



B Corp Champions 2016



In October hundreds of B Corp leaders from around the world for an Annual Champions Retreat in Philadelphia. Its a celebration for people using business as a force for good.

At the Retreat, awards were given for outstanding B Corps from across the globe. Latrobe Valley Bus Lines won the 'B Corp Champion 2016', for our efforts with the local community and creating the very first B Corp bus you'll see across the Latrobe Valley. It's a remarkable achievement for our company and for Latrobe Valley.

Next year we are planning a workshop for business in the Latrobe Valley interested in finding out about becoming a B Corps

Pictured left LVBL Managing Director Rhonda and B Lab Aust/NZ CEO Alicia Darvall, with the stunning B Corp Champion 2016 Award.

For information on B Corp, visit bcorporation.net



Rhonda Renwick, Managing Director

Smarter Connections Better Communities

In this edition of our newsletter we have invited community groups to contribute their stories.

As we transition from a coal-based economy, community connections are paramount to the challenges we face in the Latrobe Valley.

Communities like Kempsey and Newcastle in Australia and those in other cities around the world have also faced similar challenges, however, through innovation they have become vibrant and prosperous.

In recent history the Western Bulldogs Football Club faced the challenge of survival and renewal. Their community of supporters rallied saved their club. The Western Bulldogs worked with Victoria University's Human Sciences and, through education and persistence, they built the skills, the strength and the belief to win 2016 AFL premiership.

Voicing the importance of community is emerging across all sectors. Neil Perry, one of Australia's most celebrated chefs, is redefining fine dining based on principals of providence, sustainability,

being embedded in your community and the value of the local environment.

More than 20 years ago I worked on a community program lead by Leanne Blake - many of you would remember Leanne from her days with LVBL. We interviewed 200 unemployed youth for 20 places on a LEAP Government employment scheme. The six-month project was to restore the derelict Star Hotel in Traralgon to a community eating and meeting place, just as it was in the 1800's. The real purpose of the program was job training and employment outcomes. By the completion of the restoration, the young people, some were third generation without employment in their households, had secured apprenticeships or full time employment. The project was a true example of how the intersect of community with education can provide real opportunities for change.

I hope you enjoy the contributions from the many voices of our community.

Connecting people is what we all do. In everything we do at LVBL and with Kindred Spirits Foundation.



Anna Tyben, General Manager

Each time I write an article for our Driver newsletter, I have an opportunity to reflect on the company's progress and achievements over the past six months. It is important to acknowledge how much we achieve working as a team throughout the year. Collectively we strive to improve and maintain our strong safety record, provide current and relevant training and education and responsive customer service, while identifying opportunities for both community and company development.

Our community of Latrobe Valley is undergoing significant industrial, economic and environmental change. Each time we read or hear the local or national news, we are made aware of changes to industry, directly impacting our region. Development of environmentally efficient technology and industry growth is at the forefront of local and state government policy. The opportunity to partner with both Volvo and PTV to trial the Hybrid B5RLE route service bus was an offer the company could not refuse. Our Managing Director Rhonda, is very passionate about decreasing the company's environmental footprint and taking a leading role within the community to develop sustainable industry. Launching the Hybrid route service bus was a community event, held at Traralgon Stockland Plaza bus terminal. We invited the community to

experience the electric technology, and we provided information about the bus engine and environmental benefits in comparison to our current Euro 6 and 5 diesel engines.

We have also been looking inward over the past 12 months, in support of our existing health and wellness initiatives, we have been very fortunate to work with Victoria Police and Christine Little to provide independent training and education on topics such as fatigue management and workplace bullying and harassment. Building and maintaining a healthy workplace culture requires a contribution from all staff. Respecting and supporting each other in the workplace and approaching each other with patience, understanding and compassion are essential for a healthy workplace environment.

In addition to enhancing our workplace culture, we are also investing in additional depot security and IT. Currently we are installing CCTV within our depots, providing additional security for staff starting and finishing their shifts in unmanned depots. CMS software was implemented in November; CMS allows us to streamline our operation processes, combining multiple applications into one software package. CMS will allow the company to operate all three depots as one, rather than individually.

Until our next edition, safe bussing.



Hermant Singh, Fleet Manager

We've had a lot of challenges in our work this last year and with your support and dedication, we have achieved success in all endeavours.

LVBL received two additional Euro 6 low floor buses in July; this proves LVBL commitment to the environment. Partnering with Volvo, LVBL is currently trialling Victoria's First Volvo Hybrid Low floor route service bus. This provides our staff valuable experience with state-of-the-art technology.

