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APEC ENERGY DEMAND AND SUPPLY OUTLOOK TO 2050:

APEC Target Scenario

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1. Scenarios in the 7th Outlook

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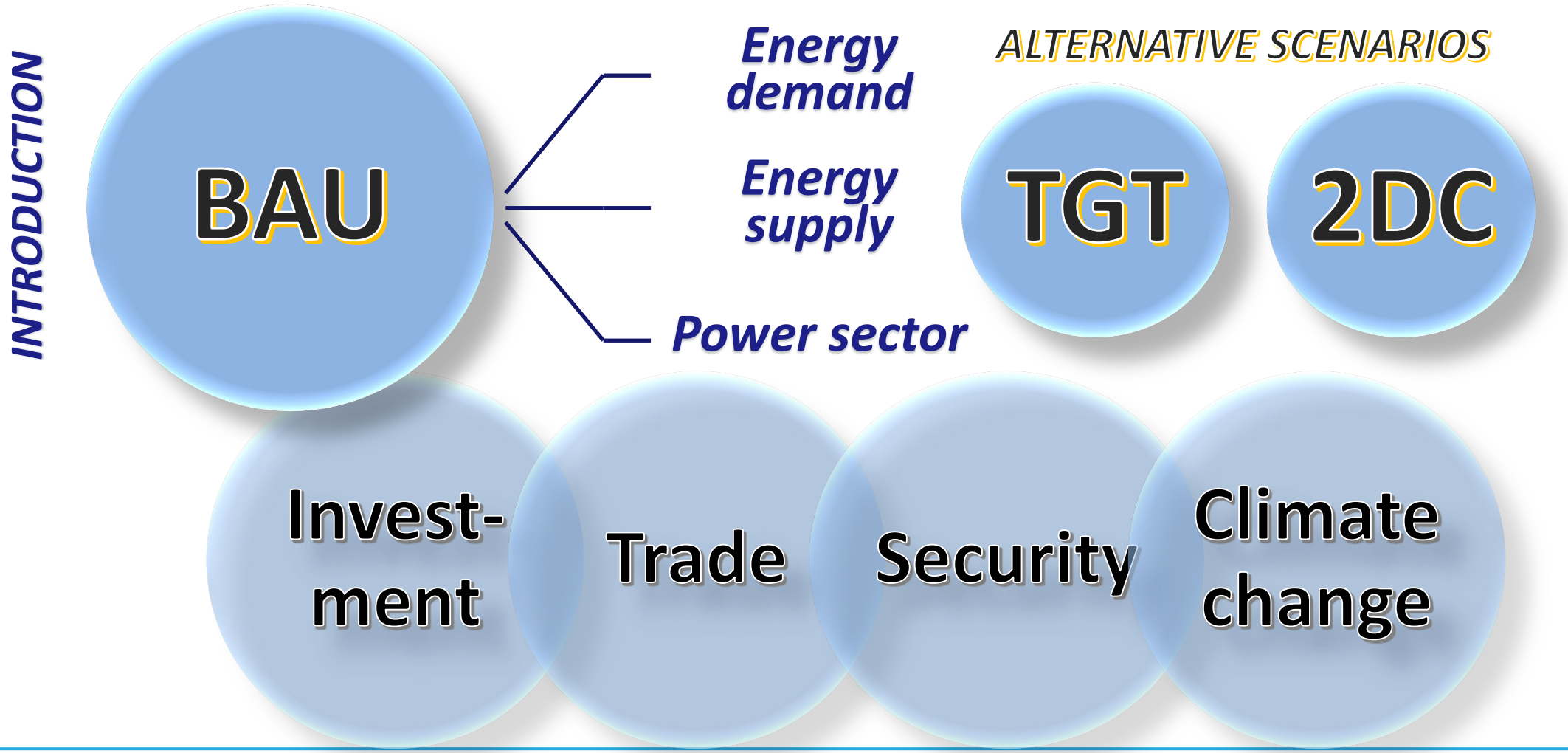
The 7th edition of the Outlook has 10 chapters, three scenarios



Renewables modelling for 7th Edition

- Integrate renewable energy analysis into Demand (Buildings, Industry, and Transport) and Power models
- Consider more perspectives of renewable energy in power: policy mandates, technical limits (improve policy analysis)
- Expand list of renewable technologies: separate large and small hydro, onshore and offshore wind, and introduce concentrating solar power, marine energy
- Improve daily load curves analysis to quantify impacts of variable renewables in power
- Assess direct renewable use (heating, cooling, waste)

