ITEZZE

The Future for Cars, Trucks, Tractors And Mining

ITEZZE – AEMO ISP Update – 2026

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AEMO – ITEZZE ISP Update – 2026

Introduction

ITEZZE is the EV Swap battery technology that allows cars and trucks to travel long distance with ease using the ***LFB*** – Liquid Fuel Battery Technology

Australia uses 1.531 million barrels of oil per day (bpd). 1.1 million bpd of this is imported as diesel, petrol, and aviation fuel, along with ship fuel. It travels 10,000 to 20,000 km via refiners in Singapore or Sth Korea to get here. In event of a war and a marine embargo (so none of this 1.1 million bpd gets here) Australia does not have enough energy to run its economy. Of vital importance are - cars to get people to work; trucks that supply retailers and industry; tractors that produce crops and mine equipment to dig out our resources.

It is therefore critical that Australia move energy dependence off its imported oil exposure for road transport, farms and mining to electricity sourced from wind, solar, gas and coal. (The Oil Issue – Appendix 1)

The 2024 AEMO ISP Brief from ITEZZE detailed how solar generation North of the Tropic of Capricorn See: *Capricorn Effect* in that Report (or Appendix 1) would give Australia independence. This power is available and the Federal Government in its ***Re-Wiring the Grid Policy*** is establishing the Grid to move the power from where it is generated to where it is mainly used - in the South of the country.

It is possible by rolling out large scale ITEZZE storage and vehicle systems to Indonesia (to run their road transport and industry) with solar power produced here. Indonesia has a problem with solar energy production during the summer/monsoon months because the cloud density is such that most the solar energy up there is reflected away from earth and can't be captured by panels as solar power.

This Report simply updates of the equipment and timelines of the earlier report. Of critical importance is the use of *LFB* for recharging cars and energy storage in Home Kiosks. (See: Appendix 2). Use of LFB will greatly reduce the cost of energy storage in Kiosks and the amount that can be stored (100-130 kWh/kiosk). Changes in strategic influences have necessitated a re-jig of the way the system was deployed and delayed its rollout.

Synopsis

In 2026, war is still raging in Ukraine; with particular focus by Russia of attacking the Ukraine energy infrastructure. US has taken control of Venezuelan oil supplies; Bass Strait in Australia is continuing to decline. Rising energy prices have affected Third World countries with a result that their personal spending power has dropped. This is then affecting China that sends most of their exports to smaller countries. At the end of 2025 Chinese manufacturing had dropped for 5 months in a row.

The EIA (US Energy Information Agency) is forecasting that US oil production in 2026 will be lower than in 2025 (so the US has virtually *Peaked*). **Energy is now a major priority**. A second US Fleet is being sent to the Middle East. **Should there ever be a time for Australia to be energy independent** – **it is now**. ITEZZE makes this possible, and this report shows how improvements to the Technology can make it happen faster. **Note:** This report is an Addition to the 2024 AEMO ISP Report (not a replacement).

The information in the original report is relevant – it is imperative that Australia harness the solar potential of the North if it is to achieve energy independence and be able to sell power elsewhere. ITEZZE makes it possible - because LFB makes it possible to store power here (in *LFB* tanks) before shipping it overseas.

Cracking the Code

Background

Before a Corporate or Government looks at endorsing a new energy system, they need to examine the key features –

1. Is it **sustainable** and economic in the long term? (If Lithium is expensive now and the world's reserves are only limited to 50-60 million tons then it is really not a long-term energy source).
2. Cost – it must be cheaper than the existing energy paradigm and be able to continue that way. (When poles and wires were implemented, copper was cheap; trees were plentiful and more could be easily grown if they were needed – that system has lasted over 100 years).
3. It must be safe; self-perpetuating and self-sustaining.

The final point is of great importance particularly in an uncertain world. Some nations have cyclones, and Ukraine has missiles hitting its energy infrastructure. Under the old transport Paradigm, petrol stations had large tanks full of fuel. If the power was disrupted, they could use generators that ran off their **own fuel**, in order to sell the fuel. Hence, they were self-sustaining. And, the cars still ran …

If a country runs their cars/trucks on electricity from wires and the wires go down – then the vehicles may not be able to get there **to fix the wires**. For the system to be self-sustaining it needs 'reserve capacity' built into the system. In one large town the Grid shuts down after a long weekend because people get back from the holiday and forget to plug their EV in. Then in the morning they all rush down to plug their EV in and the system overloads (and the substation automatically shuts down). Hence, no power for the suburb.

