# Annex 8 – Middle East

# Trends in the Middle East @2050

| Scenario | | Trends in the Middle East | 2050/2020 CO₂ emissions |
|---|---|---|---|
| **All** | Market | • For all vehicle types: Significant increases in both new vehicle sales and in-use fleets. | |
| | Energy mix | • Share of clean energy is approximately 75%. | |
| **CNF** | Electrified vehicles | • Share of electrified vehicles in new passenger car sales is almost 100%, with about 30% of new passenger cars being BEVs/FCEVs.<br>• Share of BEVs/FCEVs in the in-use passenger car and commercial vehicle fleets is approximately 20%. | -30% approx. (In CNF+, -56% approx.) |
| | Fuel mix | • Share of biofuels + electricity + hydrogen is approx. 60%.<br>• CNF share represents approx. 23% of total fuel consumption in 2050. (In CNF+ scenario, CNF share increases to 51%.) | |
| **BEV75** | Electrified vehicles | • Share of electrified vehicles in new passenger car and commercial vehicle sales is 100%, with about 50% being BEVs/FCEVs.<br>• Share of BEVs/FCEVs in the in-use passenger car and commercial vehicle fleets is approximately 40%. | -45% approx. |
| | Fuel mix | • Share of biofuels + electricity + hydrogen is approx. 70%.<br>• CNF share represents approx. 20% of total fuel consumption in 2050. | |
| **NZE** | Electrified vehicles | • Share of BEVs/FCEVs in new vehicle sales for all vehicle types is 100%.<br>• Share of BEVs/FCEVs in the in-use fleets for all vehicle types is more than 80%. | -65% approx. |
| | Fuel mix | • About 70% is biofuels + electricity + hydrogen. (Assumption: Synthetic fuel = 0%.)<br>• Biofuel share = 4% of total fuel consumption in 2050. | |

**CO₂ emission levels range between about -30% to -65% compared to 2020.**
(CO₂ emissions in two scenarios are within or lower than the IPCC 2050 1.5℃ climate scenarios' -42% to -68% range.)
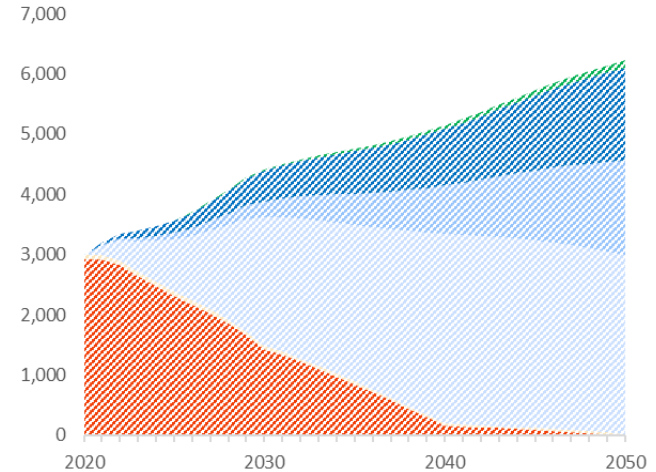
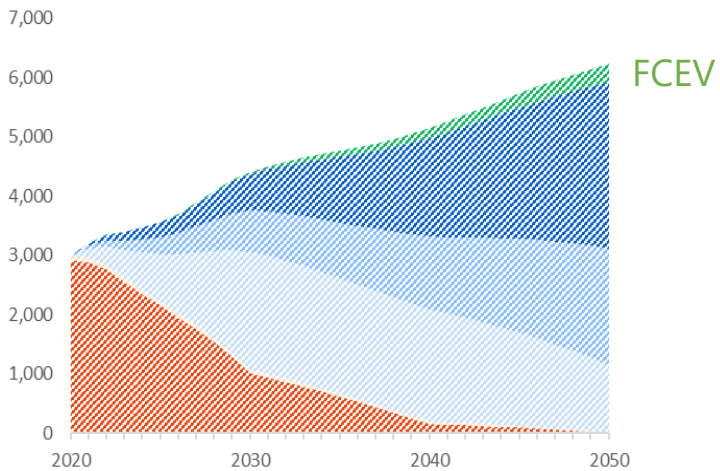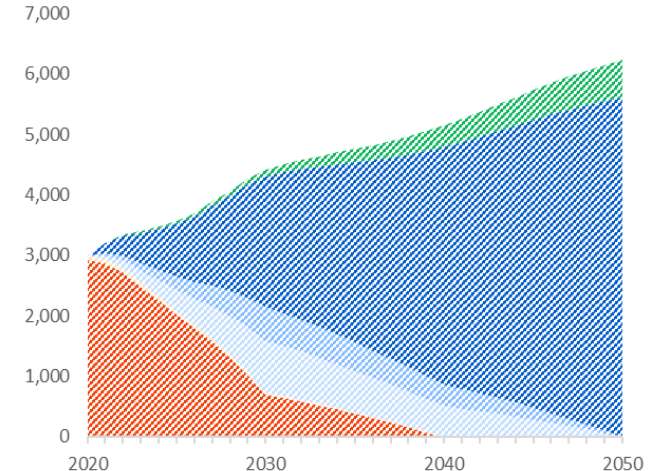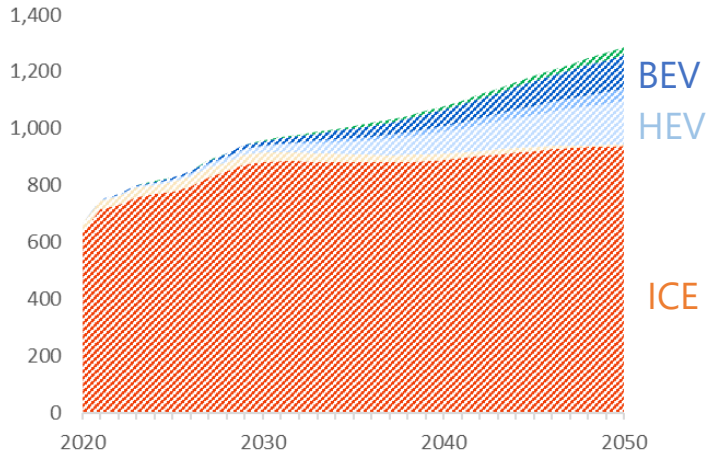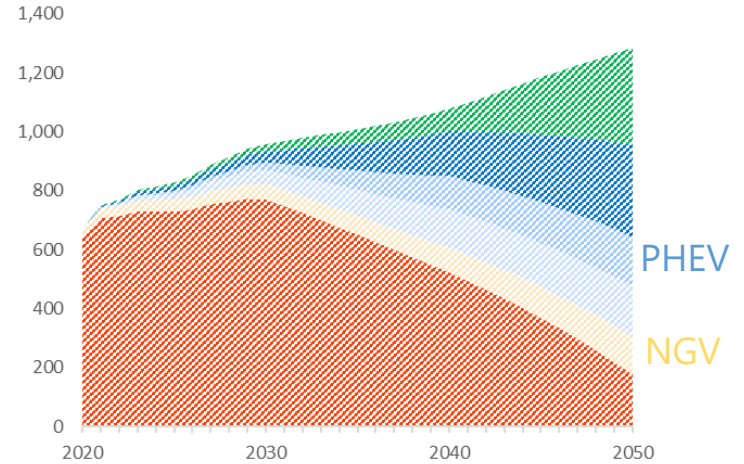# New Passenger Car Sales (Middle East)