2. Energy demand in the TGT scenario

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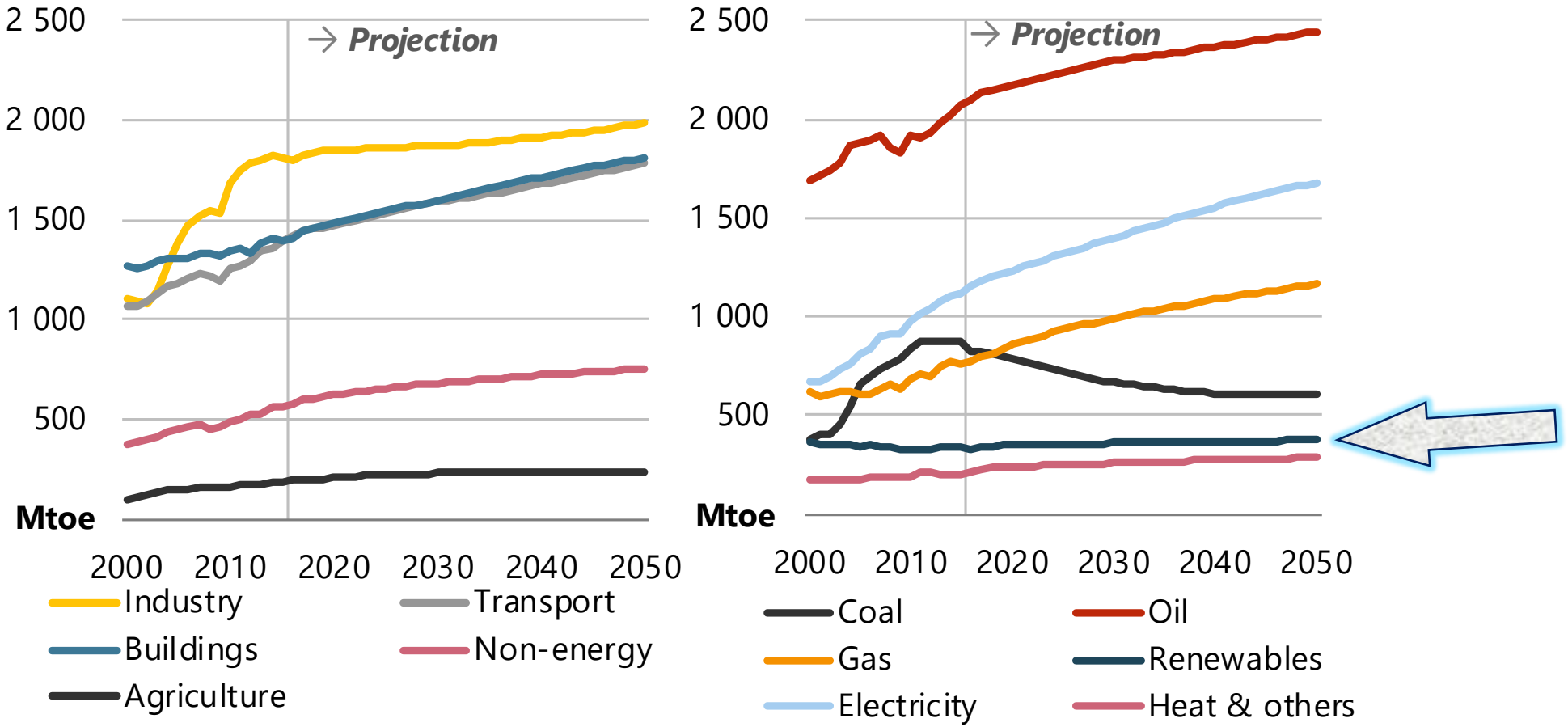
