Subject: State aid SA.33656 (2012/NN) – Ireland
Next Generation (backhaul) Network (NGN) alongside a gas pipeline in Galway and Mayo

Sir,

I. PROCEDURE

(1) By letter dated 18 September 2011 pursuant to Article 108 (3) of the Treaty on the Functioning of the European Union (TFEU), the Irish authorities notified a measure to the Commission for bringing into use a telecommunications duct built alongside a gas pipeline. The Irish authority provided answers to the Commission's request for information of 26 October 2011 by letter received on 30 November 2011. Additional questions were raised in a meeting of the Commission services with the representatives of the Irish authorities on 13 December 2011.

(2) By letter dated 20 December 2011, the Commission informed the Irish authorities that the case would be treated as non-notified because no Commission decision covered the aid granted by the Irish State to the constructor of the 132 km of telecommunications ducting that were constructed in 2005 and the additional section of 24 km of ducting that were constructed in 2007.

Mr. Eamon Gilmore T.D.
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IRELAND

Additional questions raised in a meeting of the Commission services with the representatives of the Irish authorities on 26 July 2013 were replied to by submissions of 9 August 2013, 22 August 2013, 30 August 2013, 5 September 2013, 20 September 2013, 27 September 2013, 1 October 2013, 7 October 2013, 10 October 2013, 14 October 2013, 30 October 2013 and 18 November 2013.

II. CONTEXT

II.1. Policy context

The provision of a network such as the Galway Mayo project will facilitate service providers to avail of wholesale services on an open access basis and enable them to offer fast and ultra-fast Internet services to citizens and businesses in this region. This will help to improve the opportunities for people in this region to share in the benefits of the Information Society, thereby reducing the Digital Divide.

Shell EPL ("Shell") has invested EUR 2 billion in the development of a gas terminal at Bellanaboy, Mayo. When fully operational, this critical infrastructural investment by Shell will require high speed, reliable telecoms connectivity. Currently, the solution in use is subject to failure during severe weather events and is heavily dependent on overground infrastructure. Reliable communications can only be provided by the use of underground fibre infrastructure.

Ireland faces some unique challenges in terms of investment in broadband infrastructure in regional locations. Low population density, demographic patterns and geographical challenges have resulted in reluctance by service providers to invest in certain regions, particularly the mid-west region of Ireland. Despite investment in the Metropolitan Area Networks Programme and National Broadband Scheme, it is clear to the Irish Government that there is still a service deficit in the mid-west region of Ireland. It appears to the Irish authorities that not only is there market failure in this region, but it is unlikely that there will be sufficient competitive pressure in the wholesale market to improve fibre based backhaul services in the short to medium term.

II.2. Market failure

The completed National Broadband Scheme brought basic broadband services to remote areas of the country including the mid-west region of Ireland which had not gained fully from the deregulation of the telecommunications market. Due to the unique demographic and geographical features of this region, there has been reluctance on the part of service providers to invest in backhaul in the region.
The reasons for a lack of backhaul infrastructure investment in this region appear to be (among others):

a) the relatively low population density in the region;

b) the difficulty in installing infrastructure in parts of this region due to topographical features such as boglands, mountains and areas of conservation;

c) the relatively high costs of installing backhaul in this region and

d) the poor return on investment.

This has led to a failure by the market to provide alternative sources of backhaul to the services provided by eircom. Although some backhaul service providers are present in the region (mainly BT), they mainly provide services to more densely populated areas of the region.

III. DESCRIPTION OF THE MEASURE

Objective: The primary objective of this project is to provide a fibre backhaul network that is capable of delivering fast and ultra-fast Internet access on an open access and carrier neutral basis to the citizens and businesses in towns (near the location of the backhaul circuits) of the mid-west of Ireland, an area that is poorly served in terms of availability of dark fibre or duct infrastructure for third party service providers. By ensuring that the network is available to service providers on a wholesale and operator neutral basis, the Irish Government aims to promote competition among service providers, leading to a high level of service to citizens and businesses at competitive rates. The Irish Government believes that this minimal level of public investment will yield a positive result in terms of meeting the State's objectives. According to the Irish authorities, it also represents the minimum intervention in the telecommunications market where there is clearly a lack of private sector investment. The Irish Government believes that this intervention is an appropriate, proportionate and transparent action that will improve infrastructural access and stimulate competition in this region, delivering better services to citizens and businesses.

Pursuant to the Irish authorities, the project also helps to deliver on key Member State actions in the Digital Agenda for Europe – take measures to facilitate broadband investment (such as clearing rights of way) and facilitate affordable access to digital services to improve digital literacy and skills.

Project design: The backhaul network will be operated by a Management Services Entity (MSE). It is not envisaged that the MSE itself provides telecoms services to business customers or residential customers. The backhaul network will be available to telecoms operators to provide whatever range of services they wish to offer to the market. It is anticipated that operators who use the backhaul network will offer higher speeds, since demand for faster broadband services is likely to increase in line with the range of digital services that are delivered over the Internet. These operators would themselves be responsible to connect their own access infrastructure to the backhaul network.
The aim is to achieve a download speed of minimum 100 MBit/s and up to 1 GBit/s. This, however, depends on the quality of the access networks which will be connected to the backhaul. As this is a backhaul solution only, the Irish authorities do not intend to require the backhaul operator to impose minimum speeds on operators. The exact speeds and exact reach of the benefit of the network will thus be a matter primarily for the individual operators.

In February 2005, the Irish Government approved the construction of 132kms of telecommunications ducting (the main trunk) alongside a gas pipeline that was under construction to the Shell gas terminal at Bellanaboy. In May 2007, the construction of 24kms of duct was approved from the main trunk to the outskirts of the towns of Castlebar and Westport in County Mayo. The public monies paid in 2005 and 2007 went to Bord Gais Eireann (BGE), a commercial State owned company, to construct the telecommunications duct network. The duct is owned by the Department of Communications, Energy and Natural Resources (DCENR). DCENR gave the go ahead to BGE to build the telecommunications duct in February 2005 by way of a commitment to cover all reasonable costs. No explicit contract was put in place.

