



**Brief Of Evidence  
Oral Hearing 17<sup>th</sup> January 2007**

**M3 Clonee to Kells Motorway  
Draft Toll Scheme**

**Tolling  
- National Context, Project Strategy and Statutory Procedures**

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Appendix 1 Proposed toll charges set out in the Draft Toll Scheme, updated to 2007

# **1. National Context**

## ***1.1 National Roads Authority***

The National Roads Authority (NRA) was formally established under the Roads Act, 1993, with effect from 1 January, 1994. The NRA's primary function under section 17 of the Act is "to secure the provision of a safe and efficient network of national roads." In exercising this function, the NRA has regard to the Government's overall strategy for the improvement of national roads.

## ***1.2 Public Private Partnerships in the NDP***

In November 1999, the Government published the National Development Plan 2000 – 2006 (NDP) which set out the largest road development programme in the history of the State at that time. The NDP stated (section 4.102) that "PPPs are an important element within the overall investment planned under the National Development Plan 2000-2006, particularly under the Economic and Social Infrastructure Operational Programme."

In June 2000, the Authority published its planned programme of PPP projects, which included the M3 Clonee-Kells scheme, to achieve the objectives of the NDP.

## ***1.3 National Roads Funding***

The importance of the national road network and the need to provide improvements to cater for existing and forecast travel demand formed the rationale for the planned funding in both the NDP and the subsequently published Transport 21 and have been referenced in a wide range of reports from various organisations such as the Enterprise Strategy Group, the National Competitiveness Council, Forfas and the OECD. The views of some key bodies are quoted below:

*"Weak infrastructure in the regions presents a barrier to their economic development. The key mechanism for enabling regional development is to enhance their infrastructure. Regions will attract enterprise only if they have the infrastructure and facilities that allow them to compete with Dublin and international regions for trade and investment."*

*Source: Enterprise Strategy Group, 'Ahead of the Curve - Ireland's Place in the Global Economy' July 2004.*

*"There is also considerable evidence that the under-provision of economic and technological infrastructure, such as transport, energy, communications and research facilities, is holding back growth in productivity and living standards in Ireland. The NCC welcomes the ongoing improvements being made to Ireland's physical infrastructure under the current National Development Plan, and the commitment from government to spend five per cent of GNP on capital projects into the medium-term."*

*The Competitiveness Challenge 2004, National Competitiveness Council, September 2004.*

*“In a recent survey, more than half of Irish businesses felt that the poor quality of road infrastructure was having a negative impact on their operations”.*

*Source: Enterprise 2010 - A New Strategy for the Promotion of Enterprise in Ireland in the 21st Century, Forfas 2000.*

*“Bottlenecks in physical infrastructure such as housing, transport and environmental services are fueling inflation and constraining future growth”.*

*Source: Regulatory Reform in Ireland, OECD, April, 2001.*

The analysis of the above bodies and also that of organisations such as the World Economic Forum has been that a lack of substantial investment in the national road network would have serious economic and social implications and would adversely affect the competitiveness of the Irish economy.

To support the efficient delivery of the NDP programme the Government announced in December 2003 a rolling five year multi-annual funding programme for national roads. This multi-annual allocation allowed the NRA to plan over a five year horizon the publication of statutory documents, the acquisition of land and the awarding of construction contracts.

Building on the commitments in the NDP, the Government announced Transport 21 in November 2005 which extends the funding commitment for national roads out to the year 2015.

Transport 21 provides for a total transport investment, for roads and public transport, of €34.4 billion up to the year 2015 - €26.4 billion from the Exchequer, €6 billion from PPPs and €2 billion from the toll roads programme. Transport 21 is split approximately evenly between roads and public transport with €16.5 billion planned to be invested in national roads over the period 2006 to 2015.

#### ***1.4 Transport 21 Planned Road Investment***

Transport 21 for national roads comprises:

- the completion of five major inter-urban routes - Dublin to the Border, to Galway, to Cork, to Limerick and to Waterford - to motorway/dual carriageway standard;
- major dual carriageway/motorway improvement works on the N2, N3 and the N11;
- completion of city bypasses in Limerick and Waterford;
- development of the Atlantic Road Corridor from Letterkenny through Limerick to Cork and Waterford
- completion of the M50 upgrading and the Dublin Port Tunnel;
- major improvements of national primary and secondary routes of particular importance to economic development; and

- road safety as a high priority.

