

Drive Electric Minnesota members

American Lung Assoc. Minn.

Austin Utilities

Carleton College

City of Minneapolis

City of Saint Paul

CERTs

Conservation Minn.

Dakota County

ElectriCharge Mobility

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Ford Motor Company

Fresh Energy

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General Motors

Hennepin County

Innovative Power Systems

Inst. for Local Self-Reliance

Metro Transit

MAC

Minnesota DOA

Minnesota DNR

Minnesota DOT

Minn. Electric Auto Assn.

Minn. Environmental Initiative

Minn. Pollution Control Agcy

Minn. Renewable Energy Soc.

Missouri River Energy Srv.

NEC's HOURCAR

Noble Conservation Solutions

Pew Clean Energy Program

PlugInConnect

Ramsey County

ReGo Electric Conversions

Riverland Cmty College

So. Minn. Muni. Power Agcy

St. Cloud State Univ.-Fac Mgmt

Toyota Motor Sales, USA

Xcel Energy



- ▶ EV and PHEV market and business development
- ▶ PEV technologies
- ▶ Charging infrastructure
- ▶ Workplace charging
- ▶ Multi housing charging



PlugInConnect
Explore the electric future

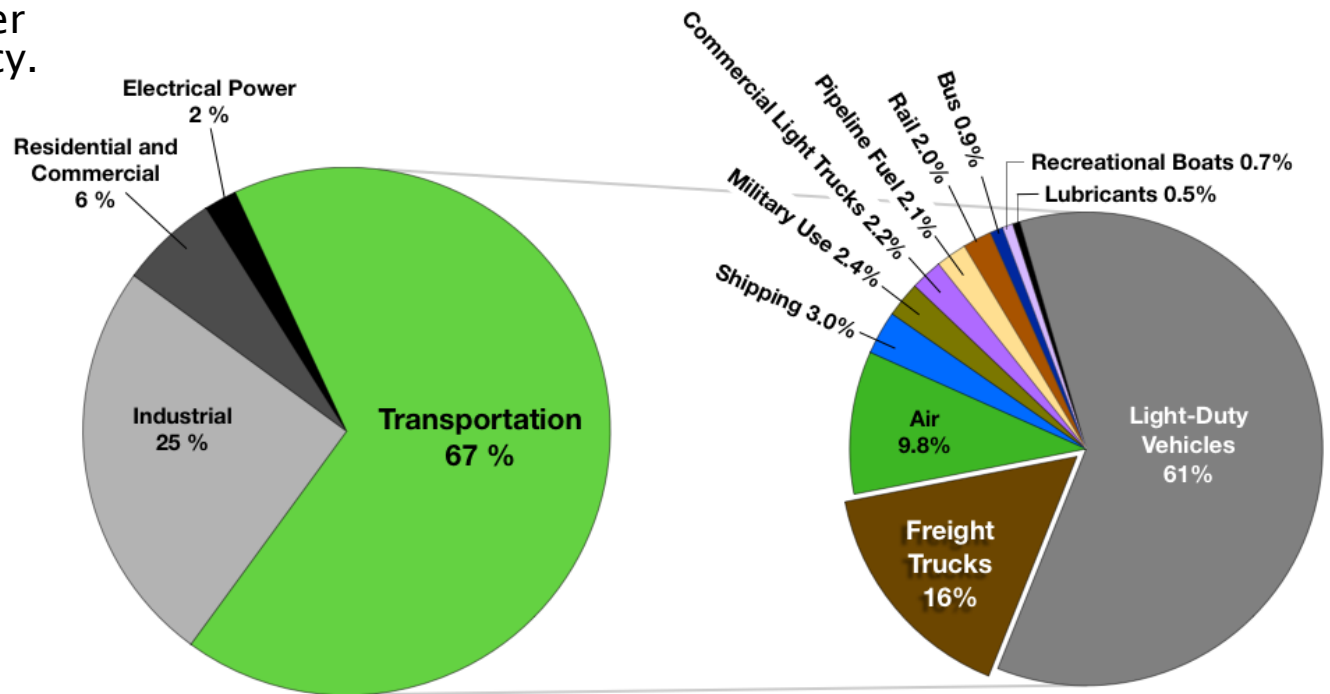
Jukka Kukkonen
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“The single most effective way to reduce U.S. oil demand and foreign imports would be an aggressive campaign to launch electric vehicles into the automotive fleet.”

