

SESSION 1

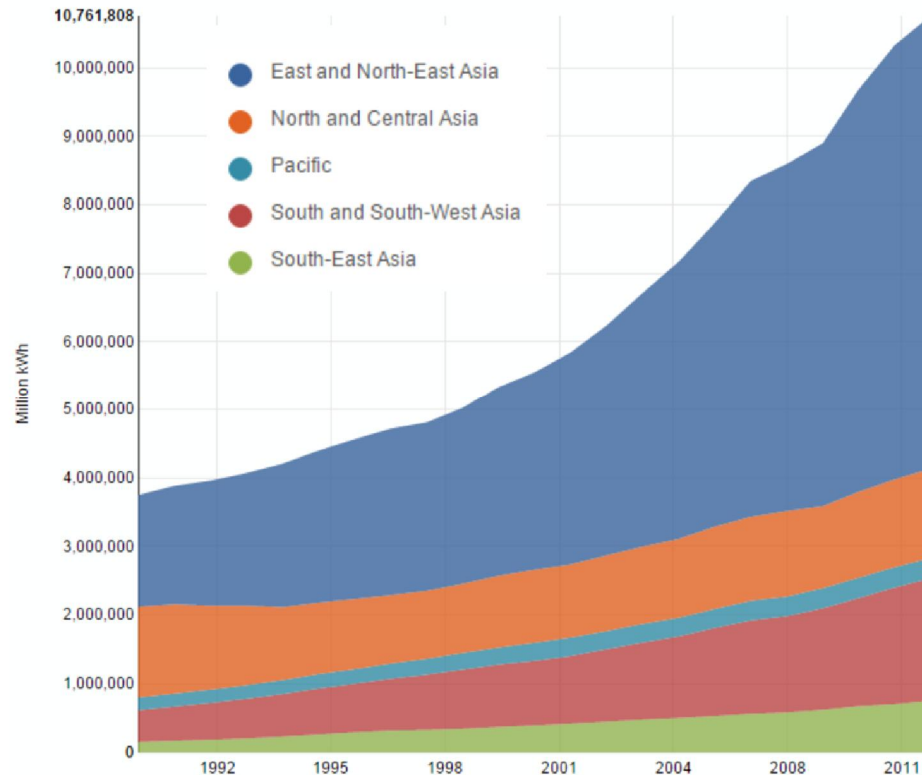
Integrating Variable Renewable Energy into the Power Sector

Overview

- Why Variable Renewable Energy (VRE)
- Current status and future outlook of VRE
- Lowering barriers to VRE integration
- Accelerating VRE integration
- VRE support mechanisms

Why Variable Renewable Energy (VRE)

