



# APEC Doubling Renewables Goal: Outlook for renewables in South East Asia

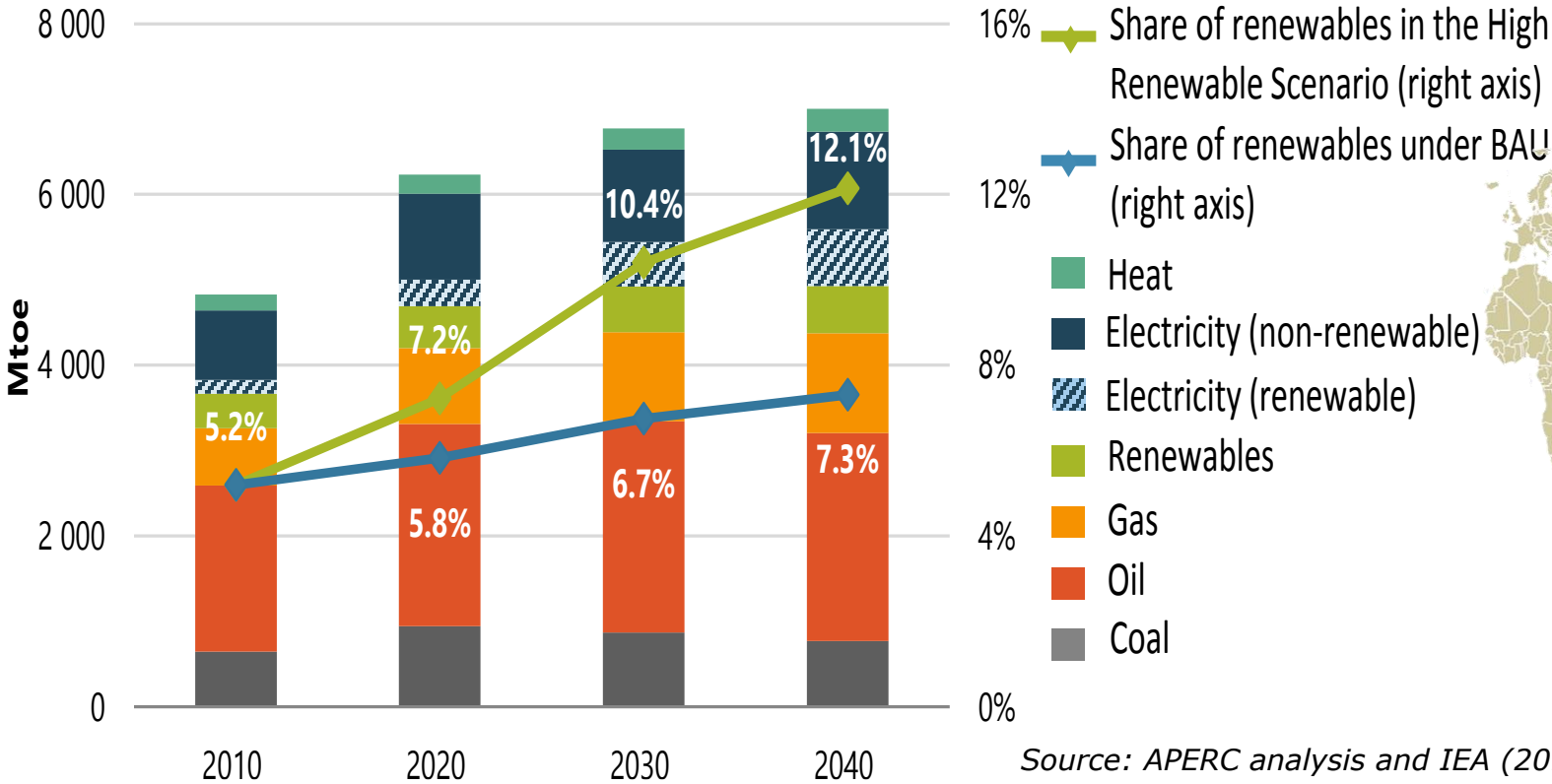
Cecilia Tam, Special Adviser  
October 2016, Singapore



