Seattle 2030 District – Nissan of North America Partnership

Background:

Transportation emission reductions are one of The Seattle 2030 District's core performance metrics. Unlike most cities, nearly 60% of the City of Seattle’s carbon emissions comes from transportation. The combination of Seattle’s very low-carbon electricity source, mild climate, and steep hills makes Electric Vehicles (EVs) an ideal solution for reducing transportation emissions.

King County Metro already operates the second-largest fleet of Trolley Buses (electric buses) in the US. Sales of EVs for personal use in Washington State accelerated rapidly in 2013, and The Seattle 2030 District seeks to magnify this trend within our boundary area.

The Opportunity:

Nissan North America recently partnered with The Seattle 2030 District to install EV charging stations in up to ten (10) member building garages by the end of 2014. These installations will come at little to no cost to a building owner. Nissan is looking for high-traffic, high-impact installations which have the chance to reach large employers; provision of charging stations is at Nissan's discretion. In exchange, The Seattle 2030 District will co-sponsor a series of Ride-and-Drive events where Seattle 2030 District members can experience the Nissan Leaf firsthand.

How it works:

Interested building owners and operators can contact Brian Geller or Matthew Combe at Seattle 2030 District. We need to know the following about your garage:

- Which building/buildings the garage in question serves
- Building square footage and use data if it is not already shared with The Seattle 2030 District in Portfolio Manager
- List of building tenants in served building

Once we have this information, we will discuss the installation with Nissan and put the interested building owner or operator in touch with Rich Feldman, our project coordinator here in Seattle. Please feel free to contact us with any questions.
regarding the program, and act fast – the number of free or heavily discounted charging stations available is limited!

**Seattle 2030 District contacts for the EV Charging Station Program:**

Brian Geller, Executive Director: 
[brian@2030district.org](mailto:brian@2030district.org)  
206-877-2400

Matthew Combe, Program Director: 
[Matthew@2030district.org](mailto:Matthew@2030district.org)  
206-604-1413
INNOVATION THAT ELECTRIFIES

The NISSAN EV Advantage DC Fast Charger Program

09.2013

Prepared for:
Nissan is excited to partner with Seattle 2030 to support the proliferation of DC Fast Chargers in Seattle 2030 District.

Since its inception, Nissan has invested more than $4 Billion into developing its EV portfolio. It is committed to its products and its consumers to provide a superb driving and charging experience.

The Nissan EV Advantage Program provides Seattle 2030 with monetary incentives and technical & marketing assistance to enable it be at the forefront of a rapidly growing electric vehicle market.
Rapidly Expanding EV Market

• **Nissan LEAF continues to be best-selling 100% electric vehicle in the U.S. & World**
  - Global sales: 75,000+
  - U.S. sales: nearly 34,000 on the road today
  - August 2013 was a record month: 2,420 LEAFs sold!

• **DC Fast Charger growth must be accelerated**
  - DC Fast Chargers have grown tremendously since last year:
    • 474% year-on-year (YoY) growth
    • 316 CHAdeMO DC Fast Chargers in the US as of 8/2013
  - YoY growth is impressive, but DC Fast Charger demand exceeding supply as vehicle sales growth continues to accelerate

Nissan EV Advantage program aims to accelerate DC Fast Charger growth through innovative strategic partnerships
DC Fast Charging Primer

- **What is DC Fast Charging?**
  - Rapidly charge EVs with direct current electricity
  - Nissan LEAF (24 kWh battery) charged from zero to 80% in less than 30 minutes

- **Where do drivers use DC fast charging?**
  - Workplace
  - Commercial/Retail
  - Residential (building or community scale)
  - Airports
  - Destinations
  - Corridor charging (connecting regions/communities)
Low Cost DC Fast Chargers

Costs & Incentives

1. Installation Cost = Charger Unit + Materials + Labor

2. Federal Infrastructure Tax Credit (Expires 12/31/2013)

State/Regional/Local Incentives

3. Nissan Incentive

Net Cost to Site Host

Example

$40,000

-$7,500

If Applicable

-$15,000

$17,500

56%

1. Installation costs vary.
2. 30% of installation cost up to $30,000. See page 6 for more details.
3. Nissan incentives subject to availability.
Cost & Incentive Details

• **Installation Costs**
  - DC Fast Charger equipment can cost approximately $15k-$30k depending on functionality and power levels
  - Installation costs will likely fall between $10k and $30k

• **Federal Infrastructure Tax Credit**
  - Expires 12/31/2013
  - Can carry forward for 20 years & backward 1 year
  - 30% of installation cost up to $30,000

• **State/Regional/Local Incentives**
  - Many are available, and we are happy to help you identify them
  - Although not always current, the DOE AFDC is a good starting point: [http://www.afdc.energy.gov/fuels/laws/laws/3270](http://www.afdc.energy.gov/fuels/laws/laws/3270)

• **Nissan Incentives**¹
  - $10,000 per fast charger if installed or permitted by 3/31/2014
  - $5,000 bonus if installed by 12/31/2013
  - Incentives are subject to available funds
  - Contact Nissan to find out how to apply (contact info at end)

¹ Nissan incentives subject to availability.
Operating & Site Requirements

- Use best efforts to ensure charging sessions can be activated and the Charger can charge a vehicle at all times;

- Charger must be accessible and available to the general public to the furthest extent possible (workplace applications will be evaluated separately);

