



Watt's next for e-bikes, e-scooters, and e-motos in Wisconsin?

October 8th, 2026

David Salmon – City of Sun Prairie

Ben Lyman – Greater Madison MPO

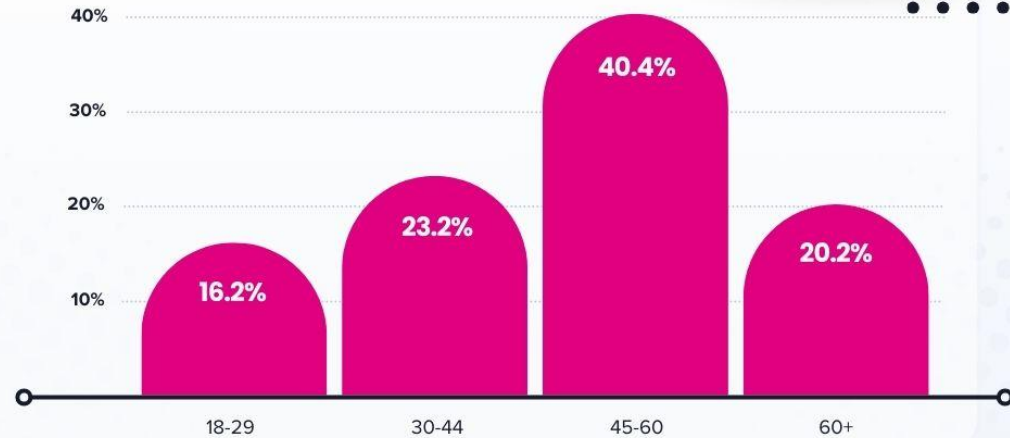


US e-bike sales grew 269% from 2019 to 2022, outperforming traditional bike sales

Source: ABC News (2023)

Age Distribution

OF E-BIKE OWNERS

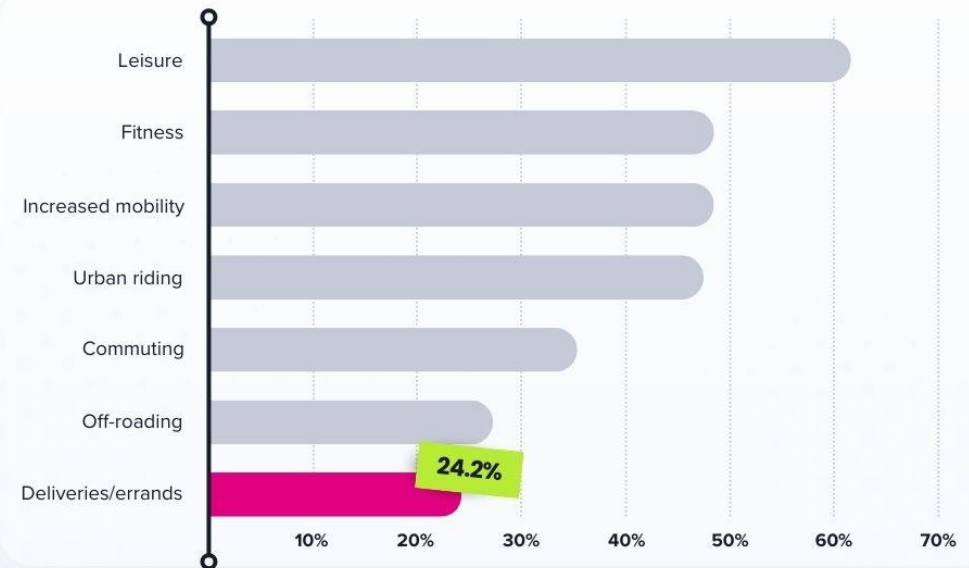


Source: eBikes.org

eBikes.org

Main E-Bike Uses

OF E-BIKE OWNERS



Source: eBikes.org

eBikes.org

Benefits of E-bikes/E-scooters

- Lower emission alternative to driving
 - Low-cost alternative to driving (NPR, 2023)
 - Lower emissions than driving
- Increases access to active living and mobility
 - E-bikes can help older folks get and stay active (Harvard Health, 2024)
 - E-devices provide mobility for young people
 - E-bikes may unlock latent demand for cycling (APBP, 2024)

