Cities coalitions, Southern California Association of Public Power Agencies (SCAPPA), multiple automakers, multiple EV Service Providers and electric vehicle supply equipment (EVSE) manufacturers, Plug In America, Bay Area LEAFs, Golden Gate LEAFs, Los Angeles Economic Development Commission, Santa Clara Apartment Association and numerous other parties.

NRG staff also supported the Governor's Office work to define accessibility standards for public charging and provided input for the EV charging guidebook for local communities. NRG staff also presented at two Plug In Electric Vehicle Collaborative meetings.

¹ Capitalized terms not otherwise defined herein shall have the meaning ascribed to such terms in the Long-Term Contract Settlement Agreement.

INSTALLATION OF PUBLIC EV CHARGING STATIONS (FREEDOM STATIONS)

Under the Agreement, the first Settlement Year target for installation of Freedom Stations is 20% of the total, or 40 Freedom Station sites. At the halfway point of the year, NRG is on track to meet or exceed this target. During the first six months of the first Settlement Year, NRG has focused on laying the groundwork for a successful deployment of Freedom Stations. By virtue of laying this groundwork, discussed in more detail below, NRG believes it will see increased levels of construction as the year continues.

Having put in place all critical vendor relationships during the first quarter, successful deployment of Freedom Stations begins with agreements with property owners for the right sites. Relying on a fully analyzed business plan to maximize the success of installed charging infrastructure, NRG is building a distributed fast charging network at sites that meet key criteria: 1) within a half mile of a freeway; 2) good retail interaction; 3) safety; 4) visibility; and 5) good access to power. NRG entered into license agreements with property owners representing major portfolios of malls and shopping centers and stand-alone retail for over 100 potential sites in the settlement territory. Acquiring these partners required a significant effort on NRG's part, since EV charging is not a top priority for any of these companies, and there are many companies offering different products (typically limited to Level 2 charging) in the category. The sustainability officer for one property owner partner noted that he "receive[s] more calls in a month about EV charging on his shopping centers than he does for solar power."

A site development team of four NRG employees has been vetting the partner property lists and has identified 78 potential properties qualified for Freedom Stations. We have begun site design on these properties, beginning with site visits with the property manager, contractor and at times the utility and municipality. Three sites have been submitted for permitting, and the one site in Daly City is fully permitted and under construction.

NRG faces two major challenges in this work. The key design challenge is providing the charging services without losing a parking space for the property. The Freedom Station footprint of two DC chargers, one Level 2 EVSE, communications and control equipment, plus switchgear, is significant for a retail parking lot. The additional requirement to make all stations van accessible further increases the footprint. Providing adequate parking to customers is an ongoing concern for shopping centers, so losing a net parking space is a serious concern for most shopping center owners and managers. In some cases, the local jurisdiction will not allow it. Thus, site design has proven to be a multivariate optimization problem and a process that causes many initial sites to be eliminated.

The second challenge in site design is obtaining all necessary landlord or tenant approvals. The relationship between landlord and tenant in these retail centers is governed by a lease agreement, and many leases entitle anchor tenants to approve or reject any changes in the parking field. Thus, site design typically requires approval by both the landlord and one or more anchor tenants. This is a complication that requires additional education and time, and oftentimes exacerbates any pre-existing tensions in the relationship between landlord and tenant. For instance, in exchange for design approval, one retail tenant requested lease amendments on two unrelated properties owned by the landlord.

Notwithstanding these hurdles, NRG has gained valuable experience over the course of the first six months of the first Settlement Year which will improve efficiency in site selection going forward.

At the end of the second quarter, NRG had conducted six pre-submittal permit meetings with permitting authorities in addition to those fully submitted. NRG received preliminary feedback from these jurisdictions, and the next quarterly report will provide good data on this category. At this point there is wide variability in the range of response on permit process, cost, and time.

Construction has commenced at Westlake Shopping Center in Daly City. This Freedom Station will undergo thorough testing in June and July and should reach commercial operation in July. NRG has begun to develop driver notifications and social media tools, and recently posted photos of construction of this station, which generated significant interest. While NRG has previously invested in significant testing of the equipment in Texas and Washington, D.C., onsite testing is critical before commissioning the Freedom Station.

INSTALLATION OF MAKE READY STUBS AND MAKE READY ARRAYS

The installation target for the first Settlement Year is 1,000 Make-Ready Stubs, which translates into a minimum of 100 Make-Ready Sites under the Agreement.

The first step to installing a Make-Ready Stub is assessing a potential Make-Ready Site to determine its viability for cost, use and settlement criteria. The result is a site design and cost estimate. Following this initial assessment, NRG must enter into negotiations with the property owner and execute a “Ready for EV” Host Charging Station Agreement. To date, NRG has conducted 156 site assessments. Of these sites, 125 are Multi-Family Housing Sites and 31 are Workplace Sites, and they would equate to approximately 935 Make-Ready Stubs. Overall, NRG has submitted draft agreements to 20 potential hosts and has executed three agreements representing 30 Make-Ready Stubs and three Make-Readies Arrays. Many of the remaining prospects either own large portfolios or are commercial operators of multiple Make-Readies Sites. This work appears promising.

Important findings from these initial assessments are that there is typically less power than required for ten Make-Ready Stubs at a single Make-Readies Site and that the vast majority of Multi-Family Housing Sites are “garden-style,” which has distributed buildings and parking lots and would require multiple Make-Readies Arrays in order to provide ten Make-Ready Stubs. These factors will limit the size of the Make-Readies Arrays in the Make-Ready program and suggest that NRG will be required to build far more than the Minimum Make-Readies Array Count in order to meet the Minimum Make-Ready Stubs Count.

NRG is working to address some significant challenges that have emerged in the dedicated charging proposition for Make-Readies Sites. In the multi-family segment, a common response from property owners has been that they do not want to “limit options” to their residents by providing only dedicated charging, and they are asking to have shared charging as an option also.

Significant market education needs to take place to demonstrate that dedicated charging for residents is a valuable service and does not limit the landlord from also providing shared charging.

Similarly, many Workplace Site prospects have informed us that dedicated models will require employees to pay the reserved parking rate (typically \$50 to \$75 greater than unreserved), and even then, those spots are only in limited quantity. These commercial property owners oversell their parking area by 120 percent and rely on absentee rates, travel, and other reasons for employees not to be in the office. Reserved parking limits their oversell opportunity. This is a serious challenge to dedicated parking models, as a PEV driver cannot typically accommodate an extra \$50 per month for workplace charging.

How well NRG is able to overcome challenges will determine success in this first Settlement Year. Meeting the 100 Make-Readies Array target is likely, but it is looking less likely that the first Settlement Year target of 1,000 Make-Ready Stubs will be reached.

DEMONSTRATION PROGRAMS

Technology Demonstration Program

During this past quarter, NRG has developed a Technology Demonstration Project for DC battery-backed charging with multiple Research Partners. The proposal for this first Technology Demonstration Project is now being vetted with multiple stakeholders, as directed by CPUC staff and is submitted concurrent with this report, seeking a July 31 approval.

EV Opportunity Program

During this past quarter, NRG has begun to prepare a proposal for an EV Car Sharing Project. The next step in this process will be NRG's submission to the CPUC of a detailed proposal with goals, partners, and programs described for CPUC approval. NRG anticipates making such a submission sometime in the third quarter of the Settlement Year.