



Energy Efficiency and  
Conservation Authority  
Te Tari Tiaki Pūngao

# Transport energy efficiency in New Zealand

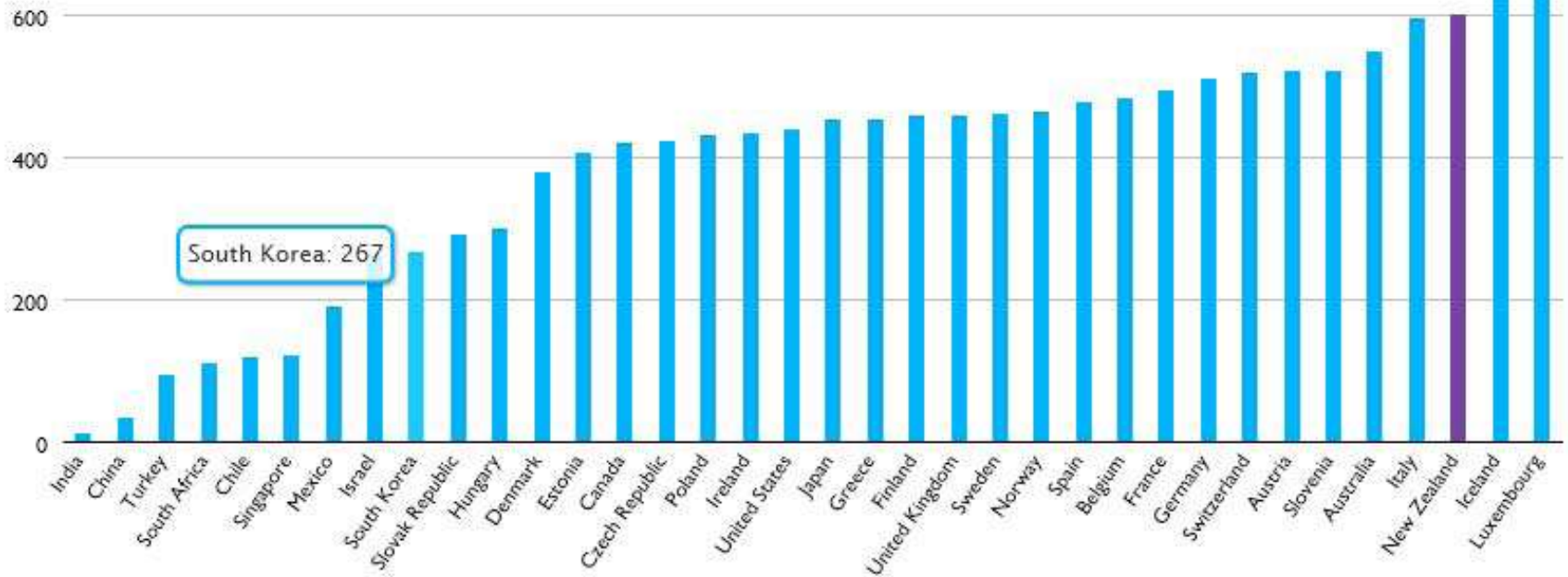
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APEC Expert Group on Energy Efficiency and Conservation