**Asia-Pacific  
Economic Cooperation**

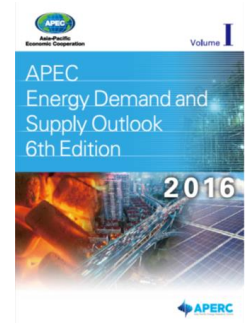
# Pathway to APEC Renewables Doubling Goal

## APEC Final Energy Demand



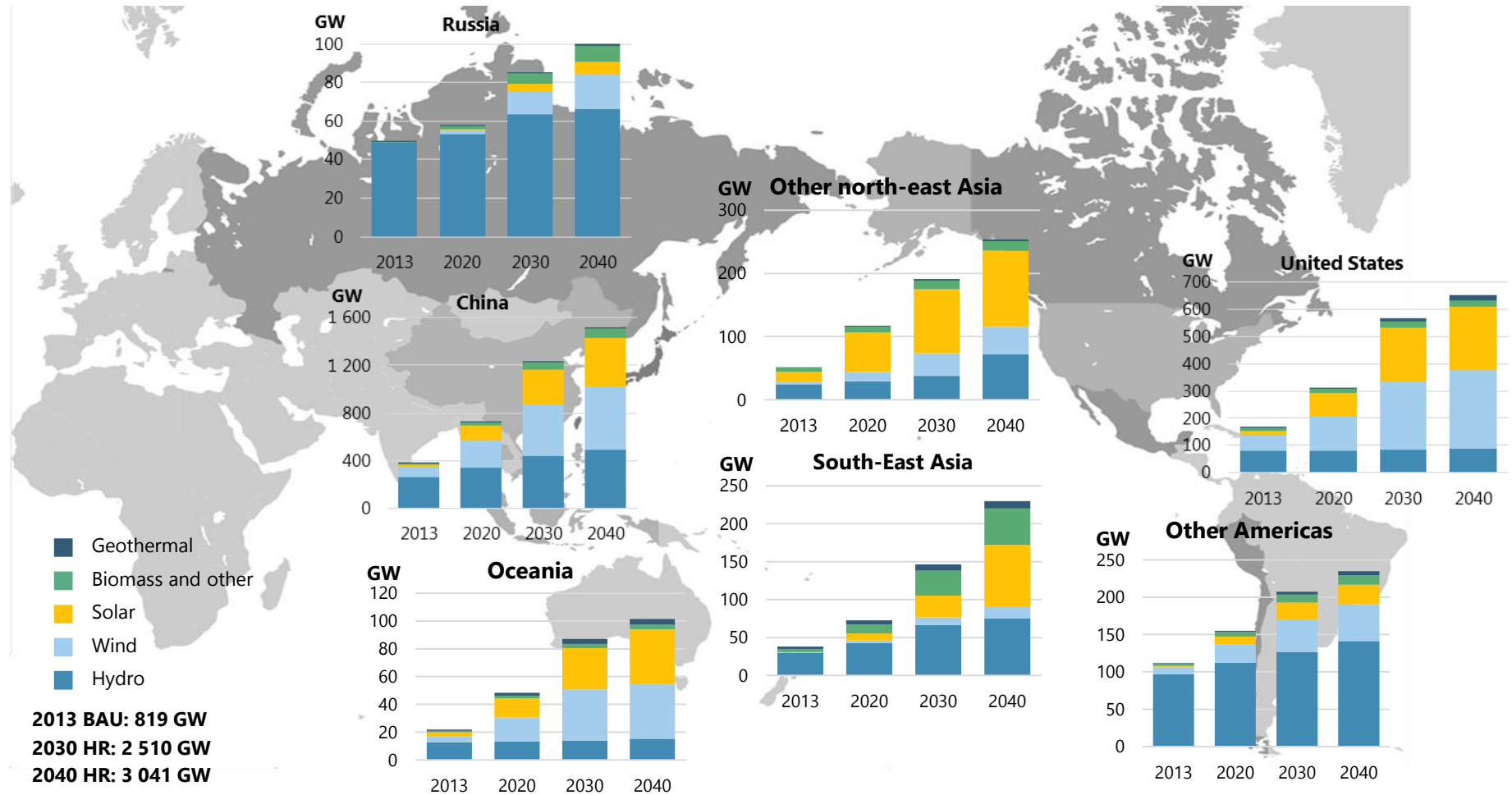
Source: APERC analysis and IEA (2015).

