



Succeeding in uncertain times

Having survived another tough year, the winners in *Environmental Finance's* 14th Annual Market Rankings have proved they can cope with the pain and are poised to prosper when the tide turns

The environmental markets have to deal with more than their fair share of uncertainty.

That's largely because government policies – be they incentives or regulations – underpin nearly everything that goes on and, in the wake of the financial crisis, policy has proved even more erratic and unpredictable than previously.

So, after another gruelling year in the markets we cover, the companies that are surviving – and even thriving – are those that have proved adept at navigating the policy minefield.

These markets – which can sometimes shift rapidly and violently, and can be turned on their heads by a parliamentary vote – have proved too tough for the many firms that have exited in recent years.

But, for a remaining hardcore, the uncertainty has created opportunities for companies that can offer their clients more than just execution skills. Or, as Evolution Markets president and CEO Andy Ertel puts it: "It's not a time for number jockeys – brokers have to find ways to add value."

The New York-based firm, which has five other offices around the world, scooped

the award for Best Broker in six categories spanning the main carbon markets, making it one of the big winners this year.

This integrated approach has helped the company weather the storm that hit some of the largest carbon markets in recent years, Ertel says. In the EU Emissions Trading System (ETS), for example, Evolution has doubled its market share in the past two years (see box page 16).

**"It's not a time for
number jockeys –
brokers have to find
ways to add value"**

**Andy Ertel,
Evolution Markets**

Many private sector clients have seen people burned by the carbon markets, so "there's a lot of risk assessment going on", says Craig Ebert, senior vice-president at ICF International, which once again won Best Advisory/Consultancy in almost all greenhouse gas categories.

In many cases, it is the well established players in the market – with the years of experience that comes with it – that have emerged from the bleak past few years in rude health. Law firm Baker & McKenzie, which scooped eight awards, is a case in point. Its involvement in these markets stretches back to 1997, and it helped pioneer deals including writing the first carbon contracts, setting up the first carbon funds and advising on the first structured carbon derivative transactions. It has won awards in every *Environmental Finance* market survey since we launched the exercise back in 2000.

"We have a long-term commitment to this space," says Sydney-based Martijn Wilder, head of the firm's global environmental markets practice, who joined in 1999.

But, despite the continuing gloom in the two main carbon markets, the EU ETS and the Clean Development Mechanism, there are bright spots. California, for example, has enjoyed a solid first year of trading and there are plans afoot to link with other cap-and-trade schemes.

And China's experiment with carbon markets is well underway, with its pilot trading schemes expected to lead to a national roll-out in coming years. As a result,

The Top 8 Winners in the 2013 Annual Market Rankings*

*Stars indicate number of awards received

Baker & McKenzie	★ ★ ★ ★ ★ ★ ★ ★
Evolution Markets	★ ★ ★ ★ ★ ★ ★ ★
ICF International	★ ★ ★ ★ ★ ★ ★ ★
Endurance Global Weather	★ ★ ★ ★ ★ ★ ★ ★
DNV	★ ★ ★ ★ ★ ★ ★ ★
Element Markets	★ ★ ★ ★ ★ ★ ★ ★
TFS Green/Tradition	★ ★ ★ ★ ★ ★ ★ ★
GreenStream Network	★ ★ ★ ★ ★ ★ ★ ★

“Overall, the carbon markets have been frankly depressing for a few years, with just a few islands of vibrancy”

Craig Ebert, ICF International (page 14)

the Market Rankings have this year, for the first time, started covering the nascent Chinese markets, with GreenStream Network scooping the inaugural gong for Best Advisory/Consultancy and Baker & McKenzie voted Best Law Firm.

The weather risk and catastrophe risk bond markets are also showing signs of expansion, with our Market Rankings for weather being expanded to cover Australia.

“We’ve seen both new and existing intermediaries increase their focus on emerging risks, which gives me confidence that the market is going to continue to grow,” says Marty Malinow, president of Endurance Global Weather, which was voted Best Dealer/Structured Product Provider in several markets.

The Rankings have also started to cover the Renewable Identification Numbers (RINs) market for US biofuels, which has also seen increased activity and

price volatility although it, too, could be undermined by regulatory changes. ICF Weaver, Van Ness Feldman and EcoEngineers shared the spoils in our inaugural survey of this market.

There were also new entrants in existing markets, such as India’s KMS Group, which took the title of Best Project Developer, Kyoto Projects.

We are proud to say that our Market Survey received more than 1,000 votes this year, a reflection of the passion and vibrancy that remains in the markets despite the persistent difficulties.

Although times are likely to remain tough in key markets for the foreseeable future, at least the remaining players have already proved they have what it takes to ride out the trough.

And, crucially, they will be in a prime position to prosper when the corner is finally turned. **EF**

Environmental Finance 2013 Annual Market Rankings



GHGs
pages 14-21



**Renewable
Energy Certificates**
pages 22-23



**Weather and
Catastrophe Risk**
pages 24-26



RINs
pages 27-28

How the rankings were conducted:

Companies were emailed in October and asked to nominate the leading banks, brokers and service providers in emissions markets, weather and catastrophe risk and renewable energy finance, via an online survey. Voters were asked to vote only in those categories in which they had direct experience and to make their judgments on the basis of: efficiency and speed of transaction; reliability; innovation; quality of information and service provided; and influence on the market, not just the volume of transactions handled. More than 1,000 completed responses were received. Only one vote per company site was allowed and those firms that nominated themselves had their votes disregarded.

Back to the future

The winners in this year's rankings have triumphed in the face of adversity. They are now anxiously waiting for policymakers to make structural reforms to core markets, just as they were at the turn of the century. **Graham Cooper** reports

Hopes of a recovery in the main carbon markets – the EU Emissions Trading System (ETS) and the international trade in carbon credits under the Kyoto Protocol – have been dashed this year.

Both have seen prices collapse and many participants retire hurt. Against this background, it is not surprising that the big winners in this year's market survey, as last year, are firms with long-standing relationships, global reach and the most experience of regulation-driven markets. Those notable for their success this year include broker Evolution Markets, consultancy ICF International and law firm Baker & McKenzie (see table). "It's quite a challenging period in the carbon markets – similar to the late 1990s, with a recalibration of climate change policy", says Martijn Wilder, head of the global environmental markets practice at Baker & McKenzie.

"Overall, the carbon markets have been frankly depressing for a few years, with just a few islands of vibrancy," adds Craig Ebert, senior vice-president at ICF.

