Science for a Sustainable World

Dow people are the world’s best problem-solvers focusing on the world’s biggest challenges. Our commitment to Innovations for Tomorrow, Partners for Change, Smart Solutions for Today and Responsible Operations delivers results that are good for business and good for the world.

This issue includes:

Innovations for Tomorrow

Partners for Change

Smart Solutions for Today

Responsible Operations

Goal Updates

- Sustainable Chemistry
- Addressing Climate Change, Energy Efficiency and Conservation
- Product Safety Leadership
- Breakthroughs to World Challenges
- Contributing to Community Success
- Local Protection of Human Health and the Environment
Innovations for Tomorrow
We contribute to the sustainability of society and our planet by developing innovative technologies for current and future markets.

Department of Energy Names Dow to Lead Research and Development Team
The U.S. Department of Energy (DOE) has selected Dow Building & Construction, a business group within Dow’s Advanced Materials Division, to lead a multi-year project that will combine research and residential in-home testing to develop enhanced home energy efficiency retrofit solutions and best practices. Of the 15 research and deployment partnerships named by the DOE, Dow was the only private sector manufacturer asked to lead a research, development and deployment team. See Breakthrough to World Challenges goal update in this report for more information, and read more on dow.com (http://news.dow.com/dow_news/prodbus/2010/20100729a.htm).

Dow Introduces World’s First Halogen-Free Solution for Flexible Cords
Electronics original equipment manufacturers (OEMs) looking for PVC alternatives to make flexible cords now have options thanks to the introduction of DOW SUSTAIN™ halogen-free compounds. Developed by Dow Wire & Cable, DOW SUSTAIN offers the first PVC and halogen-free compounds that meet key global industry standards for continuous operating temperature, low smoke and heat deformation. Four different product grades for jacketing and insulation are now available in sample quantities for producers of wires, cables and cord sets for personal electronics, computers, gaming systems, and large and small appliances, TVs, DVD/DVR devices, etc. Read more about this on dow.com (http://news.dow.com/dow_news/prodbus/2010/20100930a.htm).

Dow Solar to Begin Hiring for Midland Plant
Dow announced the creation of 100 new, full-time jobs to support the development of its revolutionary DOW™ POWERHOUSE™ Solar Shingles at its facility in Midland, Michigan.

This is the result of continued collaboration between Dow, the state of Michigan and the city of Midland to accelerate production of the shingles and create new, advanced manufacturing jobs that are helping make Michigan a “green tech” hub of the new U.S. economy. Read more about this on dow.com (http://news.dow.com/dow_news/corporate/2010/20100913a.htm).

Dow Venture Capital to Invest in New Technologies for Wind Energy
Through its Venture Capital group, Dow announced it has made a minority equity investment in Blade Dynamics Ltd., a designer and manufacturer of advanced wind turbine blades based on proprietary materials and structural technologies. Founded in the United Kingdom in 2007, Blade Dynamics has developed wind turbine blade technologies designed to increase the efficiency and performance of wind turbines, while also reducing costs. American Superconductor Corporation (AMSC), a global power technologies company, also has established a minority equity position in Blade Dynamics. Read more about this on dow.com (http://news.dow.com/dow_news/prodbus/2010/20100817b.htm).

Dow’s Midland Corporate Center Completes “Green” Roof Project
July marked the completion of Dow’s “green” roof project. The project began in 2009 with the removal of 18,000 square feet of existing roof and the installation of a new, protective barrier before the winter weather arrived. Phase two of the project was completed in March as the team tied up loose ends and began preparing for the delivery of the vegetation, which began in June. The new vegetative roof was provided by Dow Roofing Systems. It is a made up of a waterproofing membrane, STYROFOAM™ brand insulation and vegetated roofing modules provided by LiveRoof®.
Dow Showcases New Solutions at European Photovoltaic Solar Energy Conference

Dow showcased its new solutions designed for photovoltaic manufacturers at this year’s 25th European Photovoltaic Solar Energy Conference and Exhibition (PVSEC) in Valencia, Spain. Dow’s photovoltaic solutions can help increase solar cell efficiency and solar module durability, improve device performance at lower cost, and enable widespread adoption of solar energy. Solutions being showcased include:

- Dow’s ENLIGHT™ cleaning, texturizing, imaging and metallization solutions to enhance performance in solar cell manufacturing
- Dow’s ADCOTE™ and MOR-FREE™ adhesives for module fabrication for long-term durability with improved environmental profile
- Dow’s new innovative ENLIGHT™ polyolefin encapsulant films used as protective encapsulants help lower total module system costs and provide for improved productivity and extended reliability
- DOWTHERM™ and SYLHERTM heat transfer fluid solutions for solar grade silicon production
- Dow’s Polyglycol CF fluid for a higher quality experience in slicing silicon wafers

Partners for Change

We are leaders in advancing all aspects of sustainability, openly collaborating with customers, suppliers, communities, civil society and governments.