（x 1,000 units）



BAU

CNF

BEV75

NZE

BEV
PHEV
HEV
NGV
ICE
FCEV
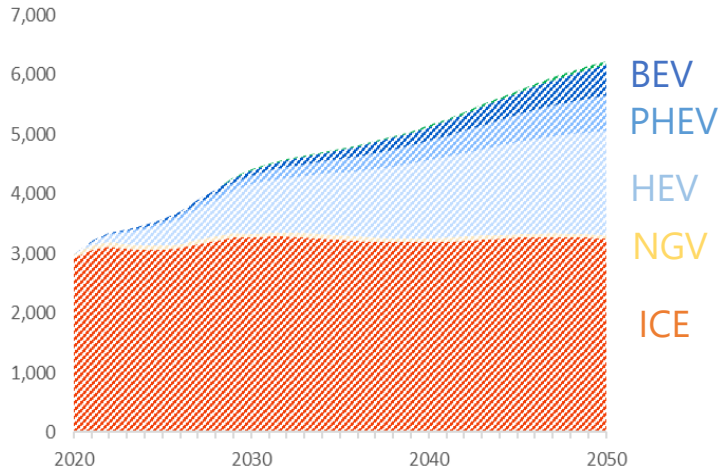
# New Commercial Vehicle Sales (Middle East)

