Mathematical & Computer Modelling

W. R. Hodgkins MA, CMath, FIMA, MIMIS
15 Cotebrook Drive, Upton, Chester CH2 1RA
Tel: 01244 383038 email: WRHodgkins@aol.com
Vat.Reg.No: 742 3574 34

13th.May 2008

Colette Schrier
Commercial Regulation, Electricity Distribution
OFGEM
9 Millbank
London SW1P 3GE

Dear Collette,

Delivering the electricity distribution structure of charges project

As you will be aware I have been acting as a consultant to Scottish & Southern Energy in developing their proposals for a revised charging methodology and as such I have been involved with G3 in developing a common methodology across the three companies (SSE, SP, CN). I should state at the outset that this response reflects my personal views and should not be taken as an expression of the views of SSE or G3 generally. However, I think the experience I have gained over an extended period does give me some insight into some of the issues raised by your consultation and in the problems to be faced.

Question 1: Is it necessary to place a licence obligation on DNOs ….?

No, I do not consider it necessary but I appreciate that OFGEM may wish to have the security of introducing a licence condition. However, it could be very counter productive if a common method were to be demanded (see later) and companies could well be concerned that if they put forward proposals then these could be vetoed on non-essential grounds by OFGEM (for example that they didn't conform to OFGEM's blueprint or to other companies methods - see later).

Questions 2 and 3: Principles and objectives

The general principles and objectives have been set out before. However, it seems unwise to be too prescriptive about the details of the methodology. It should be noted that estimates of investment benefits from the OFGEM commissioned academic studies by Bath must be regarded as highly speculative, being based on assumed price reflectivities with generators locating where required and without any estimate of costs to the EHV customers paying higher deterrent charges. Are these price reflectivities and location of new generation in any way confirmed by the experience of WPD? Bath themselves state in respect of the investment savings quoted by OFGEM of £200m that 'such an extrapolation would have little foundation'. Whilst the economic theory may be applicable to a spot market where no long term damage is suffered by customers through the imposition of manipulative prices, this has to my knowledge never been demonstrated to yield optimum economic efficiency in situations where price reflectivity has a time response or high prices may cause customers to cease business, whilst the location

of new generation is clearly governed by many other factors. Indeed, a generator representative at yesterday's HV/LV Generator Workshop at ENA indicated strongly that UoS charges were not the prime driver in the location of generation.

Section 2.8, first bullet point and later text, indicate that OFGEM could require a particular methodology (LRIC). I appreciate that this seemed to be the consensus of the academic advice. However, I believe this was deficient at the time as there was no acceptable way of implementation. WPD amended the Bath LRIC algorithm in an empirical manner to avoid the worst manifestations of the incorrect derivation.

However, Scottish Power recently submitted their proposal based on an empirical G3 methodology which gives the same result as a corrected LRIC approach. It should be said that LRIC does not address the overall shortcomings just described and an empirical judgement has to be made on time scales on which customers plan and respond to price signals. Since no claim can be made for economic efficiency, companies need to have particular regard to considerations of discriminatory pricing, counter to the Competition Act. This has been ignored by most of the academic studies. After all demand can always be choked off by sufficiently high prices and generation beneficially located with sufficient incentives. The same issue could arise from OFGEM's suggested scaling prescription where the issue of cross-subsidies between voltage levels is ignored.

Question 4: Demanding a common methodology across all DNOs

I think this would at this late stage be entirely unproductive. SP have just submitted their proposed methodology and SSE and CN are intending to submit their proposals shortly. It is clear that other DNOs are also well on the way to completing their own methodologies. Although OFGEM suggest a possible timing, experience to date suggests this is unrealistic. Developing the G3 methodology has taken a long time with a team that has cooperated well and been fully involved. Even when the technical team reach agreement, each company would have to gain approval at a higher level as other company objectives would be involved.

In the long run it is likely that somewhat different methodologies would converge as different approaches were seen to work or be too complex. For example, it isn't yet clear what level of disaggregation is appropriate. Too fine a level imposes an enormous task on data manipulation and data checking and can lose transparency. Some companies have commissioned complex software to calculate influence coefficients which may not be readily transferable to other software systems. To commit the whole industry to a very complex software system over too short a period of time for adequate validation would be undesirable. However, companies that have embarked and paid for this work would be very reluctant to compromise on a much simpler approach.

The advantage of different approaches (likely to be just a few) is that lessons can be learned from each and improvements incorporated. WPD should soon be able to report on the effect of their recent charging approach and whether the desired responses are being brought about. I am willing to amplify these views if it would be helpful. As you will be aware my concerns about the original Bath LRIC approach and the single adder approach are documented in the DCMF minutes.

Yours sincerely

Robin Hodgkins