

The AU\$23,000 Car

The New Paradigm in Electric Vehicles

Thermal Runaway can cause vehicle batteries to catch fire; it is a serious and known risk in EVsⁱ. The EV is normally burnt to the ground. ITEZZE deals with Thermal Runaway by making **all** the batteries in the vehicle '**ejectable**' so they can be ejected safely from the vehicle onto the side of the road.

This led to a new Paradigm in EVs. Because **all** the batteries need to be removable in order to deal with battery fire, ITEZZE has changed the method for supplying batteries in EVs. So, instead of the carmaker supplying the batteries with the vehicle; the vehicle is supplied '**bare**' without batteries. Thus, the carmaker sells the EV just as a car/vehicle (no batteries). Batteries are supplied later by the car dealer or the customer can source their own (or rent them). This removes **Battery Risk** entirely from the carmakers (see: itezze.com/technical – '**Battery Risk**' Button) and reduces the purchase price of the EV significantly to under the price of equivalent Internal Combustion Engine (ICE) cars.

ITEZZE customers can rent their batteries; so instead of buying a 10 kWh **Resident** battery (40 kWh for a bus) to stay in their car permanently they can hire a 10 kWh one from ITEZZE for US\$3/day plus 17½ cents/kWh (1.7 kWh is equivalent to about 1 litre of petrol).ⁱⁱ They can rent a 23-kWh battery for the car's '**Swap Slot**' that can be recharged from their home electricity supply until the ITEZZE swap network is functional. A **Regeneration Battery** which collects the power from braking and downhill is normally 2-3 kWh and can sell new for around \$2,300-\$3,000 (US\$1,500-US\$2,100).

Summary - The model for selling EVs has changed; ITEZZE means carmakers can sell affordable EVs without '**Battery Risk**' and customers can save on fuel cost and get '**petrol convenience**' from EVs.

The US\$15k Car which dramatically reduces family fuel cost

A Small 2-4 door family size car that-

- ▶ Can use a normal 3 pin household plug to recharge;
- ▶ Has a range of 100 -130 Km on its 10 to 15kWh **Resident Battery** (Most small vehicles use 7 -12 kWh per 100 km)
- ▶ Has less weight than other EVs and can handle all normal weekly tasks - shopping, work, kids, school runs etc.
- ▶ Electric Hub or axle motors - no other motor or gearbox;
- ▶ 1 x swap battery slot for an exchange battery;
- ▶ The car is supplied **without** batteries; owner buys their **Regeneration Battery** and can rent a **Resident Battery** - hire for an 8 kWh one is US\$3/day + 17½ cents/kWh used,**
- ▶ If the owner wants to go anywhere over the weekend or day trips; they simply go to the nearest ITEZZE service station and put a **Swap Battery** in the swap battery slot;
- ▶ Very inexpensive US\$15,000 (AUS\$21,000); Hence the name - the US\$15k car
- ▶ Fuel cost on Home recharges with 'controlled load' (off -peak at night) equivalent to (AUS\$) 18.7 cents/kWh or 73 cents/litre with hire charges (US\$) 49 cents/litre.
- ▶ **CO₂ emissions - Zero**

And... the US\$15K Car uses much less Lithium* - 1/5th to 1/3rd that of a Tesla Model S

*Or none Because ITEZZE vehicles use smaller batteries they can use other types of battery material like Nickel.

** All the batteries in ITEZZE vehicles - are able to be safely ejected in the event of a fire.



ⁱ A ship with Audi, Bentleys, Porsches and other cars that burnt to the water and sank off the Azores reinforced to everyone the risk of EV batteries. See Video: <https://www.youtube.com/watch?v=Tph5hza8dnU>

ⁱⁱ In small vehicles this is based on **Hyundai Ionic** which is the same size as the Hyundai **i-30**; the **Ionic** uses 11.7 kWh per 100 km; while the **i-30** uses 7.1 liters of petrol per 100 km