Their cars are reliant on a system that is not self-sustaining.

Cost is the next point. If the car costs $70,000 and the backup battery costs $36,000 (after a Govt Rebate) then the system is not as cheap as the same vehicle on petrol for $36,000. (It takes longer than the life of the car to recoup the cost 'savings').

Technology Bottlenecks

The last point is the Technology the cars run on. The Tesla 18 – 80 battery is 18 mm wide and 80 mm high. It takes thousands of them to run a vehicle. If one overheats and catches fire the whole vehicle burns and maybe the house it is in as well (that is why some Tesla owners park at night on the driveway or the street).

Capacity Factor

Large trucks take about ½ MWH (520 KWH) per battery Fuel Swap.

A Power Station like Bayswater that sells half its power has a Capacity Factor of 50%. ITEZZE Hwy Service Stations can store up to 100 MWH. If these service stations catch the surplus power from a generator and store it for later use, it can Double the Capacity Factor of the generator. So, if they sell 100% of power instead of 50%; it is equivalent to building a whole new power station – but it is free.

Obviously service station need to prioritise their road users and trucks but 67 x ITEZZE Service Stations can store the entire output of Bayswater (2.7 GW) for 1 hour in their Reserve Capacity.

Backup Batteries

After a blackout, a supermarket has to throw out all their refrigerated and frozen product if the temperature in it rises 3+^{o}C. An incident may cost hundreds of $thousands.

Coles Supermarkets can use ITEZZE Batteries instead of Diesel Generators for their Backup Power. 1 x Battery can run their supermarket for 3-5 weeks. Some may choose (in safe periods of the year) to cycle surplus power in and out of their battery for Grid use/support and profit.

Note: ITEZZE Batteries can be refuelled by road tanker.

Technology Updates for ITEZZE Home Kiosks

Of particular importance is the change of power storage inside Home Kiosks from Hard Batteries to ***LFB***. Hard batteries are batteries that are produced as a unit – a single entity. The standard lead acid battery in a car is a 'Hard Battery' as are Lithium-Ion batteries used in some EVs.

LFB is a Liquid Fuel System. ***LFB*** splits the battery into a Liquid component ('L-Fluid' or '***L-Fuel'***) and an Anode Pac which contains the metal component of the battery. Because the energy is stored in the fluid and that is separated from the Anode Pac the battery cannot go into thermal runaway. In the event of a battery being hit by a bullet (in the bullet or '*Shooting Test'*) the battery simply leaks.

(A Lithium-Ion battery explodes if it is hit by a bullet).

The change in Regional Security (with Foreign Warships now circling our coastline) means that it is unwise to place reliance on imported components for Critical Infrastructure (and ITEZZE is Critical Infrastructure). Hard batteries by virtue of their design are usually imported. ITEZZE *LFB systems however are bulk systems, cheap to produce and can be built in Australia*.

The system is comprised of a tank full of fluid – tanks and fluid can be supplied here; and an *Anode Pac* using Nickel which is produced here. Anode Pacs can be made using Robotics and other technology also available here. So, ITEZZE batteries can be ***Made in Australia***.

One tank – many Anodes - Multiple choices.

A supermarket or Servo Tank may be 30-40 meters long. All with fully charged/ready to use fluid loads.

Operators can Triple or Quadruple power output with the flick of a switch. One Anode Pac is independent of the others. One can be powering a house down the road; another the powering supermarket; another can be powering a 70 AMP supercharger. They are independent on their power draws. The L-Fuel is fully charged when it enters the Anode Pac. When discharged it goes back to the used section of the tank for recharging. So, the *L-Fuel* available is fully recharged and ready to go. A single tank can fuel hundreds of Anode Pacs.