The root cause of the troubles is the dramatic decline in industrial activity in recent years, which has caused a sharp fall in global greenhouse gas (GHG) emissions, leaving the EU ETS with a cumulative excess of 1.7 billion emission allowances (EUAs) (each of which represents 1 tonne of carbon dioxide (CO₂)). As a result, the EUA price has spent most of 2013 languishing around €4-5 (\$5.42-\$6.77), down from almost €18 in June 2011 and way down from its peak of close to €30 in 2008.

With no shortage of EUAs, few emitting companies in the EU have had any need to buy offset credits from Clean Development Mechanism (CDM) projects. The price of these Kyoto credits has, consequently, slumped to less than €0.50 from a peak of almost €23 in 2008.

Despite the near failure of these markets, there is a widely held view among politicians and industrialists that emissions trading should remain a cornerstone of the EU's response to climate change and the successor agreement to the Kyoto Protocol. But, at the same time, there is widespread acknowledgement of the need


for fundamental reform of both markets.

For much of the past year, the European Commission has been seeking agreement on its 'backloading' proposal, which aims to remove up to 900 million EUAs from the market in 2014 and 2015 and return them after 2016.

Parliamentary finally approved the principle in July, and in early November the Council of Ministers agreed to enter into talks about the details of the mechanism. But it is generally agreed that this short-term measure needs to be complemented by fundamental long-term structural reforms.

"The lengthy discussions about

Category	Winner	Runner-up
EU ETS		
Best Broker, Spot & Futures	★ Evolution Markets	TFS Green/Tradition
Best Trading Company, Spot & Futures	★ Vitol	CF Partners
Best Broker, Options	★ Evolution Markets	TFS Green/Tradition
Best Trading Company, Options	★ Statkraft	= Mercuria = Vitol
Best Advisory/Consultancy	★ ICF International	CF Partners
Best Law Firm	★ Baker & McKenzie	Norton Rose Fulbright
Best Verification Company	★ DNV	= Bureau Veritas = TUV SUD
Best Exchange/Clearing House	★ ICE Futures Europe	EEX
Kyoto Projects		
Best Primary Originator (eg Broker, Investment Bank or Carbon Fund)	★ Standard Bank	South Pole Carbon
Best Broker, Secondary Market (ie issued CERs/ERUs)	★ Evolution Markets	= TFS Green/Tradition = Amsterdam Capital
Best Trading Company, Secondary Market	★ Vitol	= CF Partners = Statkraft
Best Advisory/Consultancy	★ ICF International	KMS Group
Best Law Firm	★ Baker & McKenzie	Norton Rose Fulbright
Best Verification Company	★ DNV	= TUV Rheinland = ERM
Best Project Developer	★ KMS Group	Camco Clean Energy
Best Exchange	★ ICE Futures Europe	EEX



While others denied there was a problem, we were helping our clients find solutions.

We continue to do so today with the largest climate change and renewable energy practice of any law firm.

Thank you for your ongoing support.



Finance 2013
Annual Market Rankings

BEST LAW FIRM

- * EU Emissions Trading System
- * Kyoto Project Credits (JI and CDM)
- * US (California)
- * North America Markets (ALL)
- * Australasian Markets
- * China
- * Renewable Energy Certificates Europe
- * Renewable Energy Certificates Australia



Finance 2013
Annual Market Rankings

RUNNER UP

- * Renewable Identification Numbers

14th Annual Environmental Finance
and Carbon Finance Awards

www.bakermckenzie.com/climatechange
www.bakermckenzie.com/renewableenergy

Evolution Markets



Best Broker (GHG markets: EU ETS (spot & futures); EU ETS (options); Kyoto Projects; California (spot & futures); California (options); RGGI). Best Broker (Renewable Energy Certificates: North America)

Evolution Markets was once again voted the dominant broker in almost all the GHG markets except Australasia. But the company stresses that it offers far more than the basic deal execution service of traditional brokers.

From its headquarters in up-state New York, Evolution can also offer cross commodity and structured transactions, investment capital raising, and various forms of environmental finance, all underpinned, it says, by a thorough grasp of market nuances.

This approach has helped the company to weather the storm that hit some of the largest carbon markets in recent years.

Despite the collapse in overall activity and prices in the EU ETS and the Kyoto projects market, carbon markets still account for some 25% of the company's revenues.

Renewables and other environmental markets account for a similar percentage, with the rest coming from physical energy commodities such as oil, gas and coal and the finance side of the business.

The company retained the Best Broker accolade in the North American RECs market, but lost its title as leading broker in weather derivatives in this year's poll, having seen Nick Ernst, its director of weather markets leave the company in June.

Evolution was founded in 2000, in a small office in downtown Manhattan, by president and CEO Andy Ertel and two other pioneers in US emissions and coal markets, Peter Zaborowsky and Stephen Nesis. It has since grown to more than 80 brokerage and merchant banking professionals, with offices in New York, London, San Francisco, Beijing, Singapore and Cape Town.

With an initial motto of "Saving the planet, one trade at a time", the founders aimed not only to build a successful brokerage firm, but also to help design new risk management strategies and market-based approaches to environmental challenges.

Over the past 13 years, they have notched up numerous 'firsts' in the carbon, renewable energy and weather derivatives markets and grown the company into the world's largest environmental brokerage, facilitating transactions worth more than \$75 billion.

"The lengthy discussions about backloading have taken their toll"

Andy Ertel, Evolution Markets



backloading have taken their toll ... It's time to start talking about additional cuts," says Andy Ertel, president and CEO of Evolution Markets, once again the dominant broker across the GHG markets (see Box).

But backloading alone could give a significant boost to EUA prices, at least in the short-term, many believe. Leading analyst Trevor Sikorski, of Energy Aspects, predicts a rise to around €14 in 2015 if the full 900 million EUAs are withheld in 2014 and 2015 and released back to the market in five equal tranches between 2016 and 2020.

The Kyoto market, similarly, is awaiting fundamental reform, with several major countries having opted out of the second phase of the regime (2013-2020) and key decisions on a post-2020 agreement having

been deferred until 2015.

Faced with this regulatory uncertainty, much of the private sector has withdrawn from the market and the focus is very much on policy development. This is similar to the situation 10-15 years ago, between the signing of the Kyoto agreement in 1997 and its entry into force in 2005, notes Wilder of Baker & McKenzie.