## Asia Pacific Economic Cooperation (APEC)



**APEC renewable doubling goal is not met in BAU. High Renewables Scenario outlines a pathway to doubling goal in power and transport.**

# Renewable Capacity Triples to Achieve Doubling Share Goal in Power



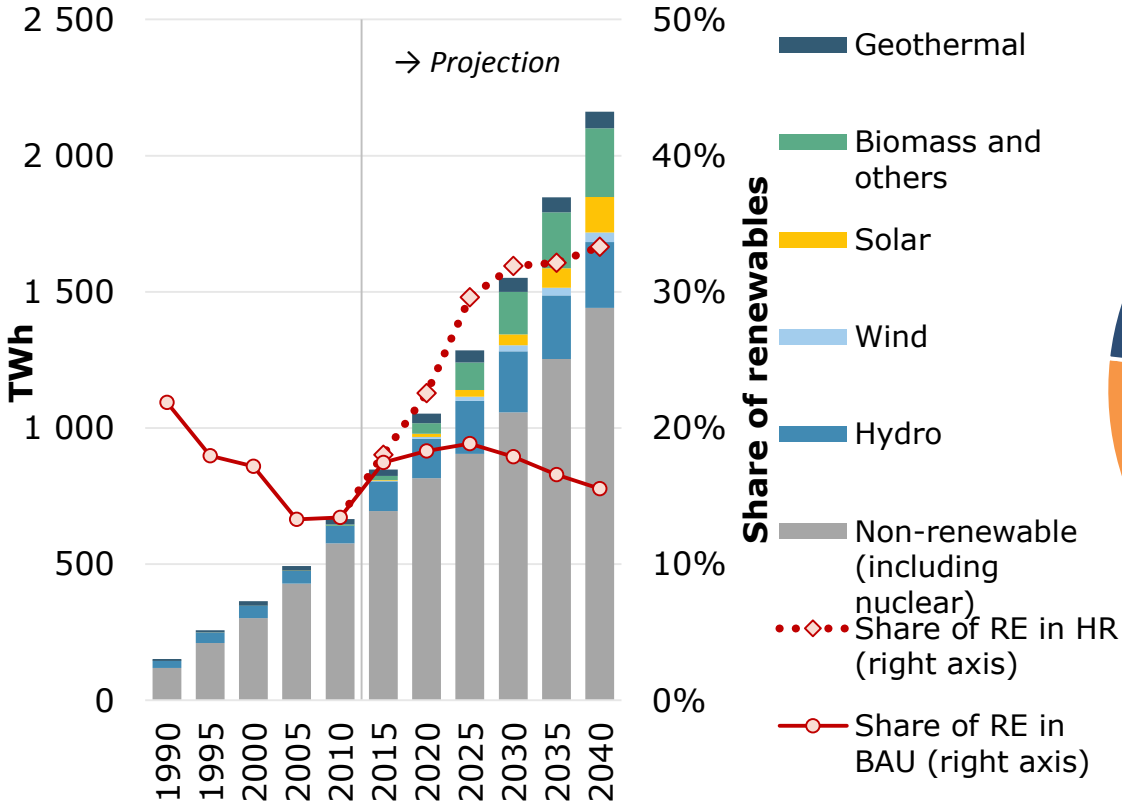
Note: this map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory, **Oceania** (Australia, New Zealand and PNG), **Other Americas** (Canada, Chile, Mexico and Peru), **Other north-east Asia** (Hong Kong, Japan, Korea and Chinese Taipei), **South-East Asia** (Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore, Thailand and Viet Nam), **BAU** = Business-as-usual, **HR** = High Renewables

