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EMISSIONS TRADING

Russia could turn JI into a star performer

The country that finally kick-starts Joint Implementation carbon trading between industrialised states could be Russia, says **Caitlin Randall**

Joint Implementation (JI) projects to reduce carbon emissions have until now lingered in the shadows of the Kyoto Protocol's other tool to generate emission credits, the Clean Development Mechanism (CDM). However, with Russia poised to adopt a regulatory framework for JI development, analysts and developers forecast a boom in that country's JI projects, including bioenergy schemes. That could turn the JI concept into Kyoto's star performer.

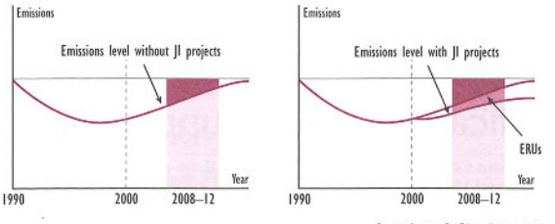
"The biggest barrier is the government's delay in setting up a national framework to oversee the JI programme," says Bella Rabinovich, an analyst with the Moscow-based Agency for Direct Investment. "Right now, there are around 100 projects in various stages of development waiting on the regulations and plenty of private financing looking for projects … The potential is huge."

Russia promises to be the biggest source of JI projects and one of the biggest players in the carbon market worldwide. The Russian Ministry of Economic Development and Trade (MEDT) expects about 200–300m tonnes of Russian carbon dioxide (CO_2) to be traded through JI and other project-based mechanisms in 2008–12. It says that 30 investment projects qualified as JI activities in 2005 alone, creating potential carbon assets of about $240m.

"Setting down the regulations will definitely ignite a lot of activity," says Erick Saat, the Netherlands-based managing director of environmental consultancy Global Carbon. "The projects already in development represent significant CO_2 volume and Emission Reduction Units (ERUs) and, if approved, those are likely to spark more investment" (see below).

Developers and analysts expect the Russian government to approve the regulatory framework necessary to endorse and approve JI projects some time this month or next. This comes some two and a half years after Russia ratified the Kyoto Protocol in November 2004.

Joint Implementation projects offer emission reduction unit benefits for Russia



Source: Agency for Direct Investments

THE JI LOW-DOWN

Joint Implementation (JI) projects are a Kyoto Protocol mechanism which allow developed countries (Annex I nations) that have ratified the Protocol to develop carbon-reducing projects in other Annex I countries, particularly those in transition to a market economy.

In exchange, the investor country receives Emission Reduction Units (ERUs), with one ERU corresponding to an emission cut of 1t of carbon dioxide equivalent. At the same time, the emission allowances (assigned amount units) of the host country, primarily in Eastern Europe and the former Soviet Union, are reduced by the same amount.

Like the Kyoto Protocol's Clean Development Mechanism (CDM) projects, JI projects must have the approval of all parties involved and must lead to emission reductions that are additional to any that would have occurred without the project.

ERUs can be used in the Emissions Trading Scheme (ETS) of the European Union (EU) only after 2008. In contrast, CDM credits have been elibible for use since January 2005.

The Kyoto Protocol sets a cap on greenhouse gas emissions that industrialised nations are allowed to emit in the period 2008–12, with 1990 set as the base year.

Russia, like many other Central and Eastern European countries, is expected to meet its Kyoto obligations easily. This is because after the collapse of the Soviet Union in 1991, greenhouse gas emissions fell dramatically – 30% from 1990 to 1994 – to leave Russia's current emissions well below the 1990 reference year figure. It is expected to stay below its Kyoto annual cap of 500–700m tonnes of CO_2 in 2008–12.

For Russia, Kyoto represents an opportunity to modernise its ailing industrial infrastructure and improve energy efficiency in a country where energy use/unit of gross domestic product is more than three times the European average.

"Companies are moving ahead with the hope and expectation that a regulatory scheme is ready to be announced," says Arthur Houston, managing director of Camco International's Russian office, which is involved in the development of Russian initiatives, including a large biomass project near the northern city of Archangel.

Houston says that rumours that the JI rules are pending are nothing new in Moscow. However, this time he believes that the government recognises the bottleneck it has created with the absence of an institutional framework.

"Russia is so far behind the rest of the Kyoto signatories that they're really beginning to worry," says Houston. "They know they need to catch up and catch up fast if they hope to sell their carbon [reduction units] and participate in the carbon market."

According to developers, ministerial squabbling is at the root of delays. They say that five Russian federal organisations — the MEDT, the ministries of industry and energy, of natural resources and of foreign affairs plus the

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TWO-TRACK DEVELOPMENT

Track 1 When a host country meets all the eligibility requirements for JI projects set by the United Nations Framework Convention on Climate Change (UNFCCC) it can apply its own national rules and procedures to approve projects and estimate emission cuts.

A Track 1 host country may also issue JI Emission Reduction Units (ERUs) and transfer them to project participants. Considerably more liberal than Track 2, Track 1 allows the host country to define the parameters of a project.

Track 2 The second track applies to host countries that have not yet met all the UNFCCC eligibility requirements. Like the Clean Development Mechanism (CDM), projects in Track 2 development are overseen by a UNFCCC "supervisory committee" and ERUs must be certified by "independent entities". It is a more bureaucratic system, but provides clear-cut institutional safeguards. The country must meet the requirements relating to calculation of its assigned amount of emissions under the Kyoto Protocol.

