



# The Current - April 2012

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## MHELP offers no-cost financing for energy improvements

For a limited time, Maryland consumers can tap no-cost financing for energy efficiency improvements.

MARYLAND HOME ENERGY LOAN PROGRAM
advancing energy efficiency

Until July 1, the Maryland Home Energy Loan Program (MHELP) is offering 12-month, zero-interest loans with no payments required during the first 90 days. Property owners can apply the loans to energy-efficient heating and cooling equipment, efficiency upgrades such as duct- or air-sealing, geothermal systems or other clean energy technologies.

MHELP is a service of the Maryland Clean Energy Center and the Maryland Energy Administration, with support from the U.S. Department of Energy. It is operated in conjunction with industry partner, Mariner Finance.

Curt Mackinson, senior vice president of central operations at Mariner, said the offer gives consumers a unique opportunity to finance energy improvements at well-below-market rates. Borrowers who pay off their MHELP loans within 12 months, would never pay any interest. Those who require more time to repay loans, would begin paying either 6.99 percent or 9.99 percent interest (depending on whether they had an energy audit or not) after the initial 12 months.

Those rates, Mackinson said, are well below market rates for home improvement loans, which are averaging 14-18 percent. Some HVAC companies, he noted, are currently offering two- to three-year, same-as-cash loans. However, those loans only apply to heating and cooling equipment, and their default interest rates stretch up into the high 20s.

The 90-day, no-payment period, he added, gives property owners time to collect rebates on qualifying energy efficiency improvements before any loan payments are due.

Established in 2011, MHELP has awarded more than $1 million in low-interest loans to Maryland property owners to date. Part of Governor Martin O'Malley's Smart, Green, and Growing Initiative, MHELP is designed to help Marylanders take control of their energy future and stimulate new, green collar jobs.

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## Exchange sessions planned to facilitate networking at the Maryland Clean Energy Summit 2012

MARYLAND CLEAN ENERGY SUMMIT 2012
Making the Energy Technology Connections

The Maryland Clean Energy Summit 2012 is scheduled to take place on September 17, 18 and 19 at the BWI Airport Marriott. This is a not-to-be-missed conference for anyone interested in the future of clean energy and energy efficiency.

sessions to facilitate business partnerships and professional relationship building. Sessions will bring together entrepreneurs with investors, facilities managers with project developers, and policy makers with constituents. Product sellers will be invited to convene with project developers to showcase systems and solutions in the solar, geothermal, biofuel, biomass, wind, and energy efficiency industry sectors.

The full conference agenda along with information about sponsorship, exhibitor space and registration will be available online May 1st at www.mcecsummit.org/2012 or call the MCEC offices at 301-738-6280.

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## Explore green motoring and clean energy at the Solar & Wind Expo

Organizers of the Third Annual Solar & Wind Expo Mid-Atlantic plan to explore the present and future of alternative fuel vehicles – from cars to bicycles – on opening day, May 11 with a keynote address by MotorWeek host John Davis.


MotorWeek was one of the first mainstream media outlets to provide regular coverage of advances in green motoring technologies and the use of alternative fuels. After his talk, Davis will be joined by a panel of experts to discuss all types of alternative fuel vehicles, from plug-in cars to electric bicycles.

In addition to information about alternative fuel vehicles, The Solar & Wind Expo will bring consumers together with national and local companies that supply all types of renewable energy products and related services. The expo is a highly informative event for individuals who are looking to conserve energy and integrate renewable technologies – such as solar, wind and geothermal energies – both to save money and reduce their carbon footprint.

The expo will host a series of free, consumer-oriented seminars in addition to professional introductory courses for those who want to enter this growing field.

The Solar & Wind Expo also has launched an interactive website to help consumers make decisions about all forms of renewable energy.

The Solar &Wind Expo Mid-Atlantic is scheduled for May 11-13 at the Timonium Fairgrounds. For full information about hours, ticket prices, exhibitors and educational sessions, please go to The Solar & Wind Expo website.

The Maryland Clean Energy Center is a Gold Level sponsor of The Solar &Wind Expo Mid-Atlantic.

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## Clean Energy Briefs

### Forum to explore federal contract opportunities for sustainable companies

The Maryland Department of Business and Economic Development will host Contract Connections on May 14. This half-day forum will showcase business opportunities at military and civilian federal facilities in Maryland for companies involved in environmental sustainability and energy efficiency.

The event will be held at the NASA Goddard Space Flight Center in Greenbelt inside Goddards' new Exploration Sciences Building, a LEED Gold Certified facility.

For more information, go to the Contract Connections web site.

### *Nonprofits fuel Groundswell of support for clean energy*

In its largest clean energy initiative to date, D.C.-based nonprofit Groundswell has enabled 103 community groups, nonprofits and faith-based organizations across the District and Maryland to negotiate a collective energy purchase that will both save money and use 90 percent clean energy.