Replacement program for vehicles will continue and older vehicles will be sold off. Just a reminder to all staff new vehicles are under warranty. Please report any issues you may have so maintenance can claim warranty or be rectified in-house.

VicRoads audits were completed in August 2016. Quarter of our fleet was inspected in two days. This audit has indicated our maintenance level is up with the industry, to manufactures specification and complies with Transport Safety Victoria

Workshop will be focusing on updating livery on our older fleet.

Wayne Gee and Chris Savage will complete their Heavy Diesel Course by March 2017. Both staff have been on in-house training programme for couple of years. Well done Chris and Wayne.

Welcome Theo Woodhouse, as new Workshop Supervisor. Theo has plenty of experience in maintenance, previous employee of SEC, where he served his apprenticeship and has also worked in various countries.

We respect Wayne Gee's decision to step down to a Senior Mechanic, with vast experience and knowledge he is a valuable asset to Latrobe Valley Bus Lines. Wayne played a big part in the implementation of CMS with the manual records he accrued over a number of years which made my task easier.

Welcome aboard to Arron James Ross, Mechanical Apprentice joining our team. LVBL is committed in training apprentices in the Latrobe Valley.

Our body section has recently made upgrades to equipment with new hydraulic pan brake box folder and guillotine. This has made jobs easier and quicker to cut and fold body panels, with reducing manual handling risks.

LVBL have invested in Brake Buddy. This tool allows mechanics to remove and install brake callipers, rotors, hubs and drums with no manual lifting required. Investing in new equipment shows LVBL is committed to providing a safe work place.

During this holiday season I wish you, your families a wonderful Christmas and very prosperous New Year.



LVBL Environmental Patch

As part of our B Corp obligation towards our environment, LVBL have been working very hard on reducing its environmental footprint and developing a more sustainable environment. The environment section is evaluated on energy use, emissions, facilities, materials and resources. Earlier this year the company received a rating of 88 as an overall environmental rating whereas the average score for a B Corp rating was 55. We are continually aiming to improve this score and here's a recap of our endeavours over the past six months.

Both of the Traralgon and Morwell workshops and the Morwell depot office have had all halogen and fluorescent lights replaced with LED lights that are energy efficient, cost effective and durable. LED lights are the latest technology in lighting and offer a great benefit of a super long life span of up to 80,000 hours which is 8-10 times longer than standard halogen lamps. Another benefit of LED Lights are that they use only 15% of the energy a standard halogen uses, provide up to 85% of the light output and create less heat. LED Lights are also an eco-friendly form of lighting as they do not contain mercury or other harmful gasses or emit any harmful UV rays.

Solar energy panels have recently been installed at our Traralgon workshop. Solar energy is not only sustainable, it is renewable and this means that we will never run out of it. It is about as natural a source of power as it is possible to generate electricity. The creation of solar energy requires little

maintenance. Once the solar panels have been installed and are working at maximum efficiency there is only a small amount of maintenance required each year to ensure they are in working order. They are a silent producer of energy as they convert sunlight into usable electricity. There are continual advancements in solar panel technology which are increasing the efficiency and lowering the cost of production, thus making it even more cost effective. During operation solar electricity power plants produce zero emissions.

Latrobe Valley Bus Lines have made a commitment to reducing emissions in the Latrobe Valley district by purchasing Volvo's B8RLE Euro 6 vehicles. The Volvo B8RLE is a low emission engine in terms of both exhaust gases and noise. The Volvo B8RLE has been designed as the next generation diesel city bus chassis with a highly efficient 8 litre engine to meet the growing requirements for Euro 6 emission standards globally. The easiest way to deliver environmental performance is to reduce fuel consumption and that is exactly what Volvo offers with this engine. Together with Volvo's advanced engine management system and innovative exhaust after-treatment solution, users receive increased efficiency. The new Volvo hybrid bus which we are trialling uses 30-40% less fuel than a conventional diesel only bus, is silent at bus stops and on take-off, has 40% lower road emissions and improved passenger travelling comfort.



Atilio Calderon, Human Resource Manager

We have had a fair bit of movement and new faces in the recent past, as is the unpredictability of recruitment. From the last influx of new drivers have fitted in quite well and productively, with new drivers really settling into their new careers. As of June this year, 3 new staff have joined the ranks here at LVBL.

