

NREL and 3M Sign Agreement on Renewable Energy Research

The U.S. Department of Energy's (DOE) National Renewable Energy Laboratory (NREL) today announced a series of Cooperative Research and Development Agreements (CRADAs) with 3M, the St. Paul, Minn.-based technology company. The collaborative effort demonstrates both 3M's and NREL's commitments to meeting the nation's clean energy needs by developing technologies that are vital to producing large-scale sources of new renewable electricity and fuel at competitive costs.

The agreements between NREL and 3M establish joint investigations in three key areas of innovation: thin-film photovoltaics, concentrating solar power and biofuels.

The CRADAs range from jointly identifying and developing critical aspects of renewable energy technology to accelerated testing of 3M designs and scaling-up successful prototype technologies for commercial production. The agreements last for at least one year.

"CRADAs like these with 3M not only help shift the nation to clean energy, but they also establish and expand important partnerships for product development through technology transfer," NREL Senior Vice President of Commercialization and Deployment Casey Porto said. "3M's wide-ranging expertise and commitment in these fields makes this a key partnership for the laboratory."

"3M is excited for the opportunity to tap into NREL's expertise and understanding of a variety of solar modules and the interplay between the materials and systems," said Mike Roman, general manager and vice president of 3M Renewable Energy Division. "Also, NREL has pilot plant capabilities, which allow valuable application testing of 3M's biofuel distillation technologies in a controllable and scalable environment."

Areas of investigation and testing under the agreements include:

New moisture barrier films and flexible packaging for CIGS (copper indium gallium diselenide) thin film solar cells to increase module performance and reduce manufacturing costs

New reflective coatings to protect and enhance the performance of lower-cost mirrors used in concentrating solar power

New alternatives to ethanol biofuel distillation that will reduce energy and water use, and increase throughput in existing corn ethanol and future cellulosic ethanol production plants

About 3M

A recognized leader in research and development, 3M produces thousands of innovative products for dozens of diverse markets. 3M's core strength is applying its more than 40 distinct technology platforms – often in combination – to a wide array of customer needs. With \$23 billion in sales, 3M employs 75,000 people worldwide and has operations in more than 65 countries. Visit www.3m.com.

About NREL

NREL is the U.S. Department of Energy's primary national laboratory for renewable energy and energy efficiency research and development. NREL is operated for DOE by The Alliance for Sustainable Energy, LLC. Visit NREL online at www.nrel.gov

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