Dow Named for Tenth Time to Dow Jones Sustainability Index

The Dow Jones Sustainability World Index announced its rating of Dow as one of the top performers in the global chemical industry – marking the tenth time Dow has received this recognition since the launch of the Index. Dow was one of only nine chemical companies to be recognized in the World Index. Dow achieved the highest possible score for Operational Eco-efficiency and Environmental Reporting and the highest score in the sector for Standards for Suppliers. The Company’s overall score was 83 percent – 28 percentage points higher than the average for the industry group. Read more about this on dow.com (http://news.dow.com/dow_news/corporate/2010/20100909b.htm).
Dow Recognized in *Newsweek* Green Rankings and Global 1000 Sustainable Performance Leaders

This year’s *Newsweek* Green Rankings have been released. Dow achieved the highest reputation score in the Basic Materials Sector, based on a survey of experts conducted by CorporateRegister.com. Dow ranks 197th among the top 500 U.S. companies. This is the second year for the Green Rankings, which are based on an assessment of environmental footprint, environmental policies and reputation.

Dow was also named to the Global 1000 Companies as evaluated by CRD Analytics. This forced-ranking approach is applied to larger market capitalization companies who have produced a publicly available Corporate Sustainability Report (CSR) with full-year environmental, social and governance (ESG) data. Dow jumped 60 places from the prior year’s assessment by CRD Analytics and is now ranked 55th in this assessment. The assessment involves four performance dimensions: financial, environmental, social and governance.

Dow Latin America Sustainability Week Convenes Thought Leaders to Address Regional Challenges

A unique collaboration sponsored by Dow’s Latin America leadership team brought together Dow businesses and regional governments, universities, private companies and NGOs to collaborate on solutions to sustainable housing in Mexico, integrated waste management in Argentina, and sustainable livestock production in Brazil. Each regional solutions network convened to define the context of their shared challenges and debate barriers and breakthroughs required to achieve sustainable means of operating. Themes were carefully researched and prioritized according to criteria that included the level of collaboration needed, benefits for broader public timelines for implementation and the potential economic impact for all the participants.

Dow Brazil Joins Global Superior Energy Performance Partnership

At the first-ever Clean Energy Ministerial in Washington, D.C., representatives from 23 countries and the European Commission launched a new public-private partnership to accelerate energy efficiency improvements. Dow’s industrial complex in Guarujá, in the state of São Paulo, Brazil, is among those participating from Dow in the new Global Superior Energy Performance (GSEP) Partnership. The GSEP Partnership is a public-private effort bringing together businesses, governments and other organizations to accelerate energy efficiency in commercial buildings and industrial facilities. Read more about this on dow.com (http://news.dow.com/dow_news/corporate/2010/20100720a.htm).

Dow, MAG and Astraeus to Advance Wind Industry Technologies

Dow, Astraeus Wind Energy Inc. (AWE) and MAG Industrial Automation Systems (MAG) announced a project that will be a catalyst for the advancement of the wind industry enabled by funding from the state of Michigan. The companies have signed an agreement to collaboratively develop material-enabled automated manufacturing solutions focused on improving and enhancing the manufacture of wind turbine blade components and finished blades for the wind industry. Read more about this on dow.com (http://news.dow.com/dow_news/corporate/2010/20100915b.htm).

