JOINT PLANNING COMMITTEE

Minutes Wednesday 21st June 2017 SHET Offices, Newbridge & Teleconference

Attendees:

Brian Punton	SHET	David Adam	SPT
Julian Leslie (Chair)	NGET	Craig McTaggart	SPT
Sade Onajobi	NGET	James Civil	NGET
Stuart Boyle	NGET	Nick Harvey	NGET
Richard Proctor	NGET	Caroline Wright	NGET
		Vivien Hobbs (Technical Secretary)	NGET

1. Apologies for Absence

1.1. Nicola Bruce and James Whiteford

2. Safety Moment

 JL – In light of the recent events at Grenfell Tower, Julian reminded everyone to take particular note of fire evacuation procedures when staying in high-rise hotels or meeting venues/offices.

3. Sign off minutes from last meeting

3.1. Minutes were reviewed, accepted and signed off.

4. Review actions from last meeting

Actions were reviewed. Completed, ongoing and new actions are identified on the attached Actions Register. The following follow-up / ongoing actions identified:

4.1. 100615-11 Action: DA to raise a relevant grid code modification relating to the Grid code DRC schedule of what data can be shared which currently restricts TOs from having generator charts. This additional information is required to enable the TOs to accurately model their networks.

A draft has been prepared and shared with the JPC-Modelling SubGroup which is generally in agreement with the proposal. The Modification has to be raised by an individual - in light of this it is proposed that SP will raise it and the Modelling SubGroup parties will all sign on to support the submission. The next JPC-Modelling SubGroup meeting is on 4th July where agreement to proceed will be confirmed and a programme for submission scoped out. Ongoing

4.2. 230616-08 Action: JPC-IP to lead on finding a common approach to setting up of generation backgrounds for new connections and report back on progress to the JCP.

See item 6 below. Ongoing.

4.3. 041016-01 Action: Sharing of data between OTSDUW parties, Interconnectors, TOs etc. – JL to get the relevant internal parties together across Market Change, Legal and Modelling and put though the Performance Excellence 3C process.

JL finding it difficult to get any traction to move this forward. Ongoing.

4.4. **100217-01 Action**: - JL to raise with Ofgem (James Bearney, Head of Connections, and maybe James Norman, Head of Competition) issues related to data sharing across TOs and SO.

Waiting for internal view/position from previous action before moving this forward. Ongoing.

4.5. **100217-05 ACTION:** BP – provide a proposal for JPC involvement with the national HVDC Centre (NOW CLOSED)

BP proposed at the meeting that the JPC visit the HVDC Centre and hold a JPC Meeting there and have a tour to look at the facilities.

- 4.6. **21062017-01 NEW ACTION:** VH to make arrangements for next JPC to be held at the HVDC Centre, Cumbernauld, Scotland.
- 4.7. **100217-07 ACTION:** BP and DA to respond to SO with available dates to convene a working group on CION Process Methodology.

BP and DA require more time to review the Methodology.

5. Sub-Group Reports

5.1. JPC-Modelling – SB

- 5.1.1. Presented a summary of activities to the JPC.
- 5.1.2. ToR now approved
- 5.1.3. Identified an issue with OHL Modelling in terms of the conversion between PowerFactory and PSSE. SP believe they have a solution which NG is trying to implement in this year's ETYS.
- 5.1.4. Ongoing (long term) programme of work looking at Dynamic Models looking to get validated models between all the TOs which hasn't been carried out since 2008 so a significant amount of work ahead to bring those into line.
- 5.1.5. Single Model Project generally agreed that this needs to be progressed but there is a lack of resources and funding. Not clear that it would be done in time for the SO split, and the SO split would look at a different approach where the NGTO would submit models in the same way as the Scottish TOs. The Single Model Project would therefore now be looking at agreeing protocols for exchanging models where the boundaries lie and making that slicker, and would also give each TO more control over what they submit as long as they line up with the protocols.
- 5.1.6. Grid Code modification for Generator Performance Charts. There is a change in how ETYS data is exchanged this year which does not include Generator Performance Charts so there is full compliance with the Grid Code which is forcing the issue that the modification needs to go through.
- 5.1.7. The Phoenix Project work is going on to agree what models of the National Transmission System need to be provided to the Phoenix Project and also what models the Phoenix Project are going to give back in terms of specific models or generic models that can be shared.
- 5.1.8. BP asked about protocols around establishing a common warehouse of modelling data— SB responded that this hasn't been looked into in detail yet but there is an idea around establishing Boundary Nodes, so each network could submit a model that is fully switched (like NG) or Branch & Node or maybe they could submit 2 versions, as long as they line up with those Boundary Nodes

