Asia-Pacific Economic Cooperation

APERC
Asia Pacific Energy Research Centre

1-0 Progress towards the APEC Renewable Energy Doubling Goal

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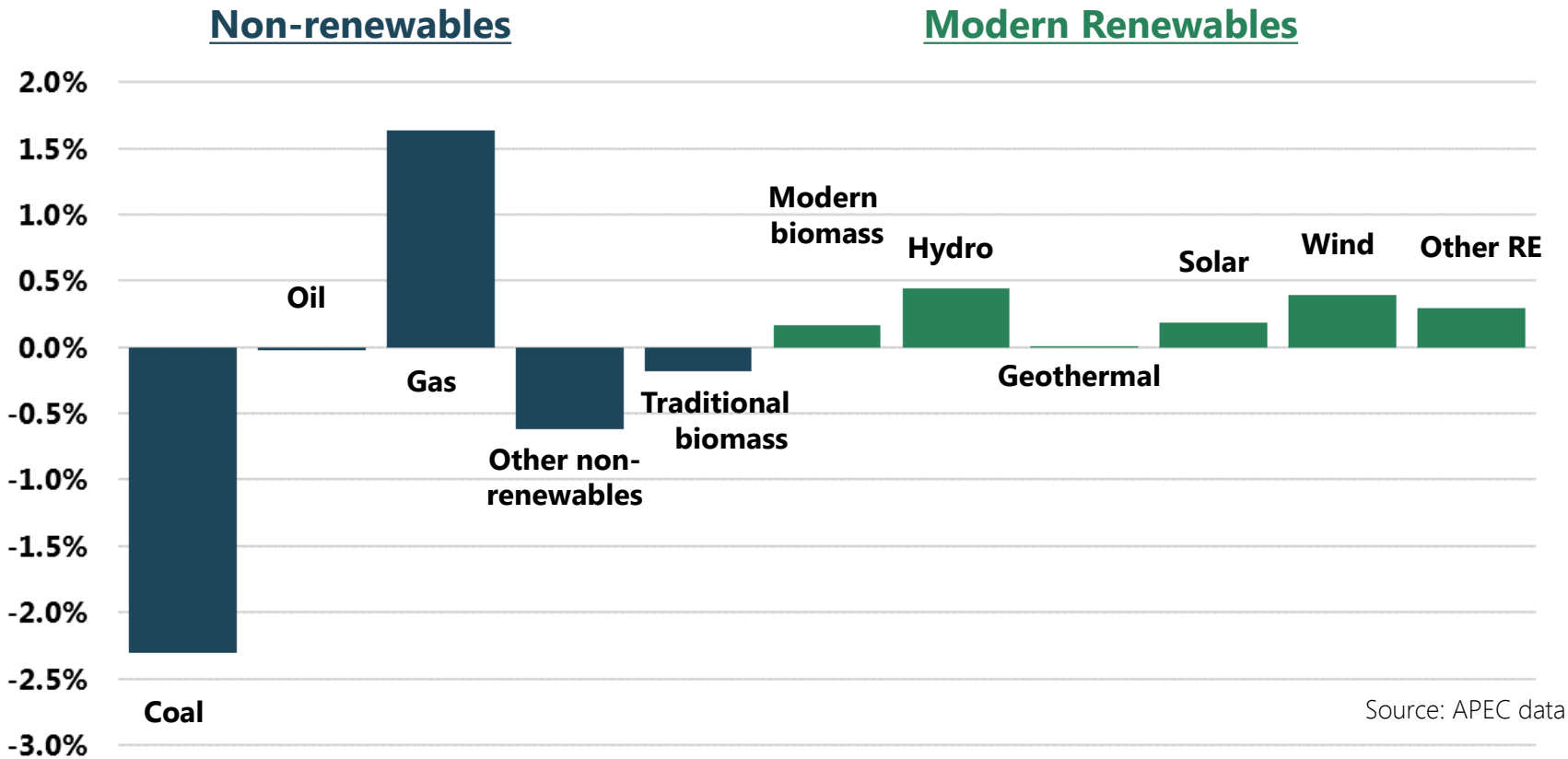
Renewable share doubling goal milestones

1. **EWG 47 (May 2014)** - US proposed the APEC aspirational goal of doubling the share of renewable energy by 2030 and noted that it interacted with APEC's aspirational energy intensity goal.
2. **EMM 11 (Sep 2014)** - "Doubling the share of renewables in the APEC energy mix, including in power generation, from 2010 levels by 2030."
3. **EWG 54 (Nov 2017)** - EWG decided that traditional biomass will not be counted; IRENA's definition of renewable energy is recommended; APEC data should be used for monitoring progress; and the goal should be monitored on both the supply and demand side.

