Outdoor Electric Assist Devices

Toys & Tools with Opportunity & Opposition

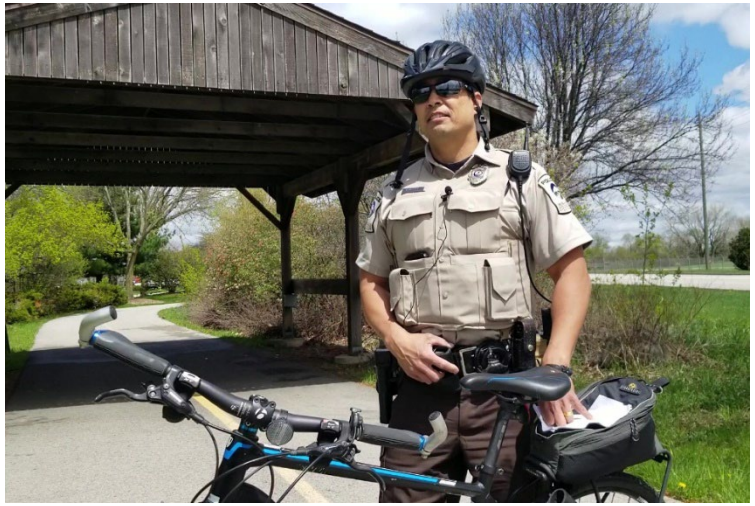



McHenry County Conservation District

Presented by John Kremer
Director of Operations, Planning & Public Safety

Evolution

2018 E-Bike Warning - Officer Montgomery
2021 One Wheel encounter - Chief King
2023 …. Time to Evolve

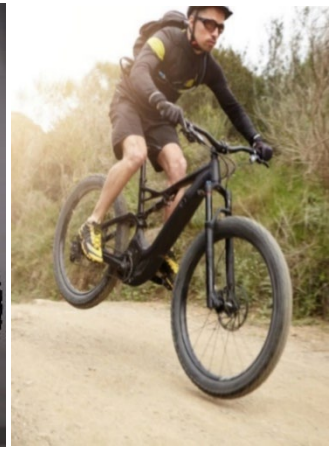


Electronic Recreational Devices

- Bikes
- Scooters
- Skateboards/hover boards
- Unicycles
- “Micro Mobility Device”

E-Bikes

Many Shapes & Sizes
Industry + States = Classifications
Unclassified = Unregulated

