



## Capturing Methane Emissions for Energy

**The Partnership:** Methane to Markets (M2M)

**The Goal:** Reduce greenhouse-gas emissions by capturing methane emissions (from agriculture, coal mines, landfills and oil and natural gas systems) and using them as a clean energy source.

**The Result:** In the Ukraine, for example, a natural-gas transmission system has reduced its methane emissions by more than 2 million cubic meters per year. In Mexico, the city of Monterrey is using methane from a landfill to produce enough power to light over 15,000 homes. And in China's Shanxi Province, methane from a coal mine is fueling a power plant producing 120 megawatts of electricity.

**How they did it:** The projects are the result of collaborative efforts of the public and private sectors facilitated by the Methane to Markets Partnership (M2M). The U.S.-led initiative focuses on cost-effective, near-term methane recovery in developing countries and countries with economies in transition.

In the Ukraine, a grant from the United States Agency for International Development allowed Cherkasytrngas, Europe's second-largest natural-gas transmission system, to identify and repair methane leaks at two compressor stations. In Mexico, a joint venture between government and business interests, funded in part by a grant from the Global Environmental Facility, led the city of Monterrey to capture methane from the Simeprodeso landfill to fuel a 7-megawatt power plant. In China, U.S.-based manufacturer Caterpillar is providing the power-generation equipment for the world's largest power plant fueled by coal-mine methane.

**Outlook:** By 2015, the M2M partnership has the potential to deliver annual reductions in methane emissions of up to 50 million metric tons of carbon equivalent. If achieved, these reductions could lead to stabilized or even declining levels of global atmospheric concentrations of methane. The reductions would be equivalent to removing 33 million cars from the roads for one year or planting 55 million acres of trees.

**Background:** Methane, the primary component of natural gas, accounts for 16 percent of all greenhouse-gas emissions resulting from human activities. It is 23 times as effective at trapping heat in the atmosphere as carbon dioxide and has a relatively short atmospheric lifetime of approximately 12 years. This makes methane-emissions reductions particularly effective at mitigating global warming in the near term. Capturing methane emissions and using them as a clean energy source can also increase energy security, enhance economic growth, improve local air quality and industrial safety.

The M2M partnership was launched in November 2004, when 14 national governments signed on as partners. M2M now includes 18 countries and more than 350 experts from private sector entities, financial institutions and non-governmental organizations.

**For more information:**

[www.methanetomarkets.org](http://www.methanetomarkets.org)

<http://webapps01.un.org/dsd/partnerships/public/partnerships/1551.html>

