

## CCEFP | THE CENTER FOR COMPACT AND EFFICIENT FLUID POWER

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## CCEFP'S FOCUS ON WIND POWER GAINING MOMENTUM

Insuring a place for fluid power in wind power technology is the latest example of the CCEFP's reach toward realizing two of its central visions: reducing our nation's energy usage and increasing the ways in which fluid power can improve our quality of life. Wide-scale use of wind as a power source is rich with potential, but because the generation of wind energy requires power and weight levels that are much higher than typical fluid power applications (500 kW-5 MW), both CCEFP-related research and teaching are vital in efforts to fully exploit this opportunity.

New research and reaching initiatives prove the point. Though centered at the University of Minnesota (UMN), headquarters of the seven-university network, three recently launched research projects stretch beyond this campus by involving additional university, government, and industry partners in Center-specific as well as associated research. An \$8-million grant to UMN from the Department of Energy for wind power research has led to the formation of an industry consortium (EOLOS), which will help in accelerating the study. Central to the project will be the experiments on an instrumented 2.5 MW Clipper Liberty wind turbine at the University of Minnesota facility at UMORE Park in Rosemont, Minn. On another research front, CCEFP Co-Direct Perry Li has just been awarded a \$2-million National Science Foundation (NSF) grant to study energy storage for wind power. Other partners on the grant include two former CCEFP researchers, Eric Loth of the University of Virginia and Jim Van de Ven of Worcester Polytechnic Institute, and Lightsail Energy, an energy storage company in Oakland, Calif. CCEFP Director Kim Stelson has received a seed grant to study hydrostatic drives for wind transmissions and is now actively seeking industry partners to form a consortium. Teaching next generations of engineers about the possibilities for fluid power is central to CCEFP's work, too. As one of many new classes now offered with this emphasis, a graduate-level course dedicated to the study of wind power has been introduced at the University of Minnesota.

*For more information, visit [www.ccefp.org](http://www.ccefp.org).*