Given that €208m was being invested by BGE in the pipeline and given the topographical challenges that were being encountered, such as bogs and mountainous terrain, the Irish authorities viewed this as an opportunity to install a telecommunications duct network in an area that had not been previously well served. This project provided a unique opportunity to lay telecommunications duct across lands that otherwise would not be covered.

Apart from these old measures, State aid approval is also requested for a further section of 24kms of ducting, subducting and fibre between the gas terminal at Bellanaboy and the coastal area of Belmullet in County Mayo.

The Irish Government intends to complete this backhaul telecommunications network by way of an open tender process to appoint the MSE on a concession basis. The Irish authorities noted that the tender process does not commence until the decision of the Commission is adopted. The tender process will be designed to minimise the level of public funds and this will be captured under the award criterion of “Financial viability of business model”.

Once the network is operational, the MSE will be required to operate, market and maintain the network on behalf of the State. Aid will be made available only in respect of passive network components, including trenching, subducting, dark fibre, chambers, co-location facilities, and reinstatement civil works. Pre-construction design and preparatory works will also be eligible for aid. In addition, the network will remain in State ownership, including components and extensions added to the network by the MSE. When the concession contract expires, the MSE will be required to hand back the network to the State.

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1 Bord Gais Eireann (BGE) is a commercial company wholly owned by the Irish State that operates primarily in the area of gas transmission, in the residential, business and industrial sectors.

2 There will not be separate tenders for the completion of the network and the operation of the network.
The Irish authorities have confirmed that the beneficiaries of the measure will be the operator of the telecommunications duct, telecommunications operators who use the network and residential and business end users such as Shell, the proposed Emerald Atlantis project and the proposed National Research Centre for Wave Energy.

The Irish authorities expect that residents of eleven towns in close proximity to the infrastructure including Castlebar, Westport, Belmullet, Crossmolina, Ballina, Foxford, Swinford, Kiltimagh, Claremorris, Tuam and Ballinrobe could be beneficiaries of the measure, and that extensions from this network could benefit around 48 000 people in towns and villages along the route of this network.


Detailed mapping and coverage analysis: The Irish authorities conducted a detailed market survey of the broadband infrastructures and services (1. coverage mapping of current NGA and basic broadband services in the areas affected by the backhaul network at stake, 2. three years investment plans of all main telecom operators in the target area, 3. mapping of the existing backhaul infrastructures and analysis of the effect of the project on the market of backhaul networks). As this measure addresses a backhaul network, the mapping of services (on the basis of access networks) is required.

The significant backhaul networks throughout County Galway and County Mayo are:

1/ the National Core Fibre Network of the incumbent eircom.

2/ There is also limited backhaul coverage available in some areas of the Counties provided by BT, ESB and Aurora Telecom.

3/ There may be other operators providing radio links with very limited backhaul capacity and application in some of the targeted areas.

In December 2011, the Emerald Atlantis project was announced to land a transatlantic optical fibre cable at Belmullet on the north coast of County Mayo. The project is due to be completed by early 2014. If this project proceeds, it would involve utilising the backhaul network at stake. The cable would provide international connectivity to Mayo and the West of Ireland and could provide a major telecommunications boost to the region. The cable would be brought across the country to Dublin for onward connectivity to the UK.

The National Research Centre for Wave Energy (formally titled the “National Wave Energy Test Site”) is a project proposing to deploy wave energy machines off the coast of Belmullet (County Mayo), so that the performance of the machines can be tested and demonstrated in open ocean conditions. See:

Report by NORCONTEL (Ireland) Ltd of 18 June 2013 on Market analysis of backhaul infrastructure in Mayo & Galway, commissioned by the Department of Communications, Energy & Natural Resources.

See http://www.nextgenerationnetwork.ie/eircom-fibre-network

See: http://www.birelandwholesale.com/images/NetworkMap.jpg

See: http://www.esborder.com/infrastructure/national_fibre_optic_network.htm. ESB is wholly owned by the Government of Ireland. The primary activities of ESB and its subsidiaries are the ownership and/or operation of electricity distribution and transmission networks in Ireland and the generation and supply of electricity in Ireland and certain other countries.

See: http://www.auroratelecom.ie/service-level.htm
The towns in the area under review and their backhaul status is shown in Table 1:

Table 1: Backhaul infrastructure

<table>
<thead>
<tr>
<th>Item</th>
<th>Town Name</th>
<th>Backhaul links available</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Castlebar</td>
<td>Eircom NGN(^{10})</td>
<td>BT network nearby</td>
</tr>
<tr>
<td>2</td>
<td>Westport</td>
<td>Eircom NGN</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Claremorris</td>
<td>Eircom NGN, BT</td>
<td>Node Reach site</td>
</tr>
<tr>
<td>4</td>
<td>Ballinrobe</td>
<td>Eircom NGN</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Ballina</td>
<td>Eircom NGN, BT</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Crossmolina</td>
<td>Eircom(^{11})</td>
<td>On the eircom fibre route</td>
</tr>
<tr>
<td>7</td>
<td>Belmullet</td>
<td>Wireless backhaul only</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Knock</td>
<td>Eircom</td>
<td>On the eircom fibre route</td>
</tr>
<tr>
<td>9</td>
<td>Kiltimagh</td>
<td>Wireless backhaul only</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Tuam</td>
<td>Eircom NGN</td>
<td>ESB Telecom nearby</td>
</tr>
<tr>
<td>11</td>
<td>Ballyhaunis</td>
<td>Eircom</td>
<td>On the eircom fibre route</td>
</tr>
</tbody>
</table>

(25) Table 1 illustrates that eircom offers high speed (1Gbps managed Ethernet) NGN managed services from 6 towns and other lower speed services from the remaining towns. While eircom NGN backhaul links are available in a number of towns, only two towns have an alternative network operator with their own fibre infrastructure, capable of providing high capacity services, e.g. 1G or multiple gigabit speeds. However, the network operators provide only managed bandwidth services and do not provide access to dark fibre or access to ducts on the backhaul or backbone networks. Thus, currently no services are offered on the backhaul markets of access to passive infrastructure as dark fibre and ducts. Based on the information presented in Table 1, Claremorris and Ballina are NGN backhaul black, the towns of Castlebar, Westport, Crossmolina, Ballinrobe, Knock, Tuam and Ballyhaunis are backhaul grey, and the remainder of the target area is white from a backhaul point of view. The subsidized backhaul infrastructure at stake is excluded from being used to offer backhaul services in those six towns where an NGN backhaul network is available, an NGA network is connected to it, the circuits are being directly used for NGA retail access and there are no indications that the NGA network is not sufficient to satisfy the needs of citizens and business (ie Castlebar, Westport, Ballina, Tuam, Claremorris and Ballinrobe). Such areas will be excluded from the access target areas and no access operator will be able to connect to the subsidised backhaul network. In the areas where there exists already one backhaul network, but no NGA network is connected to it (including towns Crossmolina, Knock and Ballyhaunis), the subsidised infrastructure can be used to offer backhaul services for the deployment of an NGA network connected to the subsidized infrastructure, and provided that NGA capable access is deployed. However, where managed bandwidth services are already provided in a

