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Integrated Transmission Planning and Regulation (ITPR) project: final conclusions

Decision statement

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Document summary:

This document sets out our final conclusions on the Integrated Transmission Planning and Regulation (ITPR) project. We will take forward the implementation of our final conclusions through separate projects.

We set out our decision on a number of proposals to provide for a more integrated approach to electricity transmission planning and delivery. These decisions have been informed by consultation with stakeholders.

The System Operator will be given additional responsibilities to identify the need for investment in the transmission network, and coordinate and develop investment options. This will include a new network options assessment process. There could be conflicts of interest associated with these enhanced roles, and we will implement measures to mitigate any such conflicts.

We confirm our view that it is in consumers' interests to extend the use of competitive tendering to onshore transmission assets that are new, separable and high value. We will also take forward the proposals in our draft conclusions on interconnection, non-GB generation and multiple purpose projects.

Context

We set up the Integrated Transmission Planning and Regulation (ITPR) project in 2012 to review the existing arrangements for planning and delivering the onshore, offshore and cross-border electricity transmission networks in GB. Our aim is to ensure that transmission is developed in an efficient, coordinated and economic manner, with the right investments made to protect existing and future consumers.

Different regulatory approaches are used for the delivery of electricity transmission assets in GB. For the onshore network, investment is currently planned and delivered by monopoly transmission owners, whom we regulate through the RIIO price control framework. Offshore transmission owners, the owners and operators of transmission links to offshore generation, are appointed through competitive tender exercises. In contrast, interconnectors between GB and other countries are planned and built by interconnector developers. Our regulated approach is a cap and floor regime, which sits alongside the existing exemption route (whereby project developers can apply for exemptions from certain requirements of European legislation). The System Operator's role in planning and delivery is limited at present, though recently it has informally taken a more active role. In the context of the ITPR project, we have been assessing whether these arrangements are appropriate given future challenges. We have proposed changes which we consider to be in the interests of existing and future consumers.

Our decision outlined in this document follows on from a number of consultations as part of the ITPR project. They also build on changes we have decided upon or have already made to the regulatory frameworks to improve outcomes for consumers, such as the new RIIO price control framework, a framework to support coordination in offshore networks and the rollout of a cap and floor regime for near-term interconnector investment.

Associated documents

Integrated Planning Transmission and Regulation (ITPR) project: final conclusions – Impact assessment – Supporting Document – 17 March 2015

https://www.ofgem.gov.uk/ofgem-publications/93913/itprfinalconclusionsimpactassessmentpublicationfinal-pdf

Integrated Planning Transmission and Regulation (ITPR) project: final conclusions – Enhancing the role of the System Operator – Supporting Document – 17 March 2015

https://www.ofgem.gov.uk/ofgem-publications/93915/itprfinalconculsionsesodocumentpublicationfinal-pdf

Integrated Planning Transmission and Regulation (ITPR) project: final conclusions – Stakeholder responses to our draft conclusions – Supporting Document – 17 March 2015

https://www.ofgem.gov.uk/ofgem-publications/93914/itprfinalconclusionsresponsespublicationfinal-pdf

Integrated Planning Transmission and Regulation (ITPR) project: final conclusions – Glossary – Supporting Document – 17 March 2015

https://www.ofgem.gov.uk/ofgem-publications/93916/itprfinalconclusionsglossarypublicationfinal-pdf

Integrated Transmission Planning and Regulation (ITPR) project: draft conclusions – 29 September 2014

https://www.ofgem.gov.uk/publications-and-updates/integrated-transmission-planning-and-regulation-itpr-project-draft-conclusions

Consultation: Integrated Transmission Planning and Regulation Project: Emerging Thinking – 5 June 2013

https://www.ofgem.gov.uk/ofgem-publications/52728/itpremergingthinkingconsultation.pdf

Contents

1. Overview

What we want to achieve

1.1 The need to reduce carbon emissions and to replace existing infrastructure is expected to drive major investments in electricity transmission networks over the coming years. The changing energy mix will also create new challenges to maintaining a secure and stable network.