At the Morwell depot, we have Marion Haines, who initially started as a call in casual driver, but will be commencing full times school bus driving duties as of the 21st of November, in the Traralgon workshop, we have Theo Woodhouse, taking up the role of Workshop Supervisor.

Unfortunately, Phil Maher has had to go back on to WorkCover due to his past injuries, and at this stage we do not have a clear date for his return. We wish him a speedy recovery and are looking forward to having him back on deck soon.

In the last few months we have not have much movement in the case of staff leaving the LVBL family and

making career changes with in the business. Morwell depot accepted the resignation of Tony Gallagher who finished up in July with 32 years' service. We wish Tony they best and good fortunes during his retirement.

Out of the Traralgon depot, Bob Smith handed in his resignation and finished up in November 2016. We wish him luck with his new adventures up north. Narelle Christie handed in her resignation and finished up in October 2016.

Out of the Moe depot, Chris Parker handed in his resignation and finished up in November 2016. We wish him the best of luck moving up north to be with his family and new wife. Denis McCarthy handed in his resignation and finished up in November 2016. We wish him the best for his new career and move.

I hope that everyone at all three depots and workshop have introduced themselves by now to our new comers and have given them a warm welcome to the LVBL family.

Update: Baringa School



Monday 21 November, LVBL welcomed bus 110 and 111 to the fleet. The new Volvo B7RSA's are on the Baringa School contract, picking up students from Traralgon and Morwell and taking them to school in Moe.

Driver of bus 110, new recruit Marion Haines is "very excited and privileged (also a bit nervous) to drive a brand new bus. The children were excited when they came out from school to see the new buses, they all tried to get on at once. We all like the new bus. The students have named the bus Bob, after Bob Smith who use to drive the students to school".

Driver of bus 111, Roy Ashman has taken a liking to the new buses, saying "they are comfortable and ride really well, the students are really enjoying the air-conditioning and getting use to the seatbelts".

LVBL Depot Report

Max @ Moe Depot

Here are the comings and goings from Moe Depot. We farewelled Chris Parker on 11 November as Chris moving back to NSW to be closer with family. He will be missed by all. It has been great working with him for the last 10 years, best wishes from all your former work mates at LVBL.

LVBL farewelled Denis McCarthy who has been with the company for 4 years. Denis will be missed, with his wicked sense of humour, friendly banter and the smile so good luck Denis on your new adventure.

Welcome route service driver Anthony Siddle our team, Anthony is from Traralgon depot.

Congratulations Adam Dorman & Lindel on the arrival of Ryder Dominic.

With Christmas just around the corner all at Moe depot would like to wish everyone a safe and happy Christmas.

Tom & Jane @ Morwell Depot

Welcome aboard Marion Haines as a fulltime driver for the Baringa School contract now being run out of Morwell depot.

Welcome to Roger Wells who has been successful for a route service driver position. Roger was previously in the workshop and has transitioned well into his new role.

Table tennis is being fought vehemently amongst drivers and admin staff. This has been a great addition for everyone to enjoy, fun times and of course exercise! Top dogs of the comp are Jezza, Nick, James and Giuseppe, the admin girls are always keeping competitors on their toes with their skills.

On behalf of Tom and Jane, we wish everyone at LVBL a very merry Christmas and safe and prosperous New Year. We thank all the staff for their ongoing support and help, look forward to continuing on to an even bigger and better 2017.

Darren, Jeff & Paul @ Traralgon Depot

We farewell Narelle Christie, Narelle has become a fulltime gardener at Yallambie Village Aged Care and we wish her all the best in her new career. Brett Guttridge has taken on Glengarry Primary School Run.

With regret we say goodbye to Baringa Bob, leaving to manage accommodation units in QLD wishing him and his wife the best.

Melbourne Cup winner 2016 was Robyn Tuipulotu who cleaned up in our \$10 sweep.

Traralgon Depot has been participating in pilot Bus Management System with Traralgon College.

Big thank you to Ian Hartley for running footy tipping this year. Won by Brian May who tipped the Bulldogs each week. If you'd like to be involved next year, please contact Ian.

Traralgon would like to thank you for the support over the past year, wishing you all a happy and safe Christmas.





ReActivate Latrobe Valley is a Latrobe Valley based not-for-profit organisation focused on creating community-led change through a range of events, initiatives and place-based projects. Among the initiatives currently active are the Get Stuffed local food network, and the Get Sunflowered Project which has recently been awarded the Banksia Sustainability Award and has been shortlisted for the Victorian Premier's Design Awards.