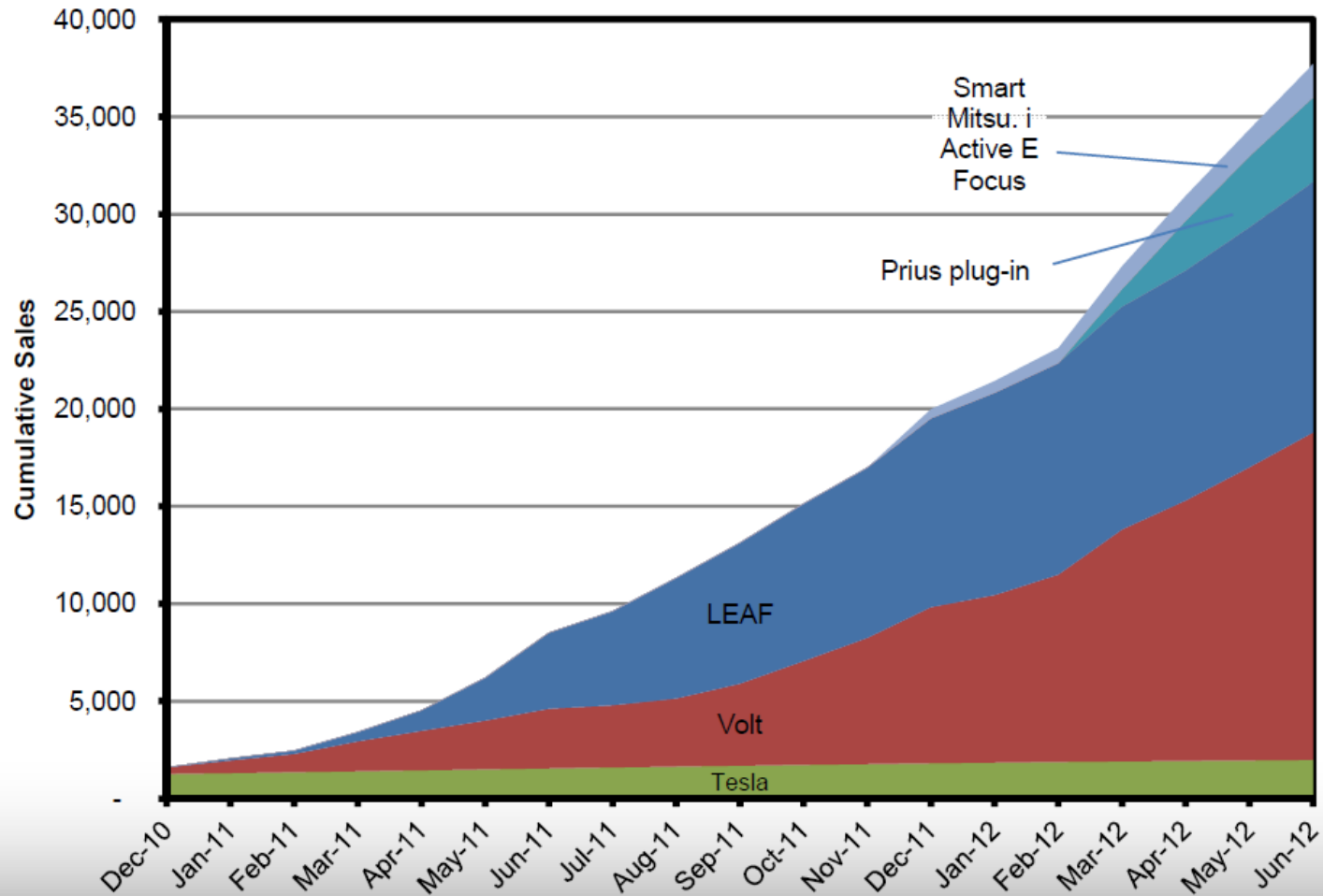
“Energy Market Consequences of an Emerging U.S. Carbon Management Policy.”
September 2010, Baker Institute for Public Policy.

