### Settlement Year 2 – Second Quarter Progress Report to California Public Utilities Commission Electric Vehicle Charging Station Project

### PUBLIC, NON-CONFIDENTIAL VERSION

*For the period March 6, 2014 through June 5, 2014 (the Reporting Period) Submitted July 3, 2014 by NRG EV Services LLC on behalf of the Dynegy Parties*<sup>1</sup>

#### **EXECUTIVE SUMMARY**

Construction of all types of EV infrastructure under th Agreement quickened to its fastest pace to date during the Reporting Period. As of June 5, 2014 (the Reporting Date), NRG EV Services LLC (NRG) had a total of 49 Freedom Station sites either constructed or under development. During the Reporting Period, NRG completed construction on 21 additional Freedom Station installations, for a total of 36 completed installations. This pace is more than four times faster than the previous quarter, resulting in more than doubling the total Freedom Station count from 15 to 36. This pace, if sustained, would enable NRG to easily complete the required number of Freedom Stations in the Agreement. Importantly, 24% of the 49 sites in the construction pipeline are located in qualified low-income areas (PUMAs), more than fulfilling the required distribution to achieve a fast charging network in each region that provides access and driving freedom to all.

NRG also added 30 Make-Readies Sites representing 281 Make-Ready Stubs, for a total of 85 Make-Readies Sites under contract and 685 Make-Ready Stubs, of which 162 are operational. The total operational sites doubled in the Reporting Period and total stubs under contract increased by 70%. This pace demonstrates meaningful progress and the success of measures taken in previous quarters to improve marketability of the installations. There is also a construction backlog that has developed, allowing improvements in operational processes to deliver installations. Standardization of stubs and improved scheduling of contractors is expected to reduce costs and provide higher reliability of service.

Proposals have been received for innovative new EV Opportunity Project programs that are now under development. NRG also began site design at University of California San Diego for the microgrid fast charging demonstration project previously authorized, selected vendors for the new charge dispensers, and launched development of the battery pack utilizing previously-used EV batteries.

Most importantly, the infrastructure developed under the Agreement is now being utilized by EV drivers across the state, turning plans into reality. NRG eVgo completed more than 7,700 charging sessions at Freedom Station sites during the quarter and dispensed 89,000 kilowatt-hours of electricity. The momentum generated by installing Freedom Stations and drivers

<sup>&</sup>lt;sup>1</sup> Capitalized terms not otherwise defined herein shall have the meaning ascribed to such terms in the Long-Term Contract Settlement Agreement (the "Agreement").

utilizing them is enabling more people to get more miles out of their cars, reducing the total cost of ownership and increasing the practical market size for electric vehicles.

To support market growth and the needs of its partners in the project, NRG has invested well beyond the requirements of the Agreement. Dozens of dealerships now have fast chargers installed by NRG, and Los Angeles International Airport now has chargers at Park 'n' Fly where drivers can link their daily commute to their regional commute with electric drive. This activity increases the profile of NRG charging solutions, leading to more in-bound inquiries for charging equipment under the Agreement. Supporting this momentum and benefiting from it, more electric vehicles were sold in May than in any other month in history.

#### INSTALLATION OF PUBLIC EV CHARGING STATIONS (FREEDOM STATIONS)

As of the Reporting Date, a total of 49 Freedom Station sites were either completed, under construction, or in the permitting process. Twelve of the 49 properties, 5 in the San Francisco Bay Area, 4 in the Los Angeles Basin, and 3 in San Diego County, are located in low-income PUMAs. They represent 24% of the construction pipeline, exceeding the goal of 20% in this category.

#### Installations

During the Reporting Period, NRG completed construction on 21 additional Freedom Stations, for a total of 36 Freedom Stations installed. This is the fastest pace to date and if sustained will assure completion of the Freedom Station installations. The most significant growth occurred in the LA Basin, which only had one Freedom Station at the start of the quarter. It ended the quarter with 13 total Freedom Stations, a viable network supporting the potential growth of EV sales in Southern California.

<b>Completed Freedom Stations</b>		City
SF Bay Area		
1	Westlake Shopping Center	Daly City
2	Whole Foods Fremont	Fremont
3	Whole Foods San Francisco	San Francisco
4	Vacaville Premium Outlets	Vacaville
5	Livermore Premium Outlets	Livermore
6	Walgreens San Francisco	San Francisco
7	Public Market	Emeryville
8	The Mall at Northgate	San Rafael
9	Whole Foods Novato	Novato
10	Villages at Corte Madera	Corte Madera
11	Whole Foods Berkley-Telegraph	Berkeley
12	Whole Foods Cupertino	Cupertino
13	Great Mall	Milpitas

14	Sywest Crossroads	Pleasant Hill
15	Whole Foods Los Altos	Los Altos
San Diego County		
16	Fashion Valley Mall	San Diego
17	Las Americas Premium Outlets	San Diego
18	Flower Hill Promenade	Del Mar
19	Carlsbad Premium Outlets	Carlsbad
20	Broadway Plaza	Chula Vista
21	Energy Innovation Center	San Diego
22	Del Norte Plaza	Escondido
23	Rancho Penasquitos Towne Center	San Diego
LA Basin		
24	Camarillo Premium Outlets	Camarillo
25	Warner Center	Los Angeles
26	Stonewood Center	Downey
27	Larwin Square	Tustin
28	Outlets at Orange	Orange
29	Walgreens Tarzana	Tarzana
30	Pacific View Mall	Ventura
31	Cabazon Outlets	Cabazon
32	Brea Mall	Brea
33	Oaks Mall	Thousand Oaks
34	County Fair SC	Chino
35	Shops at Mission Viejo	Mission Viejo
36	Westminster Mall	Westminster

#### Site Development

As of the Reporting Date, 9 additional Freedom Station sites were under construction, 2 more were fully permitted and another 2 sites had been submitted for permitting.