Anticipated energy Use

Australia uses 1.531 million barrels per day (bpd) of oil. Most of this is imported as diesel, petrol, and aviation, ship and other fuel. Cars/passenger vehicles in Australia use 17.5 billion liters of fuel (petrol and diesel) per year at an average of 10 litres/100 km. Average consumption of an electric car, E-Ute or light

commercial to replace this fuel is 17 KWH/100 kms. At 17 kwh/100 km this will use 29.89 billion KWH pa. This is not including fuel for mines, heavy road transport and agriculture.

ITEZZE - LFB Kiosks

The difference between the 2026 kiosk design and the one in the 2024 ISP Report and is that the new 2026 Kiosk operates entirely on *LFB* Technology. The energy is stored in the LFB Fluid (*L-Fuel*) and is dispatched into the vehicle **in liquid form**. So, family cars attach to the home kiosk and get their power supplied by a fluid swap. Other vehicles – neighbour's electric vehicles can draw power from a 240 volt plug on the kiosk or a 70 Amp Supercharger plug powered by the Kiosk on the side of the kiosk; but the family cars linked to and associated with the kiosk are supplied by fluid swaps.

This has 3 impacts:

1. Fluid swaps are faster – av. time 3-5 minutes/car;
2. The kiosk is then free again and is able to do multiple vehicles so 5 cars can run off and be supplied by the same kiosk;
3. Fluid swaps have no impact on the ability of the kiosk to concurrently supply power to the house; to the supercharger or back into the Grid.

Fifty litres of fuel might be going into a vehicle but there are 1100-1400 litres in a large kiosk tank and electricity is independently stored in each litre; recharged fuel is separate to used fuel. So, 50 litres being taken from the tank has no impact on other kiosk operations or degradation of *L-Fuel*.

Rollout

Now the final decisions on how the technology will rollout have been determined, ITEZZE expects to engage with manufacturers and others to rapidly bring the Technology to market. First in Australia and then around the world. Offers to car and truck makers everywhere stipulate the initial vehicle development and trials are done in Australia, before the issue of Sales Licenses elsewhere.

LFB for – Farming, Trucks and Mining

LFB has huge applications in farming, mining and trucking. Previously *PIGs* (the robotic battery units carrying an array of batteries for the truck/tractor) were filled with hard batteries and on outback and farm service roads these were subject to vibration. Using *LFB,* the *PIG* is just a robotic tank full of *L-Fuel*. Thus, rough handling on poor roads does not affect fluid tanks as much.

Power dollies on the mine road trains could just take 3+ PIGs using fast swap technology and trucks and mine trucks could swap over as before (See: Videos in end Appendix 2.) . Tractors similarly will use *L-Fuel*.

Cars will similarly run on L-Fuel with fuelling from dual nozzles on the home kiosks and servos and Anode Pacs will be swapped onsite at the home kiosk or from ITEZZE SERVO Kiosks.

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Appendix 1 - The Oil Issue

The world has an oil crisis, **and it is Terminal**…(See: A Crude Awakening - The Oilcrash) Sources like Venezuela, Indonesia, Caspian and North Seas are ghosts of themselves or finished. Baku is now a ghost town and Indonesia imports gas from US. In 2004 the world's greatest oil find - Saudi Arabia's Ghawar reserve, had a 30% water cut.[1]

Some of the world's leading oil experts said in 2017:

- 81% of existing oil reserves are in '*Natural Decline'* where they lose 3 to 5% of output each year;[2]
- US Fracked oil production will begin to decline from 2025; US Fracked oil is short term - wells last 5 to 7 years[3] and Permian Basin oil will only support the declines in other US Fracked Basins Production for a time;
- 30 million barrels/day (bpd) of new production was required to replace lost oil and new demand to 2025.[2]

Since that time 'old' oil output fell by 23 million bpd (although some has been clawed back). Guyana has come on stream; Canada has increased their oil sands production from 3 million to 3.5 million bpd (and expect to get to 3.9 million bpd by 2030).[4] Russia[5] and Saudi Arabia have reduced output. When Will Russia Run Out Of Oil? | OilPrice.com Some OPEC states are running out with output and **3 major world oil exporters** are expected **to stop exporting by 2037**.

