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## Climate Agreement in Bonn Leaves U.S. Businesses Facing Increased Uncertainty

International climate negotiators meeting in Bonn this summer achieved a major breakthrough when participating countries agreed to most of the key provisions for implementing the Kyoto Protocol. Notably absent from this agreement was the United States, following the Bush Administration's decision earlier this year to unilaterally withdraw from the negotiations. President Bush argued that the Protocol was unacceptable due to its high costs on the U.S. economy and the failure to require developing countries to also reduce their greenhouse gas (GHG) emissions. Other countries do not share these strenuous objections, and while the Protocol still needs to be ratified by most countries, the European Union was able to offer sufficient incentives to Japan, Australia, and Canada to obtain their agreement.

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## Auditing and Evaluating Air Quality Management Programs in the World's Megacities

Of the dozens of "megacities" in developing countries, most have extremely unhealthy air. Some cities have started to improve air quality by reducing emissions. A few, like Mexico City, started to earnestly address air quality in the early 1990s. While reports of progress are available, comprehensive and independent assessments are almost nonexistent.

As part of a Blue Ribbon Panel convened by the World Bank, ICF Consulting recently presented the results of a six-month independent audit of Mexico City's 10-year air quality management programs. The Mexico City metropolitan

region (MCMA) accounts for 30 percent of Mexico's economic activity and is home to more than 22 million people and 3.5 million vehicles.

The air quality management audit, a new approach for assessing program effectiveness, produced mixed results and provided government agencies with findings and recommendations to improve the next air quality management program (ProAire III) for the MCMA. The audit methods and results may be valuable to other developing country "megacities" that are adopting programs to improve air quality; it may help avoid pitfalls and maximize limited resources.

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# Auditing and Evaluating Air Quality Management Programs (cont.)

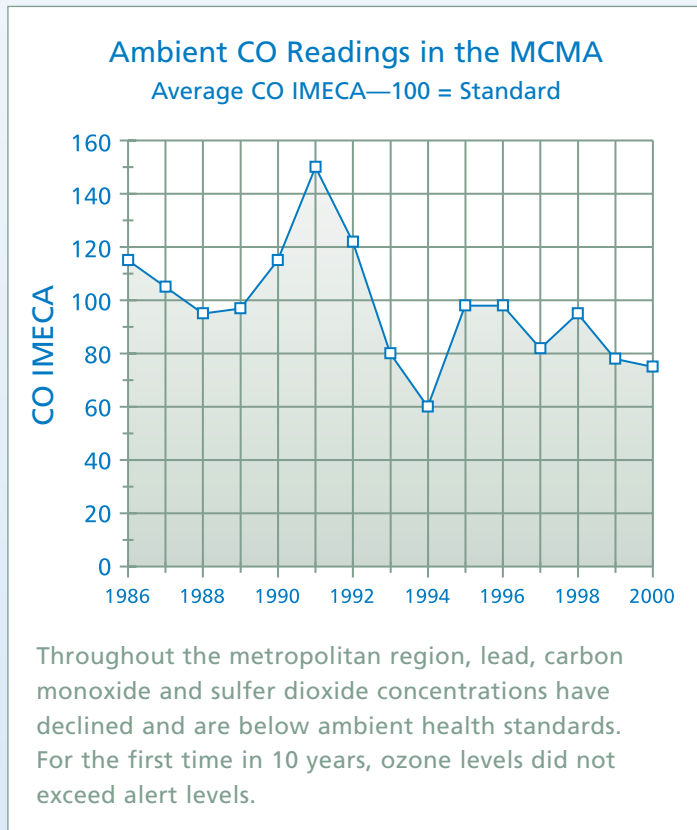
Findings from the Mexico City audit include:

- Pollutant concentrations across the MCMA are lower today than they were seven to eight years ago. However, the audit also showed progress waning since 1995 and that inadequate inter-institutional coordination hampers both efficacy and continued progress.
- Newly installed vapor recovery systems at refueling stations tested on average 90 percent effective, exceeding the design goal. Benzene measurements showed that vapor recovery systems and cleaner fuels have lowered benzene concentrations by approximately 99 percent.
- The network of 32 air monitoring stations across the MCMA is showing the telling signs of reduced resources



Ten years and \$10 billion for Mexico City produced real progress and opportunities for air quality improvement.

and staff. To stretch resources, routine internal audits of the network are conducted by the same people who operate the system. Additionally, standard operating procedures and use of gas standards are often not employed. Performance audits indicated that some stations might be underreporting concentrations of carbon monoxide, sulfur dioxide, and nitrogen oxide.



