

How can the Army expand soldier power?

Veronika Stelmakh, the chief executive officer at Massachusetts-based Mesodyne, said the Army has been looking at solutions to expand soldier power for years -- from solar and wind energy to optimizing fuel cells.

How are companies tackling soldier power?

Companies are working with the Defense Department and independently to mature their technologies and turn them into products useful to the soldier. Members of industry gathered in April at the Army's VERTEX Energy conference in Austin, Texas to discuss their innovative technologies with service leaders tackling soldier power.

What devices will soldiers use in the future?

In future operating environments, soldiers will likely rely on multiple electronic devices that need continuous power, including communication systems, night-vision devices, weapons and situational awareness devices like the Nett Warrior system or upcoming Integrated Visual Augmentation System, according to the service.

What is the army looking for in a new technology?

The Army is looking at new technology that harvests energy from a variety of sources-- from the heat generated by a soldier's body to the fuel already widely used in the service -- to power troops on the go. The Army envisions a future where soldiers will be carrying even more high-tech equipment that will require batteries or other power sources.

How many batteries can a soldier carry in a mission?

This technology could boost current Army efforts to improve the lifespan of batteries used to power equipment. On average, a soldier will be carrying five to eight different batteries during missions, Villasenor said.

Can the Army use thermoelectric power?

One potential opportunity for the Army is thermoelectric power, said Douglas Tham, chief technology officer of Silicon Valley-based MATRIX Industries. Thermoelectric generators can convert the difference in temperature between two points into electricity.

Does the Military Throw Away Their Magazine in Real Battle? The Truth Behind Combat Reloads In the heat of battle, the question of whether soldiers discard partially empty ...

Through this project, we will investigate more on the various novel and green energy solutions, by exploring multiple electrochemical systems and fuel cells to recommend an energy-dense and ...

This is a collaborative proposal from 7 universities aimed at progressing the technology of kinetic energy

harvesting in order to reduce the battery burden on dismounted soldiers. Dismounted ...

Vibranium does not naturally absorb and store the way you see T'challa's armor functions, that required significant engineering and material processing to create. In its raw form it absorbs ...

Enter modern mobile energy storage systems - the Swiss Army knives of battlefield power. Take the NATO-funded "Power Vest" prototype: it stores energy in flexible solar panels sewn into ...

A man needs about a gallon of water a day, and more if he's working hard in the heat. Soldiers frequently are. Despite that, canteens are typically hold only one quart. So, at that rate, as of ...

But what if I told you mobile energy storage is doing the same thing for entire cities, construction sites, and even music festivals? Think of it as a giant power bank, but ...

High energy drink use was reported by one in six soldiers and was significantly related to mental health problems, aggressive behaviors, and fatigue in a military population ...

The versatility of military mobile energy storage power supplies allows forces to sustain prolonged missions without being tied to fixed power lines or vulnerable supply routes. ...

iStock, Defense Dept. photo-illustration The Army is looking at new technology that harvests energy from a variety of sources -- from the heat generated by a soldier's body ...

Energy and Stamina: Soldiers engage in rigorous training and operations that demand high energy levels. Consuming a balanced diet rich in carbohydrates, proteins, and ...

Mobile energy storage refers to an innovative solution that enables the efficient storage and transport of energy in a portable format. 1. Mobile energy storage involves the use ...

A fully integrated fuel cell/battery hybrid system offers the army a safe, lightweight power source for nonstop equipment operation by soldiers in the field as an ...

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