Dow Employees Participate in Habitat for Humanity’s 27th Annual Jimmy Carter Work Project

Dow employees in Washington, D.C., and Minneapolis and St. Paul, Minnesota, joined nearly 3,000 volunteers from around the world to support Habitat for Humanity’s 27th annual Jimmy and Rosalynn Carter Work Project (JRCWP). The JRCWP is the most widely recognized annual Habitat event, and this year it coincides with World Habitat Day. This year 86 homes were built and weatherized during the week-long project. Since its inception in 1984, the JRCWP has resulted in the construction and rehabilitation of more than 3,000 homes by more than 64,000 volunteers from all over the world. Dow Building Solutions provided Gift-in-Kind donations in excess of $145,000 in STYROFOAM™ brand insulation, GREAT STUFF™ foam sealants, and SAFETOUCH™ formaldehyde-free batt insulation. These products will provide significant benefit to Habitat homeowners including lower monthly utility costs, which are often the second highest payment after the mortgage itself, and will improve the indoor living environment with comfort and enhanced air quality.
The American Australian Association Awards 2010 Dow Chemical Company Fellowship

The American Australian Association has awarded its 2010 Dow Chemical Fellowship to Peter Macreadie, from the University of Melbourne/University of North Carolina-Chapel Hill. The American Australian Association awards 12 fellowships to leading Australian post-graduate scholars to undertake research and study on environmental sustainability, urban development, immunology, stem cells, neurology and pediatrics at prestigious American institutions such as MIT, Harvard and Yale. Macreadie’s research interest is environmental sustainability – adaptive coastal management. He is well-published in top-ranking journals and has received numerous awards and scholarships in recognition of the quality of his research output.

Dow Provides Support to Pakistan Flood Humanitarian Relief and Recovery

More than 17 million people to date have been affected by monsoon flooding in Pakistan, and Dow has joined in the relief effort by offering humanitarian assistance through financial aid to the United Nations World Food Programme (WFP). Dow is assisting in the flood relief by donating to the WFP, the largest humanitarian agency fighting hunger. In the past month, WFP has provided food rations to flood-affected families, reaching 2.2 million people with more than 28,000 tons of U.S. food.

Dow’s Energy Leadership Supports Global Energy Efficiency Standards

Through our energy efficiency initiatives, Dow has saved more than $9 billion since 2005 on an investment of less than $2 billion. Dow’s leadership continues to be recognized through participation in the Global Superior Energy Performance (GSEP) Partnership. This new public-private partnership to accelerate energy efficiency improvements was recently launched at the first-ever Clean Energy Ministerial in Washington, D.C., representing 23 countries and the European Commission.

Dow Chemical Canada Partners to Increase Biodiversity Awareness

Dow Chemical Canada ULC has formed a new community partnership with the Robert Bateman Virtual Hike (Get to Know) program at the Ellis Bird Farm. The Get to Know program provides cutting-edge interactive educational initiatives and active outdoor experiences for young people in an effort to foster a continent-wide shift in thinking towards an understanding that conserving biodiversity is our shared responsibility.

Smart Solutions for Today

Our technologies enable our customers, and their customers, to develop more sustainable products and services.

Dow Coating Materials Presents Advances in Wood Coatings at PRA Woodcoatings Congress

Senior technical experts and business leaders from Dow Coating Materials presented two timely technical papers at the PRA 7th International Woodcoatings Congress, held at the Mercure Hotel Amsterdam Aan de Amstel (NL) on October 12-13. This year’s theme centered on reducing the environmental impact of coatings and treatments for interior and exterior wood applications. Dow Coating Materials – the largest global supplier of raw materials for the coatings industry – featured two distinct technologies that enable environmentally advanced wood coatings for industrial and architectural application.

Dow and Interfilm Improve Sustainability of Window Envelope Films

Dow and Interfilm Holdings Inc. are improving the sustainability of window envelope films with the purchase of renewable energy credits (RECs) to offset the conventional energy expended at Dow’s Hebron, Ohio, plant in the production of PROCITE™ Window Envelope Films. The RECs are certified through a third party, and comply with the United States Environmental Protection Agency regulations and audit processes. Purchasing RECs is an immediate and cost-effective way to help reduce the environmental impact of conventional electricity generation. For every REC purchased, one megawatt-hour of renewable electricity is generated and delivered to the power grid.
Dow Launches Clean and Efficient Bathtub Reinforcement Technology
Dow Formulated Systems announced the launch of the DURELAST™ Bathtub Reinforcing System at the K2010 Exhibition in Düsseldorf, Germany. DURELAST technology offers bathtub manufacturers a cleaner and more efficient production process by reducing overspray and waste when compared to traditional methods. The polyurethane-based system creates a fine mist-like spray, which lessens the overspray and saves time on trimming. Health and safety advantages are also achieved through the elimination of both noxious odors and the handling of glass fibers. Read more about this on dow.com (http://news.dow.com/dow_news/prodbus/2010/20100930b.htm).

