ZERO EMISSION MOBILITY

THE MYTHBUSTERS EDITION

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MYTH: THERE’s A SILVER BULLET

ALL TECHNOLOGIES PLAY ROLES

ELECTRIFICATION/ZERO EMISSION A MUST

• 90% reduction is a trial calculation to keep CO₂ emission at 450ppm level
• According to calculations, to stabilize atmospheric CO₂ concentration below 450ppm,
• CO₂ emissions (Well-to-Wheel) from all new vehicles must be reduced by 90% in 2050
  (compared to 2000).
• Well-to-Wheel CO₂ emissions include CO₂ emissions from power generation, power supply,
  and vehicle operations
POWERTRAIN EVOLUTION

- Each PT has CO2 limit and associated costs
MYTH: NOT FOR MASS MARKET
MYTH: EV’s TOO EXPENSIVE

2012 Nissan LEAF – $27,700 after $7,500 Federal Tax Credit

- California: clean vehicle rebate of up to $2,500
- Colorado: tax credit up to $6,000
- Georgia: tax credit up to $5,000
- Hawaii: rebate up to $4,500
- Tennessee: rebate of $2,500
MASS MARKET PRICING IN PLACE

• True zero-emission vehicle
• Lower Total Cost of Ownership
• Lower maintenance costs

Cost/Mile Comparison
(15k miles)

• Car = $0.12 per mile / $1,800
• EV = $0.026 per mile / $396
• Advantage exists even if gasoline drops below $1.10/gal
MYTH: CHARGING IS HARD

- Most charging happens at home
- Most charging happens overnight
- Average charging time is under 3 hours
- Average time “plugged in” far exceeds active charging time
- Drivers average about 3 trips between charging
Planned Public Chargers By 2012

13,000 Public Charging Stations

Source: data from program announcements, press releases, news stories, public testimony, etc.
Public Charging Station Visibility
EV Project - Tennessee

Circles denote 5- and 25-mile radius areas where charging stations will be installed.

SOURCE: Ecotality
KENT TRAVIS / THE TENNESSEAN
MYTH: FAST CHARGING WON'T CATCH ON
MYTH: LEAF CAN’T BE PRIMARY CAR

- Consumers surprised how much they drive their Nissan LEAF.
- Meeting daily driving needs without breaking a sweat.
MYTH: RANGE ANXIETY IS CURED BY GAS

Out of gas!
Wish I had a car with a plug…
No LEAF?
No hug!
MYTH: LEAF IS A ONE-OFF