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***Structure, Activities and Achievements of ICE-CMM China***  
***中国（山西）卓越瓦斯研究中心活动及成果***

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# ICE-CMM's Location in China

## 中国ICE-CMM 的地理位置



ICE-CMM  
卓越瓦斯



山西焦煤集团有限责任公司  
SHANXI COKING COAL GROUP CO.,LTD.



- \* 中国（山西）卓越瓦斯研究中心设在山西省太原市。
- \* ICE-CMM set its headquarter in Taiyuan, the provincial capital of Shanxi province. Shanxi province is very famous for its strong coal mining industry and this location made on-site operation much easier and convenient for activities which is concerned with CMM capture and utilization.



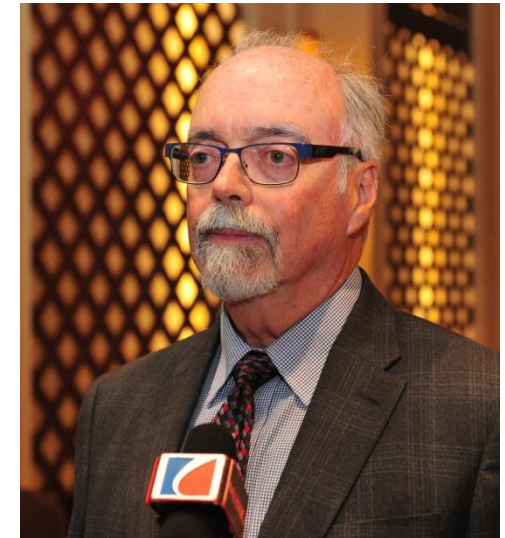
# Part 1 Brief Introduction

## 一、“中心”基本情况

### 1.1 “中心”工作机制

### 1.1 Working Mechanism

- ※ “中心”在UNECE及其瓦斯专家委员会的业务指导下开展工作，致力于煤矿瓦斯抽采利用和温室气体减排。
- ※ Guided by UNECE and its group of experts on coal mine methane, ICE-CMM China is concentrating on CMM drainage and capture and try to make the best use of it so as to make its contribution in reducing GHG emission globally.
- ※ “中心”聘请了包括金智新先生、雷蒙·皮尔彻先生在内的38位各领域的著名专家。
- ※ In order to upgrade its talents, ICE-CMM China has absorbed 38 experts all over the world who are very professional in the fields of CMM drainage, utilization, emission reduction, coal mining and mining equipments including Mr.Jin Zhixin, an academician from Chinese Academy of Engineering and Mr Raymond C. Pilcher , Chairman of UNCEC Group of Experts on Coal Mine Methane.





## Part 1 Brief Introduction

### 一、“中心”基本情况

#### 1.2 “中心”作用

#### 1.2 ICE-CMM's Roles

- ※ 是“有效抽采利用煤矿瓦斯最佳实践指南”推广平台；是瓦斯抽采利用综合服务平台；是科研成果转化及工程实践平台。
- ※ Popularizing BEST PRACTICE GUIDELINE FOR EFFECTIVE CMM CAPTURE AND UTILIZATION; Offering comprehensive service related to CMM capture and utilization; To be more active in commercialization of CMM technology achievements and provide assistance to engineering practice.