（x 1,000 units）

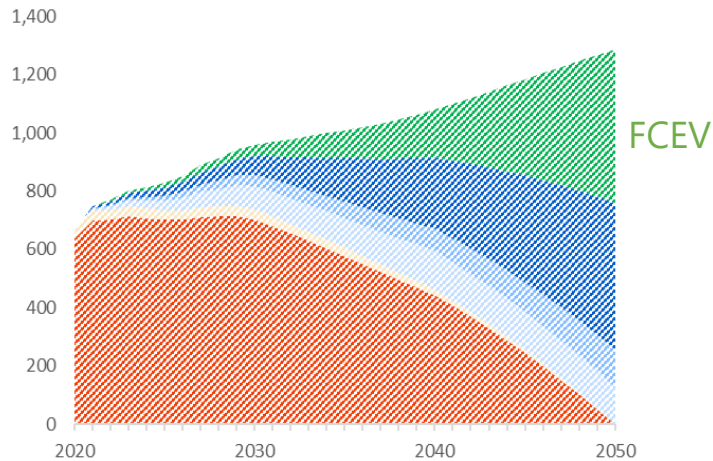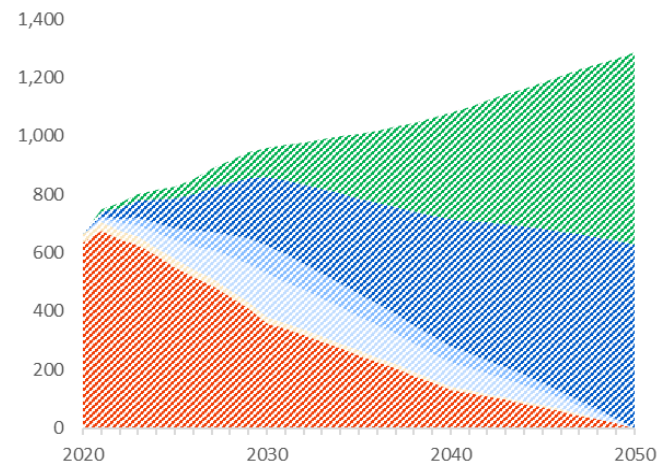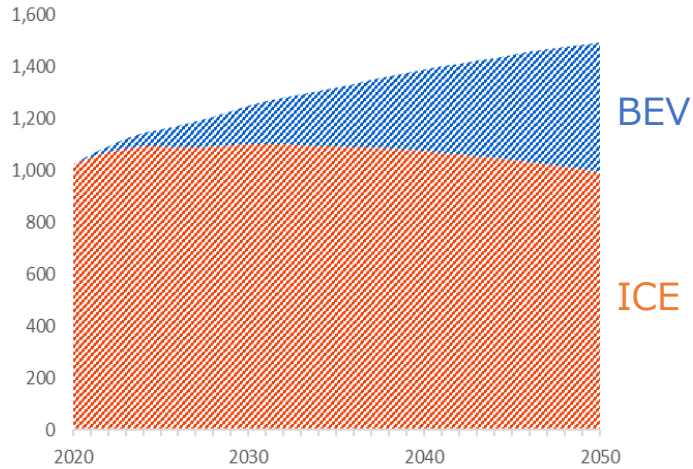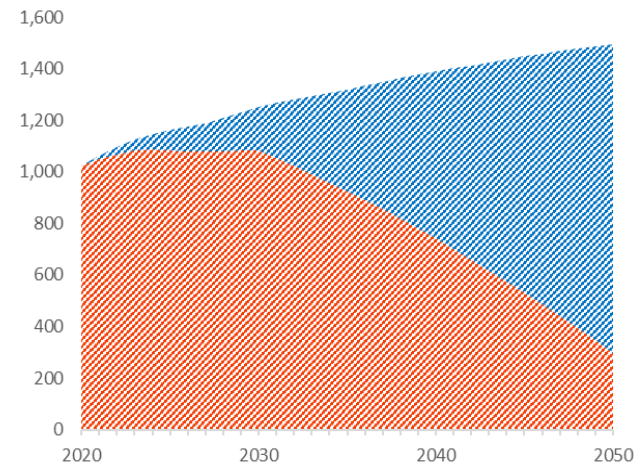# New Motorcycle Sales (Middle East)
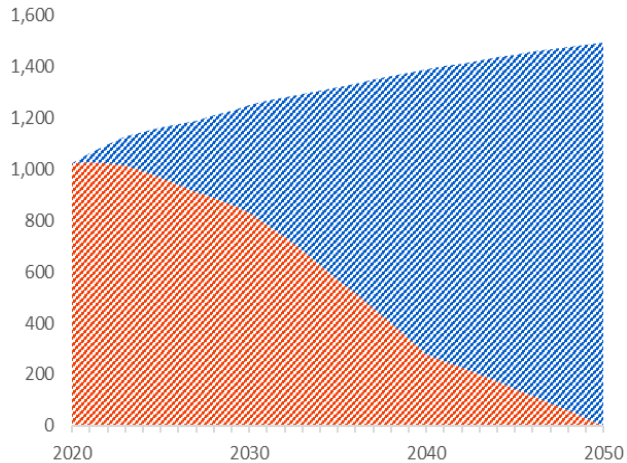
（x 1,000 units）