### ***1.5 Private Sector Finance***

The NDP identified that an additional funding source is needed in order to deliver the large investment required in the national roads network. Under the previous 1994-1999 national plan, a substantial part of the funding came from EU sources, mainly in the form of cohesion and structural funds which accounted for approximately 55% of total funding. As envisaged at the time of publication of the current NDP the portion of EU funding would fall to only 13% of the total national roads programme set out in the plan – in reality it has turned out to be a much smaller percentage.

Irish Exchequer funding was substantially increased in the NDP but even this increased level of Exchequer funding was by itself insufficient to deliver all of the infrastructure projects identified. In order to complete the full programme of planned road construction, the Government identified the need for private sector funding of €1.27 billion in the NDP.

The vehicle for this private sector funding is the tolling of certain roads generally within the framework of a Public Private Partnership arrangement. This private finance is additional to Exchequer and EU funds and thus accelerates the commencement and completion of the various projects.

Private finance has been vital for the delivery of roads identified in the NDP programme and will also be a critical element in Transport 21 in that 12% of investment, i.e. approximately €2 billion, out to 2015 will have to be generated from tolling.

## **2. Public Private Partnerships**

### **2.1 General Overview**

The Authority considers that the PPP approach will:

- help deliver better value for money through the cost effective transfer of risk to the private sector;
- enable the provision of much needed infrastructure by providing a mechanism to attract private finance to supplement exchequer funding;
- facilitate private sector innovation in areas of scheme design, construction and long term operations;
- assist with the earlier delivery of road projects that otherwise would not be possible under the conventional roads programme;
- release Exchequer funding to allow the development of other important projects which do not have the capacity to attract significant private sector funding, and
- ensure long-term operation and maintenance of new assets to a high standard.

PPPs in various forms are being used successfully throughout the world in the areas of roads, water supply, waste management and facilities provision as a means of providing vital public infrastructure in a cost efficient and timely manner. In the case of the Authority's ongoing PPP roads programme, the three projects completed and operational have been delivered between 5 and 10 months ahead of schedule and at fixed cost.

### **2.2 NRA's PPP Programme**

The proposed 10 PPP schemes (inclusive of the pilot projects) identified to date form an integrated coherent strategy of tolling of sections of motorways, high-quality dual carriageways and also major river/estuarial crossings. Such schemes guarantee a high quality route offering a greatly improved service for road users and the certainty, on opening, of significant traffic volumes. These factors are critically important for attracting private investment into projects on the basis of projected toll revenues and an acceptable rate of return on investment.

A number of key principles underpin the NRA's PPP programme:

1. *An alternative toll-free route shall be available for road users.* While the NRA proposes to develop toll charges that are at an affordable level, certain users may wish to forego the improved service and shorter journey time and remain on existing roads.
2. *Toll roads should be spread across the main national routes being provided under the NDP/Transport 21 in order to create a distribution of user-charging on the newly constructed network.*

3. *A road project needs to be of sufficient size in order to produce value for money when using the PPP process.*
4. *Where necessary, a public subsidy will be considered for high cost schemes, which cannot be financed solely from tolls.*

The PPP schemes are distributed on the following main routes, into which substantial investment is being made:

**Dublin – Border (M1)**  
**Galway to Dublin (N4/N6)**  
**Cork to Dublin (N8)**  
**Limerick to Dublin (N7), and**  
**Dublin-Cavan (N3).**

In addition to these key routes, the PPP schemes include a number of large bypass projects in the cities of Dublin, Limerick and Waterford.

*Under the approach proposed by the NRA, toll roads are additions to the current network of national roads rather than on-line improvements of existing roads. This is a key factor in ensuring that road users have a toll-free alternative available.*

### **2.3 M3 Clonee to Kells Motorway Details**

The proposed toll road is part of a larger road building development, called the M3 Clonee to North of Kells Scheme, The total length of the proposed toll motorway is 47km approximately and is to be linked by ancillary roads with the existing road network through grade separated junctions at Pace, Dunshaughlin, Blundelstown, Kilcarn, Athboy Road and Kells. The full scheme includes also national road improvements consisting of:

- 2km of new N3 dual carriageway at the southern end;
- 10km of new N3 single carriageway road from Kells to Carnaross, and
- 3.5km Kells N52 Bypass.