Source: IEA statistics 2015 and APERC analysis

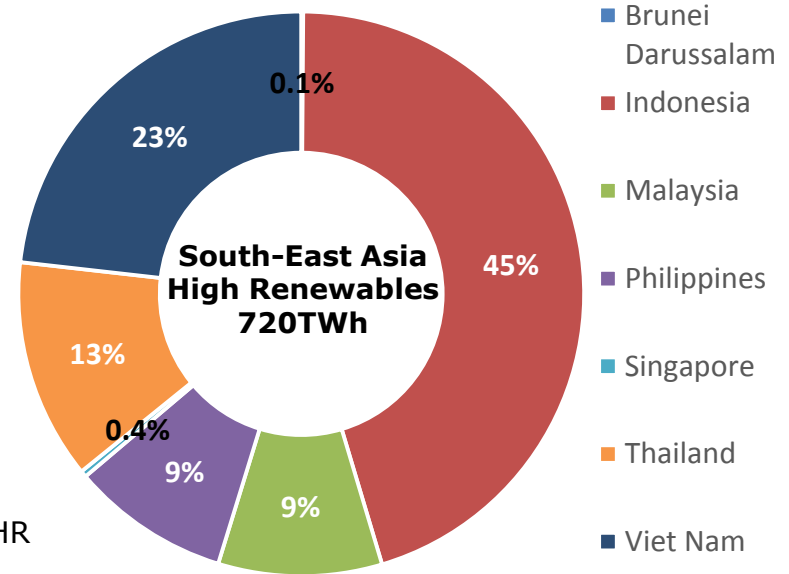


# High Renewables Scenario: Renewable power in APEC South-East Asia

## Renewable generation by scenario



## Renewable generation by economy, 2040

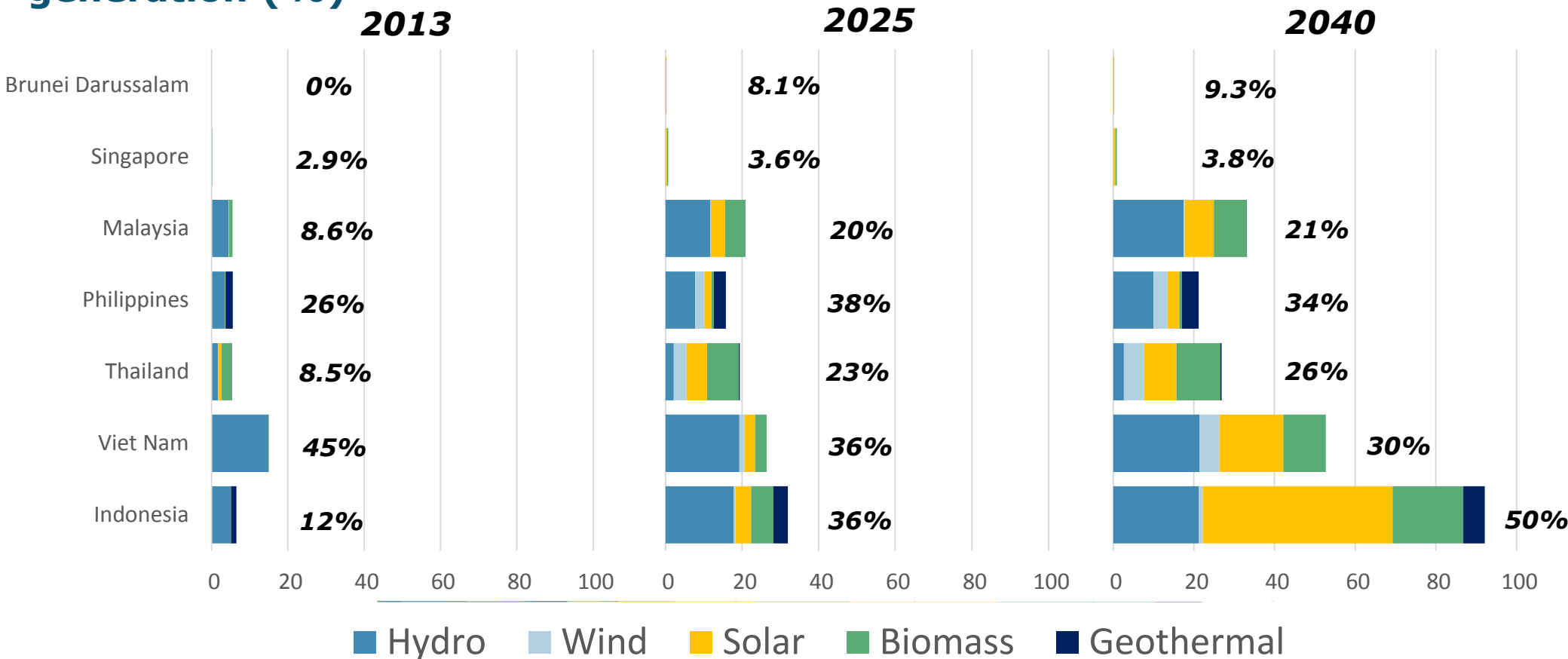


**Renewable power generation reaches 32% by 2030 from just 14% in 2010.