there would not be a problem. This would be the first step, then it could be taken further and look at the boundaries between the networks and the generators and between transmission and distribution and nodes could be defined there as well. This would allow the network to be sectioned up and make it easier to switch on and off.

- 5.1.9. BP requested further information on the OHL Model issue. SB responded that when converting from PowerFactory models the phasing on the OHL lines as it is and the coupling between it, PSSE doesn't. So GM166 was used which has certain assumptions in it, like both circuits are energised and the power is flowing in the same direction in both circuits, to define the baseline coupling between them. There is a danger of significantly underestimating the susceptance in the conversion, so NG is looking at a script which breaks the coupling and changes the susceptance in PowerFactory so that it can be exported to PSSE unchanged. So the change actually happens in PowerFactory rather than in the conversion. It doesn't affect MW flows much but it can have a significant effect on MVar flows (1-2% difference) and across the network that's hundreds of MVars, with the fix it's reducing it to a few KVars.
- 5.1.10. JL asked if the MVar voltage issue was being masked or exacerbated that is masking or exacerbating a MVar voltage issue? SB responded that they have always found that there is a few hundred MVar difference but never understood why and believes this could be the reason. But it is significantly underestimating the capacitance which would tend to raise your volts, which makes it more of an issue in the summer.
- 5.1.11. BP raised that there was a fault level issue at Fort Augustus in the operational timescales which highlighted an issue between the supergrid transformer model and between PSSE and PowerFactory and asked if that had been reported back to the Modelling SubGroup? SB responded that the Modelling Group weren't aware of it.

5.1.12. 21062017-02 NEW ACTION: BP will push the Fort Augustus modelling issue through to the Modelling SubGroup to ensure it is looked at

- 5.1.13. DA —in terms of led a discussion around Dynamic Modelling. efforts, conscious that in recent months some differences have been seen in stability performance across the B6, that how these differences have crept in is still being investigated and whether the stability limits that were seen are real or otherwise. Is there more that needs to be done in that area? Where the Modelling SubGroup refers to provision of suitable resources by each of the organisations, clear visibility is required of what resources are needed to be able to get to a comfortable position on this. The fact that differences are being seen in transient stability performance is a concern as some of the generation plant comes off in Scotland and it is replaced with more wind, as series compensation has come on and Western Link is coming DA wonders if this is something that requires a dedicated focus at this point in time. SB mentioned that it was 2008 since the last time models had been benchmarked is there a view as to how long and what resources would be required to get back to that position with a reasonable timeframe?
- 5.1.14. SB- there is a plan but it's more to do with prioritising the wind farm generators and some synchronous generators that needed to be checked first.
- 5.1.15. NH there has been a lot of work done on this and every avenue in terms of the model has been explored, the Control Centre has been engaged to get that view in terms of consistency (is there consistency with what they are seeing) and everything done seems to be consistent and tie-up, albeit being lower that what has been experienced in the past. All the information been through, all the studies carried out in terms of narrative, because there are slight concerns

about going out with 2 different numbers in terms of regulatory reporting, has been recorded. It is a concern that between years there seems to be a significant difference in the values being seen with no appreciable change in the network or generation which does raise questions over why have things changed so significantly.

5.1.16. DA – maybe at the next Modelling Group meeting an outcome could be a range of options in terms of a plan to get to that position where benchmarked models are established that we are all comfortable with.