Beijing

October 2014

## Passenger cars per 1,000 people by country, 2009



**TAGS** Cars Global Industries Transport Vehicles

Contributor: Lillian Grace  
000133 Source: The World Bank Group i+





  
**WIKI NEW ZEALAND**

# A range of solutions

## Energy issues

Oil price volatility  
Security of supply  
GHG emissions

## Transport issues

Congestion  
Safety  
Air quality

## Solutions

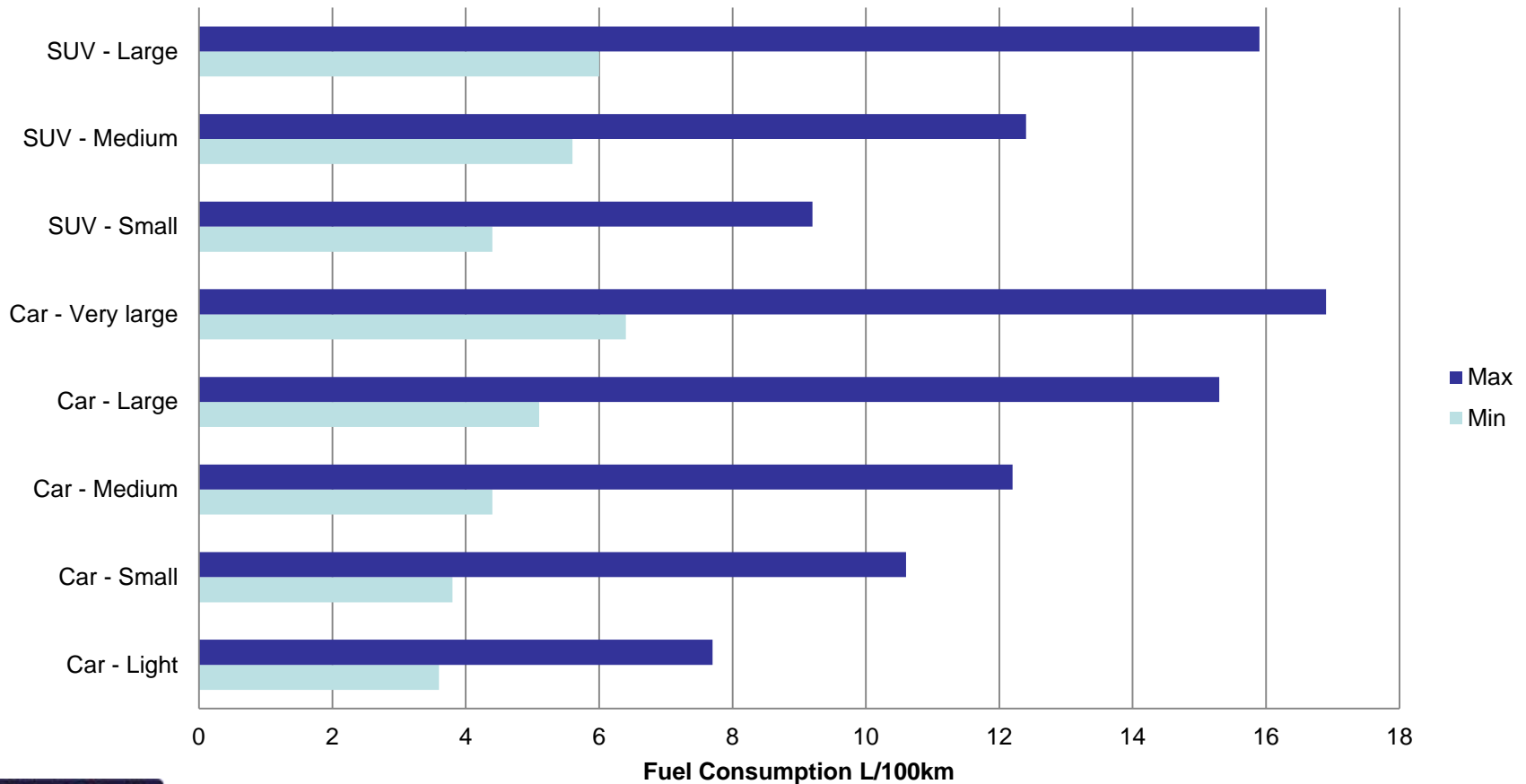
ICE vehicle efficiency  
Driver behaviour  
Walking & cycling  
Public transport  
Sustainable biofuels  
Electric vehicles