Electricity Generation in Asia and the Pacific, 1990-2012

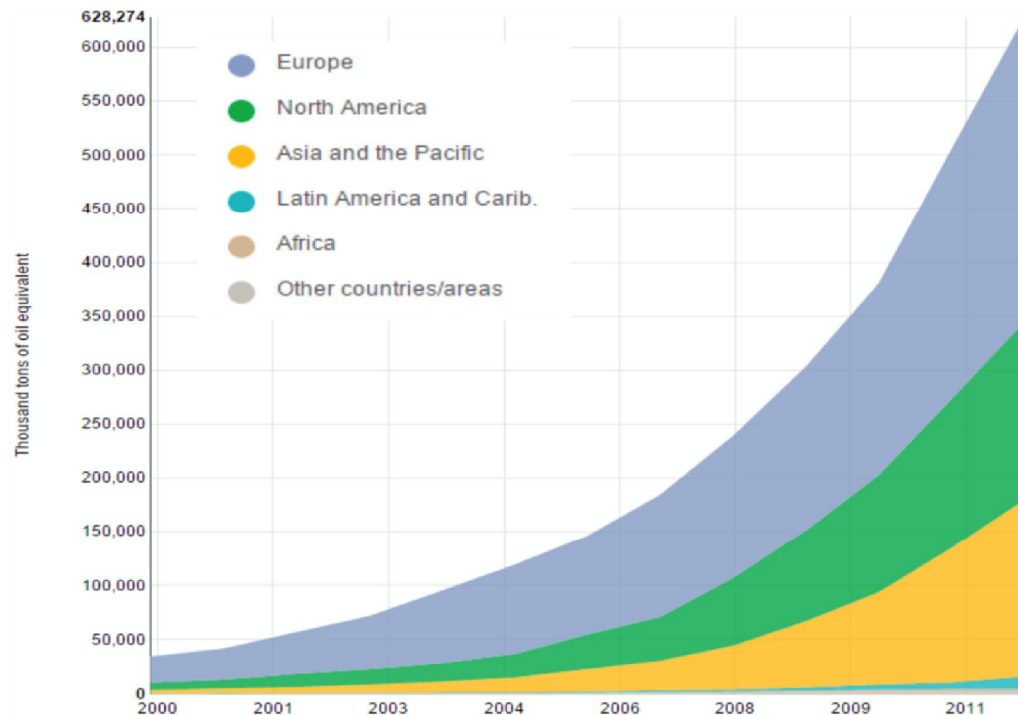


Source: ESCAP Portal, IEA 2011

- Asia and the Pacific has the opportunity to transition to more flexible, stable, cleaner and cost-effective future energy systems that can better integrate the power resources of both today and tomorrow.

Current Status of VRE

Global Regional VRE Electricity Generation, 2000-2012

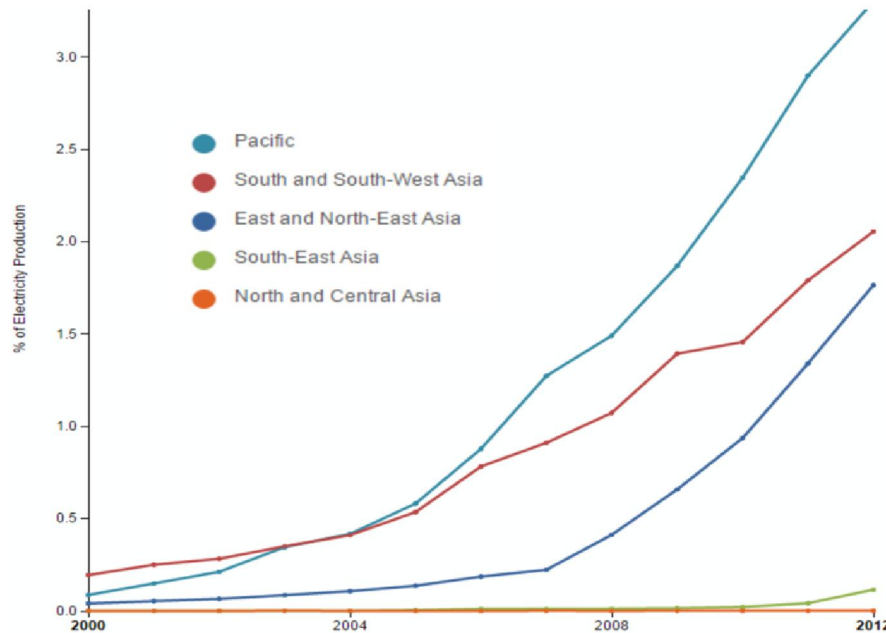


Source: ESCAP Portal, IEA 2011

- Asia and the Pacific accounted for 37% of 2011 global renewable electricity generation, demonstrating a rapid increase from 2000, when the region's global share was 28%.

Current Status of VRE

Asia and the Pacific Subregional Trends in VRE Share of Electricity Generation, 2000-2012

