



**Asia-Pacific
Economic Cooperation**

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Trade and Investment in Clean Power Generation – Significance and Risks

Submitted by: Rhodium Group (RHG)



**Trade Policy Dialogue on Environmental
Goods Non-Tariff Measures
Big Sky, United States
12 May 2011**

Trade and Investment in Clean Power Generation

Significance and Risks

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Environmental Goods NTMs Trade Policy Dialogue
Big Sky, Montana
May 12, 2011

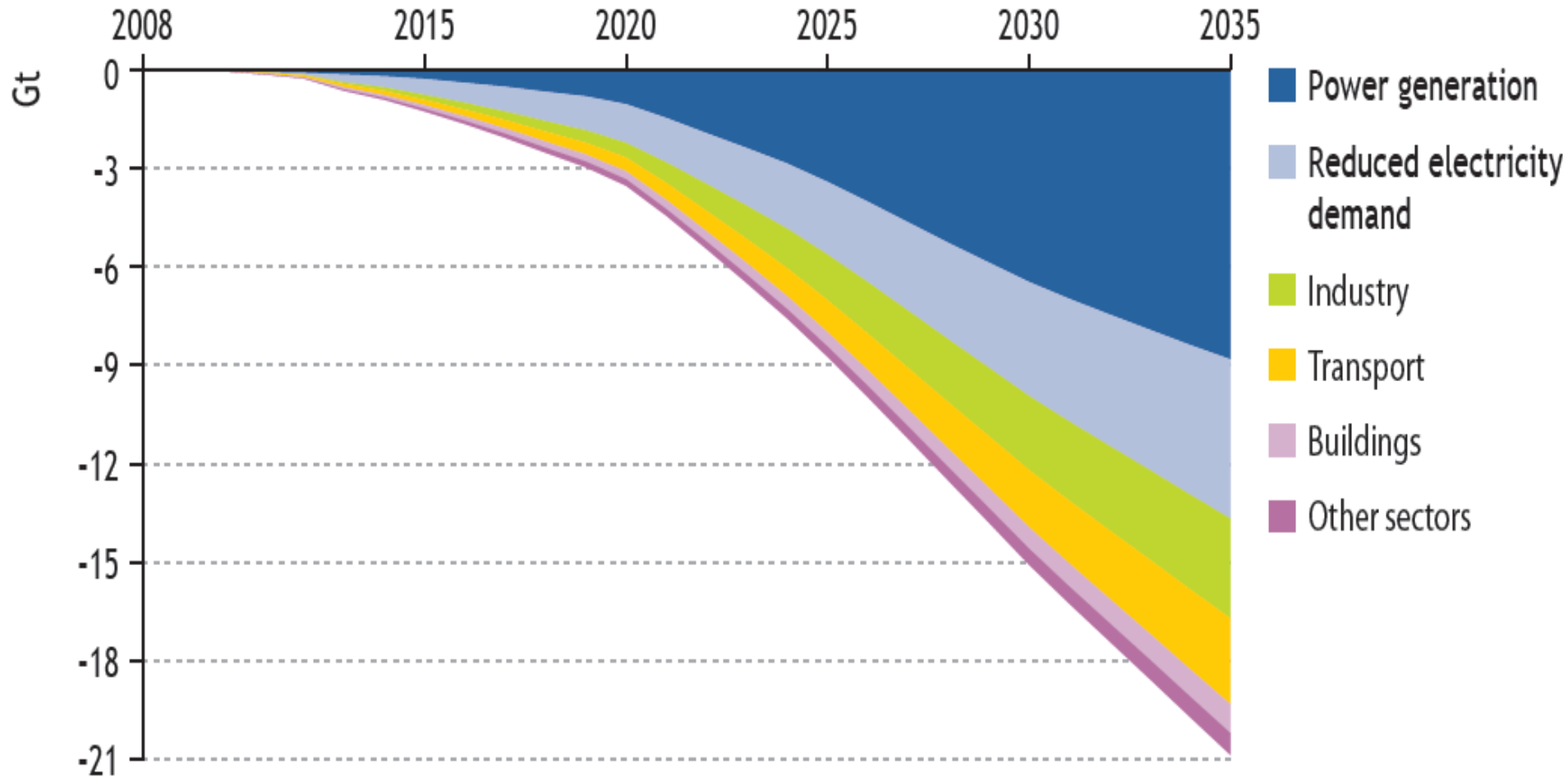
Definition of Environmental Goods

	WTO	World Bank
Renewable Energy Plant	28	24
