Portmarnock Community Association (UPROAR)
Response to consultation paper CP5/2007.

On behalf of the Portmarnock Community Association I would like to respond to the CAR's consultation paper CP5/2007 as requested. I refer to our previous submissions: "Comment on CEPA report: Cost Benefit Analysis of Terminal 2 and Runway 2 at Dublin Airport" and "Valuing land at Dublin Airport", sent to you on 8 March 2007. I also attach our closing submission to the oral hearing into Terminal 2 and a submission made to the same oral hearing on the cost of Dublin Airport's contribution to climate change.

Our comments are essentially confined to the cost benefit analysis done by Cambridge Economic Policy Associates (CEPA) on your behalf and the use made of its findings in CP5/2007.

We fully endorse the CAR's role in pursuing independently its statutory objective of economic efficiency. We note that the CAR agrees with us that Dublin Airport's investment proposals are subject to the rigorous appraisal guidelines of the new National Development Policy and the Government's Value for Money policy.[1] However, we believe those guidelines have not yet been followed fully as specified by the Department of Finance in that the CEPA CBA analysis is not yet complete. CP5/2007 quotes the NDP when it stipulates that: "all capital projects over €30m will require a full cost-benefit analysis." We understand the term "full" to mean that the CBA conforms fully to the guidelines. We understand from CP5/2007 that it is the CAR's intention to complete that analysis at a later date in order to conform to its economic efficiency objective.

The main conclusion from that analysis is stated on page 109 of CP5/2007:

> "As the parameters of the CBA seem robust to a reasonable range of certainty, it can be concluded that:
>
> - The benefits from building a second terminal will be greater in later years, because more passengers will be using the airport in those years; and
>
> - The case for building a second terminal immediately is stronger, if the cost of the facility is lower."

We wish to take issue with these findings on a number of fronts.

Separation of T2 and R2.

The above conclusions refer to T2 only, as if T2 can be reliably assessed in isolation of R2 and other elements of the CAPEX package analysed by CEPA. We do not accept that the model allows such a separate analysis, as the above conclusion would suggest. The CEPA CBA paper (page 3) says the model is designed to allow consideration of the terminal and runway as a combined package or the terminal and

runway separately. There is little explanation of how that separation is done. Not least among the problems is the separation of benefits between terminal and runway needed to analyse these two components separately in a meaningful way. The authors claim to have made some assumptions about this allocation of benefits but admit that "[t]he allocation of benefits between T2 and R2 is an area which would benefit from further consideration" (page 4). Given the conceptual difficulties involved in such a separation and in the absence of a clear explanation of what was actually assumed and in the light of the admission that further consideration is needed, we cannot accept that the model draws any reliable results about T2 in isolation from R2 and other elements of the CAPEX package analysed. The CAR's interpretation of model results for T2 in isolation, is not warranted.

Tautological conclusions

We note that the bulleted conclusions are tautologies: the same claims could be made for any result, no matter how negative. Obviously, the benefits from any proposal would be greater if it had more beneficiaries in later years and the case for any proposal would be stronger if it cost less. The best that can be said of these conclusions is that they make the best of a bad situation and avoid reporting the preliminary negative results of the CEPA analysts

CEPA CBA model NPV results were negative.

The CEPA CBA model was not available for inspection on the CAR website when our documentation on 8 March 2007 was finalised. In our submission we pointed out that the CEPA's graphical presentation of results in terms of "feasible time frame" may have been used to present poor results in a more palatable form. We asked why more traditional CBA results had not been provided, such as C/B ratios, NPVs and IRRs. On subsequent inspection of the Excel model on the CAR website we noted that NPV results were provided in the model's Summary Table for the basic scenario. The result was -€51 million (a loss). CEPA also reported some results of a higher CAPEX of €1131 million by adding an additional €180 million to capital costs. No NPV result was given for this scenario but when this amount is added to the costs in the Key Assumptions Excel table, the NPV result becomes -€330 million. No reference was made to these less palatable negative results in CP5/2007.

As we also pointed out, CEPA's analysis of congestion charging at Dublin Airport also produced a preliminary negative result for additional runway construction. Again, a positive slant was put on a negative result with language such as: "Our calculations offer only limited support for the construction of a new parallel runway." In our opinion these finely balanced (actual negative) results depending as they do on optimistic benefits and understated costs fail to disguise what is in reality an unsustainable development.

Robustness.

We do not agree that the parameters of the CBA seem robust. It appears to us that relatively small changes in assumed parameters lead to significantly different results. Further, tests of robustness cannot be confined to parameters included but must also examine sensitivity to parameters that have been excluded but which arguable should have been included. Model structure is also an issue that should inform sensitivity analysis. If the structure is fundamentally flawed, no amount of sensitivity testing will reveal that weakness - rather it may lead to spurious support. For example, the model's claim to allow for separate analysis of T2 and R2 is dubious and the assumptions made are not explained even if a weakness is acknowledged. This adds a serious degree of uncertainty to any conclusions drawn about the separate components of the CAPEX, e.g. T2. CEPA itself only claims to have created a "robust framework for the analysis" but points out that neither the model nor its results are conclusive or complete.