As in the late 1990s, much of the market development work is being undertaken by the World Bank, the UN and other multilateral organisations, he notes. But, as far as the private sector is concerned, the Kyoto markets "have virtually disappeared", says Ertel of Evolution Markets. There are some legacy trades, but no real new activity, he says.

Baker & McKenzie is still helping some clients with the sale and purchase of carbon credits, but is also engaged in mergers and acquisition work, as "there is quite a bit of consolidation going on", Wilder notes.

While many market insiders hope and expect the CDM, or a similar mechanism, will retain a key role in the post-2020 international climate agreement, some warn that valuable skills are being lost as a result of the market decline.

"We estimate that the current volume of activity in CDM validation and verification volumes is in the order of 10 to 15% of what it was during 2012," says Stein Bjørnar Jensen, director of climate change operations at verification company DNV, voted Best Verification Company in both the EU ETS and Kyoto Project categories.

"We have been forced to cut back on staff numbers and I fear that we risk losing the competencies that we and the other [verifiers] have developed", he warns.

Few expect a quick fix to the CDM market. "It's difficult to see much change next year, particularly in terms of market prices," says Geoff Sinclair, head of carbon trading at Standard Bank, voted Best Originator of Kyoto Projects second for the second year in succession.

But, amid the gloom, there are pockets of optimism. A good example is KMS Group of India, a first-time winner, that took the title of Best Project Developer, Kyoto Projects.

"Our outlook for the CDM market in 2014 is neutral and perhaps moderately positive," says KMS director Nandagopal Paramesh. If the sale price of CDM credits reaches €1, that could be enough for many large-scale projects to aim for verification, he says.

He says KMS is "cautiously optimistic" for the future and is pursuing various business opportunities beyond its home market.

Indeed, geographical diversification is the name of the game for many established players as new markets start to take shape.

"We are actively looking at other markets," says Sinclair at Standard Bank. There is a clear trend away from the international [CDM] market to national and regional markets, he notes.

As this issue of *Environmental Finance*

THE LEADER IN Environmental Markets Consulting



Environmental Finance 2013 Annual Market Rankings Winner	Best Advisory/Consultancy Kyoto Projects
--	--

Environmental Finance 2013 Annual Market Rankings Winner	Best Advisory/Consultancy US (California)
--	---

Environmental Finance 2013 Annual Market Rankings Winner	Best Advisory/Consultancy North America (All)
--	---

Environmental Finance 2013 Annual Market Rankings Winner	Best Advisory (Joint) Renewable Identification Numbers
--	--

Environmental Finance 2013 Annual Market Rankings Runner-up	Best Advisory/Consultancy China
---	---

Environmental Finance 2013 Annual Market Rankings Runner-up	Best Advisory/Consultancy Ren En Certs North America
---	--

Environmental Finance 2013 Annual Market Rankings Runner-up	Best Advisory/Consultancy Ren En Certs Europe
---	---

ICF International thanks the readers of *Environmental Finance* and our clients for their continued support.

icfi.com/climate

U.S.: Maribeth Sawchuk ■ +1.703.218.2554 ■ Maribeth.Sawchuk@icfi.com
 U.K.: Alistair Ritchie ■ +44 20 092 3027 ■ Alistair.Ritchie@icfi.com

Washington, D.C. ■ Beijing ■ Brussels ■ London ■ Manila
 Nairobi ■ New Delhi ■ Ottawa ■ Rio de Janeiro ■ Toronto
 More than 50 offices across North America

Category	Winner	Runner-up
US (California)		
Best Broker, Spot & Futures	★ Evolution Markets	Karbone
Best Trading Company, Spot & Futures	★ Element Markets	Vitol
Best Broker, Options	★ Evolution Markets	Karbone
Best Trading Company, Options	★ Element Markets	= Shell = EDF Trading North America
Best Offset Originator	★ EOS Climate	BlueSource
Best Advisory/Consultancy	★ ICF International	Karbone
Best Law Firm	★ Baker & McKenzie	Van Ness Feldman
US (RGGI)		
Best broker	★ Evolution Markets	BGC Partners
Best trading company	★ Element Markets	Vitol
North America (All)		
Best advisory/consultancy	★ ICF International	Karbone
Best law firm	★ Baker & McKenzie	Van Ness Feldman
Best verification company	★ Ruby Canyon Engineering	First Environment
Best project developer	★ BlueSource	EOS Climate

“We estimate that the current volume of activity in CDM validation is in the order of 10 to 15% of what it was during 2012”
Stein Bjørnar Jensen, DNV

Outside the EU, however, there are more grounds for optimism. The US carbon markets, for example, have seen significant progress in the past 12 months. Despite legal challenges, continuing concern over ‘buyer liability’ provisions, and slow progress in getting offset methodologies approved, California’s cap-and-trade market, which was launched officially in January, has got off to a promising start.

There are a lot of unanswered questions, but “it’s taking off” and shows signs of being a viable market, says Ebert of ICF.

“Volumes are definitely picking up,” agrees Randy Lack, chief marketing officer at Element Markets, voted Best Trading Company in each of the US categories.

For Ruby Canyon Engineering, voted Best Verification Company in the North American markets, the growth of the Californian programme has helped boost business by 25% in the past 12 months, says president Michael Coté. He expects another healthy year in 2014, particularly if an offset methodology for capturing coal-mine methane emissions is approved for generating offsets in the Californian market.

So, too, does EOS Climate, which was voted Best Offset Originator in the Californian market. Next year “will see the increased participation of compliance entities that are not yet regulated, but are preparing for the second compliance period,” notes Patrick Pfeiffer, director of market interface at the company, which specialises in the management of refrigeration gases.

But some see potential pitfalls ahead. “Will California ... sufficiently protect its programme’s integrity from leakage and over-allocation?” asks Kevin Townsend,

goes to press, the annual UN climate change conference has just ended in Warsaw having made modest progress towards a timetable for national emission reduction targets to be proposed ahead of the hoped-for new international agreement in 2015. But the outcome falls far short of the hopes of many industrialists, financiers and environmentalists.

So, as 2014 approaches, private sector participants in both the EU ETS and Kyoto markets face considerable uncertainty, which is deterring many from deploying scarce capital into low-carbon projects.

“The present uncertainty is having a chilling long-term effect on the market,” says Ebert of ICF. “You can’t just turn markets on and off,” he warns.