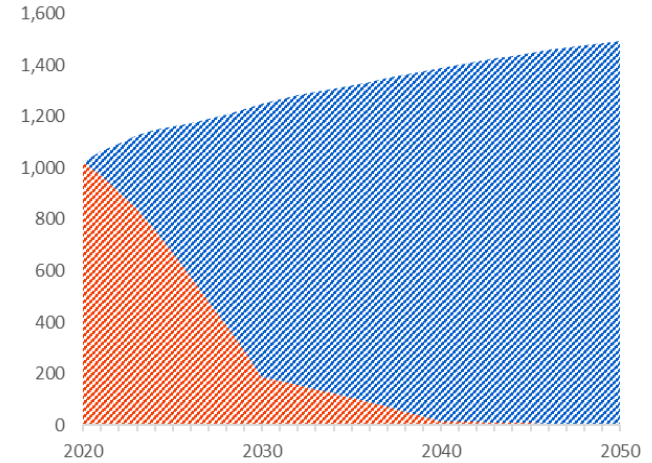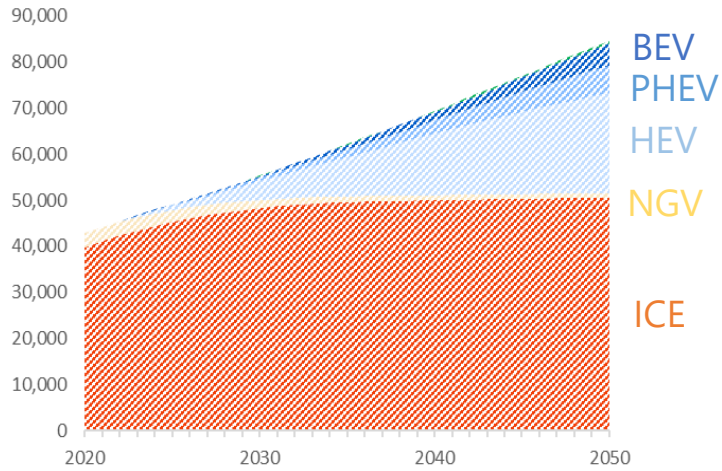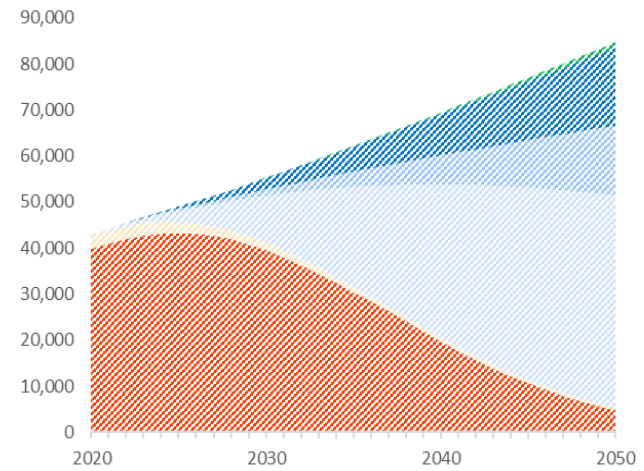
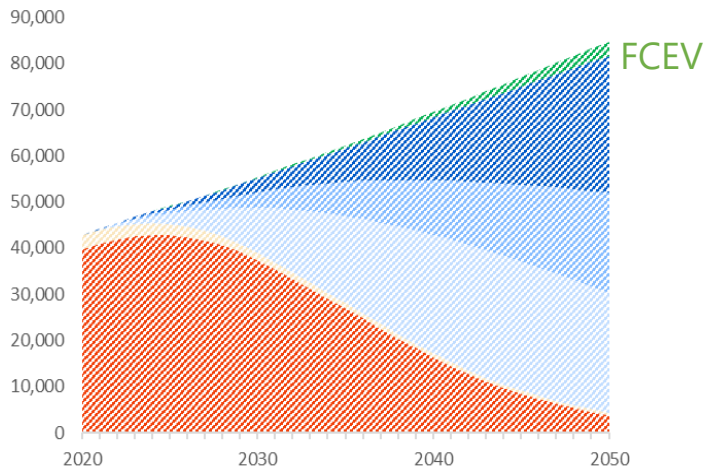# In-Use Passenger Car Fleet (Middle East)
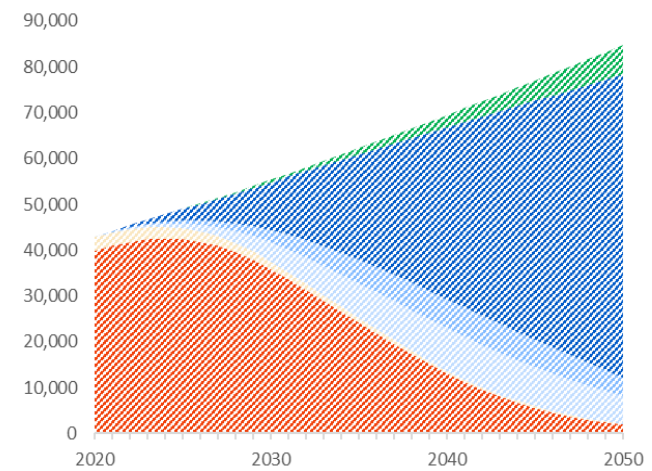
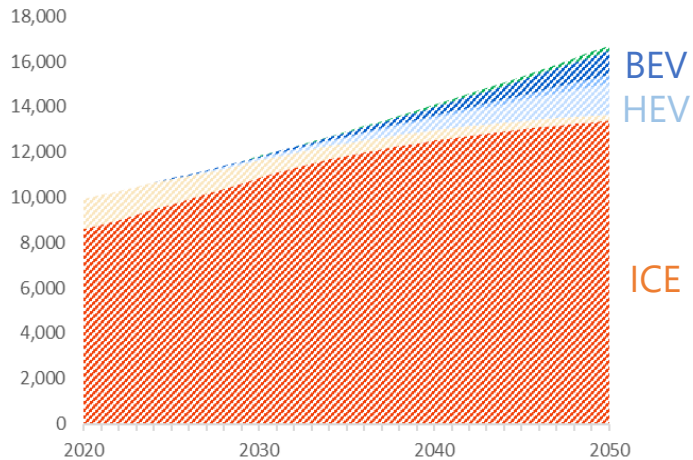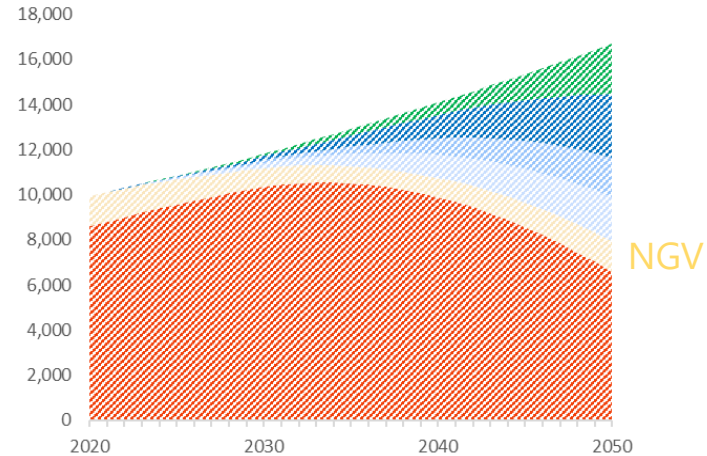（x 1,000 units）