5.1.17.5.1.13. SB - there is a plan but the priority is wind turbines at the moment.

5.2. JPC-IP – NH

5.2.1. No update since last meeting

5.3. JPC-OA – JW

5.3.1. No update since last meeting

5.4. JPC-ETYS/NOA – RP

- 5.4.1. ETYS first models are out; now in the analysis period. The FES new release are working hard on the programme to make sure all the system capabilities are analysed and sent across for the NOA analysis in September.
- 5.4.2. NOA methodology being worked on at the moment. The consultation for that closes on Friday. There are still a few points on competition and cost checking that need discussion with Ofgem.
- 5.4.3. JL we will find out in today's Queen's Speech whether Network Competition is included or not. If it's not in the Queen's Speech then that delays implementation of Competition in the Network. Ofgem are looking at other ways of introducing competition without legislation changes.
- 5.4.4. DA in terms of the programme for the ETYS Data Sets is there clear target dates for exchanging those?
- 5.4.5. SB Year 1 was 2 weeks late due to the FES data being late. Year 4 was released 1 week late and the plan being worked to should have Year 10 out on time.
- 5.4.6. DA SP are on programme
- 5.4.7. BP SHET Year 10 data imminent but struggling to make GB Y1 case convergent but are still working on it.
- 5.4.8. SB There seems to be some issues in PSSE getting Yr 1 to work but not sure why. BP we'll keep working on it and feedback.

6. Generation Background Update – SO

- 6.1. Paper presented ahead of the meeting to JPC members to read.
- 6.2. SO highlighted that the purpose is to lessen the misalignment between NOA results and the contracted background when used for planning.
- 6.3. Proposal to base the CPAs on the Gone Green Scenario and issue them with each SBN where it will be tweaked locally in terms of load factors based on customer intelligence and system knowledge.
- 6.4. SO asked the JPC if they felt this was a better way forward.
- 6.5. JPC discussed the use of scaling factors and how they are derived and justified, whether Section 2 SQSS would be satisfied at a local level and whether there would be enough generation to manage if using scaling factors.

- 6.6. JL discussed the use of looking at market operation and taking into account fault levels and risks, and using knowledge of the capacity mechanism.
- 6.7. JPC talked about issues concerning constraining embedded generation and ensuring there is a commercial means to allow for outages.
- 6.8. JL highlighted how using a contractual position may include generation that isn't justified i.e. 3 Eastern HVDC circuits and using judgement to make sensible decisions.
- 6.9. JPC discussed aligning with the queue management project at a very local substation level, Collectors and the infrastructure above it and how working through options would be beneficial, using specifics like Dumfries & Galloway and Glen Glas.
- 6.10. Concerns were rainsed about timescales involved in producing CPAs for each SBN <u>Scheme Briefing Note</u> and that there is a shift from the CPAs receiving a TO view to having a SO steer.
- 6.11. JPC provided agreement to the principle of using intelligence to inform future CPAs, using real life examples to illustrate how it would work.
- 6.12. However the question was raised over whether a different result may or may not be a more desirable one.
- 6.13. Discussion continued into talking about SQSS Scale factor GSR22 and how that may inform CPAs and then around the triggering of either Section 2 and Connect & Manage and/or Section 4 and how NOA is completely different, looking very much at the costs of constraining against the costs of reinforcement.
- 6.14. JL highlighted how NOA, BID3 and FES were all picking up that the current contractual position is unlikely to happen.
- 6.15. JPC welcomed an opportunity to discuss further and agree a consensus on the approach.
- 6.16. Discussion was also had on how the SQSS may need to change to reflect a more probabilistic standard, although it was also felt that the phrasing is often open enough for interpretation to be agreed on.

