Fears of a Mobile Device Power Crisis Fade

When carriers, consumer electronics companies and often consumers themselves think about the batteries that their mobile lives depend upon, the general thought is trepidation: Will there be enough juice?

At the higher level, however, something interesting is going on in the world of batteries, according to a study released this week by Navigant Research. The firm says that the ascendency of mobile devices during the past two decades has driven the industry to grow and find new ways to keep the electricity flowing. In other words, the market has worked: Smart people have seen a need and fulfilled it.

Navigant reports that the market will reach $12.4 billion by 2023. The release says that portable consumer electronics devices are the largest segment in the portable power market, but that other segments are emerging:

The fastest growth over the next 10 years, however, will be seen in smaller niches, such as down-hole drilling for fossil fuels, rechargeable batteries for medical devices (including implantable devices), and wearable computing devices.

Navigant senior research analyst Sam Jaffe, in a response to an emailed question, pointed to continuing progress, and the fact that batteries have become an organic element of devices instead of an afterthought:

There will always be a need for a better battery. However, we are entering an age of battery chemistry and battery pack design that will increase the flexibility of the device while lowering costs and increasing the durability of the system. Engineers no longer design a device and then throw in a battery. The battery is becoming the building block for everything else in the device.

The Freedonia Group also recently released research on batteries. The firm divides the market into primary and secondary sectors. Overall, it is a bit more bullish than Navigant: It says overall value will increase to $17.1 billion in 2017. The distinction between the primary and secondary markets is not spelled out. What is clear, however, is that mobile devices are in the secondary group and that they will contribute greatly to the growth:

Despite a moderation in growth relative to the 2007-2012 period, secondary battery demand will climb faster than primary battery sales in a continuation of past market trends. The portable devices market, which registered the fastest growth of any market from 2007 to 2012, will continue to expand due to the popularity of high-drain devices (such as portable computers that utilize advanced battery chemistries like lithium-ion).

The release notes, however, that growth will be mitigated due to the saturation of demand for mobile devices.

The initial fears from the sector about battery shortcomings led to a tremendous amount of research on device powering. It still is ongoing. For instance, the University of Texas Arlington is working on windmills the size of a grain of rice that could eventually recharge batteries. But by and large, the threat of an immediate crisis is fading. Evidence of that can be found in many places, including a GizBot slideshow featuring 10 smartphones with the longest battery life.