BAU

BEV
PHEV
HEV
NGV
ICE

CNF

BEV75

FCEV

NZE

# In-Use Commercial Vehicle Fleet (Middle East)
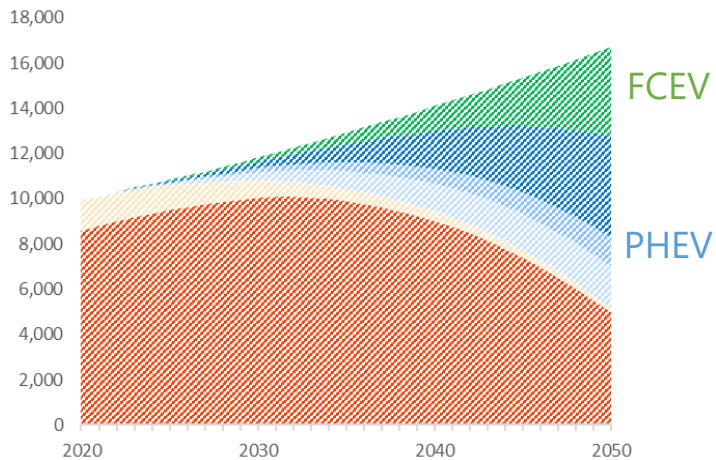
（x 1,000 units）
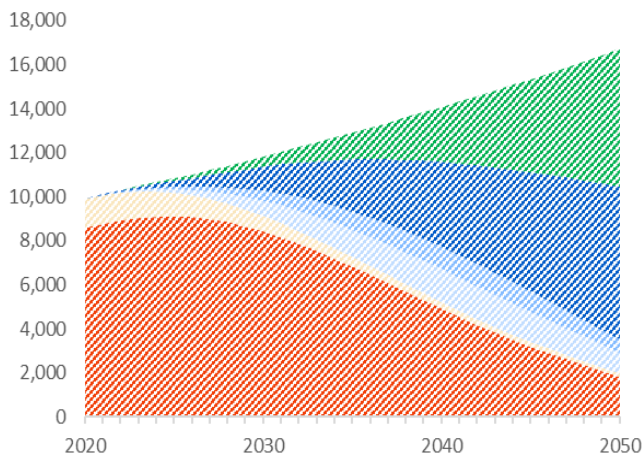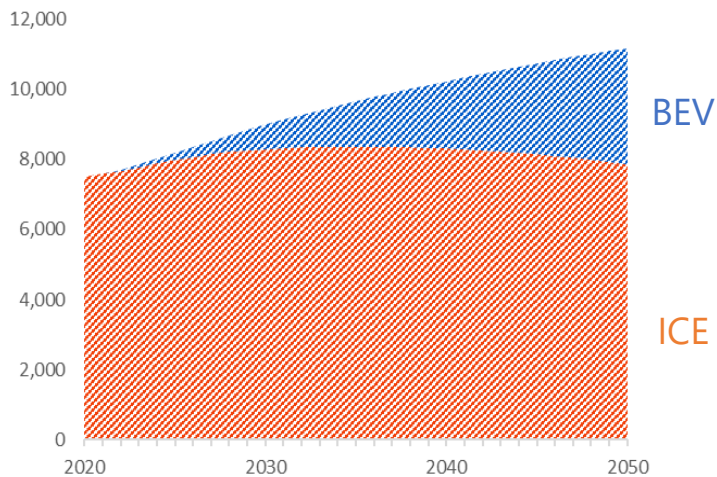