7. Organisational accountability changes – NH

- 7.1. An information piece about some changes that have been happening in the SO within National Grid. Recently NG has been through a process of looking at UK Focus Areas this has trickled down into the SO and we have developed some new focus areas within the SO. What this means is that there has been a need to realign some managerial accountabilities within Richard Smith's area across the teams that the TOs deal with. In essence the changes are:
- 7.2. ETYS/NOA & Economics Teams Nick Harvey (Interim arrangement)
- 7.3. Customer Connections, Generator Compliance & GBCA Julian Leslie
- 7.4. Operability, SOF Graham Stein
- 7.5. Data & Modelling TBA (Graham in the Interim)

7.6. 21062017-03 NEW ACTION: VH to circulate Organisation Chart

8. SQSS Treatment - HVDC Links – NH

8.1. Paper circulated ahead of the meeting. NH summarised: this is to do with looking at the electrical network as it pertains to cables and SGTs. The principle being that if you have a fault on a cable or a SGT then it is likely to be out for a significant period of time and what contingencies should you be considering following that type of event, for example a fault on a cable circuit or a transformer followed by a subsequent fault on another circuit elsewhere on the network.

- 8.2. There is a clause in the SQSS where we need to consider this particular contingency, as a n-1-1 contingency, clause 4.6.6:-
- 4.6 The minimum transmission capacity of the MITS shall also be planned such that for the conditions described in paragraph 4.4 and for the secured event of a fault outage of any of the following: ...
- 4.6.6 provided both the fault outage and prior outage involve plant in NGET's transmission area, any single transmission circuit with the prior outage of another transmission circuit containing either a transformer in series or a cable section located wholly or mainly outside a substation, or a generating unit (or several generating units, sharing a common circuit breaker, that cannot be separately isolated), reactive compensator or other reactive power provider,

there shall not be any of the following:

- 4.6.7 loss of supply capacity (except as permitted by the demand connection criteria detailed in Section 3 and Section 8);
- 4.6.8 unacceptable overloading of any primary transmission equipment;
- 4.6.9 unacceptable voltage conditions or insufficient voltage performance margins; or
- 4.6.10 system instability
- 8.3. NH set out the issue that it can be interpreted to include any HVDC circuit that comes out of the National Grid area and goes into either the SHE-Transmission or SP-Transmission areas. This would affect Western HVDC and potentially any future Eastern HVDC and how they would be considered in the future. Looking back at some of the history of where the security standard has been it feels like there has been some overreach here, and that is unintentional, that this clause should only be effective for anything that is only involving National Grid equipment and not anything that comes out of it and crosses into the other transmission areas.
- 8.4. The importance and significance of this comes through in terms of boundary capability numbers, what National Grid would report in terms of those numbers through regulatory reporting.
- 8.5. With Western HVDC commissioning due in the near future this is an important issue for both National Grid and SP, and clarity is required on this moving forward in terms of boundary capability numbers for Eastern HVDC.
- 8.6. This does not impact any of the assessments that have been done in terms of the NOA in the past, as this is an issue around compliance rather than the year round economic assessments looked at, where the n-1-1 contingency is not considered.
- 8.7. NH looking for agreement from the JPC to the approach, and once this is in place would be looking to create some briefings for the management team due to the importance over the regulatory reporting number for Western HVDC.
- 8.8. DA concurred that the proposed interpretation seems consistent with the Ofgem DTI Consultations issued at the time which clearly stated that n-1-1 at peak only applies in England & Wales.
- 8.9. JPC had a full discussion covering the application of standards, economic assessments and SQSS compliance.talked about pre-BETTA discussions around n-2 and n-d, and applying the more onerous of the two standards, which was n-2, and whether n-2 should be applied in a planning world?
- 8.10. BP agreed that Ofgem's interpretation was to not trigger additional investment but is that the right thing to do?
- 8.11. DA suggested an economic assessment to evaluate the likelihood of a fault, likely restoration time and mitigation costs of the impact stating that Chapter 4 allows for investment beyond that minimum requirement if it's economically justified as opposed to building it into a baseline requirement within Clause 4.6.6. DA also

discussed how NOA applies in the operational standards and therefore this isn't visible in the NOA analysis. The possible impact of a prolonged outage on Western Link is not going to be visible in NOA, but at the same time it wouldn't be right to interpret that as a base requirement within the Security Standard because you could be significantly over investing if you look at the fault and duration.