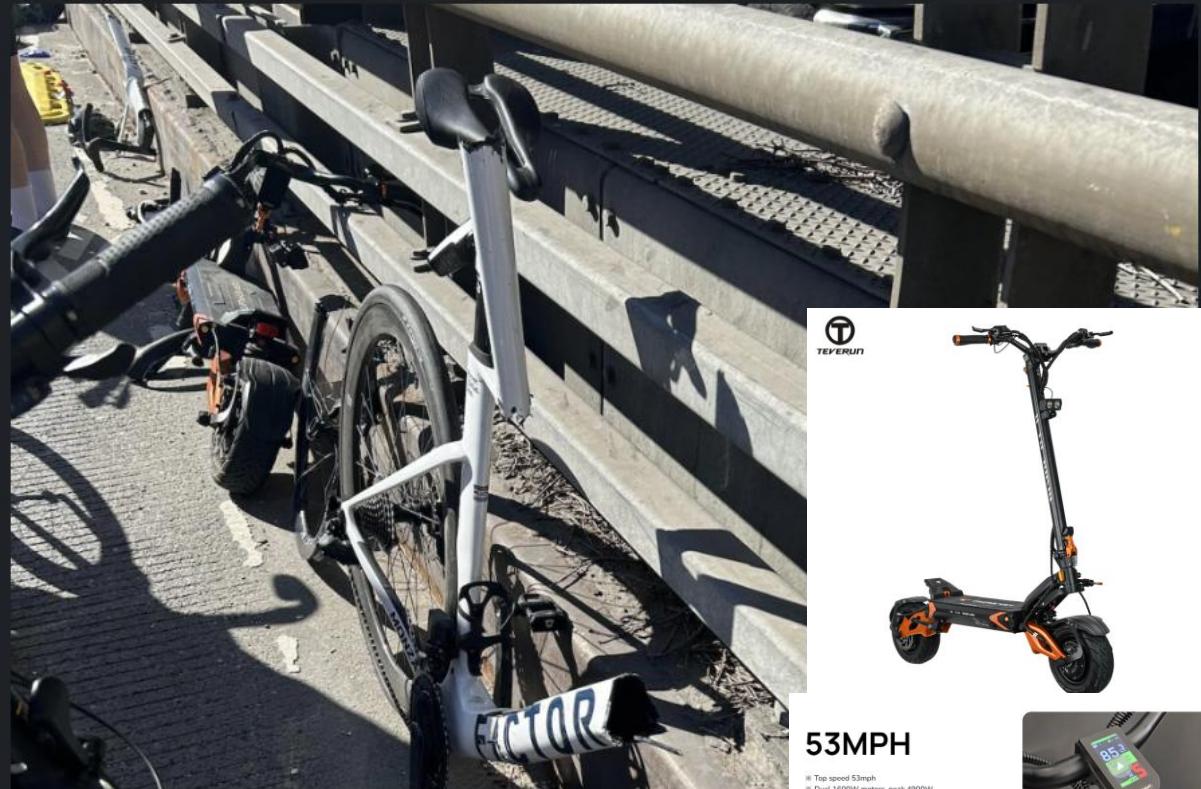
Two Dead After Illegal Scooter Rider And Cyclist Crash On Queensboro Bridge

Street safety advocates have been criticizing city officials for failing to fully grasp the dangers of e-motos and illegal stand-up scooters for years.



By **Sophia Lebowitz**

2:01 PM EDT on May 28, 2026



The scooter and the bike in the aftermath of the crash that killed two men on the Queensboro Bridge



53MPH

- Top speed 53mph
- Dual 1600W motors, peak 4000W
- Powerful & instant acceleration
- Stable & safe at high speed



Wisconsin officials warn parents about rising e-bike and e-scooter injuries

By: **Meredith Hackler**

Posted: Jun 24, 2026 5:01 PM CDT

E-VEHICLE INJURIES IN 2025 COMPARED TO 2022

- E-SCOOTER CRASHES HAVE INCREASED 260%
- E-BIKE CRASHES HAVE INCREASED 171%
- PEOPLE INJURED IN E-SCOOTER CRASHES HAVE INCREASED 240%
- PEOPLE INJURED IN E-BICYCLE CRASHES HAS INCREASED 171%