Land costs.

It is quite evident that results are very sensitive, inter alia, to land value assumptions. Land costs were excluded although CEPA says that "land valuation can have a huge impact" and that even a low opportunity cost of land would "unambiguously increase the cost of providing increased capacity." They also say that inclusion of the opportunity cost of land would be likely to push the "break-even" date back and list it among the priorities for further sensitivity testing. It is clear that in the opinion of CEPA, land value assumptions would have a significant impact on results and this proves to be the case. Including only the 840 acres of land destined for runway use at a conservative €2 million per acre (ignoring loss of development value of flight path land), leads to a CEPA model NPV of -€2.65 billion – fifty times the reported NPV of -€51 million.

It might be argued that land is not a major issue in the expenditure envelope being considered in CP5/2007 as it does not include the runway.[2] However, CEPA's CBA analysis and findings do include the runway. It is not correct to make use of these conclusions to justify a decision on a different investment package without also taking account of the caveats attached to those findings by the analyst, notable on the issue of land valuation. The CP5/2007 bulleted conclusions quoted above are used to justify an investment that was not analysed by CEPA.

On page 93 of CP5/2007 it is pointed out that an analysis of post 2009 investments is outside the scope of this Interim Review and that:

> "..at this point in time, the Commission does not make any commitments on how proposed investments post-2009 might affect the price cap in the future. For similar reasons, the Commission has also not revisited the issue of how to value land for the purposes of making a regulatory Determination."

We take this to mean that, even though the CEPA CBA work did include post-2009 investments, a full analysis is still pending and will be undertaken before the next

review period when investment in the proposed new runway will be analysed and the issue of land costs fully addressed. The function of the CAR is to allow the DAA to finance its investments without recourse to Exchequer funds. If so, it must consider that the DAA is also investing very valuable public land assets that must also earn a proper return for the Exchequer. If they do not, Exchequer funds are being foregone and public assets wasted. That constitutes recourse to Exchequer funds.

Capital Expenditure Coverage

The extent of investments under consideration is somewhat confusing. There are four levels of CAPEX involved. First there is the CAPEX under consideration as part of this Determination. This is put by the CAR at €1.117 billion (reducing the DAA's €1.178 billion somewhat). It does not include the proposed new runway as that is due in 2012 after the current Determination's end-date of 2009. It includes Pier D and the extension to Terminal 1 (T1X). Second, there is the CAPEX analysed by CEPA. At its maximum, this is €1.131 billion (951m + 180m) but does include the new runway, seems to include Pier D, but not T1X. Third, there is the ten-year CAPEX programme proposed by the DAA at €2 billion. We understand this does include the new runway as well as Pier D, T1X and related works. Finally, the DAA's Masterplan which includes all these components plus a third terminal to be constructed about 2020 bringing the total package to about €2.5 billion.

Scope of CEPA CBA analysis and CP5/2007

From the point of view of the CEPA CBA analysis and the conclusions drawn for the CAR's current Determination there are unanswered questions about the alignment of that analysis with relevant investments. We have pointed out in our submission that there seems to be a misalignment between the benefits claimed for the investments by CEPA and the CAPEX included in their model. CEPA appears to attribute all benefits from a much larger investment programme to the €951 million CAPEX included (€1.131 at its maximum). The benefits are based on a number of passengers per annum assumed to be unconstrained by investment. The new runway (R2) EIS says that for the unconstrained scenario: "..it is assumed that there are no runway (or other) capacity constraints relating to the growth of Dublin Airport." [3] The T2 EIS explicitly identifies the same unconstrained scenario with the (€2.5 billion) Dublin Airport Masterplan.[4] Without clear arguments to the contrary, we have to assume that all investments undertaken under the Masterplan contribute to those claimed benefits and must be included as costs offsetting those benefits. Otherwise we have to conclude that significant investments are planned with no benefits foreseen for them. This misalignment issue has not been addressed by the CAR in CP5/2007. That document incorrectly draws conclusions about the viability of T2 from a CEPA CBA analysis that covers a larger investment envelope but still hugely understates the whole (Masterplan) investment underlying its claimed benefits.

Sensitivity to CAPEX understated.

While there is the issue about the coverage of the CEPA analysis via à vis the CAPEX that is the subject of CP5/2007, the €951 million is €180 million short of the €1.117 billion subject to this Determination in CP5/2007. When the CEPA analysts' sensitivity tested for the larger amount, the effect on the results was very significant.

As pointed out in our documentation, very large costs have been excluded by CEPA. The actual CAPEX of €951 million assumed by CEPA is well below the expected total investment of €2 billion stated by the DAA and further below the Masterplan investment of €2.5 billion. However, when the modest additional €180 million was added by CEPA to CAPEX for works associated with T2, the "break-even" date (under a high benefit assumption) was shifted from 2013 to 2018. Under the low benefit assumption it got pushed out to about 2023. This indicates that, contrary to CAR's conclusion, model results are very sensitive to CAPEX assumptions. When we put the CAPEX at the DAA's stated €2 billion, the CEPA model NPV comes out at –€4.3 billion.