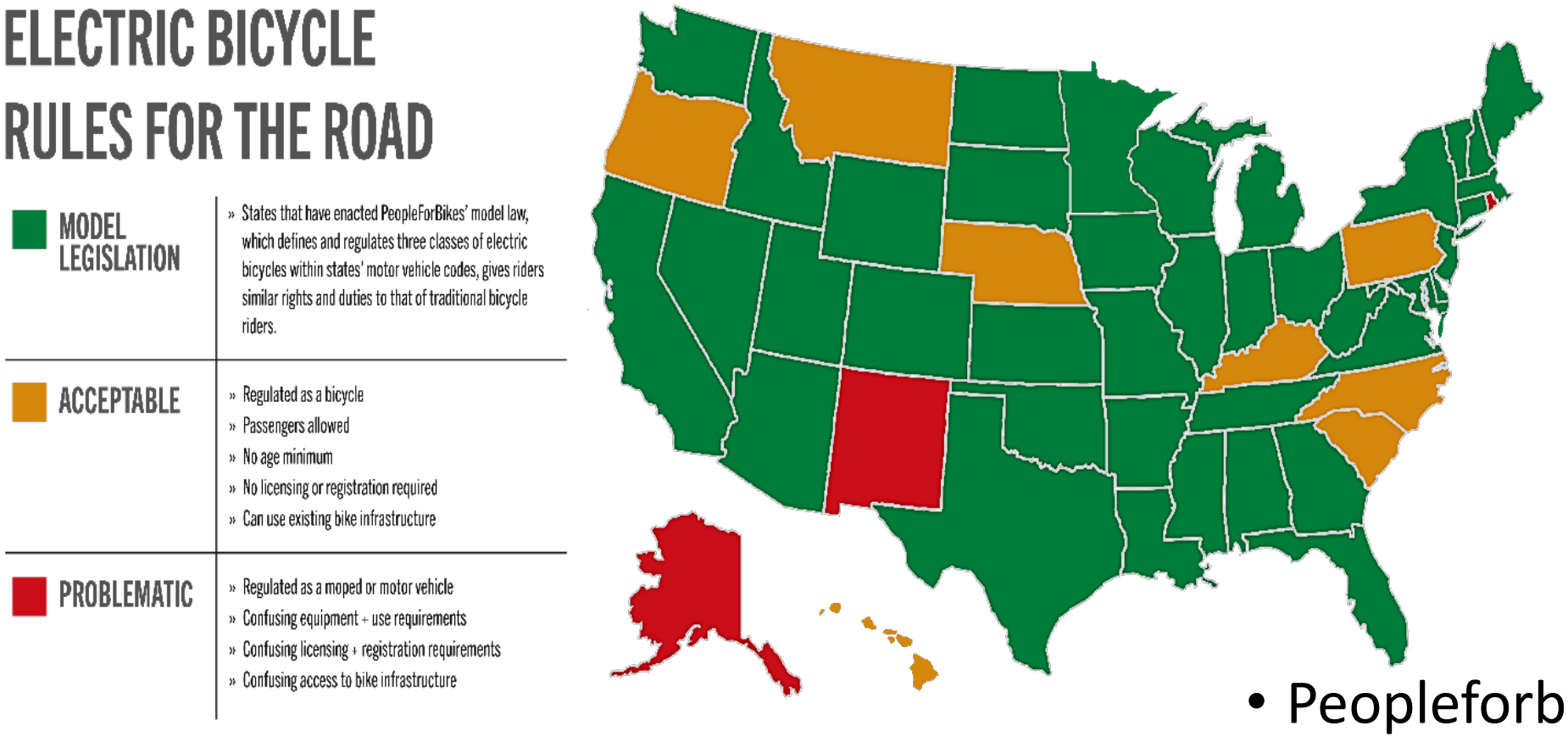


THE LEAGUE OF AMERICAN BICYCLISTS

Overview of the 3-Class System for E-bikes

	Characteristics		Regulations
Class 1 E-bike	Provides Assistance:	Only when pedaling	Generally treated like a standard bicycle.
	Top Assisted Speed:	20 mph	
Class 2 E-bike	Provides Assistance:	When pedaling or by throttle	Generally treated like a standard bicycle. May be restricted from shared use paths or trails.
	Top Assisted Speed:	20 mph	
Class 3 E-bike	Provides Assistance:	Only when pedaling	More likely to be restricted from shared use paths or trails. May require use of a helmet, have minimum age requirements, or be subject to other regulation.
	Top Assisted Speed:	28 mph	

Industry & States Work to Guide Approach



- Peopleforbikes


TOP 10
OFF ROAD
E-BIKE

Micro Mobility Device
No Classification = Challenges

- No limits; classifications; definitions
- Difficult to accommodate


OFF ROAD
PRO


BEST
OFFROAD
SCOOTERS


XR


MASTER

Evolving:
Human vs E-Assist powered

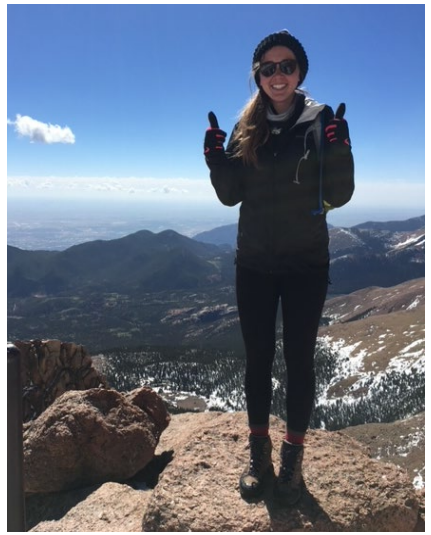
Fast and All Terrain Capable ***“Go where no “person” has gone before.”***

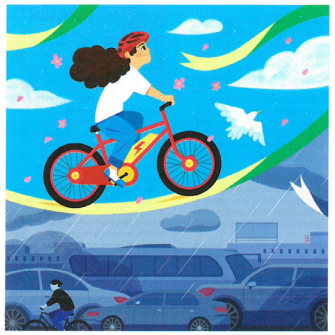



Opportunity
Alternative Transportation

Reduced Carbon Footprint
Less Resources Needed to Manufacture
Could replace 27% of Transportation Greenhouse Gas
Commuter Freedom

Bus = hour/Bike = ½ hour & no schedules





MATERIAL WORLD

Pedal to the Metal

BY DAVID ZIPPER

As e-bike converts will attest, zooming through your neighborhood and effortlessly conquering the steepest of hills is a total blast. The added storage capacity of e-cargo bikes makes them especially viable as vehicle replacements. And at about $1,000 for a solid entry-level electric bike (high-end versions and e-cargo bikes can be much pricier), they're affordable. Best of all, using an e-bike in lieu of a car helps reduce the whopping 27 percent of US greenhouse gases that come from transportation.