SOURCE: WISCONSIN DEPARTMENT OF TRANSPORTATION

58 NEWS
MILWAUKEE



NOW: Wisconsin officials warn parents about rising e-bike and e-scooter injuries

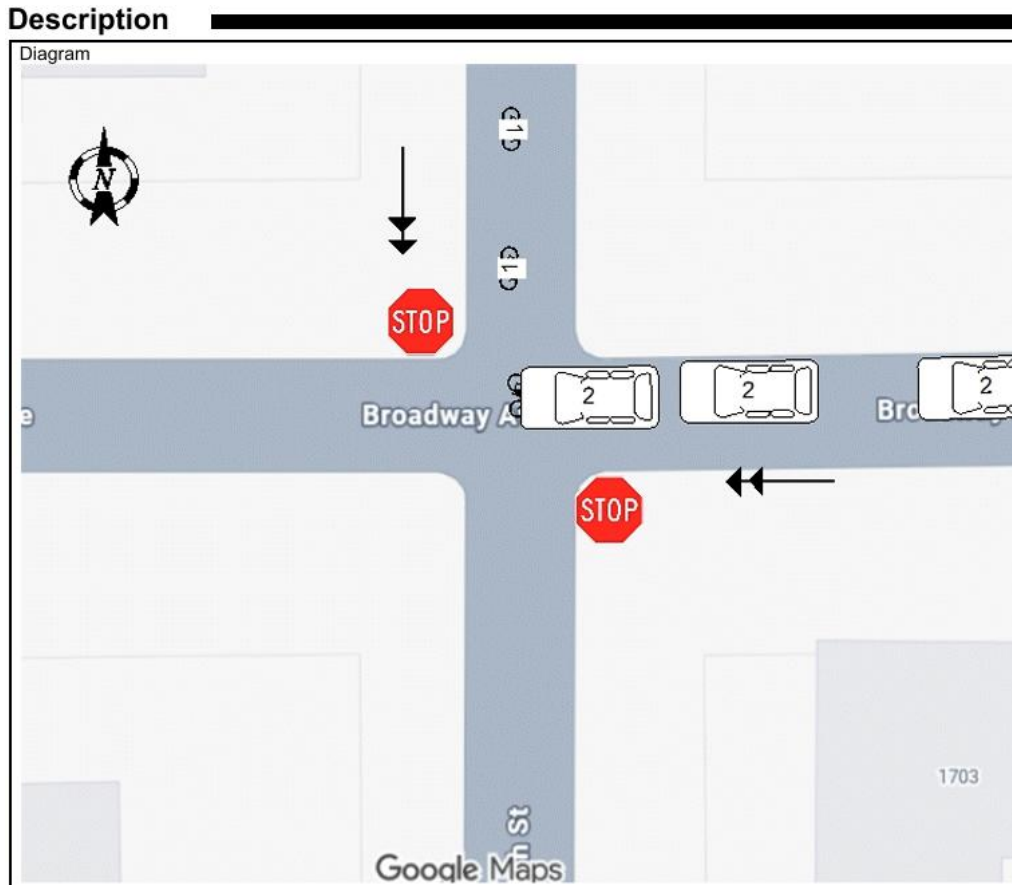


Source: CBS 58 News June 2026

SHEBOYGAN E-MOTO CRASH AND FATALITY

Information from Tops Lab

Crash Diagram:



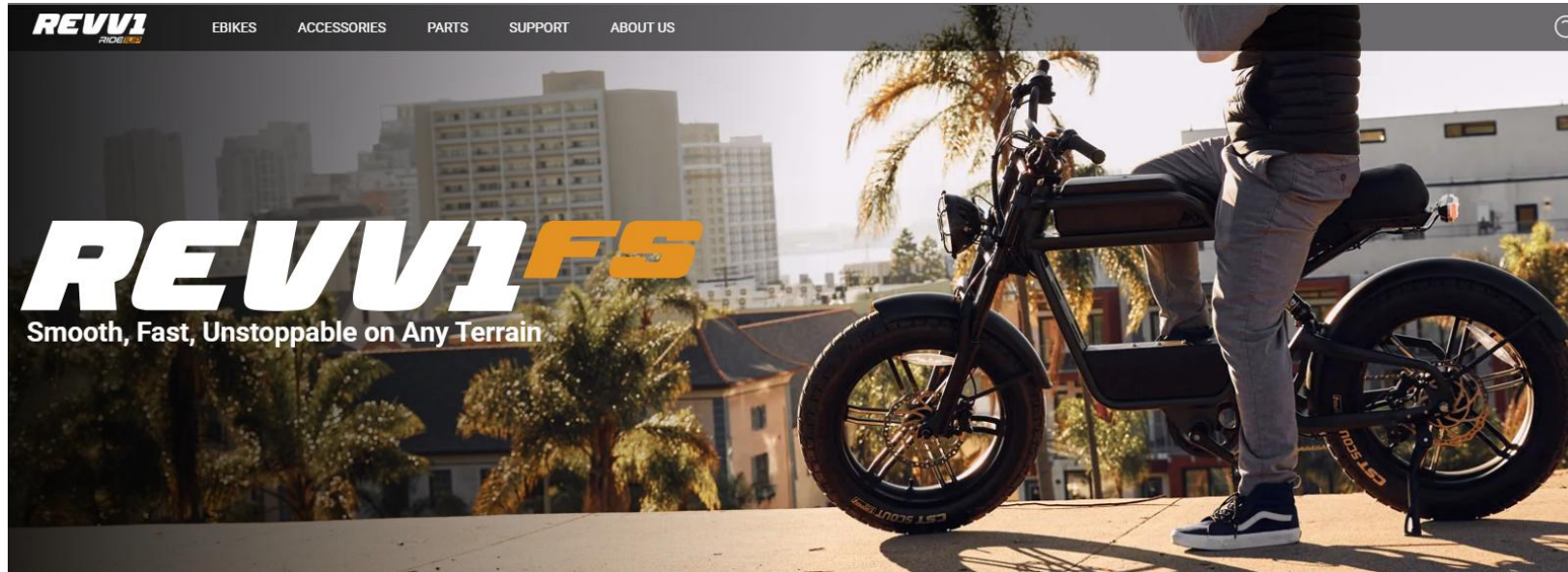
Summary:

- Unit 1 was a teenager operating an e-moto with a motor over 3000 watts and 30 mph top speed.
- Unit 1 failed to stop at stop sign.
- Unit 2 did not have a stop sign and did not have enough time to react to Unit 1 entering the intersection when they collided.
- Operator of unit 1 was declared deceased at the hospital.
- Operator of unit 1 was a 14-year old from Beloit, WI

Major Issues we are seeing:

1. VEHICLES NOT MEETING ESTABLISHED
LEGAL DEFINITIONS
2. DANGEROUS BEHAVIOR

A big part of the problem is with “e-motos” or “out of class electric vehicles”



What Is a Moped-style eBike?

