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European Transparency Regulation

Project Lessons Learnt Report

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European Transparency Regulation

Project lessons learnt report

What stage is this document at?

| 01 | Initial Report |
|----|-------------------|
| 02 | Revised Report |
| 03 | Agreed Report |

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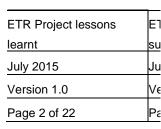
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About this document

This document provides a summary of the lessons learnt from National Grid's internal European Transparency Regulation (ETR) Project.

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Any Questions?

Richard Price

richard.j.price@ nationalgrid.com

0118 936 3391

Contact:

1. Executive summary

The requirements under the European Transparency Regulation (ETR) went live on 5th January 2015. At go-live, the majority of all reports from National Grid systems were successfully published on both ELEXON and ENTSO-e systems (BMRS and EMFIP) in compliance with the European Transparency Regulation.

Within GB we managed to meet the go-live date, however, the timescales to meet the requirements were generally considered by market participants to be challenging, and many stakeholders felt that National Grid's project plan to deliver the requirements had insufficient time allocated for testing, resolving system issues and to provide a sufficient period of time to demonstrate the stability of the system.

There were also a number of issues which arose during the lifecycle of the project at different stages, and these caused delays and technical difficulties. This resulted in a limited period of time for testing and led to frustration and a lack of user confidence in the initial systems to deliver the end to end process. Following identification of a risk that the timescales would not be met, contingency workarounds were adopted to ensure delivery of the requirements under the regulation.

A number of key themes emerged from the feedback received about the project. This feedback was collected from a stakeholder survey, a Lessons Learnt workshop in Oxford in March, discussions with Elexon and internal National Grid Lessons Learnt sessions covering each stage of the project.

These main themes included:

- early influencing of ENTSO-e,
- early engagement of the affected stakeholders,
- stakeholder representation and industry involvement during the project,
- system design and flexibility,
- communications,
- project coordination, and
- provision of contingency arrangements

As a result of these themes, learning points have been identified and these have been summarised in a set of recommendations for how National Grid should seek to do things differently in future projects. There are important lessons for future European Code implementation.

Learning points from the ETR project were presented to the Grid Code Review Panel (GCRP) and Joint European Steering Group (JESG) in May 2015.

An action plan has been developed to identify how we should implement the recommendations internally within National Grid and across other partner organisations where appropriate. A number of changes have already been adopted.

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2. Introduction

The European Transparency Regulation (ETR) came into force on 4th July 2013 and had an implementation date of 5th January 2015. The Regulation sets out a requirement for the publication of a common set of data relating to the generation, transportation and consumption of electricity. It places an obligation on primary owners of this data to submit information to National Grid as TSO (Transmission System Operator) and GB Data Provider for onward transmission to a Central European Platform (EMFIP).

The European Transparency Regulation has an interaction with BSC Modification P291 which introduced a REMIT inside information publication page on the BMRS. Parties have the option to submit REMIT outage notifications via National Grid for onward submission to the BMRS. The ETR requires the mandatory publication of all outage data and so REMIT outage notifications represent a subset of the outage information reported under Transparency.

National Grid raised BSC Modification P295 which proposed that Elexon should be the conduit to whom National Grid submits ETR data and which Elexon then submits to EMFIP (and publishes on the BMRS). P295 was approved by Ofgem in December 2013. The P295 implementation date was 16th December 2014, in advance of the formal ETR implementation date of 4th January 2015.

National Grid carried out an analysis of the data required under the ETR and found that much of the data required was already being submitted to National Grid under the existing industry framework and processes. In addition, National Grid undertook significant changes to its internal IS systems and business processes in order to deliver the new data to EMFIP. However, to fully meet the ETR requirements there were specific areas which required additional data submissions from industry participants.

National Grid initiated an internal European Transparency Project as far back as 2010 to look at early options for system design, and to analyse the likely data and reporting requirements. Initial industry engagement started in late 2013 at the first workshop held at the Ardencote Manor Hotel near Warwick on 6th November, and the P295 modification involved industry representatives in discussions about how best to implement ETR within the existing GB transparency framework and information publication .