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\(^{10}\) Eircom NGN is a high speed managed Ethernet service (up to 1Gbps) provided from a limited number of specific nodes in the eircom fibre network. Eircom offers NGN backhaul services to retail and wholesale customers as requested at the 6 towns (Castlebar, Westport, Claremorris, Ballina, Ballinrobe and Tuam). Eircom does not provide NGN backhaul services in the remainder of the target area.

\(^{11}\) Those towns shown as ‘Eircom’ have lower speed eircom services but not NGN backhaul services. The difference here is the backhaul service, not the access network. The backhaul service provided by eircom from an Eircom NGN node is different (high speed up to 1Gbps) from the service provided from other non-NGN nodes.
satisfactory manner on the existing backhaul network, such services cannot be provided over the subsidised infrastructure.

(27) Furthermore, optical fibre infrastructure (rings) deployed under the Metropolitan Area Networks (MANs) project is available in the following towns: Ballina, Ballinrobe, Belmullet, Claremorris, Kiltimagh and Knock. Because of the "middle mile" nature of the MAN fibre infrastructure and its restricted availability, the towns listed as having a MAN are not regarded as having a backhaul or NGA broadband infrastructure for the purposes of the classification into white/grey/black areas.

(28) From an access networks perspective, eircom’s Next Generation Access (NGA) programme builds upon the National Core Fibre Network to bring fibre closer to customer premises predominantly through the use of Fibre to the Cabinet (FTTC) technology.

(29) The towns in the area under review and their NGA/MAN network status is shown in Table 2:

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12 The MANs tackle a major bottleneck, the so-called “middle mile” between local loop and regional networks and serve as a backhaul network collecting and transporting traffic in these towns to the regional networks between the cities concerned. See: http://ec.europa.eu/eu_law/state_aids/comp-2005/n284-05.pdf.

13 The towns which fall under the scope of the MAN project are indicated in the e-net website: http://www.e-net.ie/man-maps.html.

14 All of these networks are currently operational, except Knock. The backhaul details for these networks are as follows: Ballina (2x fibre), Ballinrobe (fibre), Belmullet (radio), Claremorris (2x fibre), Kiltimagh (radio) and Knock (none).

15 The MANs were primarily designed as collocation centres and fibre rings to serve the needs of SMEs, businesses and industries in cities and towns where resilient, high availability, high speed broadband services had not been available heretofore, except on a one-off basis which in most cases was beyond the means of SMEs. In most instances, the MAN network serves the business centre of the city or town, business and industrial parks, large schools and other public offices. Although in theory available to residential customers, in practice residential areas were not the target areas and the cost of service provision (fibre drop connection from the MAN fibre ring) for residential customers is generally prohibitive, except where a new housing estate had been built with a fibre distribution infrastructure.

16 See: http://www.nextgenerationnetwork.ie/ngn-access

17 In May 2013, eircom launched its e-fibre product, a broadband product delivered over FTTC and VDSL. This can deliver broadband download speeds up to 70Mbps, depending on distance from the FTTC cabinet. Eircom is rolling out this service in phases: phases 1 to 3 already completed, phases 3 to 9 later in 2013 and phase 10 in 2014. Other service providers, e.g. Vodafone, Digiweb, Magnet, also offer a similar NGA product, utilising the wholesale eircom product. The eircom infrastructure is the only NGA infrastructure being deployed currently.
Table 2: NGA broadband infrastructure

<table>
<thead>
<tr>
<th>Item</th>
<th>Town Name</th>
<th>NGA infrastructure</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Castlebar</td>
<td>Eircom’s e-fibre</td>
<td>Available now</td>
</tr>
<tr>
<td>2</td>
<td>Westport</td>
<td>Eircom’s e-fibre</td>
<td>Available now</td>
</tr>
<tr>
<td>3</td>
<td>Claremorris</td>
<td>Eircom’s e-fibre &amp; MAN</td>
<td>Phase 10, 2014</td>
</tr>
<tr>
<td>4</td>
<td>Ballinrobe</td>
<td>Eircom’s e-fibre &amp; MAN</td>
<td>Phase 10, 2014</td>
</tr>
<tr>
<td>5</td>
<td>Ballina</td>
<td>Eircom’s e-fibre &amp; MAN</td>
<td>Available now</td>
</tr>
<tr>
<td>6</td>
<td>Crossmolina</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Belmullet</td>
<td>MAN</td>
<td>Business park</td>
</tr>
<tr>
<td>8</td>
<td>Knock</td>
<td>MAN</td>
<td>Airport area</td>
</tr>
<tr>
<td>9</td>
<td>Kiltimagh</td>
<td>MAN</td>
<td>Business centre</td>
</tr>
<tr>
<td>10</td>
<td>Tuam</td>
<td>Eircom’s e-fibre</td>
<td>Phase 9, Dec 2013</td>
</tr>
<tr>
<td>11</td>
<td>Ballyhaunis</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

(30) Castlebar, Westport, Ballina, Tuam, Claremorris and Ballinrobe, i.e. all six areas within the catchment of the duct route which have an existing NGA infrastructure available to businesses and residential customers in the target areas served, are classified as NGA grey. In all cases shown, this is eircom infrastructure. The infrastructure at stake cannot be used to connect an NGA network in those six towns where an NGA network is available and the circuits are being directly used for NGA retail access. All other areas within the catchment area are classified as white, i.e. no NGA currently exists and there are no plans for deploying NGA infrastructure over the next 3 years.18