Alternatives ignored.

The only alternative considered by CEPA to the proposed expansion of Dublin Airport was a "do nothing" scenario in which the proposed expansion does not take place; passengers are delayed and other displaced passengers decide either to use Belfast Airport, sea-ferry travel, or not to travel at all. The alternative of building a second airport in the Greater Dublin Area (GDA) to meet growing demand was not considered. This is a major flaw of the CEPA work that we hope will be rectified by further work.

Department of Finance and EU guidelines are particularly strict on the need for alternatives to be objectively identified and analysed. The ESRI it its report on the fourth National Development Plan, expressed concern that Dublin Rail's transport projects have hitherto simply compared a projected investment with a "do nothing" strategy, and have failed to compare the cost and effectiveness of bus against rail. Dr Garret Fitzgerald described this ESRI criticism as "a remarkable indictment of an extraordinary absence of public administration oversight in this whole area."[5]

Externalities

Many other relevant socio-economic costs were excluded from the analysis, in particular externality costs that are an essential component of any CBA and should be fundamental to the CAR's own "driving principle" of economic efficiency.[6] We believe the NDP requirement for a "full" CBA means precisely the inclusion of all relevant costs in line with relevant guidelines.

For example, the costs of extra road congestion, air pollution and noise were excluded. The climate change contribution of aviation is another externality not mentioned. No reference was made in CP5/2007 to our concerns in this regard. We estimated these externality costs (excluding climate change) at €427 million.[7] Adding

these costs brings the CEPA model NPV to -€4.9 billion.[8] This broadly corresponds to our finding of an NPV of -€4.5 billion. It would suggest that both the CEPA and the UPROAR CBA models are reasonably robust *frameworks* for analysis of aggregated investment packages, but that actual results are very sensitive to inputs.

Other CAPEX costs that are external to the DAA's balance sheet but are real economic costs that should be included in a CBA include the estimated €200 million for the "Airport Box" (new roads needed to service the expanded airport) and a share of the proposed Metro. At the T2 oral hearing the DTO argued that a contribution to the Metro should be stipulated by ABP in its decision. We believe this should match the 20% share DTO believe will be Dublin Airport's share of the usage of the Metro. This cost, amounting to €700-€800, million must be added to the cost of this proposal when it is properly appraised using cost benefit analysis. (UPROAR's -€4.5 billion result did not include these costs.)

Analysis not final.

CEPA went to some length to stress the preliminary nature of their CBA work: "the results of this work must be treated as indicative or first-cut views." They refer repeatedly to the need for "further consideration" and "further sensitivity testing". E.g.:

> "We suggest further sensitivity analysis be conducted to aid the decision-makers and reduce the uncertainties."

And:

> "However, neither the model nor the results should be perceived as conclusive or complete. Rather, they high-light some of choices for the values of key assumptions and suggest where further refinement of those values is appropriate."

None of these caveats are referred to in CP5/2007 in drawing conclusions from the CEPA CBA work. As we point out above in the case of land, we assume that the intention of the CAR is to further refine the analysis, with a view to a more thorough and complete analysis of the DAA's full CAPEX programme including all appropriate external costs.

Passenger projections.

CP5/2007 and its annexes are critical of the passenger projections made by the DAA. We noted in our submission that when recent annual passenger outcomes are incorporated in the DAA's projection model, the growth trend drops abruptly thereafter and brings projected annual passenger numbers back close to previous estimates. This is again apparent in Figure 5 of CP5/2007 where annual passenger numbers (April 2007 forecast - blue line) fall back by 2014 almost to where they were in the earlier uncorrected projections (red and black lines). Given that economic growth is the primary determinant of passenger growth in the model this suggests that

projected economic growth falls. Why would higher than expected recent growth in passenger numbers lead to a drop in future economic growth in the various economies concerned? There is no basis for such an assumption. The more likely outcome is that such a convergence would not occur. There appears to be some manual adjustment of modelled outcomes. This anomaly needs to be explained if we are to have confidence in these projections.

Further, as we pointed out at the T2 oral hearing, the model used by the DAA to project passenger numbers does not include passenger charges as an explicit exogenous variable. The DAA's projections depend inter alia on expected future airfares that do not include an explicit passenger charge component and assume a decline in airfares on most routes.[9] It is odd that the DAA's passenger projections do not take account of the effect of the passenger charge increases for which they have applied, but assume on the contrary that airfares will continue to decline. Irrespective of the certainty of increased passenger charges, airfare decline is itself a questionable assumption given the probable imposition of environmental taxes on aviation fuel, the increasing volatility of fuel prices and the probable upward pressure on those prices.

