

APPENDIX E INCREMENTAL TRANSFER CAPABILITIES

The Incremental Transfer Capability (ITC) is a measure of the transfer capability remaining in the physical Grid for further commercial activity over and above already anticipated uses. The anticipated transfers are determined by the physical network as well as the size and location of forecast demands and generation.

Note that for the ITC analysis of winter 2009 an additional 400MW of generation was added at Finglas 220kV station. See Section 3.3 of the main report for details.

Tables E-1 to E-3, in Section E.1, set out the results of the ITC analysis for transfers **from** the ten 220kV stations examined, for each of the three years. These results indicate the capability of the Grid to accommodate new large-scale generation at these stations. The following is a key to these tables:

Low _____ 0-100 MW

Medium _____ 0-250 MW

High _____ 250-400 MW

Very High _____ Over 400 MW

The lowest ITC from a station is generally what determines the opportunity for generation at that station.

Tables E-4 to E-6, in Section E.2, set out the results of the ITC analysis for transfers **to** the ten 220kV stations examined. These results indicate the capability of the Grid to accommodate large-scale demand increases at these stations.

Table E-7 combines the results of the ITCs from Dublin and the South **to** each of the ten 220kV stations, to provide an indication of the capabilities for increased demand at each station, over and above the anticipated demand. When considering single contingencies (N-1) on an intact network the minimum ITC from Dublin or the South is chosen. However, when considering trip-maintenance contingencies (N-1-1), the greater of the ITCs from Dublin or the South is chosen. This is based on the assumption that less onerous generation dispatches can be scheduled to accommodate maintenance outages.

It is important to note that each ITC is analysed separately and, therefore, the results in each table should not be interpreted as being cumulative.

E.1 ITC RESULTS FOR GENERATION

Table E-1 Incremental Transfer Capability for Generation in 2003

2003		Transfer To				
		Dublin	South West	South East	Moneypoint	NIE
Transfer From	Arklow	Very High	Low	Medium	Low	Low
	Cashla	Low	Low	Low	Low	Low
	Finglas	Very High	Low	Low	Low	Low
	Flagford	Medium	Low	Low	Very High	Medium
	Great Island	Low	Low	-	Low	Low
	Killonan	Medium	Very High	Medium	Medium	Medium
	Knockraha	Very High	Very High	Medium	Very High	Low
	Louth	Very High	Low	Low	Very High	Very High
	Maynooth	Very High	Low	Low	Low	Low
	Shannonbridge	Very High	Medium	Low	Very High	Low

Table E-2 Incremental Transfer Capability for Generation in 2006

2006		Transfer To				
		Dublin	South West	South East	Moneypoint	NIE
Transfer From	Arklow	Very High	Medium	Medium	High	High
	Cashla	High	Medium	Low	Very High	High
	Finglas	Very High	Medium	Low	Medium	High
	Flagford	Very High	Medium	Low	Very High	Very High
	Great Island	High	Medium	-	Medium	Medium
	Killonan	Medium	Very High	Low	Very High	Low
	Knockraha	Very High	Very High	Low	Very High	High
	Louth	Very High	Medium	Low	Very High	Very High
	Maynooth	Very High	Medium	Low	Very High	High
	Shannonbridge	High	High	Low	Medium	Medium

Table E-3 Incremental Transfer Capability for Generation in 2009

2009		Transfer To				
		Dublin	South West	South East	Moneypoint	NIE
Transfer From	Arklow	Very High	Medium	Low	High	Medium
	Cashla	Very High	Low	Low	Very High	High
	Finglas	Very High	Low	Low	Medium	Medium
	Flagford	Very High	Low	Low	Very High	Very High
	Great Island	High	Low	-	High	Low
	Killonan	Low	Very High	Low	High	Low
	Knockraha	Low	Very High	Low	High	Low
	Louth	Very High	Medium	Low	Very High	Very High
	Maynooth	Very High	Low	Low	High	Medium
	Shannonbridge	Low	Medium	Low	Low	Low

E.2 ITC RESULTS FOR DEMAND

Table E-4 Incremental Transfer Capability for Demand in 2003 (MW)

2003		Transfer From		
		Dublin	South	NIE
Transfer To	Arklow	60	10	60
	Cashla	0	0	0
	Finglas	180	20	290
	Flagford	0	0	0
	Great Island	20	200	20
	Killonan	0	130	0
	Knockraha	60	270	70
	Louth	0	0	140
	Maynooth	270	400	370
	Shannonbridge	0	0	0

Table E-5 Incremental Transfer Capability for Demand in 2006 (MW)

2006		Transfer From		
		Dublin	South	NIE
Transfer To	Arklow	0	20	0
	Cashla	140	130	150
	Finglas	130	170	200
	Flagford	0	0	0
	Great Island	0	130	0
	Killonan	10	120	10
	Knockraha	100	240	100
	Louth	0	0	350
	Maynooth	440	480	370
	Shannonbridge	10	0	20

Table E-6 Incremental Transfer Capability for Demand in 2009 (MW)

2009		Transfer From		
		Dublin	South	NIE
Transfer To	Arklow	0	0	0
	Cashla	0	0	0
	Finglas	70	100	130
	Flagford	0	0	0
	Great Island	0	0	0
	Killonan	0	60	0
	Knockraha	0	40	0
	Louth	0	0	30
	Maynooth	130	260	370
	Shannonbridge	0	0	0

Table E-7 Capability (MW) for Additional Demand at 220kV Stations

Station	2003	2006	2009
Arklow	60	0	0
Cashla	0	140	0
Finglas	180	170	80
Flagford	0	0	0
Great Island	60	0	0
Killonan	50	120	0
Knockraha	60	100	0
Louth	0	0	0
Maynooth	270	480	260
Shannonbridge	0	0	0