Roshydromet environmental monitoring agency – vied for control, reaching agreement only this March.

"It was a kind of Faustian bargain in which they agreed that a project design document has to pass through an additional level of ministerial approval," says Camco's Houston. "There are two extra ministries acting as gatekeepers which is a concern … It could turn into a bureaucratic nightmare."

FEARS OVER TRACK RECORD

For now, however, the worries are somewhat mitigated by Russia's participation in Track 2 of the JI mechanism and not the more liberal Track 1 option in which host countries exert control over projects (see panel above). Track 2 projects, according to some analysts, offer more predictability and reliability within the approval process and better enforcement.

"We view moving from Track 2 to Track 1 as the biggest risk to our business here," says Houston. "Who would you trust more, an international organisation or a [host] government with no track record … I would recommend getting in while the Track 2 international approval process is in force."

There is also the argument that, given Russia's size, it is likely to be a price setter in the carbon market. Domestic debate over how many JI projects should be approved could surface under Track 1. "Given the increasing autonomy of Russia's regions, conflicting interests may develop in how JI projects should be realised," notes a recent report by the climate change division of the US Environmental Protection Agency. "This may reduce JI's effectiveness, particularly if it becomes necessary to hold negotiations on every project with both local and federal officials."

UNWIELDY CONCEPT

The details of the JI concept, hammered out in 2001 in the Marrakech accords, have made it a far more unwieldy instrument than the CDM, which offers investors a relatively straightforward approvals procedure overseen by an international board. While the market for CDM emission credits powers ahead, JI credits or ERUs can only be created from 2008 (see panel opposite).

According to the environmental consultancy Climate Focus, 155 JI projects have been submitted for "determination" with about half from Russia. Many of those were submitted before the United Nations Framework Convention on Climate Change (UNFCCC) defined its JI procedures in early 2006 and will have to be "re-determined" once regulations are in place. Those early starters found funding mainly from the World Bank's various carbon funds and the Dutch government's emission reduction purchase programmes.

Some Eastern European countries wasted no time in setting up JI regulatory schemes, leaving Russia in the dust. One such case is Ukraine, which approved rules in September 2004. However, while there was an initial surge of interest in the JI programme, progress there has been slow.

"Ukraine is probably the biggest disappointment in the JI story," says Camco's Moscow-based Houston. "The lack of progress is obvious if you look at the number of Ukrainian projects in the pipeline, which is much less than in Russia where there is still no approval system." He says that economic conditions in Ukraine make foreign investment risky and difficult, in part because the economy has yet to be transferred to any great extent into private hands.

For Saat at Global Carbon, expectations of a bonanza for biomass projects in Ukraine have proved especially disappointing. "Ukraine hasn't lifted off in terms of biomass projects," he says. "Part of the problem is the location of the potential projects and the lack of infrastructure needed to transport the end product."

He adds that while there are a few biomass projects under development, they are mostly small-scale initiatives.

PLENTY OF DIFFICULTIES

Russia, of course, faces its own potential pitfalls, even if a new regulatory framework gains speedy approval. Even the first step of putting together an inventory of greenhouse gas emissions with the precision demanded by UNFCCC presents problems because of the lack of detailed information available. There is also the obvious: Russia is not an easy place to do business, especially for foreigners.

"There's a Russian expression that explains a lot about development here: you have to give a document feet," says Oliver Kayser, the managing director of EcoCom Climate Protection, in Austria. He means that developing projects in Russia requires a huge amount of running papers about and personal contact. Kayser, whose firm has six projects under development in Russia and one in Ukraine, says that "there's a lot of prodding along" involved in project development. "It's essential to have staff on the ground who understand the power structure … who know who knows whom."

Still, Kayser remains optimistic. "Russia will lag behind the rest of Europe for a bit, but we'll see a surge in projects in the second Kyoto period," he says, predicting a "big boom" in biomass projects. He also expects increased interest in biofuels driven by rising domestic fuel prices, despite Russia's status as a key oil and gas producer.

There are Russian JI projects that look likely to win approval, among them bioenergy schemes (see panel below). Indeed, Russian government officials have put energy efficiency and forestry, which includes biomass projects, at the top of their priority list of JI projects.

Saat at Global Carbon says Russian JI biomass projects primarily fall into two categories; fuel switching (eg from gas to wood waste) and methane capture at landfills.

"Our focus is improving industrial energy efficiency and cost cutting … at the end of the day, the carbon credits we earn are a bonus," he says. "But the potential revenue from emission credits does tip projects into becoming reality. Without the JI [mechanism] the chances are these projects wouldn't ever come about."

SOME RUSSIAN JI BIOENERGY PROJECTS

- A 55MW biomass boiler in the Kostroma region, owned by Kronostar. Reductions in CO_2 emissions estimated at 300,000t/year.
- Wood waste-to-energy project at Sawmill-25, Arkhangelsk, Russia. Reductions of about 34,000t/year of CO_2 emissions.
- Zheshart biofuel conversion project, a small-scale project aimed at reducing a plywood factory's use of natural gas by substituting use of sawdust as fuel.

So far, none of these or other Russian projects has been approved under Track 2 due to delays in implementing a national regulatory framework for JI projects.