Coal has lost share to gas and renewables

Percent change in share of supply by fuel (TPES), 2010-2016



From 2010 to 2016, the renewable share increased only 1.49%, just less than a third of the way to the goal.

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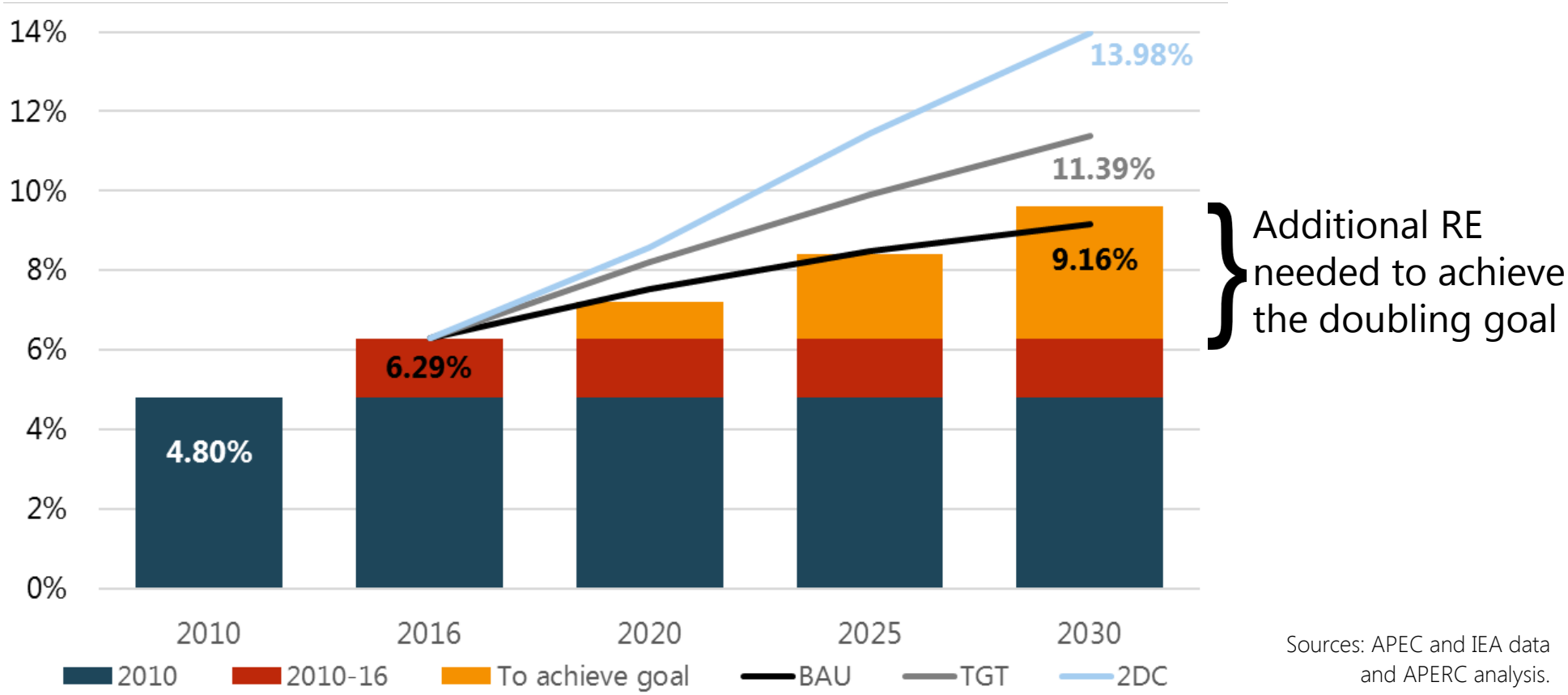
BAU falling just short of the goal

Renewable energy share in total primary energy supply, 2010-2030



Sources: APEC and IEA data and APERC analysis.

The BAU falls just short of achieving the goal (9.6%), while it is exceeded in the TGT and 2DC.