“Typically, moped electric bikes have programming and motor capabilities that **allow for a higher top speed than class 3 ebike regulations allow**. This is more than 28 mph, but designed for private property and **technically not legal to ride on public roads at these speeds.**”

What Is the Difference Between a Moped eBike and Electric Moped?

...An electric moped ebike incorporates a motor, **does not require insurance or registration and has pedals so in theory, the rider is intended to power the bike by pedaling.** This **design bypasses the regulatory needs of a moped...**

Source: Revv1 FS Moped-Style Electric Bike | Ride1Up Ebikes

Dangerous Behavior



Vision Zero

E-motos present major challenges to Vision Zero and Safe Systems Approach

- Safe Road Users
- Safe Vehicles
- Safe Speeds

Need for multiple levels of intervention needed

- Federal Law on consumer products vs. motor vehicles
- State Law on definitions, licensing and registration, safety equipment, OWI, and facilities
- Local Enforcement



Figure 1: The Safe System Approach (Image credit: Washington Traffic Safety Committee)

TYPES OF E-DEVICES WE ARE SEEING IN WISCONSIN



Bicycles*

Electric bicycles*

Electric scooters*

Electric play devices^

E-motos^ are currently:

Mopeds*

Motorcycles*

Off-road motorized vehicles*

Motorized Vehicles*

*Defined in *Wis. Stat. § 340.01*

^Not defined in Wisconsin State Law

E-motos are not legal motor vehicles under federal law and cannot be registered as motor vehicles in Wisconsin

Bicycles -> E-bikes

- Bicycles are every vehicle propelled by feet or hands acting upon pedals or cranks and having wheels any 2 of which are not less than 14 inches in diameter.
- **“E-bikes”** have an electric motor of 750 watts or less
 - Class 1 – pedal assist up to 20 mph
 - Class 2 – “throttle” assist up to 20 mph
 - Class 3 – pedal assist up to 28 mph
 - E-bikes are bicycles under state law



Electric Scooter

- Less than 100 pounds
- **Has handlebar**
- Powered solely by electric motor and human power
- **Maximum speed of 20 miles per hour**



Mopeds -> Motorcycles

- “Moped” is a motor vehicle capable **speeds of not more than 30 miles per hour** with a power source as an integral part of the vehicle and a seat for the operator:
 - “Bicycle” type
 - “Motorcycle” type
- “Motorcycle” means a **motor vehicle originally manufactured with motive power, a seat or saddle requiring the rider to sit astride**, not more than 3 wheels in contact with the ground, **steering controlled by handlebars**, and **acceleration and braking controlled with handlebar and foot controls** and that is **capable of speeds in excess of 30 miles per hour**.



SUMMARY TABLE 1

■ Device definitions - Chapter 340.01

Vehicle Class	Throttle	Speed	Power Limits	License	Registration	Insurance
Class 1 E-Bike	No	≤ 20 MPH	≤ 750 Watts	No	No	No
Class 2 E-Bike	Yes	≤ 20 MPH	≤ 750 Watts	No	No	No
Electric Scooter	Yes	≤ 20 MPH	No limit	No	No	No
Class 3 E-Bike	No	≤ 28 MPH	≤ 750 Watts	16 years or older	No	No
Moped	Yes	≤ 30 MPH	≤ 50cc (130cc with pedals)	Class D	Yes	Yes
Motorcycle	Yes	≥ 30 MPH	No limit	Class M	Yes	Yes



WIDE WORLD OF E-MOTOS

- Many of the following devices are being sold as “e-bikes” or “e-scooters” (ie. Consumer Products)
- E-motos are not legal motor vehicles under federal law so have not been issued a Vehicle Identification Number (VIN) which is a standard for registration at DMV
- E-motos are not built to motor vehicle standards



