



Sustainable Energy Arm of International Research and Development Powerhouse Fraunhofer Joins DUNMORE's FastCert™ Program

Sustainable Energy Systems Laboratory Will Help DUNMORE Customers Improve Solar Module Reliability and Production Efficiency

BRISTOL, Pennsylvania -- July 14th, 2011 -- Fraunhofer CSE, part of one of the world's largest research and development organizations has joined DUNMORE Corporation's FastCert™ Qualification Program to help solar module manufacturers make their products more reliable and produce them more efficiently. Fraunhofer USA's Center for Sustainable Energy Systems (CSE) will consult with DUNMORE's FastCert customers on reducing the cost of producing solar modules by maximizing performance, and lowering material and manufacturing costs.

By working with Fraunhofer USA to support FastCert customers, DUNMORE is providing customers access to a network of research and development knowledge that spans 18,000 people at 80 research units in Europe, North America, and Asia. Recognizing how much impact solar module production costs have on the cost of solar power, Fraunhofer USA established a specific group within the CSE to focus on modules. The PV Module Group works with materials suppliers, equipment vendors and module manufacturers to increase module efficiency, improve lifetime and reliability, boost manufacturing output, and minimize installation barriers.

"DUNMORE's goals for FastCert align with our own goal of facilitating solar energy's expansion," said Dr. Christian Hoepfner, director of technical operations at Fraunhofer CSE. "That expansion hinges on simultaneously reducing costs and increasing performance, which is FastCert's precise focus and very complementary to the work we do here."

DUNMORE's FastCert program streamlines three key elements of the solar module development process, from concept through qualification and on to production:

1. **Product management:** DUNMORE works with the module manufacturer to optimize backsheet design and to define complete program details.
2. **Certification:** DUNMORE and Fraunhofer CSE provide product and program expertise to the module manufacturer prior to submitting any modules for certification. After submittal, Dunmore and Fraunhofer CSE support the module manufacturer in collaboration with the selected certification agency.
3. **Supply of PV backsheet materials:** DUNMORE works with the module manufacturer to assure the just in time (JIT) delivery of materials for all phases of the program. Continuous

improvement programs are put in place to assure a high level of customer service throughout the product life cycle.

FastCert can be used to effectively define milestones and advance projects with minimal associated time and cost. DUNMORE's experience in the photovoltaic arena combined with a rapid and efficient development process provides the environment necessary to expedite the solar module qualification process.

"Fraunhofer CSE has the knowledge to find efficiencies and improvements in every phase of solar module design and production," said DUNMORE Vice President John Jordon. "The advice they can provide to module manufacturers is another step toward lowering costs to make solar competitive with more established energy sources."

About DUNMORE

DUNMORE Corporation is one of the world's top engineered and laminated film companies. DUNMORE offers film conversion services such as coating, metallizing and laminating along with contract film manufacturing. DUNMORE produces coated film, metallized film and laminating film substrates for the photovoltaic, graphic arts, packaging, aerospace, insulation, surfacing and fashion industries. DUNMORE is privately held, ISO 9001:2008 and OSHA VPP certified. For complete information on DUNMORE's products, services and industries served, please visit DUNMORE's website:

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