An industry consultation was held in December 2013 seeking views from stakeholders on implementation options for ETR.

Subsequently further workshops were held with industry participants during 2014 approximately every six weeks.

A testing phase was due to commence in September 2014, but due to delays and issues, this resulted in a limited period of time for testing and led to frustration and a lack of user confidence in the initial systems to deliver the end to end process. Following identification of a risk that the timescales would not be met, contingency workarounds were adopted to ensure delivery of the requirements under the regulation.

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The project timescales were generally considered to be challenging, and many stakeholders felt that there was insufficient time allocated for testing, resolving system issues and to demonstrate the stability of the system.

There were also a number of issues which arose during the lifecycle of the project at different stages which exacerbated the above issues. The following sections include feedback from different sources as follows:

- Summary of feedback from ETR customer survey
- Summary of feedback from Lessons Learnt session in Oxford on 9th March 2015
- Summary of feedback from Lessons Learnt meeting with ELEXON on 17th February 2015
- Summary of feedback from National Grid internal project lessons learnt sessions

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3. Project Delivery

The primary project deliverables were changes to existing systems and a brand new system.

In close collaboration with Market Participants, ELEXON and ENTSO-E, we delivered a new MODIS system (Market Operation Data Interface System), changes to our Energy Forecasting System (EFS), new communication channels for over 60 external users, and links to ELEXON.

This enabled the publication of around 40 new reports on BMRS in accordance with P291/P295 and onward publication to EMFIP, including external market participant reports to comply with both ETR and REMIT regulations.

Overall compliance with the European Transparency Regulation was achieved at golive on 5th January 2015.

The new MODIS system provides a platform for development of future reporting e.g. EBSCR (P305).

We also set up a new GB Local Issuing Office (LIO) for administering EIC codes for both electricity and gas.

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4. Summary of feedback from ETR customer survey

| Survey question categories | Responses |
|--|---|
| Was project mobilisation started at the right time? | Mixed response – some comments that project should have mobilised earlier before key assumptions made, software development could have been started earlier, and more action needed in the early stages. |
| How was the explanation of requirements in the Industry Consultation Dec 2013? | Certain rules could have been more clearly communicated earlier, and more thought given to the detail. |
| Recognition of individual organisations' requirements? | Feedback could have been given more consideration in some specific areas, e.g. GUI, use of A03 curve type. |
| Time allocated to the design stage? | Changes to design needed to be clearly communicated to all participants, and the design stage overran the original August 2014 deadline. |
| Time allocated to testing stage? | Delays to MODIS meant not enough time available for testing; better coordination of issues between National Grid and ELEXON; very limited opportunity for end to end testing. |
| Loading of Day 1 data ahead of go-live? | All respondents who sent their day 1 data said that it was loaded ahead of go-live. Not all parties provided their day 1 data to National Grid ahead of the go-live date. |
| Was the solution fit for purpose to meet ETR obligations? | There were Initial problems with response times to publish the data; stability issues early on; configuration issues for hydro units; initial issues with support arrangements; intermittent disappearance of some files. |
| How were communications handled during the different project phases? | Mixed scoring across different phases; early communication of MODIS outages was poor. |
| Any areas that worked well and should be repeated? | Testing update calls; assigning individuals to work with each market participant during the testing phase; face to face meetings; daily testing calls. |