The estimated benefits rely on these passenger projections. Apart from the fact that the projections data used by York Aviation to distinguish constrained and unconstrained scenarios was 2003 data that has not been updated, the flaws in these projections adds another layer of uncertainty to the results, that cannot be alleviated by sensitivity testing.[10]

Demand driven investment

There are repeated references in CP5/2007 to demand as the determinant of good investment. E.g.:

> "The Commission's role is to evaluate, given all the information available at the time, whether there is a sufficient demand for a given investment, such that those airport customers wishing to use it are willing to pay for it on a long-term basis."

What users find acceptable is to be the guide:

> "…if all users agreed that a proposed investment was necessary and the costs were acceptable, the Commission would be minded to incorporate the planned capital expenditure into a determination. Conversely, the Commission would be keen not to allow the DAA to recover the costs of investments that users do not want."

User demand is a legitimate basis for determining socially efficient investment if and only if that demand is determined by socially determined prices. If that demand is driven by distorted prices it is not valid and leads to a flawed "predict and provide" basis for investment. Prices are often distorted by subsidies and by failures to internalize externalities.

In our opinion the prices facing Dublin Airport users are heavily distorted in both these ways. As pointed out elsewhere (Valuing Land at Dublin Airport), there is a massive public subsidy inherent in passenger charges because of the failure to include the full value of land in determining those charges. Further, prices are distorted by the failure to internalize the externalities of noise, air pollution and traffic congestion, in those charges. We therefore insist that the apparent demand for the services provided by Dublin Airport is artificial and an inappropriate basis for determining sustainable investment. This weakness would be made transparent by a full evaluation using cost benefit methodology.[11] The CEPA analysis, to date, does not amount to a full cost benefit analysis, as it does not incorporate all relevant costs.

The projections of future passenger numbers on which modelled benefits critically depend would be very different if the possible impact of economically optimal charges were allowed to influence passenger projections. Such an outcome could be modelled if the DAA's passenger projection model incorporated passenger charges as an exogenous component of airfares.

It is hardly surprising that demand for airport services is very high at Dublin Airport as in is in the airlines' interest to take full advantage of those subsidised charges. Such users are most unlikely to point out that charges they are too low.[12] It is the task of the CAR to ensure that charges fully reflect all costs and to analyse and approve charges for additional investment only when it has demonstrated that those investments are not determined by a distorted "predict and provide" paradigm. In giving primacy to the expressed needs of airport users and their willingness to pay, the CAR wrongly assumes the prices facing them are not distorted. Further, taxpayers are important stakeholders in the DAA. Their interests must be protected by the CAR by ensuring that Value for Money guidelines are strictly adhered to and fully applied.

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Endnotes.

[1] As pointed out in our submission, CEPA noted that; "No CBA has as yet been prepared for the major increase in airport capacity entailed through the T2 and R2 projects." This is in spite of earlier claims by the DAA that they had followed Department of Finance appraisal guidelines which explicitly require such a CBA.

[2] This is debateable as relative land values at alternative sites for T2 at the airport would be relevant. Land near the proposed Metro terminal on the Eastern Campus is considerably more valuable than land at the Western Campus, for example.

[3] Runway EIS 6.3.1.2.

[4] Terminal 2 EIS 6.4.2.

[5] Dr Garret Fitzgerald, "State attempting to do too much, too quickly." Irish Times, 4 November 2006.

[6] Relevant national and EU guidelines require socio-economic costs and benefits to be assessed.

Department of Finance Guidelines:

"Guidelines for the Appraisal and Management of Capital Expenditure Proposals in the Public Sector" - February 2005. See: http://www.finance.gov.ie/documents/publications/other/capappguide05.pdf

> "There may be significant costs or benefits which do not affect the Sponsoring Agency but which are important to other persons or agencies or to society in general. These are usually called 'externalities' (i.e. they are external to the sponsor's direct concerns)."

EU Guidelines 2002:

"Guide to cost-benefit analysis of investment projects", (Structural Fund-ERDF, Cohesion Fund and ISPA), Evaluation Unit, DG Regional Policy, European Commission, 2002. See: http://ec.europa.eu/regional_policy/sources/docgener/guides/cost/guide02_en.pdf

"Socio-economic costs and benefits: opportunity costs or benefits for the economy as a whole. They may differ from private costs to the extent that actual prices differ from accounting prices. (social cost = private cost + external cost)."

EU Guidelines 1997:

"Guide to Cost-Benefit Analysis of Major Projects", 1997 see: http://www.ndp.gov.mt/pdf/reference_02.pdf

> "Socio-economic costs:
>
> The project examiner should check if the proposer has considered social costs of the project that may go beyond its money expenditures.
>
> These may occur when:
> - actual prices are distorted by monopolies, trade restrictions, etc.
> - wages are not linked to labour productivity
> - taxes or subsidies influence price structure
> - there are externalities
> - there are non-monetary effects, including environmental impacts."

[7] This €427 million does not include climate change costs. Elsewhere we have estimated using the Stern Review that the growth in aviation attributable to Dublin Airport's Masterplan will do at least

€8.4 billion of climate charge damage. Arguably only half of that total should be attributed to Dublin Airport as two airports are involved in each flight. See our submission to the oral hearing attached: "Dublin Airport's expansion and climate change damage".