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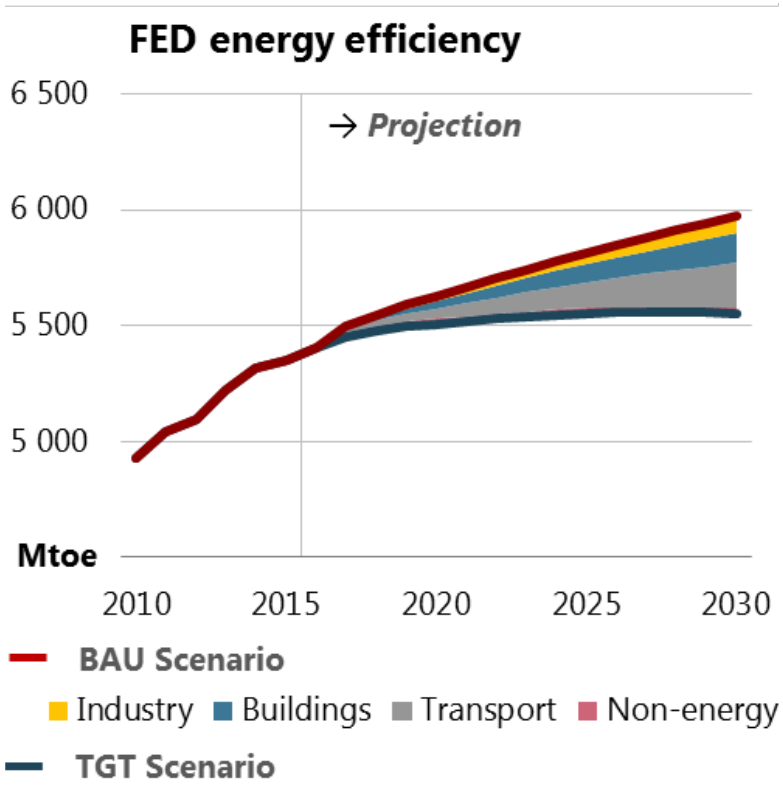
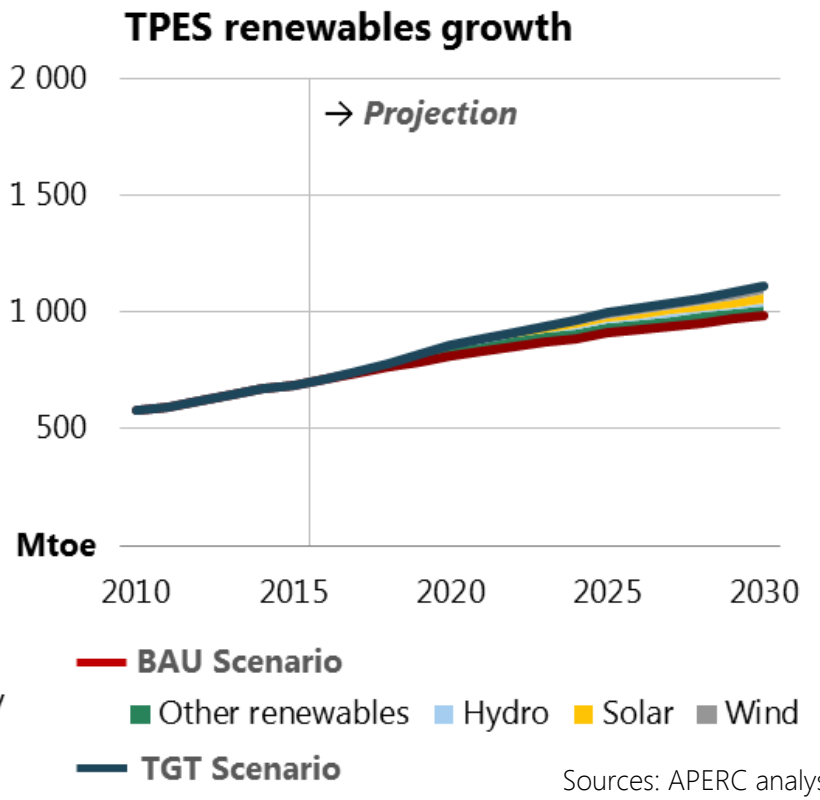
Slightly more renewables in the TGT Scenario

Energy efficiency and renewables in the BAU and TGT, 2010-30





Sources: APERC analysis and IEA (2018).

Final energy demand falls (mainly transport), but renewable supply increases (mainly solar), which has a two-fold impact on the doubling goal.