- 8.12. BP asked if you're just south of the border National Grid will invest on n-2, or put a proposal forward, it will be economically tested so maybe we end up in the same place it's back to that economic assessment justifying whether this is the right thing to do. BP then asked Does it change you're thinking if we have an Eastern bootstrap as well as Western bootstrap? Is it still n-d on overhead lines and n-1 on either side of the country on the cables?
- 8.13. JPC discussed how this would be the right way to go as a base, as a minimum deterministic requirement and justify something beyond that on a case by case basis n-1-1 is looked at and if that cost benefit is done, what is the mitigation measure, how much would it cost versus if we have a 6 month outage once every 10 years on the cable then what is the cost of that versus the alternative.
- 8.14. NH Absolutely. NH expects that would come out within any Strategic Wider Works assessment, however there is no reason why it couldn't be done outside of that but imagines that at the detail phase it would get picked up.
- 8.15. JL asked if that was done for Western or something to look at retrospectively.
- 8.16. DA confirmed there was a huge amount of economic analysis completed to justify the scheme and the scheme design and that included a review of the merits of the return conductor in there as well.
- 8.17. BP asked in terms of compliance with the SQSS has it always been n-1? Has n-2 been considered on the cable?
- 8.18. DA replied that n-2 wasn't considered.
- 8.19. DA said the other challenge he felt around this particular clause was the need to consider prolonged outages on cables but as soon as that scenario is met the System Operator operates the system to an n-d standard so the n-1-1 isn't really indicative of the situation and the constraints that the System Operator would incur should that fault occur. DA thinks there is a link into the NOA methodology here, where NOA accounts for maintenance outages and n-1-d capabilities on big boundaries and it factors in the fact that, that boundary might be in that position for so many days a year but what it doesn't do, is factor in the potential for prolonged fault outages on that type of asset, which is maybe something we need to think about.
- 8.20. NH felt that was a fair point.
- 8.21. BP questioned the justification in England & Wales not to apply the N-2 standard across B6, but should it be applied across B7 or south of B7 how can we justify just south of B6 but we're not going to justify the B6? There is an inconsistency, because National Grid is going to plan their system to n-2 where they've got a cable or a transformer and yet we're saying on B6 it's not appropriate, because the economics tell us it's not the right thing to do.
- 8.22. JL felt this was a legacy issue given that the CEGB National Grid was built in a different way to the Scottish Network.
- 8.23. JC that inconsistency was embedded into the original consultation as a principle of not triggering additional investment in Scotland and not decreasing security in England & Wales.
- 8.24. JL talked about how the network was very different when that decision was taken back in 2005, but now Scotland is a bulk exporter of energy for much of the year, actually we should be investing more as it's such a significant source of GB energy.
- 8.25. DA stated that the n-1-1 clause has always been a challenge in as much as it doesn't reflect the constraints that the System Operator would incur. From a Security point of view if you've got 3 or 4 circuits feeding a demand via cables then it would seem quite right to consider that one of those cables may have a long

outage under fault conditions. But from an economic point of view would it be more appropriate to only consider under the security background as opposed to under the economy background, because you've already got the clause in there that says if it's economically justified then you can do more. I think it was originally more with a security consideration in mind.

- 8.26. NH restated that the National Grid position is that we believe that the interpretation should be that it is only circuits within the National Grid area and felt it would be helpful to understand what the position of the other TOs is to look to take this forward. There is a level of urgency in terms of what we look to report regulatory-wise for next year and also looking for consistency out of what we will be looking to say around Eastern HVDC and whatever messaging goes out about that.
- 8.27.8.9. BP -- not going to argue against, satisfied with it, but appreciated the discussion and the challenges.
- 8.28.8.10. JPC are in agreement with National Grid position and the paper to be drafted by NH.