Baker & McKenzie



Best Law Firm (GHG markets: EU ETS; Kyoto Projects; California; North America (All); Australia; China). Best Law Firm (Renewable Energy Certificates: Europe; Australia)

Since 1997, lawyers at Baker & McKenzie have been involved in many pioneering deals, including writing the first carbon contracts, setting up the first carbon funds and advising on the first structured carbon derivative transactions.

As an early mover in the greenhouse gas (GHG) markets, the firm has won accolades in every *Environmental Finance* market rankings since they began in 2000. This year, as in 2012, the firm swept the board in the GHG section of the poll, being named best law firm in each of the carbon markets surveyed.

The climate change team, which now includes more than 60 lawyers, was founded by James Cameron, now chairman of Climate Change Capital. Sydney-based Martijn Wilder, head of the firm’s global environmental markets practice, joined in 1999.

As the team pre-dates all the carbon trading markets, its initial focus was on policy work, with the first major advisory task being a review of international climate regulations and policy for a global multinational. The first project, in 1999, was the sale of carbon offsets from Australian forestry activities to a Japanese trading house.

The firm’s global reach, with 74 offices in 46 countries, has helped it win business around the world from a wide range of clients including the World Bank, European Commission and UN as well as banks, investment funds, multilateral agencies, national governments and blue-chip corporates.

“We are probably the only law firm with a strong global team in carbon,” Wilder says.

▶ Martijn Wilder, head of global environmental markets practice





**Environmental
Finance** 2013
Annual Market Rankings

WINNER BEST ADVISORY - NORTH AMERICA

Runner Up: Best Broker Renewable Energy Certificates & ,
Runner Up: Best Advisory/consultancy GHG's North America
Runner Up: Best Broker spot & futures, US (California)
Runner Up: Best broker options US (California),
Runner Up: Best advisory/consultancy US (California)

Karbone is a **leading integrated renewable energy firm** offering **capital advisory, brokerage and research** under one roof

We would like to thank our clients and partners for their continued support and helping us carve a unique niche.

KARBONE TEAM

WWW.KARBONE.COM

Thank you for selecting us as the Best Verification Company in North America

Maintaining our small business principles, Ruby Canyon Engineering (RCE) has earned its reputation by providing high-quality verification and consulting services characterized through our commitment to responsive and effective communication with clients.

Founded in 2005, RCE is a leader in all compliance and voluntary North American GHG markets, as well as an internationally recognized authority on coal mine methane capture projects. RCE maintains an experienced, multi-disciplined staff with office locations in Colorado, North Carolina, and Texas, USA.

RUBY CANYON ENGINEERING

+1 970.241.9298 • www.rubycanyoneng.com

Category	Winner	Runner-up
Australasia		
Best Broker	★ TFS Green/Tradition	–
Best Trading Company	★ Westpac	Climate Friendly
Best Advisory/Consultancy	★ RAMP Carbon	CO2 Australia
Best Law Firm	★ Baker & McKenzie	Norton Rose Fulbright
Best Verification Company	★ DNV	EY
Best Project Developer	★ CO2 Australia	–
China		
Best Advisory/Consultancy	★ GreenStream Network	ICF International
Best Law Firm	★ Baker & McKenzie	–

chief commercial officer at BlueSource, named Best Project Developer in North American markets.

Indeed, data released in late November suggested the market may have a bigger excess of allowances than most had anticipated. But analysts say this could be partially offset if expected links with other US states and Canadian provinces come to pass.

Meanwhile, on the east coast, the Regional Greenhouse Gas Initiative (RGGI) – the first mandatory GHG market in the US – is also showing renewed signs of life, thanks to some bold action to bring the supply of allowances close to the level of expected future demand. The emissions cap for 2014 is likely to be slashed by 45% and unsold allowances from previous auctions will not be readmitted to the market.

This has already had a dramatic impact, with the quarterly auctions in March and June this year being the first to be oversubscribed since March 2011. Participating states are keen for RGGI to succeed, not least because the auction

proceeds have yielded an estimated \$1.6 billion in net economic benefits in its first three years.

“States are falling in love with the revenues they get from the programme,” says Element’s Lack.

There is also speculation that some states that withdrew from RGGI may rejoin. “RGGI will spread quicker than California, in terms of the number of states added in the next three years”, he predicts.

This progress in the US contrasts with the situation in Australia, where the recent change of government has cast a shadow of uncertainty over the carbon market.

The outlook for carbon markets in Australia in 2014 are not great, says Phil Cohn, founder and director of RAMP Carbon, winner of Best Advisory in this year’s poll. The new government’s decision to remove the current Carbon Pricing Mechanism will remove the cap on emissions, sever international linkages and limit trading opportunities, market insiders say.

The carbon markets in Australia will

remain “very uncertain” for the foreseeable future, agrees the carbon team at Westpac, which retained the title of Best Trading Company in the Australasia markets.

There is also concern about the New Zealand ETS in the near term, which is bedevilled by low prices and limited trading volumes. “Unless they can change the supply-demand dynamics of the market there is little prospect for progress in 2014,” says Cohn of RAMP.

But changes are planned, in a bid to breathe new life into the market. They are likely to include the auctioning of allowances, and future restrictions on the use of international credits, says Westpac.

Despite all these problems, however, the cap-and-trade model is increasingly winning favour around the world as the most equitable and cost-effective means of curbing GHG emissions.

In addition to the markets already mentioned, dozens more are in preparation. Many of them are being developed within the framework of the World Bank’s Partnership for Market Readiness initiative. By far the biggest is the proposed national emissions trading scheme in China.

This is being preceded by seven regional pilot programmes which, taken together, would be the largest market in the world, when they are all in operation, says Ebert at ICF.

We are now “starting to see clients asking lots of questions about the Chinese [carbon] markets”, says Wilder at Baker & McKenzie.

But it remains to be seen to what extent these markets will be open to non-Chinese companies. “So far it seems ... that this verification market is only available for China’s own certification bodies”, says Bjørnar Jensen of DNV.

“Expectations will need to be modest,” agrees Karl Upston-Hooper, legal counsel to GreenStream Network, which took the title of Best Advisory/Consultancy in the Chinese markets.

The Finnish company has been active in the country since 2005 and is helping to develop the pilot markets. “Things are moving very fast there,” he says. There are some significant hurdles to overcome “but I do believe they will get there,” he says. “They will have emissions trading in China”. **EF**

ICF International



Best Advisory/Consultancy (GHG: EU ETS; Kyoto Projects; California; North America (All)). RINS

ICF International again won Best Advisory/Consultancy in almost all greenhouse gas categories. Its team helps clients comply with carbon markets and other emissions regulations.