The Get Stuffed is a local food network aiming to grow good food, good health and local jobs in the Latrobe Valley. A range of initiatives come together to form Get Stuffed including: the 50 Mile Farmers Market in Morwell and Traralgon; a line of herbs supplied by local growers of various scales called Get Herbed; A community food sharing initiative called Get Swapped; and an education, training and entrepreneurship program called Get Growing.

While we acknowledge that food security and community health is partly about having fresh, locally grown and chemical free food available, we also believe that addressing wealth and income disparity play a big role in alleviating poor health and fostering a more genuine connection to place and community. For this reason, Get Stuffed aims to build upon the existing food economy of the Latrobe Valley to create a more inclusive market place for food-based livelihoods, increasing access to healthy food sources in the process.



Merinda Dryden was crowned Miss NAIDOC (National Aborigines and Islanders Day Observance Committee).

I am here to speak on behalf of all generations to come. I stand before you to express the need to work in partnership to have Aboriginal history taught in the school curriculum. I have worked in various projects in the past at Fitzroy High School to promote our culture and develop awareness of important traditions and stories of our people.

When I was in school, the Vice Principal explained to me there were 4 Aboriginal students and one didn't identify. In this moment I felt the loss of connection to our history. But the saddest part about it all, is for someone to feel like they can't show pride in who they are. This sense of identity guides us through our journey. Aboriginal culture must live in the hearts, minds and actions of all Australians because our diversity make us richer, and that together, we are stronger.

This is the history of Australia. We know more knowledge about other cultures, more than our own. If we don't act on this now then the knowledge will be lost. We define our country as having unity, respect and culture, however today we all live in a world where we are blinded by past events which prevents us from seeing the near future. Because of this, Australians and Aboriginals have been separated for many years and this is our weakest point.

Culture is what makes us complete, without that we have nothing. My aim today is to capture at least on persons interest in this room, all it takes is one person to start the process.

This is what a reconciled Australia looks like. You decide the future of our youth. Thank you, Merinda Dryden.

And thank you for sharing your story with our readers.



OHS Report with Jeff Bassman

High-vis vests have been updated to orange with silver reflective tape, this will suit both day and night use.

All fulltime staff participated in Fatigue Management Training conducted by Senior Constable Robert Long, from the Heavy Vehicle Unit. Staff found the training informative and value the importance of understanding the rules and regulations of driving a heavy vehicle.

Currently working on producing copies of all bus dash lights and symbols to keep in buses to assist drivers identifying faults. OHS team has been busy updating SOP's for depots.

Welcome Gemma to the OHS team from administration, and taking over from Atilio. Thank you Atilio for all your assistance.

MYKI Report with Paul Richmond

Fare evasion has been a problem for sometime, drivers are reminded that they are not Authorised Officers. We know it's very frustrating but we can assure you that the company is doing its most to get Authorised Officers in the area. In the last couple months, the AO's have responded to our requests with some positive results. Depots have been filling out fare evasion statistics with number of fare evaders and route, this gives PTV a good indication which routes they need to focus on.

Just a quick reminder, if your MYKI goes out of service please report this to your supervisor once you've returned to the depot or complete a yellow MYKI defect report for your supervisor to submit a defect.

Trainer Report with Martin Jones

Drivers are being assessed in two key areas, Vehicle Inspections and Accident and Emergency procedures.

It has been great to see the introduction of the first Hybrid low floor route service trial bus in Victoria in our LVBL fleet. From a training perspective, it gives our drivers an edge as they are the first to use this new technology.

After talks with invested parties I've found that LVBL has a history of being first with new bus technology. LVBL was also was one of the first regional operators to introduce low floor buses and the first to introduce Euro 6 technology.

From a training perspective, we are fortunate to have the latest technology at our fingertips and having the facilities to train our staff. In return, we have efficient and highly trained staff.

V/Line Report with Darren Harris

We experienced huge volumes of planned Drouin to Traralgon and also servicing Traralgon, Morwell and Moe to Trafalgar High School and Returns for the Train Replacement work during January, February and March, we dropped off to one trip per day from the end of March till June.

Both Roscar and V/Line were generally very happy with our service during this time, it is a credit to all involved during this time.

Our Maffra Rail Bus #77 has proven to make the trip around through Maffra a comfortable trip for passenger and driver, the work shop fitted fog lights in July and this has made them early mornings on the foggy flats of Tinamba a much safer environment.