18 While the mobile network operators plan to deploy LTE nationally (70% population coverage over 3 years) and have already started implementation in some metropolitan areas, the deployment in rural areas will be limited to a few of the largest towns. In other rural areas, the MNOs plan to increase the coverage for data by extending their 3G (3G+, HSPA+) to areas currently unserved by 3G. In any case, as the LTE is a shared wireless resource, the service provided may not qualify as NGA as the speeds delivered are expected to be of the order of 20 – 30Mbps.
As regards existing **basic broadband services**, the target areas have a range of service providers, many of whom use eircom DSL wholesale products to provide services to customers. The rural areas are generally served by both locally based service providers delivering broadband services over wireless infrastructure and by the National Broadband Scheme provided by 3 Ireland. In addition, there are broadband services provided by satellite service providers: Onwave, Qsat and Tooway (Digiweb). Mobile broadband (3G) is also available in some limited areas, mainly larger urban areas and main roads. All areas within the catchment of the duct route are therefore classified as basic black.

**Conditional access to planned infrastructure:** The Irish authorities designed a conditional system of access to the planned backhaul network in order on one hand to meet the objective of the measure and at the same time to minimize the potential distortion of competition on existing operators.

The objective of the Irish authorities is to give access on an open access basis to the subsidised infrastructure to the telecommunications operators in order to create incentives for them to invest in the NGA last mile\(^{19}\) segment.

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\(^{19}\) According to paragraph 57 of the Broadband Guidelines, NGA networks are access networks which rely wholly or partly on optical elements and which are capable of delivering broadband access services with enhanced characteristics as compared to existing broadband networks.
In order to minimise the potential distortion of competition and make sure that the measure brings a step change in terms of broadband deployment in all the target areas, it is foreseen that in areas where one or more backhaul broadband networks are already in place or planned in the near future, but no NGA network exist or is planned in the near future, the Irish authorities will allow third party operators to connect to the planned backhaul network only if they deploy NGA capable 'last mile' infrastructure. According to the Irish authorities such limitations in the use of the backhaul network will reduce any potential distortion of competition as regards basic broadband services providers, but at the same time will incentivize NGA network roll-out by contracting a new fibre backhaul network in the region. However, in the areas covered by the subsidised backhaul network where a NGA network already exists and there are no indications that it is not sufficient to satisfy the needs of citizens and business (Castlebar, Westport, Ballina, Tuam, Claremorris and Ballinrobe), no access operator will be able to connect to the subsidised backhaul network. Such areas will therefore be excluded from the access target areas.

Public consultation:
Following the Commission's request, the Irish authorities have carried out a public consultation to advise of the plan to deliver a backhaul solution and seek views on the proposal. A notice was published on DCENR’s website, including the details and the mapping of the planned public intervention and inviting submissions from interested parties. This allowed all stakeholders to submit comments on the measure. A total of 17 written opinions on the measure were received. The proposal to bring the telecoms duct network into use was welcomed by all respondents. A number of respondents raised issues relating to the procurement process and sought a number of safeguards to be built into the process in order to ensure that the network is available on an open access basis. Other respondents highlighted the importance of delivering the network as quickly as possible in order to reduce the imbalance that currently exists in terms of regional infrastructure development. The importance of the proposed network to small and medium enterprises was also highlighted in terms of promoting competition in the region and delivering high speed broadband at competitive rates.

A further consultation with the existing operators carried out by Norcontel (Ireland) Ltd in June 2013 confirmed that no private operator has plans to invest in NGN backhaul networks in the target area within the next three years.

The Irish authorities submitted a letter of 15 November 2012 from the Commission for Communications Regulation, the national regulatory authority (NRA), stating that it was informed of the project and that there were no regulatory concerns associated with it.

Target areas: It is expected that residents of towns in close proximity to the notified backhaul infrastructure including Belmullet, Crossmolina, Foxford, Swinford and Kiltimagh could be covered as well.

Tender process: Part of the network was already built by BGE, a state owned company, although it was not yet used or operated in any way. The operator which will complete and operate the backhaul network will be selected through a tender procedure.

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20 Including the submissions from Shell E&P Ireland Ltd, BT Ireland, e|net and ESB Telecoms Ltd.
(40) **The award criterion** is the most economically advantageous tender. The awarding authority will set in advance the award components and their weighting. Although not yet determined, the following indicative award criteria and their weighting were being considered: 1. Overall approach and strength of business plan - 10%; 2. Relevant experience of management team - 10%; 3. Financial viability of business model - 35%; 4. Revenue distribution agreement - 15%; 5. Technical and operational viability - 30%.

(41) **Budget and funding instruments:** The total estimated cost of this project of €10.06m consists of €5.56m capital expenditure from the national budget incurred to date (largely between 2005 and 2008) and an estimated €4.5m in public capital expenditure required to complete and commission the network. The aid takes the form of direct grants.

(42) **Aid intensity:** It is expected that the aid intensity will be between 55% and 100%, depending on the extent to which the successful tenderer is prepared to commit its own resources to meet the remaining costs.

(43) **Objective to minimize public funding:** The approach of constructing the duct alongside another piece of critical infrastructure (i.e. the BGE gas pipeline) produced significant savings by installing a telecommunications backhaul infrastructure in an area that is not well served and that addressed significant topographical challenges to the completion of the civil works. The network will also cover areas well served, where however it will not be available to access operators. The construction of the duct network at the same time as the construction of the gas pipeline resulted in the following efficiencies:

- Significant civil engineering cost savings;
- Leveraging engineering expertise to address special engineering difficulties;
- Resolution of right of way (wayleave) and access issues;
- Co-operation with local and municipal authorities.

(44) The Irish authorities considered that there was a once off opportunity to put telecommunications infrastructure in this area as the normal cost associated with a project of this size on its own would be prohibitive. If the telecommunications duct was not installed at the time of the construction of the gas pipeline, it is estimated by the Irish authorities that the cost to build a similar duct across similar terrain as a separate project would be in the order of EUR 30 million, assuming that the other permissions could have been attained. Since the cost of installing the telecommunications duct was EUR 5.56 million, the savings made, indicate the economies of scale that have been achieved using this approach. By constructing the duct alongside the gas pipeline, savings of around €24.5m were therefore produced on the construction to date.