1.2 The current arrangements for planning and regulating the delivery of electricity transmission infrastructure have been successful. Investment has been delivered under a combination of different regulatory regimes (monopoly regulation onshore, competitive tender offshore and developer-led approaches to interconnection). National Grid Electricity Transmission (NGET) is the single System Operator (SO) responsible for coordinating and directing the flow of electricity over the GB transmission network and has a key role in securing the benefits which result from coordinating the day-to-day operation of the transmission system.

1.3 We set up the ITPR project to consider whether the current arrangements continue to be appropriate given future challenges. We are making changes to meet two key objectives:

- **That the network is planned in an economic, efficient and coordinated way**. To achieve this, parties that have the best incentives and information to plan the network efficiently should have responsibility to do so, and roles and responsibilities must be clearly defined.

- **That asset delivery is efficient, and consumers are protected from undue costs and risks**. To achieve this, competition should be used to deliver transmission assets where it benefits consumers. There also needs to be a clear, predictable and fair regulatory framework for infrastructure development.

Principles for a more integrated framework

1.4 We think there is a need for a more integrated approach to the planning and regulation of the GB transmission network. The principles that guide our decisions are as follows:

- Where there are **price signals** to indicate where and what investment should occur, it is in consumers' interests to have those signals influence the location, capacity and timing of that investment. This creates natural incentives for efficient cost and risk management, so undue costs and risks to consumers can be minimised. The main area where price signals are available to guide network investment is for interconnection between

two national markets.[1] We consider that having a regime that allows developers to bring forward interconnector projects in response to market conditions can generate significant benefits for consumers.

- Where **prices don't provide these signals**, we need to make sure that the parties that are given consumer funding for investing in transmission assets make economic and efficient decisions. We consider that competitive tendering can provide significant benefits in helping reveal what are appropriate costs and drive innovation. In other cases, the costs of competitive tendering may outweigh the benefits, and in those cases incumbent parties are best placed to deliver the required investment under the incentives provided for under the RIIO framework.

- Where **the development of transmission connections needs to tie closely to the planning of individual generation projects**, there may be benefits from allowing the generator to take a greater role in aspects of the transmission project. This is provided for under the offshore transmission regime.[2]

- Where the **transmission charging and access arrangements do not support efficient investment or mitigate the risk that consumers have to pay for underused assets,** it may not be in consumers' interests to underwrite the transmission investment. The arrangements within GB do allow for consumer underwriting, but also require generators to provide financial commitment and funding for investment related to their connection. The arrangements for transmission links for potential generation projects from outside of GB that would export their power directly to GB ('non-GB connections') do not always provide this as a default.

1.5 Applying these principles means continuing to use a range of regulatory regimes for the delivery of transmission assets, but making changes to where they are applied.

1.6 This means that a number of parties will continue to be involved in delivering transmission investment, with each party focusing on their specific geographic areas and specific assets they are developing.

1.7 To support this framework we therefore think it's important that transmission planning evolves to become more coordinated and forward looking for the system as

[1] Interconnectors derive their revenues principally from congestion rents, which are dependent on the price differences between markets at either end of the interconnector. This means that interconnector developers are likely to develop projects between markets where price differences exist.

[2] Under the offshore transmission regime offshore generators can plan and, if they choose to, build their connections before transfer to an offshore transmission owner (OFTO).

a whole. However, in making changes it is important to balance the benefits of coordination in planning and operating the network with the benefits of investment decisions sitting with those best placed to take them. We think the best solution is to enhance the role of the SO in system planning to provide increased analysis and advice.

1.8 We also think it is important for there to be clarity in how the different regulatory approaches interact if transmission projects were to be developed that provide for multiple purposes (multiple purpose projects[3] – MPPs). There is value in regulatory continuity for an existing transmission asset if it evolves into an MPP, so that there is sufficient certainty for the transmission owner (TO) or developer to make the upfront investment decision.

Our decision

1.9 We will enhance the SO's role so that it leads the identification of system needs and assesses options to meet these needs. The SO will be required to undertake a new network options assessment (NOA) process to appraise major investment options and consider the value of potential additional interconnection to other countries. This will include publishing an annual NOA report. It will also lead the early development of some transmission options. The SO's enhanced role will not mean a change in who makes decisions about transmission investments. The ultimate decision to proceed with an investment remains with the same parties as today, ie TOs, and offshore and interconnector developers. We will make decisions on funding (for example through strategic wider works (SWW), offshore gateways and cap and floor assessments). We will also take the decision on whether projects should be competitively tendered. Our decisions will be supported by the SO's analysis and recommendations, where appropriate.