- Chargers to be installed within a 0.25 mile radius of Commercial Land Use, preferably adjacent to land used for retail, restaurant and office space. Commercial Land Use includes:
  - Retail
  - Restaurant
  - Office
  - Multifamily residence (i.e., apartments and condominiums)
  - Other non-residential uses, such as hotels, hospitality and medical
## DC Fast Charger FAQs

<table>
<thead>
<tr>
<th>Category</th>
<th>Question</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input Power</strong></td>
<td>What are the input power requirements for a DC Fast Charger?</td>
<td>208 Volt AC 3-Phase and 480 Volt AC 3-Phase power are the most common input types. Step-up and step-down transformers are also available.</td>
</tr>
<tr>
<td><strong>Connector Type</strong></td>
<td>The Nissan LEAF uses the CHAdeMO standard, does this charge all vehicles?</td>
<td>The CHAdeMO standard is a global standard with over 300 units in the United States and thousands worldwide. CHAdeMO can charge Nissan LEAF, Mitsubishi iMiEV and several other vehicles. The future SAE Combo standard is expected to charge other plug-in vehicles, such as those expected to be manufactured by GM and BMW. Tesla uses its own standard.</td>
</tr>
<tr>
<td><strong>Connector Type</strong></td>
<td>I want to be able to charge as many vehicles as possible – what should I do?</td>
<td>There are over 33,000 Nissan LEAFs in the U.S. (8/13) – nearly all with a DC Fast Charge port – so a CHAdeMO connector is essential. There are fast chargers where a SAE Combo connector can be added at a future date. Some sites install a CHAdeMO unit first and have an adjacent electrically wired pad ready for a SAE Combo charger.</td>
</tr>
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# DC Fast Charger FAQs

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<td><strong>Point of Sale Device</strong></td>
<td>What point of sale devices are available?</td>
<td>It depends on the unit. Generally, magnetic credit card swipe, contactless credit card, and proprietary RFID card.</td>
</tr>
<tr>
<td><strong>Networks</strong></td>
<td>Do I need to be on a network?</td>
<td>It depends on the application. Networks can offer benefits to drivers and/or provide benefits to site hosts/asset operators. In some cases it can complicate the charging experience.</td>
</tr>
<tr>
<td><strong>Equipment</strong></td>
<td>How do I choose equipment?</td>
<td>Nissan can help you choose the right equipment to meet your needs. Nissan’s only requirement is that the hardware include CHAdeMO. Any other standard, including SAE Combo, can be added as Nissan supports the site host’s commitment to charging EVs.</td>
</tr>
</tbody>
</table>
Google HQ – Mountain View, CA

ChargePoint – Level 2

Nissan DC Fast Charger

Nissan EV Advantage Program will support DC Fast Chargers from other manufacturers, and is not exclusive to Nissan DC Fast Chargers.

\(^1\)
Contact Information

Please contact Nissan directly (phone or email) to learn more about how to take advantage of this program:

David Peterson
Nissan
615.957.8308
david.peterson@nissan-usa.com
Workplace Charging Initiative
Nissan EV Business Partner Program

Prepared for:

Zero Emission

Seattle 2030 District
Creating EV Momentum

Nissan is excited to partner with Seattle 2030 district members to assist in the development of workplace charging.

Since it’s inception, Nissan has invested more than $5B into developing our EV portfolio. We are committed to our products and our consumers to provide a superb experience.

A Seattle district member decision to implement this initiative will continue to differentiate the organization as a leader in corporate citizenship, continue to be on the cutting edge, provide a valuable benefit to employees, and help continue the reduction of the organization’s carbon footprint.
Workplace Charging Makes Sense

• “Nissan LEAF helps employees manage time better. "The math really works out. We have a lot of very talented and very valuable people and they waste a lot of time in traffic. So if we can save them a half hour a day, and that is very easy to do, a lot of people save much more than that, very quickly that winds up adding up to a whole lot more than what we pay for the car so it just makes economic sense”
  - Phil Libin, CEO Evernote

• “At SAP we believe in using our technology in being sustainable evangelists by taking innovative measures to approach clean transportation challenges. It only makes sense to ensure that our own workplace promotes alternative transportation especially electric vehicles and charging. We are proud to be a vanguard in this movement. “
  - Geoff Ryder, Sustainability Principal, SAP Labs Palo Alto

• “Workplace charging provides extra peace of mind in knowing that I have the infrastructure to make this decision work for me”
  - J. Nelson, LEAF Owner Testimonial
Nissan North America’s HQ Solution

- 18 Level 2 Chargers under solar canopy
- 5 Level 2 Chargers in parking garage
- 1 DC Fast Charger
Nissan Workplace Charging Initiative

- Establish and sustain relationships with clean transportation like minded employers to promote EVs & Nissan LEAF
  - Universities, Municipalities & Fortune 500 companies
- Conduct town halls and Nissan LEAF campus ride and drives
- Support workplace charging across employer facilities
  - Complement an existing plan, enhance plan or help develop a plan
- Provide employees with preferred 2013 Nissan LEAF pricing
- 5 EV Business Development Managers across the country carrying out this initiative
Nissan EV Business Partner Support

EV Business Development Manager
Jeannie Lam
West Region - North
(615) 315-1239
jeannie.lam@nissan-usa.com