BIC National Awards



November 6 to 9, Rhonda and Anna attended the BIC National Conference in Perth with the theme "Moving People Shaping our Cities and Regions".

The National Awards are an opportunity to recognise and reward excellence within every facet of our industry. There are many corporations in the Bus & Coach Industry that day after day, year after year, strive for excellence without compromise, to deliver outstanding services.

Latrobe Valley Bus Lines was presented the 'Outstanding Contribution to the Industry' award. It's a credit to our great team and all the hard work contributed. LVBL has achieved a lot within the last 12 months, to name a few becoming a B Corp, purchasing new Volvo Euro 6 buses and launch Victoria's first Volvo Hybrid low floor route service bus trial across the Latrobe Valley.

Next year the conference will be held in Hobart November 12 to 15. For more information visit Bus Industry Confederation at bic.asn.au.

Picture by Graham Gales



Kindred Spirits Foundation

Kindred Spirits Foundation has spent some valuable time in the last few months conducting a series of internal workshops focussing on the development and refinement of our values, aims and goals, in order to ensure we are making the best decisions when identifying projects and groups to partner and journey with.

Kindred Spirits Foundation aims to travel into 2017 (our 9th year) continuing to collaborate, innovate and participate with communities and the projects of their choice for the long haul. We hope to continue our approach of listening, embracing, sharing and learning from the diversity of local communities, so that we can be a part of the stories that evolve.

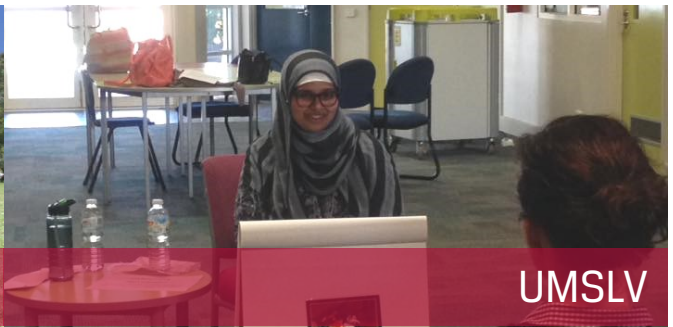
The Thathangathay Foundation with the Kindred Spirits Foundation combined to bring the family event - a celebration of Indigenous culture through sport, music and interactive workshops to Bright, held at the Bright P12 College, the only secondary school in Victoria that has a local Aboriginal language (Dhudhuroa) as part of the VCE curriculum.

Rebecca Crawley who with her partner Justin and a big mob from Bright and Wadeye, NT, run the Thathangathay Foundation. Rebecca is also a Director of Kindred Spirits Foundation (and grew up in the Valley). Great event Bec and Justin.

The day kicked off with the Marngrook footy game, played with a possum skin ball. Marngrook being the inspiration for Australian Rules Football as we know it today.

The Hon. Cathy McGowan MP for North East Victoria welcomed everyone and later made a statement in Parliament on the Bright Marngrook Games and Welcome to Dhudhuroa Country.

Thank you Jane Bone who drove the mob from Melbourne to Bright for the game and got home very late on Saturday night. Much appreciated Jane and thank you from Kindred Spirits Foundation, great job.



UMSLV

MY Story Pilot Project

At the end of April United Muslim Sisters Latrobe Valley (UMSLV) got funding for a social cohesion project with the aid of Kindred Spirits and The Funding Network. For the project UMSLV has partnered with the Centre for Multicultural Youth (CMY) to deliver a living library project to schools. Trafalgar High School was chosen as a pilot for the project.

The idea was to first train young people from the Youth Advisory Group (YAG) of CMY on being 'books' and get them to tell their stories to students of Trafalgar High School. The next step was to recruit 'books' from the students and get them to share their stories with their peers. The whole experience was to be filmed and made into a documentary type video to encourage other schools to deliver a similar project. The project was titled MY Story which stands for Multicultural Youth Story.

After months of planning and collaboration between the school, UMSLV and Nanoo Nanoo Arts, we have completed the pilot project! The 1st session was on 16 August where three books from CMY Maryam, Zan and Yumna told their stories to 45 students from year 7H and 9H. In the 2nd and 3rd session students from 7H were recruited and trained to be books. In the final session 4 students from 7H Alan, Sebastian, Maddy and Ellie told their stories. Each story was really well received by their peers and they said that the experiences the books told was something that resonated with them. Yumna Ahmed



Years of Service Recognition

Latrobe Valley Bus Lines would like to congratulate each staff for reaching their outstanding milestones. Thank you for all that you do, and please accept our good wishes.