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| The average time between us senaing a document and getting a response in the first month was, as said 452 mins, Even if I just take it from the start of February that time is 84 mins. The system is still unstable and your helpdesk responses are slow".analysts and business representatives:"I would like to thank individuals have worked hard in difficult circumstances to support us. Steve Roberts did well to co-ordinate testing in a vory difficult situation, Jayati Dwivedi put in a lot of effort to process our Day 1 files manually when the MODIS system was not working and Isaac Wilks has worked hard to improve overall communication"."Main issues were: - Over complex and duplicate regulation between ETR and REMIT - Lack of overall end to end owner for process and solution across ENTSO / ELEXON / NG - No party taking responsibility for guiding industry on how to populate data - Over complex system solution for a very simple problem - Poor planning - Lack of basic project management processes (Milestone Reporting, Risk and Issues, Defect Tracking) - Poor communication (albeit improving later in the project) - Lack of involvement of participants in design decisions - Blind desire to go-live to fixed date with limited regard for quality - Inadequate support model"."More involvement needed from market participants in design decisions - Blind desire to go-live to fixed date with limited regard for quality stage could perhaps have helped create a system that was more user friendly - especially for the manual entry part of the GUI, which is virtually unusable in my opinion"."Common themes across included poor communication, lack of user involvement at early stages of the project and a need for a better definition of the role and responsibility of the Market Participants. The latter with | | |
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| | | |

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5. Feedback from Lessons Learnt session in Oxford

The key themes from this session are listed below. For a full list of all the detailed comments please see the Appendix.

5.1 Project Startup

| Process | Link to section 9 recommendation |
|---|----------------------------------|
| Greater involvement of users | 9.1 |
| Clarify roles and responsibilities as early as possible. | 9.2 |
| Communications | |
| How to contact everyone and ensure that parties are all | 9.3 |
| included on email distribution lists from the start. | |
| Ensure regular communications to cover all issues such as | 9.3 |
| outages, system availability, system health warnings, status | |
| messages etc. | |
| Coordination | |
| Allow sufficient time at the start to consult all affected | 9.5.2 |
| parties. | |
| Regular checks are required to ensure that the project is still | 9.3.1 |
| on track, e.g. stage gates. Need to regularly step back from | |
| the delivery to assess progress. | |
| Recommendations for future projects | |
| Need to identify lead representatives at the start for NG, | 9.2.1 |
| ELEXON, OFGEM, MP's. | |
| Use AGILE techniques. Separate the IS info from the User | 9.1.2 |
| info. Declutter users screens (e.g. not all XML fields shown | |
| if not all relevant. | |
| More collaborative approach across Europe. Earlier input to | 9.1 |
| decision making. | |

5.2 Understanding Requirements

| Recommendations | |
|---|-----------|
| Single cross-industry forum for European issues. Working groups and single website and email group. Note: OFGEM Joint European Stakeholder Group. | 9.1 / 9.2 |
| Regular newsletters. | 9.3.1 |

5.3 Design

| Process | | |
|---|-----|--|
| National Grid initial design assumptions led to difficulties with | 9.1 | |
| registration data and mapping of responsible parties. | | |

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| The uncertainty over the availability of webservices caused difficulties for participants in planning their submission methods. | 9.1 |
|--|-------|
| Recommendations | |
| Retain flexibility of design – some embedded early design decisions caused problems later. | 9.1 |
| The contingency spreadsheet solution was complicated, too late, hard to use, not fully tested and only available for submission in office hours. | 9.5.3 |

5.4 Testing

| Process | |
|--|-----------|
| ENSTO-e late validation changes caused significant problems | 9.1.3 |
| for participants just before go-live. | |
| Recommendations | |
| Insufficient National Grid testing prior to MP testing – | 9.5.2 |
| additional testing was planned but didn't have sufficient time | |
| due to MODIS delay. | |
| Christmas falling in the period immediately before go-live was | 9.1 / 9.5 |
| definitely not ideal. | |
| Insufficient test coverage prior to go-live. Low confidence in | 9.5 |
| go-live success due to lack of testing. | |
| Learn from industry experiences and feedback to ENTSO-e. | 9.1.3 |
| Acknowledgement across the board of lessons learnt and | |
| develop a collaborative European approach. | |

5.5 Post implementation

| Recommendations | |
|--|---------------|
| Higher level executive communications required and quarterly | 9.3 |
| newsletters. | |
| Beneficial to share experiences with contingency solution with | 9.3.4 / 9.5.3 |
| all MP's. | |
| Visibility of overall project plan needs to be greater. | 9.5.1 |

6.1 Integrated Approach

NG and Elexon projects were run as two completely separate projects with very little coordination – we need a much more integrated approach for future projects to ensure mutual requirements and dependencies are well understood upfront to avoid surprises and false expectations. This should include an overall integrated project programme.