Off-highway Motorcycles





JackRabbit OG2 Pro
Max speed: 20 mph
No Pedals

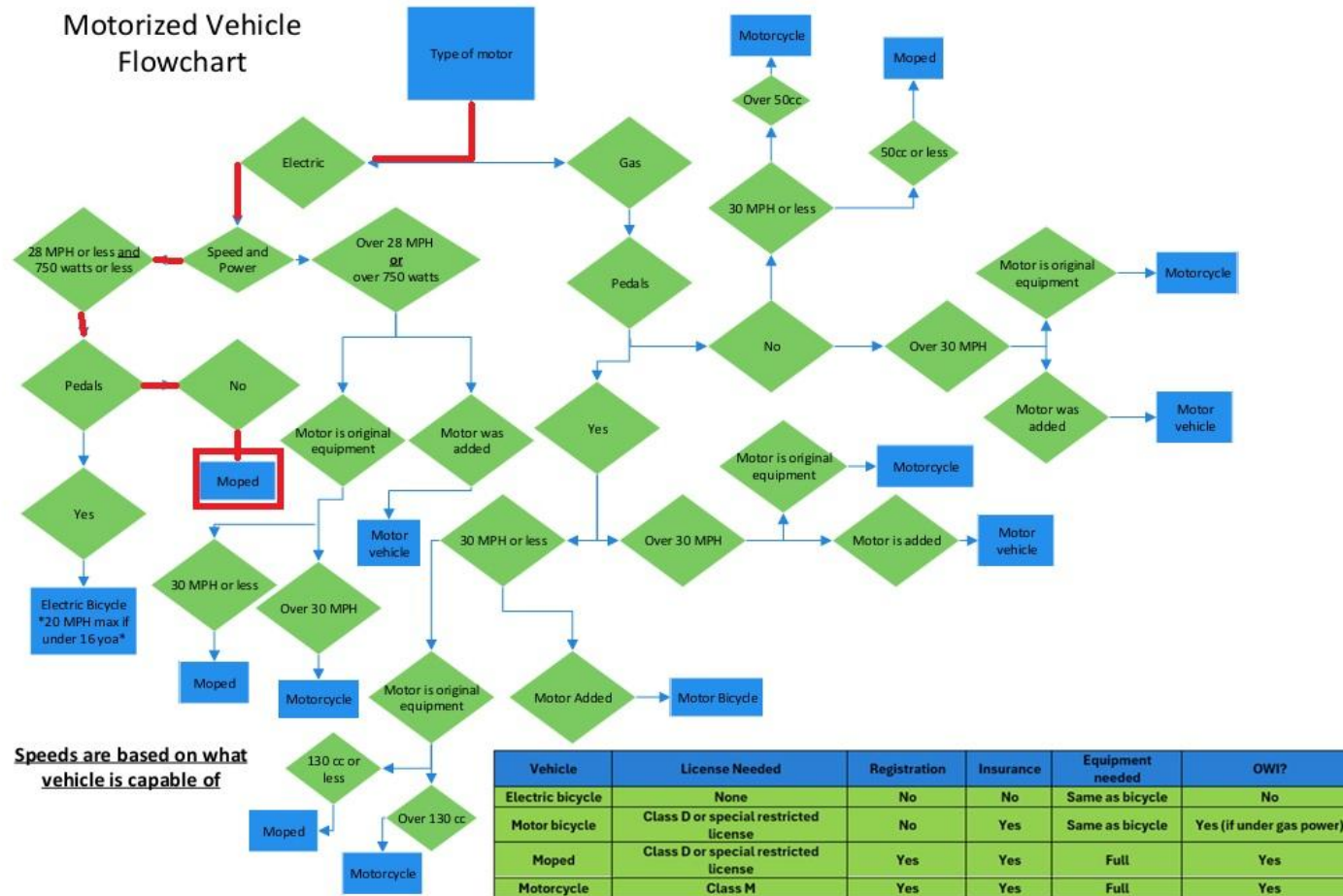


JackRabbit MG Doble (designed
for two riders)
Max speed: 20 mph, 24 mph off-
road mode
No Pedals

“Out of class” by:

- Lack of pedals

Moped under state law



Flowchart created by Sgt. Sean Hammil of Green Bay PD



ENGWE M20 3.0
3300W Peak Output 120Nm
 Torque Moped-Style E-Bike
Max Speed: 40 mph