MOE DEPOT

Bruce Hill, 41 years
Max Hood, 35 years
John Disisto, 24 years
Wilbert Scholtes, 17 years
Bruce Mills, 12 years
Peter Kerkvliet, 8 years
Caroline Lia, 8 years
Henk Harberts, 6 years
Jason Walsh, 6 years
Martin Jones, 5 years
Darrin McDonald, 5 years
Gary Wicklander, 5 years
Linda Wicklander, 5 years

MORWELL DEPOT

Tom Scott, 33 years
Graham Mackieson, 22 years
Don Peterson, 17 years
Roger Well, 13 years
Phil Maher, 8 years
Nathan Bennett, 6 years
Dean Mills, 6 years
Anna Tyben, 6 years
Jane Bone, 5 years
Atilio Calderon, 5 years
Darren Griggs, 5 years

TRARALGON DEPOT

Wayne Felmingham, 28 years
Neil Wilson, 26 years
Ben Steevens, 17 years
Peter Butterfield, 15 years
Gary Spector, 14 years
Brian May, 11 years
Paul Richmond, 11 years
Robyn Tuipulotu, 10 years
Boris Jalovec, 8 years
Darren Flenley, 7 years
Bryan Martin, 7 years
Alan Wilkinson, 6 years
Ian Hartley, 5 years

WORKSHOP

Wayne Gee, 34 years
Damian Smith, 33 years
Wayne Betteley, 30 years
Chris Savage, 23 years
Neale Houston, 11 years
Michael Lord, 5 years

LVBL would like to thank and acknowledge the following staff members for displaying and exceptional level of persistence, resilience and commitment to their role within the company.

Darren Flenley, Traralgon Depot

As a company we should be proud of the support, respect and determination all our staff show each other within the company.

Farewell Graham Mackieson

Saturday 19 November saw one of Morwell's long term route service drivers Graham Mackieson suddenly passed away at home.

Graham commenced his employment at Latrobe Valley Bus Lines 11/10/1994 at Morwell depot. Throughout his employment he loved driving bus 37 doing countless Hourigan and Crinigan Road runs.

Graham was never short of a joke or a funny story to share and always loved a good laugh; his laugh was contagious. He always had a positive attitude and brought a positive aura to the drivers room.

Graham received numerous compliments from passengers. We received a compliment in August praising his safe and steady driving.

Graham, you will be missed by all at LVBL, you've left big boots to fill within the company and community. We send our deepest and sincerest condolences to Graham's wife Julie and their family.

Pictured: Graham and Julie, LVBL Christmas Party 2013



As you would have seen Latrobe Valley Bus Lines has collaborated with Volvo Bus on running a Hybrid Bus Trail over the last three months. We have also received many questions as to the technology and how does it work, which we would like to explain to you now. Firstly its important to understand what a Hybrid vehicle is. It's a common term with lots of meanings.

What is a Hybrid?

A hybrid is a vehicle that gets its power from two or more sources. In the case of Volvo's Hybrid, it is both Diesel and Electricity power. By having more than one power source it helps to reduce the size of the diesel engine required and save on fuel used and pollution from the exhaust as it's a smaller engine not used all the time. Both new electric power together with existing Diesel power move the bus and us to our destinations.

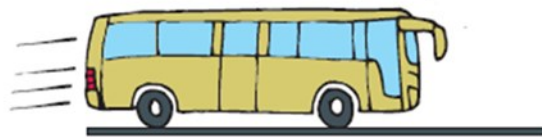
There are different types of hybrids such as Parallel, Series, Plug-in etc... but the overall principle remains basically the same. The Volvo Hybrid is a parallel system that has the advantage of smaller batteries being required, and that the Diesel engine and Electric motor work as a team to move the bus along. That is why the bus engine will sometimes work when accelerating. Its what the bus is designed to do.

How does it work then?

In basic terms, the hybrid utilises energy otherwise wasted during slowing the vehicle down (under braking for example) and stores this energy in various forms (air/ batteries / capacitors / hydraulic pressure). This 'stored energy' is then used to help the vehicle accelerate.