1.10 These changes to the SO's role could give rise to conflicts of interest for National Grid, for example by creating opportunities for the SO to share information with its associated delivery interests to confer an advantage, or give biased advice to favour its own commercial interests. We will implement a package of measures (transparency, scrutiny, conduct obligations, information ring-fencing and business separation) to mitigate these conflicts.

1.11 Chapter 2 sets out in further detail our decisions in relation to enhancing the SO's role in network planning and in mitigating conflicts of interest.

1.12 We will also make changes to ensure that the different approaches for regulating the delivery of transmission investment are used where they can drive most benefit for consumers. In particular:

[3] These are projects that feature some combination of onshore transmission, offshore transmission or interconnection.

- We see substantial advantages in extending the use of competitive tendering beyond its current use offshore. We will develop and set up arrangements to tender new, separable and high value onshore assets.

- We will maintain a developer-led approach to interconnection, as long as efficient investments are enabled by this approach, and intend to open more cap and floor application windows in the future.

- For non-GB connections, we are establishing a default position that their transmission connections will not receive consumer underwriting. However, we will leave open the option of consumer underwriting on a project-by-project basis, in cases where we are satisfied that the regulatory arrangements between GB and the non-GB territory adequately protect GB consumers.

- We will maintain continuity in the regulatory approach applied to an existing transmission asset if it evolves into an MPP, and work with relevant parties to determine the most appropriate treatment of projects that are MPPs from the outset.

1.13 Chapter 3 sets out in further detail our decisions in relation to regulating asset delivery.

Next steps

1.14 We will shortly publish a consultation on licence changes to implement the enhancements to the SO role with the aim of having the arrangements take effect from autumn.

1.15 We will develop and consult on the detailed regime for onshore competition through 2015 and begin to take forward necessary licence and codes changes in 2016. We aim to be in a position to run the first tender in 2016 or 2017. We also plan to work with government to explore legislative change to support extending competitive tendering and the approach to new types of transmission projects, such as MPPs.

1.16 We have already confirmed our intention to open a second window for new applications for the interconnector cap and floor regime in 2015, provided there is sufficient interest from developers. We propose to continue with a window approach and will keep their frequency under review depending on the project pipeline. We will invite views on the timing of a third window as part of our second window process.

2. Enhancing the System Operator's role

Our decision

System planning

2.1 We are giving the SO additional responsibilities in planning the GB electricity transmission network and potential new interconnection with other countries. This will help ensure that the network is planned and operated in an efficient, economic and coordinated way. We expect this to create benefits for consumers in the long term. These benefits, along with an assessment of associated costs, are discussed in more detail in our impact assessment (IA).

2.2 We have decided that the SO will be required to do more to identify the future needs of the network and where additional interconnection could be beneficial. It will provide additional information and analysis to developers and other licensees through the existing electricity ten year statement (ETYS). As part of this, the SO will analyse the expected costs and benefits of new interconnection capacity to different markets. There will still be a developer-led approach to interconnection (where developers bring forward projects based on price signals). However, the SO's analysis will provide improved information to developers, such as on the general locations where new interconnection capacity can most easily be accommodated. It will also help ensure that planning of the GB network takes into account where future interconnection may seek to connect.

2.3 We have decided that the SO will be required to provide its assessment of options for meeting the needs of the network. This new role will apply to all major increases in transmission capacity across GB (onshore and offshore) and for new interconnection. We are introducing a new network options assessment (NOA) process which will underpin this role.

- For transmission the SO will make a recommendation on which options it expects to be the most efficient and economic way of meeting system needs, having considered a number of options as part of the NOA process. This recommendation will be made once the SO is confident in its assessment but early enough to allow the delivery party (eg TO or developer) to make its regulatory submissions.

- For interconnection, the SO will consider specific interconnector proposals and provide us with its assessment of their impact (including considering the appropriateness of connection points).

- The SO will also give information and analysis to the relevant delivery party (eg TO or developer) to help their decision-making.