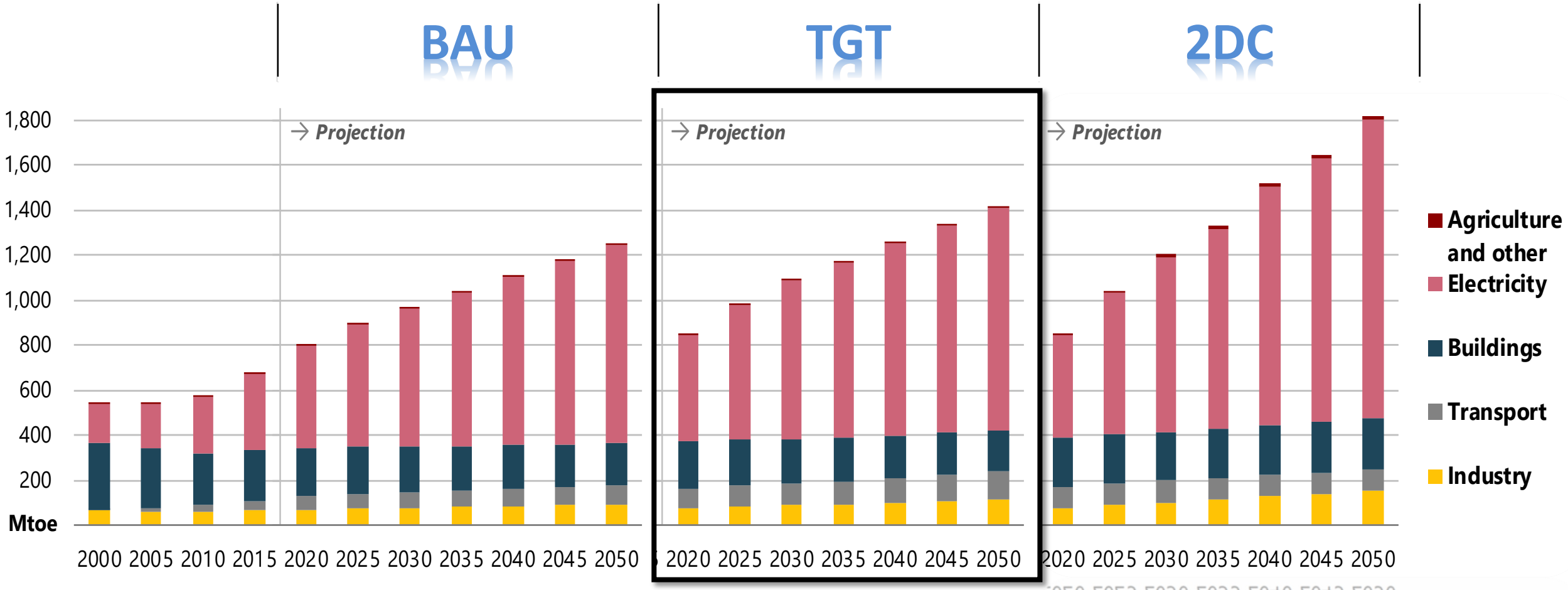
Total demand for DIRECT use of renewables stays relatively flat