Braking - Energy is stored to the batteries



Accelerating - Energy from the batteries is used to help move the bus

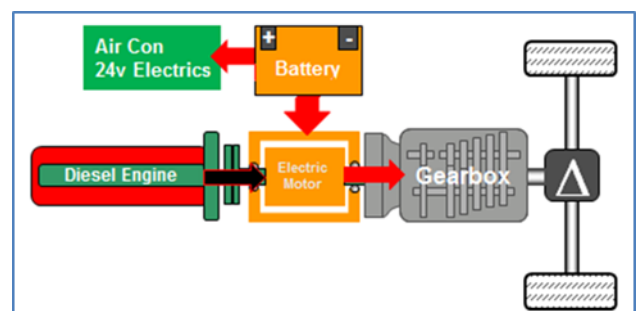
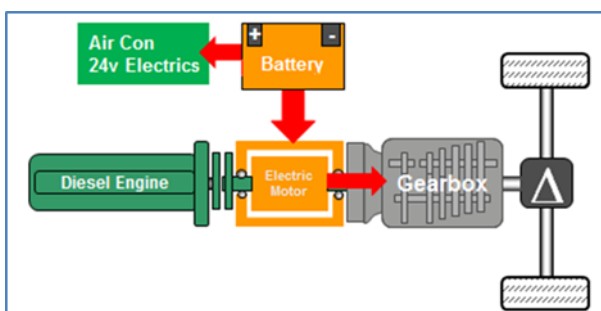
In some cases, the stored energy is also used to power auxiliary systems such as the vehicle electrics, hydraulics and Air conditioning. On a normal diesel bus these would be powered by the engine full time. Utilising this 'stored energy' saves fuel. This 'stored energy' is then used to help the vehicle accelerate.

Accelerating

There are two modes of accelerating. They are 'electric only' and 'Hybrid'. The Hybrid system decides which one to use to accelerate the bus along the road pending lots of factors that include available battery power, topography (ie; going up a steep hill) and speed. It always chooses what is best for the operation.

Electric only: Under accelerating, the battery supplies the electric motor with power. The electric motor then turns the gearbox that is directly connected to the transmission that then drives the wheels. The Diesel engine is switched off.

Hybrid: In this mode the diesel engine and the electric motor work together as a team to propel the bus. Its similar as the electric only mode, but in addition to this the diesel engine which is connected to the gearbox via a driveshaft through the electric motor.

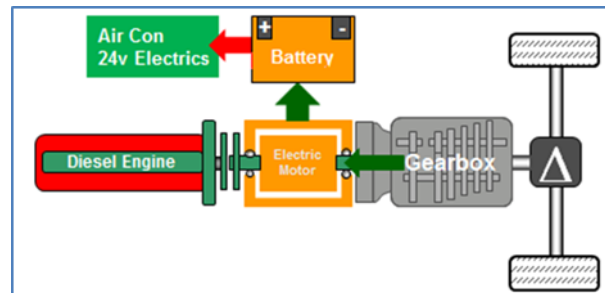


Example of Vehicle accelerating in Electric mode and then in Hybrid Mode.

Braking

Under braking, the electric motor becomes a generator and now can make electricity. As it makes electricity now it can charge the battery until either the battery is full or it stops braking. This is called Regenerative Braking.

During braking the generator also acts a retarder slowing the vehicle down. This saves the need for a traditional less fuel-efficient retarder that is fitted in standard Diesel buses.



Example of vehicle braking

So how do Hybrids benefit us?

The community benefit is much less pollutants (up to 40% less) are emitted and less fossil fuel used. In this three-month trial alone this bus has saved 8tonne of CO₂ gas going into the atmosphere compared to a normal bus. As less Diesel fuel is required, it also reduces the amount of fossil fuels used between 30-41%

So as less fuel is burned it means less fossil fuel are used and a cleaner atmosphere. It also allows the Diesel motor to turn-off at bus stops and traffic lights and then accelerates up to 20kph with electricity only, so there is 40% less noise pollution. This means a quieter city.

Frequently asked Technical Questions

These are the three most commonly asked technical questions. Will the starter motor wear out faster as its starting the bus constantly?

For our bus no, but different hybrids achieve this differently. Our Hybrid only uses the 'traditional' starter motor on the side of the engine to start the bus when the bus is first started. During normal operation, the electric motor actually operates as a starter motor. This saves accelerated wear on the normal starter motor. Also, it does not increase wear on the electric motor due its design meaning there are no contacting parts like in a normal starter motor.

What happens if the Hybrid Battery Goes Flat, Does the Bus Stop?