#### Lessons Learned: Bidding and Reducing Costs

Bidding, permitting and utility practices that support faster and more cost-efficient installation will be assessed in future reports. Early assessments suggest that permitting is become more standard as more jurisdictions are becoming familiar with this equipment and service, though certain communities are still taking time to learn. Utility planners are becoming more accustomed with DC fast charging as well. Certain utility practices have streamlined planning and connections, including utilization of buss taps, early estimation of utility-side costs, and provision of quality information on transformer loading and physical capacity. Early coordination of utilities with local jurisdictions and property owners leads to faster and more efficient installations.

#### Status of Make-Readies Sites

Overall, NRG has 85 Make-Readies Sites under contract, representing 685 Make-Ready Stubs. Of these, 162 Make-Ready Stubs have been installed at 22 sites, as set forth on confidential <u>Appendix A</u>. Contracted sites has increased by 70% versus the previous quarter and the number of operational sites has doubled, reaching the fastest deployment pace to date.

Pursuant to Section 4(b)(vi)(B) of the Agreement, NRG has established a website which identifies each installed Make-Ready Array's location and Start-Up Period expiration date. See <a href="http://www.nrgevgo.com/california-rev-progress/">http://www.nrgevgo.com/california-rev-progress/</a>.

NRG has conducted a total of 476 site assessments. Of these sites, 276 are Multi-Family Housing Sites, 143 are Workplace Sites and 57 are Public Interest sites, and they would equate to approximately 3,100 Make-Ready Stubs. The site assessments also represent more than one site per day since the Agreement began. Each site assessment represents a visit by an NRG contractor and results in a completed design for make-ready. NRG has thus reached many prospect properties with its outreach and is working toward agreements to install the infrastructure. Barriers addressed in previous reports remain; however, the number of sites assessed offers a promising foundation for achieving the goals when the barriers are removed.

#### Mixed-Income Multi-Family Housing Sites

While barriers to adoption of the infrastructure exist in the market as a whole, it is most acute in affordable housing communities. NRG has continued outreach to this segment, recently having talks and/or site assessments with property managers and owners representing over ten thousand housing units. Some sites have directly responded that they are not interested in installing EV charging infrastructure. Nevertheless, some sites under contract or in negotiation represent mixed income communities, perhaps the first area to achieve meaningful low-income distribution. Additionally, new construction of affordable housing appears more promising, but unfortunately new affordable housing construction is experiencing a slowdown in the state at present. NRG welcomes any and all leads to generate interest in these properties.

#### **DEMONSTRATION PROGRAMS**

#### **Technology Demonstration Program**

The objective of the Technology Demonstration Project is to demonstrate how micro-grid components (including power storage, conversion, generation, and dispensing) can reduce the cost of developing, constructing, and operating DC Fast Chargers when deployed as modules that are custom combined with the chargers to meet the needs and characteristics of individual properties.

During the Reporting Period, NRG has

- Selected vendors for development of the dispenser technology.
- Launched development of battery pack design using used EV batteries.
- Completed site review with UCSD and initiated site design.

NRG is finalizing real property rights with the host site after which it intends to begin construction.

#### **EV OPPORTUNITY PROJECTS**

Two prospective partners have submitted proposals for electric bus demonstration programs for urban school districts. NRG has been working with CPUC staff to develop these proposals into a potential project. They appear to have promise and more will be available on this in future reports.

#### USAGE DATA

See confidential <u>Appendix B</u> for the original raw usage data for the Reporting Period.

#### Appendix A

#### **Make-Readies Detail**

#### See attached [CONFIDENTIAL].

The following information is confidential and protected material and may only be provided to those parties and their Eligible Reviewers that have executed a protective order in the FERC proceeding approving the Agreement and the settlement of the EL02-60/62 Proceeding. NRG retains an exclusive, non-public, proprietary right to such information for eighteen (18) months after the date of submittal to the CPUC, and during such time such information shall not to the extent permitted by law be subject to disclosure under FOIA or CAPRA.

# Material Redacted in Public, Non-Confidential Version

#### Appendix B

#### Raw Usage Data

#### See attached [CONFIDENTIAL].

The following information is confidential and protected material and may only be provided to those parties and their Eligible Reviewers that have executed a protective order in the FERC proceeding approving the Agreement and the settlement of the EL02-60/62 Proceeding. NRG retains an exclusive, non-public, proprietary right to such information for eighteen (18) months after the date of submittal to the CPUC, and during such time such information shall not to the extent permitted by law be subject to disclosure under FOIA or CAPRA.

# Material Redacted in Public, Non-Confidential Version