

7 NON-ENERGY SECTOR DEMAND

APEC NON-ENERGY DEMAND

‘Non-energy demand’ refers to demand for fuels that are used as raw materials and not consumed as a source of energy or transformed into another fuel. This would include the manufacture of products such as bitumen (used in road asphalt and various building materials), lubricants, solvents, paraffin waxes, and ammonia (used for making fertilizers). It would also include feedstocks for the production of various petrochemicals (IEA et al, 2005, pp. 29 and 67). Petrochemicals are the building blocks for a wide variety of products including plastic, paints, adhesives, artificial fibres, and detergents (AFPM, 2012).

Of the four final demand sectors, non-energy demand accounts for the smallest share of the APEC final energy demand, about 10% in 2010. However, it is projected to grow under business-as-usual (BAU) assumptions at a similar rate to total industry energy demand, about 1.3% per year. Specifically, consumption is projected to grow from 479 Mtoe in 2010 to 662 Mtoe in 2035.

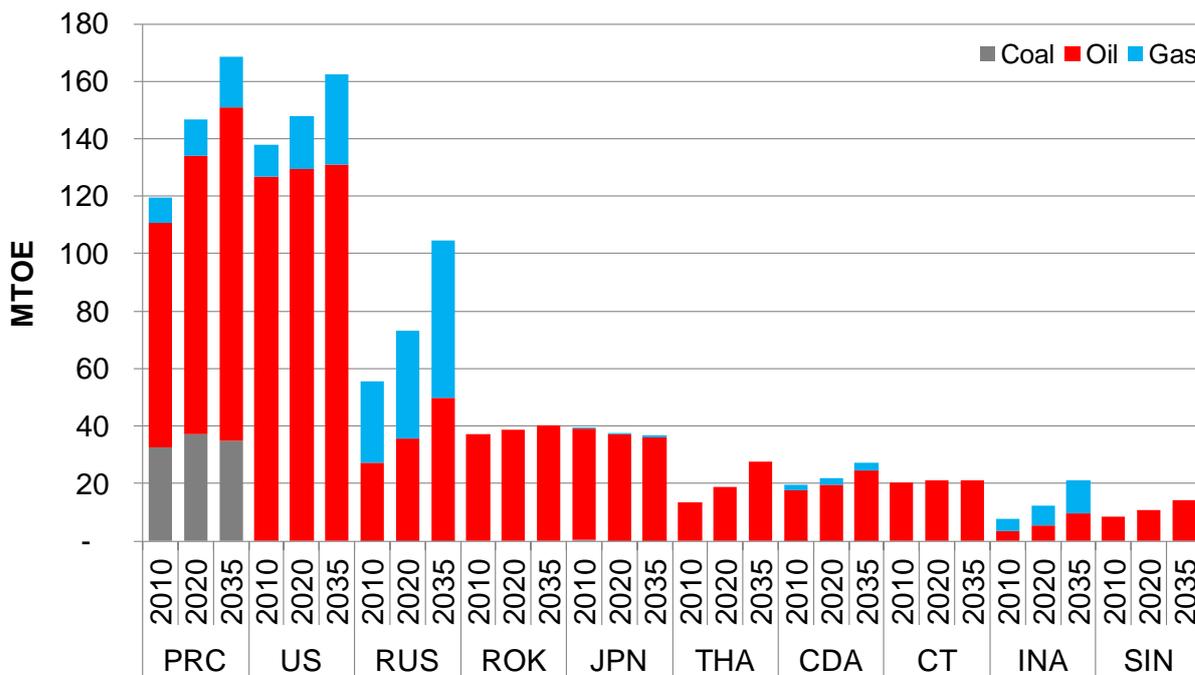
Non-Energy Demand by Economy

Figures 7.1 and 7.2 show the projected non-energy demand by energy type for each APEC economy during the outlook period, from 2010 to 2035. The large difference in vertical axis scales between the two graphs demonstrates the considerable difference in non-energy demand between larger and smaller non-energy consuming economies.

The economies that will likely post the highest non-energy use by 2035 are China, the United States and Russia. The combined non-energy use of these three economies represents over 60% of the total non-energy consumption of the APEC region.