Why Get an E-bike

In 2017, British researchers offered 80 people in Brighton a free e-bike for up to eight weeks. The average participant drove 20 percent fewer miles while they had an e-bike, and afterward 70 percent of them said they wanted one of their own. Even in a country as vast as the United States, almost 60 percent of car trips are under six miles—and e-bikes offer powerful advantages for daily trips. Steep inclines, for instance, become a cinch. An e-bike's extra boost lets you comfortably match the speed of car traffic while en route to a meeting—and avoid arriving in a pool of your own sweat. Particularly for those with limited mobility (like Tour de France champion Greg LeMond, who is now designing his own e-bike), the addition of battery power can be life changing.

Every trip taken by e-bike instead of automobile is a win for the planet. Even electric cars require far more resources than e-bikes to construct and operate (at 1,800 pounds, the battery of the Ford F-150 Lightning weighs as much as 233 Rad Power e-bike batteries). And according to one market estimate, e-bikes now outsell electric cars in the United States; almost 800,000 were purchased in 2021. But a look across the Atlantic shows that much room for growth remains: Germany, a country with just about a quarter of America's population, sold 1.2 million e-bikes in the first six months of last year alone.

Opportunity
Fitness & Time Outdoors

Health Benefits of Physical Activity

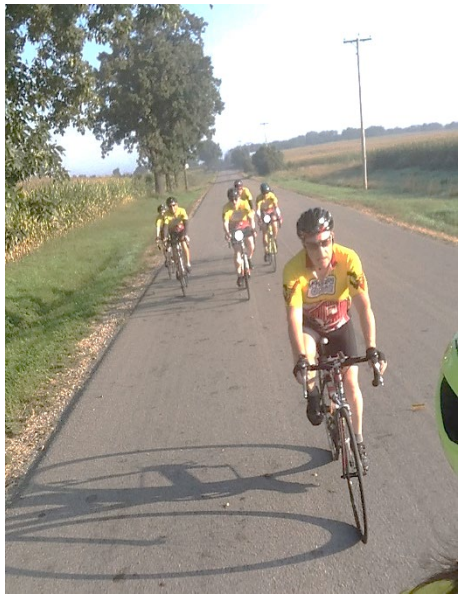
Mental Health Benefits of Being Outdoors

Opportunity: Users

Expanded User Groups

Seniors – Injured – Regain Fitness Level
Expanded Range - Extend Ability - Provide Opportunity



Opposition

Access and/or Impact on Remote Areas

- Bikes = History of managing
- Electric Micro Mobility Devises = Learning
- If it can….someone will!

Purest Perspective: Human vs E-Assist

Opposition
Speed/Experience

The inexperienced are now going <u>fast</u>.

- Past = Speed set by experience and person pedal power
- Now, a 10 year old is rolling 28 mph on a bike/60 mph on a scooter
- If it can …. someone will!

Opposition Safety Perspective

Very Limited Accident Data; E-assist vs Conventional

- One study by NPS shows a slight increase

NPS: NO!; then YES!; then Maybe; now study

Observations

- Cornering, Breaking, Safety Gear, Rules of the Trail

Peopleforbikes: *"It is important to practice with any new bike to feel confident starting, stopping and maneuvering."*

Evolving to Accommodate – E-Bikes

Managed Approach vs "Wild West"
Two Approaches – ride ILLINOIS

Require Pedaling vs Regulate Speed
Classification will guide
https://rideillinois.org/

Pedaling "motor bike vs bicycle"
Speed – Safety

More Resources

Peopleforbikes
- https://www.peopleforbikes.org/

The League of American Bicyclists
- https://www.bikeleague.org/

Evolving to Accommodate – Micro Mobility Devices

Wild West

- No Classifications, No Parameters, No Restrictions
- Result = Agencies just say “no”
- Hope Industry & States to Work Together

PDRMA Recent Perspective

Develop an Ordinance

- Defined Parameters
- Clear & Concise
- Unique to Circumstances
- Posted – Website

Model Ordinance Components

Fit to your intent

Forest Preserves of Cook County

- All bicycle and e-bike riders must travel... under 15 mph

- **These e-bikes are allowed on trails where bicycles are allowed** (except on single track mountain biking trails):
- **Class 1 e-bikes** – Electric bicycles …. when the rider is pedaling and stops assisting at 20 mph
- **Class 2 e-bikes** – Electric bicycles … without the rider pedaling and stops assisting at 20 mph