→ provide both renewable and efficiency solutions

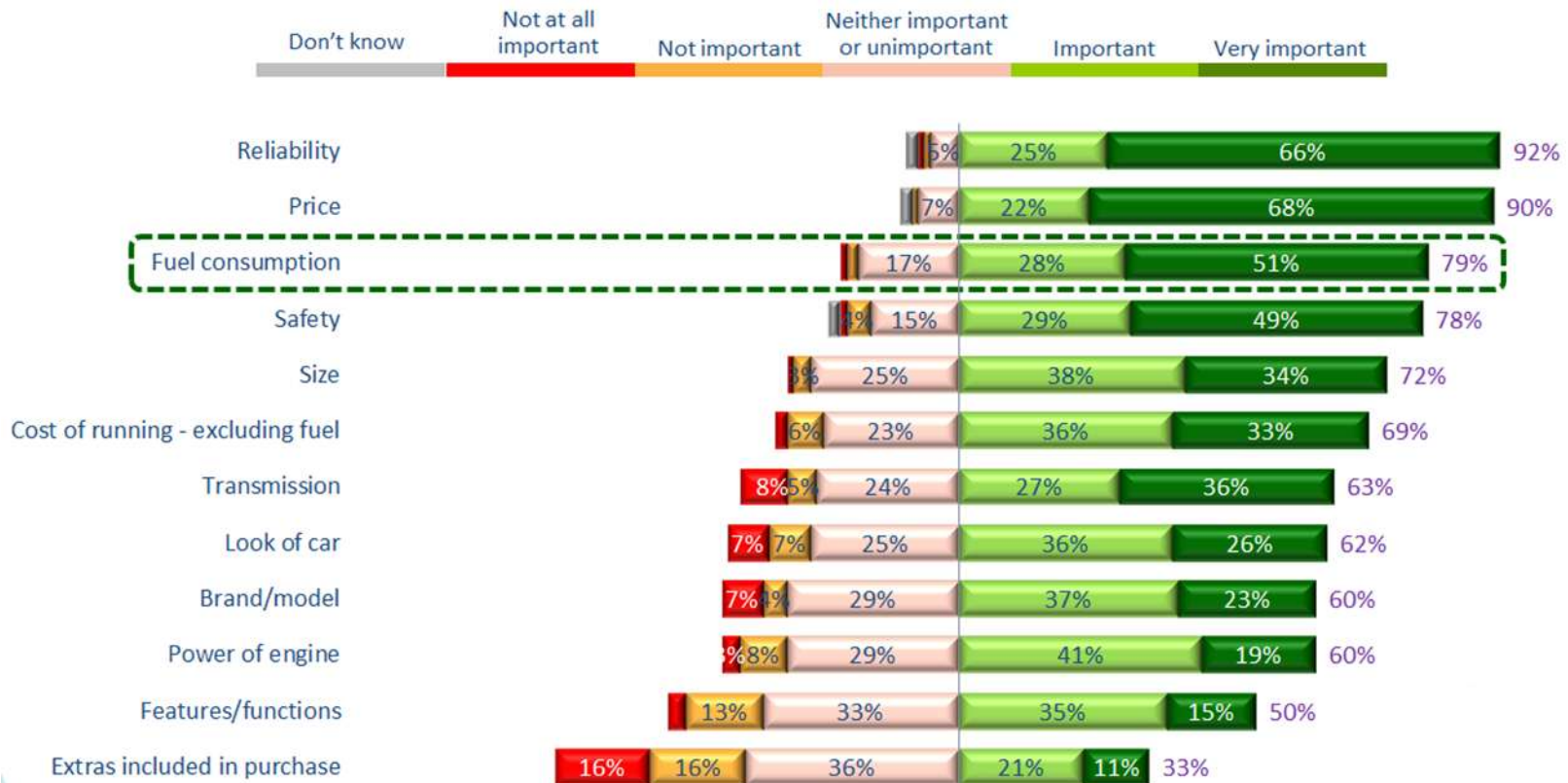
# Our programmes targeting efficiency improvement

# Vehicle Fuel Economy Ranges

## Minimum and Maximum Fuel Consumption by Vehicle Size



# Fuel consumption is an important influence in the vehicle purchase decision making process



# Vehicle Fuel Economy Labelling



Subaru Legacy Gt Spec B Wagon 2010

Asking price: \$49,990 | Listed: Wed, 30 May | Listing #: 480516373

**On Road Costs:** Included

**Kilometres:** 32,000km

**Body:** Black, 5 door, Station Wagon

**Fuel type:** Petrol

**Engine:** 2457cc, Automatic

**Features:** Cruise control, Electric mirrors, Electric windows, Sunroof, Towbar, Remote Locking

**Fuel Economy info:** (Source: Fuelsaver)

4WD/4x4

All Wheel Drive, Front Side And Curtain Airbags, Anti lock Braking, Compact Disc, Climate Air Conditioning, Electric Drivers Seat, MacIntosh Premium Stereo, Tiptronic.