2.4 We have decided that the SO will be required to lead the development of some options to meet the needs of the transmission network. This includes early development of options (including desktop analysis of the capacity to be provided,

technology choices and high level routing) for onshore transmission projects that the SO expects would meet the criteria for onshore competitive tendering. It will also include options that would involve investment in offshore projects to provide wider network benefits. If the SO's assessment suggested an option it has developed is the preferred solution then it would submit a proposal to us for approval.[4]

2.5 We have decided that the SO will be required to play a more proactive role in supporting other aspects of network planning. This includes supporting greater coordination with other parties (including those responsible for the distribution network), improving the information flows around power quality and outages, and providing greater transparency around how options are considered during the connections process.

2.6 There is more detail of how we came to our decision, our reasoning and next steps in our supporting documents.

2.7 As stated, the SO's increased role will not mean a change in who makes decisions about transmission investment. The ultimate decision to proceed with an investment remains with the same parties as today. The TOs will still be responsible for ensuring they develop their networks in an efficient, coordinated and economic way (though not for developing projects which are to be competitively tendered). Offshore and interconnector developers will remain responsible for determining whether to take their project forward (with offshore developers having the option of whether to construct the assets themselves or have an offshore TO (OFTO) construct them). However we expect these parties' decision-making to be informed by the information provided by the SO.

2.8 We will make decisions on funding (for example through the SWW, offshore gateways and cap and floor processes), supported by the SO's analysis and recommendations. We will also take the decision on whether projects should be competitively tendered. The enhancements to the SO role are designed to improve the decision-making process, increase the quality of analysis and improve the transparency of information for major investment decisions.

Conflict mitigation

2.9 A number of conflicts could arise as a result of our decision to enhance the role of the SO. These include the potential for bias in the system planning process, with the SO favouring National Grid's own TO or competitive delivery interests, and the potential for discrimination against other parties. They are set out in more detail in our supporting document on enhancing the role of the SO.

[4] This could be a proposal that we launch a tender where the asset would meet the criteria for onshore tendering or relates to an offshore non-developer led wider network benefit investment (WNBI) project. For developer-led WNBI projects the SO role would be to develop the needs case and make a gateway submission (unless we had agreed none was required). Further details are set out in our supporting document on enhancing the role of the SO.

2.10 We have decided that in order to mitigate the identified conflicts we will:

- Require the SO to be transparent in its processes. This will require greater stakeholder engagement by the SO.
- Increase our scrutiny of the SO's actions.
- Place obligations on the SO's conduct.
- Ring-fence sensitive information.

2.11 We proposed in our draft conclusions that there should be strong separation measures in place between NGET and National Grid's competitive interests. NGET is already not allowed to participate in interconnection operation or any offshore tenders. We proposed that if National Grid were to seek to participate in any future competitive onshore tender, this would need to be undertaken through a business that is sufficiently separated from the SO. We expect this would include legal, financial, physical, employee, managerial and information separation. We will consult further on these arrangements and any associated licence changes in due course.

2.12 We will scrutinise the methodology underpinning the SO's approach and outputs from its new planning roles through the NOA process. We have decided not to require independent scrutiny (in addition to our own) as we do not think that this would represent value for money.

Stakeholder views

2.13 In general, respondents to our draft conclusions supported both our proposals to enhance the SO role in planning and to mitigate the arising conflicts of interest. Further detail on the issues raised and how they have informed our decision are set out in our supporting documents.

2.14 A number of respondents queried the benefits of enhancing the SO and whether there might be unintended impacts on the timescales involved in planning projects. We are publishing our IA alongside this decision. This sets out our assessment of the benefits and costs of enhancing the SO, including how our decisions could facilitate more timely decision-making. Based on our assessment we believe the benefits outweigh the costs of enhancing the SO.

2.15 Some respondents also suggested that a formal dispute mechanism process is needed if parties disagree with the SO's analysis (and recommended option for meeting system needs). We do not think this is necessary as the SO role is advisory not directive.[5] If the project owner (eg the TO or developer) disagrees with the SO's

[5] An exception to this is the SO's role in identifying where it may be beneficial to include investment for wider network benefit in an offshore developer's project. In this scenario the existing connections determination process will apply, where the developer may apply to us for a determination should it disagree with the SO's decision to include the wider network

analysis they will still be able to put forward their own proposals, with an explanation of any differences in views. We will consider all parties' submissions when making a decision on which option is in consumers' best interests.