6.2 Internal communication with suppliers

Elexon has a separate Change team in analysing proposed modifications. This Change team is located physically very close to their Delivery team. A lot more informal communication occurred between these two teams which helps the understanding of any proposed modifications. Even more important is that Elexon's service providers (CGI and Cognizant) are involved in outlining the design and solution to determine the timescale of delivery to go into these proposals before these proposals are submitted for approval. National Grid need to get to that position with their partners/suppliers so that their partners/suppliers are not always on the back foot for these regulated changes all the time. National Grid will look at how they can achieve this.

6.3 Overall steering group

National Grid need to organise a session with Elexon to discuss the forming of an overall Programme board (or Steering group) to assess/manage forthcoming regulatory changes and to manage/coordinate associated project developments.

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7. Feedback from National Grid internal sessions

7.1 Pre-Mandate

- Despite National Grid being aware of the upcoming legislation, nothing was done from an IS perspective for 2 years.
- Once the Project Mandate was written, it was delayed by internal NG governance
- Governance was not prepared for projects regarding European legislation

See recommendations in Section 9 relating to forward planning.

7.2 Start-up

- There was only limited communication between Business and IS
- Positive: The delivery risk was identified by National Grid and other SOs ENTSO-E were successfully lobbied to extend the original time between regulation approval and enforcement from 12 to 18 months.

See recommendations in Section 9 relating to engagement and communication

7.3 Requirements

- Challenge with not enough BA/SA resource to do requirements work
- Needed early support from an SA for technical details. EMFIP had not been built, so the design was unclear
- Contingency solution should have been considered in Jan 2014
- No direct IS engagement with ENTSO-E

See recommendations in Section 9 relating to engagement and communication

7.4 Implementation

- Insufficient time to implement
 - Solution needed a period of stability prior to Go-live, but this was not possible
- Bad news e.g. delays or changes were not communicated in time

See recommendations in Section 9 relating to planning and communication

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8. Key themes from project feedback

8.1 Early Influencing ENTSO-E

- Ensure that there are opportunities or mechanisms for GB participants to influence ENTSO-E decisions, contribute to the definition of terms and the level of validation. Identify commonality and flexibility between TSO's, avoid duplicate regulations for outage reporting and help minimise the complexity of reporting schema.
- Agree a common GB implementation method (e.g. Grid Code mod GC0083 helped with understanding the requirements for the GB market).
- Avoid late changes which impact on all users (e.g. late changes to EMFIP validation rules).

8.2 Engagement

- Ensure link between codes processes and project start-up.
- Identify roles and responsibilities as early as possible.
- Make more use of the Joint European Stakeholder Group.

8.3 Representation and Involvement

- Allow sufficient time to consult with all parties before code agreement.
- Include code working group representation, business, IS and end users at each appropriate stage of the project (e.g. end-users in GUI design and contingency solution).
- Ensure the right people are identified at the right time by involving users early on and linking code mods to IS project and people.
- Early identification of roles and responsibilities.

8.4 Design and flexibility

- Decide optimum time to involve participants in system design.
- Adopt AGILE methodologies in order to avoid embedded design assumptions that cannot be easily modified later.
- Ensure that initial assumptions are not too optimistic and unachievable (e.g. number of data submission methods offered).
- Consider earlier working at risk to allow as much time as possible for implementation.

8.5 Communications

• Ensure we reach all participants and the right people from the outset in each organisation. JESG monthly meeting and newsletter

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is a good way to reach out to a wider audience and inform them of the channels available for them to engage.

- Regular newsletters, dedicated websites, active notification by email and via websites.
- Ensure system status is always promptly communicated to users.
- Review structure of communications and frequency adopt a standard mechanism.
- Improved internal communication between National Grid and its suppliers / partners.