Simply the battery doesn't go flat, so the bus doesn't stop. The system is so designed that when the battery level gets to a pre-determined lower level, the Diesel engine simply starts up to assist moving the bus and prevent the battery going flat until the next time the bus slows down (which helps charge the battery as described above anyway). Should a fault occur in the area then the driver is alerted via a warning.

How Many Hybrid Buses are running?

The trial vehicle with Latrobe is one of over 2300 Hybrids in operation all over the world for 7 years. With over 600 operating in London alone. The technology that drives this bus is 100% Volvo and specially built for buses. It is one of five buses operating in Australia at present with more to come.



What is Happiness?

The research suggests that happiness is a combination of how satisfied you are with your life (for example, finding meaning in your work) and how good you feel on a day-to-day basis. Both of these are relatively stable—that is, our life changes, and our mood fluctuates, but our general happiness is more genetically determined than anything else. The good news is, with consistent effort, this can be offset. You have the ability to control how you feel—and with consistent practice, you can form life-long habits for a more satisfying and fulfilling life.

The Science of Achieving Your Goals

Goal Setting Strategy #1: Take Your Emotional Temperature

There is conclusive evidence that success in life flows from being happy first – we don't get happier because we reach our goals, we reach our goals because we start in an emotionally flourishing place. If you are pessimistic, depressed or feel that the glass is always half-empty, find ways to deliberately intervene on your mood daily until you develop the habits of gratitude, mindfulness and savouring.



Goal Setting Strategy #2: Define Your Purpose

In Japan, the word for purpose is *ikigai*, or "that which I wake up for". Goals that align with your life's purpose are always easier to connect with and pursue when the going gets tough.

Goal Setting Strategy #3: Ask Yourself, "So what?"

Intrinsic goals are goals that we set for ourselves, and that no one else has set for us. Trying to find out the meaning behind the goal, and why your life will be more fulfilling if the goal is achieved. When we pursue paths that call us, we are happier both in the pursuit and accomplishment of those goals.

Goal Setting Strategy #4: Write Your 10-year Plan for Your Life

For three days, write for 20 minutes about your future life as if everything has gone as you want, and you are living the life of your dreams. Doing this simple writing exercise, known as "Best Possible Future Self," has been found to enhance well-being, increase hope, create commitment to goals, and clarify whether or not some goals need to be changed or eliminated because they conflict with other goals. (People who do this have even been found to save more money because they can see their future more clearly and feel more connected with who they want to become.)

Goal Setting Strategy #5: Set Hard Goals That Involve Taking Risks

At the end of every day, whether we know it or not, we scan our days for highlights and things we are proud of. It's been found that the things we've pursued outside our comfort zone, and that involve trying to "master" something important to us, give us "authentic self-esteem." The more we do this, the more we believe in ourselves.



Why "Me Time" Is So Important For Happiness

Most of us know that self-care is essential for happiness. But do we take the time to think about what self-care actually means for each of us? Exercise, sure. Eating well, yes. Then, of course, there's hydrating, sleeping sufficiently, meditating and doing whatever other relaxation rituals work for you. But there's more. While socialising with friends and other loved ones is also an essential part of living a healthy, happy life, it's also essential to make time to simply be "with yourself," to give yourself love, without it necessarily being time at the gym or sleeping in bed. Let's call this "me time," time to just be, recharge and reset.



Reboots
our brains



Helps us
unwind



Improves our
concentration



Makes us
more productive



Gives space for
self-discovery



Allows time for
deep thinking



Aids in
problem solving



Enhances our
relationships

5 ALONE-TIME TRICKS

- 1 Wake up 30 minutes earlier than the rest of your household.



If making time for yourself is hard, do it early in the day while you have more willpower to stick to your goals.

- 2 If you have an office door, close it.



- 3 Temporarily unplug from your gadgets.



- 4 Take your lunch break in a park.



- 5 Make monthly dates with yourself.





Next Life for LVBL Buses



For 21 years bus 42 and 45 Hino RK176 with Custom bodies served Latrobe Valley Bus Lines in the Valley with pride and joy. Both vehicles serviced school and route service runs out of Traralgon and Moe depots

These two vehicles were sold mid-year to Issa Transport in Conakry Guinea West Africa. Passenger doors were fitted to the right side to cater for left hand drive. Both buses are providing route service in Conakry community.

Issa is interested in purchasing additional buses to keep up the demand.