## Part 1 Brief Introduction

### 一、“中心”基本情况

#### 1.3 “中心”重点工作

##### 1.3 ICE-CMM Key Tasks

- ※ 推广“有效抽采与利用煤矿瓦斯最佳实践指南”，提升清洁能源利用和温室气体减排水平；
- ※ Popularizing Best Practice Guideline on CMM Capture and Utilization. Upgrading level for using clean energy and degrading GHG emission.
- ※ 解决煤炭生产“采前、采中、采后”的瓦斯治理、瓦斯利用中的技术开发、技术推广、成果转化、商务合作、项目开发问题；
- ※ Offering solution to coal mines in disposing CBM in the whole process of production. Providing assistance in utilizing CMM including technology development and its commercialization, business and project cooperation.
- ※ 与煤层气抽采领域先进企业及科研机构、行业协会、科研院所建立战略合作关系，开展学术交流、项目合作开发；
- ※ Setting up a long term and strategic cooperative partnership with those companies, research organizations and associations, universities and institutions on CMM capture and utilization.
- ※ 为政府机关、行业协会提供技术咨询、技术服务，参与政策、行业标准制定。
- ※ Offering consultation & support service to government authorities and social associations. Participating in set up industry standard and providing suggestion to governments for any decision-making in CMM capture an utilization.



## Part 2 ICE-CMM China Organization Structure

### 二、“中心”的架构

#### 2.1 “中心”的法律性质

##### 2.1 Legal Character

- ※ “中心”为非营利组织机构。
- ※ ICE-CMM China is a NGO organization.

#### 2.2 发起（理事）单位

##### 2.2 Initiators

- ※ “中心”的10家发起（理事）单位均是瓦斯抽采利用、温室气体减排业务链中的上下游企业，有利于发挥联动及叠加效应。
- ※ All 10 initiating companies are up and down stream enterprises engaged in chain business from CMM capture and utilization to gas reduction. So they can work very close to make out best working efficiency.



## Part 3 Activities & Achievements

### 三、“中心”主要活动及成果

#### 3.1 翻译出版“最佳实践”

##### 3.1 Translating and publishing of “The Best Practice Guideline”

- ※ “有效抽采利用煤矿瓦斯最佳实践指南”中文版已翻译成稿，本月将由中国煤炭工业出版社正式出版发行。
- ※ “The Best Practice Guideline for Effective Practice on CMM Capture & Utilization” has been translated into Chinese. Its Chinese version is at last stage of being proof-read and is expected to publish end of June of 2019 by China Coal Industry Press.

#### 3.2 开展“最佳实践”工程应用

##### 3.2 “The Best Practice Guideline” Engineering activities

- ※ 2017年完成华晋焦煤沙曲一矿地面多分支水平钻井与地下瓦斯钻孔对接井下瓦斯抽采工程技术研究项目。
- ※ In 2017 we have made an example project in Shaqu No,1 coal mine of Huajin Coking Co. Mine degasification was carried out through penetration drilled by ground multiple path horizontal drills perforated with sub-level drainage .



## Part 3 Activities & Achievements

### 三、“中心”主要活动及成果

- ✧ 2018年组织完成了由全球甲烷行动倡议组织赞助的“中国山西省腾晖煤矿瓦斯抽采和利用预可行性研究”工作。
- ✧ In 2018 we have organized a pre-feasibility study on CMM capture and utilization at Tenghui Coal Mine, Shanxi ,China sponsored by Global Methane Initiatives(GMI).
- ✧ 2019年兴边富民公司（“中心”理事单位）完成阳泉煤业集团二矿乏风氧化发电项目，并正式投产发电。
- ✧ In 2019, VAM Oxidation generating unit of No.2 Coal mine of Yangquan Coal Group was put into operation. The project was invested by Xingbian Fumin Co., which is one of initiators of ICE-CMM China. The project is equipped with 6 RTO VAM oxidation devices and 1 boiler of 60t/h with generating capacity of 15MW.





## Part 3 Activities & Achievements

### 三、“中心”主要活动及成果

#### 3.3 开展“最佳实践”培训

#### 3.3 “The Best Guideline” Training

- ✧ 2018年，“中心”与全球甲烷行动倡议组织合作，在中国山西举办了三期“最佳实践”培训。
- ✧ In 2018, ICE-CMM China joined hands with Global Methane Initiatives(GMI) held 3 training programs called “Best Practice ”in Shanxi province.