# In-Use Motorcycle Fleet (Middle East)
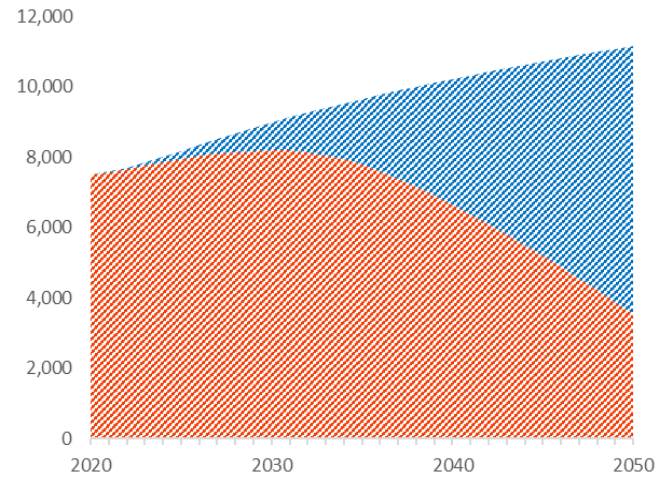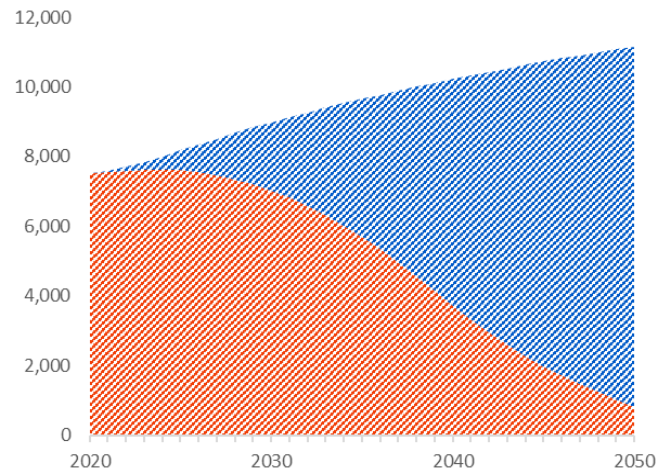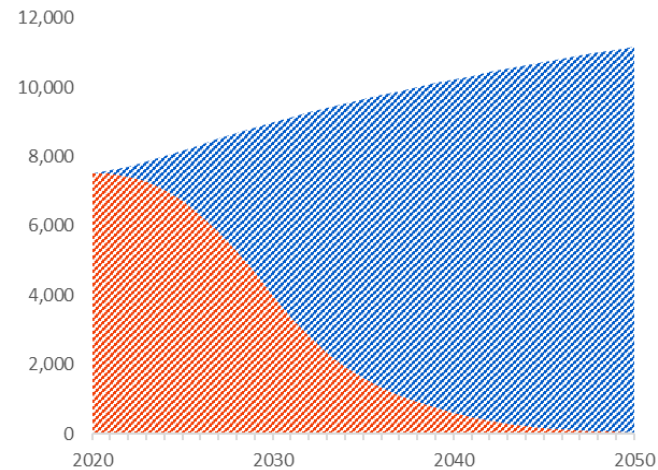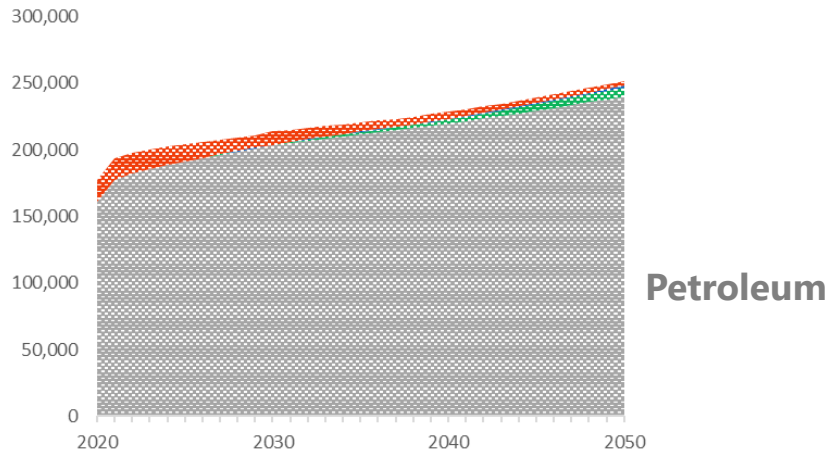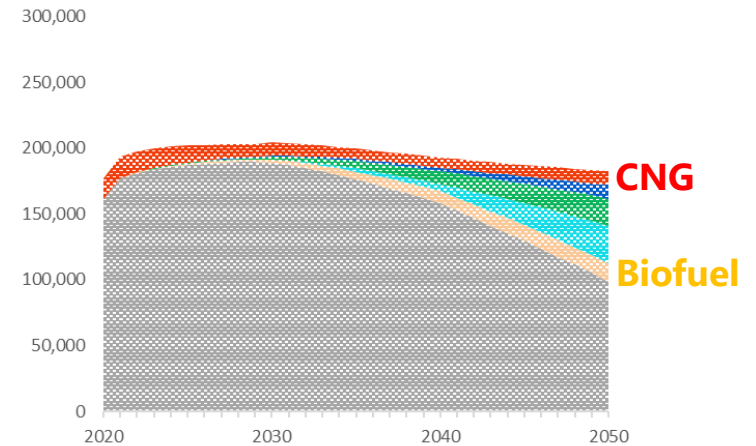
（x 1,000 units）