2.16 Stakeholders agreed with our assessment of the potential conflicts of interest. While the majority of respondents agreed with our proposed mitigation measures, a number of respondents queried whether these went far enough. The main point they raised was whether there was a need for greater separation of NGET's SO and TO functions. Some stakeholders suggested that an independent SO (ISO) would be needed for conflicts to be mitigated. We continue to think that greater separation of the SO and TO within NGET would not be a proportionate measure, at this stage, and that the potential benefits of further delineation beyond that proposed would not outweigh the costs and disruption of such separation. As mentioned in our draft conclusions, we think that there could be merits to an ISO model in the future. We are considering the ISO option further, but think there are benefits that can be gained in the short term by enhancing the SO's role now. We do not think the changes we are making should make it more difficult to move to other institutional arrangements in future.

2.17 On balance, stakeholders agreed with our view that independent scrutiny, beyond our proposed package of measures, would not provide value for money.

Implementation

2.18 We intend to implement our decision to enhance the SO, and mitigate associated conflicts, through modifications to the electricity transmission licence. We have held a number of working groups with licensees to help inform the drafting of the proposed new licence conditions and modifications to existing conditions. We will publish a consultation on the proposed licence changes shortly. We then envisage publishing a statutory consultation in the summer and anticipate the licence changes taking effect from autumn (subject to responses to consultation).

2.19 We will not be including in these licence modifications the elements of our decision that relate to the SO's role in facilitating competitive tendering for some onshore transmission assets. We propose to implement these changes at a later date, as part of our work on developing the detailed framework for onshore competition.

2.20 We anticipate that some industry codes may need to be modified to implement our decision to enhance the SO's role. As set out in our draft conclusions we expect the SO to propose any appropriate code changes through the usual industry processes.

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investment in its connection offer.

3. Regulating asset delivery

Our decision

3.1 We intend to make changes to ensure that different approaches for regulating the delivery of transmission investment are used where they can drive most benefit for consumers. We consider these changes will bring capital and operational cost savings, and protect consumers from exposure to undue costs and risks.

3.2 We confirm our view that it is in consumers' interests **to extend the use of competitive tendering** to onshore transmission assets that are new, separable and high value. We will now develop and implement the detailed tendering and licensing frameworks. This includes developing the detailed criteria definitions for what should be tendered, and the tender models we will apply. We will engage stakeholders in this process, including on the benefits and risks to consumers of different approaches. We also plan to work with government to explore legislative change to support our policy proposals.

3.3 Confining the use of tendering onshore to assets that are new, separable and high value means that we will be applying it where the potential benefits from tendering such as cost savings and innovation outweigh the potential administrative and interface costs. Evidence from using tendering offshore and from other countries shows there can be significant benefits to consumers of doing this. Alongside this document we have published an IA which provides further detail on our assessment of the potential consumer benefits and costs. We recognise that there are potential challenges to using tendering that need to be managed, and we will work with stakeholders to develop the solutions that both protect consumers and bring about the benefits that competition can provide.

3.4 As indicated at RIIO-T1 final proposals, SWW projects could be subject to competitive delivery.[6] We will not tender SWW projects that we have already approved construction funding for. We also will not tender any non-SWW onshore assets that will be delivered during the RIIO-T1 period. In the longer term, we will consider applying competition to non-SWW onshore assets, such as generator connections, if they meet the criteria for competitive tendering.

3.5 We will **maintain a developer-led approach to interconnection**, and open more cap and floor application windows in the future, as long as efficient investment continues to be brought forward under this approach. We consider this will benefit consumers by encouraging efficient investment in interconnection. This is because

[6] For NGET RIIO-T1 final proposals, see https://www.ofgem.gov.uk/ofgem-publications/53599/1riiot1fpoverviewdec12.pdf, pp9 and for SPT and SHE-T RIIO-T1 final proposals, see https://www.ofgem.gov.uk/ofgem-publications/53747/sptshetlfpsupport.pdf pp15.

price signals will drive investment and there will be clearer, upfront rules for how developers receive revenue and can mitigate their risk.