Five major link roads, totalling 15km in length, are to be provided to connect the new national road to the existing road infrastructure. Of these five link roads, two are dual two-lane and three are single carriageways. Associated with the scheme are many km of local/regional road realignments/improvements and also over 100 structures, consisting of 62 bridges and various culverts and retaining walls. This scheme is the largest single road scheme planned under the NDP and Transport 21 with over 110km of public road to be constructed.

### **2.4 Strategic Importance**

The Scheme is a vital road improvement scheme on the N3 national primary route which provides a strategic link between Dublin and the Northwest, with connections to Clonee, Dunshaughlin, Navan, Kells and Cavan. It is identified as a Strategic Radial Corridor in the National Spatial Strategy and is:

- an objective of the NDP and Transport 21;
- an objective of the Meath County Council Development Plan;
- referenced in the Dublin Transportation Office "A Platform for Change" Strategy 2000-2016, and
- referenced in the Strategic Planning Guidelines for the Greater Dublin Area.

In general overview, the M3 Scheme is urgently required in order to deliver the following benefits:

- The extension of motorway standard road from Clonee to Kells, thereby significantly improving road transport connections between the west/north west and the east of the country;
- Bypasses of Dunboyne, Dunshaughlin, Navan, Kells and smaller communities;
- Aid to competitiveness and efficiencies in the economy of County Meath and other counties served by the N3/M3 route, particularly through reduced transport costs and reduced journey time variance, and
- Removal of substantial through traffic from the local road network, thereby improving environmental standards and safety.

The toll revenues generated on the scheme will facilitate the following:

- a) Defraying for the Exchequer of the capital cost of the new road;
- b) Operation and maintenance of the completed road, and
- c) Re-investment in the road at the appropriate life-cycle intervention stages.

## **2.5 Funding**

Substantial funding for the scheme will be provided by the private sector under the PPP approach, and accordingly the project has not been included in that element of the national roads programme that is funded in a conventional manner i.e. exclusively from Exchequer resources and, where appropriate, EU aid. The only available EU funding for the scheme has been a sum of €2.9 million to support its design and planning.

The NRA proposes to enter into a PPP agreement with a company who will be required to carry out the works through a Design/Build/Finance/Operate arrangement. This will encompass a long-term concession period during which the company will recoup some or all of the up-front construction costs and on-going operation/maintenance costs through the collection of tolls. The company will be required also to invest in the facilities at the end of the concession period, prior to hand-back to the public sector, in order to provide a satisfactory residual life.

The PPP designation of the M3 Motorway in the year 2000 and the anticipated provision of private sector funding on the basis of toll revenues has enabled the commitment to construct this road on completion of statutory procedures. It

also has made it possible to simultaneously progress construction of other important projects which are included in the overall roads programme. The NRA considers that the scheme will deliver time-savings, journey time certainty, and an overall high level of service to users for the toll charge levied. Users will therefore derive identifiable benefits from their use of the tolled road, but at all times will continue to have available existing untolled routes. The provision of the motorway is an expansion of current route choice options.

### **3. Proposed Toll Strategy and Charges**

#### **3.1 Tolling arrangement**

The road scheme is broadly symmetrical on its a north/south axis around the town of Navan. The Navan area generates traffic movements to and from Dublin and also to and from the northwest. The traffic modelling for the scheme showed that only a **quarter** of the traffic travelling at the southern end of the scheme would pass through the northern end of the scheme.

Early examination of tolling options showed that, due to this distribution of traffic between the northern and southern extremities of the scheme, providing two toll plazas approximately 35km apart either side of Navan, would allow for toll charges that would be efficient in generating revenue while reducing diversion levels. The diversion effect of the final charging strategy is examined in more detail in section 3.3 below.

The location of interchanges at Kells, Athboy, Kilcarn, Blundelstown, Dunshughlin and Pace in conjunction with the tolling arrangements set out in the Draft Toll Scheme allows for free movements on the planned infrastructure as follows:

- the Navan bypass between the Athboy and Blundelstown interchanges;
- the N3 bypass of Carnaross, and
- the N52 bypass of Carnaross;

In addition a road user can choose to avail of one toll section, return to the existing untolled network to continue the journey and not avail of the second tolled section.