Environmental Monitoring, Analysis, and Assessment Equipment	29	2
Management of Solid and Hazardous Waste	24	6
Air Pollution Control	13	3
Heat and Energy Management	6	2
Waste Water Management and Potable Water Treatment	29	3
Cleaner or More Resource Efficient Technologies and Products	4	3
Environmentally Preferable Products	6	0
Noise and Vibration Abatement	4	0
Clean up or Remediation of Soil and Water	4	0
Natural Resource Protection	3	0
Natural Risk Management	3	0
Total	153	43

Source: WTO, World Bank, RHG

Wide Spectrum of Climate-Friendly Technologies

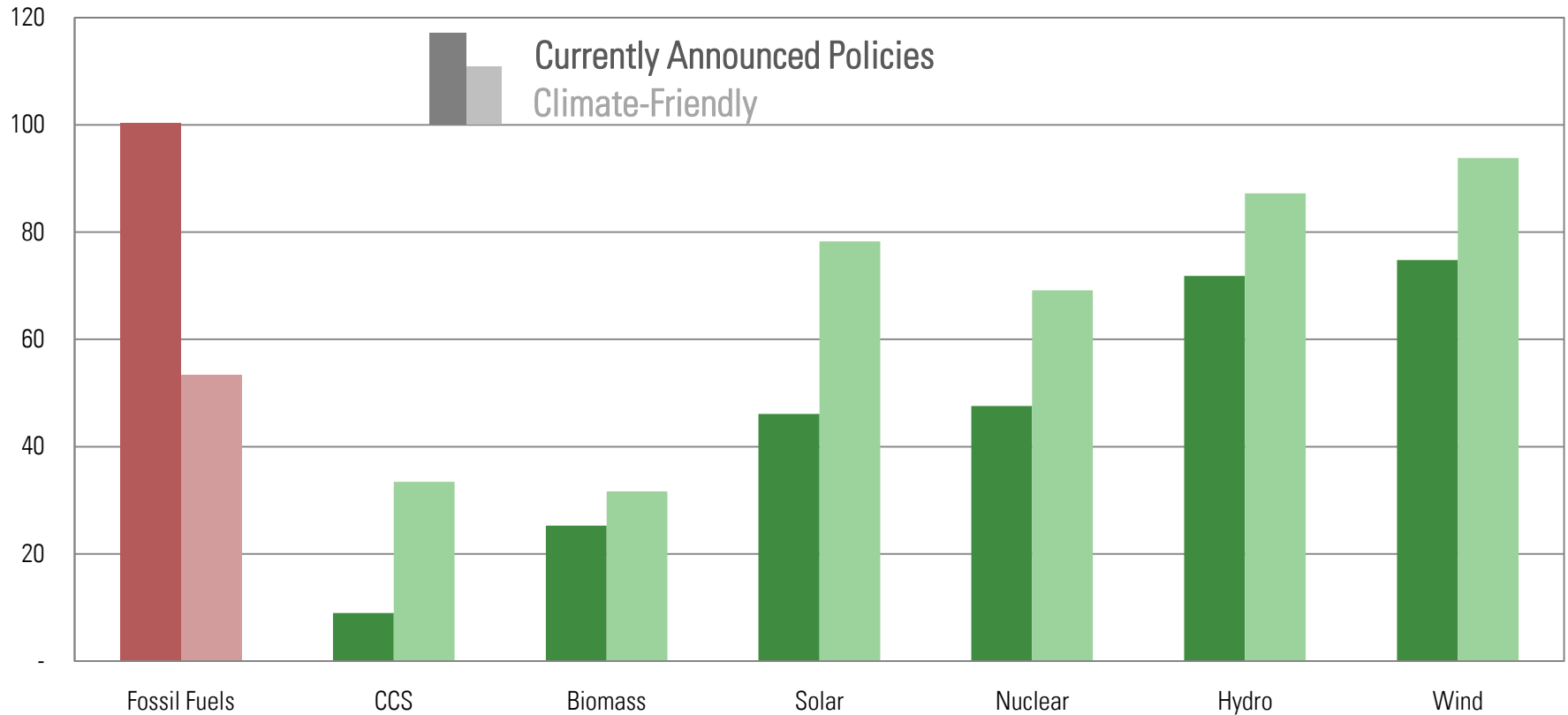
gigatonnes of additional CO2 abatement in "climate-friendly" scenario