Oil producers report a Reserve to Replacement Ratio (the amount of new oil found divided by amount pumped) of under 100% (some as low as 17%). Old oil reserves are not being replaced with new ones. Permian Basin oil made up for decline in other US basins, but Permian is close to peak. It drove US output to 13.884 million bpd (mbpd); in Dec 2026 it was 13.861 mpbd. Eia now expect it to drop further. US Federal Reserve in Alaska is reported to hold 14.9 billion barrels; US uses 7.3 billion barrels/year. **President Trump has just opened the Federal Reserve for drilling. Oil is running out…**

The problem with new oil exporters, is their reserve size is small. Guyana's 11-billion-barrel reserve is enough to supply US for 18 months. Sth American oil output is in single digits, Guyana: 2-3 million bpd; Argentina: 3 mill bpd (mainly **fracked oil** from Vaca Muerta and as a shale field is short term); Venezuela: 2-3 million bpd but very thick oil and hard to pump. Brazil hopes the Amazon mouth will bring output up from 3 to 4 million bpd. Oil producers in 1990's could produce 10 million bpd. 3 million bpd from Guyana **by** 2030 won't replace 10-12 million bpd that Russia or Saudi Arabia once produced. South American oil reserves are **Oil's Last Hurrah – after them, it is over.**

If the world's trucks, tractors and harvesters are not replaced with ones running on electricity by 2037, society will collapse**.** The one technology that **can replace diesel in heavy equipment with electricity** (made from coal, gas or solar) **is the ITEZZE Technology where *LFB* or robotic swap battery systems** can replace used ones in trucks, buses and heavy equipment **in under 5 minutes** (without crashing Grids or wasting a driver's time recharging batteries). This means **ITEZZE electric trucks can drive from Brisbane to Sydney - 1030 kms (640 miles) in 10-11 hours.**

Oil output impacts GDP. Over the past 5 years the low income Third World nations who can't pay higher oil prices have taken major hits to their economy. (If a person earns $70/week and pays $20/week in fuel; oil price increases of 80% cuts their disposable income by 30%). Third World countries face and are in crisis now and they use 70% of China's exports. In Oct 2025 China's manufacturing output dropped for the 5th month in a row as demand drops.

Future of Society is in the Balance – 3 major oil producers may cease to export by 2038 and withdraw **10+ million bpd** from world markets. **US and advanced World nations need to start Transition to ITEZZE electric immediately.**

ITEZZE uses robotic swap batteries for cars, trucks/buses, trains and mine trucks. (See: ITEZZE Mine Truck Swap and Recharge Station and ITEZZE Truck Battery Swap at Roadside Service Centre). Farms use a similar system to mines where a mobile robotic battery (or PIG) is recharged at Ag Hubs at the end of farm service roads on high voltage Grid power and can then drive itself 30 kms to a farm paddock swap ramp.

[1] *The End of Oil*; 2004. Also - Local on ground reports indicate that the foreign contractors employed in some of these nations to drill have finished up; as there are no more holes left to drill.
[2] Are We Sleepwalking Into The Next Oil Crisis? | OilPrice.com
[3] BHP oil boss says future demand 'staggering' | The West Australian – and US oil production may collapse to 5 million bpd within 7 years of the last fracked well being drilled…
[4] China becomes Canada's Biggest Oil Customer - https://oilprice.com/Energy/Crude-Oil/China-Becomes-Canadas-Biggest-Crude-Customer-Thanks-to-Trans-Mountain.html
[5] Russia's Oil claim of 80 billion barrels in 2021 would indicate that at 3.4 billion barrels of output/annum, they fall by 51 billion barrels by 2036 to 27 billion barrels; **when do they stop exports**?

Appendix 2.

ITEZZE Kiosk and Liquid Fuel Swap Technology

Key Differences

The key feature of ITEZZE Liquid Fuel Batteries ('***LFB***') is to split the battery in ½, into 2 halves – the metal component goes into an "Anode Pack" as it is called and the electrolyte (known as the "Liquid Fuel" (*L-Fuel*) is collected into a separate tank. The Anode does not have to be present to move *L-Fuel*. Road tankers can take the Liquid Fuel from one place to the next.

The metal anode pack is more energy dense and has much more capacity to store electrons than the Liquid Fuel – so an single anode pack may power a car for 1000 -2000 kms with the liquid fuel being swapped at 250-400 km intervals.