(45) **Beneficiaries:** The direct beneficiaries of the aid will be the operator of the telecommunications duct. Indirect beneficiaries will be electronic communication operators using the new network for offering retail services to end users. Beneficiaries include also business users in the areas concerned who will benefit from better broadband services, including Shell, the Emerald Atlantis project, and the National Research Centre.
for Wave Energy. The backhaul network is a shared infrastructure and is not designed for the specific benefit of any particular customer.

(46) **Duration of the measure:** The lifetime of the project is minimum fifteen years, during which the successful tenderer will operate the network. The entry of the aid into effect will depend on the time agreed with selected tenderer following the Commission approval.

(47) **Technology:** The Irish authorities will not specify the technology in the invitation to tender; it will be left to the bidders to propose the technological solutions they favour to reach the objectives established by the Irish authorities. In line with the objectives explained above, it is expected that the MSE will only sell circuits not less than 200Mbit/s to their customers and/or dark fibre facilities.

(48) **Wholesale access:** The subsidised infrastructures will be opened for licenced third party operators. The wholesale offer shall include advanced access to the dark fibre, ducts, poles and other associated infrastructure. Third party operators will have wholesale access to the subsidised broadband networks in a non-discriminatory way during the entire duration of the contract, i.e. for minimum fifteen years.

(49) **Benchmarking:** In order to attract operators to use the fibre network, the MSE will need to set competitive rates. A price benchmarking mechanism will be incorporated in the contract with the preferred bidder. The price for wholesale access will be based on average prices for comparable services in more competitive areas of Ireland and the EU. In the event of a dispute between the operator and the MSE, the operator can refer the matter to the NRA.

(50) **Monitoring and clawback mechanism:** The selected bidders will be required to maintain separate accounts for the subsidised activity to avoid cross-subsidisation of other commercial activities and to facilitate the monitoring of profit levels. Where conditions of the contract are not satisfied, the granting authority will be the responsible authority and it will be open to it to recover and implement any sanctions provided for in the contract that arise from non-performance of the contract. The following claw-back mechanism will be part of the contract: the level of profit will be examined every year, and if the profit generated on the subsidised network is higher than a certain percentage of the forecasted revenue, a certain percentage of the revenue will have to be paid back to the granting authority.

**IV. ASSESSMENT OF THE MEASURE: PRESENCE OF AID**

(51) The duct constructed in 2005 and 2007 as well as its upcoming completion and operation is one project based on a granting decision of 2005, i.e. even before the "old" 2009 *Community Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks*[^21] ("the 2009 Broadband Guidelines"). The measure has therefore to be assessed under the rules that applied at the time of granting the aid, i.e. directly under the EC Treaty and in the light of the Commission case practice as it stood at the time. The case practice up until 2009 had been summarized in the 2009 Broadband Guidelines. The Commission can therefore assume that the 2009 Broadband Guidelines reflect the practice.

prevailing at the time of the aid, in the light of which the Commission should assess the present case (this applies at least for Section 2 of the Guidelines on traditional broadband networks, while section 3 appears to be a novelty in relation to earlier practice). One could also argue that the upcoming completion and operation of the duct can be assessed as a new separate measure to which the 2013 Broadband Guidelines apply. However, there is no need to take a final position on this issue as the completion and operation of the duct is in compliance also with the 2013 Broadband Guidelines (which are built around the same principles and compatibility criteria set out in the 2009 Broadband Guidelines, while introducing some clarifications and few additional requirements).

(52) According to Article 87 (1) EC Treaty, “any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the common market”. It follows that in order for a measure to qualify as state aid, the following cumulative conditions have to be met: 1) the measure has to be granted out of State resources, 2) it has to confer an economic advantage to undertakings, 3) the advantage has to be selective and distort or threaten to distort competition, 4) the measure has to affect intra-EU trade.

State resources

(53) The measure is financed partly by funds from the national budget. Hence State resources are involved.

Economic activity

(54) The construction and operation of a broadband network can qualified as economic activities. In line with the Leipzig/Halle judgment also the construction of infrastructure can be considered an economic activity if it is intrinsically linked to a commercial exploitation of the infrastructure, which seems to be the case here.

Economic advantage

(55) Selected operators: Through the tender process, the selected operator will receive financial support which will enable it to enter the market and provide wholesale backhaul services on conditions not otherwise available on the market. In view of the above, an economic advantage will be granted to the selected operator.

(56) Third party providers: Third party electronic communication providers will be able to offer their services by using the wholesale access of the subsidized network on open, non-discriminatory terms. They will therefore also indirectly benefit from the State resources, as they will be customers of the selected electronic communication operator.

(57) End users: The measure aims at improving the provision of existing broadband services to business users and residential users. Whereas residential users are not subject to State aid

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rules, businesses in the targeted areas will ultimately benefit from the improved broadband services and coverage in comparison with what would be provided on a purely commercial basis.

**Distortion of competition**

(58) The intervention of the State alters the existing market conditions by allowing the provision of wholesale backhaul services by the selected electronic communication operator and, potentially, third party providers. Furthermore, the measure will alter the conditions of competition between end users who are likely to subscribe to the very high speed broadband services in the targeted areas and end users elsewhere in Ireland and the EU. Therefore, the fact that an improved broadband service becomes available has the effect of distorting competition.

**Effect on trade**

(59) Insofar as the intervention is liable to affect providers of electronic communications services from other Member States, the measure has an effect on trade. The markets for electronic communications services are open to competition between operators and service providers, which generally engage in activities that are subject to trade between Member States. Moreover, the measure has the potential to distort competition between end users located in the municipalities and elsewhere in the EU.

**Conclusion**

(60) The Commission therefore concludes that the notified aid measure constitutes State aid within the meaning of Article 87(1) EC Treaty. Having established that the project involves aid within the meaning of Article 87(1) EC Treaty, it is necessary to consider whether the measure can be found to be compatible with the internal market.