Final energy demand in the BAU



Model run on March 13

Renewable demand increases rapidly in all scenarios



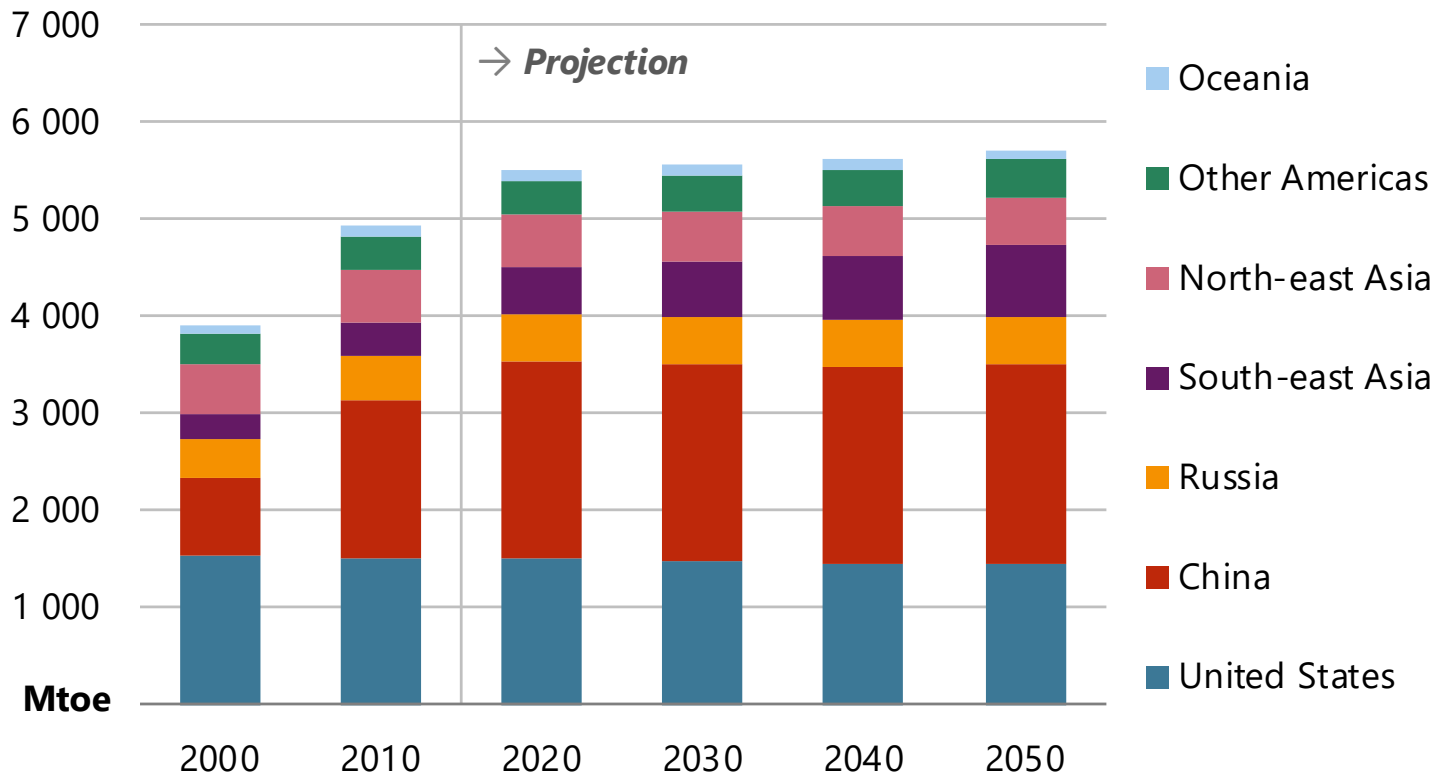
Source: APERC analysis and IEA (2018)

APEC Target Scenario: General assumptions

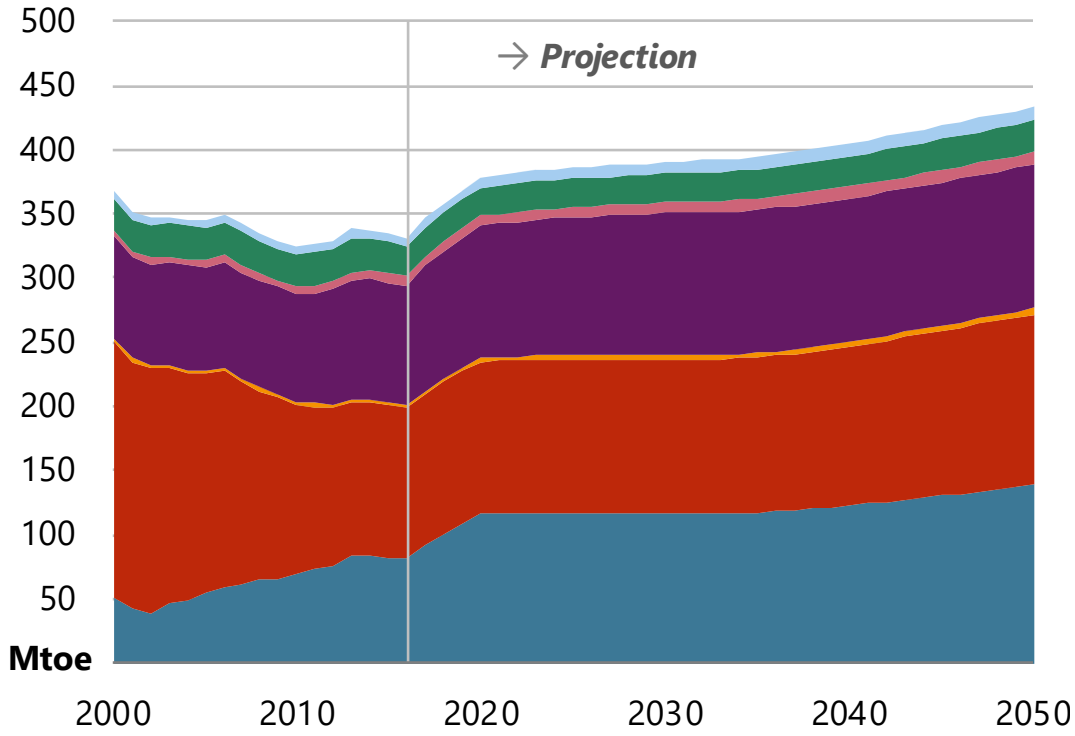
INDUSTRY	Adopting Best Available Technologies (BAT)
BUILDINGS	Improving building envelope and equipment energy efficiency
TRANSPORT	Progressively improving transport efficiency and mode switching
POWER	Increasing the share of renewable power generation