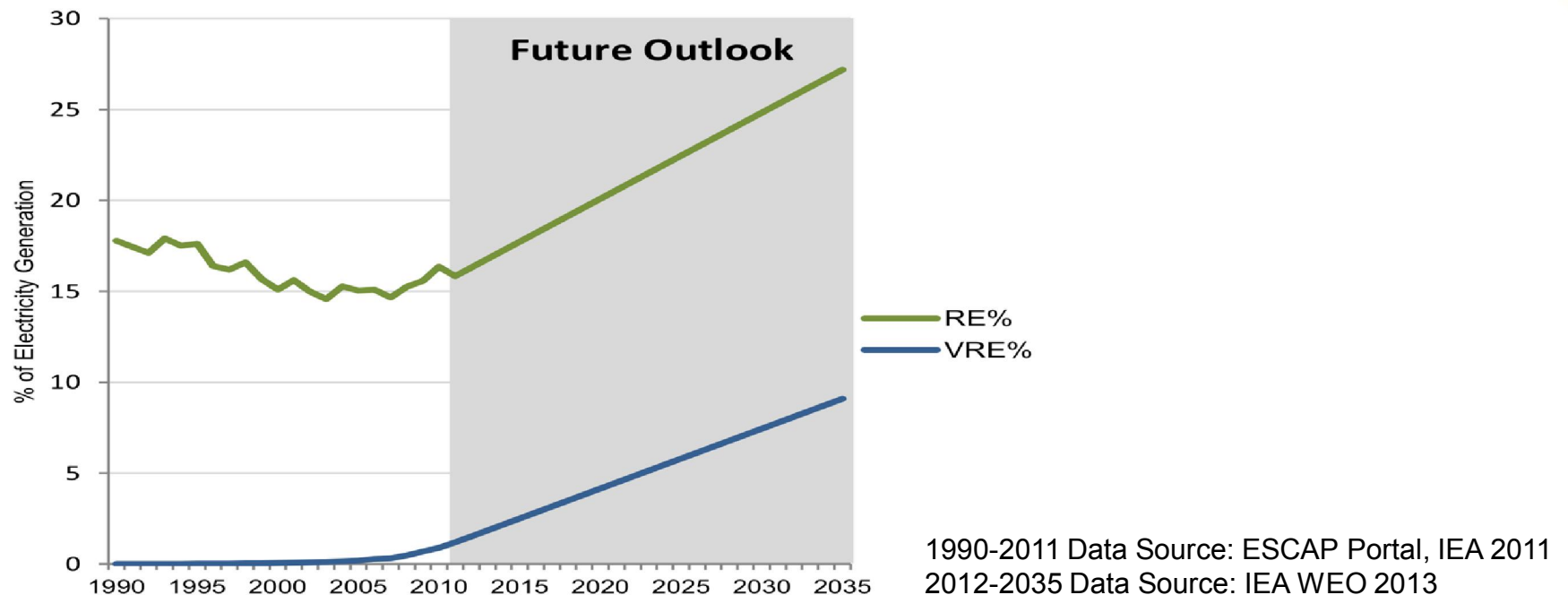


Source: ESCAP Portal, IEA 2011

- When compared to other renewable energy resources, VRE as a percentage of the electricity mix exhibits an exponential growth trajectory for three of five ESCAP subregions.
- Behind the current growth trend of VRE are dropping technology prices, but also an increasing number of ambitious national targets, supportive policies and action plans.

Future Outlook of VRE

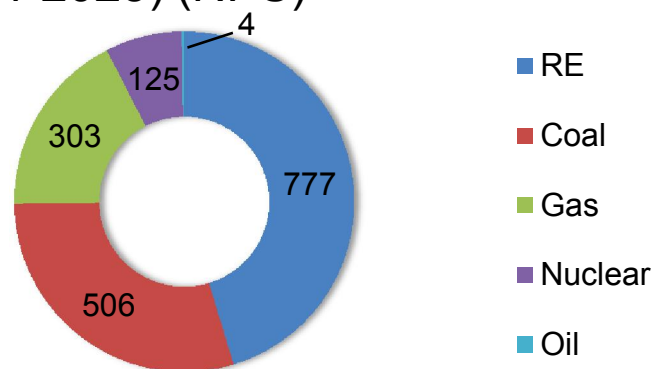
Future Outlook of RE and VRE in Asia and the Pacific as a Percentage of Electricity Generation



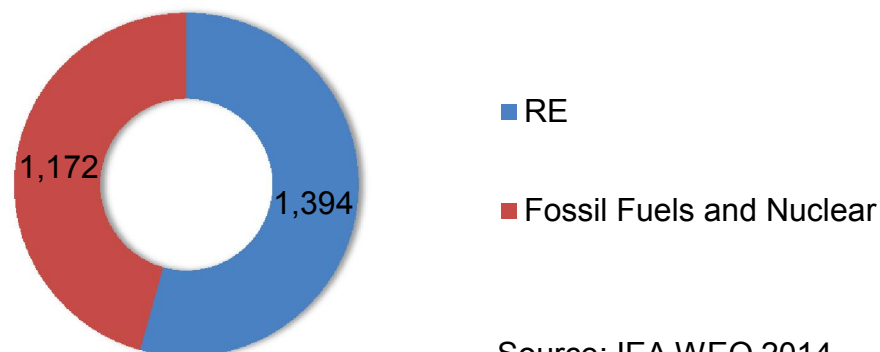
- As of 2035, RE and VRE will account for increasing shares, approaching 30% and 10% respectively, of electricity generation within the Asia-Pacific region under the IEA New Policies Scenario (NPS).

Future Outlook of VRE

Asia-Pacific cumulative power plant capacity additions (GW) (2014-2025) (NPS)



Asia-Pacific cumulative investment in power plants and transmission (billion 2013 USD) (2014-2025) (NPS)



Source: IEA WEO 2014

Lowering Barriers To VRE Integration

- Current trends and future outlooks clearly point to continued expansion of VRE globally and within the Asia-Pacific region; however, the evolution of the electricity mix will require grids to advance into smarter and more flexible energy systems that can efficiently accommodate new VRE generation capacity.
- A number of barriers stand in the way; however these barriers are lowering.

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_4806