9. Update on proposals for Strategic Wider Works and Joint Projects

9.1. SHE Transmission – BP

- 9.1.1. As part of the NESOS work we triggered the installation of three 132kV reactors in the North. Original proposal was one each in Tealing, Kintore and Peterhead. The units at Tealing and Kintore have been installed and are operational. This unit proposed to go to Peterhead threw up some site issues and a decision was taken (in consultation with the System Operator) to install the third unit in Kintore. The third unit has been delayed and should be fully operation from mid to end of July.
- 9.1.2. Caithness-Moray On track to complete September/October 2018. Dynamic model won't be released until the design issues are resolved with ABB.
- 9.1.3. Beauly to Loch Buidhe rebuild of the 132kV which is subject to the derogation with Ofgem.

9.2. SPT – DA

- 9.2.1. Series Compensation:
- 9.2.1.1. 2 units on the west coast are in service
- 9.2.1.2. 2 units at Eccles on the east coast are commission awaiting protection changes on the Torness Eccles circuits later this year.ed
- 9.2.2. Torness-Eccles cable work, as part of the final stage of the East/West 400kV upgrade _ still progressing well, although some challenges encountered regarding GIS modifications.
- 9.2.3. Western Link convertor station energised on the 11th April.– Stage 2 commissioning is ongoing, intended to be finished by the end of June, but likely to slip into early July.
- 9.2.4. Western DC Cable work nearing completion.
- 9.2.5. Meeting held on an Eastern HVDC Link. The three TOs have discussed how to take forward the recommendations from NOA, and progress to the point of being able to submit an initial needs case to Ofgem. Intend to take forward the early work through two workstreams systems requirements and delivery. The workstreams are underway in the early stages. The outline programme we are working towards will involve ideally trying to engage the SO through a piece of Cost Benefit Analysis work at the back-end of this current NOA process. Would hope to be able to submit the info that the SO would require to undertake an economic assessment for an initial needs case by mid-January. Will be looking at all options for AC as well as DC as expect Ofgem would ask to see justification against all options.

9.3. NGET – JC

- 9.3.1. North West Coast work suspended due to delays on the customer side. Anticipating the next steps on this one once the generator project has a bit more clarity. We're expecting a modification application, some changes and probably a delay to the project.
- 9.3.2. Hinckley Seabank progressing.

10. Reports from other working groups

10.1. Smart Systems Forum – JL

10.1.1. No meetings yet convened.

10.2. SQSS – BP

- 10.2.1. GSR018 Treatment of SubSynchronous Oscillations SSO in the NETS SQSS
 approved
- 10.2.2. GSR014 Offshore Transformer Requirements possibly dropped
- 10.2.3. GSR016 <u>Small and Medium Embedded Generation Assumptions</u> covered under GSR022 (Wider Scaling Factors for the Wider System)
- 10.2.4. GSR<u>0</u>22 <u>Review of Security and Economy Required Transfer Conditions</u> works has begun and few meeting held
- 10.2.5. Interconnector Modelling subgroup has had a meeting to review the report which is due to be released imminently.
- 10.2.6. Modification around the inclusion of the 220kV voltage level a decision document came out of Ofgem, SP's reading of it suggested there was some misinterpretation as to how the standard works and the significance of that modification. This is to be reviewed as it was rejected which suggests maybe they didn't fully understand the modification.

10.3. STC – CW

- 10.3.1. Caroline gave herself a brief introduction as the Chair of the STC Panel. An action she picked up was to open the communication channels between the STC and the JPC. CW proposed that going forward she be able to share a high level future plan, detailing those changes that we know are in flight on the STC, but also highlights those areas that they considered so we can pull together a coherent view of what's changing. There will be the Business as Usual changes, ²², and separation of the SO/TO so quite keen to get an understanding of the business and feedback that back through to the panel and vice versa and also to make sure we have that horizon view of everything that's happening.
- 10.3.2. JPC agreed this was a good way to move forward.
- 10.3.3. No particular changes to be aware of at this time.