[8] These costs are somewhat inflated in the CEPA model by the assumption that operating expenses be determined as 10% of CAPEX. There is no obvious way of adding non-capital costs to the model without imposing this 10% extra. The model should be amended to allow such costs to be added without implications for opex. Further, as we pointed out, this method of estimating future operating costs is odd and does not accord with the CAR's own op-cost per passenger method. For example, in a year of no capital expenditure there are assumed to be zero operating costs, which is absurd and clearly understates operating expenses for later years when capital expenditure has ceased even though benefits continue.

[9] Table A3, "Dublin Airport Passenger & Aircraft Movement Demand Forecast Report", April 2006, DAPF06/01.

[10] See T2 EIS, page 17-8. York Aviation revised some of its work in 2005 but the basic passenger numbers used to determine the critical differences between constrained and unconstrained scenarios, are unchanged from those presented in the earlier York Aviation work as presented in the R2 EIS. This was based on 2003 data, as can be verified by a comparison of text and tables. Table 2 of the York 2005 report is identical to Table 6.2 of the R2 EIS. The text of R2 EIS at 6.2.1.1 says that 2003 was "the last full year of operation". This means that the difference in annual passenger numbers between the constrained and unconstrained scenarios which underlies CEPA's CBA of T2 and R2, etc., is based on 2003 projections data not subsequently updated in the light of the massive changes that have taken place between 2003 and 2007.

[11] As the national and EU CBA guidelines indicate, the analysis must include the effects of price distortions arising from subsidies and externalities.

[12] The RR&V report (Annex 10), which reviewed the sizing of T2 in the light of DAA passenger forecasts did not address the issue of the effect of subsidies on passenger demand.

Portmarnock Community Association – UPROAR
Terminal 2 oral hearing, 2 May 2007.

Dublin Airport's expansion and climate change damage.

Dublin Airport's expansion plan will cost at least €8.4 billion in climate change damage alone, and waste €13 billion in total.

Dublin Airport's expansion plan will bring passenger numbers to 35 million per annum by 2020 and to a full capacity of 60 million by about 2035. Using figures based on Ryanair's fuel consumption per passenger and the findings of The Stern Review[1] we find that the additional cost of the damage done by this expansion, in terms of global warming, comes to a staggering €8.4 billion, at least.

Ryanair claims, with justification, to have clean and modern aircraft. In US fiscal year 2006 (year ending 31 March 2006). Ryanair's 32 million passengers clocked up 30.3 billion kilometres in total, or 940 km per trip. As Ryanair spent €463 million on fuel in the same period at a price of €488 per tonne, it follows that Ryanair planes burned 947,000 tonnes of aviation fuel transporting 32 million passengers, or 29.4 kg of fuel per passenger.[2, 3] Every kilogram of aviation fuel burned, produces 3.15 kg of CO2. Therefore, every Ryanair passenger produced about 93 kg of CO2 in fiscal 2006.

Costing the damage done by global warming and the contribution of CO2 emissions to that damage, Professor Nicholas Stern puts that cost, on average, at about US$85 (now €68[4]) per tonne of CO2 (Stern Review, page 322). According to Stern, the warming effect (radiative forcing) of aviation is 2 to 4 times greater than the effect of the CO2 emissions alone "because of other gases released by aircraft and their effects at high altitude. For example, water vapour emitted at high altitude often triggers the formation of condensation trails, which tend to warm the earth's surface." (Stern Review: Box 15.6).

We use a factor of 2.7, given by George Monbiot[5] that is in the lower half of this range and gives a total global warming damage per tonne of CO2 of about €184. At 93 kg per passenger, this means that every Ryanair passenger does about €17 worth of global warming damage.

The other airlines using Dublin Airport have older fleets and less efficient aircraft, on average, so that their passengers, assuming at least the average journey length of 940 km, do at least the same amount of damage per passenger.[6] Applied to all Dublin Airport passengers these emission rates and their environmental costs are therefore conservative. It can be deduced that all the 21 million passengers of 2006, emitted at least 1.95 million tonnes of CO2 at a cost of at least €357 million (17*21) in global warming damage terms.

As the Ryanair fleet is new, it can be assumed to have a service life of 30-40 years and therefore these emission rates will persist with little improvement for that lifetime. As other airlines are well behind Ryanair, it can be assumed that these rates of emission and their cost are conservative estimates valid for the lifetime of a new fleet for all Dublin Airport passengers.

As far as the environmental costs of Dublin Airport's expansion programme is concerned, it follows that when the airport reaches capacity at 60 million passengers, around 2035, its extra 40 million passengers per year will be doing an extra €680 million worth of global warming damage per year. The damage of the extra passengers in each year up to full capacity would be less that this. To add up the damage of all these years it is necessary to discount the figures for future years to allow for the fact that, in a more prosperous future, €1 will have a lower utility value than it does today. Using a set of discount factors provided by the Stern Review (Fig 2A.1) we find that the present value of the stream of climate change damage from now until 2050, due to the expansion plans of Dublin Airport, is at least €8.4 billion.