#### **3.2 Charges**

The NRA's national strategy is to devise tolls at a level consistent with the twin objectives of deriving revenue while encouraging usage of the tolled road and delivering a scheme's principal transportation and environmental benefits.

In the case of the Clonee scheme, the charges have **not** been set at levels that would maximise revenue. The toll charges proposed are significantly below the charges that would maximise revenues – a toll charge sensitivity analysis indicated that a 20% higher car charge at the Southern plaza and at certain interchange ramps would increase revenues by the order of 25%. Notwithstanding this potential for higher revenues, the NRA proposed instead to apply lower toll charges in order to reduce the diversionary effect.

I have included in Appendix 1 the toll charges updated to their 2007 levels for information.

The charges proposed for each plaza on the scheme are less than the charges adopted by the NRA in Toll Schemes for the Waterford Bypass, the Fermoy Bypass, the Limerick Tunnel, the M1 Motorway at Drogheda and the Galway-Ballinasloe scheme. The 2007 car toll charge proposed is €1.30 inclusive of VAT compared to the current €1.70 on the M1 at Drogheda and the Fermoy Bypass.

The total charge incurred by a road user in travelling through the two plazas in the same direction would be equivalent to the charge on the M4 Kilcock-Kinnegad motorway i.e. €2.60. The charge through each plaza would be half of the M4 charge.

All VAT registered users would be entitled to reclaim the VAT payment. Thus it would be anticipated that all goods vehicles and also VAT registered business travellers in private cars would avail of this recouping which would have the further effect of reducing the effective cost of the tolls charged.

### 3.3 Traffic Analysis

The forecast annual average daily traffic flows on various sections of the new M3/N3 between Clonee and Kells are shown in the table below for the un-tolled and tolled scenarios for the years 2006 and 2024. The diversion is calculated by dividing the difference between the 'with tolls' and 'without tolls' flows by the 'without tolls' flow.

**Table 1: Predicted AADT flows on the new M3/N3  
(rounded to the nearest 100 vehicles)**

		2006		2024	
<b>Clonee to Pace</b>	Untolled	30,500		65,100	
	Tolled	28,800		64,400	
	Diversion		5.6%		1.0%
<b>Pace to Dunshaughlin (location of southern plaza)</b>	Untolled	26,100		57,600	
	Tolled	22,800		54,700	
	Diversion		12.6%		5.0%
<b>Dunshaughlin to Blundelstown</b>	Untolled	19,700		45,300	
	Tolled	17,400		44,000	
	Diversion		11.7%		2.9%
<b>Blundelstown to Kilcarn</b>	Untolled	24,000		53,800	
	Tolled	22,700		53,100	
	Diversion		5.4%		1.3%
<b>Kilcarn to Athboy</b>	Untolled	9,600		30,400	
	Tolled	9,600		30,200	
	Diversion		0%		0.7%
<b>Athboy to Kells (location of</b>	Untolled	16,900		34,900	
	Tolled	13,900		30,300	

<b>northern plaza)</b>					
	Diversion		17.8%		13.2%

The expected reduction in the diversion from 2006 to 2024 is largely due to the anticipated real increase in people’s value of time. This arises because the value of time can be expected to increase in real terms, in line with economic growth over and above the level of inflation.

As can be seen from Table 1 the greatest predicted diversion in the year 2006 is 18% at the northern plaza which reduces to 13% in the year 2024.

The traffic anticipated through the southern plaza is predicted to be between 60% to 80% higher than that through the northern plaza in the 2006-2024 period. Diversion at the southern plaza is predicted to be lower than that at the northern plaza and will be between 13% and 5% over the same period.

An analysis was also made of the volumes and proportion of traffic that is forecast to pass through one or both toll plazas. The results are shown in Table 2 below for 2024 in the ‘without tolls’ and ‘with toll’ cases.