PM100 Award Recognizes Dow Innovation in Energy Conservation
Dow’s Analytical Technology Center (ATC) delivered an online analyzer for advanced combustion measurements that can optimize fired equipment to be more energy efficient and safer, and to reduce emissions. This project won the Progressive Manufacturing 100 Award for Innovation Mastery. The team at ATC made advances in tunable diode laser (TDL) technology. The result was the biggest innovation in the online analyzer market since the invention of zirconium oxide analyzers in the early 1980s.

Dow Global Rolls Out Electronic Health Record System
Dow licensed the Enterprise Health system from Medical Informatics Engineering (MIE) for its global employee health clinics. This advanced health information technology allows the company to be more efficient and effective in serving Dow employees. Since efforts began in 2007, the electronic health record (EHR) has been successfully deployed at internal clinics in Dow’s North American worksites and in India. Over the next several years, WebChart Enterprise Health will be implemented at all Dow worksites worldwide. The system provides an integrated package that enables employee on-line scheduling, on-line completion of health history and information forms, tracking compliance with regulatory requirements and linking to other tools and resources to improve health and decision-making.

Responsible Operations
Our infrastructure has a positive impact on our company, our communities and ourselves. Our operations are a model for others, wherever we operate.

Dow Receives Robert W. Campbell Award
The National Safety Council presented Dow with its prestigious 2010 Robert W. Campbell Award at the annual National Safety Council Congress & Expo in San Diego, California. Given each year to a single winner, this international award recognizes a company that upholds Environment Health and Safety (EH&S) as a key business value and clearly links measurable achievement in EH&S performance to productivity and profitability. Dow is the ninth company — and the first chemical company — to earn this award. The National Safety Council’s rigorous examination of Dow’s EH&S standards, practices and performance required sharing five years of safety and business data and providing unfettered access to its manufacturing sites. Read more about this on dow.com (http://news.dow.com/dow_news/feature/2010/10_04_10a/index.htm).

Dow Named to Carbon Disclosure Leadership Index
For the sixth year, the Carbon Disclosure Project (CDP) has named Dow to the “Carbon Disclosure Leadership Index,” reinforcing Dow’s leadership in energy efficiency and its commitment to innovative climate change solutions that contribute to human progress and the growth of its business. CDP has included Dow in the index in recognition of Dow’s internal data management and its understanding of climate change-related issues affecting the company.
Dow Leads International Capacity Building Workshops in Emerging Markets

Through its work with the International Council of Chemical Associations (ICCA), the worldwide voice of the chemical industry, Dow shares its best practices in environment, health and safety; chemicals management; and product stewardship at capacity or capability-building workshops across the globe. From early this year through October, Dow experts made presentations at eight workshops in Korea, Dubai, Thailand, Russia and Turkey. Dow’s experts played key roles in teaching small- and medium-sized companies how to assess the safety of their products, conduct product stewardship with their customers and develop product safety assessment summaries for public audiences. In 2011, in coordination with the ICCA, Dow plans to participate in capacity building workshops in Asia, South America and Eastern Europe, and outreach in Africa.

Dow Sponsors 2010 International Coastal Cleanup Event

For almost a quarter of a century, Dow has been a partner with the Ocean Conservancy’s International Coastal Cleanup (ICC), which focuses on finding solutions to eliminating pollution in our ocean and waterways. During the ICC 2010 event on September 25, more than half a million people removed millions of pounds of trash from beaches and waterways in more than 100 countries. Dow played a role by sponsoring events through donations and volunteerism in Texas, Brazil, Argentina, Mexico, Colombia, Singapore and Thailand, among other locations.

Dow Named 2010 Finalist for Prestigious U.S. Chamber Award Honoring Corporate Caring

The U.S. Chamber of Commerce Business Civic Leadership Center has named Dow as a finalist for a 2010 Corporate Citizenship Award in the category of International Community Service. The awards have been presented every year since 2000 and are the nation’s premier recognition for companies that care. Dow is being recognized for its commitment to provide safe, affordable, energy-efficient housing to families worldwide through Habitat for Humanity. Since 2005, Dow has contributed almost $14 million in financial and product contributions to Habitat home builds internationally, impacting more than 25,000 homes. Read more about this on dow.com (http://news.dow.com/dow_news/corporate/2010/20100915a.htm).