11. Any Other Business

11.1. Derogation for NOA result: JL- to be compliant with the SQSS the TOs put forward a network design, it goes through the NOA process, and NOA says we can't make an economic justification to build it. Does that means that the TO is now noncompliant because now we're not building the network that you decree is important to be compliant and therefore is a derogation required. Ofgem have been in touch to have this discussion – a couple of things – one is, are you being compliant as a TO? Our conclusion was yes you are because you are putting forward a compliant Formatted: Indent: Left: 1.27 cm, Hanging: 1.48 cm solution. Then the SO is making a judgement case, so on the basis of economics and operational actions in the control room we will be compliant on the minute that the situation arises and therefore through Connect & Manage, and through other tools that we use to manage and operate the network, we will ensure that the network is operational and compliant on the moment of operation. My quick initial conversation with Ofgem was that actually a derogation wouldn't be required but they were going to clearly articulate why that was.

- 11.1.1. The TOs stated that they had not received a clear message from Ofgem on this, and that they felt some kind of derogation would still be required against their obligation to develop the system in compliance with the Security Standard.
- 11.1.2. SPT have tried to mitigate the issue around open-ended derogations by requesting one to be reviewed on an economic basis, so that the derogation falls away when it becomes economic to do the work.
- 11.1.3. JL stated that he felt Ofgem's view would be that there wouldn't be any noncompliance as the network will be compliant on the day of operation and therefore it may be non-compliant in planning timescales but then compliant on the day.
- 11.1.4. The TOs said that historically the TOs we were quite clearly non-compliant with specific sections of Chapter 4, so both had directions relieving them of their obligations. However Ofgem's concern is that every year after NOA they're going to get a deluge of derogations.
- 11.1.5. The TOs reiterated that Ofgem need to make their position clear. The TOs also indicated that this was beginning to affect customers, as the TO is not relieved of their obligations, customers are waiting for work to be carried out before they can connect, but the TOs know that the works aren't going to happen because NOA cannot justify them.
- 11.1.6. DA suggested there maybe a couple of different ways of dealing with this the TOs could explicitly seek a derogation against the security standards for certain parts of the system which brings its own challenges as to how you deal with new applications in those areas because TOs don't need to comply with Chapter 2, so what can they do to continue to plan the network, and that becomes difficult conversations with new customers. Or as an alternative to that is there an opportunity to seek derogation against the clauses that relate to Connect & Manage, so C&M says "you will not allow a customer to connect prior to completion of the enabling work", but what we're really now looking at is trying to push back the scope of the enabling work, so it might be that we continue to identify the enabling and wider works, but through a derogation from the C&M clauses, we allow connections in advance of completion of all the identified enabling work and it's maybe handled similar to a C&M Derogation which is a TO to SO process as opposed to something which involves Ofgem every time. And it might be that the TOs would need either a licence change to those C&M clauses or a case by case derogation from that clause that says about not allowing connection until enabling work is completed. Sure there are some disadvantages with that, but could that be a better way to go?

11.1.2. 21062017-04 NEW ACTION: JL to contact Ofgem to seek clarification from his meeting

11.1.7.

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11.1.8.11.1.3. **21062017-05 NEW ACTION:** DA & BP to push also for clarification from Ofgem

11.2. SO/TO Split Update

11.2.1. JL – National Grid are still waiting for the results of the Consultation. Internallywe are progressing as if it will happen, we want the majority of the arrangements in place by October 2018 to be ready for April 2019. A lot of work is taking place looking at the current arrangement for working with NGET and the Scottish TOs following the STC and what are those changes required across the SO and TO. We have been doing "sprints" where we have had concentrated sessions on working out how things will work in the future. Each and every individual process has gone through this route, a few more sessions now to be had looking at the TO and SO model that is left, to see if there is a viable business in either one or both of those, to make sure that when you put it all together it makes sense. Once that alignment is made we will be recruiting into the TO to replicate some of the structure the Scottish TOs have in terms of that single commercial technical interface between the SO and the TO. Good progress being made.

12. Dates of next meeting

- 12.1. November 2017 HVDC Centre
- 12.2. January 2018 WebEx
- 12.3. April 2018 Warwick
- 12.4. July 2018 WebEx

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