Electrons are ubiquitous and non-discriminatory – an *Anode Pac* that contributed electrons to charge the liquid does not have to be the same *Anode Pac* that discharges the Liquid Fuel *("L-Fuel"*).

A farmer ploughing on his field could have a road tanker drop a load of fuel to his farm in the morning before ploughing along with extra Anode Pacs to swap over.

Advantages

A vehicle is much lighter; can travel further, faster; carries less weight and uses less energy if Liquid Fuel is swapped at intervals along the route. A single anode pack may be sufficient for the whole journey. The vehicle that needs five (5) swaps of 350 litres of fuel, is only carrying one load of *L-Fuel* at a time. This is different to the current electric vehicle where the car has to carry the whole battery (with all of its components) for the whole distance. Carrying 350 litres of fuel at a time, instead of 1750 litres of fuel greatly reduces the weight of the vehicle.

Highway anode pack swaps at ITEZZE Service Stations along a route could take 3-4 minutes.

Liquid Fuel swaps may take 3-5 minutes,

A car has two (2) Liquid Fuel tanks in it. The front one holds 30-100 Liters of fuel and is designed to be filled out of a person's own home kiosk. The second tank is located under the car and may have a capacity for 300-700 litres of fuel (or over 1000 litres for large cars). The larger tank is filled at ITEZZE highway and suburban *L-Fuel* swap Service Station sites.

Each fuel tank has a divider separating the tank into 2 compartments. Each has a plastic bag holding the *L-Fuel*; as the *L-Fuel* is used and goes through the *Anode Pac*, it goes from the charged bag to the 'Discharged Bag'. So, one bag gets smaller and the other gets larger. The Mid-divider can slide along the bottom of the tank and keep the 2 bags separate. But this means that one tank can hold both Charged and discharged loads of fuel. The Liquid Fuel Nozzle has 2 Ports (or pipes). One to suck out the used *L-Fuel* from the Discharged tank; the other to pump the new fuel into the Charged Tank.

The second feature is that a tank storing the fuel has no maximum size. A service station could have 3-5 tanks; each 30 meters long and 3.5 meters in diameter; each tank may hold 283,000 litres of fuel with 33 to

34 MWH of electricity in it. This also means that servos can capture vast amounts of solar power for use in trucks/cars or later release into the Gird.

The technology makes high-speed long-distance road freight transport work for heavy trucks of 30 to 150 tons load; plus, heavy rail without wires can work on Liquid Fuel and road trains.

Kiosks

LFB Home kiosks make the distributed energy grid possible – see AEMO ISP Report 2024

They allow and make bulk storage of low-cost solar power possible

Large scale kiosk and service station storage makes a distributed solar energy grid possible with the energy being stored when it is generated in the afternoon and released when it is needed. This makes it possible for India to become a large-scale exporter of solar power to places like China and parts of Asia and South East Asia during their winter months. It makes it possible for Australia to power southern cities with power generated in Qld, NT and WA.

This system and its implementation is worth $Trillions of dollars to Australia, India and their economies from their oil-based fuel savings and sales of power to other nearby nations.[i]

ITEZZE LFB Fuelling system (as truck manufacturers call it) has huge advantages in the long-distance freight haulage business. B-Double (or in US Double B) Trucks will carry 3 or more Anode Pacs. A single Anode Pac can run the truck on flat terrain; but when a hill arrives, they may need more power. Trucks will have engines on multiple wheels (electric engines are small). A truck may have engines on each of its 4 Drive Train wheels and another set on the front pair of wheels on the front trailer. Increasing the power is easy.

A driver may be using one Anode Pac; a hill is coming up, so he turns on the 2nd Anode Pac. Thus, at the "*Flick of a Switch*" the energy output has doubled. If he needs more energy, he can activate a Third Anode pack. Similarly, he can turn on more wheel motors.

A Double B Truck will normally have 2 x PIGs on board. The 2nd PIG can also carry a backup Anode Pac. PIGs are robotic self-directed battery units. In farm use they carry large tanks of *L- Fuel* from the Re-Charge site attached to high voltage electricity cables situated beside the Highway at the end of a farm service road to the paddock the farmer is ploughing. PIGS can navigate themselves from Re-Charge site to a farm paddock swap ramp using GPS.

