

ELECTRIC BIKES

Electric bikes (e-bikes) are opportunities to get more people to ride bikes instead of driving, and less cars on the road means less traffic congestion. E-bikes are becoming more prolific as they grow in popularity, and this planning process found that there is a lot of interest, curiosity, and concerns about them.

What is an e-bike?

An electric assist bicycle is much like a standard bicycle with the addition of a battery powered motor of less than 750 w.

What are the benefits of e-bikes?

Surveys and studies have found that e-bikes get more people to ride bikes, and those with e-bikes will ride more often. Why?

- It is easier to go longer distances
- It is easier to ride up hills
- It is fun!

Are e-bikes safe?

Studies have found that the use of e-bikes* is very similar to regular bikes with similar safety and compliance behavior, and speeds that are similar or even less than regular bikes on pathways, flat, or downhill segments. E-bike riders do go faster than regular bikes on roads, but not significantly. This could be explained as the difference between recreational use on pathways versus commuters on roads.

*Class 1 and 2 bikes with a max assisted speed of 20 mph.

What are the different types of e-bikes?

The most common is a Class 1. The key differences are underlined below.

Class 1

Equipped with an electric motor that provides assistance only when the rider is pedaling, and ceases to provide assistance when it reaches 20 mph.

Class 2

Equipped with an electric motor that can propel the bike by a throttle, and ceases to provide assistance when it reaches 20 mph.

Class 3

Equipped with an electric motor that provides assistance only when the rider is pedaling, and ceases to provide assistance when it reaches 28 mph.

Where can you ride an e-bike?

In Arizona, Class 1 and 2 e-bikes may be used in bike lanes and on shared/multi-use paths where other bikes are permitted (ARS §28-819).

There are also electric mountain bikes (eMTBs), however they are *not* permitted on the National Forest non-motorized trail system in and around Sedona. They are permitted in the Posse Grounds Bike Skills Park.

More information, including a list of research studies can be found at:
<https://peopleforbikes.org/our-work/e-bikes/>



E-bikes have a battery and motor that can be integrated into the bike frame.