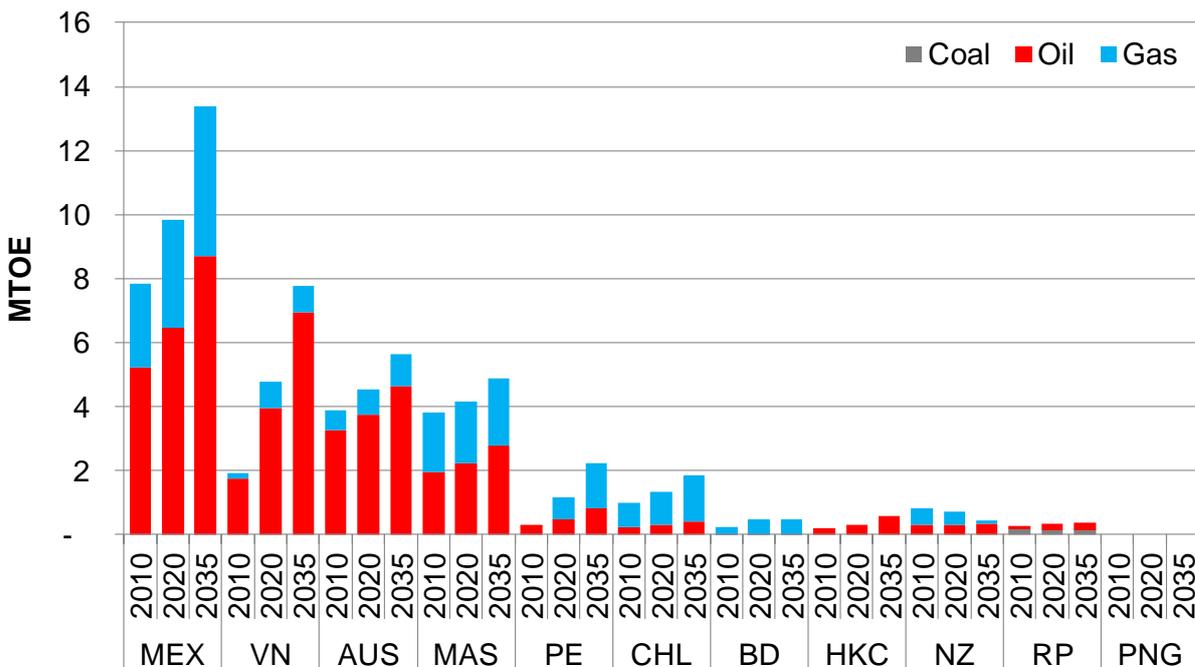
Oil meets the largest share of non-energy demand in most APEC economies. However, the gas share is larger than the oil share in Russia, Indonesia, Peru, Chile, and Brunei Darussalam.

Figure 7.1: Non-Energy Demand, Larger Non-Energy Consuming Economies



Source: APERC Analysis (2012)

Figure 7.2: Non-Energy Demand, Smaller Non-Energy Consuming Economies



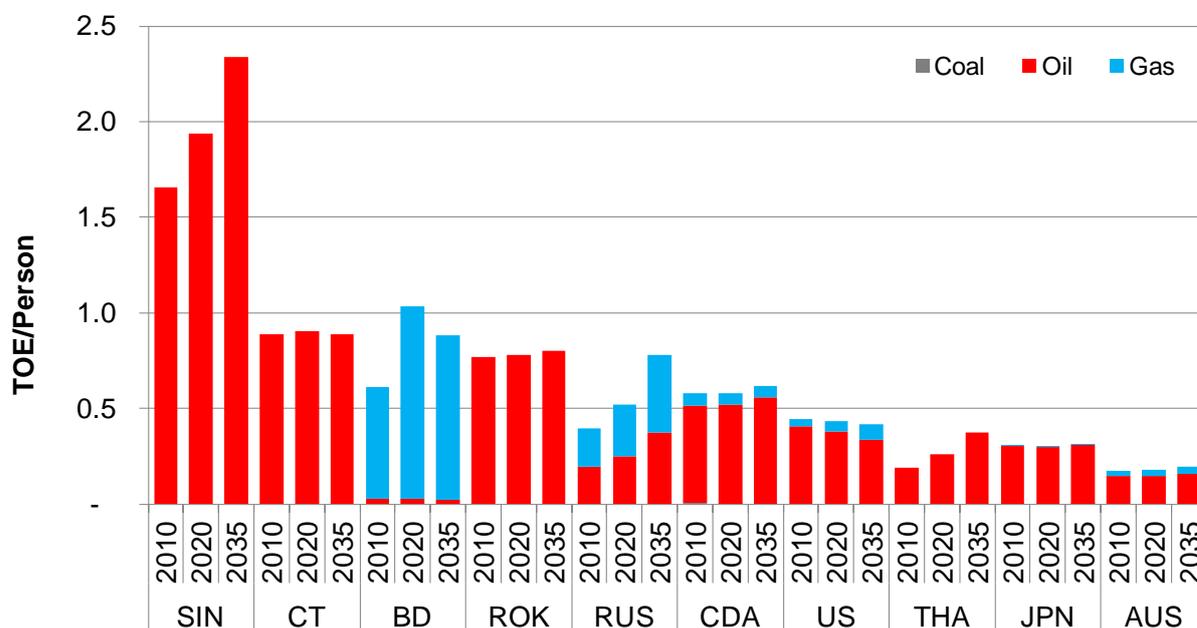
Source: APERC Analysis (2012)