- **These e-bikes and other recreational devices are NOT allowed anywhere:**
  Class 3 + gas powered + electric powered recreational devices
  Defined

Enforcement

Keep Ordinance Simple = Enforcement Easier

- Speed vs Pedaling
- Problematic Areas: Safety Watch Program
- Safety Rather than Compliance
- Pick your Battles – Wide Open Trail vs Hills and Corners

The New Wheelchair

Rapidly Evolving Electronic Assist Devise

- Exciting Advancements
- Prototypes Now Being Produced
- No Longer Confined to Smooth, Mostly Level Surface


Extreme X8
Review


Tim

All Terrain Capable

Traverse Most Trails with No Accommodation

Recent NRPA Article:

“People have told us this is life changing”

Re-Think Public Access

Freedom

- Not just small loops.
- Full access to a site.

Ordinance Modifications

- Most agencies have a policy already.
  Time to review to anticipate new tool.
- Proof, operate safely, speed limits,
  where people could walk
- Be concise but vary with situation:
  Bike Trail vs Hiking Trail

Conclusions

E-bikes Have the Most Definitions = Easier

Micro Mobility Devices More Challenging

- Looking for help from the industry.

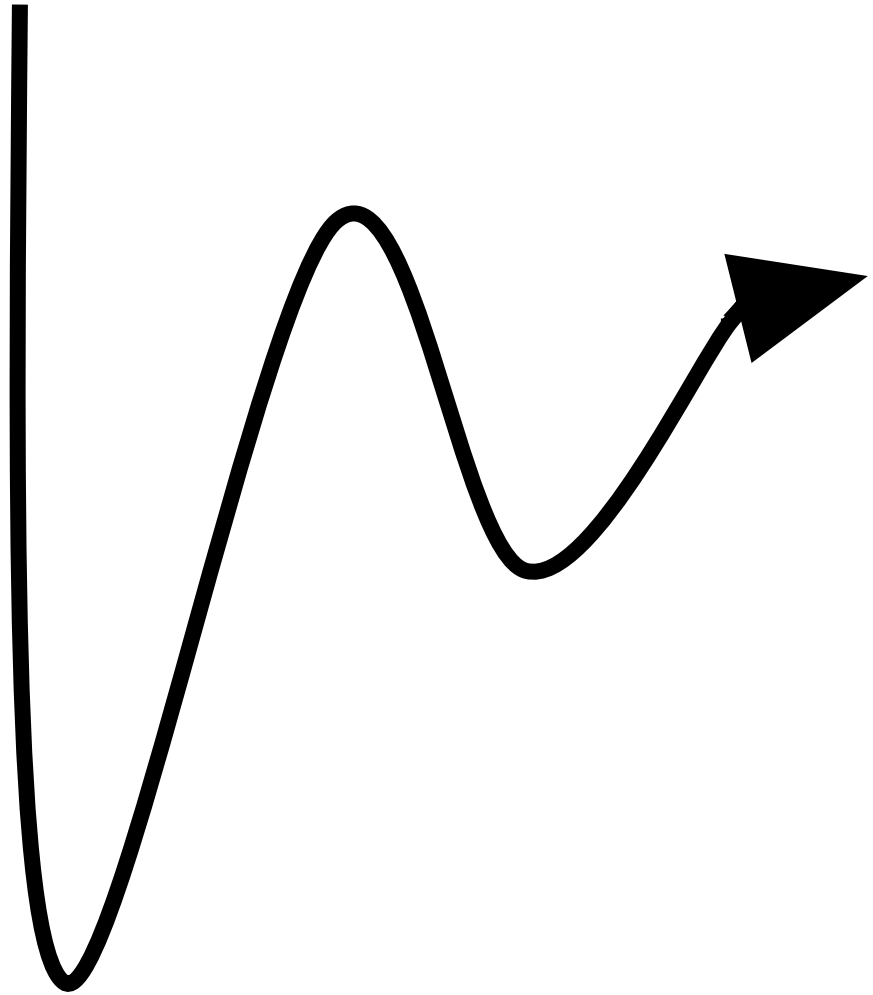
Ordinances/Policy Evolution

- Fit your situation
- Look to ride Illinois, PDRMA, and national bike organizations
- References

Electronic Assist Devises are Evolving

- Exciting for opening areas of parks/preserves
- Review ordinances

Questions



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