Source: WEO 2010, IEA

Investment in Global Clean Power Generation

2009 \$ billion, average annual investment (2009-2035)



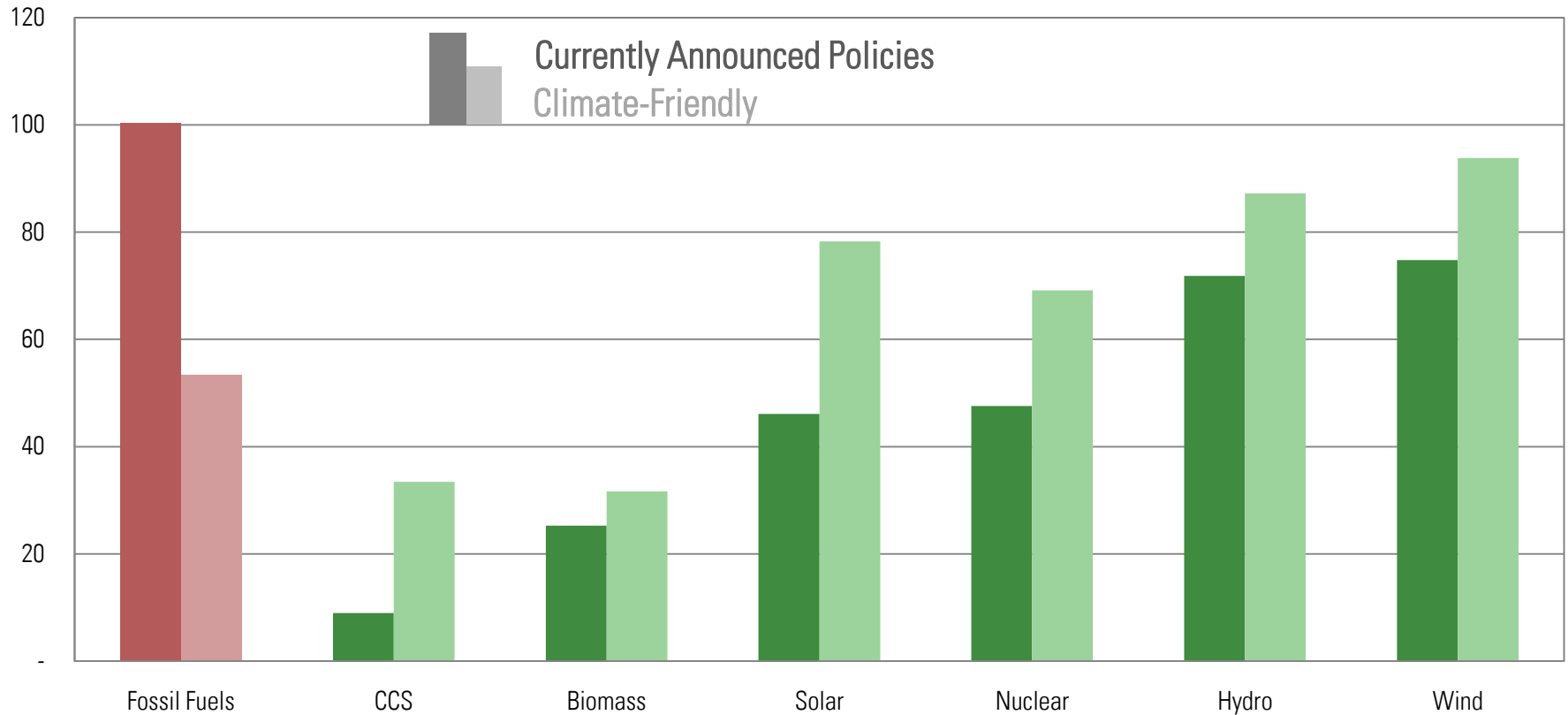
Currently Announced Policies
Investment : \$ 275 billion /year