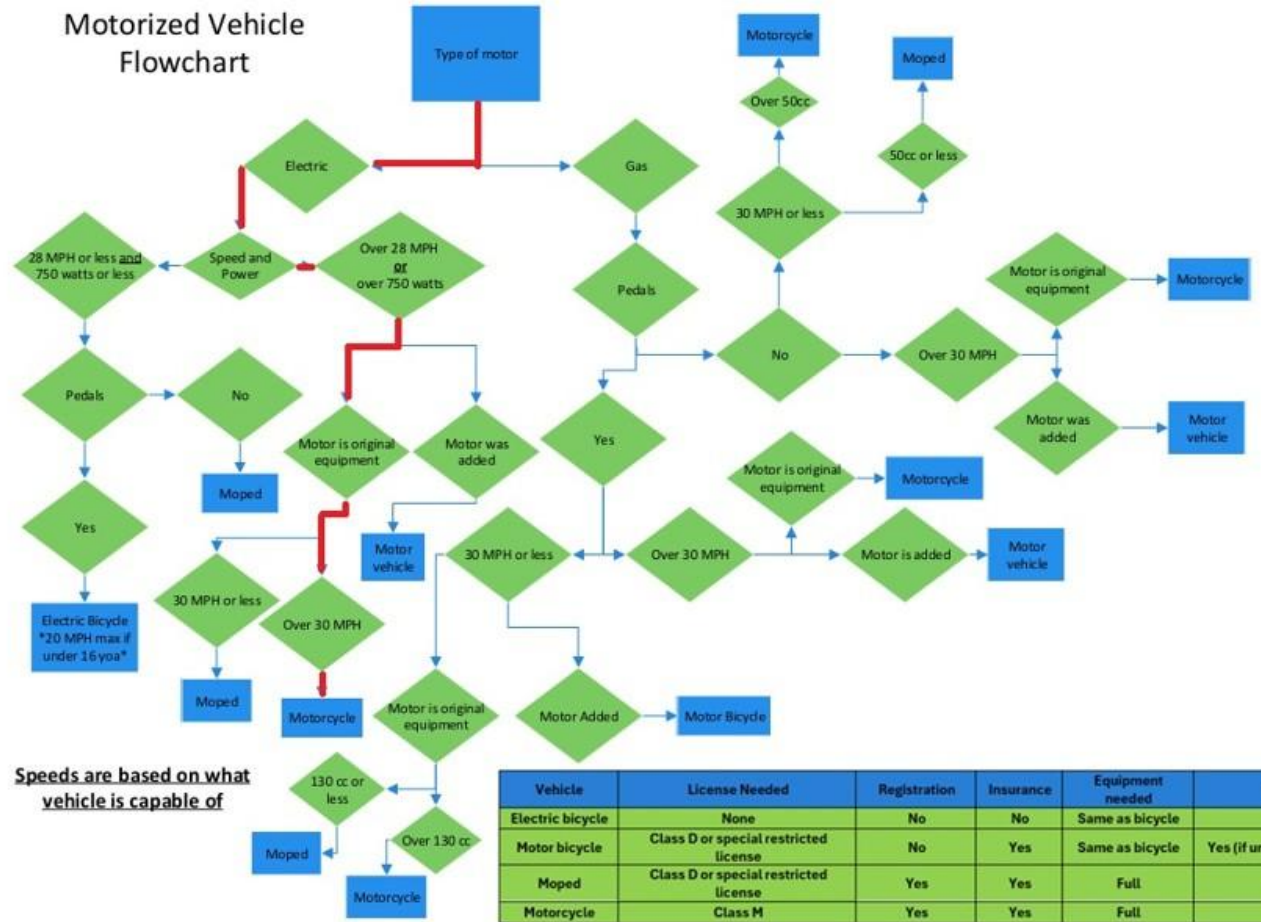


Freego Nova 3 Pro Mid-
 Drive All-Terrain Dirt eBike
Max speed: 55 mph
No pedals

“Out of class” by:

