

## **Renewable Energy Design Fueled by Autodesk Inventor**

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Green Innovations Like Sea-Powered Turbines, Hydrogen Generators and Solar Boats Achieved by Using 3D Design Software

SAN RAFAEL, Calif., July 26 /PRNewswire-FirstCall/ -- (Nasdaq: ADSK) As the world searches for new sources of energy, governments and companies are using Autodesk Inventor, the world's best selling 3D mechanical design software, to realize ideas in renewable energy. Renewable energy pioneers, including Marine Current Turbines, Hydrogenics Europe nv and Kopf Solardesign, have forged new paths to cleaner, more efficient energy resources through innovative engineering using Autodesk Inventor software.

(Logo: http://www.newscom.com/cgi-bin/prnh/20050415/SFF034LOGO

## http://www.newscom.com/cgi-bin/prnh/20050726/SFTU085 )

Energy consumption is expected to rise about 26 percent during the next 20 years in the United States, and likely to grow at least as quickly worldwide, according to the United States Department of Energy. As such, major innovations in alternative energy technology are necessary to support not only economic growth, but also to prevent environmental devastation. Autodesk is at the forefront of software providers helping engineers turn their visions of creating machinery that generates renewable energy into reality.

Marine Current Turbines Limited, located in the UK, is using Autodesk software to design turbines that generate energy from ocean currents. With the help of Autodesk Inventor, Autodesk Vault, and Ansys for Finite Element Analysis, Marine Current Turbines has reached development of a pre-commercial demonstrator system in less time and with half the costs of doing it in 2D. Since the software is widely used in the industry, it was easy for Marine Current Turbines to exchange ideas with engineers and subcontractors outside the company. "We are working towards a recognized design certification and the fact that Inventor stores and manages all CAD data with Autodesk Vault, and integrates well with our Ansys system for FEA, for example, is really helping us reach our goals here," said David Ainsworth, Project Manager. This flexible solution helped move the innovation process along quickly.

Hydrogenics Europe nv, a division of Hydrogenics Corporation from Canada, produces hydrogen generators on the principle of electrolysis. The company's vision is a future in which sustainable, reliable and efficient power technologies contribute to a healthier environment and a better global quality of life. Hydrogenics Europe uses Autodesk Inventor to improve the standardization of their designs of a containerized hydrogen generating unit. "Our dream is using green power (wind, sun, etc.) to deliver hydrogen for driving hydrogen fuel cell cars for pollution-free transportation, and Autodesk Inventor is helping us realize our vision," says Bert Engelen and Philippe Van Houdt, the draftsman team of Hydrogenics Europe.

Another renewable energy pioneer, Germany-based Kopf Solardesign, constructs solar boats using Autodesk Inventor for the design of all components. Designing in 3D simplifies communication with suppliers around the world because the visually intuitive medium transcends language barriers and reduces errors and miscommunication. Autodesk Inventor has helped the manufacturer to harness the power of the sun for cleaner, more efficient catamaran-style boats. Today its engineers rely on Autodesk Inventor for 3D modeling and analysis that goes farther than paper sketches, drafts or 2D design alone can to bring new ideas to life.

Autodesk is proud that its software enables innovators to create, manage and share designs that will become new sources of renewable energy. Autodesk Inventor improves ROI and shortens the learning curve for engineers, making them more productive. Using Autodesk Inventor, customers can lower the costs of renewable energy sources, making alternatives to non-renewable energy sources more viable.

## About Autodesk

Autodesk, Inc. is wholly focused on ensuring that great ideas are turned into reality. With six million users, Autodesk is the world's leading software and services company for the building, manufacturing, infrastructure, digital media and wireless data services fields. Autodesk's solutions help customers create, manage and share their data and digital assets more effectively. As a result, customers turn ideas into competitive advantage by becoming more productive, streamlining project efficiency and maximizing profits. Founded in 1982, Autodesk is headquartered in San Rafael, California. For additional information about Autodesk, please visit www.autodesk.com.

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