

## Preface

At COP21, the Paris Agreement took effect, and as of COP26, more than 150 countries have declared carbon neutral (CN) targets with target years. Under these circumstances, Association of Southeast Asian Nations (ASEAN) national oil companies (NOCs) mainly engaged in the fossil fuel business must strengthen their efforts to reduce greenhouse gas (GHG) emissions while ensuring a stable energy supply in their existing businesses and low-carbon fields, such as renewable energy. Based on the above, we investigated and analysed existing and low-carbon energy field activities by the ASEAN NOCs and the major companies in Europe and the United States (hereinafter referred to as the 'Western majors.' We also discussed and made recommendations to the ASEAN NOCs regarding their efforts for low carbonisation and decarbonisation.

This report consists of five chapters. Chapter 1 analyses the climate change issue that led to this study, the outlook for global energy consumption, and the outlook for energy consumption in ASEAN. The report also discusses the issues that ASEAN faces in pursuing CN.

Chapter 2 provides an overview of the status of CN declarations with target years by major national governments and their measures for achieving them.

Since COP26, ASEAN national governments have also announced CN targets one after another. The NOCs, whose major shareholders are national governments, will also be required to develop their business strategies and initiatives in line with national policies. Chapter 3 presents and analyses the energy transition strategies and activities of ASEAN NOCs.

Chapter 4 discusses the energy transition strategies and efforts by the Western Majors actively engaged in low carbonisation and decarbonisation. Many examples can be used as a reference for the ASEAN NOCs to develop further low-carbonisation and decarbonisation strategies in the future.

Chapters 2 to 4 present and analyse the situation of each national government, the low-carbonisation and decarbonisation efforts by the ASEAN NOCs, and the low-carbonisation and decarbonisation efforts by the Western Majors. Based on the above, Chapter 5 provides recommendations to ASEAN national governments and the NOCs regarding their energy transition strategies and efforts.