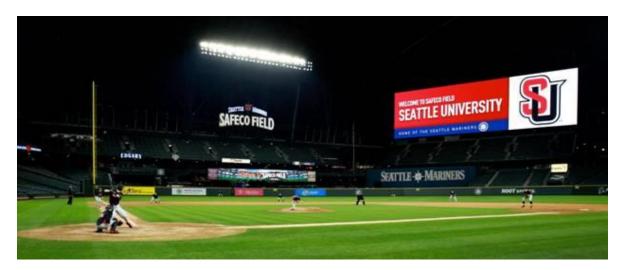


U.S. DEPARTMENT OF ENERGY

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SSL Is Stepping Up to the Plate in the Sports World

With spring training starting full-swing this week, baseball is on many people's minds. Fans in Seattle will get an added bonus at night games this season, because Safeco Field, home of the Mariners, has just replaced its 579 metal halide (MH) lights with 578 LED fixtures, to become the first Major League ballpark to illuminate the playing area with solid-state lighting. As a result, the field at night will be brighter, with more uniform coverage and fewer shadows, and will show colors better—making it a "whole new ballgame" for players and fans alike.



The Mariners expect the new lighting system to reduce energy usage by 60–70%, and the LED luminaires have considerably longer lifetimes than the MH lamps. What's more, the color rendering of the LEDs is expected to be better, and according to the Mariners the new system will allow for ultra-slow-motion replay without any flicker. Not to mention the fact that—unlike MH, which requires a 20-minute warmup—LEDs are instant-on.

Safeco Field is far from being the only sports venue to switch to SSL. This year's Super Bowl was played at the NFL Arizona Cardinals' home field, the University of Phoenix Stadium in Glendale, which converted to LED lighting last year. The Staples Center in Los Angeles, home of the NBA Lakers and Clippers and the NHL Kings, switched to LED last year, as did Philadelphia's Wells Fargo Center, home to the NHL Flyers and NBA 76ers. So did PNC Arena in Raleigh, NC, home

to the Carolina Panthers (NFL) and Hurricanes (NHL) —and NRG Stadium, where the NFL Houston Texans play. Arizona State University and the University of Notre Dame have converted their basketball arenas to LED. The Palace of Auburn Hills—home to the NBA's Detroit Pistons—is planning a switch to LEDs, and the New Minnesota Stadium being built in Minneapolis for the NFL's Minnesota Vikings will illuminate the field with high-performance LED lights and will be the first new stadium to announce construction with LED lighting.

The list goes on. But the larger point here is that LED lighting, which is gaining a foothold in a rapidly growing number of applications, has reached a level where it can perform as well as, or better than, the incumbent technologies in one of the most demanding settings imaginable: a high-stakes sporting event where hordes of rabid fans have paid big bucks to visually devour every move their favorite athletes make—and where those athletes need to see extraordinarily well in order to *make* those moves. The lighting requirements of stadiums and arenas play right into many of SSL's biggest advantages: the enormous wattages they consume magnify the financial rewards of energy efficiency; the high visual demands make directionality and high color rendering especially desirable; and the large number of fixtures, mainly in extremely hard-to-reach places, greatly increases the maintenance savings that result from long lifetimes.

So it's a sure bet that we'll be seeing even more arenas and stadiums making the switch to LED lighting, which will result in even more high-profile exposure for the technology. And that, in turn, will help drive adoption—and energy savings.

As always, if you have questions or comments, you can reach us at postings@akoyaonline.com.