



## ACE Progress Report<sup>SM</sup>:

*Impact of U.S. Stimulus bill on  
Infrastructure: Risk Management  
Challenges and Opportunities*

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*Impact of U.S. Stimulus bill on Infrastructure:  
Risk Management Challenges and Opportunities*

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With the aim of revitalizing the ailing economy, President Obama's \$787 billion economic stimulus program will spawn a vast number of infrastructure and energy-related projects. The American Recovery and Reinvestment Act (ARRA) includes about \$140 billion for construction of schools, repairs to crumbling roads and bridges, upgrading and expanding mass transit systems, improving wastewater infrastructure and modernizing the failing electrical grid. Another \$20 billion in clean energy tax incentives will drive construction of facilities that produce electricity from renewable sources like wind, solar and biomass. The stimulus is a boon for cash-strapped states, idle contractors and alternative energy investors, but those who want to benefit from it must be prepared to address the risks and challenges these projects present.

**The need for speed.** A key factor in the success of the Economic Stimulus Act of 2009 is the ability to put people to work fast. That's why the stimulus funds come with spending deadlines. The need for speed will shorten timetables and drive contractors toward fast-track construction. Accelerating construction schedules increases the potential for problems in construction design, management and safety.

**The need for green.** The stimulus package includes specific "green" construction projects, environmental cleanups of contaminated sites, infrastructure projects to improve drinking water quality and incentives for construction of clean energy facilities. The need to move quickly will magnify evolving regulatory and safety exposures. Green building liability is an emerging area of liability with potential litigation arising from failure to achieve certification and failure to meet requirements in green mandates or incentive programs.

**The need for insurance expertise—and fast.** Large construction, energy and environmental projects require a high degree of technical underwriting and insights into emerging risk issues. Underwriters will see a sharp increase in submissions. But risk managers and brokers seeking well-considered and accurate quotes with a quick turnaround need to seek out carriers with nimble, interdisciplinary teams of experts in underwriting, claims and loss control who have vast experience addressing complex projects with construction, energy, environmental and excess casualty exposures. Other key ingredients: a suite of products designed to address green building, the ability to write high limits on highly rated paper, and the long-term stability required for projects with long-term liabilities.

## **Background**

The \$787 billion American Recovery and Reinvestment Act of 2009, signed by President Obama on Feb. 17, 2009, calls for about \$140 billion in new construction spending, about one-third of it for transportation, according to analyses by the Associated General Contractors of America and the Insurance Information Institute. The act provides another \$20 billion in tax incentives designed to spur alternative energy projects. Half of funds apportioned to states must be obligated by June 30, 2009, and all of the funds must be obligated by March 2, 2010. States that don't meet deadlines for spending stimulus money risk losing the cash.

## **Exacerbating Exposures**

***Accelerating infrastructure projects.*** The first projects to receive stimulus funding are “shovel ready” projects that were previously shelved for lack of funding. But new projects will still require an accelerated planning timetable to meet spending goals of the Economic Stimulus Act of 2009. By way of example, the prospect of stimulus funding will reduce the schedule of a road construction project to five years from the original plan for eight.

Accelerating the design process—or starting construction concurrent with the design process—can increase risks in the areas of professional liability, worker safety and builders' risk. Fast track projects may require modification in design or completed work to accommodate decisions made later in the process, raising the risk of professional negligence allegations. Demanding construction schedules can lead contractors to take or fail to consider risks that may threaten worker safety. Examples of causes of construction accidents include inadequate bracing at excavation sites, excessive loading through stockpiling of heavy materials, and incorrect sequencing of construction events.<sup>1</sup>

The Economic Stimulus Act of 2009 includes with it requirements for accountability and transparency, but a flood of money for projects that must be done quickly potentially increases exposure to fraud, mismanagement of funds and construction defects, some of which, unfortunately, will come from cutting corners to enhance profits.

***Green building.*** With a growing number of state governments and municipalities adopting green building regulations, more of the stimulus-funded infrastructure projects will require contractors to become expert in incorporating green construction materials and practices. They also will need insurance coverage for the risks associated with building green. Risks could include potential financial loss stemming from changes in environmental standards, repairs using green materials, additional debris-removal expenses, unique exposures from vegetated roofs and alternative energy and water systems, and loss of tax credits. Those who promote their expertise as a LEED Accredited Professional and people who provide green services, like commissioning and energy modeling, may find gaps in their professional liability coverage.

One of the first examples of green building litigation, *Shaw Development v. Southern Builders*, filed in state court in Maryland, involved a \$7.5 million condominium development with features to support a Silver certification under the U.S. Green Building

Council's Leadership in Energy and Environmental Design (LEED) Rating System. The developer claimed it was owed \$635,000 in alleged lost tax credits under a green building program.<sup>ii</sup>

The stimulus-related activities will undoubtedly increase green building litigation because of an influx of government agencies and contractors new to the field attempting to build green under accelerated timetables. Liability exposures will arise from failure to meet requirements that stimulus projects achieve LEED certification, or failure of a building to meet expected operating performance resulting from green building, such as energy efficiency.<sup>iii</sup>

**Energy.** The Economic Stimulus Act includes \$32.7 billion in spending and another \$12.5 billion in loan programs for green building projects. The largest share of funding—\$16.8 billion is intended to go toward improving the energy efficiency of existing buildings and developing renewable energy facilities. Other spending will go toward modernizing the aging electric grid, advancing pilot projects that implement “smart grid” technology.