- Top speed
- Wattage
- Lack of pedals

Motorcycle under state law



Flowchart created by Sgt. Sean Hammil of Green Bay PD

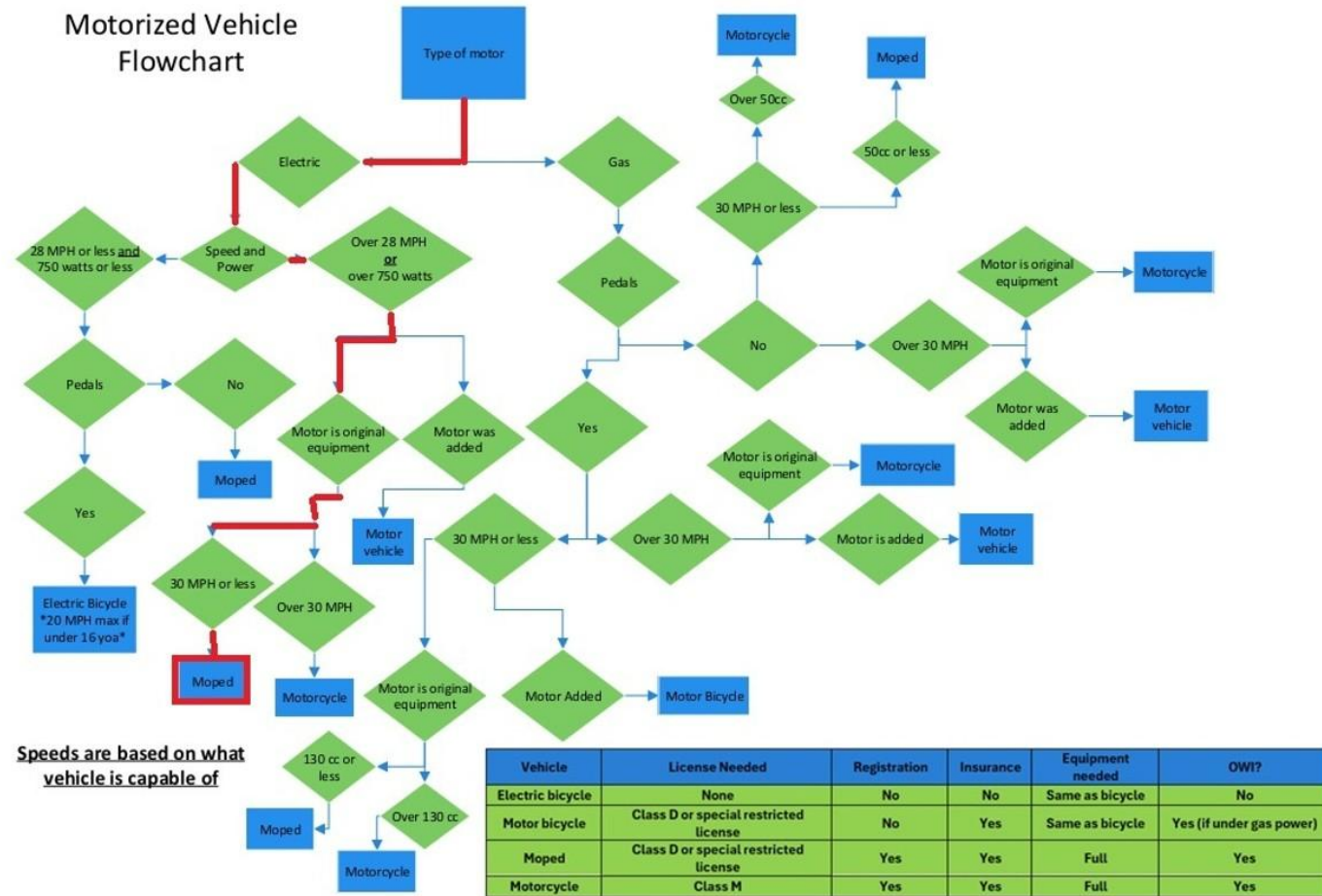


Terrosor GT 600 All-terrain
Electric Motorcycle
 Max speed: 28 mph
1200 W

“Out of class” by:

- Top speed
- Wattage

Moped under state law



Flowchart created by Sgt. Sean Hammil of Green Bay PD

E-Scooters, and Something Else Entirely



Inmotion Air

Max speed: 19 mph

Legal e-scooter



Inmotion RS

Max speed: 68 mph

Out of class by:

- Top Speed

Motor Vehicle under
state law due to lack of
seat

E-Scooters, and Something Else Entirely



OBARTER X7 Off-Road
Electric Scooter
Max Speed: 56 mph



J15 Electric Scooter
Max speed: 32 mph

Out of class by:

- Top Speed

Motorcycle or Motor
Vehicle under state law

OneWheels and E-Unicycles



OneWheel Rally XL
Max speed: 25 mph



InMotion V14Pro
Max speed: 50 mph

Generic motor vehicles; no state definition for electric play devices

E-In-Line Skates & E-Skateboards



Atmos Gear Electric Skates
Max speed: 15.5 mph



Meepo Voyager X
Max speed: 34 mph

Generic motor vehicles; no state definition for electric play devices

E-motos (motor vehicles) cannot be legally operated on:

- Sidewalks
- Bike lanes
- Shared use path

E-motos (motor vehicles) cannot be legally operated on public roads without required:

- Licensing
- Registration
- Insurance

Electric “Play Devices” are not only Out-of-Class – they are also prohibited on roadways

“Play vehicle”:

(a) Means a coaster, skateboard, roller skates, sled, toboggan, unicycle or toy vehicle upon which a person may ride.

(b) Does not include in-line skates or electric scooters.

Play vehicles not to be used on roadway. No person riding upon any play vehicle may attach the same or himself or herself to any vehicle upon a roadway or go upon any roadway except while crossing a roadway at a crosswalk.

Local Authority to Regulate

- Bicycles and motor bicycles (349.23)
 - Can prohibit on roadways with speed limit of 25 or more
 - Bicycles not allowed on sidewalks unless local ordinance allows
 - Motor bicycle not allowed on bicycle ways or sidewalks
- Electric bicycles (349.18(4))
 - May regulate on bikeways with the power unit in operation
 - Cannot treat e-bikes differently than bicycles
- Electric scooters (349.237)
 - Can prohibit on roadways with speed limit of 25 or more
 - Allowed on Sidewalks unless local ordinance prohibits
 - Allowed on bicycle ways
- Mopeds and Motorcycles (346.94(1), 346.94(12))
 - Not allowed on bicycle ways or sidewalks



ENFORCEMENT



**Electric off-road
motorcycles →
Dangerous
behavior**



“Right-sizing” Traffic Enforcement

Prioritize enforcement on behaviors that lead to serious injuries and fatalities

- Speeding
- Reckless riding
 - Wheelies
 - Weaving in and out of traffic
 - Failing to stop for traffic control devices
 - Failing to yield for pedestrians, other bikes etc, and motor vehicles
 - Lack of safety equipment and dangerous behavior





In most cases state law is sufficient

- Operating without a license 343.05(3)(a)
 - Permitting unauthorized person to operate 343.45(1)
- No motorcycle license 343.05(3)(b)
- Unregistered vehicle 341.04(1)
- Equipment violations Chapters 347 and Trans 305
 - Parental responsibility for bicycles and play vehicles 346.77
- Reasonable and prudent limit speed 346.57(2)
- OWI 346.63
- Fleeing 346.04

Sun Prairie “E-moto” Ordinance

Defining “e-moto”

- “E-moto” means any type of device with an electric motor greater than 750 Watts, capable of speeds greater than 20 mph without pedal assist, or otherwise operates beyond the definition of a Class 1, 2, or 3 electric bicycle (e-bike) or electric scooter (e-scooter).

Providing a local ordinance for probable cause to stop someone and issue a citation

- E-moto use on public property.
 - E-motos may not be operated on public roadways without licensing, registration, and insurance required by the state of Wisconsin.
 - E-motos are prohibited from being used on bikeways, multi-use paths, sidewalks, or off-road within parks or other publicly owned land within the City of Sun Prairie.