Responsible Care® Award for Dow Stade and the Himmelpforten Kindergarten

The Chemical Industry Association North (VCI-NORD) has awarded Dow Stade and the Himmelpforten Kindergarten with a Responsible Care® Award for the joint project: “Dorf des Wissens” (Village of Knowledge). Dow Stade supported the Himmelpforten Kindergarten in constructing this “village” with expertise, employee hours and a significant donation. The objective of this innovative educational campaign is to introduce young children to the basic natural laws of science via interactive experiments. This is the first year this special prize has been awarded.
**Goal Updates**

**Sustainable Chemistry**

The Sustainable Chemistry Index (SCI) was recalibrated taking into account the Rohm and Haas integration as well as corrected and updated information from 2009 data reviews more accurately reflecting actual company performance. Absolute SCI for company aggregate performance has increased slightly, and the overall trend of a dip in 2008 and increase in 2009 is consistent with the historical performance. For the Sustainable Chemistry Index, aggregate company performance increased by 1.1 points for 2009 sales from 20.1 for 2008 to 21.2 in 2009 with a 2007 baseline of 20.4. This improvement reflects improved manufacturing efficiency, as asset utilization improved and new product lines entered the company portfolio from the Rohm and Haas acquisition. The overall sales mix of the company is evolving toward those with better performance, which fits the company sustainability strategy.

The percentage of sales from products with Highly Advantaged sustainable chemistry performance increased from 1.7 percent in 2008 to 3.4 percent in 2009, further reflecting the transformation of the company. As part of the recalibration, Dow made the requirements for these Highly Advantaged sales more aspirational to further challenge the company. The company target for Highly Advantaged sales remains 10 percent, but that is now a five-fold increase over the recalibrated 2007 baseline, instead of the two-fold increase targeted previously.

Our progress and contributions to the world in sustainable chemistry continue to have real business impact while garnering third-party recognition. In June, we took home our unprecedented seventh Presidential Green Chemistry Award for our hydrogen peroxide to propylene oxide (HPPO) technology, jointly developed with BASF.

For examples of Dow’s Sustainable Chemistry in action please see the Innovations for Tomorrow and Smart Solutions for Today sections.
Addressing Climate Change, Energy Efficiency and Conservation

In 2009, Dow’s comprehensive efficiency efforts resulted in additional, cumulative energy intensity and bottom line cost savings, despite continued fluctuation in energy prices. Since 1990, Dow has reduced its energy intensity by 38 percent. And, since 1994, the Company has saved over 1,700 trillion BTU of energy, enough to supply the residential electrical needs of the state of California for one year. During that time, Dow reduced its absolute greenhouse gas emissions by 20 percent – well beyond Kyoto targets. This has prevented approximately 90 million metric tons of CO2 from entering the atmosphere – a clear demonstration of the power of energy efficiency. Through the end of 2009, savings due to improved energy intensity now exceed $9.2 billion on less than $2 billion investment.

By 2025, we aspire to reduce absolute emissions within the company. The chart above demonstrates that we have begun to do just that – absolute emissions have been reduced in 2007, 2008 and 2009. The estimate for Dow’s absolute GHG emissions in 2009 is 41.4 million metric tonnes. This is 4 percent less than the GHG emissions in 2008.

The other direct emissions are primarily related to foaming agents used in the manufacture of insulating materials.

During the first ten-year goal period, the Energy Intensity (Btu/lb) of global operations was improved by 22 percent. By 2015, we have a goal to achieve an additional 25 percent improvement. The average Energy Intensity of year 2005, adjusted for mergers and acquisitions, is the basis for calculating performance against this target. Our goal for Energy Intensity for the full year of 2010 is 5,397 Btu/lb, or 87.5 percent of the value in 2005. Our actual performance through 3Q 2010 was 6,010 Btu/lb, which is 97 percent of the 2005 baseline.
Dow’s greenhouse gas (GHG) emissions intensity during 2009 was 0.88 metric tons per metric ton of production. This is about a 5 percent increase in intensity from 2008. The increase is largely due to the impact of operating at lower rates throughout 2009 compared to prior years. By improving energy efficiency and implementing technology improvements, Dow’s goal is to reduce GHG intensity 2.5 percent per year from 2005 to 2015.