8.6 Coordination

- Improve coordination between National Grid, ELEXON and EMFIP
- Regular monitoring to ensure project still on track, e.g. stage gates.
- Visibility of overall plan and progress against milestones.
- Guidance on how the regulation will be implemented.
- Set up a dedicated steering group to coordinate project activities.

8.7 Contingency

- Build more contingency into timescales and planning
- Allow time for full test coverage to provide sufficient confidence.
- Allow a period of stabilisation for system.
- Provide a contingency solution earlier in the process and include users in the design.

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9. Recommendations

From the key feedback themes, we have identified the following areas where National Grid will try to do things differently next time.

9.1 Engagement and involvement

We will seek to

- 9.1.1 Engage all stakeholders at the earliest opportunity
- 9.1.2 Involve stakeholders in early discussion of options, assumptions, system design, testing, and planning
- 9.1.3 Provide early opportunities for parties to participate and influence key project decisions and feed this back to ENTSO-E where appropriate

This lesson has now been adopted – a New Joint SO Business and IS European programme Board was established in April 2015 to manage and oversee cradle to grave regulatory projects. Part of the board's remit is to ensure that early engagement between the business and IS with key regulatory stakeholders is permanently established.

9.2 Roles and Responsibilities

We will seek to

- 9.2.1 Identify project and user roles and responsibilities
- 9.2.2 Clearly communicate these to all parties
- 9.2.3 Coordinate activities more closely with other lead parties (e.g. Elexon)
- 9.2.4 Take ownership of end to end processes

Lessons adopted – see 9.1 above.

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9.3 Communication

We will seek to:

- 9.3.1 Provide regular updates on the project plan, progress against milestones, risks and issues and defect management
- 9.3.2 Improve helpdesk response and feedback
- 9.3.3 Provide timely information on system outages, failures and downtime
- 9.3.4 Offer guidance on common issues and requirements

This lesson has been adopted - a formal communications role will now be established for all complex regulatory projects within National Grid.

9.4 Documentation

We will seek to

- 9.4.1 Ensure clear version control and identification of changes
- 9.4.2 Provide consistency between different levels of documentation and across different parties
- 9.4.3 Ensure compatibility of project documentation and links to external sources

9.5 Planning and Contingency

We will seek to

- 9.5.1 involve all parties in planning, regularly communicate the plan and updates to progress against milestones,
- 9.5.2 ensure sufficient time is available for each project phase
- 9.5.3 identify contingency arrangements to mitigate delays and provide alternatives to manage system unavailability or instability
- 9.5.4 Consider earlier working at risk to allow as much time as possible for implementation

This lesson has now been adopted for EBSCR and is now built into start up process and governance for future European/regulatory projects across National Grid.

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10. Next steps

The next steps that National Grid will be taking to ensure that key learning points from this report are communicated more widely and actions are followed up are as follows:

- a. Publish this lessons learnt report to industry on our website.
- b. Present lessons learnt to Grid Code Review Panel (GCRP) and Joint European Stakeholder Group (JESG) this was completed in May.
- c. Communicate lessons learnt internally within National Grid. National Grid internal lessons are added to a dedicated knowledge management tool which informs all new projects.
- d. Formulate an action plan for implementing any outstanding recommendations internally within National Grid and across other partner organisations where appropriate.

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Appendix – Detailed feedback from Industry Workshop

Project Startup

Process

When is the optimum time to involve participants in system design? Need to involve external users in the design of the system GUI.

Need representation from Codes group participants, from Project / IS / Business representatives and end users.

Need to identify roles and responsibilities as early as possible.

Need an input to the agreement of ENTSO-e definitions (e.g. outage definitions, curve types) and a common GB interpretation.

Communications

How to contact everyone?

Ensure that parties get on to the right email list at the start.