#### 3.4 举办“最佳实践”学术论坛

#### 3.4 Hosting “The Best Guideline” academic forum

- ✧ 2017年9月，在中国天津举办“2017中国国际矿业大会煤层气（煤矿瓦斯）国际论坛”。
- ✧ In September 2017 we took part in China Mineral Conference CMM International Forum 2017 in Tianjin, China. 220 guests attended the meeting.

## Part 3 Activities & Achievements

### 三、“中心”主要活动及成果

#### 3.5 开展技术研发

#### 3.5 Technological Research and Development

- ✦ 2018年12月，由“中心”与山西焦煤碳资产公司合作开发的“碳资产管理与监测平台”软件通过鉴定。
- ✦ In December 2018, Software “Carbon Assets Management and Surveillance V1.0” has passed its first stage appraisal. The system was rewarded as a computerized software patent by China’s Copyright Bureau in March, 2019.
- ✦ 2019年4月，中国国家知识产权局受理了由“中心”与文龙中美公司合作开发的“超低浓度瓦斯双氧化制热系统”发明专利申请。
- ✦ In April 2019, China National Intellectual Property Right Bureau officially accepted patent of Low-Concentration Gas Oxidation Heating System which jointly developed by ICE-CMM China and Shanxi Wenlong Zhongmei Co.





## Part 3 Activities & Achievements

### 三、“中心”主要活动及成果

#### 3.6 服务“一带一路”国际合作

#### 3.6 Serve “Belt and Road” International Program

- ※ 2019年4月27日，“中心”促成山西焦煤集团和格鲁吉亚工业集团合作，签订了明德里煤矿项目合作备忘录。
- ※ During Second Session of Belt and Road Summit meeting held in Beijing, ICE-CMM helps SCCG to sign a cooperation memorandum with Georgian Coal Industrial Group on Mingdeli Coal Mine Ptoject, On April 27,2019.
- ※ 2019年5月，“中心”促成山西焦煤代表团赴英国卡迪夫大学人造金刚石实验室考察交流，达成利用煤矿瓦斯制金刚石项目合作共识。
- ※ In May 2019, ICE-CMM China organized SCCG delegation to visit the Diamond Laboratory of Cardiff University, UK. They reached a common understanding in making artificial diamond using coal mine gas.





## Part 4 ICE-CMM's Tasks in 2019

### 四、“中心”2019年重点工作

#### 4.1 设立一个基金

#### 4.1 Establishment of a fund

- ✧ 策划设立“山焦清洁能源私募股权基金”，建立清洁能源利用、温室气体减排新技术推广、科研成果转化、项目开发的新型商业模式。
- ✧ Finalize all procedures in establishing Shanxi Coking Clean Energy Private Equity Fund. Try to create new business mode to better clean energy utilization ,GHG reduction experience spreading, commercialization of new technological results and CMM projects.

#### 4.2 协办一个国际论坛

#### 4.2 Co-sponsor of an international Symposium

- ✧ 与全球甲烷行动倡议组织合作，协助组织第十九届国际煤层气暨页岩气研讨会。
- ✧ Co-sponsor of the 19th International CMM and Shale Gas Symposium with assistance from Global Methane Initiatives (GMI)



## Part 4 ICE-CMM's Tasks in 2019

### 四、“中心”2019年重点工作

#### 4.3 推动一个示范项目

#### 4.3 Develop a new sampling project

- ※ 提高腾晖煤矿瓦斯抽采水平，开发瓦斯利用项目，实现矿井瓦斯近零排放。
- ※ Help Tenghui coal mine to improve CMM capture technology , develop more CMM projects so as to make it as an example with awfully low CMM release.

#### 4.4 推广一项专利技术成果转化

#### 4.4 Speeding up end use of new patent

- ※ 推动“超低浓度瓦斯双氧化制热系统”专利技术成果转化，开发建设示范项目。
- ※ Speeding up commercialization of low concentration gas oxidation heating system and put it into operation soonest possible.



ICE-CMM  
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# Thank You For Your Attention

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