Craig Ebert, senior vice-president, expects the firm’s focus in 2014, in terms of greenhouse gases, to be on the EU Emissions Trading System, California’s cap-and-trade programme and the emerging regional carbon markets in China.

ICF, which employs some 700 people dealing with environmental market issues, was also voted joint Best Advisory/Consultancy in this year’s new category, Renewable Identification Numbers – US biofuel credits.

“We’ve been working with the Environmental Protection Agency on Renewable Fuel Standards and related policies for many, many years, and now we’re bringing this expertise to the market,” says Erika Myers, a senior associate at ICF.

ICF was also awarded two Runner-Up positions in the Renewable Energy Certificate markets, for North America and Europe.



GreenStream

GreenStream Network Plc is the winner in GHG China – “Best advisory/consultancy”

GreenStream has also been voted for the “Best broker and best advisory renewable energy certificates - Europe”, for the 10th consecutive year (2004-2013).

“We want to thank all of our clients and supporters and express our gratitude to those who have made this recognition possible. I sincerely believe that these awards reflect the dedication, expertise and the great talent we have in-house”, says **Dr. Jussi Nykänen**, the CEO of the company. Dr Nykänen also noted that the award of GHG China – “Best advisory/consultancy”

reflected GreenStream’s ongoing commitment to be a key player in the development of emissions trading in China.

The award caps off a successful year in China for GreenStream. During 2013 GreenStream has succeeded in making transformational energy efficiency investment agreements: one in March with a paper manufacturer in Shandong province and another in September with a subsidiary of the Guangdong-based, state-owned paper giant CCT (China Paper Corporation).

Your Energy Efficiency Partner in China

www.greenstream.net

Our founders and staff have been active in carbon markets since early 2004. Kanaka Management Services Private Limited (KMSPL) was incorporated as a private limited company in 2007 under the laws of India mainly to develop CDM and VCS projects.



Since then KMSPL has been relentlessly serving their clients across the world with a particular focus on India, Malaysia, Indonesia and other Asian and African countries for CDM, VCS and sustainability related services.

KMSPL’s service quality and the value we provide to clients is amongst the best in the industry, as demonstrated and acknowledged by the last 8 years of successful operations. Presently KMSPL has around 90 satisfied customers who benefit from KMSPL’s industry-best services. Despite the recent downward carbon market trend, KMSPL’s client list and emission reduction portfolio is steadily expanding.

Presently KMSPL has around 70 emission reduction projects of different types, progressing at various stages across the world. The expected total emission reductions in the next 10 years from KMSPL’s contracted projects will exceed 150 million. Many of KMSPL’s mega CDM and VCS projects are already registered and started issuing ER’s.

When analysing various parameters such as our satisfied client base, the amount of CERs/VERs we earn as a part of our share (and its value) and our fixed retention fee receivables from clients when compared to our operating costs: perhaps we are the best entity in this sector across the world.

www.kms-group.com

Email: info@kms-group.com

Tel: +91 – 900 816 7850

**2013
Annual Market Rankings**

**2013
Annual Market Rankings**

Dealing with volatility

With record-low prices in Europe but some buoyant markets in the US, it has been another challenging year for traders in the renewable energy certificate markets. Peter Cripps reports

It has been a year of volatility for many of the renewable energy certificate (REC) markets.

A case in point is the US PJM Interconnection market, which covers Ohio, Pennsylvania, New Jersey, Delaware, Maryland and the District of Columbia. The price of ‘tier one’ RECs

started 2013 at about \$3.50 and soared to more than \$15 before coming back to about \$12 at the time of writing.

“We have seen significant price movement,” says Richard Weihe, a New York-based managing partner at Karbone, which won Best Advisory Firm and Runner-Up in Best Broker in the North American markets in *Environmental Finance’s* annual Market Rankings for 2013.

He attributes Karbone’s success to its “integrated approach”, which sees it offer a host of services including brokerage, project finance, research, advice and market intelligence, and means it is well placed to help clients negotiate these fiendishly complex and rapidly changing markets.

While all RECs essentially represent the same thing – proof that a megawatt hour of renewable electricity has been delivered to the grid – there is a baffling array of markets, both mandatory and voluntary, in operation in the US, and across the globe.

And they all react to their own fundamentals of supply and demand, and are heavily influenced by state/government policies and the capacity of existing and planned renewables projects to feed electricity into the grid.

In the US, there are some 30 states that have renewable portfolio standards (RPS), while there is also a national voluntary Green-e RECs market for companies that want to burnish their environmental credentials by paying a premium for clean electricity. Each of the different markets has seen its own pricing trends over the past year.

The New England Power Pool (Nepool),



▲ Richard Weihe, Karbone, attributes success to “integrated approach”

whose states were among the first in the country to implement mandatory RPS rules, in the late 1990s, has seen “continued firm pricing”, according to Weihe.

There have also been strong increases in price in the Green-e market, which has risen to \$1.10 from 65 cents over the past eight months, according to Steve McDougal, a San Francisco-based president at 3Degrees, which won Best Trading Company in North America.

“The national green markets have increased in price pretty markedly after a long decline since the recession,” he says.

McDougal attributes the firm’s success to a focus on helping customers promote their brand and helping to find renewables certificates from projects with “meaningful stories”. He believes customers will, in some cases, pay more for certificates from projects with “local relevance”.

Karbone’s Weihe says the price rises seen in many of the markets have partly been caused by the “relatively small pipeline” over the coming year of new projects set to come

RECs North America		
Best Broker	Winner	★ Evolution Markets
	Runner-up	Karbone
Best Trading Company	Winner	★ 3 Degrees
	Runner-up	Element Markets
Best Advisory	Winner	★ Karbone
	Runner-up	ICF International
Best Law Firm	Winner	★ Van Ness Feldman
	Runner-up	Hunton & Williams
RECs Europe		
Best Broker	Winner	★ GreenStream Network
		STX Services
Best Trading Company	Winner	★ Statkraft
Best Advisory	Winner	★ GreenStream Network
	Runner-up	ICF International
Best Law Firm	Winner	★ Baker & McKenzie
RECs Australia		
Best Broker	Winner	★ TFS Green
Best Law Firm	Winner	★ Baker & McKenzie



onto the grid amid cheap natural gas from the US's shale boom.