NZ New Subaru Legacy GT spec B premium. This luxury sports wagon is powered by a 2.5 litre DOHC Turbocharged boxer engine producing 191 kw and 350nm of torque coupled to a 5 speed automatic transmission with tiptronic manual mode option, all this with symmetrical All Wheel Drive, with 5 star Ancap safety rating and interior features such as full leather, Mckintosh premium

Photo 1 of 8

View full size photos

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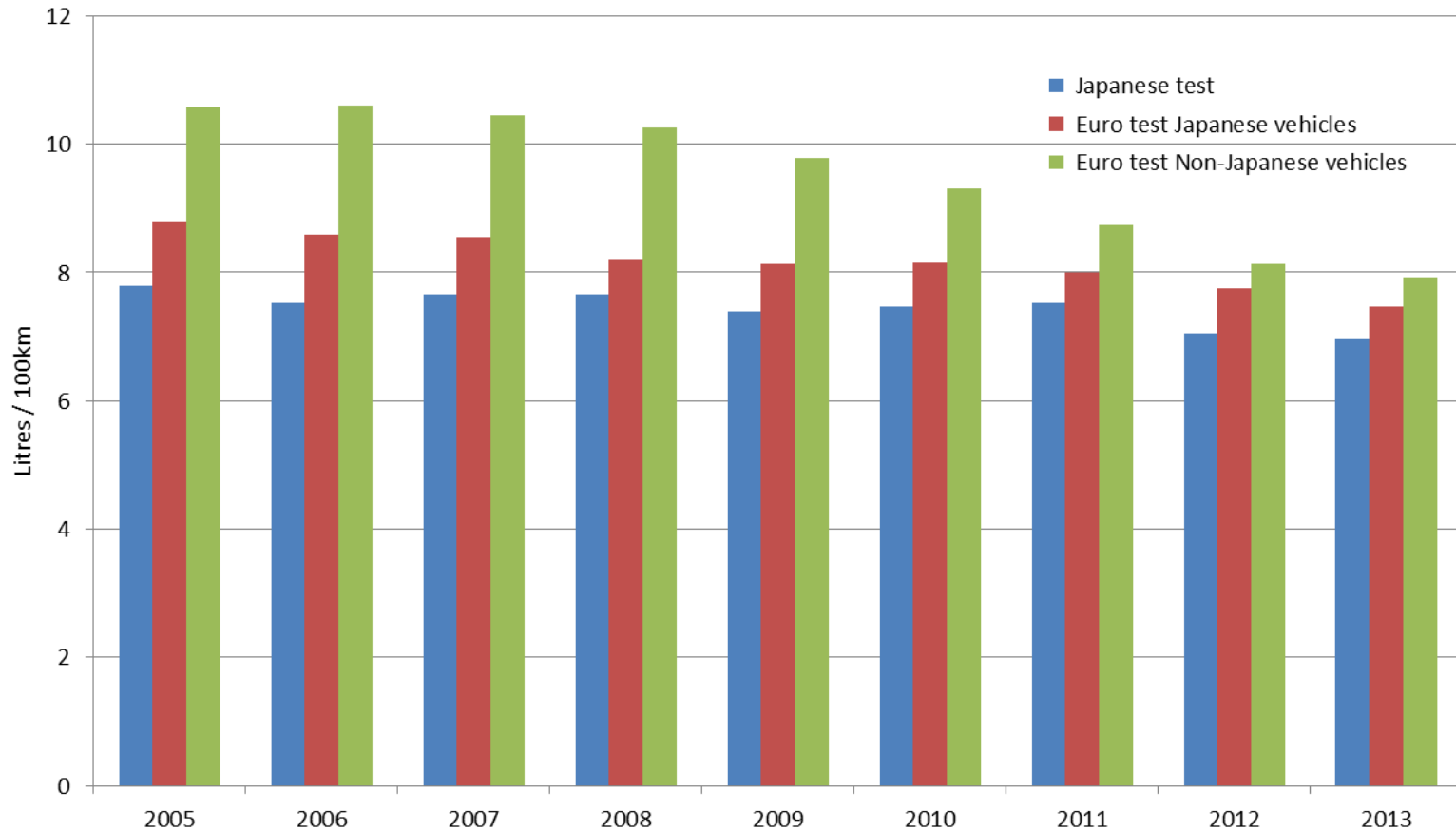
How much to insure this Subaru?  
Click here STATE