Climate-Friendly
Investment : \$400 billion /year

Source: IEA, RHG

Investment in Global Clean Power Generation

2009 \$ billion, average annual investment (2009-2035)



Currently Announced Policies

Investment : \$ 275 billion /year

Tradable Market : \$172 billion /year

Potential Trade : \$16 - 52 billion /year

Climate-Friendly

Investment : \$400 billion /year

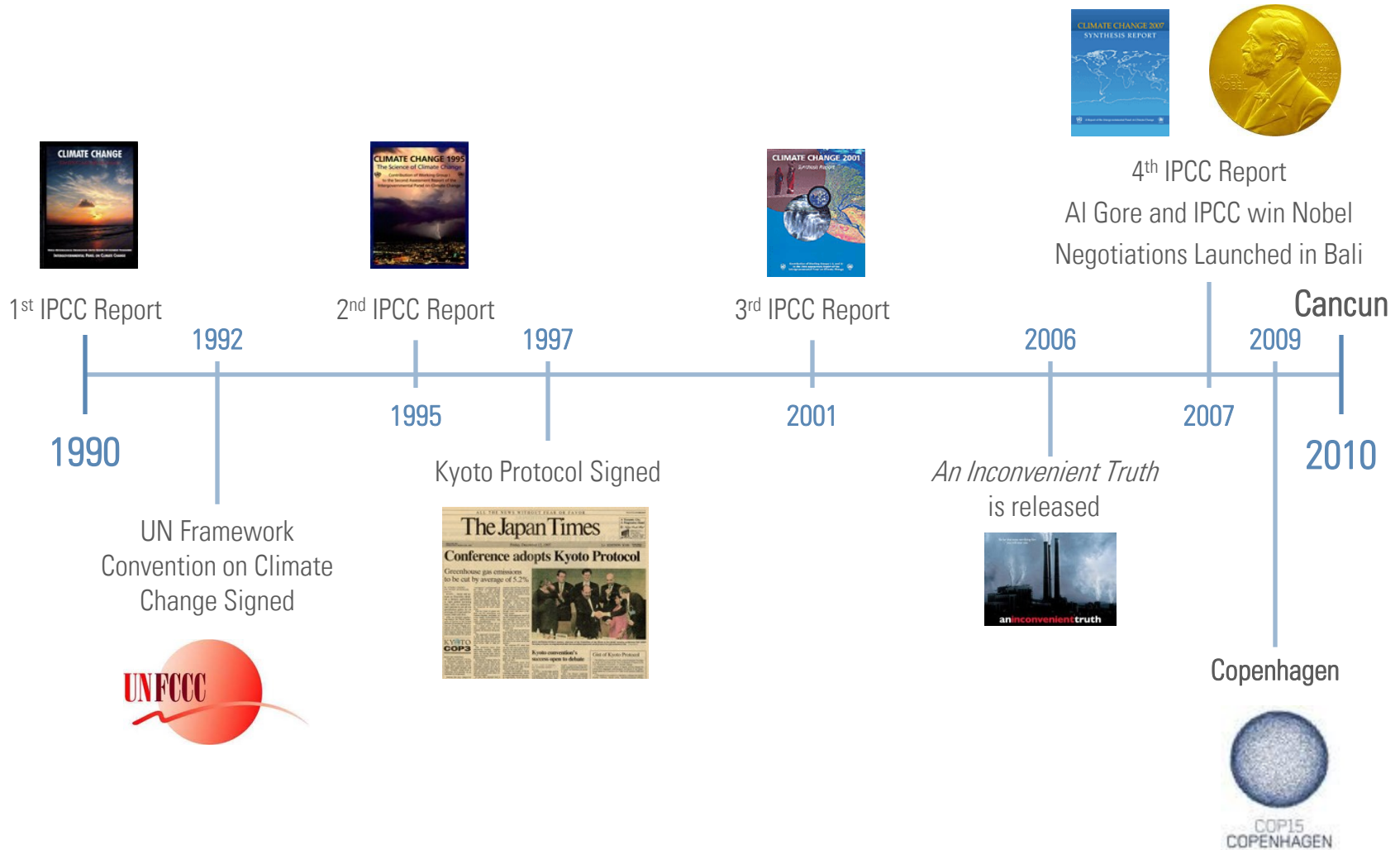
Tradable Market : \$240 billion /year

