

\*\*\*\*\*

臺灣大學應用力學研究所  
演 講 公 告

\*\*\*\*\*

主 講 人：謝依芸助理教授  
國立臺灣大學 土木工程學系

講 題： 促進能源跨部門耦合：車輛電動化在達成淨零目標策略上的關鍵影響  
Driving Sector Coupling: The Impact of Vehicle Electrification on Net-Zero Strategies

摘 要： 如附件

主 持 人： 周佳靚副教授

時 間： 113年04月08日（星期一）下午2時20分開始

地 點： 臺灣大學應用力學研究所國際會議廳

☆☆ 歡迎聽講，敬請張貼 ☆☆

促進能源跨部門耦合：  
車輛電動化在達成淨零目標策略上的關鍵影響  
**Driving Sector Coupling: The Impact of Vehicle Electrification  
on Net-Zero Strategies**

國立臺灣大學 謝依芸助理教授

**摘要**

This presentation examines the critical role of vehicle electrification in sector coupling, integrating transportation with energy systems and building management. Key questions addressed include the carbon benefits of electric vehicles (EVs), the outcomes of phasing out internal combustion engine vehicles (ICEVs), and the integration of EVs into building energy strategies. Initially, I will discuss the environmental benefits of EVs and the broad impacts of transitioning from ICEVs, with a focus on the emerging synergy between the transportation and power sectors. The latter part of the talk will explore Vehicle-to-Building (V2B) strategies as a pathway to achieving nearly zero-energy buildings. Through case studies and analytical models, the potential for V2B strategies to enhance energy management and efficiency will be examined, considering the economic and practical benefits of EVs as localized energy reserves.