**Table 2: Summary of Forecast Traffic at M3 Toll Plazas in 2024**

Passing Through	No Tolls			Toll		
	AADT 2024			AADT 2024		
	This Plaza Only	Both Plazas	Total	This Plaza Only	Both Plazas	Total
<b>Proposed North Toll Plaza (Kells-Athboy Road)</b>	21,000 (60%)	13,900 (40%)	34,900	17,300 (57%)	13,000 (43%)	30,300
<b>Proposed South Toll Plaza (Dunshaughlin-Pace)</b>	43,700 (76%)	13,900 (24%)	57,600	41,700 (76%)	13,000 (24%)	54,700

The results predict that of the 30,300 passing through the north toll plaza, approximately 40% will also pass through the south toll plaza (and pay the toll at the two plazas). Of the 54,700 passing through the south toll plaza, approximately one quarter will also pass through the north toll plaza (and pay the toll at the two plazas).

In 2024, of the 72,000 toll users paying the proposed M3 tolls, 59,000 users will pay tolls at the rates set for one plaza and 13,000 users will pay the cumulative rates for two plazas, that is 82% of users will pay the single plaza charge. Applying this broadly to car users, 82% of users will pay the €1.30 charge (indexed) rather than the €2.60 charge (indexed). As pointed out

earlier the €1.30 charge is the lowest planned car toll on the national roads network.

### 3.4 **Traffic in the period since 2002**

Since the publication of both the Environmental Impact Statement and the Draft Toll scheme, both of which incorporated the same traffic modelling work, traffic volumes have been measured on the existing N3.

Table 3 below summarises the observed traffic compared to predicted traffic.

**Table 3: Comparison of actual 2005 AADT flows vs predicted flows**

NRA Monitoring Site	Light Vehicle Flow (AADT)			Heavy Vehicle Flow (AADT)		
	1999	Observed 2005	Predicted 2005	1999	Observed 2005	Predicted 2005
N3 North of Navan	8,709	12,083	11,505	872	1,180	1,045
N3 South of Navan	12,578	17,540	16,615	1,214	1,504	1,455

Table 3 illustrates the robustness of the traffic predictions which for light vehicles, approximately 90% of the traffic, are in the range of 5% of observed traffic. The typical growth in the period 1999 to 2001 was much higher than in more recent years and the observed and forecast trends could converge even closer in the longer run.

## **4. Statutory Procedures**

### **4.1 *Statutory Procedures***

Section 57 of the Roads Act, 1993, as amended by section 271 of the Planning and Development Act, 2000, provides the statutory basis for the making of a Draft Toll Scheme by the NRA.

In preparing the Draft Toll Scheme, the NRA gave special consideration to the possible exemptions referred to in Section 57(2). The section requires the preparation of an Explanatory Statement, to accompany the Draft Toll Scheme, outlining the provisions of the Scheme and its purpose and effect. Publication and notification requirements have been complied with and copies of advertisements have been provided to the Inspector.

### **4.2 *Objections to Draft Toll Scheme***

A total of 4 objections were submitted in writing to the NRA.

### **4.3 *Oral Hearing***

Public notification of this Oral Hearing was placed in the Irish Times and the Irish Independent on 14<sup>th</sup> December 2006.

## **APPENDIX 1**

### Proposed Toll charges set out in the Draft Toll Scheme updated to 2007

**TABLE A: Amounts of the tolls proposed to be charged at each of the two toll collection locations**

<b>CLASS OF TRAFFIC</b>	<b>2007 Toll Charge in € inclusive of VAT@21%</b>
Motor Cycles (exceeding 50cc)	0.70
Motor Cars	1.30
Buses or Coaches	2.00
Goods Vehicles with a design gross vehicle weight not exceeding 3,500 kilograms	2.00
Goods Vehicles with a design gross vehicle weight exceeding 3,500 kilograms and having two or three axles	2.60
Goods Vehicles with a design gross vehicle weight exceeding 3,500 kilograms and having four or more axles	3.20

**TABLE B: Cumulative toll charges proposed where a user passes through both of the toll collection locations in the same direction of travel**

<b>CLASS OF TRAFFIC</b>	<b>2007 Toll Charge in € inclusive of VAT@21%</b>
Motor Cycles (exceeding 50cc)	1.40
Motor Cars	2.60
Buses or Coaches	4.00
Goods Vehicles with a design gross vehicle weight not exceeding 3,500 kilograms	4.00
Goods Vehicles with a design gross vehicle weight exceeding 3,500 kilograms and having two or three axles	5.20
Goods Vehicles with a design gross vehicle weight exceeding 3,500 kilograms and having four or more axles	6.40