Annexe A.X

North Rhine Westphalia

Situated in the west of the country, North Rhine Westphalia is Germany's most populous state and its No.1 economic powerhouse. Given that the economic prowess of the nation's premier energy state is also reflected in its greenhouse gas emissions, North Rhine Westphalia has a special responsibility to the German, European and international climate targets. North Rhine Westphalia's leading-edge climate policy propels the state to the forefront of national and international efforts and shows that NRW faces up to its responsibilities. To reinforce German and EU policies, North Rhine Westphalia has not only adopted its own Climate Protection Act but also launched a bundle of measures such as the Climate Protection Plan, a climate action programme known as *KlimaschutzStartProgramme* and the *KlimaExpo NRW* environmental programme.

With the Climate Protection Act of 2013, North Rhine Westphalia undertakes to cut greenhouse gas emissions by at least a quarter by 2020 and at least 80 per cent by 2050 (over the baseline year of 1990). A draft climate protection plan was submitted to state parliament in June 2015, outlining the strategies and measures proposed with a view to achieving these goals. The plan was developed in a joint effort by all relevant stakeholders and gives an idea of how resource and energy efficiency, energy conservation and the development of renewable sources should be pushed forward. Prior to Climate Protection Act and Climate Protection Plan, the *KlimaschutzStartProgramme* was published in North Rhine Westphalia in 2011. Covering 27 individual measures grouped under ten thematic areas, the programme is currently being implemented, with some parts already completed. North Rhine Westphalia's climate policy measures are rounded off by the *KlimaExpo NRW* environmental programme, launched in 2014 and designed to showcase the state's technological and economic potential against the backdrop of global warming and Germany's new energy transition strategy.

The measures carried out by North Rhine Westphalia and described above are embedded in the German and European climate protection targets and instruments. The European Council has decided to reduce the emission of greenhouse gases by 40 per cent by 2030 and scale back the use of energy by 27 per cent over 1990. Another aim is to increase by 27 per cent the share of renewable sources in primary energy consumption. At the national level, these strategic energy targets were formulated in 2010, to be achieved by 2050: reduction of greenhouse gas emissions by between 80 and 95 over 1990, reduction

of primary energy consumption by 50 per cent over 2008 and an increase to 60 per cent of the share of renewable sources in gross energy consumption.

[Starting point}

Population:	17.6 million (2013)
GDP:	€ 33 621 per capita (2013)
Country:	Germany
Annual greenhouse gas emissions	308.2 million tonnes CO_2e (2013)

Concrete measures and voluntary commitments

I. Greenhouse gas emissions:
The aim is to cut overall greenhouse gas emissions in North Rhine Westphalia by at least a quarter by 2020 and by at least 80 per cent by 2050, compared to the overall emission figures of 1990. This also serves as North Rhine Westphalia's contribution to the European targets, which call for a reduction of greenhouse gas emissions by at least 40 per cent by 2030. North Rhine Westphalia's targets are part of the Climate Protection Act which was adopted on 23 February 2013.

II. Renewable energy:
Germany and North Rhine Westphalia seek to rapidly develop renewable sources of energy. In North Rhine Westphalia, the aim is to increase to at least 30 per cent the share of renewable sources in electricity production by 2025. For the whole of Germany, we are talking about 80 per cent or more by 2050. At the national level, the Renewable Energy Act (*EEG*), the Renewable Energy Heat Act (*EEWärmeG*), the regulatory framework for biofuels and the Market Stimulation Programme (*MAP*) form the mainstay of the efforts around renewable energy. North Rhine Westphalia is backing the measures through the Ministerial Wind Energy Directive of 2011, two similar statutory instruments and by providing assistance to R&D projects and local councils.

III. Energy efficiency

The objective at the European level is a 27 per cent increase of energy efficiency by 2030. Based on existing scenario calculations in the context of the climate protection plan, it appears feasible that energy productivity in North Rhine- Westphalia will be increased in the long term from 1.5 to 1.8 per cent per year by 2050. The way to do this is by ramping up investment and research funding. It is also closely linked to the NRW Government's desire to increase, by 2020, the CHP share of overall electricity generation to at least 25 per cent. Since 2012, the state-wide funding tool for this has been the Combined Heat and Power Generation Incentive Scheme.

IV. Sustainable transport

The transport sector accounts for around eleven per cent of greenhouse gas emissions in North Rhine Westphalia. There is much room for reduction, which North Rhine Westphalia utilises by employing a range of measures in various fields. One of the goals is that, in future, only a quarter of all journeys will be made by car, in line with the Short Distance Transport Action Plan. This also involves more and better public transport services as well as improvements to infrastructure and communication, with a view to increasing the appeal of buses, trams or trains. There will also be extra funding for research and development of 'green logistics' as well as an electric vehicle master plan.

V. State government as a trailblazer

The state's public sector is aiming to be a role model in climate protection. The stated aim is to cut carbon dioxide emissions and reduce the carbon footprint to zero by 2030. To this end, state-wide energy standards are going to be developed for buildings, along with a CO_2 reduction roadmap for transport and traffic. There are also plans to look at ways to increase by 2030 the percentage of heat and electricity that comes from renewable sources on state government property. Government employees will receive a range of incentives to encourage them to conserve energy and minimise the carbon footprint.

VI. Emission trading

The European Union emissions trading scheme matters a lot to North Rhine Westphalia, given that the energy and other industries account for some 68 per cent of CO_2 emissions across the state and are covered by the European Union Emissions Trading System (EU ETS). For that

reason, the State Government works to have the ETS organised in such a way as to ensure that no businesses feel the need to relocate outside EU territory. The intention is that the ETS should be updated with the aim of continued reduction of greenhouse gas emissions, which would benefit the ambitious climate protection efforts.