It is worthy of note that the Environmental Protection Agency allocated just over 20,000 tonnes CO2 equivalent for each of the years 2005, 2006 and 2007 to Dublin Airport. This is only one hundredth of the 2 million tonnes of CO2 at least, emitted by Dublin Airport's 21 million passengers in 2006. The anomaly is due to the fact that international aviation is not included in Kyoto protocol.

This minimum total climate change cost of €8.4 billion is additional to the €4.5 billion net economic cost UPROAR has estimated for the proposed expansion plan of Dublin Airport. See: www.norunway.com/t2a/appt2.htm. That waste is due to a misuse of very valuable land, the economic cost of road congestion and an estimate of the loss of welfare to communities surrounding Dublin Airport. It can therefore be concluded that the expansion plans of Dublin Airport will incur, at a conservative estimate, a net loss of €13 billion.

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[1] Nicholas Stern, The Economics of Climate Change – The Stern Review, Cambridge University Press, available online at http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/sternreview_index.cfm

[2] This information was provided by Ryanair in a statement to the US Securities and Exchange Commission on 27 September 2006. See: http://www.ryanair.com/site/about/invest/docs/2006/20Fstatement06.pdf

[3] These figures imply 3.13 kg fuel per 100 passenger kilometres and are consistent with the 3.8 litres (3 kg) of fuel per 100 passenger kilometres given on the Ryanair website: http://www.ryanair.com/site/EN/environment.php?pos=ENVIRONMENT

[4] The Stern figure is US$85 in 2000 prices. At that time the US dollar and Euro were at about parity. The cost per tonne should therefore be taken as €85 in 2000 prices, which would be equivalent to about €100 in 2007 terms. By using current exchange rates we are understating the cost in current Euro terms.

[5] See: http://www.guardian.co.uk/Columnists/Column/0,,1719728,00.html

[6] In 2005 Aer Lingus' average journey was 1560 km. Given this longer trip length and older fleet, Aer Lingus passengers are doing much more damage than Ryanair passengers.

Portmarnock Community Association– UPROAR
Closing submission 4 May 2007

General

For the Portmarnock community this is a serious issue as we believe our well-being is being seriously threatened by this proposal. It is not a game. While it is clear that we do not want this development, we also maintain that it is not for the common good and not in the national interest, as it would need to be, to allow our rights to be overridden.

Policy and alternatives

A necessary condition for sustainable development is economic efficiency or "Value for Money". Government guidelines exist to subject public sector investment proposals to a "test of sustainability", as spelled out by An Taoiseach in his address to the Sustainable Airport Development conference in October 2006. These guidelines, that require a rigorous cost benefit analysis (CBA) for projects costing over €30 million have not been followed by the DAA which now admits that no such analysis was carried out.

These guidelines require that alternatives by evaluated on the same basis in order to ensure that the best option is pursued. No CBA of alternatives was done. The claims by the DAA to have properly assessed their proposal and alternatives is false.

The Aviation Regulator has decided to interpret his function of ensuring economic efficiency in his determination of maximum Dublin Airport passenger charges as requiring a CBA. He has engaged consultants to undertake this analysis. Their preliminary analysis has produced a negative result: a loss of €330 million. As pointed out by UPROAR this analysis does not, so far, follow the methodology set out by the Department of Finance. It understated the capital investment involved by 50% of the DAA's own figure of €2 billion. It has not included any value for airport land and it does not include any costs of externalities, such as road congestion costs and damage to the welfare of local communities through noise and pollution.

As the Dublin Airport's proposals are also included in the new NDP, they are now subject to the rigorous appraisal guidelines which also require CBA, as per the Finance guidelines. These guidelines have a different oversight process which will not allow the DAA to simply declare that they have followed Department of Finance guidelines, as they have already done.

We carried out our own CBA and found that the proposal would be a waste of €4.5 billion before adding any costs for the Airport Box or a share of the Metro, or any contribution to climate change. The cost to local communities was estimated to be €430 million, only one tenth of the net cost to the national welfare.

DTO confirms that a contribution to the Metro should be stipulated by ABP. We believe this should match the 20% share DTO believe will be Dublin Airport's share of the usage of the Metro. This cost, amounting to €700-€800 million must be added to the cost of this proposal when it is properly appraised using cost benefit analysis. We estimated the cost of the climate change impacts of the DAA's expansion plans was a minimum of €8.4

billion. We maintain that the proposal is not a sustainable development and should not proceed.

On the other hand we found that a second airport for the Greater Dublin Area would be economically viable at the real rate of return of 7.4% required by the regulator.