Per Capita Non-Energy Demand by Economy

Figures 7.3 and 7.4 show the projected per capita non-energy demand by energy type for each APEC economy during the outlook period, from

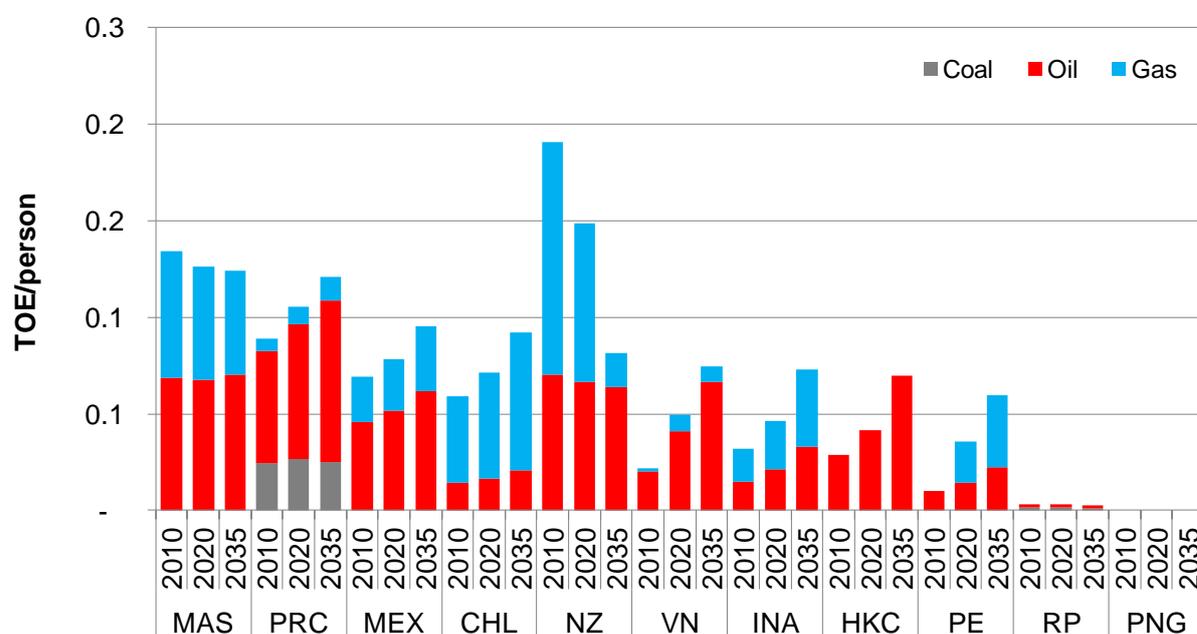
2010 to 2035. The economies with the largest per capita demand are those with relatively large petrochemical industries: Singapore, Chinese Taipei, Brunei Darussalam, and Korea.

Figure 7.3: Per Capita Non-Energy Demand by Energy Source, Larger Non-Energy Per Capita Consuming Economies



Source: APERC Analysis (2012)

Figure 7.4: Per Capita Non-Energy Demand by Energy Source, Smaller Non-Energy Per Capita Consuming Economies



Source: APERC Analysis (2012)

REFERENCES

- AFPM (American Fuel & Petrochemical Manufacturers) (2012), *Chart of Products Made from Petrochemicals*, www.afpm.org/petrochemicals/
- IEA et al (International Energy Agency, Organisation for Economic Co-operation and Development, and Eurostat) (2005), *Energy Statistics Manual*, www.iea.org/stats/docs/statistics_manual.pdf