**

Note: **South-East Asia** (Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore, Thailand and Viet Nam), **BAU**=Business-as-usual, **HR**=High Renewables  
 Source: IEA (2015) and APERC (2016).

# High Renewables Scenario: South-East Asia

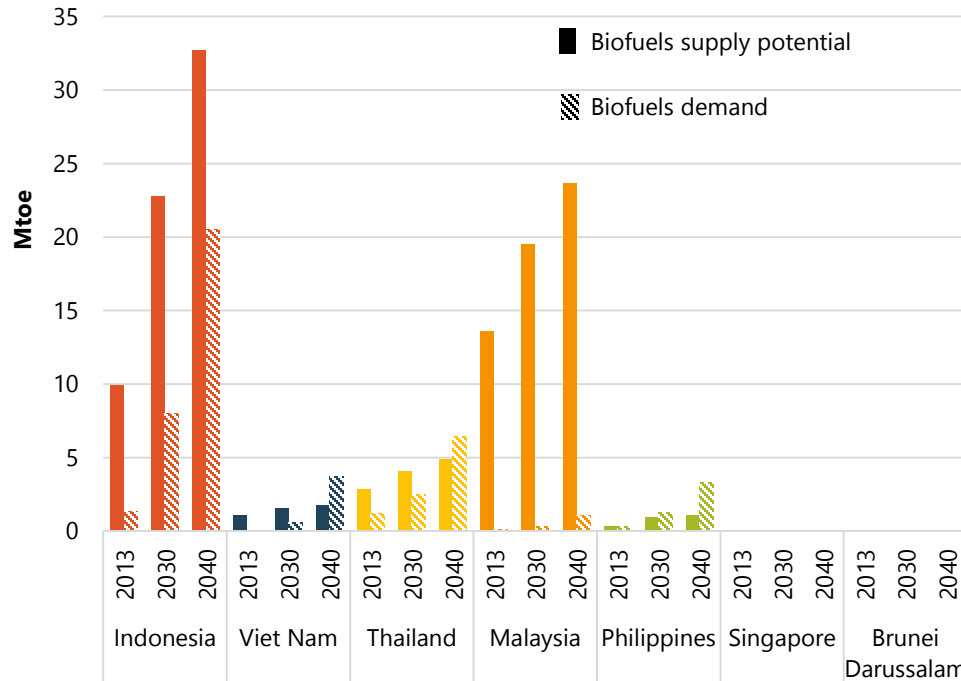
## Installed Renewable Capacity (GW) and Share of renewable generation (%)