Alternatives outside Dublin Airport

No analysis of alternatives was carried out by the DAA. Section 2.1 of the EIS states that "the option of developing airport facilities at another location instead of constructing the proposed terminal 2 at Dublin Airport, was not considered. This is because the proposed development is founded in the Aviation Action Plan proposed by the Department of Transport…which outlines government policy in relation to the provision of Terminal 2." Department of Finance guidelines require that realistic alternatives be evaluated using the Cost Benefit methodology. This has not been done. References to the analysis done in the new runway EIS of alternatives elsewhere in the Dublin Region do not overcome this failure as that analysis was inadequate, not least because it was not a Cost Benefit Analysis as required. See UPROAR's criticism of this work in "The Economics of the Proposed Runway", submitted as part of our runway appeal.

The only analysis done was a comparison with a dubious "Do Nothing" scenario within Dublin Airport (see below). The ESRI it its report on the fourth National Development Plan, expressed concern that Dublin Rail's transport projects have hitherto simply compared a projected investment with a "do nothing" strategy, and have failed to compare the cost and effectiveness of bus against rail. This is the same negligent approach the DAA has adopted with its T2 proposal in ignoring wider alternatives. Dr Garret Fitzgerald described this ESRI criticism as "a remarkable indictment of an extraordinary absence of public administration oversight in this whole area."[1]

Many of the arguments put for this development by reference to various national policies such as National Spatial Strategy, Regional Policies and Sustainable Development would apply, and probably more so, to alternative locations for airport capacity development elsewhere in or adjacent to the Greater Dublin Area. The claims made by reference to these policies on behalf of this proposed terminal cannot therefore be taken to apply uniquely to this proposal and as support for it.

Alternatives within Dublin Airport

While ignoring proper consideration of alternatives outside Dublin Airport, the process by which the DAA arrived at its choice of location for T2 (PM/SOM/TPS 2004) was fatally flawed and does not amount to a proper consideration of alternatives.

While the conclusions of the analysis were sensitivity tested and appeared to show that the T2 East option was robust, the choice of sensitivity test determined the outcome. Other variables, whose scores could have been quite different and well within the margin of estimation, were not varied at all. We demonstrated that if the cost factor was recalculated on the basis of current knowledge, the outcome would not favour the Eastern location of the four development options analysed for the proposed T2.

As UPROAR demonstrated,. This type of Multi-criteria analysis is essentially subjective and non-transparent and is not consistent with the CBA methodology set down by the Department of Finance. See also "Heritage" below.

DAA jobs claim.

In the T2 EIS the DAA repeats its claims of the R2 EIS that their proposal will create lots of jobs directly and indirectly. The original work was done for the R2 EIS using 2003 data. At the runway oral hearing York Aviation disowned the DAA claim that these jobs were additional and could be taken as economic benefits. The DAA persists with that claim in the T2 EIS (Section 17) and on its own website.[2] UPROAR has strongly criticised those claims. See: "Dublin Airport Jobs" dated 23 April 2007, submitted to the T2 hearing. In the T2 EIS this original York work using 2003 data, that was not updated, was cited to persist with the claim that the jobs that would be needed to cope with the expansion of Dublin Airport by 10 mppa, even WITHOUT R2, would not materialise because of labour productivity gains.

The original York estimate of 3,700 jobs that would be created by the development are understated by an exaggeration of labour productivity growth which leads to the odd conclusion that the 20 million extra passengers, half of which are due to the "Masterplan" by 2025, are presumed to need only 3,700 jobs The DAA are therefore able to infer that with the proposed expansion, jobs at Dublin Airport will be either static or drop.

Jobs and road traffic.

The employee estimates was based on 2003 York analysis. All the EIS (T2 and R2) York analysis of the constrained/unconstrained scenarios was based on forecasts that were made in 2003 for the new runway. These scenarios, (with/without R2) are very different from the with/without T2 but with R2 described elsewhere in the T2 EIS and with the peak hour departures basis for T1 and T2 described in the road traffic section. The three sets of with/without scenario are not consistent with each other.

The passenger forecasts and projections/ used are no longer valid in the light of recent trends. The figures used understate the latest DAA forecasts provided to the T2 oral hearing by DAA, and those forecasts themselves understate the real trend. For example, there were 21.4 million passengers in 2006. The latest DAA projection data says 20.4, one million short. On the trends so far for 2007, there will be an extra 2.5 million passengers giving a total of about 24 million ro 2007. The DAA's latest projection for 2007 is 21.7 million, or 2.3 million short. Compared to the projections used in the original DAA's analysis (York Aviation) the errors are even greater. The York study assumed 23.4 mppa for 2010, a figure that will be exceeded in 2007.[3] On present trends there will be about 29 mppa by 2010, a figure nearly 25% higher than the 23.4 assumed by York. The job estimates and employee traffic and parking impacts of that employment are therefore seriously understated, even before they are further diluted by exaggerated productivity assumptions and selective attribution to T2.