# Average petrol consumption of vehicles at first registration in New Zealand improving



# Heavy vehicle programme



- **Over the last 2½ years EECA has:**
  - Worked with over 50 truck and bus fleets
  - With a combined annual fuel consumption of 140m litres of diesel
  - That's 14% of heavy transport diesel use in the EECA programme
  - They are now on course to save 7% of the fuel per year
- **EECA's programme involves:**
  - Securing top management commitment from the fleet company
  - Fleets set objectives and develop plans
  - Investing in monitoring and measurement – robust accurate data
  - SAFEDNZ driver training
- **Case study: BP improves fuel efficiency by 10%**
  - Through EECA's programme, BP's senior management leadership combined with driver training and team work saved BP over \$120,000 per year on its own fuel

# Fuel efficient tyre programme

- Promotional campaign backed by a voluntary endorsement mark to help motorists identify tyres which are both fuel efficient and safe
- Aims to move the fuel efficient tyre market from 6% to 12% by 2015/16, saving fuel and reducing CO<sub>2</sub>
- Consumers buying fuel efficient tyres will save around \$230 over the life of the tyres – its like saving 10c per litre every time you drive
- EECA is investing \$2m over two years
- Programme launches October 2014
- All major tyre importers are on board
- Criteria for the endorsement mark are based on international standards for rolling resistance and wet grip performance and are identical to the Japanese endorsement mark for fuel efficient tyres
- Keeps a focus on tyres through WOF changes



# Fuel efficient tyre programme

EECA and partner promotion *Education and awareness* → Fuel efficient tyre web tool *Willingness to take action* → Where you can buy *Action and sales*



- Tyre industry partner marketing
- Promotional support from MTA, NZTA, VTNZ, AA ...

YOUR VEHICLE

**Your vehicle**

Registration: AEN9338  
Year: 2001  
Make: Holden

Model: Sport wagon  
Colour: Burgundy

**Fuel efficient tyres for your vehicle**

I tetahi po i a Maui e noho tau ana, ka timatahia e Maui ki te rarangaheia he rakau hii-ika. I a te rarangaheia e waihoia e Maui tetahi karanga towhiri he whakakaha i te rakau hii-ika.


I te mutunga o te mahi, i tangohia he kaaue roro he tona tapahi i a Maui tangohia i te rakau hii-ika. I te ahau o te aho, i kawea e Maui te rakau hii-ika, o, ka huna e Maui ki te kua o te waka o tona kaaue.

**Tyre Size**


Tyre Size	TYRE PRESSURE
205/55R15 95H	35psi
225/50R15 92V	35psi
215/45R17 93V	35psi

**What's my tyre size?**

Tyre size can be found on your tyre sidewall - full tyre image over the tyre markings below to find out more.




**Braking & Stopping**



PRINT my recommendations
 EMAIL my recommendations

**Next steps**

I te mutunga o te mahi, i tangohia he kaaue roro he tona tapahi i a Maui tangohia i te rakau hii-ika. I te ahau o te aho, i kawea e Maui te rakau hii-ika, o, ka huna e Maui ki te kua o te waka o tona kaaue.







**For more information:**  
FREEPHONE 0800 555 1234  
www.bridgestone.co.nz

### Stockists



I tetahi po i a Maui e noho tau ana, ka timatahia e Maui ki te rarangaheia he rakau hii-ika.