Costs – *Liquid Fuel, PIGs, Anode Pacs* and service stations

The PIGs, Anodes and Liquid Fuel is expensive to buy; this is the reason for the swap battery System and Technology; especially on long trips where multiple swaps are needed.

PIGS, Liquid Fuel and Anodes though expensive to buy are cheap to use/operate in the long term; thus it costs 1½ to 4 cents/KWH in the longer term to pay for the *Fuel* and *Anode* Cost but the items may cost tens of $thousands initially to buy it. Hence, a BSB Company is set up to own and buy the fuel - Anodes, PIGs etc and rent it out on a per KWH basis to operators.

Service Stations -

In the same way, service station providers along the route (service stations or 'servos') don't own the fuel, or the PIGs or the Anode Pacs. They simply operate as agents for the people who own the PIG/Fluid/Anode

system. They recharge the PIGs and L-Fuel and sell electricity into the system. They collect charges for the hire of *L-Fuel/PIGs/Anode Pac*s etc. and receive a cut of every KWH of electricity; PIG hire and every swap that is charged; which is important because this is how BSB Operators who own the PIGs etc and the other agents are paid. Oil Co's with gas reserves can convert it into electricity and use their existing sites for ITEZZE.

Consumer Benefits

ITEZZE halves effective fuel cost of running a motor car. In Australia, government is flagging legislation to provide free power for three hours a day during peak solar times. 3 Hours is enough to run 2-3 electric vehicles a day around town. Over a year this reduces a family's petrol/diesel cost (running electric vehicles) by $10,000/year plus general energy savings.

Prevention of Anode and Fuel Contamination –

Anodes and Liquid Fuel ("L-Fuel") are costly and contamination must be prevented. Anodes process the L-Fluid and so, also need to be protected. There are 3 sources of *L-Fuel* for customers:

1. Public Servo and apartment building sites that anyone who has a car and an access license (cost fee per annum) can access and use/hire Anodes and fuel from.
2. Home kiosks owned and operated by the family.
3. Company/business owned Truck, tractor and farm Company owned and Operated Sites.

ITEZZE halves a family's fuel cost for running a motor car. The prevention of contamination of fuel to continue to provide a cheap cost-effective service is essential. Protecting the car and kiosk systems from contamination requires strict protocols; computer systems and different nozzle types are provided (as detailed) to prevent misuse and contamination of their vehicle and products.

The Rules are simple:

1. For Cars using Liquid Fuel **Home kiosks** only family members are allowed to access Fuel from the kiosk; the cars have Identification tags and only family member cars are allowed. Other vehicles can recharge from the kiosk using a standard domestic plug or a high amp plug on the other side of the kiosk (if fitted). People owning a kiosk can use it to recharge their neighbour's car using a regional cluster system. Fuel sold to Third Parties from a family kiosk owner is subject to ITEZZE service station protocols. Third Parties are registered with ITEZZE and the Kiosk owner and charged for power.
2. Farm and truck company operators can use a self-funded self-use system where they own and recharge the L-Fuel, Anodes and other parts themselves or they can choose to go onto the Public network. Self-owned operator cars cannot access the Public Network unless they install an extra fuel tank in their cars to use Public L-Fuel/Anode System. Self-owned operators have their own (different) type of Nozzle. A Farmer may choose to have a local network for his small tractors and equipment and use the public network for the large high-energy draw plough tractors/harvest equipment.
3. On the Public Energy/Service Station Network – Companies and individuals are registered and have access cards which the card reader at the Service Station (servo) can read and verify. The car ID is also read and confirmed. Anodes and L-Fuel are costly to buy, but cheap to use and cannot be lost without reason.

PIGs (the word means Precision Independently Guided Systems) are Robots. They can plug themselves into a recharge station; unplug when charged; drive themselves to the swap site (it may be 30 kms away on a farm or mine site) then load themselves onto the tractor or piece of equipment and plug themselves in again.

These PIGs require service, maintenance (especially for farms and mines over poor roads) and revenue needs to be accounted for.

Every KWH, Swap Fee, PIG Swap or hire needs to be accounted for and charged.