Source: RAMA (Red Automatica de Monitoreo Atmosferico), 2000.  
MCMA: Mexico City Metropolitan Area  
IMECA: MCMA air quality index  
CO: Carbon monoxide

- Ineffective coordination between institutions is causing debates and reduced public confidence. For example, the MCMA vehicle emission inspections performed at stations in the State of Mexico (SoM) and the Federal District are identical in design, procedures, and equipment. However, the vehicle failure rate reported by the Federal District is almost 75 percent higher than the failure rate reported by the SoM. As a result of fewer cars failing inspections at SoM stations, the number of inspections performed at these stations over the last three years has been steadily rising.
- Many air quality measures demonstrated the absence of clear and measurable objectives and indicators. Without quantitative goals and objectives, program evaluations and audits that measure progress and effectiveness (e.g., level of participation, behavior change, emissions reductions, cost, etc.) are difficult to perform and are filled with uncertainties.
- The scientific basis necessary for judging the efficacy of controlling emissions among alternative measures is lacking, or developing at a slow pace. Unresolved debates still persist about emissions inventories and air quality modeling methods for developing scientifically sound air quality management plans.
- Proactive urban development strategies that integrate air quality goals are lacking. For the most part, the development of land use, air quality, and transportation strategies and programs are done independently by each responsible agency in the MCMA. Land use and transportation planners do not endeavor to conform their programs to air quality objectives.

The full report is available in both English and Spanish from ICF Consulting.

## U.S. Businesses Facing Increased Uncertainty (cont.)

Where does this leave business? Arguably, for many companies in the United States, there was an initial sigh of relief that carbon constraints are not imminent. However, there is also an increasing realization that constraints are inevitable. The International Panel on Climate Change has made it clear that human activities are indeed affecting the global climate, and with other countries indicating their willingness to move forward on reducing GHGs, it is more a question of *when* and *how* GHGs will be restricted rather than *if*. In this context, businesses located in Europe and other regions are clarifying the rules of the game and are already factoring carbon constraints into their business planning. In the United Kingdom (UK), for example, companies are preparing for entry into the UK Emissions Trading Scheme that commences in April 2002. A recent European Union paper has proposed a framework for EU-wide trading by 2005. U.S. companies are receiving no such clarification. Moreover, many U.S.-based companies have operations worldwide and are facing a more complex array of decisions because their facilities in other industrialized countries will need to consider the impact of the Kyoto targets as committed by their respective governments.

The next round of international climate negotiations convenes in late October at COP-7 in Marrakech, Morocco. The Bush Administration is deciding if it will introduce specific concrete proposals and how stringent those proposals ought to be. Complicating the picture for U.S. business is that legislative activity is also hastening in Congress and at the state level. For example, the New England states recently agreed with Eastern Canadian provinces to work cooperatively to reduce GHG emissions over the next several years.

Ultimately, the fundamental challenge is whether global energy policy in the 21st century will remain focused on extracting as much carbon from the ground as possible, or whether governments diligently pursue more sustainable options. In some respects, the battle is



between the technologies of the past and the technologies of the future. There is no question that fossil fuels will be a major energy source for some time to come. However, embracing an approach that encourages new technological development indicates that the United States intends to put its entrepreneurial, high-tech muscle into developing better solutions to meet global energy needs. Ultimately, this is the path the world must take if a long-term response to climate change is to be successful. At this point, companies around the world need clarification

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about what is expected of them (and just as importantly, what is not).

A key component of the U.S. negotiating position on climate change all along has been to harness the power of the marketplace to find more effective, lower cost

solutions to the challenge. This has been represented most prominently by the demand for inclusion of unfettered flexibility mechanisms, such as emissions trading, to allow companies to pursue emission reductions as easily as possible. Ironically, the agreement that came out of Bonn was a major endorsement of this U.S. position. The global market for GHG emission reductions (also known as a carbon market) is in its infancy and, after the Bonn agreement, will be maturing without U.S. involvement.

ICF Consulting's analysis indicates that—in the short-term, with the United States absent from the Kyoto Protocol—the balance of supply and demand suggests lower carbon prices than previously forecast. In an environment of increased uncertainty and complexity, each company should now be developing a strategy that reflects their unique exposure to GHG emissions and their portfolio of available opportunities to mitigate these emissions.