Kyoto GHG intensity is the sum of CO2-equivalent direct and indirect emissions of the Kyoto family of greenhouse gases divided by production. Indirect emissions are the consequence of Dow’s consumption of energy, but are emitted from sources controlled by another company. This report is the first time that the GHG intensity metric is being reported based on defining production as the total volume that leaves the site of company operations.

Dow Makes Headlines for Alternative Energy Leadership

In two recent articles, Dow was recognized for its leadership in Michigan’s burgeoning alternative energy industry. Business Facilities magazine ranked Midland, Michigan, third nationwide in the category of alternative energy industry leaders. Business Facilities Editor-in-Chief Jack Rogers said in a statement that the magazine “was particularly impressed with Dow’s plans for wind, solar and alternative battery projects and with the state’s commitment of more than $60 million in tax credits.” An article in Alliance to Save Energy featured another example of Dow’s commitment to sustainable energy solutions. The Alliance featured Dow’s collaboration with Cobblestone Homes in constructing Michigan’s first affordable “net-zero energy” home.

Product Safety Leadership

Dow Leads Industry Transparency on Product Safety Assessments

As part of its 2015 Sustainability Goals, Dow committed to make Product Safety Assessments (PSAs) publicly accessible for all of its products, and other companies are starting to follow its lead. As of October 2010, Dow surpassed a milestone of 300 PSAs posted to the Product Safety page on dow.com. Approximately 85 percent of Dow’s high priority compounds are now represented by a PSA and the published PSAs cover products accounting for approximately 55 percent of Dow revenue. This progress demonstrates Dow’s leadership in helping to establish global product stewardship guidelines and chemicals management best practices.

PSAs are written for the lay public and cover topics such as basic hazards, exposure potential and risk management measures. They complement other safety, handling and stewardship documents, which are part of the product responsibility “package” Dow offers to strengthen relationships with communities and customers. This holistic approach enables Dow customers and the communities in which Dow does business to stay informed about the company’s products and the plants that produce them. Dow is dedicated to providing the public with accurate information and building trust so it is better positioned to develop products, technology and solutions that improve the human condition.
ICCA Launches Global IT-Portal Making Chemical Safety Summaries Easily Accessible

The International Council of Chemical Associations (ICCA) is the worldwide voice of the global chemical industry, representing companies and associations operating in six continents. Dow’s Chairman and CEO Andrew Liveris was recently elected the new president of the ICCA for a two-year term. The ICCA Chemicals Policy and Health Leadership Group, co-chaired by Dow’s Corporate Director of Product Responsibility, recently launched an IT portal (http://www.icca-chem.org/en/Home/ICCA-initiatives/Global-product-strategy/) to make chemical product safety assessments more easily accessible to the public. ICCA is committed, through its global program on Responsible Care™ and the Global Product Strategy (GPS), to the safe management of chemicals throughout their entire life cycle. To achieve this, transparency in communication is critical and the ICCA GPS Chemicals Portal offers the general public and ICCA members direct access to product stewardship information.

To date, more than 1200 chemical safety summaries are available, including more than 180 Product Safety Assessments contributed by Dow, and the number of substances covered is increasing daily. We believe better public access to relevant information on chemicals in a risk-benefit format will increase public awareness and will lead, in turn, to greater accountability on the part of industry.

Breakthroughs to World Challenges

The graphic on the right offers a visual representation of the ongoing process of searching for opportunities to help make the world a better place now and in the future. This quarterly report features a project that relies on collaborating partners to find the right behaviors that will help lead to a more sustainable world. In this case, the significance relates to the opportunity to save huge quantities of energy and reduce greenhouse gases. But barriers are real, and if not addressed, the individual and the collective good will fail to materialize.

Breaking Down Barriers to Right Decision-Making for the Existing Homeowner

If we could save $12,000 in household energy expenses, we would give the opportunity some attention. If the country can save a hundred million times that amount, figuring out the details is worthy of attention. That is the proposition within a report by the consulting company McKinsey concluding that the U.S. could save $1.2 trillion through 2020 by investing $520 billion to install energy conservation solutions in existing buildings.

