Quality Assurance Report
ESO Regulatory and Incentives Arrangements: Guidance Document

6th February 2019

The ESO will be legally separated from the National Grid Plc in April 2019. This change in governance is necessary to reflect the fast changes in the environment of the SO including smaller scale generation, intermittent sources of supply, distributed generation, demand side response, storage as well as increases in demand resulting from electric vehicles and electrification in transport.

The ESO should balance the transmission system in the most cost efficient way, by removing information asymmetries, promoting competition through encouraging participation of existing and new participants into the market in a transparent way. To ensure that this happens the ESO needs to operate without any conflict of interests in terms of transmission assets infrastructure. Ofgem has decided that this legal separation necessitates that the ESO will get its own specific licence. This decision is correct. Depending on the experience of the success of the ESO to achieve the roles listed above following this separation, it may be needed to further this into an ownership separation.

Along with any modification in the licence resulting from the legal separation it was decided to introduce a regulatory and incentives framework that will run for the years 2018-21 until the RIIO-2 is introduced as a separate price control for the ESO possibly incorporating parts of the ESO regulatory scheme in April 2021.

The addition of the ESO Regulatory and Incentives framework has the purpose of incentivising behaviours by the ESO over and above the baseline requirements as these are reflected in the licence condition C16. It sets the expectations of the regulator of the ESO across its 4 different roles. These are separate and in addition to the ongoing RIIO-T1 price control which expires in 2021. While the latter is designed to incentivise the ESO to minimise internal costs (with a share of 50% of any overspend or underspend to incentivise the ESO to strive for cost efficiencies), the former comes with a price tag ± £30 million as a reward or penalty to incentivise spending on these principles to achieve performance metrics as set by the ESO in its annual forward plan. This creates a conflict but at the same time it is necessary given the dynamic efficiency considerations that strongly underline the environment in which the ESO operates at a time of rapid changes in technology and the need to respond to them swiftly.[1]

[1] The conflict is not unknown in the 35 years of price controls in the UK with the trade-off between cost efficiency and dynamic efficiency. As the firms wish to beat the X as set by the regulator quality increases or the drive to innovate may suffer in the search for cost reduction. The separate treatment of capex to that of opex did resolve

Regarding the roles and principles framework, Ofgem's direction of travel is to maintain this as part of the next price control. If the ESO believes that this is an evolving scorecard system with the principles changing as the expectations of Ofgem regarding the ESO change, and that the evolved system will eventually be fed into RIIO-2 then it will try to influence its evolution and will behave strategically in its reporting in order to achieve this.

The report by the ESO should have an ongoing progress report character[2] for long term initiatives elaborating on things like insufficient progress or limited output or benefits as these are realised. It is not clear whether these can be contained in performance metrics in a scorecard, or they will need to be evaluated in a more qualitative way along with some narrative on progress by the ESO (see further on this below).

So there are problems of commitment to the original principles (by the regulator) as well as conflicting signals in terms of cost efficiency (as imposed by RIIO versus the Reporting and Incentives framework).

In terms of economic theory, the primary role of the ESO is to maximise information in the market to enable participants to minimise transaction costs in self balancing (Role 1). The ESO facilitates market clearing through providing information to stakeholders in a cost efficient way (the ways to achieve that will require behaviour that overlaps with behaviour principles in the other roles). It is easy to measure the performance in this role in terms of measurable performance metrics: outage times, accuracy of forecasts etc. But this is one of the four roles in the framework. So what happens with the other three?

Before commencing this study the author researched as to whether the scorecard approach is used in any other regulated industry. One example was found in Rail. ORR has introduced evaluation scorecards for the Network Rail SO (as well as the regional routes and the freight segment). The SO scorecard is a 3-tier one[3] reporting on its own performance (T1), at the directorate level (T2), and at the geographically disaggregated route level (T3). It consists of four key areas: strategic planning, managing output changes, managing the sale of access rights framework and producing a timetable. The big difference of course is that the rail SO does not have any real-time operations. This is in stark contrast with the ESO. Also the majority of its operations are easy to measure e.g. producing a timetable easily lends itself to performance metrics such "delays due to timetable planning errors". However, when it comes to the role of strategic planning this involves a long term planning process of how the network should develop over the long term (30 years hence). Clearly such a role is not quantifiable so that a scorecard can be used; the SO is expected to use a narrative report.

this dilemma for a time, but at the age of totex combined with an environment of fast and dramatic technological changes this has returned.