Achievements in the APEC Target Scenario, by region

TOTAL FINAL DEMAND

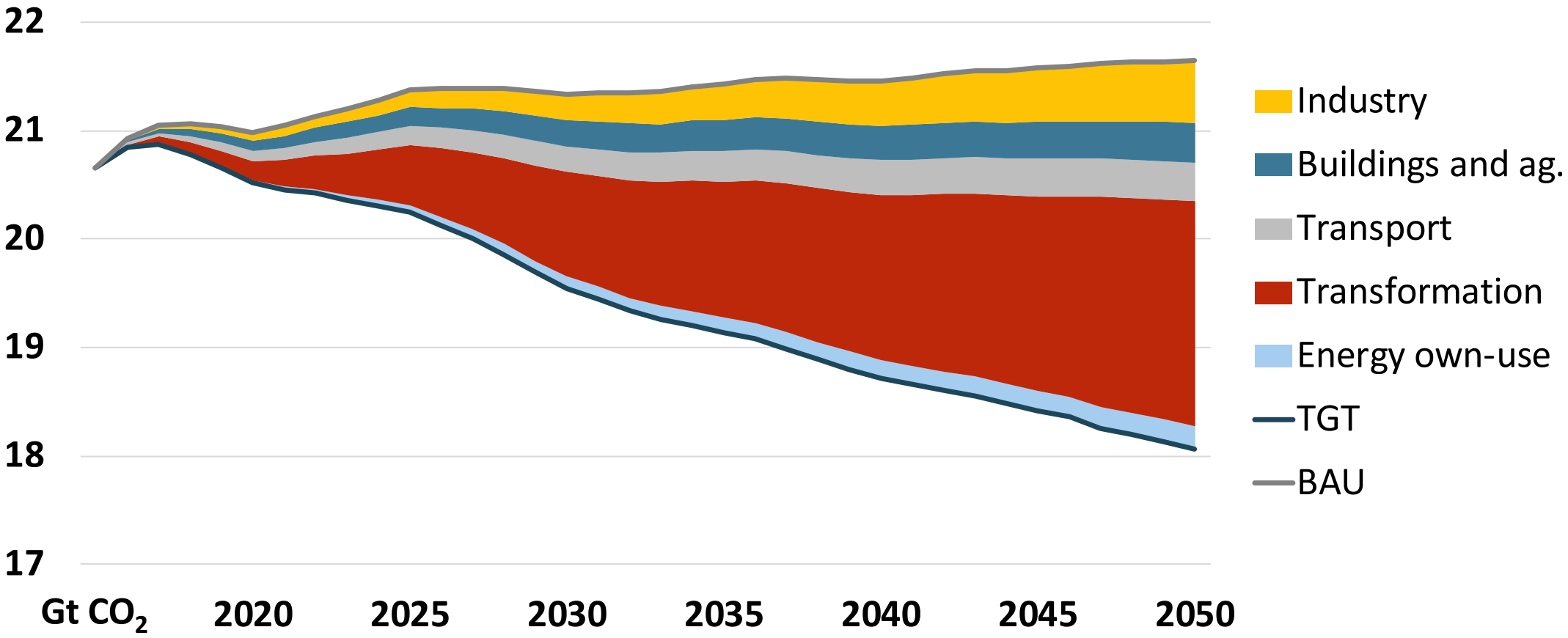


RENEWABLES DEMAND



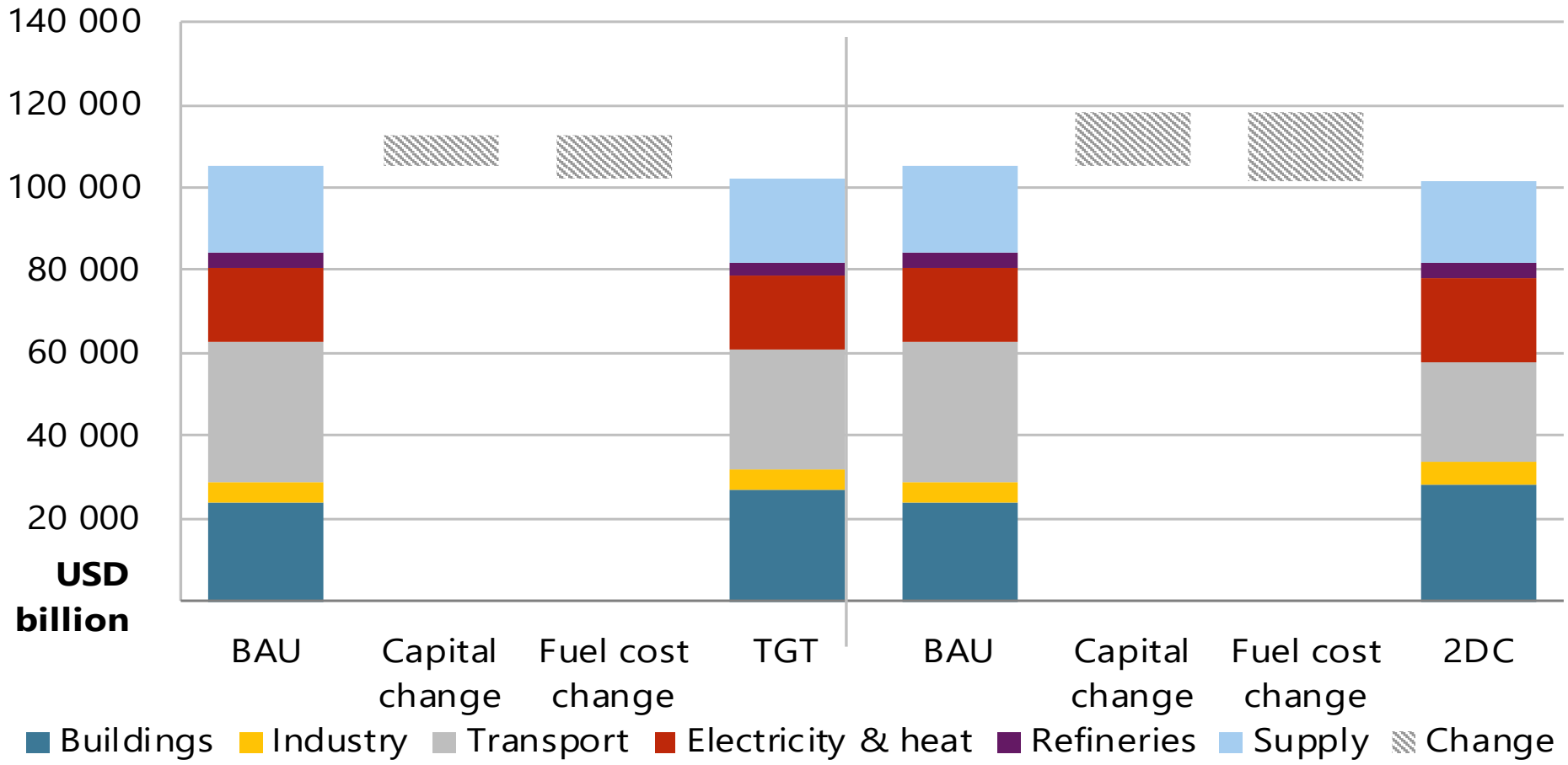
China and the United States are big owners of RE, but SEA economies are competitive, despite much smaller FED

Carbon reduction unlocked



Cumulatively 84 Gt of CO2 emissions were saved
2050 emissions level is 19% lower

Total capital investment and fuel costs decrease



APEC needs 58% more to invest in demand sectors, but will gain 18% in fuel savings

