Costs and benefits of introducing an independent system operator in Great Britain

Assessment of the appropriate model for the future GB SO
The current role of the NG SO has evolved following first EMR and then more recently ITPR...

<table>
<thead>
<tr>
<th>Roles</th>
<th>Pre EMR</th>
<th>Post EMR but Pre ITPR</th>
<th>Post ITPR (late CATOs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 System balancer</td>
<td>NG SO</td>
<td>NG SO</td>
<td>NG SO</td>
</tr>
<tr>
<td>2 Network planner</td>
<td>NG TO</td>
<td>Scot TOs</td>
<td>OFTO</td>
</tr>
<tr>
<td>3 Network Asset</td>
<td>NG TO</td>
<td>Scot TOs</td>
<td>OFTO</td>
</tr>
<tr>
<td>4 Long term security of supply</td>
<td>NG TO</td>
<td>Scot TOs</td>
<td>OFTO</td>
</tr>
<tr>
<td>5 Enabling market access for economic technologies (“level the playing field”)</td>
<td>NG SO</td>
<td>Ofgem</td>
<td>NG SO</td>
</tr>
<tr>
<td>6 Supporting new technologies (“tilting playing field”)</td>
<td>NG SO</td>
<td>DECC</td>
<td>NG SO</td>
</tr>
</tbody>
</table>

...although (pending outcome of the early vs late CATOs debate) there is still some uncertainty as to the “depth” of enhanced SO role
Given expanding role and changing system reasonable to ask whether ISO is a better model.

**Possible costs of ISO**

- Loss of system balancing and network planning synergies between SO and TO role
- Lack of high powered incentives
- Implementation costs and short term uncertainties

**Possible benefits of ISO**

- Removal of potential conflicts of interest in onshore competition and interconnectors
- Removal of bias towards “transmission heavy solutions”
- Potential for greater clarity on Security of Supply

Introducing LMPs mitigates some of potential costs of introducing ISO...

.....but risks increasing implementation costs and uncertainties

**4 factors strengthen case for ISO over time**

- Increasing decentralisation of generation
- Introduction of LMPs
- Successful roll out of ONTOs
- Resolution to current security of supply concerns
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