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Power-assisted bikes give you a little bit of help

One of the fastest growing forms of transport is the power-assisted bicycle.

The WA Road Traffic Act 1974 (Preliminary Part I s. 5 p. 5) gives the following defines power assisted bicycles as vehicles “designed to be propelled through a mechanism operated solely by human power, to which is attached one or more auxiliary propulsion motors having a combined maximum output not exceeding 200 watts.”

These bikes are fitted with a small electric or petrol motor that can be turned on and off as required, to help the rider get up a hill or carry a heavy load of groceries home. They are also particularly useful for people with arthritic knees or other physical constraints that may restrict cycling opportunities on a standard bike.

Adults riding power assisted bicycles in Western Australia are covered by the same road rules as a standard bike and do not require any form of driver's licence, although the rider must be at least 16 years of age to engage the motor.

To be classified as a bicycle, the motor must not exceed 200 watts (about a quarter of one horsepower. If a more powerful unit than that is fitted, the bike has to be registered as a motor vehicle. Consideration is being given to raising this limit to 250 watts.

When the motor is off, a power-assisted bike can be used just like an ordinary bike, but it cannot legally be ridden on a shared path with the power engaged. The two most popular sources of power are a rechargeable battery supplied electric motor and a very small two-stroke petrol engine.



Either of these can be fitted to just about any type of bicycle, including folding bikes, but are most commonly seen on the hybrid or comfort styles.

In the past, petrol-driven bikes have enjoyed a much longer range than their electric counterparts – often 50 km or more on the one tank of fuel – but recent advances in battery technology have seen the introduction of electric bikes that can travel almost as far on a single charge.

Regardless of the power source, the overall range can be extended greatly if the rider does some occasional pedalling to take the load off the motor.

One benefit of an electric bike is that the motor can be easily turned on or off while travelling along.

Electric models are designed to be maintenance free, although the battery will need replacing every few years. Petrol engines will generally require an annual service.

As you would expect, power-assisted bicycles are heavier than standard bikes because of the extra weight created by the motor and drive train. They also cost about twice as much as a similar quality of bike without the motor, but prices have fallen substantially in the last couple of years as demand continues to grow.