BAU

CNF

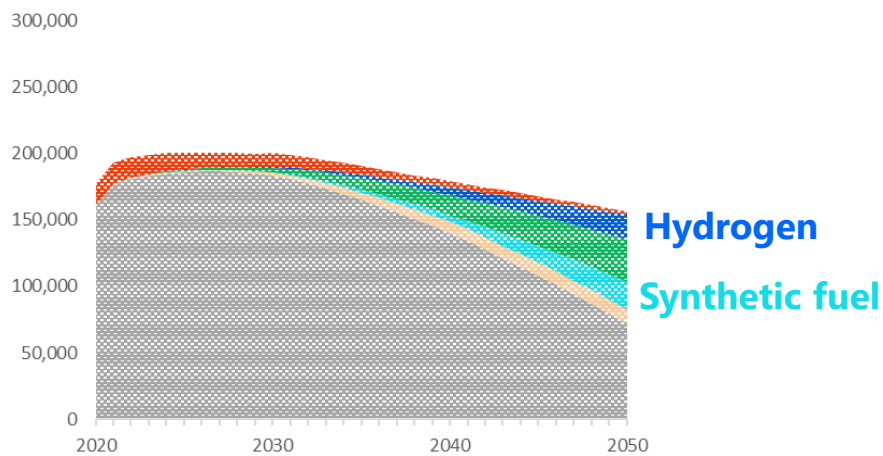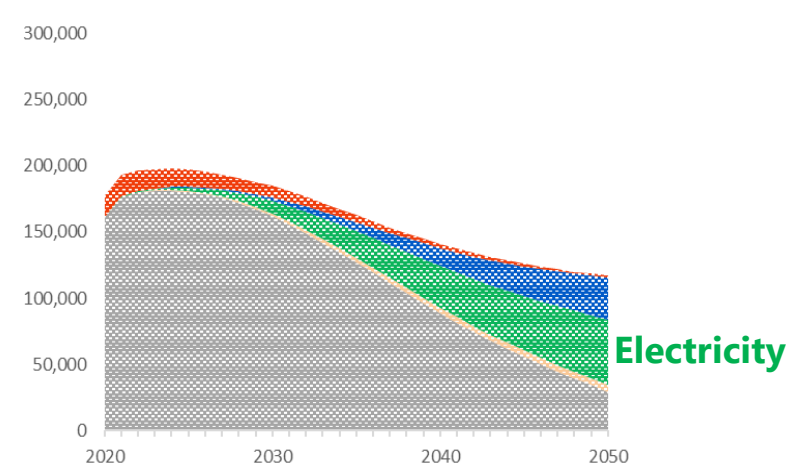BEV75

