

# Management of System Access in Scotland

National Grid note to STC Committee

## Purpose

Constraint Costs in Scotland made up a significant proportion of Balancing Costs in 2006/07. There are a set of tools that can be used to manage the impact of constraints, both in terms of network configuration and through constraining generation. In England and Wales the financial consequences of utilising either option are interlinked, however in Scotland the split of SO and TO means that the financial incentives to operate in a certain manner can give conflicting signals regarding how best to manage constraint costs.

This note therefore discusses the how National Grid manages system access on the Scottish transmission system and how this differs from the management of system access on the England and Wales system. It also moves on to suggest that the ways in which the incentives surrounding the management of network constraints in Scotland can be better aligned should be further investigated through, potentially a Working Group established under the STC Committee.

## Methods of Managing System Access

There are a number of methods National Grid uses in managing system access risks. A brief synopsis of the methods are outlined below and the core differences between Scotland and England and Wales identified.

Tool	Scottish Arrangements	Comparison with England and Wales
Optimise Outage Placement	Covered in the STC	<ul style="list-style-type: none"><li>There is no incentive for the Scottish TOs to develop / use smarter working methods</li><li>Receiving accurate data for longer term planning from the TOs and the generators can cause some difficulties in developing a longer term plan.</li></ul>
Moving outages Outage accelerate Adjusted working patterns	Cost associated with moving outages reimbursed by the SO to the relevant TO	<ul style="list-style-type: none"><li>The STC arrangements allow the SO to request outage changes. However, the Scottish TOs do not provide the level of flexibility received from the E&amp;W TO.</li><li>There is a difference in costs provided by the two Scottish TOs for changing outages.</li><li>There is no incentive on the Scottish TOs to undertake non-core working hours</li></ul>
Outage cancellation		<ul style="list-style-type: none"><li>There is no incentive on the Scottish TOs to increase the risk to their asset by postponing outages against a constraint cost saving.</li></ul>
Emergency Return to Service (ERTS)	Same	<ul style="list-style-type: none"><li>Scottish TOs provide a cost to facilitate the required ERTS</li></ul>
Short term ratings	Requirements to provide information embedded in the STC	<ul style="list-style-type: none"><li>Historically, the Scottish TOs have not utilised short term ratings to manage system overloads. Generation output changes were used to control flows.</li><li>Short term ratings have not yet been received for a number of Scottish circuits, primarily the 132kV system.</li></ul>
Temporary thermal ratings enhancements	Same	<ul style="list-style-type: none"><li>The STC has a procedure to allow for thermal enhancement requests. However, there is no financial incentive for the Scottish TOs to increase the risk to their equipment to reduce</li></ul>

		<p>constraint costs.</p> <ul style="list-style-type: none"> <li>• MORE and CTM rating facilities are not currently available for Scottish circuits.</li> </ul>
Intertrips	Require framework for instigating Scottish CAPEX scheme to fulfil SO requirement	<ul style="list-style-type: none"> <li>• Have developed commercial arrangements for the Cheviot i/t. For any new i/t, we would need to develop a capital scheme to install a new i/t with the TO.</li> </ul>

### Differences in Management

As seen from the table above, there are a number of tools used by the System Operator to manage system access issues. Most of the tools are available in both England and Wales and in Scotland. However, there are a number of tools that are currently not available in Scotland that would improve system access.

The areas that could possibly be improved are:

- Devising a mechanism whereby the Scottish TOs may financially benefit from changes in working practices and methods which will enable the SO to potentially reduce outage costs and risks, increase the number of circuit outages taken in the year and reduce system risks
- Devise a mechanism to whereby the Scottish TOs may financially benefit if short term thermal ratings are developed and supplied which would ensure that installed equipment is fully utilised, enabling an increased number of outages to be agreed
- Apply 'Circuit Thermal Monitor' or 'Met Office Ratings Enhancement' ratings to critical equipment. However, to enable this the Scottish TOs would need to agree and sign on to the CTM and MORE rating methodologies and have equipment in place to provide the relevant information

### Way Forward

- Informal discussion at the STC Committee
- Set up working group to discuss issues
- Propose modification(s) to the STC