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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 46549-2025

**Economic evaluation method for surface coalbed methane
extraction projects in coal mining areas**

煤矿区煤层气地面抽采项目经济评价方法

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Table of Contents

1	Scope
2	Normative references
3	Terms and Definitions
4	Evaluation methods, principles and basis
4.1	Evaluation Method
4.2	Evaluation Principles
4.3	Evaluation Criteria
5	Evaluation Parameters and Their Determination
5.1	Investment Estimate
5.2	Fundraising
5.3	Direct Benefits
5.4	Indirect Benefits
5.5	Costs and Expenses
5.6	Taxes and surcharges
6	Financial Evaluation
6.1	Basic Financial Data
6.2	Profitability Evaluation
6.3	Financial Internal Rate of Return
6.5	Investment Recovery Period
6.6	Return on Investment
7	Uncertainty Analysis
7.1	Break-even analysis
7.2	Sensitivity Analysis
8	Coal Mine Safety
9	Reference
9.1	Content and Requirements

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. Please note that

some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the China National Coal Association. This document is under the jurisdiction of the National Coal Standardization Technical Committee (SAC/TC42). This document was drafted by: China Coal Technology & Engineering Group Xi'an Research Institute, State Key Laboratory of Coal and Coalbed Methane Co-mining, and Huainan Coal Mine. Industry (Group) Co., Ltd. The main drafters of this document are: Zhang Peihe, Jiang Wenping, Wang Yi, Liu Nana, Hao Shijun, Xu Yaobo, Li Lin, Wang Zhengxi, Li Dandan, and Liu Mingjun. Chen Benliang and Ji Zeyu. Economic Evaluation Methods for Coalbed Methane Surface Extraction Projects in Coal Mining Areas

1 Scope

GB/T 46549-2025 is the Chinese national standard covering the economics of draining methane from a coal seam before it is mined - the capital and operating costs against the gas sold and the mine safety gained, the low and declining production rates typical of Chinese coalbed methane, and the subsidies that decide whether it happens. First edition, under the China National Coal Association. It was issued on 2 December 2025 and has been in force since 1 April 2026, as a first edition. The document is under the responsibility of the China National Coal Association. This page is published from the official record of the 2025 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document describes the methods, principles, and basis for the economic evaluation of coalbed methane surface extraction projects in coal mining areas, the evaluation parameters and their determination, and the financial evaluation. Price, uncertainty analysis, feasibility evaluation, and report writing, etc. This document applies to the economic evaluation of coalbed methane surface extraction projects in coal mining areas, and can be used as a reference for coalbed methane surface extraction projects in non-coal mining areas.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 15663.8 Coal Mine Technical Terminology Part

3 Terms and Definitions

The terms and definitions defined in GB/T 15663.8, GB/T 31537 and SY/T 6511, as well as the following terms and definitions, apply to this document.

3.1 direct benefit Economic benefits generated by project outputs and calculated within the scope of the project.

Note. The direct benefits of coalbed methane surface extraction projects in coal mining areas mainly refer to the economic benefits obtained from the sale of coalbed methane products and policy subsidies.

3.2 Indirect benefits In addition to the direct benefits of the project, other benefits include reduced roadway excavation, gas extraction, and mine ventilation after coalbed methane extraction. Production costs, as well as the benefits gained from liberating coal, increasing coal production capacity, and reducing carbon emissions.

4 Evaluation methods, principles and basis

4.1 Evaluation Methods The cash flow method is commonly used for the economic evaluation of coalbed methane surface extraction projects in coal mining areas. The economic benefits of coalbed methane surface extraction projects in coal mining areas include both direct and indirect benefits, which can be evaluated separately. A comprehensive evaluation is also possible.

4.2 Evaluation Principles

4.2.1 Combining economic benefits with social benefits.

4.2.2 The policy, economy and technology should be combined, with long-term benefits as the main focus and short-term benefits as a secondary consideration.

4.2.3 The calculation methods for benefits and costs are consistent, and the balance between benefits and risks is maintained.

8 Coal Mine Safety

GB/T 31537 Coalbed Methane (Coal Mine Gas) Terminology SY/T 6511 Technical Specification for Economic Evaluation of Oilfield Development and Adjustment Plans