Groundswell began organizing group purchases of affordable clean energy for nonprofits two years ago. In 2011, the 38 organizations which participated in Groundswell's second collective energy purchase, reduced their energy bills by 12 percent while switching to wind power through Rockville-based Clean Currents.

### *Manufacturers explore energy-saving options*

The Regional Manufacturing Institute (RMI) of Maryland will host a Next-Gen Manufacturing Energy Forum, June 6 in Timonium.

The forum will bring together leaders from RMI's Green Team, the U.S. Department of Energy and the Maryland state and Baltimore County governments. It will share RMI's unique approach to energy management. A group of Maryland manufacturers – including Acadia Windows & Doors, General Motors, Lion Brothers, MarquipWardUnited, Green Bay Packaging and Kirk-Habicht Company – have already made significant energy improvements in their facilities.

For more information or to register, go to the Next-Gen Manufacturing Forum website.

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## Entrepreneur prepares to convert used tires into renewable energy

A Maryland entrepreneur is preparing to build a Baltimore facility designed to cleanly and profitably convert used tires into green fuel.

Richard Wurzbacher, founder and CEO of Maryland Green Fuels LLC (MGF), spent the last two years researching technologies, finances, regulatory compliance and market conditions to fulfill his vision to profitably convert waste to fuels. During that market study, Wurzbacher completed all requirements to identify private funding for his project.

Using a proprietary technology of advanced pyrolytic conversion, the MGF system heats the crumb and converts it into gas. Later, as the gas cools, the system separates the product into liquid fuels and solid carbon black. Contained within a closed loop, the system produces zero harmful emissions and no waste products, Wurzbacher said.

Fuels produced by the MGF system are advanced renewable hydrocarbon fuels, not bio-diesel, he said. The tire conversion produces 51 percent liquid fuel and 37 percent carbon black, a solid, elemental carbon that is used in multiple products, including rubber, plastics, coatings and printing ink. The remaining 12 percent of the production is methane synthetic gas which can be used to power the MGF system and enable it to operate independent of the grid, he added.

Wurzbacher notes that innovators have been converting used tires into oils since the late 1950s. Currently, multiple companies across the United States are engaged in tire-to-fuel conversion. Wurzbacher, however, says that MGF's system utilizes five process enhancements, enabling a significantly increased output of liquid fuels and carbon black.

Maryland Green Fuels, he said, has not accepted any government subsidies, but has attracted strong private lending opportunities.

The company is currently preparing to build a fully commercialized facility in Baltimore City. The facility which is slated to start production in the fall, is expected to process more than 3 million tires annually and produce 12 million gallons of fuel. Wurzbacher estimates the project will create at least 75 jobs.

"We are going to convert waste into valuable fuels and carbon byproducts," Wurzbacher said. "It is going to be great

for the environment and profitable without subsidy and we're going to create jobs too."

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## "Green mall" to showcase, advance green building products

Some small business owners are hoping to spark innovations in green building by literally coming together under the same roof.

A small group of entrepreneurs involved in lighting systems, green roofs, energy-monitoring systems and other technologies came together last September to create a networking group called Enviridus: The Green Building Technology Group.

A month ago, the group took the effort a big step further and leased a 12,500-square-foot property in Kensington to serve as a collaborative work environment, demonstration site and educational facility.

Derek Goldstein, a founder of the Enviridus, said the idea came from "green malls" that were originally created in Chicago. The malls showcased new technologies in green building while also providing a shared work space for green building companies.


The Kensington space which is currently being renovated to fit the group's needs, will include warehouse and office space, a large showroom, an education/demonstration space, and a media room. Designed to use resources efficiently and cut energy use, the facility will include green-building products and systems from member companies, such as solar lighting tubes, a living wall and energy monitoring

and control systems.

The space, Goldstein said, will create opportunities to demonstrate products and services for consumers, sales reps and potential corporate partners. It will host professional development classes, information sessions and webinars for both green building professionals and members of the public.

Above all, the space is designed to facilitate collaboration among companies involved in diverse aspects of green building, Goldstein said. The group's networking events, he noted, have already given rise to some collaborative efforts, such as a preliminary pairing of his company's energy-monitoring system with heating/cooling equipment, solar systems, day-lighting products and LED fixtures.

Additional collaborations between different green building companies could generate "a whole new menu of services that are green," he said. "Hopefully we will create some jobs and start to work on some really innovative stuff where our industries can merge."

For more information about Enviridus, check out the group's social media platform or contact Derek Goldstein at derek@casaplex.com or 240.388.0921, or Trevor Morrison at trevor@reinforcedskylights.com or 443.421.2278.