The New Jersey solar REC market has also rebounded and leveled off after the state government intervened in 2012 to arrest dramatic falls in prices by increasing the target and allowing more banking. Prices, which had slumped from \$655/MWh in April 2011 to less than \$70/MWh a year later, have since recovered to trade at a range between \$130 and \$150.

However, in Texas, prices have fallen dramatically from \$2.75 to \$1.05, says Ken Nelson, senior vice-president – trading at Element Markets, which was voted Runner-Up in the North American Trading Company category.

He attributes the falls in price to an oversupply as a result of a strong build out of renewables projects, exacerbated by expectations that the production tax credit (PTC) for wind projects would expire at the end of 2012, which triggered a flurry of building activity. The PTC was eventually extended for another year, although there is not expected to be the same rush to complete projects this year as last year.

“We have seen some pretty volatile markets moves, almost violent sometimes,” says Nelson. He believes this volatility and the rising prices in many of the markets have in recent years started attracting a more varied group of traders, including hedge funds, banks such as Citi, and larger commodities trading houses, such as Vitol and EDF.

“I think there an increased focus on trading companies that have entered the space,” he says. “The market has shifted over the past few years – a few years ago the role of the intermediary was more of an aggregator, and providing expertise. And the industry is maturing into people putting on sizeable risk positions and deploying

capital.”

Despite the volatility, Weihe believes the prospects for prices remain strong across many of the RECs markets for 2014.

“Given the difficulties in siting new renewables projects as well as challenges with relatively low power prices, given the abundance of natural gas, we see that the prices in Neepee should continue to be firm going into 2014, and in PJM after the uptick seen in 2013, [prices] should continue to be strong. I don't see the pricing in PJM Tier 1 going back to low single-digits any time soon. That's in the rear view mirror for the time being.”

And Nelson is also “cautiously optimistic” about the future of the markets. “We have survived a pretty tumultuous time. I'm optimistic that this is achieving some really significant reductions in technology deployment costs and, as we see those costs come down, it's exciting.”

While there is encouragement for prices in the US, in Europe they have slumped to “record lows” over the past year.

The Europe-wide voluntary market in so-called Guarantees of Origin (GOs) has seen prices fall from more than €0.70 (\$0.95)/MWh in 2011 to between €0.10 and €0.20 at the time of writing.

Michael Weber, head of intermediary services at GreenStream Network, which was voted Best Broker Europe for the tenth year in a row and, this year, was also voted Best Advisory, said the higher prices two years ago were driven by the Fukushima nuclear disaster boosting demand for renewables.

But since then, demand for renewables has fallen away, while the supply of certificates has been boosted after additional countries, such as Iceland and France, added the GOs produced by their renewables to the market.

Berlin-based Weber believes administrative costs will prevent prices falling any lower. But he sees no end to the oversupply problem in sight, and his forecast for pricing is gloomy.

However, the complicated nature of the markets in Europe, means there will continue to be a need for integrated companies such as Greenstream, that offer consultancy and advisory services as well as being a trader and broker, he says.

German energy exchange EEX started trading a handful of GO certificates over the summer, but most of the trading remains over-the-counter, adds Weber.

“It's a really fragmented market – a lot of explaining is needed – a company like us is needed,” he says, pointing out that with traders in Finland, France and Germany, the company has strong levels of expertise in some of the biggest markets.

However, Weber says that at such low prices, the RECs market is failing to “trigger any new renewables plants”.

“I don't see any strong reasons why it would pick up – there's no reason why there shouldn't be an oversupply.”

He is hopeful that the industry will eventually increasingly embrace different levels of pricing for certificates from specific regions or types of renewable technology as a way of boosting pricing.

But until then, as in so many of the RECs markets, the trading environment will remain uncertain. **EF**

“It's a really fragmented market – a lot of explaining is needed – a company like us is needed. With traders in Finland, France and Germany, the company has strong levels of expertise in some of the biggest markets.”
Michael Weber, GreenStream Network



The winds of change

Winners in the weather risk market are increasingly seeing demand for risk protection broaden beyond the conventional energy market. **Elza Holmstedt Pell** reports

Attracting demand from new sectors and new regions is a priority for most weather risk market participants, who have mainly done business with North American energy firms since the market's inception some 15 years ago.

"It's a growing market, in terms of depth and breadth," says Marty Malinow,

president of Endurance Global Weather, which made a clean sweep in *Environmental Finance's* 2013 Annual Rankings for weather risk, winning Best Dealer in Europe, Asia, Australia, and joint Best Dealer in North America.

"While we continue to solve problems for our core energy clients, we have been increasingly working outside this sector in a broad range of industries" such as renewables, agriculture, construction, transportation and retailing, he explains.

"From our perspective, the key to driving the weather market forward will hinge on bringing new risks into the market, not more capital," he adds. Malinow, whose weather risk team from specialist Galileo was acquired by re/insurance company Endurance in 2012, offers "highly bespoke solutions", he says, rather than standardised products that better suit the exchange-traded weather risk market.

It is widely agreed that the market is continuing to shift towards bespoke products for end-users such as energy firms or farmers, and away from the traded market – where end-user risk can be traded and hedged and where speculators can trade around weather forecasts or other, weather-related energy markets.

"We've seen both new and existing intermediaries increase their focus on emerging risks, which gives me confidence that the market is going to continue to grow," says Malinow.

"I think more education and more outreach has brought new companies into the market," agrees Peter Rosen, weather derivatives broker at Tullett Prebon, which was voted Best Broker for Weather Risk in Europe and North America this year, after poaching Rosen from ICAP – last year's winner of both – in May.

Rosen was one of the original players in the weather risk market and has seen demand in Europe increasing "more and more" over the past year.

Malinow says that he is seeing progress in the Asia-Pacific market – where Endurance has closed a number of undisclosed deals. Discussions are underway with a number of others in emerging Southeast Asia economies – where deals previously hindered by availability of data are now feasible due to "firms like Speedwell minimising data quality concerns".