Use ELEXON circulars in combination with a dedicated website (single place for publication of messages). Active notification (email) as well as website messages. Review structure of communications – daily / weekly etc. National Grid should

investigate a single / standard comms mechanism.

Emails to cover IT issues such as health warnings, status messages etc. How to reach those not on email e.g. website.

Coordination

Allow sufficient time at the start to consult all affected parties.

Ensure there is a clear link between the codes agreement and the project startup. MODIS GUI screens are inconsistent with ELEXON screens. Parties prefer to use contingency email and spreadsheet. Lost opportunity to use MP input into screens.

How do MP's source the right software?

Regular checks are required to ensure that the project is still on track, e.g. stage gates. Need to regularly step back from the delivery to assess progress.

Recommendations for future projects

Need to identify lead representatives at the start for NG, ELEXON, OFGEM, MP's. Clear roles and responsibilities for TSO, Primary Data Owners, Data Providers etc.

Make more use of Joint European Stakeholder Group (JESG).

Importance of having the right people at the right time and having a structure in place.

When to involve IT people. Need to identify the right people from IT and the business. Involve users early on.

Use AGILE techniques. Separate the IS info from the User info. Declutter users screens (e.g. not all XML fields shown if not all relevant.

More collaborative approach across Europe. Earlier input to decision making.

Understanding Requirements

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Process

Low attendance at first workshop – how to reach the right people and communicate the weight / importance / priority of the project and who it affects. Wider involvement in decision regarding ELEXON BMRS publication (P295) as well as EMFIP.

Representation from primary data owners on ENTSO-e groups. Opportunity to influence requirements and definitions. Final outcome is compromise across all TSO's / countries. ENTSO-e deliberately did not validate certain elements, e.g.

Communication

Targeting the right people for the consultation early on.

Assumptions that information has got through – particularly for smaller participants who may be represented by consultants.

Coordination

Ensure link between code mod representatives and IS people.

Roles and responsibilities within each company and mapping to requirements – involve users in agreeing these.

Delivery - documentation

ENSTO-e documentation – confusion across too many documents and hard to understand - need for clarity and consistency across all documents. Input to detailed definitions and clear understanding of terms and interpretation.

Recommendations

Single cross-industry forum for European issues. Working groups and single website and email group. Note: Joint European Stakeholder Group.

Regular newsletters.

Establish link between ENTSO-e one rep per TSO and GB working groups.

Design

| Process | |
|---|--------|
| GC0083 was helpful in clarifying questions on interpretation of requirement | its. |
| Interpretation against a generic XSD led to issues with ENTSO-e validation. | |
| Push / pull issue resulted in difficulties with participants relating to firewall | |
| access, network design. | |
| National Grid initial design assumptions led to difficulties with registration | data |
| and mapping of responsible parties. | |
| The uncertainty over the availability of webservices caused difficulties for | |
| participants in planning their submission methods. | |
| | |
| Coordination | |
| A sense check from business users over erroneous requirements and comp | lexity |
| would have been beneficial. | |
| Identify any constraints or limiting factors ahead of time. | |
| Understanding of the timelines and focus on the key phases. | |

ETR Project lessons learnt July 2015 Version 1.0 Page 19 of 22 Market participants would have liked to be able to influence design decisions e.g. outage time alignment with market time unit half hourly boundaries. Also automatic, manual and backup system options.

Delivery – documentation

After the initial National Grid requirements document, updates were only issued as emails, making it harder to track changes.

Recommendations

Retain flexibility of design – some embedded early design decisions caused problems later.

Maybe it was over ambitious to offer four different methods of data submission. Could have adopted phased introduction. Stick with proven method for communication solutions.

Include DR failover in initial design. Preparations in advance for test - if no system available, need to switch off communications for that period.

Maybe P291 and P295 could have been combined to make implementation simpler. Single ETR and REMIT front end – avoid multiple entry of the same outage.

The contingency spreadsheet solution was complicated, too late, hard to use, not fully tested and only available for submission in office hours.