U.S. Petroleum Consumption by Sector, 2005



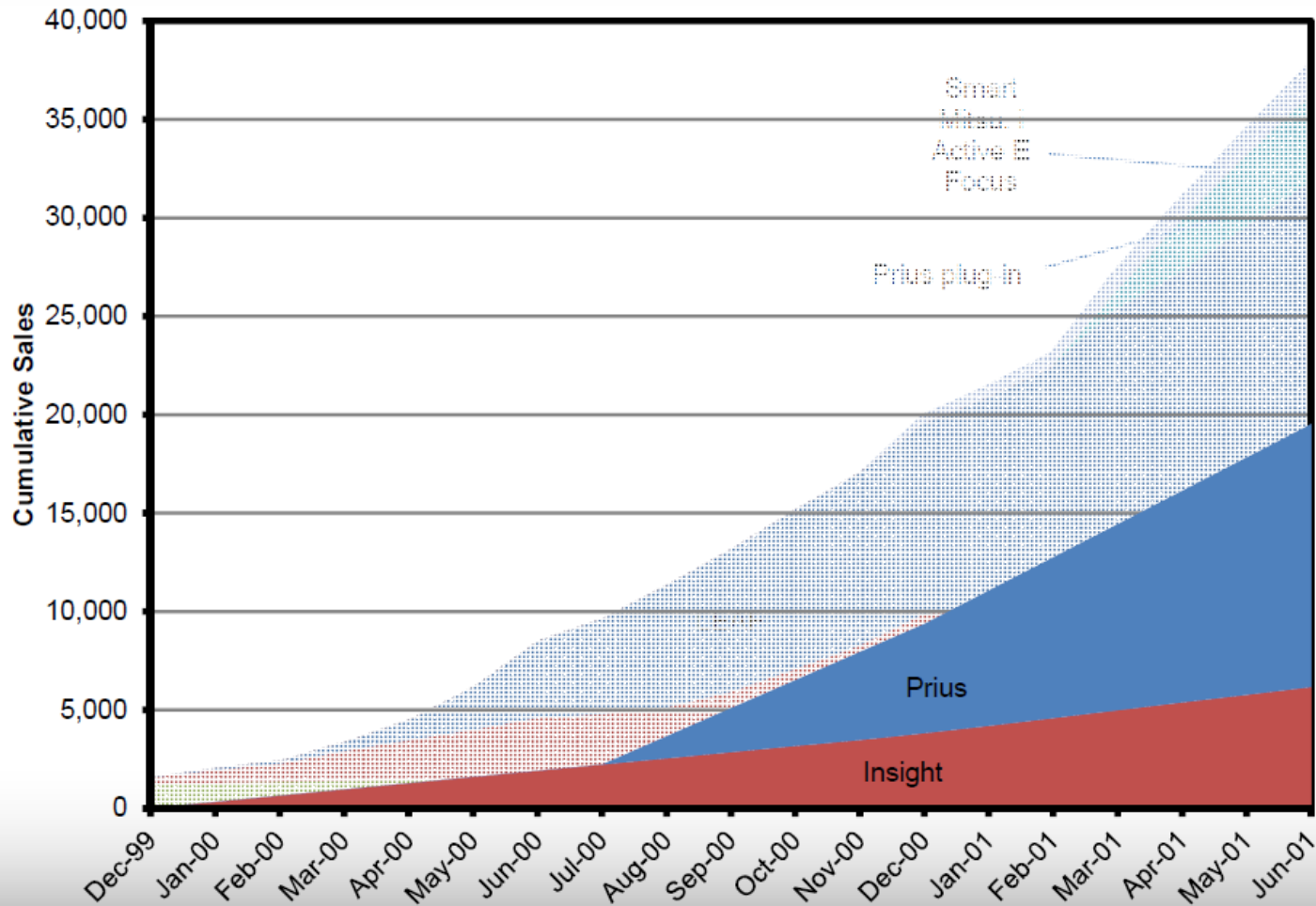
Source: EIA. Annual Energy Outlook 2007 with Projections to 2030. Tables 2 and 7. Report #:DOE/EIA-0383(2007). <http://www.eia.doe.gov> 8/6/07

Cumulative PEV Sales to Date (2009 onward)



Sources: Automotive News, hybridcars.com

Comparison to Initial HEV Sales



Source: US Department of Energy

Plug-in Vehicle Sales in US

	Jan 2012	Sept 2012	YTD 2012	2011
Chevrolet Volt	676	2,851	16,348	7,671
Nissan Leaf	603	984	5,212	9,674
Toyota Prius Plug-in	0	1,652	7,734	0
Sum	1,279	5,487	29,294	17,345



Chevrolet Volt owners have driven over **63 million EV miles** (as of 6/2012)

Nissan Leaf owners have driven over **122 million EV miles** (as of 6/2012)

And together saved over **8.5 million gallons of gas** (as of 6/2012)

(Mileage and gas saving numbers calculated using worldwide fleet)



How to charge an EV?