Big questions about State Law and What needs to change



SUN PRAIRIE
revolves around you

Greater Madison MPO - Recommended E-Moto Definition

“E-moto” means any type of electric bicycle, scooter, or other device capable of speeds greater than 28 mph under electric power that is not elsewhere defined in state law.

These devices are not legal e-bikes or e-scooters and should not be advertised, sold, offered for sale, or labeled as e-bikes or e-scooters. Only such devices with a Vehicle Identification Number (VIN) can be registered and insured for street use, and a Class M (motorcycle) license is required to operate them. Such devices which do not have a VIN and cannot be registered may only be used on private property. These devices are also known as “Out-of-Class Electric Vehicles” (OCEVs). These devices are prohibited from using bike lanes, separated paths, and sidewalks.



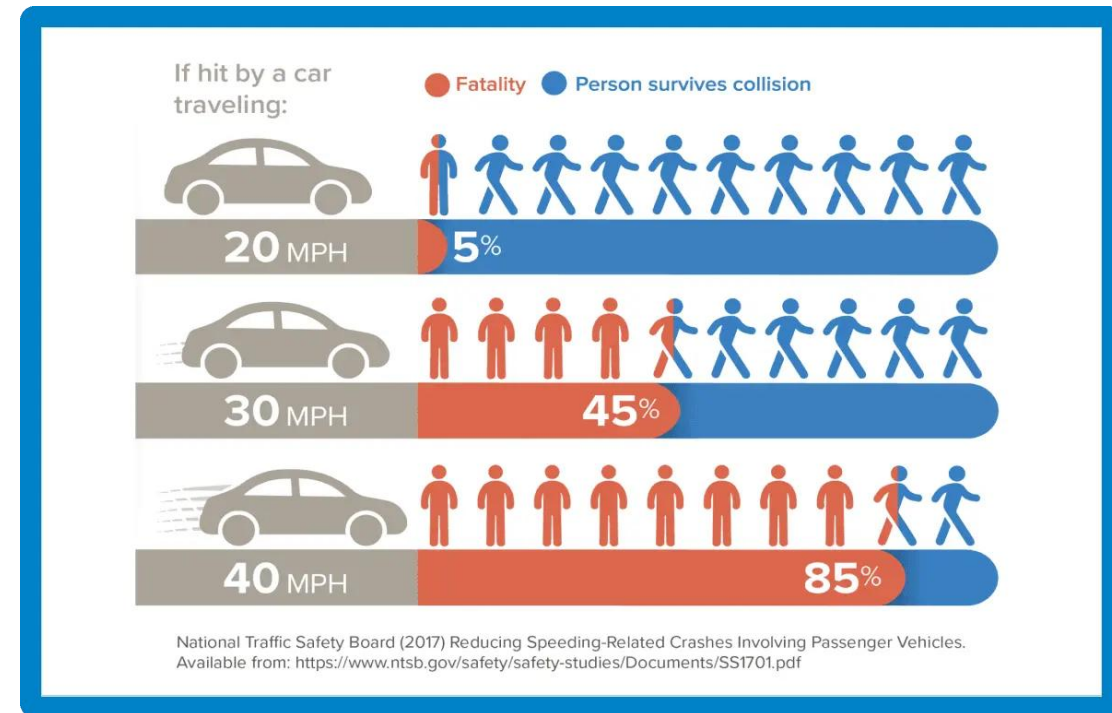
Greater Madison MPO - Recommended E-Micromobility Device Definition

“Micromobility device” includes a broad range of lightweight electric-powered vehicles, not elsewhere defined under state law, that serve as personal mobility devices and have a top assisted speed of no more than 28 mph.



“E-moto” Definitions are needed. Should Wisconsin legalize “e-motos”?

- Serious questions about whether devices faster than 20 mph should freely operate with pedestrians and other bicyclists
- Wisconsin State Law should not provide a legal pathway for E-motos, that are not legally motor vehicles under federal law.



How can we make local enforcement more consistent and easily enforceable?



- Need to **right-size sidewalk rules** and **rights of the road** for all e-devices
- Need to **clarify local authority to set speed limits** for
 - paths outside right-of-way
 - for paths, sidewalks, and bicycle ways within right-of-way
- **Clear trail access policies** and overall **signage of rules** within jurisdictions

Consumer Protections

- **False advertising rules** for selling products as “e-bikes” and “e-scooters” when they are in fact motor vehicles under state statutes.
- **Requirements for sellers to inform purchasers** of the legal requirements of using e-devices in Wisconsin.



Should e-devices with a throttle be subject to OWI laws?

How do we fix Crash Reporting?

- **OWI for devices that are throttle assist**
- **Crash reporting standards** for Bike/Ped Crashes – Police, Fire/EMS, and ER

Battery Safety Standards and Trade-ins



- **Battery Safety Standards** – (UL listed) to reduce risk of fire and explosions
- **Trade-in of illegal e-motos** to get off streets



Questions, comments, and discussion.

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