Service station Operators; BSB companies; PIG Owners need to be paid and to cover their costs for electricity; staff, equipment and maintenance.

The Finance System

The finance system is what makes ITEZZE work. The Paris Climate Agreement in 2015 was based on ITEZZE systems. (Called ITS in 2015). The major driver from international nations perspective was that ***the Finance Model*** included in the Brief worked. Without a viable Finance Model no one can fund the batteries. Funding batteries and PIGs is essential to making the system work; and paying providers of all aspects of the technology (including Servos) is essential.

Battery cost is a major reason for people NOT buying electric cars (EVs). In Australia a new Petrol Kona can cost $30,000. The electric variant of Kona is $70,000. It takes 30 years for the saving to justify its cost. ITEZZE Cars start at $30,000, because people don't require large built-in batteries (in them) to travel long distance. Access to long distance travel is via ITEZZE Servo Network where people hire the L-Fuel and Anode Pacs. This means that the upfront car buying cost is low; and the ITEZZE EV can travel around town virtually for nothing with home kiosks providing power using home solar or the 3 hour/day Free Govt electricity.

India has no oil and the Rest of the World is running out fast. ITEZZE is the system that allows the world to transition to the new electric Paradigm. Australia has a similar issue in that 2/3 of petroleum fuel is imported (1.1 million barrels a day) – in high-risk times this is a problem.

Grid Work

Kiosks, service stations and Supermarket batteries can feed power back into the Grid**.** The tank is able to supply multiple outlets. One tank – with multiple Anodes Pacs gives greater choices of power. A Servo Tank may be 30 meters long. L-Fuel in the Ready Part is all fully charged/ready to use. It has no degradation i.e. it hasn't been partly used before entering the Anode Pac. Its fluid is fully charged when it enters the Anode Pac and when it is discharged it goes back into the used side of the Tank.

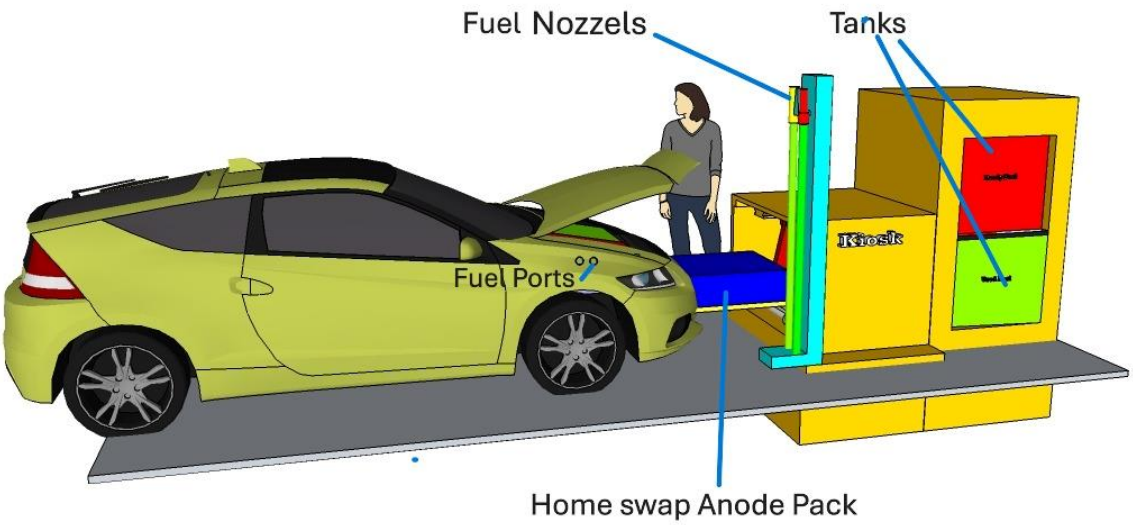
Different Anode Pacs can all be drawing from the same Tank; each is independent of the others. One can be powering a house down the road; another can be powering a 70 AMP supercharger.

