

**A draft Operating Procedure
for lowering off-farm greenhouse gas emissions**

You modify for your operation

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Operating Procedure:	Reducing Greenhouse gas emission from 3 rd party, off-farm production of fuels and energy sources
Significant Environmental Aspect / Impact:	greenhouse gas emissions generated in sourcing, manufacturing and transporting fuels, gas and electricity prior to consumption on-farm.
Legal requirements	None applicable to farming operations
Reference Documents:	Plant operating manuals, equipment size selection guides (e.g. pumping)
Procedure Communicated to: by:	On-farm energy users, farm-owned machinery operators
Process for Review of This Procedure:	Review annually

Steps you will commit to: (alter this section to document what you will do on your farm)

Fuels:

- consult manufacturers re combustion engines' suitability for bio-fuels
- use biodiesel and ethanol-blend petrol fuel in suitable engines, in preference to conventional fuels
- select sources of fuels with lowest energy-transportation emissions (e.g Australia, Victorian, district fuel growers over overseas imports)

Electricity

- change electricity distribution supply company to least greenhouse-gas emitting electricity grid generation sources (whole-of life "green" energy generators hydro, gas turbines)
- reduce electricity grid energy demand by incorporating photo-voltaic generation in farm electrical installation
- change from one-use batteries to rechargeable types for battery-powered equipment
- reduce gas & electricity energy consumption for farm activities (e.g. best-practice light sources, efficacious fittings, properly-sized pumps; switch off equipment, lights not in use, alter lighting to movement-sensor-activated types)
- reduce percentage of startup energy of emission totals, from ballast-equipped light fittings and electric motors, by saving up tasks until operating period is at least 20 minutes
- reduce start-up frequency of electric pumps by manual start in preference to more-frequent level-switching of pumps
- save suitable electricity using tasks for off-peak tariff times (storage water heating, mass heating & cooling, washing machines, dryers)
- use photo-voltaic-powered control devices over mains or battery-powered equipment (e.g. electric fencing, actuation devices)
- use breeze collection devices (e.g. window opening) in buildings in preference to fans, in preference to air conditioning for cooling, drying needs
- change/update electric motors to best-practice technology & efficiency (electronic starting & speed control, more efficient field windings, class E electric motors instead of internal fan types)
- change/update refrigeration equipment & refrigerants to best-practice devices
- periodically clean ventilation blades, grids

Water:

- use cold water in preference to heated water where not required for H & S requirements (e.g. chemical & feed mixing, equipment cleaning, washdown)
- follow best practice, lowest thermostat settings on hot water equipment
- switch off hot water generators when not drawing off hot water, in preference to permanent connection via timers & thermostats

Monitoring required	Seasonal comparisons of energy quantities bought in over time (e.g. fuel, energy bills)
Records kept	Fuel & energy purchases & economy, equipment update, maintenance records
Procedure Authorised by:	