[2] Ofgem recognises this and makes the point at different points in the related reports. Also there is an example of a table in page 29 of the guidance document that provides the opportunity to comment on the delivery of a longer aim or activity.

[3] ORR, 2018 Periodic Review Draft Determination, June 2018.

The ORR has tried to deal with this long term horizon issue by purposing changes involving moving away from route studies undertaken on a rolling basis of 7-10 years with a "more modular approach that develops options for funders including to inform the enhancement pipeline and upcoming franchise decisions." (p. 9, ORR report). We return to this feature of a more step-wise approach as a solution to long-term projects in our discussion below.

The Ofgem framework sets out four roles for the ESO. These roles largely overlap. The regulator has further subdivided into 7 principles in terms of expected behaviour. One can view the roles as higher level outcomes, which are then distilled into expected behaviour in the form of these principles. In turn these will have to be addressed in terms of performance metrics as set by the ESO.

As mentioned above, in setting these performance metrics, the ESO, like the NR SO, has a short run role which is easy to measure and has to do with managing the system balance. This can be easily evaluated through performance metrics such as outage times, accuracy of forecasting etc. But this is not the case for the other roles.

As an example of the overlap in principles, Black Start using distributed generation will be evaluated under principle 3, but it belongs to principles 5 and 6 as well.[4] Consequently, there is a danger of double rewarding or, as a risk in the opposite direction, splitting the rewards thin across too many principles, or the ESO being unsuccessful and facing the risk of being over penalised for this. This also creates a danger of the ESO focusing on producing only metrics linked with easy to measure behaviours and hence becoming more short-run focused with damaging implications for dynamic efficiency as described below.

Many of the aspects of the ESO's remit are long horizon innovation projects. Capturing and - equally challengingly - measuring dynamic efficiency is very difficult. This requires long term evaluation methods to enable the capturing of actions whose benefits may take many years to materialise. There is a clear necessity to introduce continuity in the evaluation of long run innovation programmes.

Possible solution: recognise the different time dimensions in the activities by the ESO and introduce a time based three tier scorecard (short run, medium term and long term horizon), and reduce the number of principles:

Role 1 is a short term one (encompassing principles 1 and 2), for which it is easy to have performance metrics for evaluations e.g. accuracy of forecasting (forecasting errors), success in balancing (outage times) etc. Clearly these are subsumed in the role of managing the system balancing and operability and depict the success of the ESO on minimising information inefficiencies and thus enabling stakeholders to make informed decisions driving overall efficiency in balancing. These belong in the tier 1 short term scorecard.

Principles 5-7 should be subsumed into one Role (3) that the ESO can both present in its forward plan in a narrative form and include, where possible, performance metrics

[4] Black Start is a good example of what is referred to in paragraph 3. 14 as proactive effort by the ESO "…to collaborate and cooperate with other stakeholders in order to develop solutions that maximise consumer benefits."

CITY
UNIVERSITY OF LONDON
EST 1894

that illustrate progress in the form of milestones. Equally importantly this will make it easier for the Performance Panel to evaluate and assign scores. As these principles are measuring long term goals it is expected that the ESO may find it difficult to translate into quantifiable performance metrics these type of actions. It may find it easier to have a qualitative approach reporting steps and progress into a long term project, possibly by separating the actions into milestones as mentioned. These will belong in the long horizon tier scorecard.

Similarly facilitating competitive markets (Role 2) should be seen as a separate scorecard for evaluating the actions be the ESO to maximise competition and encourage entry into the market by new players as well as existing players. This can be the medium term tier scorecard.

Overall the question is whether it is better to have an evaluation based on four roles (or three time related tiers) rather than on seven principles. The latter are helpful as guidelines for the ESO of what constitutes behaviour above baseline expectations for the regulator, but do not necessarily lend themselves into translating into a scorecard system with quantifiable scorecard metrics.

The performance evaluation criteria to be used by the performance panel require evidence of delivered benefits. This will not be easy to quantify in long term initiatives; if these are do not materialise for several years, the evidence of future benefits will be hard to quantify. This may lead to risk averse behaviour by the ESO who will eschew such projects focusing on performance metrics associated with role 1 leading to more baseline behaviour rather than “above and beyond” for easier rewards.

The regulator seems to be wary of exactly the opposite situation: that the ESO will be awarded high scores in earlier years on the basis of the future delivery of a long horizon initiative and therefore there will be the need to look back and check whether the benefits in the performance reports have been realised. While this action is sensible it may further reinforce the triggering of risk averse behaviour by the ESO as described above and also a risk averse behaviour by the performance panel inducing a “wait and see” conservative manner in scoring. Another question is how a continuous scorecard that promises to look back at previous plans will translate into the new price control.

