

The APEC Energy Demand and Supply Outlook to 2030 and its Implications for Energy Security and Sustainability

亞太經合組織能源至2030年的需求和供應 - 展望及其對能源安全和可持續性之含義

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Abstract

This presentation will review the key assumptions and findings of the *APEC Energy Demand and Supply Outlook 4th Edition*, which provides projections to the year 2030 for the 21 APEC member economies. The findings suggest that under business-as-usual, the APEC region will face dual threats from growing oil imports and growing greenhouse gas emissions.

Energy CO₂ emissions under the business-as-usual scenario will be contrasted with emissions under a scenario where the APEC economies contribute to a worldwide target of holding the increase in global temperature rises to 2°C as called for by the Copenhagen Accord. The results indicate that the difference in emissions between the two scenarios is large and growing.

At their 2007 Sydney meeting, the APEC Leaders called for the APEC economies to reduce their energy intensity (energy/dollar of GDP) by 25% over the period 2005-2030. Yet the Outlook results suggest that a 38% improvement in energy intensity will be achieved even under business-as-usual. Preliminary analysis indicates that a much higher energy intensity reduction goal, in the order of 50%, combined with wide-scale adoption of low-carbon energy technology, will be needed to limit temperature rises to 2°C. At their 2010 Yokohama meeting, the APEC Leaders wisely called for a reassessment of the 25% goal.

摘要

本演講將評估“亞太經合組織能源需求與供應展望第4版”報告內的關鍵性假設和研究結果。該報告為亞太經合組織內的21個經濟體成員提供至2030年的相關能源預測的展望。研究結果顯示，在業務一切照常之情景下，亞太地區將面臨來自不斷增長的石油進口量和溫室氣體排放量的雙重威脅。

若將哥本哈根協議下為保持全球溫度上升在2°C目標內所能接受由能源所產生的二氧化碳排放量跟各亞太經濟體成員在業務一切照常之情景下的相對排放作出比較，結果顯示兩者的差異非常龐大，並且其差異正不斷增長。

亞太經合組織領導人曾在2007年悉尼會議上呼籲各亞太經濟體各成員把各成員的能源強度(能源/本地生產總值)於2005-2030年期間作出25%的削減。然而，研究指出在業務一切照常之情景下，能源強度已有38%的減幅。初步分析顯示，一個約50%或更大的能源強度改善指標，結合低碳能源技術的廣泛應用，才能有效地維持全球溫度上升在2°C的目標內。因而在2010年橫濱會議上，亞太經合組織領導人明確地呼籲各亞太經濟體重新評估先前訂下的25%能源強度削減指標。

Biography

Ralph Samuelson has been Vice-President of the Asia Pacific Energy Research Centre (APERC) in Tokyo since January 2009. Prior to APERC, he worked for four years as Chief Adviser-Energy Modelling at the New Zealand Ministry of Economic Development, which is New Zealand's equivalent of a Department of Energy. He is originally from the U.S., where he received a Ph.D. in Engineering-Economic Systems from Stanford and spent many years working as an energy modeling consultant and as a manager at an energy-related Silicon Valley startup company.