



Nissan LEAF: Innovation for All

December, 2010



Zero Emission



© Making Zero-emissions Affordable



2011 Nissan LEAF – MSRP starting at **\$32,780**

- Cost to consumer = **\$25,280** after \$7,500 Federal tax credit
- Additional incentives: California, Hawaii, Colorado, Georgia, Tennessee also have rebates up to **\$5,000** state level incentives
- Tax credit **up to \$2,000** available toward installing of personal charging dock



© Nissan LEAF – Product Highlights

- Zero emission
- Affordable
- Stimulating acceleration
- Quietness
- 100-mile range sufficient for daily use
- Advanced intelligent transportation (IT) system

Size	5-door compact hatchback
Capacity	5 Adults
Range	100 miles (US LA4)
Top Speed	90 mph
Battery	Laminated Li-ion
Capacity/Power	24 kWh/over 90kW
Motor	High-response synchronous AC Motor (80kW/280Nm)
IT System	Integrated communication system





© Why 100 Mile Range?

On average 95% of the U.S. population drives less than 100 miles a day

Typical consumer driving patterns:

- Weekday
 - Less than 50 miles - 72.4%
 - **Less than 100 miles – 94.9%**
 - 5-10 miles – 26.5%
- Weekend
 - Less than 50 miles – 66.3%
 - **Less than 100 miles – 95.2%**
 - 20-29 miles – 23.5%





Advanced Vehicle IT System

Meter: Distance to empty



Navigation: Reachable area



Charging Timer



Climate Control Timer



Timer



Nissan LEAF Charge Ports



DC Fast Charge

Level 1 & 2

Nissan LEAF Charging Times



Type	Power Supply		Charger Power	Charging Level	Charger Location	Charging Time (24kwh Battery)
Normal	120VAC Single Phase	12A	1.4kW	Level 1	On-board	18h
	240VAC Single Phase	15A	3.3kW	Level 2		8h
		30A	6.6kW			4h
Fast	480VDC 3-phase		50kW	DC Fast Charging	Off-board	26min to 80%



© Nissan LEAF – When, Where, How Many?

When?

- SATURDAY

Where?

- Initially, five core markets: California, Oregon, Washington, Arizona, and Tennessee
- Additional markets online in 2011

How Many?

- 50,000 worldwide production capability in first year
- 20,000 \$99 reservations currently in the US
- 250,000+ handraisers



Getting to Mass Market requires Scale Battery / Nissan EV Manufacturing Capacity



Nissan's US Partnerships by Market



AZ	MAG - Phoenix
	PAG - Tucson
CA	SDG&E San Diego Area Gov'ts
	City of Los Angeles
	Sonoma County
	Bay Area EV Regional Stakeholder Group
CT	State of Connecticut
	Northeast Utilities
DC	DC Council of Governments
FL	City of Orlando
	Orlando Utilities Comm.
HI	State of Hawaii
MA	State of Massachusetts
NC	Duke Energy City of Charlotte
	Progress Energy Advanced Energy (Raleigh)
OR	State of Oregon Portland General Elec.
TN	State of Tennessee
	Tennessee Valley Authority
	ORNL
TX	City of Houston
	Reliant Energy
WA	City of Seattle

26 Partnerships
12 States



EV Market Readiness

- **Incentives for consumers**

- Financial (tax credit, free permitting, free charging, subsidized charger installation)
- Non-financial (HOV lane access, preferential parking, etc.)

- **Streamlined EVSE permit process**

- Fast, easy permit application process (online permitting)
- Expedient installation approvals or installer self certification

- **Charging Infrastructure**

- Home
- Workplace
- Public

- **Education and Public Outreach**

- Educate the public on environmental, social, and financial benefits of electric drive vehicles



the new car

Zero Emission