3. Renewable energy supply and potential

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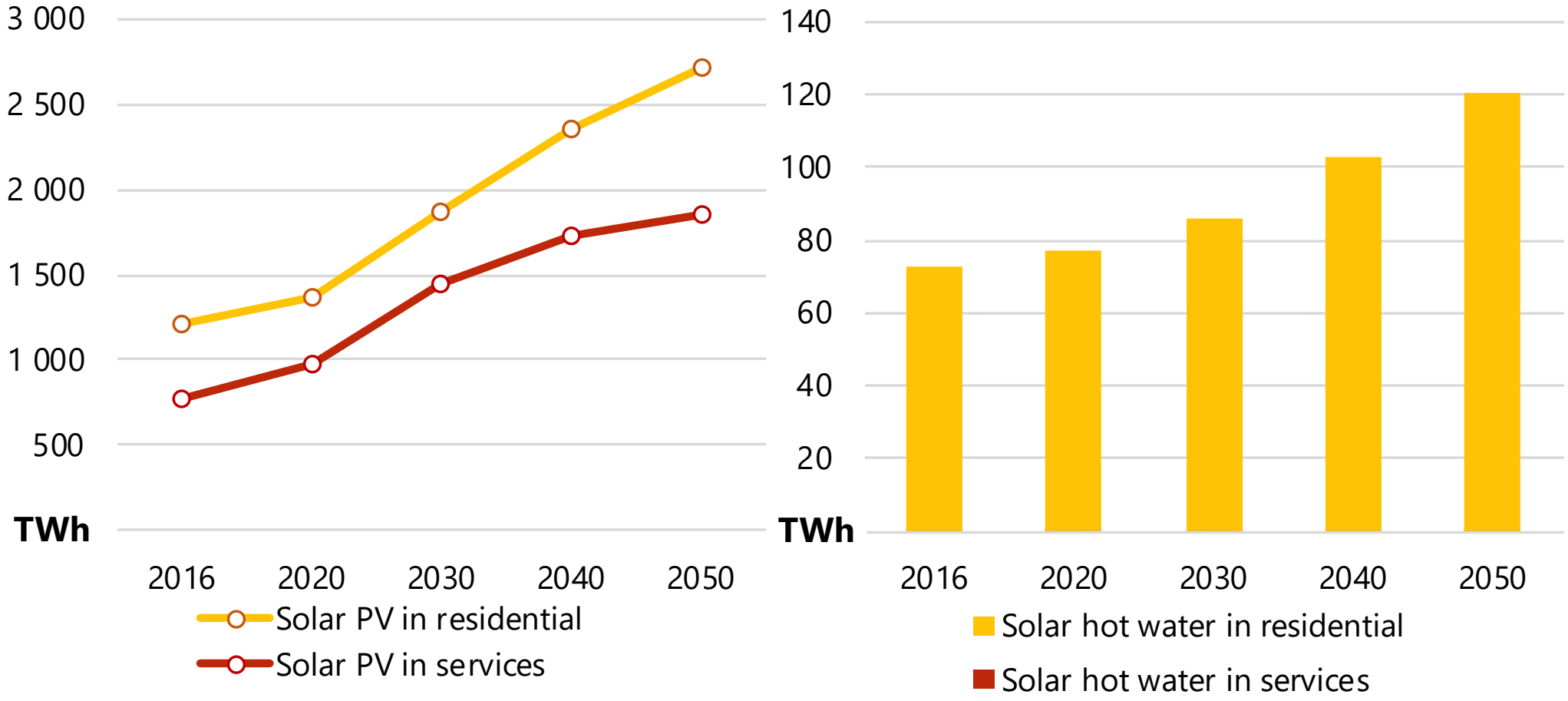
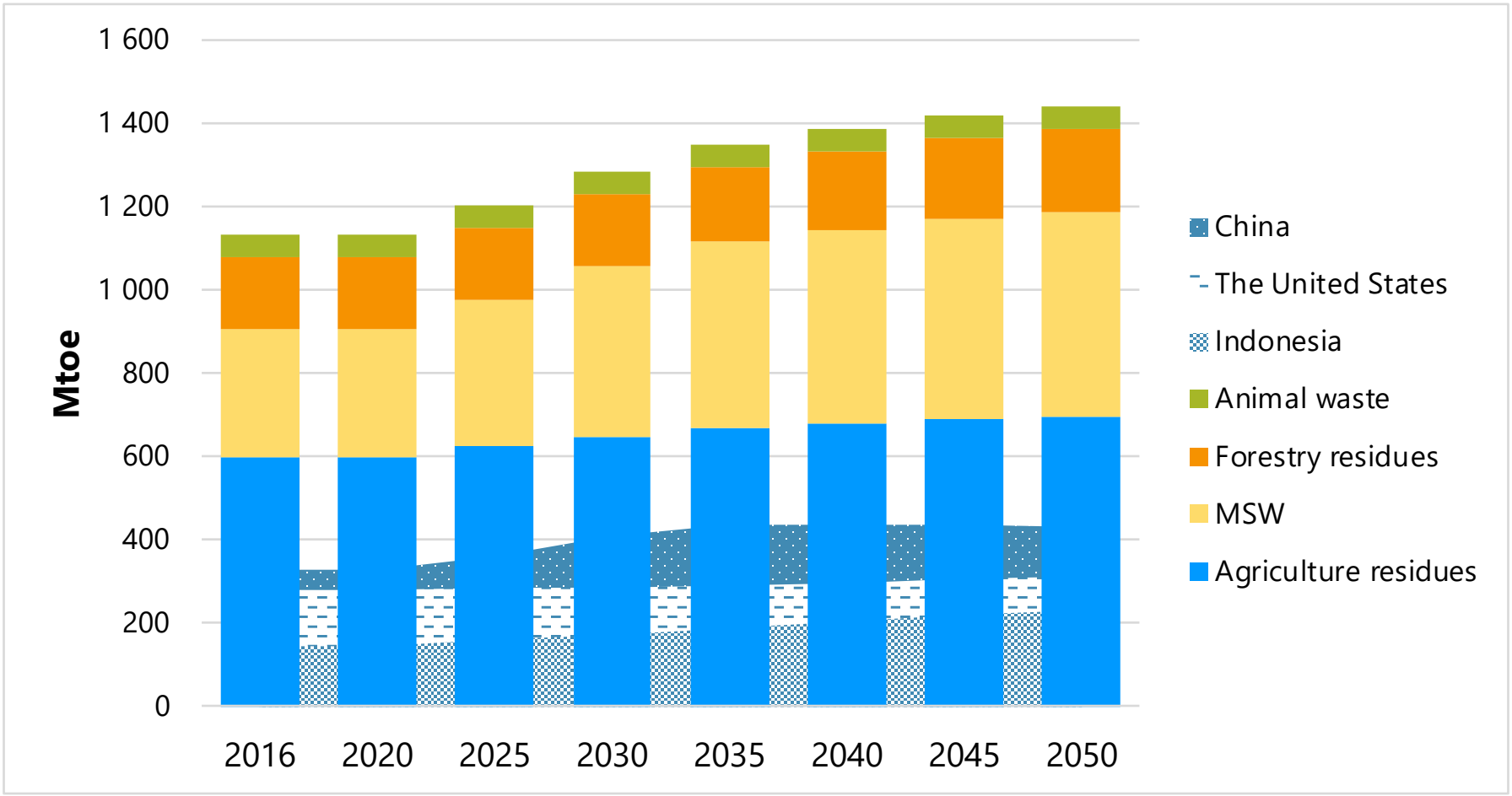
Total estimated potential from solar energy in buildings

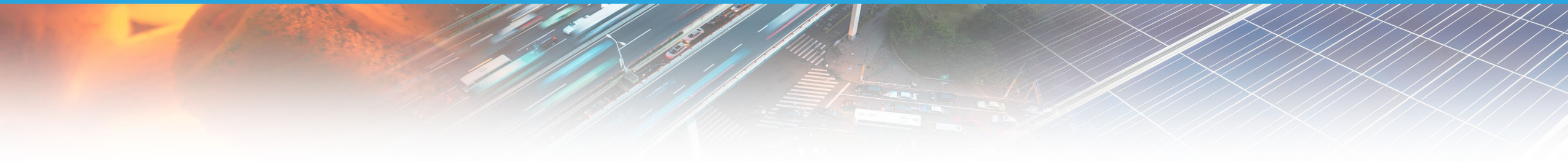


APEC has about 1 Gtoe of biomass from waste potential



Questions and comments are welcome

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



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