V. **ASSESSMENT OF THE MEASURE: COMPATIBILITY**

V.1. **The balancing test and its application to aid for the broadband network deployment**

(61) As described in paragraphs 34 and 35 of the 2009 Broadband Guidelines, in order to assess whether a measure is compatible with the internal market, the Commission balances positive and negative effects of the aid according to the criteria set out in the Guidelines. In applying the balancing test, the Commission will assess the following questions:

1. Is the aid measure aimed at a well-defined objective of common interest (i.e. does the proposed aid address a market failure or other objective)?
2. Is the aid well designed to deliver the objective of common interest? In particular:
   a. Is the aid measure an appropriate instrument?
   b. Is there an incentive effect, i.e. does the aid change the behaviour of firms?
Is the aid measure proportional, i.e. could the same change in behaviour be obtained with less aid?

(3) Are the distortions of competition and the effect on trade limited, so that the overall balance is positive?

V.2. Objective of the measure

The aid is in line with the EU policy

(62) The current measure targets areas where no NGN broadband coverage is currently available and where there are no plans by private investors to roll out such infrastructures in the near future of three years. Hence the objective of the measure is in line with the Digital Agenda\textsuperscript{24} which calls Member States to use public financing in line with EU competition and State aid rules in order to meet the coverage, speed and take-up targets defined in Europe 2020 Strategy\textsuperscript{25}. Therefore the measure at stake pursues well defined EU policy objectives also in line with Section 3.1 of the Broadband Guidelines.

Aid is the appropriate instrument

(63) Important measures have been explored by Ireland recently as regards facilitative measures for NGA deployment, including a review of existing spectrum policy, the removal of barriers to infrastructure roll-out, demand stimulation, and the identification of targets deliverable on a commercial basis.\textsuperscript{26} However, in the situation currently under assessment, for the specific targeted areas, the efforts from alternative instruments (including \textit{ex ante} regulation) do not solve the problems related to the lack of supply (lack of NGA networks and unavailability of backhaul networks open to third parties) of high speed broadband in the targeted areas and would fail to deliver the wider economic benefits of a widespread next generation broadband network. In line with paragraphs 47 and 48 of the 2009 Broadband Guidelines, in order to ensure the supply of high-speed broadband services, the Irish authorities see no alternative but to grant public aid to the construction of NGN broadband networks in the targeted areas of the country.

(64) The Commission can agree that without further public intervention, avoiding the emergence of a new "digital divide" between rural and urban areas seems not possible, which could lead to the economic and social exclusion of the local citizens and undertakings. Hence in the current situation, State aid is an appropriate instrument to achieve the set objectives.

The aid provides the right incentives to operators

(65) Regarding the incentive effect of the measure, the 2009 Broadband Guidelines set out in paragraph 50 that it needs to be examined whether the broadband network investment concerned would not have been undertaken within the same timeframe without any State aid. The lack of a (very) high speed broadband network in the targeted areas (as confirmed

\textsuperscript{24} A Digital Agenda for Europe. COM/2010/0245 f/2.
\textsuperscript{25} The Europe 2020 Strategy has underlined the importance of broadband deployment to promote social inclusion and competitiveness in the EU. It restated the objective to bring basic broadband to all Europeans by 2013 and seeks to ensure that, by 2020, (i) all Europeans have access to much higher internet speeds of above 30 Mbps and (ii) 50% or more of European households subscribe to internet connections above 100 Mbps.
\textsuperscript{26} See page 8: \url{http://ec.europa.eu/information_society/digital-agenda/scoreboard/countries_2012/information_society/_bin12/pdf/IE_Country_Chapter_17th_Report.pdf}
by the coverage mapping and public consultation) and the open tender approach guarantee that the aid should provide a direct and appropriate investment incentive for the selected operator.

V.3. Design of the measure and the need to limit distortions of competition

(66) Pursuant to Ireland, low population density, demographic patterns and geographical challenges have resulted in reluctance by service providers to invest in the mid-west region of Ireland. Despite public investment in the MANs Programme and National Broadband Scheme, it seems that there is still a service deficit in the mid-west region of Ireland. The lack of NGA networks of dark fibre or duct infrastructure available for third party service providers is preventing the development of competition among service providers.

(67) For the purpose of a competition assessment, the duct can be divided in several sections. The duct between Ballymoneen and Crossmolina and the duct from the main trunk to Westport - having a number of connectivity points along the network and spurs to a number of nearby towns – enhance interconnectivity of operators with other operators at diverse locations. In this regard, all the telecommunications users and operators should benefit from this infrastructure. Bringing into use a backhaul fibre network between Crossmolina and Bellanaboy (where the Shell plant is located) would allow telecoms operators to bring the benefits of improved telecommunications to districts with 4 119 people in this remote part of Ireland. Between Bellanaboy and Belmullet, there are in principle no residential and business users, but there are such users in Belmullet and its surroundings. For the section between Belmullet and the sea coast, the Emerald Atlantis project and the National Research Centre for Wave Energy would be the only major beneficiaries.

(68) There already exist backhaul networks for basic and NGA broadband in the same target areas, especially the incumbent's network. As the project at stake is a backhaul infrastructure, its impact on competition in the following two infrastructures needs to be assessed: 1/ backhaul networks, 2/ access networks.

1/ Backhaul networks

(69) As this is a backhaul network project, the Commission considers that the competition assessment should be made primarily at the level of backhaul networks.

(70) Between Crossmolina and the sea coast, the existing backhaul infrastructure and the new backhaul network of the gas pipeline are fully complementary. Around that section no backhaul infrastructure exists. This is therefore a white NGN area. It would not be possible to bypass eircom's existing infrastructure by using only the new one. Between Ballymoneen and Crossmolina and between the main trunk and Westport, there exist backhaul networks of operators who provide only managed bandwidth services and do not provide leased dark fibre or duct on the backhaul or backbone networks. In line with paragraph 26, where there already exists one backhaul network (grey backhaul area) and no NGA network is connected to it, the subsidised infrastructure can be used to offer backhaul services for the deployment of an NGA network connected to the subsidised
infrastructure provided that NGA capable access is deployed. However, where managed bandwidth services are already provided in a satisfactory manner on the existing backhaul network, such services cannot be provided over the subsidised infrastructure. The new infrastructure would therefore enable the deployment of NGA networks which are not available today nor planned. It would therefore constitute a step change in terms of NGA deployment compared to the current situation, in line with the requirements of paragraph 51 of the 2013 Broadband Guidelines.