3.6 There is a need to clarify the regulatory approach for the transmission links for potential generation projects from outside of GB that would export their power directly to GB ('non-GB connections'). These projects will likely rely on government support for the generation elements. **For the transmission elements of such projects, our default position will be that their transmission connections will not receive consumer underwriting.** This will ensure consumers are protected from undue risk. However, we will leave open the option of consumer underwriting on a project-by-project basis, in cases where we are satisfied that the regulatory arrangements between GB and the non-GB territory adequately protect GB consumers. In such instances, should consumer underwriting be provided, the most efficient way to deliver that investment may be to use competitive tendering.

3.7 We will **maintain continuity in the regulatory treatment of an existing transmission asset if it evolves into an MPP, and work with relevant parties to determine the most appropriate treatment of projects that are MPPs from the outset.** For projects that evolve into MPPs, this means that we will look to ensure the GB regulatory arrangements don't require a change in ownership, and that owners of an existing asset are at least as well off from forming an MPP, providing the MPP is economic and efficient. Treatment of specific MPPs will also need to consider EU requirements, for example requirements relating to unbundling and third party access. Clarity in the regulatory approach for MPPs will mean this potential barrier to investment in flexible and coordinated network solutions is removed.

Stakeholder responses

3.8 Our proposals on competitive tendering had strong support from some stakeholders, while others supported the idea in principle but were keen to understand more detail on the arrangements. Some stakeholders, notably some incumbent TOs, opposed our proposals, stating in particular that they did not consider the benefits to consumers had been shown. We have published a detailed summary of responses in our supporting document on stakeholder responses to our draft conclusions.

3.9 We consider that the evidence demonstrates our decision on the use of competitive tendering is likely to have significant benefits for consumers. In our IA we have illustrated the potential costs and benefits.

3.10 The majority of respondents to our draft conclusions consultation supported our proposals on interconnection, non-GB connections and MPPs. Some stakeholders requested additional clarity on specific commercial arrangements (such as access and charging), particularly for non-GB connections and MPPs. We don't think it is appropriate to develop this level of detail until we know more about the specifics of projects that are coming forward (such as the project's configuration, connection points, capacity, and timings). Without these specifics, any work done now will likely

need to be revisited later. We encourage developers to keep in contact with us about their project plans. For some issues, (such as the transmission charging methodology for coordinated offshore networks) it may be that the industry codes need to change. In these cases, we would encourage industry parties to work together to develop a solution in a timely manner given the likely project pipeline.

Implementation

3.11 We plan to work with government to explore legislative change to support extending competitive tendering and the approach to new types of transmission projects, such as MPPs.

3.12 We plan to develop and consult on the regime for competitive tendering onshore through 2015 and 2016. We plan to publish an open letter in spring 2015 on the technical aspects of the criteria for what is to be tendered, followed by a consultation in the autumn on the detailed drafting of the criteria and arrangements for applying them. The autumn consultation will also include our proposals for the commercial and regulatory construct for onshore competition, such as the tender models, processes and incentives and obligations for successful bidders. From 2016, we will take forward necessary licence and codes changes. We will consult on proposed changes during that process.

3.13 We aim to be in a position to launch a competitive tender in 2016 or 2017. We will work with TOs and the SO on which RIIO-T1 SWW projects may be suitable for tendering in line with the criteria. We recognise that we will need to consider the delivery risk of tendering existing projects that have already been progressed significantly by incumbent TOs but have not yet been funded. We will discuss this further with TOs. We anticipate providing more certainty on the potential project pipeline once the detailed regime (including the criteria) is further developed. For the avoidance of doubt, we will not tender projects that already have construction funding.

3.14 On interconnection, we are considering applications for a cap and floor from five near-term interconnector projects. Earlier this month we made a decision to grant a cap and floor in principle to the NSN project to Norway. We have also consulted on our minded-to position for the FAB Link, IFA2, Viking Link and Greenlink projects and anticipate announcing decisions on these in summer 2015. We intend to open a second cap and floor application window in 2015 and we encourage developers to get in touch with us by 1 May 2015 if they are interested in applying this year. We plan to open more interconnection cap and floor windows in the future. We will keep their frequency under review depending on the project pipeline and will invite views on the timing of a third window as part of our second window process.

3.15 For potential MPPs and non-GB connections, we encourage developers of these projects to continue to liaise with us on their project timelines. This will enable us and industry participants to work towards developing detailed arrangements as they are needed.