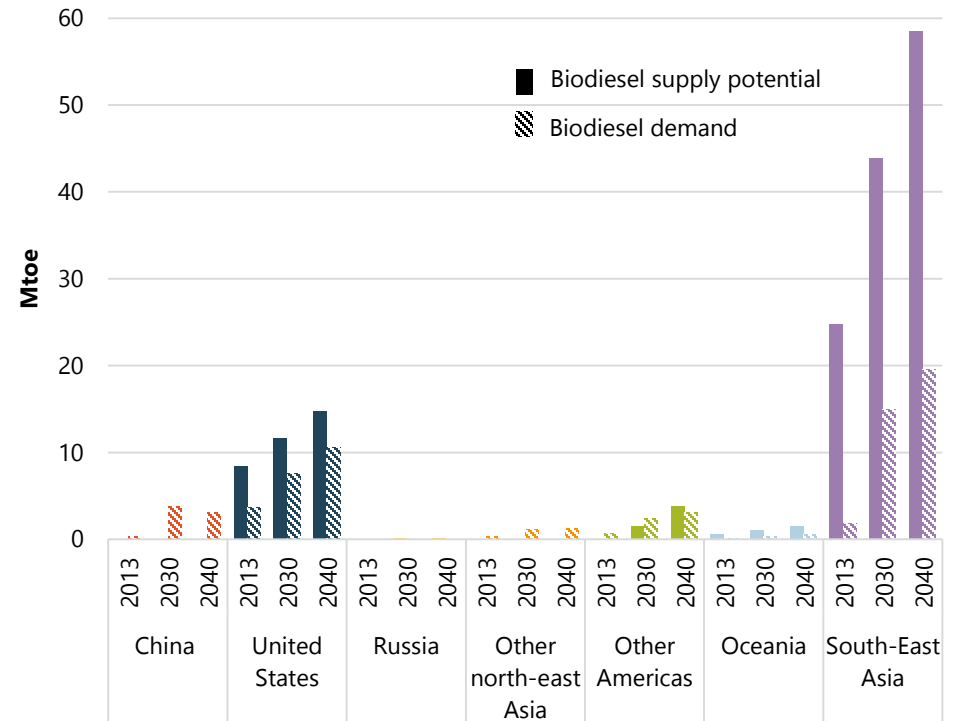
**An average of 6.4 GW of new capacity added annually to 2025, and 7.5 GW from 2030-2040. Over the next decade hydro and biomass lead additions**