As a final thought, the author wishes to consider the menu regulation experience (IQI in the regulator’s parlance). IQI is well grounded and justified in economic theory as a way to drive both cost efficiency and through incentive compatibility create incentives for the company to reveal its true costs. The reason why it has not delivered the expected benefits is three fold: the companies try to game the benchmark as the information to build this is provided by them, it does not easily translate into the companies’ cost structure and, given a loss aversion bias, they are more concerned about losses rather than gains. The fear for the Reporting and Incentive Arrangements framework’s efficacy in delivering expected behaviours by the ESO is similar. Will it be possible for the ESO to translate this as a company into its corporate cost structure? And will the company adopt a risk averse behaviour in reporting and setting its performance metrics (to manipulate the evolving expectations of the regulator) and respond to incentives in a loss averse way?

Answers to questions:

Are there any improvements that could be made to the overall process to ensure it is robust, fair and suitable?

The overall process is fair and gives a sense of direction and continuity given the frequent contact points before, during and after the setting of the plan, especially in terms of engagement with the stakeholders as illustrated in page 10 of the guidance document. Specifically, the ESO needs to engage with stakeholders at least three months before publishing its forward plan at the end of March and the regulator can respond with an opinion one month later. The company consequently publishes performance metrics every month and both the performance panel (PP) and the stakeholders have a mid-year review of the ESO performance. The latter gives a clear opportunity to update on progress against deliverables as determined by the ESO performance metrics, and any consumer benefits created.

<u>One possible improvement</u> is that the latter consumer benefits should be clearly tagged in terms of origination plan clarifying whether such benefits are the results of the current year plan, or whether they are the realised benefits resulting from the actions from a previous year plan. This will give a clearer picture of the direction of progress and improve continuity and robustness in the framework.

I think that the stakeholder involvement when the ESO sets up its plan and thereafter on the quarterly performance reports is of critical importance and also can be used as evidence of engagement with stakeholders by the PP. It will allow the PP to distinguish between plan deliveries of subsequent years. This will increase robustness of the overall process on correctly evaluating and rewarding actions by more firmly linking them to their outcomes when these are long run ones.

However, as I have mentioned above, the framework does not necessarily overcome issues of biases (e.g. risk aversion and loss aversion) in reporting and in setting the performance metrics by the ESO. Similarly it cannot avoid the commonly occurring bias of not being always able to detect and punish inaction as in dynamic efficiency it is easy to identify and reward realised benefits (as the ESO will strongly pin-point them), but it is more difficult to identify forgone benefits and punish for their absence. I can offer no remedy to this problem as it is an inherent weakness of the suggested process. Moreover, as I mention in page 1 the fact that this is added to the price control means that there will be a conflict between cost efficiency and dynamic efficiency.

CITY
UNIVERSITY OF LONDON
EST 1894

Are there any improvements that could be made to the evaluation criteria in particular to ensure that they are robust, fair and suitable for evaluating the ESO's performance?

One improvement, as I have suggested above, is to use as evaluation criteria either the four roles or, alternatively, group the seven principles in three, reflecting the short term, the medium term and the long term as described in pages 3 and 4. The latter makes more sense in terms of the key criteria that the PP is supposed to take into account, and in particular (a) and (b) as well as (d) (p. 19), that have a long term character. The principles are useful as guidance but not as evaluation criteria given their overlapping. Their interpretation is not unambiguous or easy by panel members; this means that their suitability is limited and as a result it may reduce robustness and consistency in the evaluation process. The regulator does recognise as much in par. 4.13 (p. 27) by commenting on the crossover between principles.

Using the roles, rather than the principles, may be more appropriate as they are outcomes (rather than expectations of behaviour or outputs), which is more in line with the regulatory focus of recent times.

The use of time dimensions is justified as the ESO scorecard is not for comparison purposes with other players in the market, but for comparison of the outcomes achieved by the ESO over time.

What is correct is the use of the stakeholders' views by the PP to determine under or over performance and engagement with the players in the market. Clearly if they believe that the ESO has performed above expectations this should constitute strong evidence to justify a higher score. At the same the PP will also consider the performance metrics although as the regulator suggests they are not in their own right "…sufficient evidence to justify performance" (p. 21) unless they are explained by the ESO and endorsed by the regulator.

Xeni Dassiou,
City, University of London