To ask the Secretary of State for Energy and Climate Change if he will estimate the additional carbon emissions which would be generated by an additional 10 million people projected to reside in the UK by 2033; and if he will estimate the additional renewable energy capacity which would be needed to abate the emissions arising from such a rise in population and maintain emissions at their current level.

The latest official Government projections by DECC for greenhouse gas emissions including carbon dioxide were published in October 2011:


These provide projections for the period up to 2030. Projections beyond 2030 are not available. The projections assume that the UK population increases by 6.8 million between 2010 and 2030. This is the ONS principal 2008 based population projection, low migration variant. The 2008 based population projections were used because these were the latest available at the time of publication. The low migration variant assumption is used because this is the population assumption used by the Office for Budget Responsibility for GDP growth projections which also feed into the emissions projections. Projections under a scenario in which the UK population increased by 10 million are not available.

Over the period 2010 to 2030 emissions are projected to fall by 168 MtCO2e from 586 MtCO2e to 418 MtCO2e. Carbon dioxide emissions are projected to fall by 146 MtCO2 from 496 MtCO2 to 350 MtCO2 over the same period. The projected fall is attributable to a range of factors including policy impacts on energy efficiency and increased use of renewable energy. Under the central scenario assumptions in the emissions projections, renewable energy demand is projected to increase by 23 Mega tonnes of oil equivalent (Mtoe) from 8.2 Mtoe to 30.9 Mtoe between 2010 and 2030. Renewables electricity generation capacity is projected to increase by 33 GW from 9 GW to 42 GW over the same period. As explained in the report, the generation and capacity mix is dependent on a number of assumptions. Other assumptions would lead to projected electricity demand being met by different capacity and generation mixes.

The projections show that, under central assumptions, existing policies, including those that support increased use of renewable energy, are sufficient to ensure emissions continue to fall up until 2030 despite the projected increase in population of 6.8 million.