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Cooperative Project on Methane Capture and Use: Best Practice Guidance on Effective Methane Drainage and Use in Coal Mines

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Note by the secretariat

I. Introduction

1. This overview provides an update on activities in implementing the project "Cooperative Project on Methane Capture and Use: Best Practice Guidance on Effective Methane Drainage and Use in Coal Mines". The project was made possible thanks to funding from the United States Environmental Protection Agency (US EPA).

2. The activities and the background information on coal mine methane (CMM) were reported to the Steering Committee of the Energy Efficiency 21 (EE21) Programme at its twenty-first session in June 2010 (ECE/ENERGY/WP.4/2010/7). As a result of these efforts, the publication "Best Practice Guidance on Effective Methane Drainage and Use in Coal Mines" was issued as ECE Energy Series No. 31 in 2010. The activities implemented in 2010 and those planned for 2011 are primarily focused on promoting this publication through organizing interactive workshops and other outreach work, as described below.

II. Background

3. The need for the mentioned publication stemmed from the conclusion of the Group of Experts on CMM that the global coal mining industry lacked a set of recommended principles and standards to guide decision-makers to more effectively manage their methane problems. This was especially the case in the countries with economies in transition. To alleviate some of these problems, the supporting organizations, United

Nations Economic Commission for Europe (UNECE) and the Global Methane Initiative (GMI, former Methane to Markets (M2M) Partnership), supported by US EPA, have teamed up and produced a publication that detailed the benefits, objectives and principles of coal mine methane drainage and utilization in order to reduce fatalities and injuries of mine workers, protect mine property, reduce greenhouse gas (GHG) emissions and efficiently utilize valuable energy resources. A key message of the publication was that adequate investment in methane capture infrastructure and operations could deliver important safety and environmental benefits, and also support the economic health of the mine leading to more profitable operations.

III. Promoting effective methane drainage and use in coal mines

4. The UNECE and GMI launched the best practice guidance at a high-level M2M Partnership Expo in India in March 2010, involving senior corporate, government and international officials.

5. To maximize the value of the project, it was further decided that the content of the document should be exposed to a wider audience that may take decisions to adopt the best practices as a part of the normal course of coal mining. Therefore the project concentrated on disseminating the best practices guidance to a targeted audience through a series of regional workshops held at locations central to coal mines that frequently experience accidents caused by methane gas emissions into the coal mines.

6. The first such workshop was organized in November 2010 in China. Globally recognized experts presented topics that are taken from the best practice guidance in a way that allowed the audience to understand the technical and other benefits and potential ways of adopting these practices within the existing mining environment. The workshop also served as a method of assessing the potential for a follow-up work accomplished by local workshops, which was held for the benefit of mines willing to cooperate.

7. Two more workshops — in Ukraine and Kazakhstan — will be organized in 2011. They will focus on the problems that local mines are experiencing and will include analysis of safety issues related to CMM, and presentation of potential options for resolving the issues in a cost-effective manner. In addition to increasing safety, the project will also contribute to CMM market creation.

8. The ultimate objective of the project is to reach out, train, create awareness, and spread the knowledge of best practice guidance on effective methane drainage and use in coal mines and to foster continuous improvements in this field in the emerging economies. The main outputs are the three workshops. In conjunction with them, an assessment of mining conditions and of extant gas drainage and recovery practices is to be performed by a team of experts.

9. Another important output will comprise recommendations that can lead to improvement of gas drainage and use practices in mining areas in selected countries of the UNECE region (Kazakhstan and Ukraine) and in China. Coal mining companies within these regions that indicate willingness to cooperate will be selected for additional follow-up in the form of a focused consultation at which the experts will present material useful to the mining professionals wishing to implement best practices for drainage and use of methane.

10. The UNECE project manager will identify international CMM experts and work with them for selection of coal mining companies that will be good targets for the analysis and follow-up workshops. Development of these criteria will be done in concert with development of an analysis template and workshop framework. These outputs and the resulting documents will be published by the UNECE. A project website, available to the

public, will be developed using the existing UNECE website (http://www.unece.org/energy/cmm/Welcome.html), which will encourage efficient project replication and make available the work products derived from this project by routinely updating the website with reports and other project materials. The website will serve as a point of contact and solicitation of expert assistance and will be linked to the M2M Partnership Project Database.

11. For these activities the UNECE and the Group of Experts on CMM will identify and secure candidate sites for workshops and encourage the participation of coal mines, in which methane-related mine safety problems continue to plague the industry.