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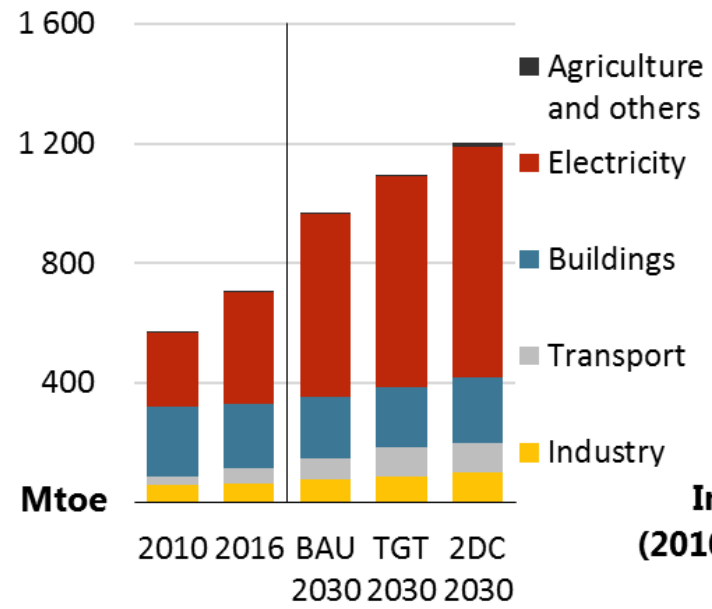
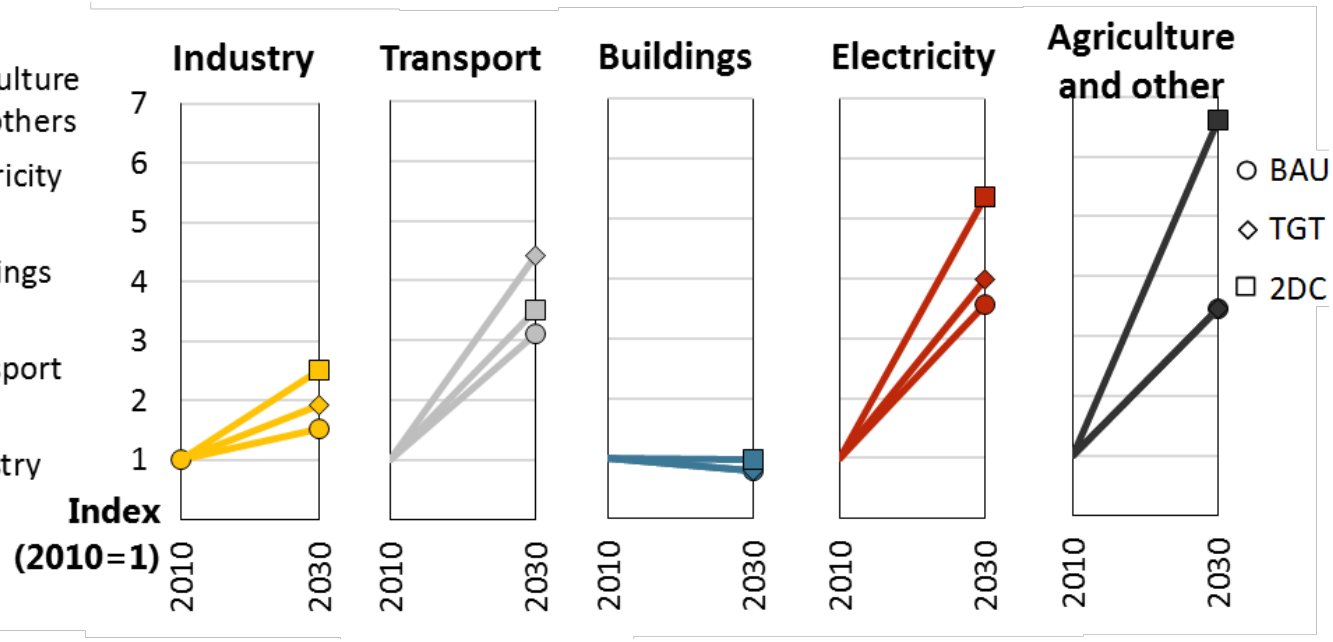
Power underpins renewable growth

Renewable demand by sector, 2000-50



Sectoral renewables index, 2010-30



Sources: APERC analysis and IEA (2018).

Renewables in buildings shrink due to decreasing traditional biomass but all other sectors grow with increasing modern renewables (although transport and agriculture from a very low base).

Closing thoughts

- The use of modern renewables grew rapidly during 2010-2016.
  - Brought about by a rapid decline in costs and favourable government policies such as feed-in tariffs, auctions and RPS.
- APERC modelling shows that business-as-usual is unlikely to reach the goal, so more effort is needed.
- Some barriers to renewable development include:
  - Effect of intermittency on grid stability
  - Cost of electricity storage
  - Policies continuing to favour fossil and nuclear energy.
- More can be done to identify economy-by-economy obstacles and to formulate policy responses as part of a comprehensive road map.

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