

Energy Internet Investment Value Assessment



Overview

A novelty evaluation of the impact of digitalization on energy internet. Annual data from 2010 to 2019 is selected to assess the value creation of digitalization.

Key Takeaways

Investing in the Energy Internet offers significant economic, environmental, and social returns, with digital technology investment being a key driver of efficiency, clean energy adoption, and socio-economic development.

Economic Value

Digital technology investment in the Energy Internet enhances energy utilization efficiency, asset utilization, and market allocation efficiency, which translates into measurable economic benefits. System dynamics simulations indicate that high digital investment can generate substantial employment, with estimates of 0.72 million jobs annually in China by 2025. Additionally, improved energy efficiency in industrial sectors reduces operational costs and supports sustainable economic growth. Comprehensive value evaluation models show that under high-input digital scenarios, the overall value creation of the Energy Internet can increase by over 5% compared to business-as-usual scenarios.

Environmental Value



The Energy Internet promotes large-scale integration of clean energy sources, increasing installed capacity and reducing carbon emissions. For example, simulations suggest that digital investment could raise clean energy capacity to 1.76 billion kilowatts and reduce CO₂ emissions by 5.7 billion tons . By optimizing energy transmission and consumption through smart grids and digital monitoring, the Energy Internet reduces reliance on fossil fuels, mitigates pollution, and supports climate goals such as carbon neutrality and low-carbon transformation .

Social Value

Beyond economic and environmental benefits, Energy Internet investments contribute to social development. Enhanced energy access, improved reliability, and intelligent energy management systems increase societal welfare. Studies indicate that the Energy Internet fosters mutual promotion between energy infrastructure and socio-economic development, supporting regional growth and equitable energy distribution .

Risk and Regulatory Considerations

Investment in Energy Internet infrastructure involves technical, financial, and regulatory risks. European analyses highlight the importance of regulatory frameworks and incentive mechanisms to ensure that high-value projects are implemented efficiently. Proper risk assessment, benchmarking, and project-specific incentives are critical to avoid underinvestment and ensure that investments deliver maximum societal value .

Strategic Implications

- Digital Technology Focus: Prioritizing digital technology investment maximizes comprehensive benefits across economic, environmental, and social dimensions .
- Scenario Planning: Evaluating high-input versus low-input digital investment scenarios helps optimize resource allocation and avoid diminishing returns .
- Policy Alignment: Aligning investments with national or regional energy policies, such as carbon reduction targets and smart grid development, enhances long-term value .

Conclusion

Energy Internet investments, particularly those emphasizing digital technology, provide high-value returns by improving energy efficiency, enabling clean energy integration, reducing emissions, and supporting socio-economic development. Effective risk management and regulatory alignment are essential to ensure that these investments achieve their full potential and contribute to sustainable energy transformation.

Article Content

A novelty evaluation of the impact of digitalization on energy internet ...

Annual data from 2010 to 2019 is selected to assess the value creation of digital technology-orientated energy

Investment value evaluation of energy internet business based on

In this paper, 11 indicators were first selected from four dimensions: economic value, social value, environmental value and strategic

Assessing the Comprehensive Effects of Digital Investment on

Based on the perspective of industrial chain, this paper adopted the method of System Dynamics theory to describe

Selection of Energy Internet Economic Value Indicators Based on ...

The evaluation process of the cost-effective value and tactical value of energy internet business includes multiple indicators, and the

Investment value evaluation of energy internet business

Based on the comprehensive analysis of the characteristics of distributed energy resource, an index system including

Comprehensive value evaluation model of energy internet under the ...

This paper constructs a comprehensive value evaluation model of Energy Internet based on an integrated approach

Architecture of Energy Internet and Its Technologies in Application ...

I. INTRODUCTION With the liberalization of energy market, increasing concern about climate change and the resulting growing use

World Energy Investment 2025 – Analysis

The report provides a global benchmark for tracking capital flows in the energy sector and examines how investors are assessing

Digital economy enterprise investment value evaluation model and ...

Assessment of investment value and risk management are crucial for enterprise growth in the digital economy.

Environmental, Social, and Governance (ESG) Investing

Learn what ESG investing is, how environmental, social, and governance factors help shape investment decisions,

Analysis and research of industrial value chain optimization model ...

This study conducts an in-depth analysis of the optimization model of the industrial value chain under the Energy

Energy Internet, the Future Electricity System: Overview ...

Energy Internet, a futuristic evolution of electricity system, is conceptualized as an energy sharing network. Its

Research on the Value and Implementation Framework of Energy Internet

Energy internet contains the revolution of information communication technology on the creation method of value in

Overview and key findings – World Energy Investment 2024 –

This year's World Energy Investment report contains new analysis on sources of investments and sources of finance, making a clear

Study on the investment and construction models and value assessment

To address the issue, this paper proposes investment and construction models for shared energy-storage that aligns

A novelty evaluation of the impact of digitalization on energy internet ...