For more information, visit [www.emissionstrategies.com](http://www.emissionstrategies.com)

# Calendar of Events

## October

### October 19, 2001

San Antonio, Texas. At the **Utility Mergers and Acquisitions Conference**, ICF Consulting's Judah Rose will speak on "Post-Merger Impact: Effects on Market Prices and Shareholders." *For more information, please contact Sheila Hudson at 1.703.934.3181.*

### October 21-23, 2001

Flint, Michigan. At the **Trade Corridors Conference**, ICF Consulting's Ken Watson will be speaking on "Environmental Impacts of NAFTA Trade Corridors: Forecasts and Mitigation Strategies." *For more information, please contact Ken Watson at 1.416.341.0388.*

### October 21-24, 2001

Williamsburg, Virginia. At the **Annual Meeting of the Transportation Research Forum**, ICF Consulting's Jeffrey Ang-Olson will present a paper on "North American Trade and Transportation Corridors: Environmental Impacts and Mitigation Strategies." *For more information, please contact Jeffrey Ang-Olson at 1.415.677.7110.*

### October 25, 2001

London, UK. **Practical Strategies to Prepare Your Business for Emissions Trading**. ICF Consulting's Melinda Harris, Abyd Karmali, John Blaney, and Neil Cornelius will be leading this workshop aimed at companies interested in European greenhouse gas emissions trading markets. *For more information, please contact Craig Ebert at 1.202.862.1130.*

### October 24-26, 2001

Washington, D.C. ICF Consulting's Ruth Jaure will lead a discussion on Federal Rural Telecommunications Policies at the **Rural Community Assistance Program's Rural Policy Conference**. *For more information, please contact Ruth Jaure at 1.703.218-2770.*

## November

### November 1, 2001

Singapore. ICF Consulting's Kim Keats will be the keynote speaker at the **Singapore Electricity & Gas Market Conference**. Mr. Keats will present "Singapore's New Electricity Market Framework in a Liberalised Market." *For more information, please contact Kim Keats at 44.20.7554.8743.*

### November 4-8, 2001

Charleston, South Carolina. ICF Consulting will present several papers at the **International Society of Exposure Analysis (ISEA) 2001 Conference**, including "Children's Exposure to Waterborne Infectious Disease," "Methods for Assessing Matrix Effects on Oral Absorption," and "Development of a National Database of Children's Home-to-School Commuting Patterns." *For more information, please contact Jim Laurenson at 1.703.934.3648.*

### November 5-6, 2001

Brussels, Belgium. At the **Eye for Energy Green Convention 2001**, ICF Consulting's Abyd Karmali will present "Capturing Dual Benefits from the Emerging Green Energy and Greenhouse Gas Emissions Trading Markets." *For more information, please contact Abyd Karmali at 44.20.7554.8752.*

### November 7-9, 2001

Paris, France. ICF Consulting's Robert Lanza and Randy Freed will present information on the U.S. Method for Estimating CO<sub>2</sub> Emissions and Storage for Petrochemicals Production at the **Third NEU (Non-Energy Uses of Fuels) CO<sub>2</sub> Workshop**. *For more information, please contact Randy Freed at 1.703.934.3495.*

### November 21, 2001

Milan, Italy. At **E-Mart, Energy 2001**, ICF Consulting's Abyd Karmali will chair a workshop session on "Greenhouse Gas Emissions and Green Certificates Trading: Alternative Approaches to Emissions Reduction." *For more information, please contact Abyd Karmali at 44.20.7554.8752.*

## December

### December 3-4, 2001

Ponte Vedra Beach, Florida. At the **12th National Energy Services Conference and Exposition**, ICF Consulting's Phil Mihlmester and David Kathan will present a paper on Customer Interest in Demand Response Programs. ICF Consulting will also exhibit at this conference, which is hosted by the Association of Energy Services Professionals (AESP) International. *For more information, please contact Pat Alexander at 1.703.934.3157.*



# IT Accessibility; Governments and Industry React

Governments around the world are working to improve the accessibility of electronic and information technology (EIT) for people with disabilities. One of the first countries to take legislative action is the United States.



Section 508 of the U.S. Rehabilitation Act requires that EIT used by federal agencies is accessible to those with vision, hearing, or mobility challenges if the EIT is procured after June 21, 2001. To date, legislation applies only to U.S. federal agencies; however,

many companies developing products for the U.S. federal government also provide these same products and services to private clients. Companies investing in EIT compliance are likely to promote that compliance to nonfederal and private-sector clients. It is expected that EIT accessibility will become the standard. The European Union, Japan, and many U.S. state and local agencies are considering adopting legislation similar to Section 508 for their EIT.

EIT includes software applications and operating systems, computers, Web-based information or applications, telecommunications functions, video or multi-media products, and self-contained, closed products such as information kiosks and transaction machines.

## Why Companies Should Care

Aside from the legislative requirement, there are compelling reasons to make EIT more accessible. In the U.S., disability advocates estimate that 10 percent of the population are challenged in some way and are likely to use EIT, such as e-commerce, to accomplish tasks.

