



Green Truck Partnership Newsletter

Issue 1 – December 2015



This is the first edition of a new quarterly newsletter for the Green Truck Partnership.

It will provide regular updates on the status of the program—in particular the progress of ongoing trials and case studies—as well as relevant industry news and events, and ideas for new projects.

New participants and ideas are always welcome, so if you want more information or have suggestions for future work, please contact us via the program facilitator (details at the end of the newsletter).

What is the Green Truck Partnership?

The Green Truck Partnership (GTP) is an alliance between Roads and Maritime Services (New South Wales) and the road transport industry. Its purpose is to commission agreed independent testing of products and practices that are claimed to improve the environmental performance of heavy vehicles.

Since 2010, GTP has conducted around two dozen trials of alternative fuels, vehicle technologies, and better operating practices that can potentially achieve fuel savings and emissions reductions for fleet operators.

This has led to around 20 case studies, available on the program webpage <http://www.rms.nsw.gov.au/about/environment/air/green-truck-partnership/index.html> or just search for 'Green Truck Partnership' in your web browser.

Program update

After its first major change in membership since the program began, the GTP Steering Group had two meetings in 2015. April's meeting saw a great turnout as nearly all members were able to attend and contribute. We also presented GTP's first ever marketing and communications plan, the updated website, and an early draft of this newsletter.

November's meeting was also well attended and provided a first for the program, with two guest speakers. Bill Van Amburg, who leads the truck program of CALSTART, inspired the group with examples and lessons from a similar but more expansive program than GTP operating in the USA, representing world's best practice in developing and commercialising low emission trucks and buses. Chris Binns from City of Sydney also surprised us with examples of how he and Council are ahead of the curve in adopting low emission commercial vehicles, and effectively waiting for the market to catch up with their ambitions.

As usual, the meetings also covered the three main objectives: An update on the status of current trials and case studies; ideas for future trials; future direction and activities under the GTP banner.

Our next meeting is due around March.

2015 GTP Trials

Electric Light Commercial Van: Data collection is complete and data analysis in progress.

Aerodynamic device (vortex generator): Trials are being conducted on three different vehicle configurations: a Semi trailer (fixed side box trailer); triple road train (side tipper); and a B-Double (tanker). Data collection phase is approaching completion.

New trials for the 2015/16 program cycle

GTP has already tested many of the more obvious opportunities that provide significant fuels savings – hybrid drivetrains, environmental driver training, natural gas and biodiesel. Planning has begun for the next round of trials, with initial ideas including a driver alert system to provide feedback in real time, a hydraulic hybrid waste truck, an aerodynamic trailer device, and low-rolling resistance tyres.

Suggestions for other fuels, equipment and practices are always invited, as are any fleet operators interested in running test equipment in their fleet. There's little to lose, and fuel to be saved.

Case Studies: Case studies will be completed, circulated for comment and published on the GTP web site in March/April.

New search engine transforms the GTP website

As part of the website upgrades, a major improvement has been the addition of a search function allowing users to filter the case studies to suit their specific interests. The filters include the ability to target new or existing trucks, truck configuration, type of operation, and even the type of improvement (fuel, drivetrain, operating practices, etc). This really useful feature saves time and tailors information to users' needs.

Other industry news

Funding for 'green' fleet projects from the Emissions Reduction Fund

The ERF is part of the federal government's Direct Action Plan, and is the centrepiece of efforts to reduce greenhouse gas emissions. It was established with funding of \$2.55 billion in 2014, effectively paying companies to reduce emissions through specific types of eligible projects. The first round of projects was funded in April through a reverse auction process, paying around \$14 per tonne of abatement. In the second auction held in November, the average price dropped to \$12.25 per tonne.

Only one successful project in the first auction was transport-related, involving the purchase of newer more fuel-efficient trucks and shifting some freight to rail. It was reported their bid represented about





a 10% cut in emissions (AFR 2015). In the November auction, two projects were transport-related: an upgrade of intermodal fleet including marine vessels; and a truck fleet upgrade project. The average auction price of \$14 per tonne in the first auction translates to just under 4 cents for every litre of diesel saved. That level of incentive by itself is unlikely to justify transforming your fleet, but if you are very confident in your project's savings, it may be enough to improve the business case and make it viable.

In principle, the scheme is relatively simple. It involves two main steps: firstly, a company (or a 'proponent') registers their project with the Clean Energy Regulator. This includes calculating the size of the emissions reduction a project will achieve in accordance with an approved calculation methodology for particular types of activities. Once approved, the Clean Energy Regulator issues the relevant number of carbon credits (ACCUs) to the proponent. Up to this point there is no financial payment for emissions savings.

The second step involves the proponent bidding those credits for sale in a reverse auction process, if they choose to do so. The bid nominates a set price the proponent is willing to accept for each tonne of emissions abatement they will achieve. Auctions are held in competitive rounds, so the government can purchase emissions at the lowest price from the range of projects bid.