This paper constructs a comprehensive value evaluation model of energy internet based on an integrated approach

A comprehensive review of Energy Internet: basic concept

Abstract With the intensifying energy crisis and environmental pollution, the Energy Internet and corresponding patterns of energy

Energy Internet, the Future Electricity System: Overview, Concept ...

Energy Internet, a futuristic evolution of electricity system, is conceptualized as an energy sharing network. Its

World Energy Investment 2025 – Analysis

This year's World Energy Investment report, marks the 10th edition of this flagship analysis and provides a full update on the

Atlantic International University

We would like to show you a description here but the site won't allow us.

Apple (United Kingdom)

Discover the world of Apple and everything iPhone, iPad, Apple Watch, Mac and Apple TV, plus accessories, entertainment and

claude.ai

We would like to show you a description here but the site won't allow us.

Assessing the Comprehensive Effects of Digital Investment on Energy ...

Quantitative analysis of the impact of digitalization on the energy, environment and economic comprehensive benefits

Home | Food and Agriculture Organization of the United

FAO promotes the use of renewable energies and works to ensure access to modern energy services

Review of Energy Internet Architecture Based on Energy-Information-Value

Energy Internet is an important direction of energy development at the present stage. Based on the research status at home and

Energy and AI – Analysis

This report from the International Energy Agency (IEA) aims to fill this gap based on new global and regional

Assessing the true value of infrastructure investment

— The project's potential to unlock private investment However, IUK's selection and prioritization of projects could also be influenced

Best Practices Guide: Economic & Financial Evaluation of

Economic & Financial Evaluation of Renewable Energy Projects Prepared for: Energy and Environment Training Program Office of

Digital economy enterprise investment value evaluation model and ...

Assessment of investment value and risk management are crucial for enterprise growth in the digital economy.

Environmental, Social, and Governance (ESG) Investing

Learn what ESG investing is, how environmental, social, and governance factors help shape investment decisions,

Analysis and research of industrial value chain optimization model ...

This study conducts an in-depth analysis of the optimization model of the industrial value chain under the Energy

Energy Internet, the Future Electricity System: Overview ...

Energy Internet, a futuristic evolution of electricity system, is conceptualized as an energy sharing network. Its

Research on the Value and Implementation Framework of Energy Internet

Energy internet contains the revolution of information communication technology on the creation method of value in

Overview and key findings - World Energy Investment 2024 -

This year's World Energy Investment report contains new analysis on sources of investments and sources of finance, making a clear

A novelty evaluation of the impact of digitalization on energy internet ...

Annual data from 2010 to 2019 is selected to assess the value creation of digital technology-orientated energy

Investment value evaluation of energy internet business based on

In this paper, 11 indicators were first selected from four dimensions: economic value, social value, environmental value and strategic

Assessing the Comprehensive Effects of Digital Investment on

Based on the perspective of industrial chain, this paper adopted the method of System Dynamics theory to describe

Selection of Energy Internet Economic Value Indicators Based on ...

The evaluation process of the cost-effective value and tactical value of energy internet business includes multiple indicators, and the

Investment value evaluation of energy internet business

Based on the comprehensive analysis of the characteristics of distributed energy resource, an index system including

Comprehensive value evaluation model of energy internet under the ...

This paper constructs a comprehensive value evaluation model of Energy Internet based on an integrated approach

Architecture of Energy Internet and Its Technologies in Application ...

I. INTRODUCTION With the liberalization of energy market, increasing concern about climate change and the resulting growing use

World Energy Investment 2025 – Analysis

The report provides a global benchmark for tracking capital flows in the energy sector and examines how investors are assessing

A novelty evaluation of the impact of digitalization on energy internet ...

Annual data from 2010 to 2019 is selected to assess the value creation of digital technology-orientated energy

Investment value evaluation of energy internet business based on

In this paper, 11 indicators were first selected from four dimensions: economic value, social value, environmental value and strategic

Assessing the Comprehensive Effects of Digital Investment on

Based on the perspective of industrial chain, this paper adopted the method of System Dynamics theory to describe

Selection of Energy Internet Economic Value Indicators Based on ...

The evaluation process of the cost-effective value and tactical value of energy internet business includes multiple indicators, and the

Investment value evaluation of energy internet business

Based on the comprehensive analysis of the characteristics of distributed energy resource, an index system including

Comprehensive value evaluation model of energy internet under the ...

This paper constructs a comprehensive value evaluation model of Energy Internet based on an integrated approach

Architecture of Energy Internet and Its Technologies in Application ...

I. INTRODUCTION With the liberalization of energy market, increasing concern about climate change and the resulting growing use

World Energy Investment 2025 – Analysis

The report provides a global benchmark for tracking capital flows in the energy sector and examines how investors are assessing

Contact Us

Continue your research online:

Website: <https://thegalleryselfcatering.co.za>

Technical inquiry: <https://thegalleryselfcatering.co.za/contact.html>

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