## How Section 508 Affects EIT Development

It is quite possible that compliance with this legislation will increase the cost of developing EIT; however, the result improves usability for everyone. Compliance should result in more detailed design analyses, additional quality assurance, and improved accessibility testing. It is also

likely that the costs and time required for development will decline over time. Market forces will encourage companies, including those that do not sell to the U.S. Federal government, to make their EIT more accessible.

## How You Can Meet This Challenge

ICF Consulting believes that most software sold in the United States soon will need to comply with Section 508's guidelines. For this reason, the firm advises taking the following steps to ensure compliance of products developed for clients.

- Begin now to track events and collect information.
- Demonstrate assistive technologies (screen reader magnification devices, Braille readers) to all employees so they can understand how persons with disabilities use them.
- Invite employees to lectures on appropriate software applications such as JavaScript, Cascading Style Sheets, ALT text, and Adobe Acrobat.
- Create an intranet site for sharing information on the subject.
- Work with employees in other parts of the company to account for Section 508's effects on budgets and schedules.
- Discuss accessibility requirements and the effects on budgets and schedules with clients.

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## Resources

- The final version of Section 508 of the Rehabilitation Act, 29 U.S.C. 794d (1998) can be found at [www.section508.gov/docs/508law](http://www.section508.gov/docs/508law)
- The World Wide Web Consortium's guidelines used as the basis for Section 508's requirements are at [www.w3c.org/wais](http://www.w3c.org/wais)

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## IT Accessibility; Governments and Industry React (cont.)

- The Access Board is “an independent federal agency devoted to accessibility for people with disabilities.” Its Web site discusses architectural as well as EIT barriers at [www.access-board.gov/news/508-final.htm](http://www.access-board.gov/news/508-final.htm)
- The Federal Information Technology Accessibility Initiative ([www.section508.gov](http://www.section508.gov)) is “a federal government inter-agency effort to offer information and technical assistance to assist in the successful implementation of Section 508.”
- ICF Consulting advises clients on Section 508 compliance as well as the business implications of the U.S. Rehabilitation Act.

## Commuter Choice Programs Improve Transportation Options for Employees and Generate Business Benefits

Driving alone to work is a major contributor to traffic congestion, poor air quality, and other environmental problems. Until recently, federal tax laws encouraged employers in the U.S. to provide free parking to employees as their only commuter benefit. Recent changes to tax laws have expanded the commuter benefit options available. An employer may now offer tax-free transit or van-pool benefits, or allow employees to reserve income on a pre-tax basis to pay for commuting costs. An employer may also offer the choice between a free parking space or additional taxable income. By creating incentives for alternatives to driving, options are more equitable, environmentally conscious, and community friendly. They also are good for business: saving money, increasing employee job satisfaction, and helping attract and retain employees.

To promote commuter benefits and other options like telecommuting, the U.S. Environmental Protection Agency and U.S. Department of Transportation launched a national *Commuter Choice Leadership Initiative* to challenge and reward employers providing a high level of commuter benefits.

A *Commuter Choice* Employer with 1,000 employees can take 175 cars off the road, resulting in an annual savings of nearly 44,000 gallons of gasoline and reducing global warming emissions by 420 metric tons. The same employer can also save participating employees \$13,000 in taxes and \$160,000 in gasoline, parking, and vehicle costs each year.

*Commuter Choice* benefits have the potential to measurably affect vehicle travel in urban areas, but the range of impact depends on the number of employers adopting benefit programs. Unfortunately, one of the key obstacles to encouraging greater adoption of *Commuter Choice* is

a limited understanding of employer motivations and the obstacles faced by businesses in implementing these programs. ICF Consulting is examining these obstacles in a study for the Transit Cooperative Research Program (part of the U.S. National Academy of Sciences) that is helping to shed light on this research gap.

ICF Consulting is developing and promoting the *Commuter Choice* program and is the first employer in the District of Columbia to join the *Commuter Choice Leadership Initiative*. For details on qualifying as a *Commuter Choice* Employer, please visit [www.epa.gov/otaq/transp/comchoic/ccweb.htm](http://www.epa.gov/otaq/transp/comchoic/ccweb.htm)

About ICF Consulting

ICF Consulting is one of the world's leading consulting firms advising clients on managing the world's natural, physical, economic, and community resources in a sustainable way. The firm's 800 employees help clients optimize energy resources, meet environmental challenges, foster economic and community development, enhance transportation policy and projects, and manage information technology resources. ICF Consulting's clients include firms in the energy and utility industries, all levels of government, and national and multilateral organizations throughout the world. ICF Consulting has offices around the globe, including offices in Bangkok, Fairfax, London, Los Angeles, Melbourne, Moscow, San Francisco, Toronto, and Washington, D.C.

For more information on ICF Consulting's services, please visit our Web site at [www.icfconsulting.com](http://www.icfconsulting.com).

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