The U.S. Department of Energy agrees — in July, it awarded $30 million for Energy Efficient Housing Partnerships. Dow was delighted to be tapped to lead one of the fifteen teams to define how to break through barriers that stand in the way of retrofitting the huge stock of older homes that were built before building practices helped accomplish a reasonable level of energy efficiency.
Dow will team up with Habitat for Humanity, whose contribution will be perspectives regarding the cash-constrained realities that have to be addressed to upgrade today to save for untold numbers of tomorrows. Michigan State University and Ferris State University will conduct pre- and post-retrofit market research to provide understanding of the considerations and concerns consumers have about retrofit costs, procedures and results, and technical contributions will be provided from the perspective of utility partners.

The specific objectives of the collaboration project include:

- Identify technology gaps
- Validate cost-effectiveness
- Bring affordable solutions to low-income neighborhoods
- Accomplish 30-50 percent cost reductions in energy requirements for older homes

In leading this initiative, Dow also brings more than 50 years of building science leadership and a broad offering of solutions to this partnership with the objective to add next-generation solutions to meet homeowner needs in sustainable and affordable housing. For example, earlier this year, conversion was completed to a no-VOC (volatile organic compound) foaming agent technology. This innovation eliminates ozone depleting foaming agents yet retains the excellent insulation properties of STYROFOAM insulation.

The built environment is the single largest source of carbon dioxide emissions, generating almost two times more greenhouse gas (GHG) emissions than all transportation methods combined. The residential market is a significant contributor because two-thirds of the housing inventory in the U.S. was built prior to existing energy standards. As a result, it is critical for homeowners to evaluate and install cost-effective energy efficient improvements on these older homes. Learning how to motivate this behavior will apply to other parts of the world, where insulation and construction practices have created an inventory of under-insulated homes and buildings.

Through this initiative, Dow will continue a long history of productive collaboration with other industry experts, including our 25-year association supporting Habitat for Humanity, in order to help provide solutions to real world problems. With home affordability and monthly heating and cooling costs rising for the average home owner, this project seeks to help make the $1.2 trillion of energy savings by 2020 become more than a calculation.

**http://www.architecture2030.com/current_situation/building_sector.html**

**Dow to Help U.S. and China Define Requirements for Future Building Efficiency**

The U.S. Department of Energy’s Lawrence Berkeley National Laboratory will lead a consortium for a U.S./China Clean Energy Research Center (CERC) on Building Energy Efficiency.

Dow will be the lead industrial partner to the U.S./China Clean Energy Resource Center (CERC) for Building Energy Efficiency. With the U.S. and China consuming more than one-third of the energy used in buildings, many collaborators have been enlisted to help accelerate the advancement of leading technologies to enable greater energy efficiency. Dow's participation will be in the design, development and validation of materials and systems that will meet energy efficiency mandates set by the U.S. and Chinese governments for existing and future buildings. Dow will serve as the Chair of the Industrial Advisory Board for the Center, with a mandate to accelerate commercial development of the technologies.
Contributing to Community Success

The concept of transforming Dow's community relations program from being "in" the community to being "of" the community is based on three simple principles built into a comprehensive sustainable method called Contributing to Community Success. These principles are simple: asking, listening and addressing the needs of our community.

As we end 2010, two of ten strategic sites have been re-surveyed in an effort to compare and contrast data from their initial baseline assessments. Pittsburg, California, and Terneuzen, Netherlands, have been implementing their community success plans including partnering and working directly with their respective communities to positively impact quality of life issues that were identified in their initial survey. The goal is for communities to support Dow favorably as a result of the knowledge and understanding that Dow plays a positive role in making the community a better place to live.

While we await final results from Terneuzen, Netherlands, we are analyzing the data from Pittsburg, California, and we are hopeful for positive results that confirm our success plans are making a difference. Workshops will be held at each site to revise each community success plan as needed.

As we continue to gain ground on our original strategic sites, we are also very focused on ensuring that the 2015 goal of Contributing to Community Success reflects the Dow of today. As a result, a workgroup is in place and is actively developing a successful model or "toolkit" for other sites to be able to implement a local Community Success program appropriate for that location. "Other sites" are those not designated as a strategic site. The next step is to establish this custom approach for at least two "other sites" and begin implementation.