NZE

# Automotive Fuel Mix (Middle East)

（In ktoe）

### BAU

Petroleum

### CNF

CNG

Biofuel

### BEV75

Hydrogen

Synthetic fuel

### NZE

Electricity

# Energy Mix (Middle East)

（In %）



BAU

Other than BAU

Renewable energy

Fossil fuels

Nuclear

Fossil fuels +CCS

（gCO2/kWh）

10
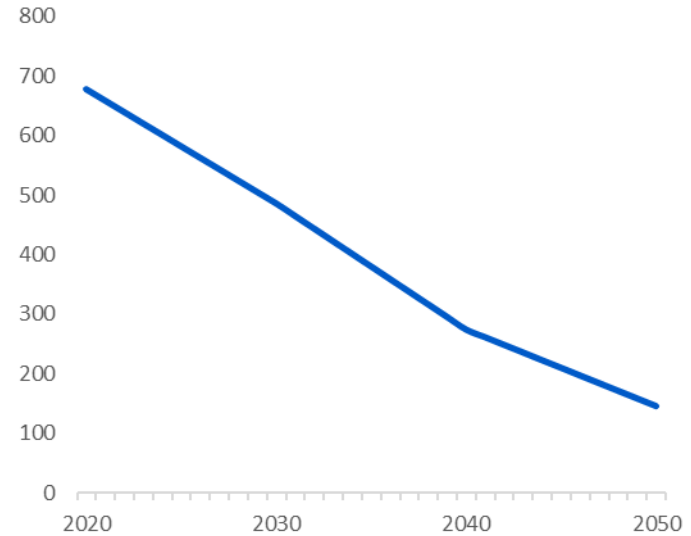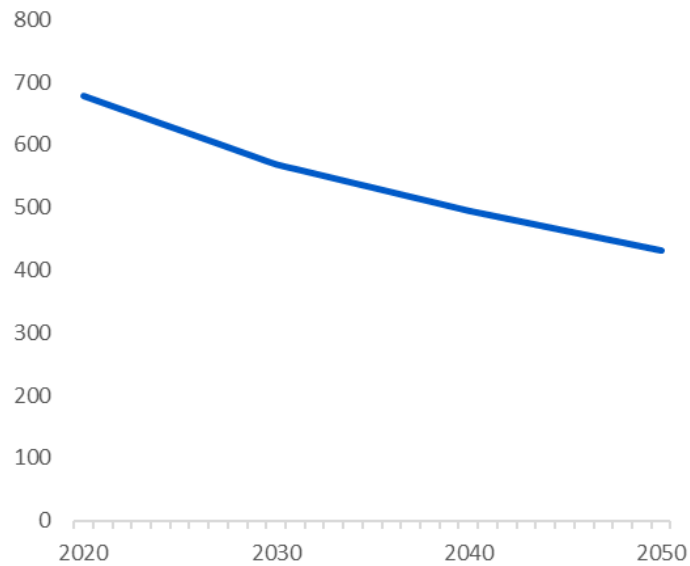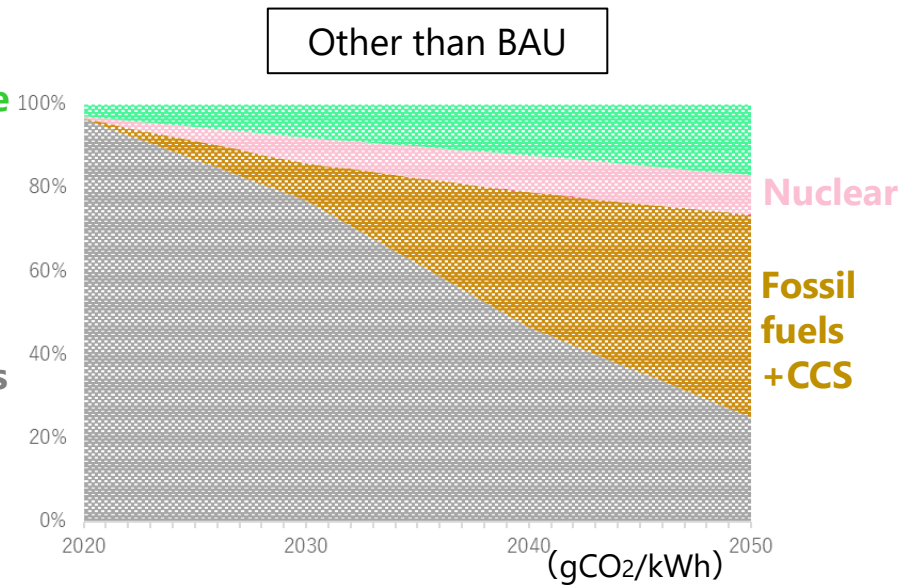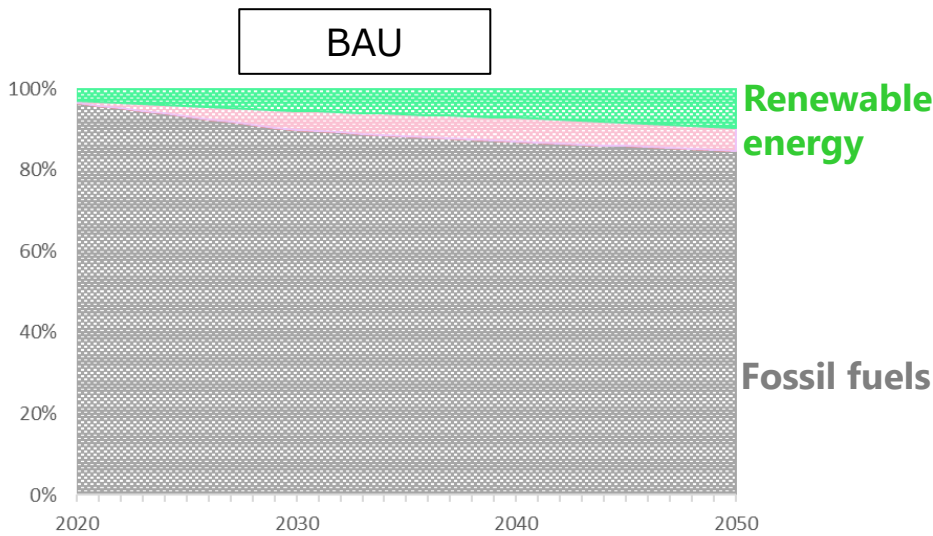
# CO2 Emissions (Middle East)

（In ktCO2）



IPCC 1.5
-42% ~ -68%

Legend: BAU — CNF — BEV75 — NZE — • • CNF+

CO2 emission levels range between about -30% to -65% compared to 2020.
(CO2 emissions in two scenarios are within or lower than the IPCC 2050 1.5℃ climate scenarios' -42% to -68% range.)