

Figure out available opportunities

Whether your goal is to reduce costs, use less fuel or reduce emissions, all are directly related to how much energy your trucks use.

Most operators are surprised to learn most of the energy that goes into a truck as diesel fuel is wasted – lost as heat, friction, noise, and leakage. So, cutting costs and emissions is partly about reducing this wasted energy.

There are dozens of ways to reduce waste or use energy more efficiently – some small, others much larger. One way to structure your approach is to group ideas by how they save energy. We've used four groups with specific examples of opportunities in each:

Cargo productivity

Better use of capacity reduces fuel per load and number of trips

- Increase backloading
- Load consolidation
- Load sharing
- Larger/smaller trucks
- Optimise route planning
- Off-peak deliveries

Fleet practices

Monitoring & managing people and vehicles with a focus on energy

- Driver training
- Preventive maintenance
- Telematics & monitoring
- Driver incentive scheme
- Clean fleet policies
- Wheel align/balance
- Reduce max. speed

Efficiency upgrades

Things you can improve or add to your existing trucks

- Aero parts for truck
- Aero parts for trailer
- Low resistance tyres
- Idle shut-off system
- Semi-auto gearbox
- Electric PTO/equipment
- Tyre pressure monitor

Fuel switch

Using clean energy or new technology (some only on new trucks)

- Hybrid
- Biodiesel
- Renewable diesel
- Battery-electric
- Hydrogen
- CNG/LNG

Key questions to ask:

- Which things has my business done already and what were the results?
- What changes can we make to our existing fleet?
- Who can I talk to to get more real-world information? (e.g. other businesses like mine, suppliers, experts)
- Are there suppliers that service my area?
- How much capital does my business have to invest in improvements?




More than 60% of the energy in diesel is wasted.

Bear in mind, each opportunity might involve several different elements: truck aero can include different parts for the cab roof, cab rear, chassis/tank side panels, wheel covers, or simply removing clutter to smooth the airflow.

Reliable information can be hard to come by, contradictory and complex, so you'll need to do some research. We've done some of the leg work for you, with information on common opportunities brought together in NatRoad's Member hub.



Also consider that the saving you might get from any one opportunity depends on what kind of truck you have, the design of the equipment, and how you use your truck.

 Urban delivery	 Refrigerated distribution	 Regional/ longhaul freight
<ul style="list-style-type: none"> Hybrid powertrain Route optimisation Load consolidation Eco-driver training Idle-off devices/ setting 	<ul style="list-style-type: none"> Pre-cooling/ chilling payload Hybrid powertrain Eco-driver training Low rolling resistance tyres Electric/plug-in refrigeration 	<ul style="list-style-type: none"> Truck aero parts Trailer aero parts Higher-productivity vehicle Load consolidation Low rolling resistance tyres

For trucks used in city or urban areas, stop-start driving wastes a lot of fuel, so route optimisation and load consolidation can reduce the number of trips and the distance driven, and hybrids recover energy during braking. For trucks used at higher speeds, aerodynamic drag and rolling resistance use a lot of fuel, so aero parts and tyres can generate energy savings. And in nearly all applications and tasks, preventive maintenance and eco-driver training are reliable ways to save some fuel.

Some opportunities **are available only on new trucks**. This is the case for hybrids, battery electric and hydrogen powertrains, and higher-productivity vehicles, so keep this in mind.

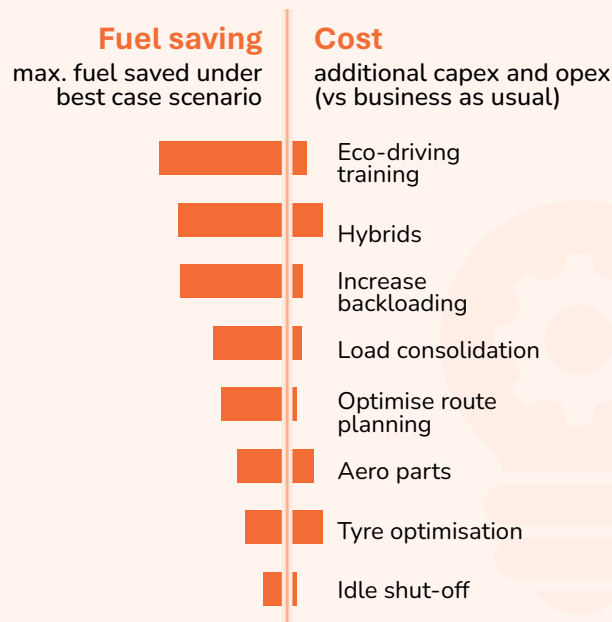
Of course, potential fuel savings are only one side of the equation. You must find a supplier for the

equipment or service you are considering for some of the opportunities listed, there may only be one or two suppliers, or they may not be available in your area.

And as with any project, you'll need to get prices for equipment to weigh up the costs versus savings – see Step 4 for more.

As a general guide, this graph compares the likely cost with the extent of potential savings.

Some opportunities are clearly **more cost-effective than others**, depending on your individual use case and the supplier you choose.



Get Fleet Fit

The good news? There's lots you can do **NOW** to save on fuel, cut down on emissions and boost your bottom line at the same time.

NatRoad has developed a 5-step roadmap to help members along the journey:

