

摘 要

基础设施作为经济社会发展的重要支撑，在扩大内需、实施宏观调控和实现社会经济高质量发展上起着先导性、基础性和战略性作用。近几年来，随着大批优质基础设施项目的沉淀与积累，如何将基础设施转化为社会经济发展动力也成为关注重点。尤其对于能源领域而言，在“十四五”国家能源结构转型的关键时期，在全球减排以及双碳战略背景下，积极推动能源领域向稳向好发展，对于中国构建清洁低碳、安全高效的能源体系具有划时代意义。但是能源行业作为资本密集型行业，较高的企业杠杆以及基础设施项目资金需求大、回报周期长等特点限制了资金融通，融资逐渐成为能源行业发展亟待解决的问题。基础设施 REITs 于 2020 年 4 月在中国拉开序幕，随着政策的不断完善，2021 年 6 月，基础设施 REITs 试点行业范围扩大至天然气发电、光伏发电和风力发电等清洁能源项目，这为能源领域基础设施融资创造了良好的市场环境。

2022 年 7 月，深圳能源选择天然气发电项目作为底层资产，成功应用基础设施 REITs 发行鹏华深圳能源 REIT，这是能源领域发行的首单清洁能源 REIT，是能源领域融资方式新的尝试。这对于盘活国有存量资产、促进能源行业投资良性循环以及推动我国能源领域基础设施高质量发展具有先行示范意义，同时也为后续发行光伏发电 REITs 和风力发电 REITs 提供了成功的经验借鉴。因此，本文选择鹏华深圳能源 REIT 为案例研究对象，从应用方深圳能源的视角出发，遵循“为何应用——如何应用——应用效果”的逻辑思路，深入探讨 REITs 融资模式在能源领域基础设施中的应用。

本文首先通过梳理基础设施融资、REITs 融资和基础设施 REITs 融资的相关文献，介绍与基础设施 REITs 融资有关的理论概述，然后以鹏华深圳能源 REIT 为案例研究对象，详细分析了深圳能源应用基础设施 REITs 融资的动因、运作方式和效果。通过研究发现，在融资动因上，就政策保障而言，双碳目标下国家鼓励能源领域应用新型融资模式以促进基础设施发展，为深圳能源提供了政策指引。就企业发展而言，深圳能源需要应用基础设施 REITs 来减轻债务融资依赖，满足资金需求，同时配合企业盘活存量资产的发展策略。在融资运作方式上，本文从资产选择、结构搭建、金额来源、管理方式和退出渠道五个方面对深圳能源应用 REITs 融资的经验进行总结。在融资效果上，通过事件研究法和对比分析法研究发现，深圳能源应用基础设施 REITs 融资具有良好的市场效应、财务效果和社会效应，不仅能有效筹集发展资金，改善企业偿债能力并盘活存量资产，还能打造绿色投资良性循环，为行业提供融资方式新借鉴。

通过上述分析，本文认为深圳能源应用 REITs 融资具有积极作用。具体而言，在破解企业融资问题上，应用 REITs 融资创新了企业融资模式，降低债务融资依赖；在释放企业资产压力上，应用 REITs 融资构建投融资良性循环，有效盘活存量资产；在促进企业绿色发展上，应用 REITs 融资有助于清洁能源项目可持续发展，积极践行双碳目标。

最后，本文从企业、行业和国家三个层面得出了相关启示。在企业层面，为成功利用基础设施 REITs，能源企业不仅需要选择优质基础设施兼顾融资和绿色发展，还需要结合自身实际情况设计合理的融资运作方式；在行业层面，为破解融资问题，行业应加强政策性融资关注度，寻找融资渠道新出路；在国家政策层面，为保障 REITs 市场稳定发展，国家应完善相关法律政策来规范 REITs 融资，为能源企业融资保驾护航。

关键词：基础设施 REITs；融资模式；清洁能源

Abstract

As an important support for economic and social development, infrastructure plays a pioneering, fundamental and strategic role in expanding domestic demand, implementing macroeconomic control and realizing high-quality socio-economic development. In recent years, with the precipitation and accumulation of a large number of high-quality infrastructure projects, how to transform infrastructure into a socio-economic development momentum has also become the focus of attention. Especially for the energy sector, in the "14th Five-Year Plan" critical period of the country's energy structure transformation, in the context of global emissions reductions and dual-carbon strategies, to actively promote the energy sector to a stable and positive development, for China to build a clean, low-carbon, safe and efficient energy system is of epoch-making significance. However, the energy industry as a capital-intensive industry, higher corporate leverage and infrastructure project investment amount demand, long return cycle and other characteristics of the limitation of capital financing, financing has gradually become the development of the energy industry urgent problem to be solved. Infrastructure REITs financing kicked off in China in April 2020, and with the continuous improvement of REITs policies, the scope of infrastructure REITs pilot industries was expanded to include clean energy projects such as natural gas power generation, photovoltaic power generation and wind power generation in June 2021, which creates a favorable market environment for infrastructure financing in the energy sector.

In July 2022, Shenzhen Energy selected the natural gas power generation project as the underlying asset and successfully applied the REITs financing model to issue Penghua Shenzhen Energy REIT, which is the first clean energy REIT issued in the energy sector, and is a new attempt of financing method in the energy sector. This is not only the first demonstration significance for revitalizing state-owned stock assets, promoting the virtuous cycle of investment in the energy industry, and promoting the high-quality development of China's infrastructure in the energy sector, but also provides successful experience for the subsequent issuance of photovoltaic power generation REITs and wind power generation REITs. Therefore, this thesis chooses Penghua Shenzhen Energy REIT as the case study object, from the perspective of the issuer of Shenzhen Energy, following the logical thinking of "why apply - how to apply - the application effect", to discuss the application of REITs financing model in the energy sector infrastructure.

This thesis first introduces the theoretical overview related to infrastructure REITs financing by combing the literature related to infrastructure financing, REITs financing and

infrastructure REITs financing, and then takes Penghua Shenzhen Energy REIT as a case study object to analyze in detail the motivation, operation and effect of Shenzhen Energy's application of REITs financing mode. Through the study, it has been found that in terms of financing drivers and policy guarantees, under the dual-carbon goal, the state encourages the application of new financing models in the energy sector to promote the development of infrastructure, which provides a policy guideline for Shenzhen Energy; in terms of enterprise development, the application of REITs financing model can reduce the reliance on traditional debt financing, meet funding needs, and cooperate with the strategy of revitalizing existing assets of enterprises. In terms of financing operation, this thesis summarizes the Shenzhen energy's experience in applying REITs financing from five aspects: asset selection, structural construction, amount sources, management methods, and exit channels. In terms of financing effect, through the event study method and comparative analysis method, it is found that the application of infrastructure REITs financing by the Shenzhen energy has a good market effect, financial effect and social effect, which can not only effectively mobilize development funds, improve the solvency of the enterprise and revitalize the stock of assets, but also create a benign cycle of green investment, providing new financing methods for the industry.

Based on the above analysis, this thesis concludes that the application of REITs financing by the Shenzhen energy has positive effects. Specifically, in solving corporate financing problems, the application of REITs financing has innovated financing models and reduced dependence on debt financing; In releasing the pressure on corporate assets, applying REITs to build a virtuous cycle of investment and financing, effectively activating existing assets; In promoting green development of enterprises, the application of REITs helps to promote low-carbon development of clean energy projects and has good environmental benefits. Finally, this thesis draws relevant insights from three levels: enterprises, industries and countries. At the enterprise level, in order to successfully utilize infrastructure REITs, energy enterprises not only need to select high-quality infrastructure to take into account financing and green development, but also need to design a reasonable financing operation method in accordance with their own actual situation; At the industry level, in order to solve financing problems, the industry should strengthen its attention to policy financing and seek new ways out for financing channels; At the national policy level, in order to ensure the stable development of the REIT market, the country should improve relevant laws and policies to regulate REIT financing and provide support for energy enterprise financing.

Key Words:Infrastructure REITs; Financing methods; Clean energy

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