(71) Furthermore, the funding of backhaul network open for access to all operators and technologies, as confirmed in the paragraph 81 of the Broadband Guidelines, exhibit especially pro-competitive features.

**Pro-competitive nature of the project**

(72) The wholesale provision of services is not aimed to develop an access network but only a transport backhaul network. Use of the transport network is a necessary input for telecommunication operators to deploy NGA networks with which they can provide (high speed and very high speed) access services to the end users. The operator of the new network will offer access to wholesale products (such as ducts, dark fibre) on a regulated basis. Construction of backhaul networks is generally a measure that fosters competition and investment and, for NGA networks, encourages third party operators to rollout last mile infrastructures capable of supplying advanced connectivity services to end-users. Backhaul networks have the potential to stimulate competition on all access technologies, while leaving the bulk of the investments to connect end-users to private operators.

2/ Access networks

(73) While this is only an NGN (backhaul) and not an NGA (access) network, it still could have some impact on competition on the access market. In practice, an appreciable effect should only arise for communication between users who are close to the new duct network.

(74) The backhaul infrastructure concerned will be excluded from use for connecting access networks in those towns where the NGA service is available and the circuits are being directly used for NGA retail access (Castlebar, Westport, Ballina, Tuam, Claremorris and Ballinrobe).

(75) Backhaul networks are "hybrid networks" in the sense that they are able to sustain both basic and NGA types of networks: it is the (investment) choice of the telecommunication operators what type of 'last mile' infrastructure they wish to connect to the backhaul network. In particular, operators could decide to use ADSL or wireless solutions (i.e. basic broadband infrastructures), but they could also opt for rolling out, for example, an FTTH architecture (i.e. an NGA infrastructure).

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27 Access prices will be fixed in line with the Broadband Guidelines. The proposals on wholesale access pricing will be included in the tender and will be evaluated as one of the criteria in selecting the MSA.
Hence from a competition point of view, the possible distortion resulting from the deployment of subsidised backhaul networks shall be assessed on two levels: (1) the level of basic broadband networks and (2) the level of NGA networks, in line with the distinction made in the Broadband Guidelines.

With respect to (1), the measure could cause distortions of competition in those localities in which market forces seem to work adequately to provide basic broadband services to citizens. In these areas, public intervention would not be justified for the deployment of additional basic broadband networks, since it would not address a market failure (as competitive basic broadband providers exist), it would not bring any significant benefits for the targeted areas (as citizens would receive the same level of services), state aid would not have any incentive effect and it could crowd out private investments.

As regards point (2), i.e. concerning NGA networks, according to the information submitted by the Irish authorities, the target areas have to be considered a white NGA area: even where the incumbent's backhaul infrastructure is present, the access infrastructure is not yet upgraded nor will it be in the next three years (in the target areas no credible investment plans have been reported by the Irish authorities)28.

The system of conditional market access to the planned network for NGA white and traditional black areas

To alleviate these different concerns, a system of conditional market access to the planned backhaul network infrastructure will be applied.

The target areas comprise localities which are in an NGA white area and a competitive retail market. These localities constitute black areas from the point of view of traditional broadband.

Although several broadband infrastructures exist in the municipalities belonging to the target areas, according to the Irish authorities, no operator has plausible commercial plans to upgrade its infrastructure to an NGA network in the near future of three years. Concerning basic broadband services, based on the information provided by the Irish authorities, it seems that these areas are served by at least two competing infrastructures or ULL operators, hence there is no evidence that these services are not offered at competitive conditions.

Accordingly, in the municipalities belonging to the target areas, the Irish authorities will allow third operators to connect to the planned backhaul network only if they deploy NGA capable 'last mile' infrastructures.

The Commission therefore considers that the potential for a distortion of competition on the basic broadband services market is limited. This conclusion is also supported by the fact that no concerns had been raised in this regard during the public consultation.

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28 As indicated above, in area covered by the subsidised backhaul network where a NGA network already exists and there are no indications that it is not sufficient to satisfy the needs of citizens and business (Castlebar, Westport, Ballina, Tuam, Claremorris and Ballinrobe), no access operator will be able to connect to the subsidised backhaul network. Such areas will therefore be excluded from the access target areas.
The other proportionality conditions of the Broadband Guidelines

(84) In order to minimise the State aid involved and the potential distortions of competition, the notified measure has to meet a number of necessary conditions.

(a) Market research and consultation: The market consultation was done after a large part of the network had already been built. The building of the telco ducts was a last minute decision taken when the pipeline was being built. In general, this is in line with Commission policy which, for the sake of cost savings, encourages the co-building of telco infrastructure with other civil works. So far, that infrastructure has not been used. However, as it is now envisaged to economically exploit these installations, a State aid approval was requested.

As set out in detail above, the Irish authorities undertook a detailed analysis of the existing broadband infrastructure in order to clearly identify the areas where state intervention is necessary. The consultation with existing operators in an open, transparent way ensures that public funds are used only in areas where private investments do not exist and they are not planned in the near future. By conducting in parallel an analysis of the competitive conditions and structure prevailing in the given areas and consulting with all stakeholders affected by the relevant measure the Irish authorities ensure to minimise distortions of competition with regard to existing providers of basic broadband who had plans to invest in the near future in the area and also to those who are currently using the existing basic infrastructure. The Commission concludes that the detailed market research and mapping together with the wide public consultation conducted by the Irish authorities will limit any potential distortion of competition vis-à-vis existing operators and reduce the amount of State aid required for the measure.

(b) Open tender process: Part of the network was already built by BGE, a state owned company, although it was not yet used or operated in any way. The operator which will complete and operate the backhaul network will be selected through a tender procedure. The Irish authorities will select the preferred bidder for the construction and the management of the network in an open, non-discriminatory and competitive tender procedure in full compliance with national and EU public procurement principles. This procedure has the effect of maximising the effect of the aid provided while minimizing any potential advantage granted for the selected operator.

(c) Most economically advantageous offer: Within the context of an open tender, the Irish authorities will select the most economically advantageous offer among those presented by the operators. Under the terms of the open tender procedure, the bidder with the lowest amount of aid requested will receive more priority points within the overall assessment of the bid. Furthermore, in line with footnote 55 of the 2009 Broadband Guidelines, for the purposes of determining the most economically advantageous offer, the awarding authority will specify in advance the relative weighting which it gives to each of the (qualitative) criteria chosen.

