1. EXECUTIVE SUMMARY AND KEY RECOMMENDATIONS

EXECUTIVE SUMMARY

Ireland has implemented some significant changes since the last IEA in-depth review of its energy policies in 2007, and commendably, reforms have continued at a regular pace despite the disruptive effects of the financial crisis on its economy. Reform of the electricity and natural gas markets has continued – the Single Electricity Market (SEM) has been implemented, retail markets are open to competition, investment in infrastructure has continued and a significant smart-metering study has been completed. Nevertheless, the progressive market liberalisation of the gas and electricity markets has not displaced the market power of the traditional state-owned incumbents, and concerns linger with regard to the level of state involvement in these two sectors. Renewable energy capacity has continued to expand, a new procedure to integrate wind power has been introduced, and there has been a large increase in investment in energy-related research and development. Ireland has a very proactive energy efficiency policy, which is helping to reduce its carbon footprint in line with the European Union binding target to reduce greenhouse gas (GHG) emissions by 20% (relative to 1990) by 2020. So far, GHG emissions have fallen in line with Ireland’s present obligations.

DECARBONISING THE ECONOMY

A focal point of Ireland’s energy policy framework is the push to a low-carbon economy. This reduction in emissions calls for a fundamental shift in energy production and consumption habits, and the vectors for this shift have been a strong emphasis on the development of renewable energy and the promotion of energy efficiency and smart grid technologies.

Ireland has set the ambitious target of producing 40% of its electricity from renewable sources by 2020, one of the most demanding in the world. Ireland’s location at the edge of the Atlantic Ocean ensures one of the best wind and ocean resources in Europe, and the government is encouraging the development of electricity generated from renewable sources by means of a renewable energy feed-in tariff (REFIT) programme. Feed-in tariffs have until now tended to favour the development of technologically mature wind power. There has also been a growing interest in biomass, notably for co-firing with, and ultimately replacing, Ireland’s indigenous peat. The European Commission’s approval in 2012 of the expansion of Ireland’s REFIT programme into other renewable sectors, including biomass technologies, should favour this development. The government’s diversification of renewable sources is commendable, notably in terms of energy security and economic efficiency and development.

The second pillar of Ireland’s decarbonisation strategy is demand-driven, and relies on the development and optimisation of energy efficiency and research and development into “demand-side management” technologies. Ireland has a very proactive energy
efficiency policy and a national target of 20% energy savings in 2020 (relative to the 2001-05 average), complemented by an ambition to reduce energy consumption in the public sector by 33% in 2020. In its highly detailed National Energy Efficiency Action Plan, Ireland has outlined 90 measures and actions, across all sectors of the economy, that are to be implemented in order to achieve its ambitious targets.

Public funding on energy-focused research and development has roughly quintupled between 2005 and 2008, and pre-crisis 2008 levels of spending have since been maintained throughout the financial crisis. Thanks to its proven record of engaging with information and communications technology companies and to its strong research infrastructure, Ireland has become a world leader for smart grid deployment. Smart grid technology is key to supporting the ambitious targets in the deployment of clean generation and end-use technologies, such as variable renewable energies and electric vehicles.

CONSOLIDATING ENERGY SECURITY

Ireland has limited indigenous fossil fuel resources – the country remains dependent on imported oil and gas and will remain so in the long term. While the push to develop renewable energies is commendable, this will also result in an increased reliance on natural gas, as gas-fired power plants will be required to provide flexibility in electricity supply when wind power is unavailable. With some two-thirds of Ireland’s electricity already coming from gas-fired generation, the push for renewable energies poses certain concerns with regard to gas security.

Ireland’s gas market is characterised by its very high dependence on imports, and 93% of its gas supplies comes through a single transit point in Scotland, Moffat. Ireland is thus vulnerable to a gas supply disruption, and would benefit significantly if there were a greater diversification and flexibility of supply in terms of entry points and sources. In this regard, the development of upstream gas fields, such as Corrib, and the proposal to build a liquefied natural gas (LNG) terminal in the Shannon Estuary, would be highly beneficial to Ireland’s security of supply.

Imported oil remains the single largest source of energy, and is a major source of GHG emissions. The sector is undergoing a major restructuring at present and its future configuration is uncertain. There is uncertainty regarding the future of Ireland’s only oil refinery in Whitegate after 2016. It could be argued, however, that the high level of liquidity in the north-west European oil product market means that the potential absence of a refinery should not pose a significant risk to Ireland in terms of security of oil supply and competition. Efforts to increase levels of oil stocks in Ireland, such as the 2009 regulatory decision to oblige baseload gas-fired generators to hold five days of secondary fuel stocks (generally gasoil) on site and the push by the national stockholding agency (NORA) to increase the amount of wholly owned stocks located on the island of Ireland, are laudable steps for improving Ireland’s energy resilience.