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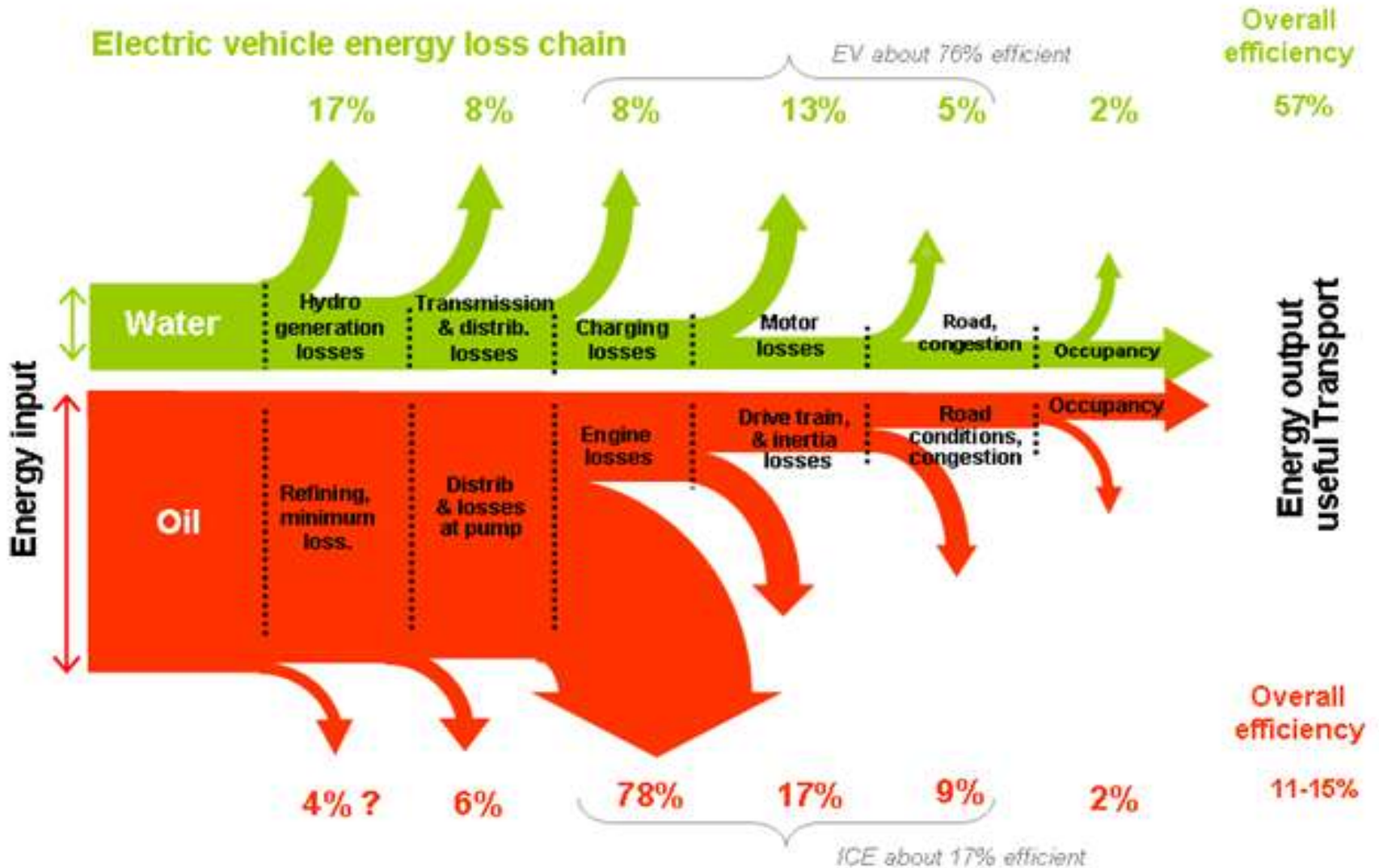


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**For more information:**  
FREEPHONE 0800 555 1234  
www.yokohama.co.nz/locations



# EV efficiency



Internal combustion engine energy loss chain



# New Zealand's EV advantage

- High proportion of homes with off-street parking - 2<sup>nd</sup> highest in world
- Multiple car ownership - 2<sup>nd</sup> highest in world
- Low average commute distance – 28 km/day
- 230 Volts – easy overnight charging
- NZ does not need significant infrastructure investment for EVs





# NZ's electric fleet

- 271 EVs in fleet (June 2014)
- But new models and prices coming down
  - Mitsubishi Outlander PHEV: \$60,000  
→ over 70 vehicles sold in April/May
  - Nissan Leaf: price now reduced to \$40,000  
→ vs Toyota Corolla: \$33,500 - \$43,500
  - New models: BMW i3 (Nov 2014)
  - Used imports from Japan (eg used Nissan Leafs at \$20k-\$30k)

