

Annex to the Memorandum of Understanding (Under 2 MOU)

The Free State of Thuringia is located in the centre of the Federal Republic of Germany and is one of Germany's smallest federal states by area. It is characterized by a chequered history, cultural wealth, varied natural landscapes, and an economy reliant on medium-sized businesses.

The protection of the natural basis of life is enshrined in the Thuringian constitution. Thuringia intends to contribute to the reduction of global greenhouse gas emissions in order to mitigate climate change. The main aims of Thuringian policy include strengthening climate change mitigation and implementing the energy transition (i.e. the structural change in energy systems) by encouraging the higher use of renewables, improved energy efficiency and lower energy consumption. Although the scope of Thuringian policy is largely determined by the structural framework set up at the European and federal levels, Thuringia still intends to bring its own ideas into play.

In this regard, Thuringia has set itself ambitious goals. For example, by 2040, 100% of its internal energy demand is to be met by renewables. In 2016, the Thuringian state government will draw up climate legislation which will include a long-term greenhouse gas reduction target. This Climate Change Act is to be underpinned by an energy and climate change roadmap. It will contain intermediate and final energy policy objectives and set out measures intended to help achieve the climate and energy policy goals.

The vast majority of harmful emissions come from the generation and use of energy. Therefore, when deciding how to reduce emissions, particular attention is paid to aspects of sustainable energy generation and the economic, efficient use of energy by both the business sector and domestic households. Climate change mitigation and restructuring the energy system are always considered from the angle of economic opportunities. This bolsters the acceptance and credibility of Thuringia's energy and climate policy.

Thuringia: Initial facts and figures

State:	Federal Republic of Germany
Population:	2.16 million (2013)
GDP:	€54.3 billion (2014)
Greenhouse gas emissions:	13.3 million tonnes CO <sub>2</sub> equivalent (2011)

Concrete measures and voluntary commitments

I. Greenhouse gas emissions

Greenhouse gas emissions decreased significantly in Thuringia in the early 1990s as a result of the massive structural changes in the energy sector and industry following German reunification in 1990. The current goal is to reduce energy-related CO<sub>2</sub> emissions by 2020 by 10% compared to 2010. A long-term greenhouse gas reduction target is to be included in the 2016 Thuringian Climate Change Act.

## II. Renewable energy

The expansion of renewable energy is very important for Thuringia, with especially high potential seen for both electricity and heating. By 2020, 45% of net electricity consumption is to be provided by renewable energy while the share of renewables in final energy consumption is expected to climb to 35%. And by 2040, Thuringia plans to meet its entire energy demand with a mix of renewable energy. Accordingly, the expansion of renewable energies will be systematically continued – and wind energy has the most scope for expansion. Specific, technology-neutral targets for power generation from renewable energy sources to be met by 2020 have been presented to the various regional planning authorities in Thuringia.

## III. Energy efficiency

Thuringia's energy and climate policy objectives cannot be attained without raising energy efficiency. The goal is to increase energy productivity by 20% by 2020 relative to 2010. The government of Thuringia has funding programmes in place to aid the energy efficiency upgrade of urban districts and also to boost energy efficiency in the private sector as well as in public infrastructure and buildings. For example, businesses are partly reimbursed for the money they invest in energy efficiency measures and related consulting. This is done by using large amounts of EU funding to which Thuringia is entitled. As far as efficient power generation is concerned, high importance is attached to CHP (combined heat and power).

## IV. Mobility

Alternative propulsion systems are becoming increasingly important as a way of reducing transport emissions. The use of electric vehicles is vital to making the transport sector in Thuringia more climate-friendly as they cause significantly less greenhouse gases than conventional engines – especially when the electricity is generated from renewables. The Thuringian government therefore supports innovative, sustainable schemes for the introduction or testing of electromobility solutions, the expansion of the charging infrastructure, and the development of the electric vehicles market in local public transport. For example, Thuringia is forging ahead with the electrification of the bus system and the rail network.

## V. Pioneering role of the state

By 2030, all government departments in Thuringia are to be made climate-neutral, emphasizing that the public sector is leading by example. With this aim in mind, Thuringia is endeavouring to make government buildings and other facilities climate-neutral. In addition, new buildings erected for the government of Thuringia are to comply with the energy-plus standard while refurbishment projects are to far exceed the statutory regulations. What's more, all government buildings in Thuringia are supplied with electricity exclusively from renewable sources.

## VI. Emissions trading

Thuringian companies are subject to the EU emissions trading system. Together with other German federal states, Thuringia is campaigning to ensure that the European emissions

trading system, a central instrument of climate change mitigation in Europe, effectively and efficiently contributes to reducing greenhouse gas emissions.

## VII. Adaptation to global warming

It is important to reduce the vulnerability of nature and society and to support their ability to adapt flexibly to changing conditions. To this end, the government of Thuringia has compiled an integrated programme of measures known as IMPAKT providing the technical basis for adapting to the repercussions of climate change in Thuringia. A system of climate impact monitoring is being set up in order to detect changes early on and to develop possible adaptation strategies and measures.