IMPROVING INFRASTRUCTURE PLANNING

In order to meet Ireland’s ambitious renewable targets and improve the island’s level of energy security, the country will need to successfully develop a range of large infrastructure projects. In the electricity market, key projects are the development of new wind farms (close to 4 000 megawatt [MW] of additional wind generation capacity is required to meet renewable energy targets), their integration in the network by
means of the improved connection procedure, the construction of transmission and distribution lines to bring wind-generated electricity from the Atlantic seaboard to key demand centres, and the completion of additional transmission capacity between the Republic of Ireland and Northern Ireland. In the gas market, steps must be taken to ensure the development of the Corrib gas field and explore prospective shale gas reserves, and encourage the development of the proposed LNG terminal in the Shannon estuary. Commendably, the government and the regulator are taking steps to address regulatory hurdles and uncertainties that are affecting investment decisions.

Yet as is the case in numerous OECD countries, there are also recurrent challenges associated with gaining local community acceptance for large-scale energy infrastructure projects such as the delivery of indigenous gas (e.g. the Corrib gas field) and the construction of renewable energy capacity and transmission infrastructure. Social acceptance and understanding of the need for new infrastructure is critical. It is important for the government to enhance public awareness in relation to the fundamental benefits in terms of security of energy supply, environmental sustainability and economic and regional development, as well as improving energy cost competitiveness. A more integrated approach by project developers to early engagement and consultation with all stakeholders will ensure a more balanced public debate and a more timely delivery of projects. The planning and consenting process needs to ensure timely, sustainable and reliable decisions for all stakeholders, and the government should review the effectiveness of the consultation processes at local level as well as the Strategic Infrastructure Act in delivering the desired outcomes. At an international level, the government should continue to work with the European Union and IEA on the shared challenge of ensuring the delivery of large-scale infrastructure projects.

DEEPENING REGIONAL INTEGRATION

Ireland has successfully implemented the all-island Single Electricity Market (SEM) with Northern Ireland, which has made a positive impact on market entry, and alongside changes to the manner in which the retail markets are regulated, has allowed genuine competition between suppliers to emerge. Nevertheless, the electricity incumbent, state-owned Electricity Supply Board (ESB), continues to maintain almost half of total dispatchable generating capacity and most of the price-setting generation assets in the SEM, obliging the regulatory authority to implement specific bidding rules and a market monitor to regulate market behaviour. A further divestment of some of ESB’s non-core generation assets, currently under consideration by the Irish government, could allow for a relaxation of the rules on bidding, thus allowing for greater flexibility and competition among market participants. In the context of ongoing electricity market reform, it is important that the energy regulator is sufficiently empowered to ensure that market and competition rules are strictly adhered to, and that the interests of consumers are protected.

The SEM will be further strengthened when key infrastructure projects currently under way are implemented, notably allowing for generators in Ireland to export their wind resources to the island of Great Britain and further afield in the future. Yet concerns remain with regard to the future of the SEM within a regional electricity market. The United Kingdom is at present reforming its electricity market and introducing a carbon price floor, which poses a number of opportunities but also risks for the Irish consumers. The two islands will be further integrated when the East-West Interconnector is commissioned by late 2012, giving generators in Ireland better access to the United Kingdom
market and vice versa. The changes being planned to the existing gross mandatory pool model in Ireland should take account of the need to ensure that the Irish consumers pay appropriate prices for electricity in the future. The two governments should continue and enhance their structured and formal engagement, so as to ensure a strong and mutually beneficial level of co-ordination between the two countries, in working towards their integration into the European Union target model in the medium term.

In the gas market, the governments of Ireland and Northern Ireland are working to develop a Common Arrangements for Gas (CAG) framework, replicating the success of the all-island Single Electricity Market. CAG has the potential to bring benefits to all consumers, both in terms of security of supply and cost reductions, through increased competition. Furthermore, the project has the capability of providing for further regional integration beyond the island of Ireland and contributing to achieving the 2014 single market goal set by the European Council. Specific attention must be given however to ensuring that this significant regulatory development delivers optimal results in terms of competition, economic efficiency and end-user prices, and the design of CAG should also be aligned with emerging EU Framework Guidelines and Network Codes. More generally, Ireland should continue to co-operate with the United Kingdom and the European Commission, in order to ensure that regulatory decisions beyond Ireland’s border do not negatively impact its gas market.

**KEY RECOMMENDATIONS**

The government of Ireland should:

- Continue to encourage greater diversification and flexibility of gas supply, in light of the country’s high level of reliance on the fuel.

- Maintain funding support to develop and deploy new low-carbon technologies in which Ireland possesses a comparative advantage, including wind, biomass, ocean and smart grids.

- Further enhance the consultation, planning and consenting process for critical energy infrastructure projects, with an emphasis on balancing the concerns of local communities with the economic, social and energy security benefits of the proposed projects.

- Ensure that participation in regional energy markets brings benefits to Irish consumers and certainty for investors in the energy market, by working closely with regional partners and the European Union.

- Ensure that the powers of the energy regulator are enhanced as necessary in order to ensure that market and competition rules are strictly adhered to and that the interests of consumers are protected.