

# Hard Drive Magnets + Bicycle Parts = Generators

- ▶ Tens to hundreds of millions of hard drives (HDDs) get shredded annually (in the US/globally, respectively), including powerful magnets with rare earth elements.
- ▶ A consortium of industry players has called for novel designs that reuse these magnets in non-HDD applications, such as motors (which national labs are already working on).
- ▶ We propose a new generator design leveraging these magnets and recycled bicycle parts, initially human-powered.
- ▶ Benefits include disaster resilience, energy independence, fitness, and more equitable access to the benefits of electricity in areas without reliable power.
- ▶ The market of complementary products with low energy demands and high value addition has never been as wide as it is now, and it continues to grow.
- ▶ The market for disaster response has never been stronger, and unfortunately continues to strengthen, along with calls to decrease global inequities.