Potential Trade : \$25 - 75 billion /year

Source: IEA, RHG

Climate Policy Timeline

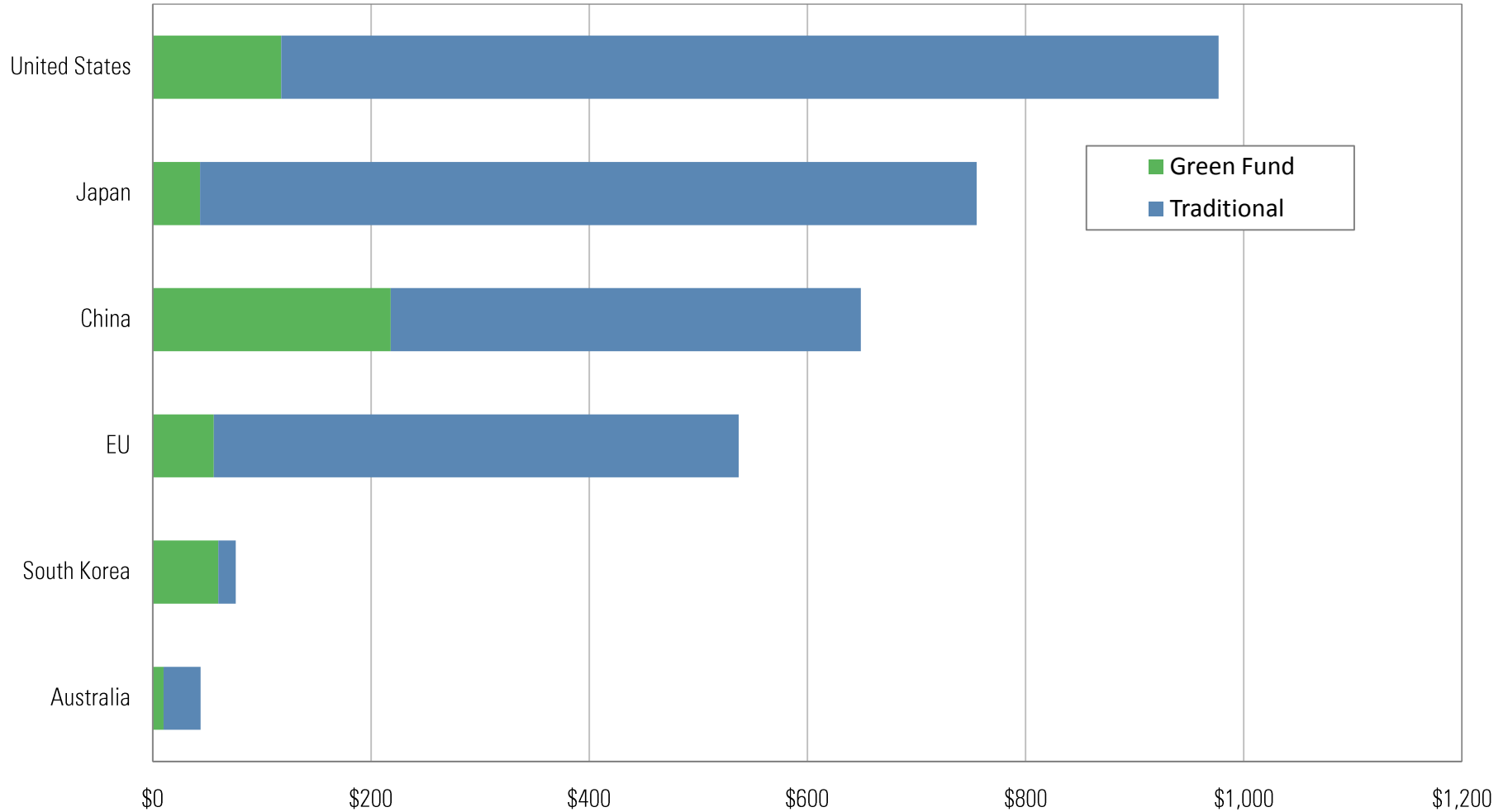
1990-2010



Source: UNFCCC, RHG

Stimulus Measures of Select Economies

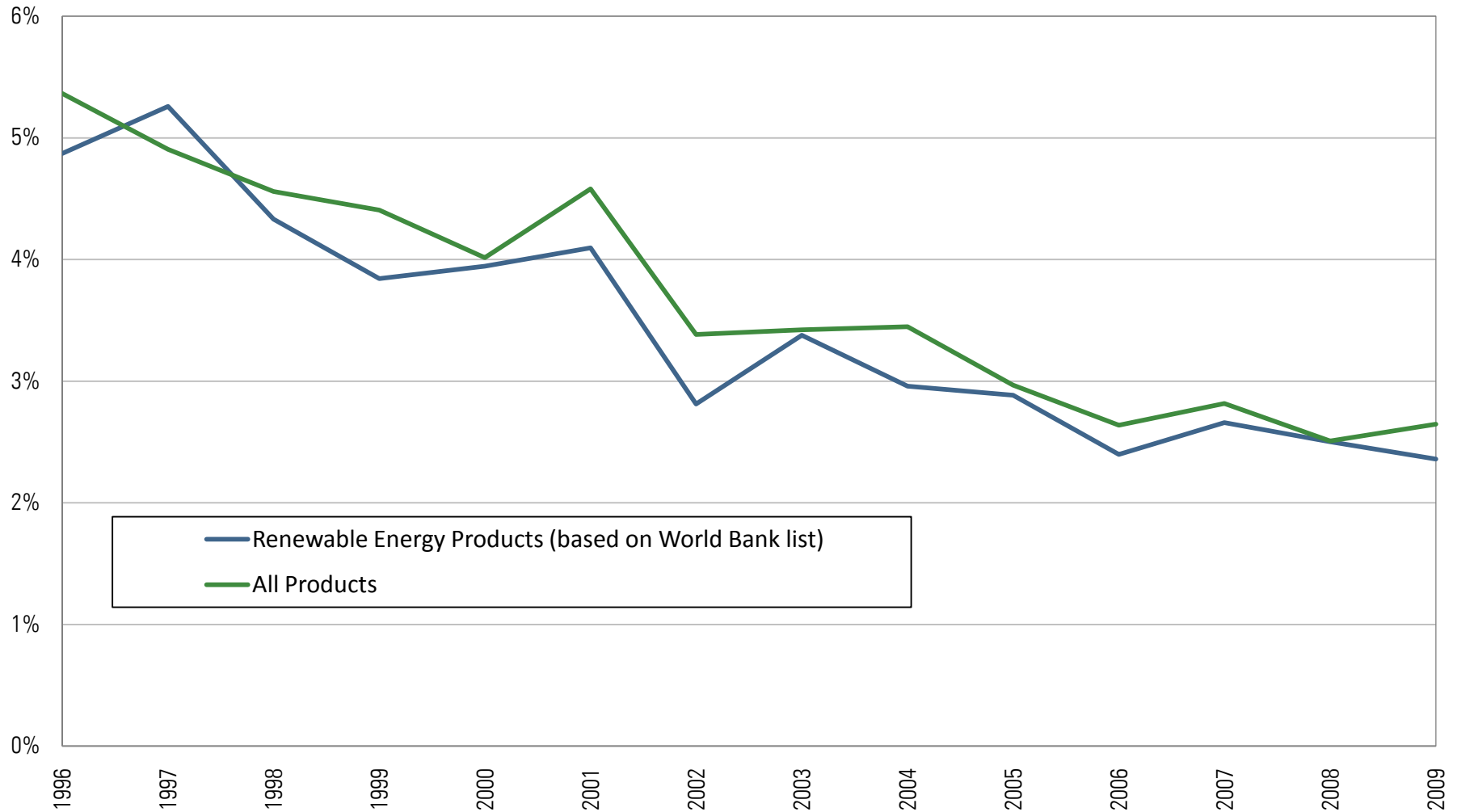
US\$ billion