Stephen Doherty, CEO of Speedwell Weather, the winner in the Best Advisory/Data Service



"We've seen both new and existing intermediaries increase their focus on emerging risks, which gives me confidence that the market is going to continue to grow"

Marty Malinow, Endurance Global Weather

Weather Risk North America		
Best Broker	Winner	★ Tullett Prebon
Best Dealer/Structured Product Provider	Winners	★ Swiss Re Corporate Solutions ★ Endurance Global Weather
	Runner-up	RenRe Energy Advisors (now part of Munich Re)
Weather Risk Europe		
Best Broker	Winner	★ Tullett Prebon
Best Dealer/Structured Product Provider	Winner	★ Endurance Global Weather
	Runner-up	Swiss Re Corporate Solutions
Weather Risk Asia		
Best Broker	Winner	★ TFS/Tradition
Best Dealer/Structured Product Provider	Winner	★ Endurance Global Weather
	Runner-up	MSI Guaranteed Weather
Weather Risk Australia		
Best Broker	Winner	★ Risk Solutions International
Best Dealer/Structured Product Provider	Winner	★ Endurance Global Weather
Weather Risk Global		
Best Advisory/Data Firm	Winner	★ Speedwell
Best Law Firm	Winner	★ Reed Smith



category for the sixth consecutive year, says he has “never seen more demand for our weather data services, particularly in the past quarter”.

“When we see demand like this, it’s a good sign of interest in weather hedging,” he adds. “We’ve also seen more diverse requests, with increasing requests for more exotic locations. For the first time we are also seeing demand for weather risk contracts where settlement is based on forecast values rather than weather observations, so we have developed a product specifically to meet this need.”

Doherty also reveals that the firm is launching a weather risk product in coming months to allow those with interest in agriculture or agricultural commodities “to monitor hundreds of crop areas around the world and to quickly understand how the weather has impacted a crop and use forecast information to project how it will evolve”.

The agriculture sector has also been

“We’ve never seen more demand for our weather data services, particularly in the past quarter”

**Stephen Doherty,
Speedwell Weather**

rising up the agenda for Swiss Re Corporate Solutions, voted joint Best Dealer in North America and runner-up in Europe.

“On the agriculture side, we work with companies around the world,” says Juerg Trueb, head of environmental and commodity markets at Swiss Re Corporate Solutions. “We have a solid presence in South America, with a significant team in Sao Paolo on the agriculture side.”

Trueb attributes Swiss Re’s success in the North American market to its ongoing expansion in the region. It previously mainly

focused on the north-east of the US and in Texas but it now has expanded in the west of the US as well as in Canada, he explains.

In addition, he says the increased importance of renewable power in the energy mix is driving demand for weather protection.

“We organised two very well-attended events in the US and Europe with our clients where we showed them developments in respect to the renewable energy boom,” he says, adding that Swiss Re Corporate Solutions has closed two renewables-related weather transactions in the US and Europe shortly after these events.

Demand for renewable energy deals is also building in Europe, Trueb says, driven by the large amounts of renewables capacity that has been installed in the region in recent years. And, in addition to hedging to manage the risks of, for example, less wind than expected, Trueb explains that many European utilities want to deleverage their

Speedwell Weather

Forecasts
Weather Data
Risk Consultancy
Weather Risk Software

**Environmental
Finance 2013**
Annual Market Rankings
Winner

**Winner Best Advisory / Data Firm
Weather Risk (Global)**

We are delighted to have won this award for the sixth year in a row and would like to thank our clients for their valued support over 2013.

from all on the Speedwell Data, Forecast and Software teams in the USA and UK

Founded in 1999, Speedwell Weather provides quality weather data, weather forecasts, software, and consultancy. From offices in the UK and the USA we serve clients world-wide in sectors including weather-risk, energy, and agriculture.

Our data products include SuperPack® which provides unlimited access to our thousands of high quality world-wide weather data sets.

Speedwell Weather is the dominant settlement agent for parametric weather risk contracts



Catastrophe risk

It's been a busy 2013 for participants in the catastrophe (cat) risk market. Munich Re forecasts that \$7 billion of cat bonds will be issued in 2013, which would exceed the previous record issuance of \$6.8 billion.

"Demand for cat bonds continues to be very strong," says Martin Bisping, head of non-life risk transformation at Swiss Re, which was voted Best Dealer in Catastrophe Risk. While he believes that 2013 will not quite beat 2007's record issuance, he expects that the overall market size grow to an all-time high, with \$20 billion in outstanding bonds by the end of the year.

David Priebe, vice-chairman of Guy Carpenter & Company, which was voted Best Broker in the cat risk market, says that "at the end of 2012 and beginning of 2013, we saw a shift in the market, where investors in insurance-linked securities started [seeing] the value of cat risk within their portfolios."

Bisping adds that "there is a trend towards indemnity based cat bonds, while the market continues to be dominated by US hurricane-exposed cat bonds." Indemnity bonds are triggered based on actual costs incurred to the re/insurer issuing a cat bond, rather than when industry losses from a catastrophe, measured by third-party indexes, reach a certain level – the most common type of cat bonds. "There are more investors interested in this space each year," says Barney Schauble, managing principal of Nephila Advisors, the US affiliate of Nephila Capital, which won Best Trading Company/Investor. Nephila has a little over \$9 billion in assets under management, Schauble says, up from \$7 billion one year ago.

Cat Risk Global

- Best Broker **Winner** ★ Guy Carpenter
- Best Dealer/Structured Product Provider **Winner** ★ Swiss Re
- Best Trading Company/Investor **Winner** ★ Nephila
- Best Advisory/Data Service **Winner** ★ RMS

balance sheets, and use weather derivatives to de-risk renewables assets they would like to sell. This makes the assets more attractive to potential buyers.

In Australia, demand for weather risk protection has also been boosted by clean energy. Neil Bird, a partner at Risk Solutions International, which won Best Broker in the Australian market – in the first year that *Environmental Finance* ranked Australia as a separate category – says he has seen an increase in the number of weather transactions in 2013 compared to last year. This occurred "in part, we think, [because of] the increased penetration of wind generation in Australia," he says.

Looking ahead, he says the company – which arranged one of the first long-term weather related transactions in Australia in 2003 – is advising "a number of companies" outside the energy sector. "We believe that we will see the non-energy market develop in 2014," he adds. EF

**Environmental
Finance** 2013
Annual Market Rankings
Winner



**Voted Best Broker in the
European and North America
Weather Risk Markets**

Tullett Prebon is delighted to have been awarded the Best Broker in the European and North America Weather Risk Markets in *Environmental Finance's* 14th Annual Market Rankings.

Thank you to all our customers who voted for us.