The combination of spending and tax credits will spur construction of clean energy facilities, though political opposition to facility locations might create costly delays and litigation, as in the case of the Cape Wind offshore wind farm, a \$900 million proposed offshore wind farm on Horseshoe Shoal in Nantucket Sound off Cape Cod in Massachusetts. If the project moves forward on schedule, it will become one of the first offshore wind energy projects in the United States. Renewable energy technologies present unique underwriting exposures, whether it is a small-scale bioethanol plant, a large-scale waste-to-energy power generation plant or a cutting-edge carbon sequestration project.

These projects require limits of third-party liability coverage for the construction phase—including testing, commissioning and defects—as well as operations. The complex contracts for these projects create an assortment of loss implications for future profit and power purchase agreements in the event of delays and operational disruptions. Renewable energy construction and operations entail complex and extensive transportation and pollution liability risks.

**Environment.** Environmental exposures could arise from many aspects of the Economic Stimulus Act, from infrastructure projects designed to improve clean water, energy projects designed to reduce carbon emissions, and environmental cleanups and development of hazardous waste sites, including former weapons facilities. The Economic Stimulus Act includes \$7.2 billion for projects and programs administered by the Environmental Protection Agency, such as Superfund and Brownfields cleanups; drinking water and wastewater infrastructure projects; and cleanups of leaking underground petroleum tanks. Other projects include watershed and habitat rehabilitation and flood prevention projects.

The projects involve a broad range of risks, from premises-based exposures, contractors liability for pollution projects, to professional liability for environmental consultants

engaged in environmental engineering, remediation, testing, compliance and training. Without coverage to cap costs, overruns associated with complex cleanups of contaminated sites can erase the economic feasibility of promising Brownfields redevelopment.

### **The ACE\* Difference**

With billions of dollars of projects up for the bidding and time of the essence, risk managers must be concerned about how well and how quickly their insurance carrier will be able respond to a large volume of complex exposures involving multiple lines of insurance.

Risk managers should seek to work with nimble, highly-rated carriers that can provide a complete suite of products to protect them across all lines of business as well as coverage for workers compensation, general liability, builders risk, professional liability, environmental liability, and with sufficient excess casualty limits. They will need a carrier who has insights into emerging exposures from green building and resources to help insureds manage those risks. Risk managers should also seek to work with carriers with strong underwriting, claims and risk control expertise.

***ACE's commitment to the environment.*** ACE is committed to developing insurance products and risk management services that facilitate market-based solutions to current and pending environmental and climate related issues. ACE's support of environmentally-friendly standards in product development also extends to its philanthropic activities.

ACE's ongoing participation in environmental initiatives helped to establish the framework for the launch of ACE Green, a global corporate and employee environmental program. This initiative brings together specialized "green" products from multiple ACE businesses around the world, combined with a unique capability to offer a comprehensive insurance solution that supplements its traditional property and casualty business to address a broad range of risks.

***Specialized expertise, local knowledge.*** A specialized focus on environment and sustainability presents a unique combination of scientific, political and financial factors that require specific technical expertise as well as local knowledge. ACE offers insurance products and services that address a broad range of risks for companies to develop new, renewable sources of energy. ACE's property and construction underwriters are familiar with local green industry codes and have developed specialized products and risk management solutions to cover the incremental cost of restoring buildings to LEED standards.

ESIS Global Risk Control Services, part of ACE Group, offers clients the expertise of environmental engineers, health and safety consultants, and construction and liability auditors and trainers who are viewed as some of the best in the industry.

ACE takes a holistic approach to helping find solutions to ongoing environmental concerns. Whether it's with its philanthropic participation in global environmental initiatives, or hands-on support through employee volunteerism efforts, or the introduction of new environmentally-friendly products and risk management solutions – ACE is committed to preserving the integrity of the environment for future generations.

***About the authors:***

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\* ACE refers to ACE USA, the U.S.-based retail operating division of the ACE Group of Companies, headed by ACE Limited (NYSE: ACE), and is rated A+ (Superior) by A.M. Best Company and A+ (Strong) by Standard & Poor's. ACE USA, through its underwriting and service companies, provides insurance products and services throughout the U.S. Additional information on ACE USA and its products and services can be found at [www.aceusa.com](http://www.aceusa.com). Additional information on ACE Green can be found at [www.acegreen.com](http://www.acegreen.com). The ACE Group of Companies provides insurance and reinsurance for a diverse group of clients around the world.

*Opinions expressed are the authors' and not necessarily those of any ACE company.*

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<sup>i</sup> Ken Carper. Beware of Vulnerabilities During Construction. Seattle Daily Journal of Commerce. March 25, 2004. Available at: [www.djc.com/news/co/11155170.html](http://www.djc.com/news/co/11155170.html)

<sup>ii</sup> Stephen Del Percio. Shaw Development v. Southern Builders: The Anatomy of America's First Green Building Litigation, Aug. 20, 2008. Available at: [www.greenbuildingsnyc.com/2008/08/20/the-anatomy-of-americas-first-green-building-litigation/www.GreenbuildingsNYC.com](http://www.greenbuildingsnyc.com/2008/08/20/the-anatomy-of-americas-first-green-building-litigation/www.GreenbuildingsNYC.com). This case was resolved in a private settlement.

<sup>iii</sup> Chris Cheatham. The Stimulus: Now for the Bad Part. March 4, 2009. Available at: [www.greenbuildinglawupdate.com/articles/legal-developments/construction/](http://www.greenbuildinglawupdate.com/articles/legal-developments/construction/)