<%@LANGUAGE="VBSCRIPT"%> <% Dim Recordset1 Dim Recordset1_numRows Set Recordset1 = Server.CreateObject("ADODB.Recordset") Recordset1.ActiveConnection = MM_ifiec_STRING Recordset1.Source = "SELECT * FROM electricity ORDER BY volgorde DESC" Recordset1.CursorType = 0 Recordset1.CursorLocation = 2 Recordset1.LockType = 1 Recordset1.Open() Recordset1_numRows = 0 %>

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Documents- Electricity Brussels: 15/02/2001

Paper

Towards efficient and non-discriminatory Congestion Management in Electricity Grids

1. Introduction

In addition to pricing of network services, congestion management methods, as the allocation of network capacities in cases of congestion, are of central importance for competitive access to the European electricity network. Prior to the opening of the electricity market and the subsequent restructuring of the electricity industry the costs of congestion were internalised by utilities and consumers were unaware of their impact or cost. Neither was there any attempt to allocate such costs in an equitable manner.

The introduction of competition has brought this issue into the open and it needs to be dealt with in an economically efficient way. IFIEC Europe has growing concerns that congestion management solutions are being proposed which may introduce new distortions to the electricity market and impact in a very negative manner upon consumers who, ultimately, shall be required to meet both transaction and implementation costs.

2. Key Criteria of Congestion Management

IFIEC Europe believes that consistent and transparent solutions dealing with congestion management should be implemented throughout Europe, taking into account the specifics of the continental and “island” systems. The primary features of any scheme from the industrial consumers' point of view are equal treatment, transparency and efficiency resulting in low costs for all network users. In addition, it is essential that any scheme allows for maximum use of interconnector/transmission capacity in order to facilitate, not inhibit, the development of cross-border trade. All of these conditions are reliant on the full independence of the transmission system operators (TSO).

It is recognised that the development of congestion management in a competitive environment is very much in its infancy. IFIEC Europe is concerned that the customer could ultimately pay a high price if an economically inefficient scheme is introduced which also has the effect of inhibiting or restraining competition.

Auctioning of capacity and the use of locational marginal pricing has recently been promoted in other areas (eg: gas entry capacity in the UK) where extreme capacity pricing signals have emerged, with considerable impact on the commodity charge. Corrections have been required which introduce additional market distortions. Such experiences dictate caution.

IFIEC Europe will measure the potential success of any proposals against certain key criteria, even though it is recognised that it will be difficult for any one scheme to satisfy all of them. The challenge is to design a scheme of constraint management which:

· does not inhibit competition,
· maintains system security,
· limits market abuse and gaming,
· is fair and non-discriminatory,
· and has a high degree of transparency.

3. Options

In essence, there are two principal means by which congestion costs can be addressed. Either responsibility is placed with the TSO or, alternatively, the solution is directly implemented by market participants who have to take account of capacity constraints when undertaking contractual commitments. This may involve multilateral trades in certain circumstances.

3.1 Prescriptive TSO Solutions

Here two practical philosophies exist:

4. Redispatch: This is probably the lowest cost solution as the energy market is separated from transmission problems and congestions do not directly effect energy trading. Redispatching of generation capacity to avoid the occurance of congestion problems can be used providing that congestion is not severe or persistent and there are limited parallel flows around the congested link. In this approach, the TSO is exclusively entrusted with managing congestion problems in an optimal way. With highly integrated European networks, redispatching does require significant cooperation between TSOs.

Redispatching schemes should be designed in such a way to encourage the participation of interruptible consumers.

2. Auctions: Among the possible solutions, the concept of capacity auctioning is under study. Theoretically, under pure market conditions, where competition is clearly established among a sufficient number of actors to render the market dynamic and fluid, and where no one network user dominates the market, an auctioning scheme might be able to function properly. In reality such a situation will clearly not exist for a long time to come. The fundamental problem with this approach is that it is open to gaming by dominant market actors. IFIEC Europe believes that any capacity auction system could be subject to abuse by dominant utilities who are, in many cases, owners of public grids and dispose of substantial financial resources in order to influence auction bids and prices. To date, large consumers are unaware of any positive experience where capacity auctions have been introduced in gas and electricity networks. Consumers could therefore suddenly find themselves exposed to excessive regional cost increases without realistic option to avoid such costs. Additionally, the question remains how to re-distribute the income generated by auctions. Revenues from auctions could even provide an incentive to maintain bottlenecks. Where a number of

constraints exist the situation would lack transparency which could damage consumer confidence in the efficient application of congestion management. For this reason, **industrial energy users strongly oppose the introduction of any auctioning scheme in Europe in the immediate future.**

3.2 Market Based, Multilateral Trading Solutions

Market-based mechanisms can only be implemented with success where fluid markets exist. Market-based schemes would require non-discriminatory access to a transparent, real-time information system for the notification and reservation of available capacity for multilateral transactions. This information should be based on Net Transmission Capacity and Power Transfer Distribution Factors (the latter to address the problem of parallel flows). There would undoubtedly be significant complexity associated with this kind of scheme. This approach is similar to redispatch with the transactions being undertaken by traders in a decentralised way rather than by the TSO's. Significant modelling of such a scheme would be recommended before such fundamental change is introduced to ensure system security can be maintained.

5. The Way Forward

Progress towards a single European electricity market has faltered, and the establishment of different degrees of competition in 15 individual markets has led to a diversified approach to congestion management. The Commission have recognised this and are currently addressing how progress can be accelerated to achieve greater consistency.

Against this backdrop, IFIEC believes that the Commission should promote a common approach to congestion management throughout Europe.

The primary features of any scheme from the industrial consumers' point of view are simplicity, transparency, maximum use of transmission capacity and low cost.

In conclusion IFIEC firmly rejects the use of capacity auctions and would wish to see the redispatching approach further explored. It would also be prudent if more analysis of a market-based multilateral trading approach could be undertaken, as it may provide for a superior solution, in the long-term.

<% Recordset1.Close() Set Recordset1 = Nothing %>