Video of the System –

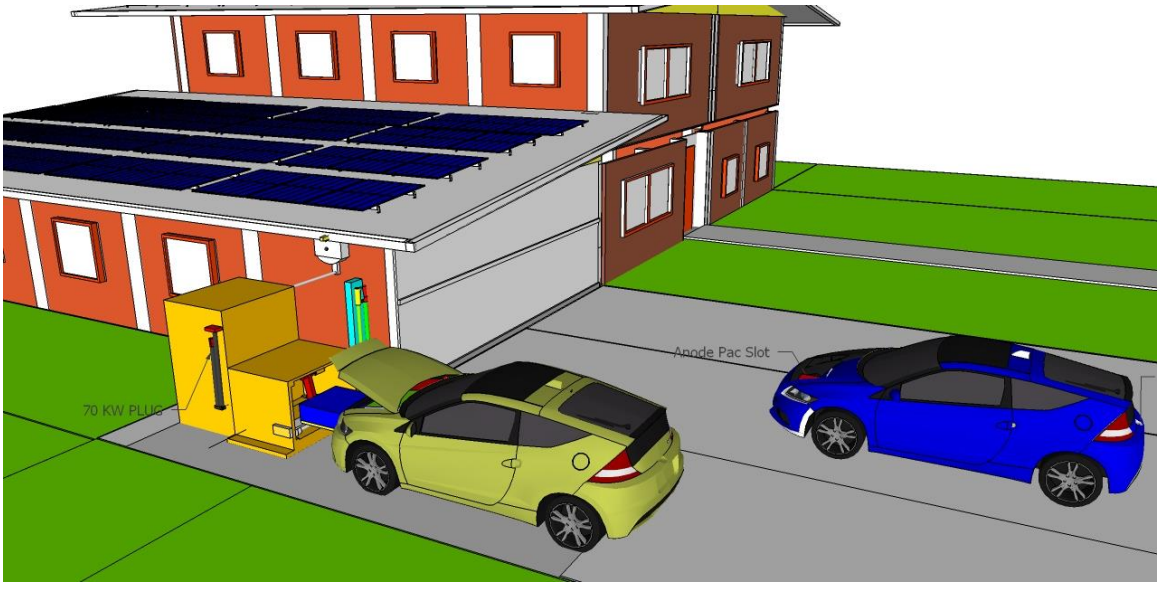
Truck at Servo's Video - https://youtu.be/gFrEql7qxjY

Mine Haul Trucks – 240 Ton Payload - https://youtu.be/xHOb-Xa0HgE -

Diagrams – Home Kiosk and Car System



Kiosk beside House



References

[i] The sale of solar power from Australia to countries like Indonesia is made possible by cloud cover and the Monsoon Weather Patterns during the Indonesian summer that make it hard to generate power there.

Appendix 3 The Capricorn Effect

The Capricorn effect is caused by the earth being tilted at an angle of 23½ degrees to the sun. So, in the middle of summer, in the southern hemisphere, the sun is perpendicular to the surface of the earth at a latitude of 23½° south of the Equator (the Tropic of Capricorn). And, in the Southern winter it is perpendicular at 23½° north of the Equator. This earth's tilt means that even in summer solar panels in southern Australia (from mid-NSW down), receive far less sunlight than in the north and only operate at around 10-15% of full capacity at 9-30 am (Eastern Standard Time). In winter the impact is more. In mid-winter the Sun is 47° further from overhead in the Southern Hemisphere than in mid-summer; the South Pole is in total darkness and Sydney at 34° south is 57½° away from directly overhead.

The Capricorn Effect is the reason why using solar to make H_2 is uneconomic. The Transmission Loss from Alice Springs to Melbourne is around 30%; so, to get 52 KWH of power there to make 1 Kg of hydrogen requires 74 KWH to be sent. Trucking Hydrogen from the Northern Territory to the south is also unviable H_2 takes 3.8 times as many trucks as petrol.

However, the LFB battery in the ITEZZE kiosk means it can take energy at any time and most Grids have spare capacity from 1 pm to 4 pm when solar power is strongest. Thus, sending 17 KWH to Melbourne to supply a large EV with 100 Km of power only requires 24 KWH to be sent; and in the middle of winter this means that cars in Melbourne and the other Southern States can still be running on solar using power from the north.

Patents

Liquid Fuel Battery, Kiosk, Swap Battery and related technologies is covered by patent in US, Australia and other nations.

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