Local Protection of Human Health and the Environment

During the first ten-year goal period ending in 2005, Dow reduced the rate of injury and illnesses per 200,000 hours of work time by more than 80 percent. During the 2005 to 2015 timeframe, the goal is to achieve a similar reduction in the rate at which people are injured. Dow workers are now 19 times less likely to experience injury or illness than the U.S. manufacturing rate reported for 2008.

At the end of 3Q 2010, the Injury and Illness rate was 0.34 per 200,000 hours of work. While this rate does not meet our expectations in comparison to 2009, it represents more than 33 percent improvement vs. 2005 performance levels. The 2015 Goal of 0.12 per 200,000 hours is a 75 percent improvement from 2005.
At the end of 3Q 2010, the Injury and Illness Severity rate was 1.43 per 200,000 hours of work. While this performance does not meet our expectations over 2009 performance, it represents an over 35 percent improvement vs. 2005 performance levels. The 2015 Goal of 0.67 per 200,000 hours is a 70 percent improvement from 2005.

At the end of 3Q 2010, 283 Loss of Primary Containment (LOPC) incidents have occurred translating into an annual rate that is improved from 2009 and 11 percent better than our goal for all of 2010. This performance represents over 70 percent improvement vs. our 2005 baseline performance levels. This is on track towards our 2015 goal of 90 percent reduction in LOPC events.

At the end of 3Q 2010, 38 Process Safety Incidents have occurred. When annualized, this represents a 15 percent increase from 2009. However, this is a 43 percent improvement compared to 2005. The 2015 Goal of 25 or fewer incidents is a 72 percent reduction from 2005. The trend line labeled “2015 Goal” represents a smoothed line over the period and does not reflect year-to-year targets. Process Safety Incidents are classified in terms of the new Center for Chemical Processing Safety and American Chemistry Council Process Safety Incident (PSI) definitions.
At the end of 3Q 2010, the Severe MVA incident rate was 0.20 accidents per million miles driven. This represents a rate 23 percent lower than 2009 and 41 percent better than our goal for 2010. Our 2015 Goal is to reduce the Severe Motor Vehicle Accident rate to no more than 0.28 accidents per million miles driven. This target represents a 33 percent improvement in our performance over the 2007-2015 timeframe. Severe MVA was not measured in the heritage Rohm and Haas Company. The 2007-2008 values represent the heritage Dow population.

At the end of 3Q 2010, Dow had experienced 21 Hazmat Transportation Loss of Primary Containment events. The annualized total of 28 is identical to our target for the year 2010. There was one Highly Hazardous LOPC event in the third quarter resulting in a total of three through the end of 3Q 2010. Our 2015 Goal to reduce all Hazmat Transportation incidents to 14 or less is a 75 percent improvement from 2005.
Dow believes it is part of our corporate responsibility to reduce the volumes of Highly Hazardous Materials that need to be transported. As such, we have set a 2015 Goal to reduce the number of tonne-miles (a measure of how much we’re shipping and how far) by 50 percent from our levels in 2005, which was 1,400 million tonne-miles. We will accomplish this by looking at ways to redesign our supply chain to reduce or eliminate many shipments or the distances they must travel. (A tonne-mile is one metric ton of freight moved 1 mile or 1.6 km.)

By reducing the number of tonne-miles of these materials, we will reduce the chance of in-transit incidents that could impact communities and areas through which our products travel. It is important to recognize that supply chain redesign is a long-term strategic business effort that may not show annual change. Strong progress toward this goal has been made over the last five years.

At the end of Q3 2010, there were 648 million tonne-miles of Highly Hazardous Materials shipped via road and rail. The annualized total of 864 is 18 percent better than the 2010 target of 1,060 million tonne-miles.

Dow remains committed to continuously improving our performance and to publicly reporting our progress. Please visit www.dow.com for the latest Dow sustainability, business and performance news.

Science for a Sustainable World

We only have one planet, with limited resources. So everything we do and how we do it matters.

Dow is committed to minimizing our own footprint and to delivering solutions that help our customers and the rest of society do the same. The world needs solutions for big challenges like energy, climate change, water, food, housing and health. And Dow has some of the world’s best scientists and engineers dedicated to solving world challenges through innovation. When we do that, it’s not just good for the planet, it’s good for business.