For further information:

Weather Derivatives Desk

Tullett Prebon Financial Services, LLC

weatherderivatives@tullettprebon.com

+1 201 984 6474

www.tullettprebon.com





A year of RINsanity

The market for US biofuel credits has seen an unprecedented level of activity this year, but regulatory uncertainty makes the future of the market difficult to predict. **Elza Holmstedt Pell** reports

The past year was “pretty crazy”, says Erika Myers, a senior associate of ICF International, which was voted joint Best Advisory for Renewable Identification Numbers (RINs) in the *Environmental Finance* 2013 Annual Market Rankings. Market participants even started using the term ‘RINsanity’ to describe the market movements as at some points, she adds.

Myers refers, in part, to a massive price spike of corn-based ethanol RINs this year. Prices reached \$1.50 in July, having ranged between \$0.01 and \$0.10 in previous years.

RINs are tradeable certificates that track the compliance of fuel refineries with the US government’s Renewable Fuel Standard (RFS), enacted in its current form in 2007, which requires them to blend a certain proportion of renewable fuels into transportation fuels each year up to 2022.

The credits come in three types, with different certificates attached to each gallon of fuel depending on whether it is corn-based ethanol, biodiesel or advanced biofuels. Advanced biofuels and biodiesel

RINs have generally been valued higher than conventional ethanol, and also rallied when ethanol credits skyrocketed.

The sudden price rise of ethanol RINs was “in large part [because of] market speculation”, says Myers. Some refineries were uncertain about whether they could meet the RFS target for 2013, so they were “willing to pay what it took to make sure they didn’t incur penalties”, she explains. “There were also concerns about drought, after previous years, and the stack of corn available.”

However, the rally was not long-lasting, with the price of ethanol RINs plunging in recent weeks, having fallen to \$0.19 when this article went to press, while advanced biofuels RINs had dropped to \$0.20 and biodiesel credits to \$0.25.

There have been suggestions that the higher prices in the RINs market were down to the involvement of some large banks, amid reports that Wall Street investors were exploiting the young market. “But I’m not convinced,” says Kyle Danish, a partner at Van Ness Feldman, which was voted Best Law Firm for RINs. “I think the higher prices reflect a much



“The volume targets [under the RFS] are ambitious, and the amount of fuel to meet that move is more limited”

Kyle Danish, Van Ness Feldman

more basic supply and demand issue.”

“The volume targets [under the RFS] are ambitious, and the amount of fuel to meet that move is more limited,” he explains.

Danish believes the market is maturing, with “sophisticated and settled” sellers and intermediaries making up a greater part of the market than in recent years.

In addition, exchanges ICE and the

Renewable Identification Numbers		
Best Advisory	Winners	★ ICF International ★ Weaver
Best Law Firm	Winner Runner-up	★ Van Ness Feldman Baker & McKenzie
Best Verification Company	Winner Runner-up	★ EcoEngineers First Environment



CME have both listed RINs contracts this year. However, market participants say they have been lightly traded and that they do not expect an influx of financial players into the market.

Danish says Van Ness Feldman deals with several different types of clients in the RINs market, for example advising on transactions and assisting companies that are producing fuels and want to be recognised by the RFS programme. The firm also advised “at least one client” that was swept up in an Environmental Protection Agency (EPA) investigation of participants in the market, after cases of RIN frauds were identified – but Danish emphasised the client was not accused of any wrongdoing.

The so-called ‘RINGate’ scandal, in which fraudsters falsely claimed to have produced biofuels and sold fake RINs to brokers and companies, led to an increased drive to promote third-party verification in the market. The EPA has proposed a voluntary quality assurance programme for biofuels credits and has pre-approved six firms to verify them.

Des Moines, Iowa-based EcoEngineers, voted Best RIN Verifier, says it has audited more than 150 biofuel plants in 18 countries, and that it processes two million RINs each day through its qualified assurance programme.

“EPA verifiers have boosted the market,” says Danish. “Like many markets established by regulation, this market has taken some time to go through the ups and downs of finding what sort of rules are needed in order to prevent abuse.”

Sandra Dunphy, director of energy compliance services at Weaver, which was voted joint Best RINs Advisory, highlights that the firm also offers an EPA-approved verification service, alongside its advisory services. These audits could become “a very large part of our business once the rules [for the EPA quality assurance programme] are finalised in the future”, she says.



“This year, more than ever in the past, we’ve had more of an interest from foreign producers that are interested in producing fuel that would qualify for use in the US and for RINs”

Sandra Dunphy, Weaver

Weaver is “busier than ever” with its RINs activities. The market is “constantly evolving, and we’re at the forefront”, she says, explaining that a lot of new companies are emerging in the biofuel sector, as well as new feedstocks that could qualify for the RFS. “Lots of new clients come to us and ask ‘will this work under the RFS programme?’”

“This year, more than ever in the past, we’ve had more of an interest from foreign producers that are interested in producing fuel that would qualify for use in the US and for RINs,” she explains.

However, market participants agree that there are clouds on the horizon for the RINs market. The EPA recently announced a long-awaited proposal to lower the RFS volume obligations for biofuels in the coming years, after coming under high pressure from some fuel refineries who say the annual targets are too high. The targets consist of fixed volumes of fuel rather than a percentage of the overall fuel demand like in Europe, and were set in 2007 when it was expected fuel demand in the US would rise each year until 2017 – but in reality, demand has fallen.

“People expect RIN prices to decline next year,” says Myers at ICF “In future years, it’s tough to predict.” She explains the number one concern of ICF’s clients in the market is that investors lack confidence in the RFS regulation. This impacts the fledgling advanced biofuels industry

especially negatively.

“It’s very possible that we’re going to see a number of [these] businesses shut down temporarily or just disappear” in 2014 because of policy uncertainty, she warns.

Danish says it’s “very difficult to plan forward” for market participants. “There are all sorts of anti-regulatory forces that create pressure on the EPA. It’s not likely that the whole programme is wiped out by a piece of legislation, but it’s likely that the EPA will act to [...] reduce targets.”

While Dunphy concurred that “the EPA is the biggest driver of the market” and that there is uncertainty about what the RFS policy will look like, and what the value of RINs will be going forward, she says 2014 will be a busy year. “Regardless of what happens, every company that owns a RIN is subject to an annual audit, and Weaver will continue to perform hundreds of those – both under the new quality assurance programme and the RFS programme.” EF

The sudden price rise of ethanol RINs was “in large part [because of] market speculation”

Erika Myers, ICF International