Source: HSBC, PwC, RHG

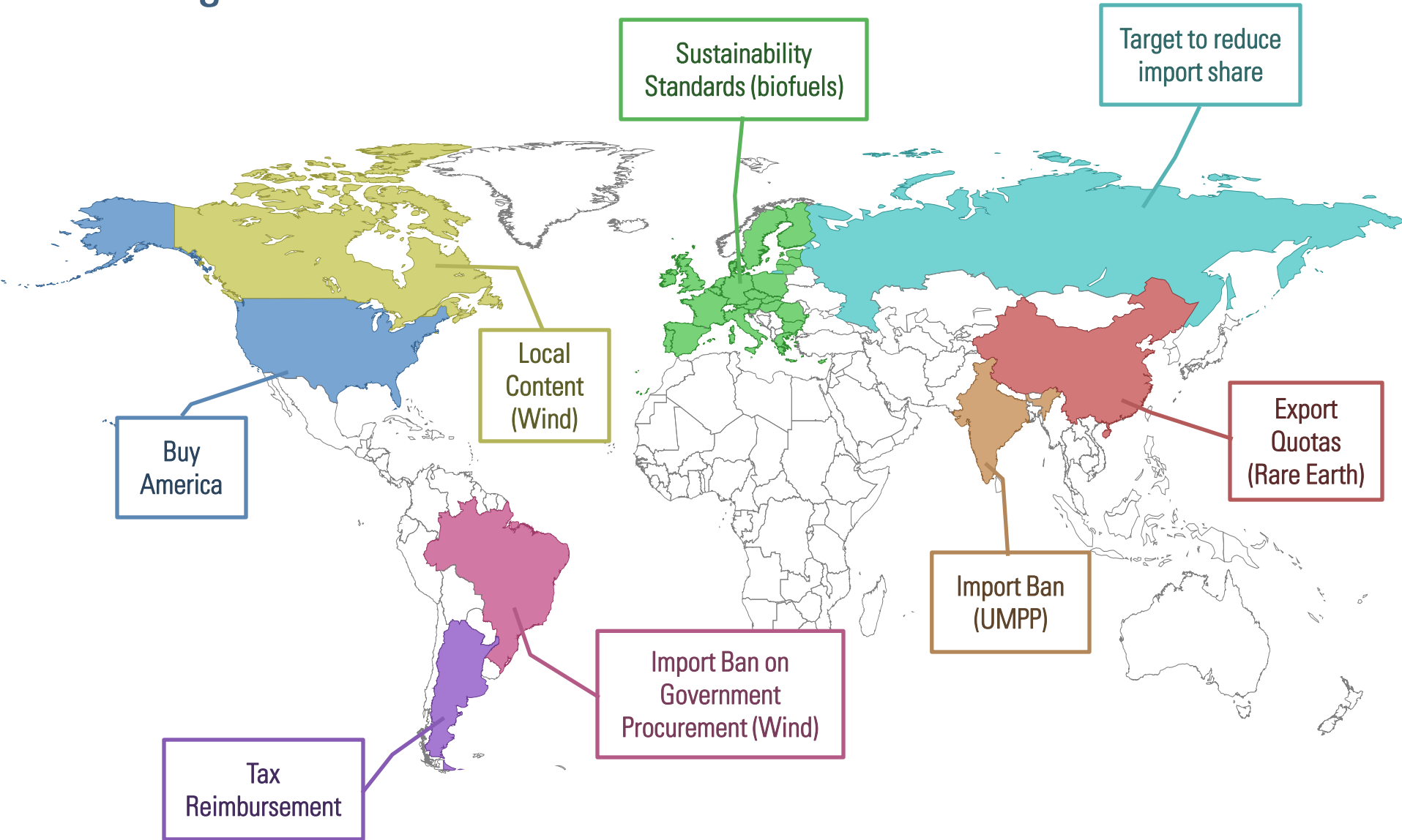
Falling Tariff Barriers

%, trade weighted applied tariffs



Source: TRAINS, RHG

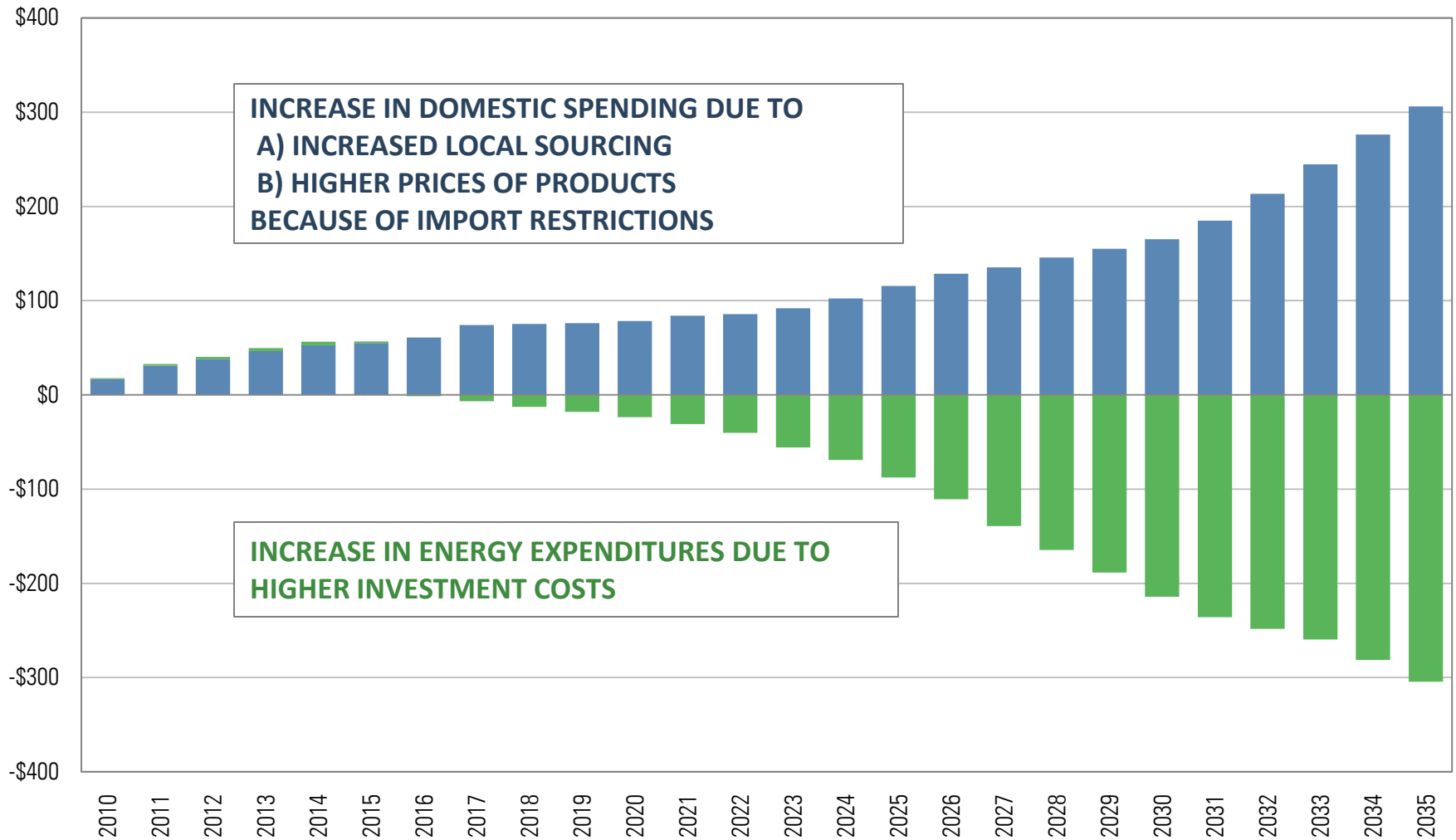
Growing Non-Tariff Barriers



Source: RHG

Costs may outweigh the Benefits

2009 \$ billions, for United States under clean electricity target of 80% by 2035



Source: RHG-NEMS analysis based on 50% increase in overnight capital costs of all clean electricity technology