# Biofuels Supply Potential in the High Renewables Scenario

## South-East Asia supply potential and demand



## APEC biodiesel supply potential and demand



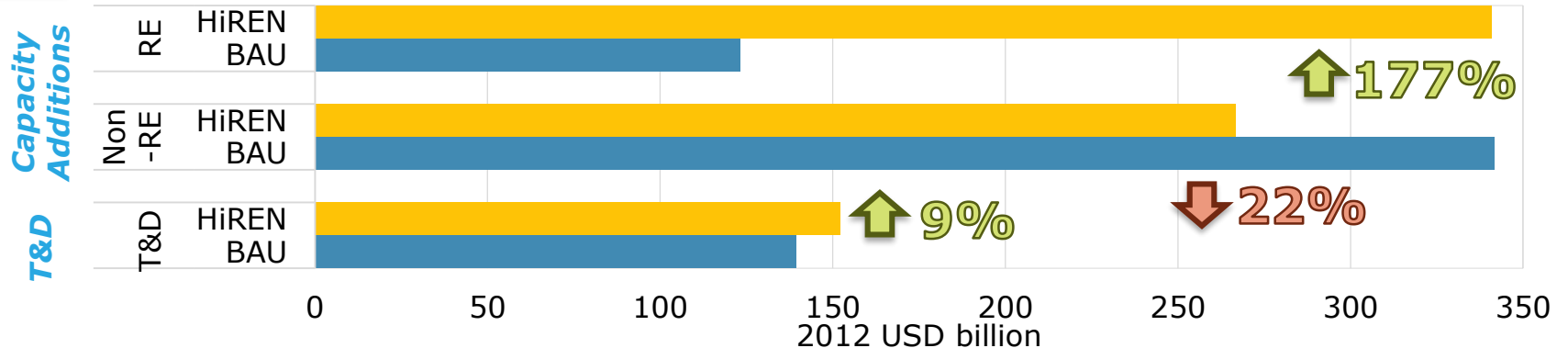
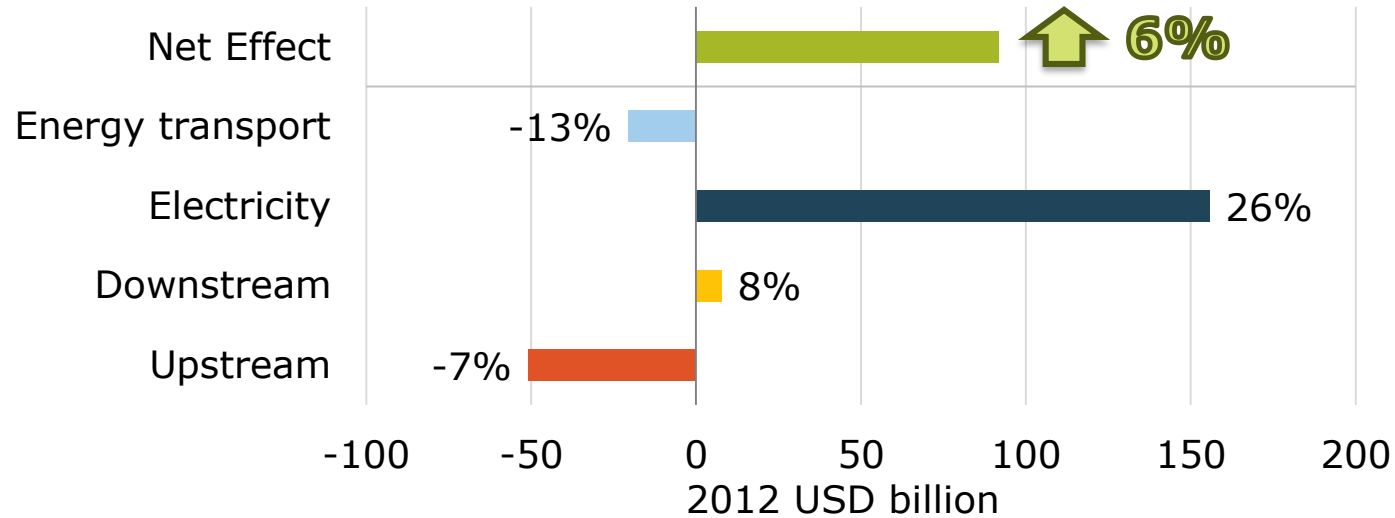
**Higher biofuel blend rates to drive demand.**

**Regional biofuels surpluses and deficits provide great trading opportunity, particularly for Malaysia and Indonesia with high biodiesel supply potential.**

Sources: IEA (2015) and APERC (2016).

# The High Renewables Scenario requires a small increase in investment

## Change in investment under the High Renewables Scenario from BAU, 2015-40



**Energy sector investments rise 6% (USD 92 billion) above BAU**

**RE capacity and T&D investments partially offset by lower non-RE investments.**



<http://aperc.ieej.or.jp/>

**APEC Expert Group on New and Renewable Energy  
Technologies**

<http://www.egnret.ewg.apec.org/index.html>