

DCP 161 – EXCESS CAPACITY CHARGES

Attachment G - Case Study on the impact of customers exceeding their capacity

Background

A number of participants in the DCP161 Working Group have challenged DNOs to provide evidence that customers exceeding their capacity are leading to higher reinforcement costs for DNOs. Electricity North West has undertaken an investigation and put forward an example of a large customer that is regularly exceeding their capacity and causing reinforcement issues at a primary substation.

Case Study

A large HV customer connected close to a Primary substation is regularly exceeding their capacity and contributing towards the primary running above firm capacity as follows:

Year Month	CUSTOMER DEMAND DATA			PRIMARY SUB DEMAND DATA		
	Calculated Capacity (MVA)	MIC MVA	Excess Capacity (MVA)	Actual Primary Loading (MVA)	Firm Capacity (MVA) Based on Continuous Rating for Season	Amount by which demand exceeds firm capacity (MVA)
2013-04	11.819	12	0	19.44	18	1.44
2013-05	12.959	12	0.959	20.59	18	2.59
2013-06	12.427	12	0.427	18.45	18	0.45
2013-07	15.591	12	3.591	22.65	18	4.65
2013-08	16.282	12	4.282	23.07	18	5.07
2013-09	15.653	12	3.653	23.12	18	5.12
2013-10	15.385	12	3.385	22.24	18	4.24
2013-11	12.319	12	0.319	21.95	21	0.95
2013-12	12.081	12	0.081	21.87	21	0.87
2014-01	11.692	12	0	21.66	21	0.66
2014-02	12.323	12	0.323	21.65	21	0.65
2014-03	15.097	12	3.097	25.09	21	4.09

In this example if the customer kept within the agreed MIC, this would delay reinforcement. It would also enable new customers to connect without causing reinforcement and lead to more efficient use of the Electricity North West network.

Although the example provided is a large customer the same principle applies for smaller customers who in aggregate may be driving reinforcement. Electricity North West is the proposer of DCP 161 and believes that this change proposal would provide an incentive on customers to keep within their capacity and assist in management of the network.