There is, of course, more to it than that. Most importantly, if successful, the proponent must enter a contract with the government which binds the company to deliver the contracted emissions savings. If the project doesn't achieve its targets, the company could be made to make good on the contract commitment or to purchase equivalent

credits from other parties. So it's important to get independent advice before participating.

You can find more information and details on the ERF website: <http://www.environment.gov.au/climate-change/emissions-reduction-fund> and on the Clean Energy Regulator website www.cleanenergyregulator.gov.au

Note that the price at the next auction may be quite different to the last two rounds, depending on what other kinds of projects bid; but this could work either for or against similar projects you might be considering.

Discounted finance for green trucks is now available

Several months ago the Clean Energy Finance Corporation announced \$50 million in funding to accelerate the uptake of low emission vehicles and equipment. While that announcement was focused on light vehicles, information has emerged about similar finance for heavy vehicles and other off-road equipment. This is available for the purchase of the most efficient trucks and buses in the market, and provided as discounted financing to reduce the barrier of higher capital costs.

Only trucks and equipment that meet specific eligibility criteria can be funded. These rules are necessarily more complex than for light vehicles, but they include electric, hybrid and some alternative fuel capable trucks and buses that may qualify for the scheme.

Look out for more news or an announcement from CEFC in the near future.

Could fuel efficiency standards benefit Australian truck operators?

It might not be common knowledge here, but heavy vehicles in the USA, Japan and China are already subject to minimum fuel efficiency standards, saving many operators thousands of dollars in fuel costs each year. Similar standards are either in place or under consideration for many other countries, including the European Union.

The first phase of US fuel efficiency standards began last year, applying to model years 2014–2018 trucks. And earlier this year, the EPA and the transport regulator (NHTSA) proposed the second phase of standards to apply from 2018–2027. Compared to a 2010 reference truck, the two phases of regulation are estimated to reduce emissions (and fuel costs) by 20% for the US equivalent of a rigid truck, and 30–45% for semi-trailers.

The situation in Australia is rather different. Fuel efficiency standards have not yet been introduced for even light vehicles, despite that being comparatively simple. Nearly all developed countries have some kind of fuel efficiency or greenhouse emissions limits for their light vehicle fleet.

Most of the claimed savings from the US truck standards will be achieved through a combination of more efficient engines and drivetrains, and improved aerodynamics. The engine and drivetrain technologies, in particular, should transfer directly to Australia, because no engines are developed locally or specifically for the Australian market, even if some of the ancillary systems are unique (e.g. cooling systems). But the availability and market for aerodynamic equipment is less mature here, constraining the overall potential savings to some degree. In addition, our truck fleet is complex, more diverse, and the market is much smaller than those being regulated overseas—reducing the ability to recover technology development costs.

So, despite the obvious benefits, it is unlikely that we will see efficiency standards for trucks any time soon – or at least not before similar standards for light vehicles.

Ultimately, it may be a debate worth having, because the payback period for costs associated with improved technologies that help trucks meet the efficiency standards is claimed to be less than two years for semi-trailers—an investment that many operators may consider useful for an ongoing saving in fuel costs.

Tell us whether you would support such a scheme being introduced to Australia by clicking on the feedback button in the Get involved box opposite.

One million electric and gas vehicles by 2025?

An interesting report was released in late July suggesting that Australia could see almost one million electric and gas-powered vehicles by 2025 under the right policy settings. The report, commissioned by the Energy Supply Association of Australia, is intended to highlight the lack of vision and supporting policy for advanced vehicles and fuels.

While one million vehicles within 10 years might be optimistic, it does highlight the need for some kind of integrated vision for alternative fuels in Australia where currently there is none. A national approach to supportive policies that encourage cleaner transport alternatives (of which fuel efficiency standards are just one) would help the transport sector contribute to our national emissions reduction target, as well as creating jobs and reducing our reliance on imported fuels.

GTP does not endorse or dispute the findings of the report. But it is worth mentioning that heavy vehicles were not considered in the analysis, suggesting that electric and natural gas trucks could drive the ultimate fleet numbers even higher. Nearly all vehicles currently operating on natural gas (NGVs) in Australia are trucks and buses; and the economics supporting a switch to natural gas are more likely to be favourable on a truck or bus than a light vehicle.

Perhaps the most important aspect of the report is the call to begin the discussion. From a strategic policy perspective, clean transport options will only emerge with supportive policies.

At the same time, there needs to be a discussion about the emissions factors used in the report and most other policies and models. GTP trials and other literature show that only one natural gas engine technology achieves the claimed emissions benefit – and that engine is no longer available in the market in Australia.

Get involved

We always welcome feedback, comments, suggestions and new participants. Drop us a line about this newsletter, or talk to us about the program and ideas for trials.

To get involved, contact the facilitator:

GTPinfo@RMS.nsw.gov.au

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