The road traffic impacts are therefore not adequately assessed as regards employee impact. There are a number of factors leading to a large understatement. The DAA employee impact is based on a net figure of 1,800 extra employees, see: T2 EIS Table

6.11. This is only half the 3,700 employee figure identified in the York study (that we also stated above is itself seriously understated) in the T2 EIS Table 6.10

These twin dilutions (exaggerated productivity and the halving of Masterplan employment gain when applied selectively to T2) is evident from the charts presented by DAA (Mr Coughlan) in a document titled "Dublin Airport Terminal 2 Transportation." This shows, for example for 2024, that the employee contribution to road traffic has become a fraction of the passenger impact having been even higher than the passenger impact in 2006. One effect of this is to help reduce the morning and evening peaks due to employee traffic movements. As this analysis of peak impacts on the road network is key to the DAA's conclusions, those conclusions are seriously compromised.

The effects of indirect and induced jobs have not been assessed. T2 EIS page 17 –8 repeats the York claims that while 3,700 jobs will be created at Dublin Airport by the "Masterplan" (no longer just R2 on which the work was based) more jobs will be generated: 7,200 in total for the GDA (implying 3,500 on top of the 3,700 direct Dublin Airport jobs) and 11,900 in total for Ireland. While UPROAR does not agree that these jobs are actually additional to the national economy, they will have a local effect at least, and these effects have not been assessed at all. For example, the extra 3,500 GDA jobs have not been assessed for traffic impacts. In addition, by diluting the 3,700 airport jobs to 1,800 another 1,900 are ignored.

The DTO confirmed that its certification of the DAA's use of its Saturn model for the traffic analysis did not amount to an approval of the model inputs supplied by the DAA. In our view those inputs were seriously flawed leading to results that are not reliable.

In summary, the traffic impacts of only 1,800 extra jobs at Dublin Airport were analysed. The 10 million extra passengers in the unconstrained scenario will likely generate about 6,500 extra jobs on top of a similar number generated by the expansion of 10 mppa that was estimated to occur in the constrained scenario. This means that there should be about 13,000 extra jobs at Dublin Airport by 2025 to handle the extra 20 mppa expected. That is seven times the DAA figure. Even further, the additional indirect and induced jobs which the DAA claims for its project have not been assessed as to their traffic impacts. The jobs ignored, on DAA figures, amount to some 5,400. (Total GDA jobs of 7,200 less the 1,800 T2 jobs actually analysed). The DAA only analysed the traffic impact of one quarter of the GDA jobs they claimed. That is a serious distortion.

Heritage

DAA case was that their proposed terminal could not coexist with Corbalis house, therefore Corballis House had to be demolished. This is a false dilemma as the T2 proposal cannot be taken as given as regards size and location. As regards scale it has been cogently argued that the scale of the proposed is unjustified. As regards location we have demonstrated that the choice was based on a Multi-criteria system which was in fact arbitrary and subjective.

The choice of T2 East was not robust. The sensitivity test used to confirm T2 East could not have produced an alternative result given the limited variables tested. Key variables were ignored. When we varied one of these, the Cost variable, within a range which current data would suggest was quite reasonable, the T2 East option was no longer favoured. Rather the North or West option was better.

Noise

UPROAR does not accept the basis of analysis which attempts to suggest that noise impacts of T2 are negligible because it is based on a comparison of a With and Without T2, in the presence if R2. We say the base line assumption, No T2 with R2 in place, was infeasible. This can be seen by asking in what terminal facilities the 38 mppa expected by 2024, would be accommodated in that eventuality. They evidently can not all be accommodated in T1. The DAA's legal team agreed that this "without" or "do nothing" scenario was infeasible. It follows that the impacts measured by reference to that infeasible baseline grossly understate impacts and are meaningless and unsound.

Air Quality

The basis of the analysis of the T2 impact on air quality was the same Do Nothing/ Do Something scenarios as used elsewhere (e.g. Noise). It was admitted by the DAA that the Do Nothing scenario implied 38 million passengers by 2024 (as per DAA forecasts) with only T1 to accommodate them. It was admitted that this would be a very uncomfortable scenario. In our opinion is more than uncomfortable it is impossible. Inter alia it breaches the LAP maximum of 35 million for the Eastern Campus. It the current capacity problems of T2 with 21 million are unacceptable and the basis of the DAA's request for planning permission for T2, it is impossible to envisage almost double that in the same space – even if the planned extensions to T1 – still subject to planning approval are allowed. UPROAR maintains that this base line scenario for this analysis is infeasible and improbable and that therefore the analysis based on the difference between it an the Do Something scenario is false. It follows that the EIS conclusion of no significant difference between the impacts under these scenarios is a useless basis from which to infer that the T2 proposal will not have significant impacts on air quality.

Matthew Harley
Portmarnock Community Association
4 May 2007

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[1] Dr Garret Fitzgerald, State attempting to do too much, too quickly." Irish Times, 4 November 2006.

[2] On the DAA website under "What are the economic benefits of Dublin Airport?" it is stated: "The overall impact of a new runway would be to facilitate additional aircraft and passenger traffic, thus *adding* another 30% to local, regional and national employment and to annual income." See: http://www.dublinairport.com/about-us/airport-development/Parallel_Runway.html.

[3] See R2 EIS, Table 6.2.