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## Attract investors to your clean energy venture

Learn how to pitch your clean energy project to potential investors.

That's the focus of the next Meetup event organized by the Clean Energy Technology Incubator (CETI), a joint creation of the Maryland Clean Energy Center and bwtech at the University of Maryland Baltimore County.


Scheduled for 3 pm, Tuesday, May 1, the session will feature several experts who can advise clean energy innovators on how to attract investment. The session will also give entrepreneurs an opportunity to practice their pitch to investors and receive constructive feedback.

For full details or to register for this event, please go to the CETI Meetup site.

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## Legislative session delivers mixed results for clean energy

Between the failed effort to enact offshore wind legislation and the passage of bills supporting solar developments, geothermal systems and electric vehicles, the 2012 session of Maryland's General Assembly delivered mixed results to the clean energy sector.

The solar industry lobbied successfully to pass legislation that accelerates implementation of the solar carve-out in the Renewable Portfolio Standard (RPS). Francis Hodsoll, Executive Director of the Maryland-DC-Virginia Solar Energy Industry Association, said the revision "provides stability for continued job growth and investment" in Maryland's solar sector while also reducing the state's need for peak energy plants.

The General Assembly passed legislation granting renewable energy credits (RECs) for thermal energy generated by geothermal systems. Jack Neil, the lead lobbyist on the bill, said the measure would "give consumers more incentive to replace inefficient heating and cooling systems" – a step that could take demand off the electricity grid and generate cost savings for residential and commercial property owners.

Meanwhile, the Chesapeake Bay Commission persuaded legislators to pass a bill enabling manure-to-energy systems to earn RECs for the thermal energy they produce. Kathy Magruder, Executive Director of the Maryland Clean Energy Center, dubbed the legislation a "win-win-win for sustainability. By passing this measure, policy-makers have provided an economic incentive for investment in biomass energy systems, a value-add that supports Maryland agriculture, and an opportunity to remove certain nutrients from the Bay watershed as a way to help restore this important environmental resource. "

During the 90-day session, legislators also pass a bill that could facilitate the installation of electric vehicle (EV) charging stations. Steve Arabia, Director of Government Relations for NRG, said the bill clarifies the definition of "electricity suppliers" and "public service companies." Consequently, it "establishes that private, non-utility entities, such as EV-charging service providers, will be exempt from the regulatory processes that retail energy service-providers face," he said.

Legislators passed bills that create a regulatory framework for shale gas extraction and extend Green Building certification and tax credits to residential structures.

Legislators, however, rejected clean energy bills that would:

- Enable the creation of community-based, renewable energy projects;
- Create a production tax credit for biofuels;
- Establish enterprise zones for emerging green businesses;
- Award RECs for thermal energy generated by a broad range of biofuel systems;
- Mandate the disclosure of a property's energy bills during a real estate transaction;
- Require a certain percentage of solar production in the RPS to come from small-scale projects;
- Create an "on-bill financing" program that would enable individuals to pay for energy efficiency improvements through their utility bills;
- Create sustainable energy utilities to assist in financing clean energy and energy efficiency projects; and
- Create a legislative framework to permit wind energy developments off Maryland's coast.

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## Maryland begins to embrace thermal RECs

Despite the legislature's mixed record on clean energy bills in 2012, Maryland is gradually embracing the practice of awarding renewable energy credits (RECs) for thermal energy.

Delegate Dana Stein said the concept often meets with skepticism in Annapolis. Some legislators believe the Renewable Portfolio Standard (RPS) should apply to electricity only, and not to clean energy sources that heat and cool buildings.

Heating and cooling, however, accounts for roughly half of all energy used in buildings.

"To the extent that you want to encourage all forms of clean energy, it makes sense to broaden energy sources qualifying for RECs to include electricity and thermal," Stein said.

The General Assembly, he noted, has taken a few steps in that direction. It passed legislation last year awarding RECs to solar hot water systems. This year, it passed bills awarding RECs for the thermal energy produced by manure-to-energy and geothermal systems.

Stein worked unsuccessfully to pass legislation that would have awarded RECs for thermal energy produced by a wide range of biomass systems, including clean-burning wood stoves.

The delegate, however, plans to establish a working group to research thermal RECs and develop supporting legislation before the next session of the General Assembly.

“The fact that more of our elected leaders now clearly see the link between thermal energy and the rest of our overall energy portfolio is very encouraging,” said Dan Rider, program manager of the Maryland Forest Service. “It’s just plain common sense that if we use low-cost fuels to meet low-value energy needs, we can redirect the high-cost

fuels to higher value uses. Working out the details is the trick, and clearly the legislature sees the need for doing that. I'm optimistic that Maryland will soon join the ranks of other states that have done so successfully."

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