(d) Technological neutrality: The measure does not favour ex ante any technology or network platform leaving it to commercial operators to come up with the most
appropriate technological solutions to provide very high speed broadband services to end users. Bidders are entitled to propose the provision of the required broadband services using or combining whatever technology they deem most suitable.

(e) **Use of existing infrastructures:** To avoid unnecessary and wasteful duplication of resources, the Irish authorities encourage the use of existing infrastructure and facilitate their inventory as described above. Bidders will be given the possibility to contribute their infrastructure to the notified project, which possibility includes the use of the products from eircom that are available under the Ireland's regulatory framework. The use of existing infrastructure could allow bidders to reduce their investment costs and it does not favour the incumbent.

(f) **Wholesale access:** The selected operator will have to offer wholesale services and access to the subsidised network to other operators for the whole duration of the contract, i.e. fifteen years. The selected operator will have to offer other operators access to a network element or to the capacity of the network in an open, transparent and non-discriminatory manner. The wholesale access enables third party operators to compete with the selected bidder (when the latter is also present at the retail level), thereby strengthening choice and competition in the areas concerned by the measure while at the same time avoiding the creation of a regional service monopoly.

(g) **Benchmarking pricing exercise:** In order to ensure effective wholesale access and to minimise potential distortion of competition, access wholesale prices should be based on the average published (regulated) wholesale prices that prevail in other comparable, more competitive areas of the country and the EU.

(h) **Monitoring and claw-back mechanism to avoid over-compensation:** The project will be examined on a regular basis and the monitoring mechanisms implemented will ensure that any extra profit generated through the operation of the network will be clawed back. Thereby the Irish authorities ensure that the recipient of the aid will not benefit from overcompensation and will minimise retroactively the amount of aid deemed initially to have been necessary.

(85) Concerning the conditions laid down in paragraph 79 of the 2009 Broadband Guidelines, the Irish authorities proved that the following conditions are met:

(a) The access obligations imposed on the chosen operator include access to both passive and active infrastructure for at least seven years without prejudice to any similar regulatory obligations that may be imposed by the NRA. The access obligation imposed also includes the right to use ducts in order to allow third parties to have access to passive and not only active infrastructure. This is without prejudice to any similar regulatory obligations that may be imposed by the NRA in the specific market concerned in order to foster effective competition or measures adopted after the expiry of that period.

(b) In setting the conditions for wholesale network access, the Irish authorities consulted the NRA.

(86) Concerning the requirements introduced by the 2013 Broadband Guidelines, the Commission notes the following:
(a) As indicated above, the new infrastructure will enable the deployment of NGA networks (not basic broadband access networks) in areas where they are not available today nor planned. It would therefore constitute a step change in terms of NGA deployment compared to the current situation, in line with the paragraph 51 of the 2013 Broadband Guidelines.

(b) Concerning the transparency requirement as defined in the paragraph 78 (j) of the 2013 Broadband Guidelines, the Irish authorities will publish all information relative to the aid measure on their Department of Communications website. Furthermore, the aid beneficiaries will be obliged to provide entitled third parties with comprehensive and non-discriminatory access to information on its infrastructure deployed under the State aid measure in conformity with paragraph 78 (f) of the 2013 Broadband Guidelines.

(c) Regarding the reporting obligation the Irish authorities will submit reports to the Commission on the implementation of the measure every two years from the date the network is put in use. Hence, the Irish authorities fulfil the requirements set in the paragraph 78 (k) of the 2013 Broadband Guidelines.

V.4. The distortions of competition and the effect on trade are limited, so that the overall impact of the measure is positive

(87) The Commission concludes that the notified measure will offset a geographical and commercial handicap and is objectively justified to address the lack of availability of very high speed broadband services due to the commercial unattractiveness of deploying NGN networks.

(88) Various elements suggest that on balance, the positive effects of the project are more significant than the negative ones. First and foremost, the project will bring high speed broadband to a less populated region of Ireland. Furthermore, this project funds a backhaul network which is operated at the wholesale level and which provides open access to all operators and technologies. It therefore has procompetitive features. In addition, significant savings were made by constructing the duct along with the gas pipeline. Moreover, no NGA network exists nor is planned in the target areas and the operators of the existing backhaul infrastructure (based on fibre technology) do not give access to their NGN networks to third party operators who might wish to deploy an NGA network.

(89) In view of the characteristics of the project and of the safeguards applied by the Irish authorities, the overall impact on competition is deemed to be positive.

(90) On balance, the Commission concludes that the overall effect of the measure is deemed to be positive. The measure is in line with the objectives of Article 87(3)(c) EC Treaty as it facilitates the development of certain economic activities (high speed broadband services) in certain remote and rural areas. The intervention is designed in a way that does not distort competition or adversely affect trading conditions to an extent contrary to the common interest.
V.5. Conclusion

(91) The Commission concludes that the compatibility criteria set out in the Broadband Guidelines are met, hence the aid involved in the notified measure is compatible with Article 87(3)(c) EC Treaty in conjunction with the 2009 Broadband Guidelines. In view of the duration of the scheme, the Commission would like to draw the Irish authorities' attention to the revisions of the 2009 Broadband Guidelines, which might make appropriate measures to the scheme necessary.

VI. CONCLUSION

(92) The Commission regrets that Ireland put the aid in question into effect, in breach of Article 88(3) EC Treaty. However, it has decided, on the basis of the foregoing assessment, to consider the aid compatible with Article 87(3)(c) EC Treaty.

(93) The Irish authorities are reminded that, pursuant to Article 108(3) TFEU, they are obliged to inform the Commission of any plan to extend or amend the measure.

(94) If this letter contains confidential information which should not be disclosed to third parties, please inform the Commission within fifteen working days of the date of receipt. If the Commission does not receive a reasoned request by that deadline, you will be deemed to agree to the disclosure to third parties and to the publication of the full text of the letter in the authentic language on the internet site:


(95) Your request should be sent by encrypted e-mail to stateaidgreffe@ec.europa.eu or, alternatively, by registered letter or fax to:

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Yours faithfully,

For the Commission

Joaquín ALMUNIA
Vice-President