

# Future soldier programs – high specific energy needed

**B**ren-Tronics, Inc. is known and recognized worldwide for designing the first Li-ion rechargeable military batteries in 1995. Today users are using primary batteries less and less and confidence in rechargeable technology is growing every year, firstly due to the fact that they have been able to experience their durability in the field and also because the generation of today's war fighters use rechargeable batteries as part of their everyday life.

Even though current rechargeable Li-ion batteries give satisfactory performance, it has been very clearly stated that in the future, within 10 years, soldiers will not be able to recharge their batteries at their support zone if they are in combat missions.

The 2025 future soldier will need at least 48 hours of autonomy and will not be able to exchange for charged batteries at the logistic support. It has been reported by officials that logistic movements will not be undertaken if it can be avoided. In Mali today, in order for war fighters to change their batteries, a logistic movement is needed, and it involves an armed escort and associated vulnerability.

Consequently, the 2025 future soldier will absolutely need the highest available capacity batteries with centralized power and a recharging capability in the field.

Regarding available solutions to power the warfighter, it is all a question of specific energy. The image below shows the most used batteries within future soldier programs in the world with associated weight and available energy.

With over 14 years experiences in major Future Soldier Programs, Bren-Tronics offers a centralized battery for the dismounted soldier. These leading-edge technology battery systems drastically reduce weight and optimize running time. Today, our unique 10.8V SMP® and 14.4V NETT+® rechargeable battery family offers the highest energy density possible (+212Wh/kg) for a true wearable soldier power system.

Moreover, in 2020, to prepare for the future, Bren-Tronics has been participating in the development of the next generation of conformal battery in the United States.

Military power solutions must operate to the limits (or beyond). All Bren-Tronics products are designed, tested and manufactured to meet the most severe climate environment applications.

Bren-Tronics expertise remains focused where no one can compromise on safety, reliability and performance. ■

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