Master configuration issues – too many different BMU names, drive from EIC spreadsheet, incorporate in CRA process, EIC codes meaningless to end users.

Enduring LIO options - within BSC, single Registration process, simplify.

Definitions of Registered Capacity – trigger threshold, return level for outage, ability to influence ENTSO-e. Clarity needed over ambient temperature, wind speed and other influencing factors.

Testing

| Process |
|---|
| Andy Spiceley was very useful to have in the role of EMFIP project manager. |
| Survey response indicated not enough time for testing. Compressed timescales |
| were mainly due to MODIS delays. |
| ENSTO-e late validation changes caused significant problems for participants just |
| before go-live. |
| New separate releases on NG and ELEXON platforms made it more complicated |
| to track errors and messages. |
| |
| Communications |
| Mixed response from survey – improved over earlier stages. |
| National Grid acceptance criteria not clear to participants. |
| |
| Coordination |
| Dedicated testing resource definitely helped as this phase progressed. |
| Insufficient coordination with ELEXON. |

Allow contingency in planning process to allow sufficient time for testing.

Recommendations

Overall rating for testing phase unacceptable / poor.

Insufficient National Grid testing prior to MP testing – additional testing was planned but didn't have sufficient time due to MODIS delay.

ETR Project lessons learnt July 2015 Version 1.0 Page 20 of 22 Christmas falling in the period immediately before go-live was definitely not ideal. Insufficient test coverage prior to go-live. Low confidence in go-live success due to lack of testing.

Learn from industry experiences and feedback to ENTSO-e. Acknowledgement across the board of lessons learnt and develop collaborative European approach.

Start with the right people represented at code level. Have industry reps on National Grid – ELEXON group.

Joint European Stakeholder Group website is a one-stop shop for information on future EU code changes.

Timeline issues must be flagged by industry before voting on code changes by member states, and DECC need to know any issues.

Need to allow a period of stabilisation to allow systems to bed-in.

Planning for go-live

Process

Day 1 data received by National Grid was all loaded in time for go-live. Contingency solution was too late, and no period of stabilisation.

Low confidence in publication of data – without ACK's, MP's needed direct access to EMFIP.

Communications

Mixed response from survey.

Coordination

Participants maintained logs to demonstrate that their obligations had been met to deliver the reports to National Grid – one hour obligation and Grid Code timescales.

Recommendations

Regular updates on system availability needed.

Allocate sufficient resources to a contingency solution on a single platform, and keep simple (e.g. just Excel and no Java).

Improve teleconference facility – issues were encountered with phone number provided.

Post implementation

Process

Reliability of EMFIP ECP software was an issue. ACK's were received but there were delays in the data being actually displayed on EMFIP.

Participants needed to adopt additional validation measures to demonstrate compliance with the regulation.

Communication

Generally more positive than pre go-live.

Communications on the status of systems were late being sent, but improved later. Outage notifications were fragmented – keep up to date with all different parties.

Recommendations

Locations for warning messages for ETR and REMIT - separation of BM and transparency messages. Add ETR messages to BMRS? Planned DR tests once a year. Report outages for failovers to other systems. ETR Project lessons learnt July 2015 Version 1.0 Page 21 of 22 MODIS outage reporting – ETR /REMIT common entry. Single point for entering data e.g. ELEXON portal. MODIS would need a lot of development to make GUI more usable for MP users.

Clock change readiness – MODIS UTC, BMRS GMT, EMFIP? Some uncertainty ahead of end of March.

Recovery mechanisms – clarity of process, review forum with ENTSO-e.

Higher level exec comms required and quarterly newsletters.

Beneficial to share experiences with contingency solution with all MP's.

Use newsfeeds on website rather than all email comms.

Increased visibility of senior management helps to show support and

commitment to project. More senior managers present at meetings earlier on. Too many National Grid people at the final workshop – were they not needed back at base. National Grid were trying to improve communications and show

commitment to the workshops.

Visibility of overall project plan needs to be greater.

| ETR Project lessons |
|---------------------|
| learnt |
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