120 Volt



240 Volt



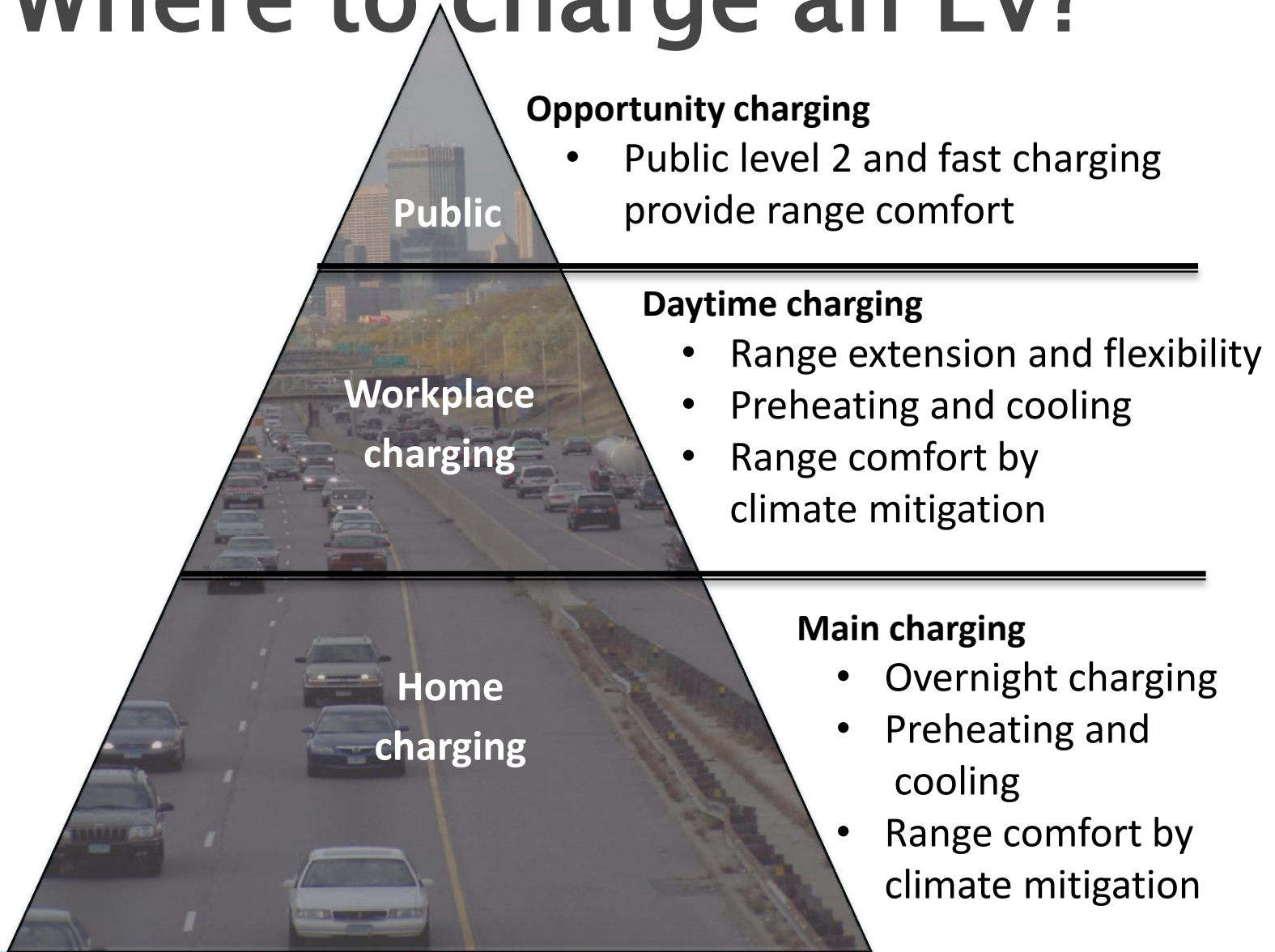
DC fast charge





Photo: Jukka Kukkonen

Where to charge an EV?



How will EVs impact economy:

- ▶ Reduction on oil demand -> Economic stability
- ▶ Moving the energy consumption from oil to electricity -> Money stays in local economy
- ▶ Vehicles and batteries will be produced in US -> Manufacturing jobs
- ▶ Charging infrastructure development, planning, manufacturing and installation
- ▶ EVs will give boost to renewable energy sector